CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

SANTA ANA REGION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT

AND

WASTE DISCHARGE REQUIREMENTS

NPDES NO. CAS618036

ORDER NO. R8-2002-0012

FOR

THE SAN BERNARDINO COUNTY FLOOD CONTROL DISTRICT, THE COUNTY OF SAN BERNARDINO, AND THE INCORPORATED CITIES OF SAN BERNARDINO COUNTY WITHIN THE SANTA ANA REGION

AREA-WIDE URBAN STORM WATER RUNOFF

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter Regional Board), finds that:

1. The 1987 amendments to the Clean Water Act (CWA) added Section 402(p) that establishes a framework for regulating municipal and industrial (including construction) storm water discharges under the National Pollutant Discharge Elimination System (NPDES) permit. Section 402(p) of the CWA requires NPDES permits for storm water discharges from municipal separate storm sewer systems (MS4), as well as other designated storm water discharges that are considered significant contributors of pollutants to waters of the United States. On November 16, 1990, the United States Environmental Protection Agency (hereinafter EPA) published Phase I regulations (40 CFR Parts 122, 123 and 124), which describe permit application requirements for storm water discharges.

2. Prior to EPA's promulgation of the Phase I storm water regulations, the three counties (Orange, Riverside, and San Bernardino) and the incorporated cities within the jurisdiction of the Santa Ana Regional Board requested areawide NPDES permits for urban storm water runoff. On October 19, 1990, the Regional Board adopted Order No. 90-136 for urban storm water runoff from urban areas in San Bernardino County within the Santa Ana Region. The San Bernardino County Flood Control District was named as the principal permittee and San Bernardino County and the incorporated cities were named as the co-permittees. Order No 96-32, issued by the Regional Board on March 8, 1996, renewed the permit for another five years.

3. Order No. 96-32 expired on March 1, 2001. On September 1, 2000, the San Bernardino County Flood Control District (SBCFCD), in cooperation with the County of San Bernardino, and the incorporated cities of Big Bear Lake, Chino, Chino Hills, Colton, Fontana, Grand Terrace, Highland, Loma Linda, Montclair, Ontario, Rancho Cucamonga, Redlands, Rialto, San Bernardino, Upland, and Yucaipa (hereinafter collectively referred to as "permittees" or dischargers) jointly submitted NPDES Application No. CAS618036 and a Report of Waste Discharge for reissuance of their area-wide storm water permit for urban storm water runoff. The Report of Waste Discharge was submitted in accordance with Section V.29

of the previous NPDES permit (Order No. 96-32) as application for permit renewal. In order to more effectively carry out the requirements of this Order, the permittees agreed that the San Bernardino County Flood Control District (SBCFCD) would continue as the principal permittee and San Bernardino County and the incorporated cities would be co-permittees. On March 2, 2001, Order No. 96-32, NPDES No. CAS618036, 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.

4. Within the Santa Ana Region, the permittees serve a population of approximately 1.33 million, occupying an area of approximately 985 square miles. The latest figures obtained from the Reconnaissance Progress Report estimated 384 miles of above-ground and 334 miles of below-ground storm drain channels in the project area. Approximately seven percent (7%) of the San Bernardino County area drains into water bodies within this Regional Board's jurisdiction. The project area is shown on Attachment 1. Approximately 50% of the remaining San Bernardino County drainage areas are within the jurisdiction of the Lahontan Regional Board and the other 43% is within the jurisdiction of the Colorado River Basin Regional Board. However, urbanization in those areas is minimal compared to areas within the Santa Ana Regional Board's jurisdiction.

5. Runoff from the San Bernardino County drainage areas is generally conveyed to the Riverside County drainage 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 may be discharged to the Pacific Ocean through Reach 1 of the Santa Ana River.

6. The Santa Ana River Basin is the major watershed within this Region. This watershed is divided into the lower Santa Ana River, middle Santa Ana River, Chino basin, upper Santa Ana and Big Bear Lake watersheds. The lower Santa Ana River Basin (downstream from Prado Dam) includes the Orange County drainage areas, and the rest of the Santa Ana River Basin includes the San Bernardino County and the Riverside County drainage areas. The San Bernardino County drainage areas are generally upstream of the Riverside County drainage areas. Some of the main surface water bodies in San Bernardino County within areas regulated under this Order include:

   a. Santa Ana River, Reaches 4, 5, and 6,

   b. Cucamonga Creek,

   c. San Sevaine Channel,

   d. Lytle Creek,

   e. San Timoteo Creek,

f. Bear Creek,

g. Mill Creek (in San Bernardino area).

Surface water bodies in San Bernardino County within the jurisdiction of Santa Ana Region are listed in Attachment 2.

7. The beneficial uses of these water bodies include municipal and domestic supply, agricultural supply, industrial service supply, groundwater recharge, hydropower generation, water contact recreation, non-contact water recreation, and sportfishing, warm freshwater habitat, cold freshwater habitat, preservation of biological habitats of special significance, wildlife habitat and preservation of rare, threatened or endangered species. The ultimate goal of this storm water management program is to protect the beneficial uses of the receiving waters.

8. The three county areas within this Region are regulated under three area-wide permits for urban storm water runoff. These area-wide NPDES permits are:

   a. Orange County, NPDES No. CAS618030,

   b. Riverside County, NPDES No. CAS618033, and

   c. San Bernardino County, NPDES No. CAS618036.

   For an effective watershed management program, coordination among the regulators, the municipal permittees, the public, and other entities is essential.

9. 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)[1] are not implemented;

   b. Construction sites where erosion and siltation controls and BMPs are not implemented; and

   c. Urban runoff where the drainage area is not properly managed.

10. A number of permits were adopted to address pollution from the sources identified in Finding 9, above. The State Board issued two statewide general NPDES permits: one for storm water runoff from industrial activities (NPDES No. CAS000001, General Industrial Activities Storm Water Permit) and the second one for storm water runoff from construction sites (NPDES No. CAS000002, General Construction Activity Storm Water Permit). Industrial activities (as identified in 40 CFR 122.26(b)(14) and construction sites on five acres or more, are required to obtain coverage under these statewide general permits. The permittees have developed project conditions of approval requiring coverage

[1] Best Management Practices (BMPs) are water quality management practices that are maximized in efficiency for the control of storm water runoff pollution.

under the State's General Permit for new developments to be implemented at the time of grading or building permit issuance for construction sites on five acres or more and at the time of local permit issuance for industrial facilities. The State Board also adopted Order No. 99-06-DWQ, NPDES No. CAS000003, for storm water runoff from facilities owned and/or operated by Caltrans (including freeways and highways). The Regional Board adopted Order 99-11, NPDES No. CAG018001, for concentrated animal feeding operations, including dairies. The Regional Board also issues individual storm water permits for certain industrial facilities within the Region. Currently there are 22 individual storm water NPDES permits in the Region; 10 of these facilities are located in the San Bernardino County area. Additionally, for a number of facilities that discharge process wastewater and storm water, storm water discharge requirements are included with their facilities' NPDES permit for process wastewater.

11. In most cases, the industries and construction sites covered under the Statewide General Industrial and Construction Permits discharge into storm drains and/or flood control facilities owned and operated by the permittees. These industries and construction sites are also regulated under local laws and regulations. Furthermore, the permittees authorize and permit developments within their jurisdiction, and they own, operate, and control the MS4 systems. The permittees approve residential, commercial, and industrial developments, and cause urbanization of the area and also benefit from it. Therefore, they have a responsibility to address any water quality problems resulting from this urbanization. The Regional Board administers compliance with the State's General Industrial Activities Storm Water Permit and the General Construction Activity Storm Water Permit. A coordinated effort between the permittees and the Regional Board staff is critical to avoid duplicative and overlapping efforts when overseeing the compliance of dischargers covered under the Statewide General Permits. As part of this coordination, the permittees have been notifying Regional Board staff when during their routine activities, they observe conditions that pose a threat or potential threat to water quality, or an industrial facility or construction activity that has failed to obtain coverage under the appropriate general storm water permit.

12. This Order regulates urban storm water runoff[2] from areas under the jurisdiction of the permittees. The term storm water as used in this Order includes storm water runoff, snowmelt runoff, and surface runoff and drainage. The permittees have jurisdiction over and/or maintenance responsibility for storm water conveyance systems within San Bernardino County. 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

[2] Urban storm water runoff includes those discharges from residential, commercial, industrial and construction areas within the permitted area and excludes discharges from feedlots, dairies and farms.

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.

13. Certain activities that generate pollutants present in storm water runoff may be 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 geography. This Order is intended to regulate the discharge of pollutants in urban storm water runoff from anthropogenic (generated from human activities) sources and is not intended to address background or naturally occurring pollutants or flows.

14. A major portion of San Bernardino County within the Santa Ana Regional Board jurisdiction is being urbanized with residential, commercial, and industrial developments. Urban development increases impervious surfaces and storm water runoff volume and velocity; and decreases vegetated pervious surface available for infiltration of storm water. Increase in runoff volume and velocity may cause scour, erosion (sheet, rill and/or gully), aggradation (raising of a streambed from sediment deposition), changes in fluvial geomorphology, hydrology, and changes in aquatic ecosystem. The local agencies (the permittees) are the owners and operators of the MS4 systems and have authority to control discharges to these systems. The permittees have established appropriate legal authority to control discharges into their respective MS4 systems. They adopted grading and/or erosion control ordinances, guidelines and best management practices (BMPs) for municipal, commercial, and industrial activities. The permittees must exercise a combination of these programs, policies, and legal authority to minimize pollutant loads resulting from urbanization.

15. If not properly controlled and managed, urbanization could result in the discharge of pollutants into storm water runoff. Urban area runoff (Finding 9.c.) may contain elevated levels of pathogens (bacteria, protozoa, viruses), sediment, trash, fertilizers (nutrients, nitrogen and phosphorus compounds), pesticides (DDT, chlordane, diazinon, chlorpyrifos), heavy metals (cadmium, chromium, copper, lead, zinc), and petroleum products (oil, grease, petroleum hydrocarbons, polycyclic aromatic hydrocarbons). Storm water can carry these pollutants to rivers, streams, lakes, bays and the ocean (receiving waters).

16. These pollutants can then impact the beneficial uses of the receiving waters and can cause or threaten to cause a condition of pollution or nuisance. Pathogens (from sanitary sewer overflows, septic system leaks, spills and leaks from portable toilets, pets, wildlife, and human activities) can impact water contact recreation, non-contact water recreation and shellfish harvesting. On a nationwide basis, microbial contamination of the beaches from urban runoff and other sources has resulted in beach closures and health advisories. Floatables

(from trash) are an aesthetic nuisance and can be a substrate for algae and insect vectors. Oil and grease can coat birds and aquatic organisms, adversely affecting respiration and/or thermoregulation. Other petroleum hydrocarbon components can cause toxicity to aquatic organisms and can impact human health. Suspended and settleable solids (from sediment, trash, and industrial activities) can be deleterious to benthic organisms and may cause anaerobic conditions to form. Sediments and other suspended particulates can cause turbidity, clog fish gills and interfere with respiration in aquatic fauna. They can also screen out light, hindering photosynthesis and normal aquatic plant growth and development. Toxic substances (from pesticides, herbicides, petroleum products, metals, and industrial wastes) can cause acute and/or chronic toxicity, and can bioaccumulate in aquatic resources (sediments and biota) to levels, which are harmful to human health. Nutrients (from fertilizers, confined animal facilities, pets, and birds) can cause excessive algal blooms. These blooms can lead to problems with taste, odor, color and increased turbidity, and can depress the dissolved oxygen content, leading to fish kills.

17. The water quality assessment conducted by Regional Board staff has identified a number of other beneficial use impairments from urban runoff. Section 303(b) of the CWA requires each of the regional boards to routinely monitor and assess the quality of waters of the region. If this assessment indicates that beneficial uses are not met, then that waterbody must be listed under Section 303(d) of the CWA as an impaired waterbody. The 1998 water quality assessment listed a number of water bodies within the Region under Section 303(d) as impaired waterbodies. In the San Bernardino County area, these include: (1) Big Bear Lake (listed for copper, mercury, metals, noxious aquatic plants, nutrients and sedimentation/siltation); (2) Summit Creek (listed for nutrients); (3) Knickerbocker Creek (listed for metals and pathogens); (4) Grout Creek (listed for metals and nutrients); (5) Rathbone Creek (listed for nutrients, sedimentation/siltation); (6) Mountain Home Creek (listed for pathogens); (7) Mill Creek, Reaches 1 and 2, (listed for pathogens); (8) Santa Ana River, Reach 4 (listed for pathogens); (9) Lytle Creek (listed for pathogens); (10) Chino Creek, Reaches 1 and 2 (listed for high coliform count); (11) Cucamonga Creek, Valley reach (listed for high coliform count); (12) Mill Creek (Prado Area) (listed for nutrients); and, (13) Prado Park Lake (listed for nutrients and pathogens). For some of these impaired waterbodies, the cause of impairment is listed as urban runoff.

18. 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 are being developed for sediment, pathogens, and nutrients and other pollutants for impaired water bodies in San Bernardino County. Dischargers to these water bodies are currently cooperating in the development of these TMDLs.

19. The MS4s generally contain non-storm water flows such as irrigation runoff, residential car washes, runoff from miscellaneous washing and cleaning operations, and other nuisance flows. Discharges of non-storm water containing pollutants into the MS4 systems and to waters of the U.S. are prohibited unless they are regulated under separate NPDES permit; or are exempt as indicated in Discharge Prohibition, Section III, Item 3 of this Order.

20. Order No. 90-136 (first term permit) 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 MS4s and to enact the necessary legal authority to effectively prohibit such discharges. The overall goal of these requirements was to reduce pollutant loading to surface waters from urban runoff to the maximum extent practicable (MEP)[3]. Order No. 96-32 (second term permit) required continued implementation of the DAMP and the monitoring plan, and required the permittees to focus on those areas which threaten the beneficial uses.

21. This Order (Order No. R8-2002-0012, third term permit) outlines additional steps for an effective storm water management program and specifies requirements to protect the beneficial uses of all receiving waters. This Order requires the permittees to examine sources of pollutants in storm water runoff from activities that the permittees conduct, approve, regulate and/or authorize by issuing a license or permit.

22. The Report of Waste Discharge (ROWD) submitted for the third term permit included the following major elements:

    a. Summary of accomplishments and water quality monitoring results during the second term permit;

    b. Proposed Municipal Storm Water Management Program (MSWMP) for the third term. (The MSWMP, included in the ROWD for the third term permit, replaces the DAMP from the first term permit);

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[3] Maximum Extent Practicable (MEP) means the standard for implementation of storm water management to reduce pollutants in storm water. CWA section 402(p)(3)(B)(iii) requires that municipal permits "shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants. Specifically, municipalities must choose effective BMPs, and reject applicable BMPs only where other effective BMPs will serve the same purpose..

c. Performance commitments for Proposed Program Elements;

d. Guidelines for New Development and Redevelopment; and

e. A revised Water Quality Monitoring Plan.

23. The permittees own and/or 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 drain system maintenance activities and the application of herbicides, algaecides and pesticides. The permittees have prepared an environmental performance report for appropriate public facilities under their jurisdiction, and identified 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, 4 & 6 of this Order or are permitted by the Regional Board under an individual NPDES permit. The second term permit required the permittees to develop and implement a model Municipal Activities Pollution Prevention Strategy (MAPPS), including sewage spill response, maintenance practices at parks and recreation facilities, street sweeping and public agency employee training.

24. Successful implementation of the provisions and limitations in this Order will require the cooperation of other entities and all the public agency organizations within San Bernardino County (e.g., Fire Department, Building and Safety, Code Enforcement, Planning, etc.) having programs/activities that have an impact on storm water quality. Some of these organizations are not regulated under this Order. (A list of these organizations is included in Attachment 3.) As such, these organizations are expected to actively participate in implementing the San Bernardino County NPDES Storm Water Program. The permittees have developed inter-departmental training programs and have made commitments to conduct a certain number of these training programs during the term of this permit. If any entity such as those listed in Attachment 3 is determined to cause or contribute to violations of this Order, the Regional Board has the discretion and authority to require the non-cooperating entity to participate in this areawide permit or obtain individual storm water discharge permits, pursuant to 40 CFR 122.26(a). The permittees have developed an Implementation Agreement among the SBCFCD, the County and the cities. The Implementation Agreement establishes the responsibilities of each party and a funding mechanism for the shared costs, and recognizes the Management Committee.

25. The major focus of storm water pollution prevention is the development and implementation of appropriate MSWMP 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 MSWMP.

26. The MSWMP is a dynamic document and the permittees have implemented, or are in the process of implementing, the various elements of the MSWMP. During the second permit term, the DAMP for the San Bernardino County areawide permit was replaced by the MSWMP contained in the ROWD submitted in 1995. This Order requires the permittees to continue to implement the BMPs listed in the ROWD (2000) and the MSMWP; update or modify the MSWMP, when appropriate, consistent with the MEP and other applicable standards; and to effectively prohibit illegal and illicit discharges to the storm drain system.

27. Urban runoff 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 ROWD (2000) has a strong emphasis on public education.

28. The San Bernardino County ROWD (2000) defined: (1) a management structure to facilitate permittees' compliance efforts; (2) a formal agreement to underpin cooperation; and (3) 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 ROWD (2000) also defined a surface water quality monitoring program.

29. In order to characterize storm water discharges, to identify problem areas, to determine the impact of urban runoff on receiving waters, and to determine the effectiveness of the various BMPs, an effective monitoring program is critical. The principal permittee administers the monitoring program for the permittees. This program includes storm drain outfall monitoring, receiving water monitoring, and dry weather monitoring. The monitoring data from the last decade identified elevated pollutant levels at monitoring stations 2, 3, and 5. Drainage at Station 2 is influenced by mixed commercial and industrial land uses. Station 3 is characterized by mixed land uses including agricultural. Station 5 is influenced by commercial and light industrial land uses. These areas could be targeted for special pollutant source identification and control programs. The monitoring data indicated some spatial differences in water quality between San Bernardino County's major watersheds.

30. The Strategic Plan and Initiatives (June 22, 1995) and the 2001 Draft Strategic

Plan for the State Water Resources Control Board and the Regional Water Quality Control Boards recognize 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 and TMDL processes. Further, the State Board is required by SB 72 (Water Code Section 13383.5) to develop a statewide municipal storm water monitoring program. Consistent with this approach, some of the municipal storm water monitoring programs have already been integrated into regional monitoring programs. This Order requires the permittees to develop an integrated watershed monitoring program by July 1, 2003.

31. Illegal discharges[4] 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) was completed by the permittees. The permittees also developed a program to prohibit illicit connections to their storm drains and flood control facilities. Continued surveillance and enforcement of these programs are required to eliminate illicit connections and illegal discharges. The permittees have a number of mechanisms in place to eliminate illegal discharges to the MS4s, including industrial facility inspections, drainage facility inspections, water quality monitoring programs, and public education. The permittees also developed a summary format for illegal discharge reporting. During the second term permit, the permittees completed a reconnaissance survey of the MS4s to detect and eliminate any illicit connections (undocumented or unpermitted connections to the MS4s). The permittees have trained their staff on illegal discharge surveillance/cleanup procedures. The permittees will continue to monitor for any new illicit connections and will concentrate on preventing/cleanup of illegal discharges.

32. The permittees have the 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 within their respective jurisdictions. The permittees have various forms of legal authority in place, such as charters, State Code provisions for General Law cities, the San Bernardino County Flood Control Ordinance, San Bernardino County Water Pollution Ordinance, various county ordinances which address industrial wastes and waste discharges within the unincorporated areas, city ordinances, and applicable portions of municipal codes and the State Water Code, to regulate storm water/urban runoff discharges.

33. In order to promote countywide consistency and to provide a legal underpinning

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[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.

to the entire San Bernardino County Storm Water Program, a model Storm Drain Ordinance was completed in the first permit term and was adopted by all the permittees. The permittees are required to evaluate the effectiveness of their existing enforcement authority to determine the need for enhancement of their legal authority to administer civil and/or criminal penalties for violations of Storm Drain Ordinance.

34. Pollution prevention techniques, appropriate planning processes, and early identification of potential storm water impacts and mitigation measures can significantly reduce storm water pollution problems. During the second permit term, the permittees have completed the review and made the necessary revisions to consider storm water quality 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 San Bernardino 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. The permittees are encouraged to propose and participate in watershed-wide and/or regional water quality management programs.

35. Successful implementation of the provisions and limitations in this Order will require the cooperation of all the public agency organizations within San Bernardino 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.

36. 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 minimize the discharge of pollutants in urban runoff to waters of the U. S. to the maximum extent practicable.

37. 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 runoff solely through traditional end-of-pipe treatment. However, it is the Regional Board's intent that this Order requires the implementation of best management practices to reduce to the maximum extent practicable the discharge of pollutants in storm water from the MS4s in order to support attainment of water quality standards. This Order, therefore, includes Receiving Water Limitations based on water quality objectives, prohibits the creation of nuisance and requires the reduction of 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 ROWD, that will reduce pollutants in storm water discharges to the maximum extent practicable. The Receiving Water Limitations similarly require the implementation of control measures to protect beneficial uses and attain water quality objectives of the receiving waters.

38. 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. Therefore, the permit includes a procedure for determining whether storm water discharges are causing or contributing to exceedances of receiving water limitations and for evaluating whether the MSWMP contained in the ROWD must be revised in order to comply with this aspect of the Order. The Order establishes an iterative process to determine compliance with the receiving water limitations.

39. The permittees are required to conduct inspections of construction sites, industrial facilities and commercial establishments. To avoid duplicative efforts, the permittees need not inspect facilities that have been inspected by Regional Board staff if the inspection was conducted during the specified time period. Regional Board staff inspection data will be posted regularly on its Internet site. It is anticipated that many of the inspections required under this Order can and will be carried out by inspectors currently conducting inspections for the permittees (i.e., grading, building, code enforcement, etc.), during their normal duties.

40. 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).

41. The requirements contained in this Order are necessary to implement the plans and policies described in Finding 48, below. 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. The current Basin Plan, or any further changes to the Basin Plan, may be grounds for the permittees to revise some or all of its ROWD.

42. The permittees will be required to comply with any applicable future water quality standards or discharge requirements that may be imposed by the EPA or State of California prior to the expiration of this Order. This Order may be reopened to include TMDLs and/or other requirements developed and adopted by the Regional Board.

43. 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.

44. The permittees have developed a Storm Water Implementation Agreement between the County, its cities and the San Bernardino County Flood Control District. The Implementation Agreement established the responsibilities of each party and a funding mechanism for the shared costs and recognizes the establishment of a Management Committee for overall guidance and as a decision making body.

45. It is important to control litter and eliminate trash and other materials in stormwater runoff. In addition to the municipal ordinances prohibiting litter, the permittees also organize solid waste collection programs, household hazardous waste collections, and recycling programs to reduce litter and illegal discharges.

46. Reach 4 of the Santa Ana River which extends from Mission Boulevard in Riverside to the San Jacinto Fault in San Bernardino is an impaired water body listed on the 303(d) list for pathogens from non-point sources. These elevated levels may in part be attributed to discharges from the MS4 systems. This Order requires the permittees to investigate and characterize MS4 discharges to tributaries to the Santa Ana River, Reach 4, for potential bacterial contribution.

47. Public education is an important part of storm water pollution prevention. The permittees have employed a variety of means to educate the public, business and commercial establishments, industrial facilities and construction sites. The permittees are required to continue their efforts in public education programs.

48. The permittees established a subcommittee consisting of a number of permittees, the Building Industry Association, the development industry, the California Restaurant Association, and the Western States Petroleum Association and developed the "Guidelines for New Development and Redevelopment." The guidance document includes a list of routine structural and non-structural Best Management Practices for new developments. The permittees are implementing the BMPs from this guidance document and are requiring new developments and significant redevelopments to develop and implement appropriate Water Quality Management Plans (WQMP). This Order requires additional structural and non-structural BMPs for new developments and significant redevelopments only if an equivalent regional and/or watershed-wide management program is not being implemented.

49. The Regional Board and the permittees recognize the importance of watershed management initiatives and regional planning and coordination in the development and implementation of programs and policies related to water quality protection. A number of such efforts are underway where the permittees are active participants. This Order encourages continued participation in such programs and policies. The Regional Board also recognizes that in certain cases, diversion of funds targeted for certain monitoring programs to regional monitoring programs may be necessary. The Executive Officer is authorized to approve, after proper public notification and consideration of all comments

received, the watershed management initiatives, regional planning and coordination programs and regional monitoring programs.

50. 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 response to public comments, the permittees may modify reports, plans, or schedules prior to submittal to the Executive Officer.

51. 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.

52. The Regional Board has considered anti-degradation requirements, pursuant to 40 CFR 131.12 and State Board Resolution 68-16, for the permitted discharges. This Order requires implementation of programs (i.e., BMPs) to reduce the level of pollutants in the storm water discharges. The combination of programs and policies required to be implemented under this Order for new and existing developments are designed to improve storm water quality. 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.

53. 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.

54. 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 the regulations and guidelines adopted thereunder, shall comply with the following:

I. RESPONSIBILITIES OF THE PRINCIPAL PERMITTEE:

The principal permittee shall be responsible for managing the overall storm water program and shall:

1. Conduct chemical, biological and bacteriological water quality monitoring as required by the Executive Officer of the Regional Board.

2. Implement management programs, monitoring programs, and related plans as required by this Order.

3. Prepare and submit to the Executive Officer of the Regional Board, unified reports, plans, and programs necessary to comply with this Order.

4. Coordinate and conduct Management Committee meetings as specified in the ROWD. The principal permittee will take the lead role in initiating and developing area-wide programs and activities necessary to comply with the NPDES Permit.

5. Coordinate permit activities and participate in any subcommittees formed as necessary, to coordinate compliance activities with this Order.

6. Provide technical and administrative support and inform the co-permittees of the progress of other pertinent municipal programs, pilot projects, research studies, and other information to facilitate implementation of co-permittees' storm water program.

7. Coordinate the implementation of area-wide storm water quality management activities such as monitoring program, public education, pollution prevention, etc.

8. Gather and disseminate information on the progress of statewide municipal storm water programs and evaluate the information for potential use in the execution of this Order.

9. Monitor the implementation of the plans and programs required by this Order and determine their effectiveness in attaining water quality standards. This determination shall include a comparative analysis of monitoring data to the USEPA Multi-Sector Permit Parameter Benchmark Values and applicable water quality objectives for inland surface streams. A pollutant source investigation and control plan shall be developed and implemented where elevated pollutant levels are identified. This plan shall be included in the annual report submitted to the Executive Officer.

10. Coordinate with the Regional Board activities pertaining to implementation of this Order, including the submittal of all reports, plans, and programs as required under this Order.

11. Solicit and coordinate public input for any major proposed storm water management programs and implementation plans.

12. Develop and implement mechanisms, performance standards, etc., to promote consistent implementation of BMPs among the permittees.

13. Cooperate in watershed management programs and regional and/or statewide monitoring programs.

In addition, the activities of the principal permittee shall, at a minimum, include the following for MS4 systems owned and operated by the SBCFCD:

14. Pursue enforcement actions as necessary within its jurisdiction to ensure compliance with storm water management programs, ordinances and implementation plans, including removal via enforcement authority of undocumented connections and prohibition of illegal discharges.

15. Conduct inspections and maintain the storm drain systems within its jurisdiction.

16. Review and revise, if necessary, policies and ordinances necessary to establish and maintain adequate legal authority, as required by the Federal Storm Water Regulations.

17. Respond to or arrange for responding to emergency situations such as accidental spills, leaks, illicit connections/illegal discharges, etc., to prevent or to reduce the discharges of pollutants to storm drain systems and waters of the U.S.

18. Take appropriate enforcement actions for illegal discharges to the MS4 systems within its jurisdiction.

19. In conjunction with the other permittees, implement the BMPs listed in the ROWD, and take such other actions as may be necessary to meet the MEP standard.

II. RESPONSIBILITIES OF THE CO-PERMITTEES

The co-permittees shall be responsible for managing the storm water program within their jurisdiction and shall:

1. Implement all program elements including but not limited to the management programs, monitoring programs, implementation plans and all BMPs outlined in the ROWD within each respective jurisdiction, and take such other actions as may be necessary to meet the MEP standard.

2. Enact and revise policies and ordinances necessary to establish and maintain adequate legal authority as stated in Section VI.1 of this Order and as required by the Federal Storm Water Regulations, 40CFR, Part 122.26(d)(2)(i)(A-F). By March 1, 2003, the permittees shall evaluate their ordinances to determine if they are authorized to impose administrative fines for storm water violations. Government Code Section 53069.4 authorizes cities to make violations of any ordinance subject to an administrative fine or penalty instead of criminal prosecution. If necessary, the permittees shall adopt ordinances to set a penalty structure and to authorize them to impose and collect fines administratively by March 1, 2004.

3. Conduct storm drain system inspections and maintenance in accordance with the uniform criteria developed by a subcommittee of the permittees.

4. Take appropriate enforcement actions for violations of the storm water regulations and ordinances for illegal discharges into the MS4 systems within the co-permitees' jurisdiction.

5. Prepare and submit to the principal permittee in a timely manner all required information necessary to develop a unified report for submittal to the Executive Officer of the Regional Board.

6. Designate at least one representative to the Management Committee and attend at least 9 out of the 11 Management Committee meetings per year. The principal permittee shall be notified immediately, in writing of any changes to the designated representative to the Management Committee.

7. Conduct and/or coordinate with the principal permittee any surveys and characterizations needed to identify pollutant sources from specific drainage areas.

8. Review and comment on all plans, strategies, management programs, monitoring programs, as developed by the principal permittee or any subcommittee to comply with this Order.

9. Participate in committees or subcommittees formed to address storm water related issues to comply with this Order.

10. Respond to or 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.

11. Pursue enforcement actions as necessary within its jurisdiction for violations of storm water ordinances, prohibitions on illicit connections and illegal discharges, and other elements of its storm water management program.

III. DISCHARGE LIMITATIONS/PROHIBITIONS

1. In accordance with the requirements of 40 CFR 122.26(d)(2)(I)B) and 40 CFR 122.26(d)(2)(I)(F), the permittees shall prohibit illicit connections and illegal discharges (non-storm water) from entering municipal separate storm sewer systems.

2. The discharge of storm water from permittees' municipal separate storm sewer systems to waters of the United States containing pollutants that have not been reduced to the maximum extent practicable is prohibited.

3. The permittees shall effectively prohibit the discharge of non-storm water into the MS4s unless such discharges are authorized by either a separate NPDES permit or as otherwise specified in this provision. The discharges identified below need not be prohibited by the permittees. If, however, any of these discharges are identified by the permittees or the Executive Officer as a significant source of pollutants, coverage under the Regional Board's De Minimis permit may be required.

   a. Discharges covered by NPDES permits or written clearances issued by the Regional or State Board,

   b. Potable water line flushing and other potable water sources,

   c. Air conditioning condensate,

   d. Landscape irrigation, lawn garden watering and other irrigation waters,

e. Passive foundation drains,

f. Passive footing drains,

g. Water from crawl space pumps,

h. Dechlorinated swimming pool discharges,

i. Non-commercial vehicle washing,

j. Diverted stream flows,

k. Rising ground waters and natural springs,

l. Ground water infiltration as defined in 40 CFR 35.2005 (20) and uncontaminated pumped groundwater,

m. Flows from riparian habitats and wetlands,

n. Emergency fire fighting flows (i.e., flows necessary for the protection of life and property) do not require BMPs and need not be prohibited. However, appropriate BMPs shall be considered where practicable when not interfering with health and safety issues (see also Section XIV Provision 3);

o. Waters not otherwise containing wastes as defined in California Water Code Section 13050 (d), and

p. Other types of discharges identified and recommended by the permittees and approved by the Regional Board.

The Regional Board may issue Waste Discharge Requirements for discharges exempted from NPDES requirements, such as agricultural irrigation waters, if identified to be a significant source of pollutants. The Regional Board may add categories of non-storm water discharges that are not significant sources of pollutants or remove categories of non-storm water discharges listed above based upon a finding that the discharges are a significant source of pollutants.

4. For purposes of this Order, a discharge may include storm water or other types of discharges identified in item 3, above.

5. Non-storm water discharges from permittees' 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.

6. The permittees shall reduce the discharge of pollutants, including trash and debris, from the storm water conveyance systems to the maximum extent practicable.

7. Discharges from the MS4s shall be in compliance with the discharge prohibitions contained in Chapter 5 of the Basin Plan.

8. Discharges from the MS4s of storm water, or non-storm water, for which a permittee is responsible, shall not cause or contribute to a condition of nuisance as that term is defined in Section 13050 of the Water Code.

IV. RECEIVING WATER LIMITATIONS

1. Discharges from the MS4s shall not cause or contribute to exceedances of receiving water quality standards (designated beneficial uses and water quality objectives) contained in the Basin Plan, and amendments thereto, for surface or groundwater.

2. The MSWMP and its components shall be designed to achieve compliance with receiving water limitations. It is expected that compliance with receiving water limitations will be achieved through an iterative process and the application of increasingly more effective BMPs. The permittees shall comply with Sections III.2 and IV of this Order through timely implementation of control measures and other actions to reduce pollutants in urban storm water runoff in accordance with the MSWMP and its components and other requirements of this Order, including any modifications thereto.

3. If exceedances of water quality objectives or water quality standards (collectively, WQS) persist, notwithstanding implementation of the MSWMP and other requirements of this Order, the permittees shall assure compliance with Sections III.2 and IV of this Order by complying with the following procedure:

   a. Upon a determination by either the permittees or the Executive Officer that the discharges from the MS4 systems are causing or contributing to an exceedance of an applicable water quality standard, the permittees shall promptly notify and thereafter submit a report to the Executive Officer that describes BMPs that are currently being implemented and additional BMPs that will be implemented to prevent or reduce any pollutants that are causing or contributing to the exceedance of water quality standards. Determination of the effect of discharges from the MS4 systems on water quality standards shall include a comparative analysis of monitoring data to the USEPA Multi-Sector Permit Parameter Benchmark Values and applicable water quality objectives for inland surface streams as specified in Chapter 4 of the Basin Plan. A pollutant source investigation and control plan shall be developed and implemented where elevated pollutant levels are identified. The report shall address 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. The report may be incorporated in the annual report unless the Executive Officer directs an earlier submittal. The report shall include an implementation schedule. The Executive Officer may require modifications to the report;

   b. Submit any modifications to the report required by the Executive Officer

within 30 days of notification;

c. Within 30 days following approval of the report described above by the Executive Officer, the permittees shall revise the storm water management programs and monitoring program to incorporate the approved modified BMPs that have been and will be implemented, the implementation schedule, and any additional monitoring required;

d. Implement the revised storm water management programs and monitoring program in accordance with the approved schedule.

So long as the permittees have complied with the procedures set forth above and are implementing the revised storm water management programs, the permittees do not have to repeat the same procedure for continuing or recurring exceedances of the same receiving water limitations unless the Executive Officer determines it is necessary to develop additional BMPs.

V. IMPLEMENTATION AGREEMENT

No later than July 1 of each year, the permittees shall evaluate the storm water management structure and the Implementation Agreement and determine the need for any revision. The annual report shall include the findings of this review and a schedule for any needed revisions.

VI. LEGAL AUTHORITY/ENFORCEMENT

1. The permittees shall maintain and enforce adequate legal authority to control contribution of pollutants to the MS4.

2. The permittees shall take appropriate enforcement actions against any violators of their codes and/or ordinances in accordance with the formalized enforcement procedures developed by the Management Committee.

3. Permittees' ordinances or other local regulatory mechanisms shall include sanctions for violations. Sanctions shall include but are not limited to: monetary penalties, non-monetary penalties, bonding requirements, and/or permit denials/revocations/stays for non-compliance. If the permittees' current ordinances do not have a provision for civil or criminal penalties for violations of their storm drain ordinances, the permittees shall enact such ordinances by March 1, 2004.

4. The permittees shall continue to provide notification to Regional Board staff regarding storm water related information gathered during site inspections of industrial and construction sites regulated by the Statewide General Storm Water Permits or sites which should be regulated under the State's General Permits. The notification should include any observed violations of the General Permits, prior history of violations, any enforcement actions taken by the permittee, and any other relevant information.

5. By November 15, 2003, the permittees shall review their storm drain ordinances and provide a report on the effectiveness of their ordinances and their enforcement, in prohibiting the following types of discharges to the MS4s (the permittees may propose appropriate control measures in lieu of prohibiting these discharges, where the permittees are responsible for ensuring that dischargers adequately maintain these control measures:

   a. Sewage, where a permittee operates the sewage collection system;

   b. Wash water resulting from the hosing or cleaning of gas stations, and other type of automobile service stations;

   c. Discharges resulting from the cleaning, repair, or maintenance of any type of equipment, machinery, or facility including motor vehicles, concrete mixing equipment, and portable toilet servicing;

   d. Wash water from mobile auto detailing and washing, steam and pressure cleaning, carpet cleaning, and other such mobile commercial and industrial operations;

   e. Water from cleaning of municipal, industrial, commercial, residential areas (including parking lots), streets, sidewalks, driveways, patios, plazas, work yards and outdoor eating or drinking areas containing chemicals or detergents and without prior sweeping;

   f. Runoff from material storage areas containing chemicals, fuels, grease, oil, or other hazardous materials,

   g. Discharges of pool or fountain water containing chlorine, biocides, or other chemicals; pool filter backwash containing debris and chlorine;

   h. Pet waste, yard waste, debris, sediment, and other wastes or materials that have potential adverse impacts on the water quality;

   i. Restaurant wastes such as grease, floor mat and trash bin wash water, food waste, and other food service wastes.

6. The principal permittee or subcommittee shall, on or before March 1, 2003, develop a restaurant inspection program which shall, at a minimum, address:

   a. Oil and grease disposal to verify that these wastes are not poured onto a parking lot, street or adjacent catch basin;

   b. Trash bin areas to verify that these areas are clean, the bin lids are closed, the bins are not filled with liquid, and the bins have not been washed out;

   c. Parking lot, alley, sidewalk and street areas to verify that floor mats, filters and garbage containers are not washed in those areas and that no washwater is discharged in those areas;

   d. Parking lot areas to verify that they are cleaned by sweeping, not by hosing down and that the facility operator uses dry methods for spill cleanup; and,

e. Inspection of existing devices designed to separate grease from wastewater (e.g., grease traps or interceptors) to ensure adequate capacity and proper maintenance.

7. By March 1, 2004, each permittee shall submit a statement (signed by its legal counsel) that the permittee has obtained all necessary legal authority to comply with this Order through adoption of ordinances and/or municipal code modifications.

VII. ILLEGAL DISCHARGE/ILLICIT CONNECTIONS; LITTER, DEBRIS AND TRASH CONTROL

1. The permittees shall continue to prohibit all illicit connections and illegal discharges to the MS4s through their ordinances, inspections, and monitoring programs. If routine inspections or dry weather monitoring indicate any illicit connections, they shall be investigated and eliminated or permitted within 60 days of discovery and identification. The permittees shall maintain a database that identifies both permitted and status of unpermitted connections resulting from routine inspections and dry weather monitoring. This information shall be updated on an ongoing basis and submitted annually beginning with the 2002-2003 annual report.

2. All reports of spills, leaks, and/or illegal dumping shall be promptly investigated. Those incidents that may pose an immediate threat to human health or the environment (e.g., sewage spills that could impact water contact recreation, an oil spill that could impact wild life, a hazardous substance spill where residents are evacuated, etc.) shall be reported to the Executive Officer within 24 hours by phone or e-mail, with a written report within 10 days. At a minimum, all sewage spills above 1,000 gallons and all reportable quantities of hazardous substance spills as per 40 CFR 117 and 302 shall be reported within 24 hours and all other spill incidents shall be included in the annual report. The permittees may propose a reporting program, including reportable incidents and quantities, jointly with other agencies such as the County Health/Fire Department for approval by the Executive Officer.

3. The permittees shall implement appropriate control measures to reduce and/or to eliminate the discharge of trash and debris to waters of the U.S. These control measures shall be reported in the annual report.

4. By July 1, 2003, the permittees shall review their litter/trash control ordinances to determine the need for any revision. The permittees are required to characterize trash, determine its main source(s), and develop and implement appropriate BMPs to control trash in urban runoff. The findings of this review, along with supporting field data shall be included in the 2002-2003 annual report.

5. By July 1, 2003, the permittees shall determine the need for any additional debris control measures. The findings shall be included in the 2002-2003 annual report.

VIII. MUNICIPAL INSPECTIONS OF CONSTRUCTION SITES

1. The permittees shall develop by January 31, 2003, an inventory of all construction sites within their jurisdiction for which building or grading permits are issued and activities at the site include: soil movement; uncovered storage of materials or wastes, such as dirt, sand, or fertilizer; or exterior mixing of cementaceous products, such as concrete, mortar, or stucco, regardless of whether the construction site is subject to the California Statewide General NPDES Permit for Storm Water Discharges Associated with Construction Activities (General Permit), or other individual NPDES permit. This database shall be updated prior to each rainy season thereafter. This inventory shall be maintained in a computer-based database system and shall include relevant information on site ownership, General Permit Waste Discharge Identification (WDID) # (if any), size, location, etc. Inclusion of a Geographical Information System (GIS) is recommended but not required.

2. To establish priorities for inspection requirements under this Order, the permittees shall prioritize construction sites within their jurisdiction as a high, medium, or low threat to water quality. Evaluation of construction sites should be based on such factors as soil erosion potential, project size, proximity and sensitivity of receiving waters and any other relevant factors. At a minimum, high priority construction sites shall include: sites over 50 acres; sites over 5 acres that are tributary to Clean Water Act section 303(d) waters listed for sediment or turbidity impairments; and sites that are tributary to and within 500 feet of an area defined by the Ocean Plan as an Area of Biological Significance (ASBS).

3. The permittees shall conduct construction site inspections for compliance with their ordinances (grading, Water Quality Management Plans, etc.), local permits (construction, grading, etc.). Inspections shall include a review of erosion control and BMP implementation plans and an evaluation of the effectiveness and maintenance of the BMPs identified. Inspection frequency will, at a minimum, include the following:

    a. During the wet season (i.e., October 1 through May 31 of each year), all high priority sites are to be inspected, in their entirety, once a month. All medium priority sites are to be inspected at least twice during the wet season. All low priority sites are to be inspected at least once during the wet season. When BMPs or BMP maintenance is deemed inadequate or out of compliance, an inspection frequency of once every week will be maintained until BMPs and BMP maintenance are brought into compliance. During the 2002-2003 wet season, prior to the development of the inventory database, all construction sites must be visited at least twice. If a site is deemed out of compliance, an inspection frequency adequate to bring the site into compliance must be maintained.

    b. During the dry season (i.e., June 1 through September 30 of each year), all construction sites shall be inspected at least once to determine the adequacy of sediment and other pollutant control measures.

c. Information, including at a minimum, inspection dates, inspectors present and the results of the inspection must be maintained in the database identified in Section VIII.1, above, or must be linked to that database. A copy of this database must be provided to the Regional Board with each annual report.

4. The permittees shall enforce their ordinances and permits at all construction sites as necessary to maintain compliance with this Order. Sanctions for non-compliance must include: monetary penalties, bonding requirements and/or permit denial or revocation.

5. Within 24 hours of discovery, the permittees shall provide oral or email notification to the Santa Ana Regional Water Quality Control Board of non-compliant sites, within their jurisdiction, that are determined to pose a threat to human health or the environment (e.g., sewage spills that could impact water contact recreation, an oil spill that could impact wild life, a hazardous substance spill where residents are evacuated, etc.). Following oral notification, a written report must be submitted to the Santa Ana Regional Water Quality Control Board within 10 days, detailing the nature of the non-compliance, any corrective action taken by the site owner, other relevant information (e.g., past history of non-compliance, environmental damage resulting from the non-compliance, site owner responsiveness) and the type of enforcement that will be carried out by the permittee. Further, incidences of non-compliance shall be recorded along with the information noted in the written report and the final outcome/enforcement for the incident in the database identified in Items 1 and 3c, above, or must be linked to these databases.

6. The inspectors responsible for verifying compliance at construction sites shall be trained in and have an understanding of: federal, state and local water quality laws and regulations as they apply to construction and grading activities; the potential effects of construction and urbanization on water quality; and, implementation and maintenance of erosion control BMPs and sediment control BMPs and the applicable use of both. The permittees shall have adequately trained their inspection staff by December 31, 2002, and on an annual basis, prior to the rainy season, thereafter. Training programs should be coordinated with the Santa Ana Regional Water Quality Control Board and prior notification of training shall be provided to Regional Board staff. New hires or transfers that will be performing construction inspections for the permittees must be trained within one month of starting inspection duties.

7. The permittees need not inspect facilities already inspected by Regional Board staff if the inspection was conducted within the specified time period.

IX. MUNICIPAL INSPECTIONS OF INDUSTRIAL FACILITIES

1. The permittees shall develop by July 1, 2003, an inventory of industrial facilities within their jurisdiction with business permits or other authorization by permittees that have the potential to discharge pollutants to the MS4. Facilities will be listed,

regardless of whether the facility is subject to the California Statewide General NPDES Permit for Storm Water Discharges Associated with Industrial Activities (General Industrial Permit), or other individual NPDES permit. This database must be updated on an annual basis. This inventory must be maintained in a computer-based database system and must include relevant information on ownership, Standard Industrial Classification (SIC) code(s), General Industrial Permit WDID # (if any), size, location, etc. Inclusion of a Geographical Information System (GIS) is recommended but not required.

2. To establish priorities for inspection requirements under this Order, the permittees shall prioritize industrial facilities within their jurisdiction as a high, medium, or low threat to water quality. Evaluation of these facilities should be based on such factors as type of industrial activities (SIC codes), materials or wastes used or stored outside, pollutant discharge potential, facility size, proximity and sensitivity of receiving waters and any other relevant factors. At a minimum, a high priority shall be assigned to: facilities subject to section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA); and facilities with a high potential for or history of unauthorized, non-storm water discharges.

3. The permittees shall conduct industrial facility inspections for compliance with its ordinances and permits. Inspections shall include a review of material and waste handling and storage practices, pollutant control BMP implementation and maintenance and evidence of past or present unauthorized, non-storm water discharges. All high priority facilities identified in Section IX.2 shall be inspected and a report on these inspections shall be submitted by November 15, 2003 and a report of inspections during subsequent years shall be included in the annual report for that year.

4. After July 1, 2003, all high priority sites are to be inspected at least once a year; all medium priority sites are to be inspected at least once every two years; and all low priority sites are to be inspected at least once per permit cycle. In the event that inappropriate material or waste handling or storage practices are observed, or there is evidence of past or present unauthorized, non-storm water discharges, an inspection frequency adequate to bring the site into compliance must be maintained (at a minimum, once a month or within the compliance schedule prescribed by the permittee in a written notice to the discharger). Once compliance is achieved, a minimum inspection frequency of once every four months will be maintained for the next calendar year.

5. By September 1, 2005, the permittees shall identify the remaining industrial facilities that do not have business permits or other authorization by the permittees. These facilities shall be added to the database identified in Section IX.1 and shall be prioritized in accordance with the specifications identified in Section IX.2.

6. Information including, at a minimum, inspection dates, inspectors present and the results of the inspection must be maintained in the database identified in Section

IX.1, above, or must be linked to that database. A copy of this database must be provided to the Regional Board with each annual report.

7. The permittees shall enforce their ordinances and permits at all industrial facilities as necessary to maintain compliance with this Order. Sanctions for non-compliance must include: monetary penalties, bonding requirements and/or permit denial or revocation.

8. Within 24 hours of discovery, the permittees shall provide oral or email notification to the Santa Ana Regional Water Quality Control Board of non-compliant facilities, within their jurisdiction, that are determined to pose a threat to human health or the environment; (e.g., sewage spills that could impact water contact recreation, an oil spill that could impact wild life, a hazardous substance spill where residents are evacuated, etc.). Following oral notification, a written report must be submitted to the Santa Ana Regional Water Quality Control Board within 10 days, detailing the nature of the non-compliance, any corrective action taken by the site owner, other relevant information (e.g., past history of non-compliance, environmental damage resulting from the non-compliance, facility owner responsiveness) and the type of enforcement that will be carried out by the permittee. Further, incidences of non-compliance shall be recorded along with the information noted in the written report and the final outcome/enforcement for the incident in the database identified in Section IX.1.

9. The inspectors responsible for verifying compliance at industrial and commercial facilities shall be trained in and have an understanding of: federal, state and local water quality laws and regulations as they apply to industrial activities; the potential effects of industrial discharge and urbanization on water quality; and implementation and maintenance of pollutant control BMPs. The permittees shall have adequately trained their inspection staff by July 1, 2003, and on an annual basis thereafter. Training programs should be coordinated with the Santa Ana Regional Water Quality Control Board and prior notification of training shall be provided to Regional Board staff. New hires or transfers that will be performing industrial and commercial inspections for the permittees must be trained within one month of starting inspection duties.

10. The permittees need not inspect facilities already inspected by Regional Board staff if the inspection was conducted within the specified time period.

X. MUNICIPAL INSPECTIONS OF COMMERCIAL FACILITIES

1. The permittees shall develop by July 1, 2003, an inventory of the following commercial facilities/companies listed below within their jurisdiction. This database must be updated on an annual basis. This inventory must be maintained in a computer-based database system and must include relevant information on ownership, size, location, etc. Inclusion of a Geographical Information System (GIS) is recommended but not required.

   a. Automobile mechanical repair, maintenance, fueling, or cleaning;

b. Automobile and other vehicle body repair or painting;

c. Mobile automobile or other vehicle washing;

d. Mobile carpet, drape or furniture cleaning;

e. Mobile high pressure or steam cleaning;

f. Painting and coating;

g. Nurseries and greenhouses;

h. Landscape and hardscape installation;

i. Pool, lake and fountain cleaning;

j. Other commercial sites/sources that the permittees determine may contribute a significant pollutant load to their MS4.

2. To establish priorities for inspection requirements under this Order, the permittees shall prioritize commercial facilities/companies within their jurisdiction as a high, medium, or low threat to water quality based on such factors as the type, magnitude, and location of the commercial activity, potential for discharge of pollutants to the MS4, and any history of unauthorized non-storm water discharges.

3. The permittees shall conduct commercial facility inspections for compliance with its ordinances and permits. Inspections shall include a review of material and waste handling and storage practices, pollutant control BMP implementation and maintenance, and evidence of past or present unauthorized, non-storm water discharges.

4. After July 1, 2003, the permittees shall establish inspection frequencies and priorities as determined by the threat to water quality prioritization described in X.2. In the event that inappropriate material or waste handling or storage practices are observed, or there is evidence of past or present unauthorized, non-storm water discharges, an inspection frequency adequate to bring the site into compliance must be maintained.

5. By July 1, 2004, all high priority sites shall have been inspected at least once.

6. Information including at a minimum, inspection dates, inspectors present and the results of the inspection must be maintained in the database identified in Section X.1, above, or must be linked to that database. A copy of this database must be provided to the Regional Board with each annual report.

7. The permittees shall enforce their ordinances and permits at commercial facilities. Sanctions for non-compliance must include: monetary penalties, bonding requirements and/or permit denial or revocation.

8. Within 24 hours of discovery, the permittees shall provide oral or email notification to the Santa Ana Regional Water Quality Control Board of non-compliant facilities, within their jurisdiction, that are determined to pose a threat

to human health or the environment; (e.g., sewage spills that could impact water contact recreation, an oil spill that could impact wild life, a hazardous substance spill where residents are evacuated, etc.). Following oral notification, a written report must be submitted to the Santa Ana Regional Water Quality Control Board within 10 days. All written reports shall detail the nature of the non-compliance, identify any corrective action taken by the site owner, and note other relevant information (e.g., past history of non-compliance, environmental damage resulting from the non-compliance, facility owner responsiveness) and the type of enforcement that will be carried out by the permittees. Further, incidences of non-compliance shall be recorded along with the information noted in the written report and the final outcome/enforcement for the incident in the database identified in Section X.1

9. The inspectors responsible for ensuring compliance at commercial facilities shall be trained in and have an understanding of: federal, state and local water quality laws and regulations as they apply to industrial and commercial activities; the potential effects of industrial discharge and urbanization on water quality; and, implementation and maintenance of pollutant control BMPs. The permittees shall have adequately trained their inspection staff by July 1, 2003 and on an annual basis thereafter. Training programs should be coordinated with the Santa Ana Regional Water Quality Control Board and prior notification of training shall be provided to Regional Board staff. New hires or transfers that will be performing commercial inspections for the permittees must be trained within one month of starting inspection duties.

XI. SEWAGE SPILLS, INFILTRATION INTO MS4 SYSTEMS FROM LEAKING SANITARY SEWER LINES, SEPTIC SYSTEM FAILURES, AND PORTABLE TOILET DISCHARGES

1. The Executive Officer will request the local sewering agencies to take the lead and develop a unified response guidance, in cooperation with the Principal Permittee. The Principal Permittee shall collaborate with the local sewering agencies to develop a unified response mechanism to respond to sewage spills that may have an impact on receiving water quality. The permittees shall provide local sanitation districts 24-hour access to the MS4s to address sewage spills. The permittees shall work cooperatively with the local sewering agencies to determine and control the impact of infiltration from leaking sanitary sewer systems on storm water quality.

2. By July 1, 2003, the permittees, whose jurisdictions have 50 or more septic tank sub-surface disposal systems in use, shall identify with the appropriate governing agency a mechanism to determine the effect of septic system failures on storm water quality and a mechanism to address such failures.

3. The principal permittee shall collaborate with the local sewering agencies to develop a unified response mechanism to respond to any sewage spills that may have an impact on receiving water quality. The Executive Officer will request the

local sewering agencies to take the lead and develop the unified response guidance, by no later than July 1, 2003, in cooperation with the principal permittee.

4. By July 1, 2003, the principal permittee shall review the permittees' current oversight programs for portable toilets to determine the need for any revision.

XII. NEW DEVELOPMENT (INCLUDING SIGNIFICANT RE-DEVELOPMENT)

A. GENERAL REQUIREMENTS

1. By October 15, 2002, the permittees shall establish a mechanism to ensure (prior to issuance of any local permits or other approvals) that all construction projects and industrial facilities that are required to obtain coverage under the State's General Storm Water Permits have filed with the State Board a Notice of Intent to be covered by the relevant General Permit. Applicants shall be required to provide a copy of the Waste Discharger Identification Number (WDID) issued by the State Board as evidence of coverage under the General Permit.

2. By September 1, 2002, the permittees shall review and modify the approval process for building, grading, and similar permits to include incorporation of BMPs as provided in the Guidelines for New Development and Redevelopment.

3. The permittees shall review and revise the storm water management program and implement any changes in the program, as necessary, in order to require construction site dischargers to reduce pollutants in runoff from construction sites during all construction phases. At a minimum, the program shall address:

   a. Pollution prevention measures and public education

   b. Grading Ordinance and any other local requirements

   c. Verification of coverage under the State's General Permit

   d. Prioritization and inspection of construction sites

   e. Procedures for reporting non-compliance

   f. Procedures for review and approval of WQMP.

      The permittees shall require applicants to prepare a WQMP in accordance with Appendix B of the ROWD and to incorporate identified structural and non-structural BMPs into the development.

   g. Implementation of the new development BMPs, or identification of wateshed or sub-watershed BMPs that new development projects could participate in.

4. The permittees shall review and revise the storm water management program and implement any changes in the program, as necessary in order to require

industrial/commercial site dischargers to reduce pollutants in runoff from new industrial/commercial sites. At a minimum, this program shall address:

a. Pollution prevention measures and public education

b. Source identification and prioritization

c. Monitoring and inspection of industrial/commercial sites

d. Verification of coverage under the State's General Permit

e. Enforcement of local ordinances and other requirements for industrial/commercial sites

f. Procedures for reporting non-compliance.

g. Procedures for review and approval of WQMP.

The permittees shall require applicants to prepare a WQMP in accordance with Appendix B of the ROWD and incorporate identified structural and non-structural BMPs into the development.

5. The permittees shall minimize the short and long-term impacts on receiving water quality from new developments and re-developments within its jurisdiction as required in Section B.1 below. In order to reduce pollutants and runoff flows from new developments and re-developments to the maximum extent practicable, permittees shall at a minimum:

a. Review General Plan/CEQA Processes to address storm water issues

b. Review and modify project approval process

c. Conduct public and business education.

6. By February 15, 2003, the permittees shall review their planning procedures and CEQA document preparation processes to ensure that storm water-related issues are properly considered and addressed. If necessary, these processes should be revised to consider and mitigate impacts to storm water quality. These changes may include revising the General Plan, modifying the project approval processes, including a section on urban runoff related water quality issues in the CEQA checklist, and conducting training for project proponents. The findings of this review and the actions taken by the permittees shall be reported to the Regional Board in the annual report for the corresponding year that the review is completed. All actions found necessary shall be completed by February 15, 2004 and reported in the annual report for the corresponding year. The following potential impacts shall be considered during CEQA review:

a. Potential impact of project construction on storm water runoff.

b. Potential impact of project's post-construction activity on storm water runoff.

c. Potential for discharge of storm water pollutants from areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas or loading docks, or other outdoor work areas.

d. Potential for discharge of storm water to affect the beneficial uses of the receiving waters.

e. Potential for significant changes in the flow velocity or volume of storm water runoff to cause environmental harm.

f. Potential for significant increases in erosion of the project site or surrounding areas.

7. By July 1, 2004, the permittees shall review their watershed protection principles and policies in their General Plan or related documents (such as Development Standards, Zoning Codes, Conditions of Approval, Development Project Guidance) to ensure that these principles and policies are properly considered and are incorporated into these documents. The findings of this review and the actions taken by the permittees shall be reported to the Regional Board by November 15, 2004. These principles and policies shall include the following considerations:

a. Limit disturbance of natural water bodies and drainage systems; conserve natural areas; protect slopes and channels; minimize impacts from storm water and urban runoff on the biological integrity of natural drainage systems and water bodies;

b. Minimize changes in hydrology and pollutant loading; require incorporation of controls including structural and non-structural BMPs to mitigate any projected increases in pollutant loads and flows; ensure that post-development runoff rates and velocities from a site do not adversely impact downstream erosion, stream habitat; minimize the quantity of storm water directed to impermeable surfaces and the MS4s; maximize the percentage of permeable surfaces to allow more percolation of storm water into the ground;

c. Preserve wetlands, riparian corridors, and buffer zones; establish reasonable limits on the clearing of vegetation from the project site;

d. Encourage the use of water quality wetlands, biofiltration swales, watershed-scale retrofits, etc., where such measures are likely to be effective and technically and economically feasible;

e. Provide for appropriate permanent measures to reduce storm water pollutant loads in storm water from the development site; and

f. Establish development guidelines for areas particularly susceptible to erosion and sediment loss.

8. Each permittee shall provide the Regional Board with the draft amendment or revision when a pertinent General Plan element or the General Plan is noticed for comment in accordance with Government Code Section 65350 et seq.

9. By September 1, 2003, the permittees shall review and, as necessary, revise their current grading/erosion control ordinances in order to reduce erosion caused by new development or significant re-development projects.

10. The permittees shall, through conditions of approval, ensure 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, and a funding mechanism for operation and maintenance shall be identified prior to approval of the project.

11. By November 15, 2003, the principal permittee shall submit a proposal for a study to evaluate the effectiveness of a group of selected BMPs for controlling erosion during new development. Based on the results of this study, one or more BMPs will be identified as (a) County-preferred BMP(s) for erosion control during new development. This proposal shall include details of the new development project site, the BMPs selected for the study, and a proposed schedule. The proposal and final BMP selection shall be approved by the Regional Board Executive Officer and the study shall be completed by the end of this permit term.

12. The permittees shall continue to implement BMPs for new development and for public works construction.

13. By July 1, 2003, the permittees shall review their Guidelines for New Development and Redevelopment to determine the need for any revisions.

B. WATER QUALITY MANAGEMENT PLAN (WQMP) FOR URBAN RUNOFF (FOR NEW DEVELOPMENT/SIGNIFICANT RE-DEVELOPMENT)

1. By January 1, 2004 , the permittees shall review their existing BMPs for new developments and submit for review and approval by the Executive Officer, a revised WQMP for urban runoff from new developments/significant re-developments for the type of projects listed below:

   a. All significant re-development projects. Significant re-development is defined as the addition or creation of 5,000 or more square feet of impervious surface on an already developed site. This includes, but is not limited to, additional buildings and/or structures, extension of existing footprint of a building, construction of parking lots, etc. Where redevelopment results in an increase of less than fifty percent of the impervious surfaces of a previously existing development, and the existing development was not subject to these SUSMPs, the design

standards apply only to the addition, and not the entire development.

b. Home subdivisions of 10 units or more. This includes single family residences, multi-family residence, condominiums, apartments, etc.

c. Industrial/commercial developments of 100,000 square feet or more. Commercial developments include non-residential developments such as hospitals, educational institutions, recreational facilities, mini-malls, hotels, office buildings, warehouses, and light industrial facilities.

d. Automotive repair shops (with SIC codes 5013, 5014, 5541, 7532-7534, 7536-7539).

e. Restaurants where the land area of development is 5,000 square feet or more.

f. Hillside developments of 10,000 square feet or more which are located on areas with known erosive soil conditions or where the natural slope is twenty-five percent or more.

g. Developments of 2,500 square feet of impervious surface or more adjacent to (within 200 feet) or discharging directly into environmentally sensitive areas such as areas designated in the Ocean Plan as areas of special biological significance or waterbodies listed on the CWA Section 303(d) list of impaired waters.

h. Parking lots of 5,000 square feet or more exposed to storm water. Parking lot is defined as land area or facility for the temporary storage of motor vehicles.

2. The permittees are encouraged to include in the WQMP the development and implementation of regional and/or watershed management programs that address runoff from new development and significant re-development. The WQMP shall include BMPs for source control, pollution prevention, and/or structural treatment BMPs. For all structural treatment controls, the WQMP shall identify the responsible party for maintenance of the treatment systems, and a funding source or sources for its operation and maintenance. The goal of the WQMP is to develop and implement programs and policies to minimize the effects of urbanization on site hydrology, urban runoff flow rates or velocities and pollutant loads. This goal may be achieved through watershed-based structural treatment controls, in combination with site-specific BMPs. The WQMP shall reflect consideration of the following goals, which may be addressed through on-site and/or watershed based BMPs.

   a. The pollutants in post-development runoff shall be reduced using controls that utilize best available technology (BAT) and best conventional technology (BCT).

b. The discharge of any listed pollutant to an impaired waterbody on the 303(d) list shall not cause or contribute to an exceedance of receiving water quality objectives.

3. Pending revision of the WQMP requirements, the permittees shall implement their proposed program detailed in Section 4 of the ROWD. If the Executive Officer does not approve the revised WQMP by June 1, 2004, as meeting the goals proposed in Section XII.B.2, above, and providing an equivalent or superior degree of treatment as the sized criteria outlined below, structural BMPs shall be required for all new development and significant redevelopment[5]. Minimum structural BMPs must either be sized to comply with one of the following numeric sizing criteria or be deemed by the principal permittee to provide equivalent or superior treatment, either on a site basis or a watershed basis:

a. Volume

Volume-based BMPs shall be designed to infiltrate or treat either:

1) The volume of runoff produced from a 85th percentile 24-hour storm event, as determined from the local historical rainfall record[6]; or

2) The volume of annual runoff produced by the 85th percentile 24-hour rainfall event, determined as the maximized capture storm water volume for the area, from the formula recommended in Urban Runoff Quality Management, WEF Manual of Practice No. 23/ASCE Manual of Practice No. 87 (1998); or

3) The volume of annual runoff based on unit basin storage volume, to achieve 80% or more volume treatment by the method recommended in California Stormwater Best Management Practices Handbook – Industrial/commercial (1993); or

4) The volume of runoff, as determined from the local historical rainfall record, that achieves approximately the same reduction in pollutant loads and flows as achieved by mitigation of the 85th percentile 24-hour runoff event;

OR

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[5] Where new development is defined as projects for which tentative tract or parcel map approval was not received by June 1, 2004 and new re-development is defined as projects for which all necessary permits were not issued by June 1, 2004. However, projects that have not commenced grading by the initial expiration date of the tentative tract or parcel map approval shall be deemed a new development project as defined in this section. New development does not include projects receiving map approvals after June 1, 2004 that are proceeding under a common scheme of development that was the subject of a tentative tract or parcel map approval that occurred prior to June 1, 2004.

[6] The Permittees are encouraged to calculate the 85th percentile storm event for each of their jurisdictions using local rain data pertinent to their jurisdiction.

b. Flow

Flow-based BMPs shall be designed to infiltrate or treat either:

1) The maximum flow rate of runoff produced from a rainfall intensity of 0.2 inch of rainfall per hour; or

2) The maximum flow rate of runoff produced by the 85th percentile hourly rainfall intensity, as determined from the local historical rainfall record, multiplied by a factor of two; or

3) The maximum flow rate of runoff, as determined from the local historical rainfall record, that achieves approximately the same reduction in pollutant loads and flows as achieved by mitigation of the 85th percentile hourly rainfall intensity multiplied by a factor of two.

The permittees may propose any equivalent sizing criteria for treatment BMPs or other controls that will achieve greater or substantially similar pollution control benefits. In the absence of approved equivalent sizing criteria, the permittees shall implement the above stated sizing criteria. If a particular BMP is not technically feasible, other BMPs should be implemented to achieve the same level of compliance or if the cost of BMP implementation greatly outweighs the pollution control benefits, the permittees may grant a waiver of the numeric sizing criteria. All waivers, along with waiver justification documentation must be reported to the Regional Board in writing within 30 days. The permittees may propose to establish an urban runoff fund to be used for urban water quality improvement projects within the same watershed that is funded by contributions from developers granted waivers. If it is determined by the Regional Board that waivers are being inappropriately granted, this Order may be reopened to modify these waiver conditions.

The obligation to install minimum structural BMPs at new development is met if, for a common scheme of development, BMPs are constructed with the requisite capacity to serve the entire common scheme, even if certain phases of the common scheme may not have BMP capacity located on that phase in accordance with the requirements specified above.

C. GROUNDWATER PROTECTION

Any structural infiltration BMPs shall meet the following minimum requirements:

1. Use of structural infiltration treatment BMPs shall not cause or contribute to an exceedance of groundwater water quality objectives.

2. Source control and pollution prevention control BMPs shall be implemented to protect groundwater quality.

3. Structural infiltration treatment BMPs shall not be used in industrial or high vehicular traffic areas (25,000 or greater average daily traffic).

4. Structural infiltration treatment BMPs shall be located at least 100 feet horizontally from any water supply wells.

5. The vertical distance from the bottom of any infiltration structural treatment BMP to the historic high groundwater mark shall be at least 10 feet.

6. Structural infiltration treatment BMPs shall not cause a nuisance or pollution as defined in Water Code Section 13050.

XIII. PUBLIC EDUCATION AND OUTREACH

1. The permittees shall continue to implement the public education efforts already underway and shall implement all elements of the comprehensive public and business education strategy contained in the ROWD. By October 30, 2002, the permittees shall complete a public awareness survey to determine the effectiveness of the current public and business education strategy.

2. When feasible, the permittees shall participate in a joint outreach with other programs including, but not limited to, the State of California Storm Water Quality Task Force, Caltrans, and other municipal storm water programs to ensure that a consistent message on storm water pollution prevention is disseminated to the public. The permittees shall sponsor or staff a storm water table or booth at community, regional, and/or countywide events to distribute public education materials to the public. Each permittee shall participate in at least one event per year.

3. By January 15, 2003, the Management Committee shall make recommendations for any changes to the public and business education program. The goal of the public and business education program shall be to target 100% of the residents including businesses, commercial and industrial establishments. Through use of local print, radio and television, the permittees must ensure that the public and business education program makes a minimum of 5 million impressions per year and that those impressions measurably increase the knowledge and measurably change the behavior of the targeted groups. By January 15, 2003, the Management Committee shall propose a study for measuring changes in knowledge and behavior as a result of the education program. Upon approval by the Regional Board Executive Officer, the study shall be completed by the end of the permit cycle. The Committee shall ensure implementation of BMPs listed in the ROWD (Appendix C) for restaurants, automotive service centers, gasoline service stations and other similar facilities. The permittees shall distribute these BMP brochures or fact sheets to these facilities during inspections and/or through other means. Further, for restaurant, automotive service centers, and gasoline service station corporate chains, information is to be developed that will be provided to corporate environmental managers during outreach visits that will take place during the permit term.

4. By September 15, 2002, the permittees shall develop public education materials to encourage the public to report (including a hotline telephone number to report)

illegal dumping from residential, industrial, construction and commercial sites into public streets, storm drains and other waterbodies, clogged storm drains, faded or missing catch basin stencils and general storm water and BMP information. This hotline and website shall be included in the public and business education program and shall be listed in the governmental pages of all regional phone books.

5. By September 1, 2003, the permittees shall develop BMP guidelines for the control of those potentially polluting activities not otherwise regulated by any agency including guidelines for the household use of fertilizers, pesticides, herbicides, and other chemicals, guidelines for mobile vehicle maintenance activities, carpet cleaners, commercial landscape maintenance, and pavement cutting. These guidelines shall be distributed to the public, trade associations, etc., through participation in community events, trade association meetings, and/or mail.

6. By September 1, 2003, the permittees shall conduct an evaluation to determine the best method of establishing a mechanism(s) for providing educational and General Industrial Permit materials to businesses within their jurisdiction. These mechanism(s) for distributing educational materials to businesses shall be implemented by March 1, 2004.

XIV. MUNICIPAL FACILITIES/ACTIVITIES

1. Each permittee shall adopt the performance goals and implement the commitments included under Section 5.5 of the ROWD to prevent public agency facilities and activities from causing or contributing to a pollution or nuisance in receiving waters.

2. By September 1, 2003, the permittees shall complete an assessment of their flood control facilities to evaluate opportunities to configure and/or to reconfigure channel segments to function as pollution control devices and to optimize beneficial uses. These modifications may include in-channel sediment basins, bank stabilization, water treatment wetlands, etc. This shall be reported in the 2002-2003 annual report.

3. By July 1, 2003, the permittees, in coordination with the San Bernardino County Fire Chiefs Association, shall develop a list of appropriate BMPs to be implemented to reduce pollutants from training activities, fire hydrant/sprinkler testing or flushing, non-emergency fire fighting, and any BMPs feasible for emergency firefighting flows.

4. By October 1, 2002, the Management Committee shall develop and distribute to all permittees a BMP fact sheet to address public agency activities such as road construction and maintenance, street sweeping, catch basin stenciling, drainage facility cleaning and maintenance, etc. This shall be reported in the 2002-2003 annual report.

5. By October 1, 2002, the Management Committee shall develop and distribute BMP guidelines for public agency and contract field operations and maintenance staff. These guidelines shall describe appropriate pollution control measures, appropriate response to spills and illegal discharges, etc. Contractor training requirements shall be included in new contracts and contracts that come up for renewal. This shall be reported in the 2002-2003 annual report.

6. At least on an annual basis, each permittee shall provide training to public agency staff and to contract field operations staff on fertilizer and pesticide management, model maintenance procedures, and implementation of other pollution control measures. Each permittee shall designate key staff involved in public agency activities to attend at least three such training sessions during the five-year term of this permit (from 2002-2007).

7. By July 1, 2003, the Management Committee shall evaluate the efficiency and cost effectiveness of the available BMPs for litter control and develop recommendations for any needed improvements. This shall be reported in the 2002-2003 annual report.

8. Each permittee shall identify areas that are not subject to street sweeping due to lack of continuous curb and gutter, and evaluate their potential for impacting storm water quality. Appropriate BMPs shall be implemented where significant water quality impact is identified. This shall be reported in the 2002-2003 annual report.

9. Each permittee shall inspect all of their inlets, open channels, and basins at least once during each reporting year and maintain at least 80% of its drainage facilities on an annual basis, with 100% of the facilities included in a two-year period, using the BMP fact sheet developed by the Management Committee. The inspection and maintenance frequency for all or portions of the drainage facilities shall be evaluated annually to determine the need for increasing the inspection and maintenance frequency. This information shall be included in the annual report.

10. Each permittee shall clean those drainage facilities where the inspection reveals that the sediment/storage volume is 25% full, or where there is evidence of illegal discharge or if accumulated sediment or debris impairs the hydraulic capacity of the facility.

11. Successful implementation of the provisions in this Order will require the cooperation of all the public agency organizations within San Bernardino County having programs/activities that have an impact on storm water quality (e.g., Fire Department, Department of Environmental Health, Planning Department, Transportation Department, Parks and Recreation, Building and Safety, Code Enforcement, etc.) As such, these organizations are expected to actively participate in implementing this area-wide storm water program. The permittees shall be responsible for involving the public agencies in their storm water program.

XV. MUNICIPAL CONSTRUCTION PROJECTS/ACTIVITIES

1. This Order authorizes the discharge of storm water runoff 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.
2. No later than March 10, 2003 or as specified in the latest version of the State General Stormwater Construction Permit, the permittees shall comply with the requirements for municipal construction projects that may result in land disturbance greater than one acre.
3. 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.
4. 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.
5. 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.
6. 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.
7. All other terms and conditions of the latest version of the State's General Construction Activity Storm Water Permit shall be applicable.

XVI. PROGRAM MANAGEMENT/MSWMP REVIEW

1. By October 1 of each year, the permittees shall evaluate the MSWMP to determine the need for any revisions. At a minimum, the first annual review after adoption of this Order shall include:
   a. A description of any additional formal training needs for municipal employees.
   b. A description of the need for additional coordination meeting/training for the designated NPDES inspectors.
2. The annual report submitted each year shall include the findings of the MSWMP review and a schedule for any needed revisions.

3. The permittees shall modify the MSWMP, at the direction of the Regional Board Executive Officer, to, as necessary, incorporate additional provisions. Such provisions may include regional and watershed-specific requirements and/or waste load allocations developed and approved pursuant to the TMDL process for impaired water bodies.

4. The Management Committee will continue to meet at least 11 times a year to discuss issues related to permit implementation and regional and statewide issues. Each permittee's designated representative or a designated alternate should attend not less than 9 out of 11 meetings.

XVII. FISCAL RESOURCES

The permittees shall provide adequate funding for administration, implementation and enforcement of the areawide storm water management program elements and local storm water programs. The permittees shall prepare and submit a unified fiscal analysis to the Executive Officer of the Regional Board. The fiscal analysis shall be submitted with the Annual Report each year and shall, at a minimum, include the following:

1. Each permittee's expenditures for the previous fiscal year,

2. Each permittee's budget for the current fiscal year,

3. A description of the source of funds, and

4. Each permittee's estimated budget for the next fiscal year.

XVIII. PROVISIONS

GENERAL

1. All reports submitted by the permittees as per the requirements in this Order for the approval of the Executive Officer shall be publicly noticed and made available on the Regional Board's website, or through other means, for public review and comments. The Executive Officer shall consider all comments received prior to approval of the reports. Any unresolved issues shall be scheduled for a public hearing at a Regional Board meeting prior to approval by the Executive Officer.

2. The purpose of this Order is to require the implementation of best management practices to reduce, to the maximum extent practicable, the discharge of pollutants from the MS4 in order to support reasonable further progress towards attainment of water quality objectives.

3. 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 MSWMP, its components and any modifications, revisions, or amendments developed pursuant to this Order approved by the Executive Officer or determined by the permittee to be necessary to meet the requirements of this Order. The MSWMP and its components, as

included in the ROWD, including any approved amendments thereto is hereby made an enforceable component of this Order.

4. Certain BMPs implemented or required by the permittees for urban runoff management may create habitat for vectors (e.g., mosquitoes and rodents) if not properly designed and maintained. Close collaboration and cooperative effort between the permittees and local vector control agencies and the State Department of Health Services during the development and implementation of urban runoff management programs are necessary to minimize potential vector habitat and public health impacts resulting from vector breeding. Nothing in this permit is intended to prohibit inspection or abatement of vectors by the State or local vector control agencies in accordance with the respective Health and Safety Code.

5. The permittees shall, at a minimum, implement all elements of the MSWMP and its components, as included in the ROWD. Where the dates are different from the corresponding dates in this Order, the dates in this Order shall prevail. Any proposed revisions to the MSWMP shall be submitted with the Annual Report to the Executive Officer of the Regional Board for review and approval. All approved revisions to the MSWMP shall be implemented as per the time schedules approved by the Executive Officer. In addition to those specific controls and actions required by: (1) the terms of this Order and (2) the MSWMP and its components, each permittee shall implement additional controls, if any are necessary, to reduce the discharge of pollutants in storm water to the maximum extent practicable as required by this Order.

6. The permittees shall comply with Monitoring and Reporting Program No. R8-2002-0012 and any revisions thereto, which are hereby made a part of this Order. The Executive Officer is hereby authorized to revise the Monitoring and Reporting Program in a manner consistent with this Order to allow the permittees to participate in regional, statewide, national or other monitoring programs in lieu of or in addition to Monitoring and Reporting Program No. R8-2002-0012.

7. Upon approval by the Executive Officer of the Regional Board, all plans, reports and subsequent amendments 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.

8. The permittees shall report to the Executive Officer of the Regional Board:

   a. Any enforcement actions and discharges of storm or non-storm water, known to the permittees, which may have an impact on human health or the environment, and

   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 US.

9. The permittees shall immediately report any discharge that may endanger human health or the environment including any unauthorized discharge to the Executive Officer or his designee (909-782-3238, or by e-mail to: sw@rb8.swrcb.ca.gov) and to the Office of Emergency Services (1-800-852-7550). This reporting should be done by phone or e-mail as soon as the permittees become aware of the circumstances. A written report of the discharge or incident shall be submitted to the Executive Officer within five days.

10. The permittees shall not issue occupancy permits unless the applicant is informed of his obligation under the State's General Industrial Activities Storm Water Permit. 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 or when Phase II requirements become effective) 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.

11. The permit application and special NPDES program requirements are 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), and are incorporated into this Order by reference.

XIX. PERMIT EXPIRATION AND RENEWAL

1. This Order expires on April 27, 2007 and the permittees must file a new 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 Report of Waste Discharge 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;

    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; and

    d. Any new or revised program elements and compliance schedule(s) necessary to comply with Section IV of this Order.

2. 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;

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; or

d. To incorporate any requirements imposed upon the permittees through the TMDL process.

3. This Order shall serve as an 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.

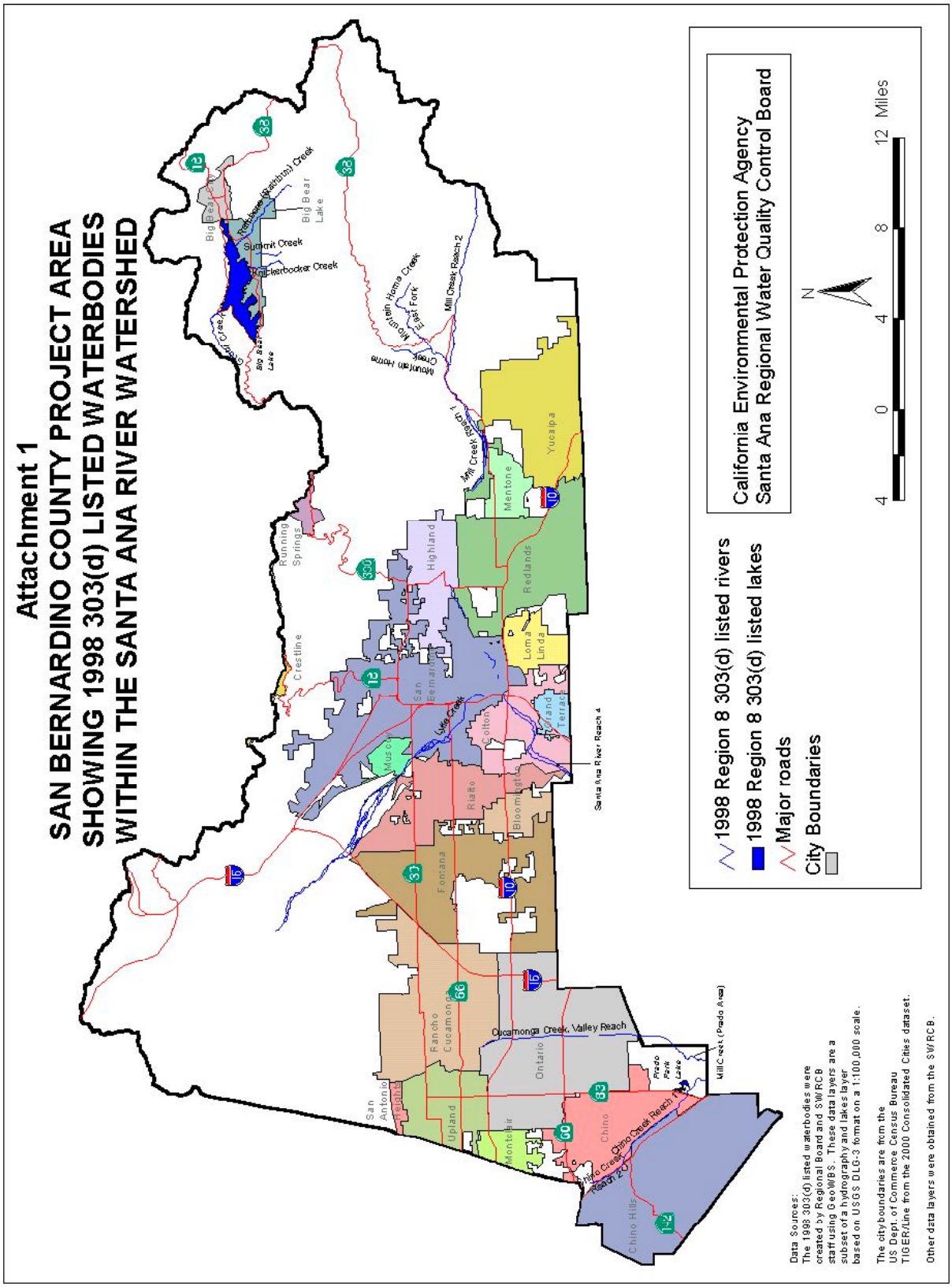
4. Order No. 96-32 is hereby rescinded.

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 April 26, 2002.

_____

Gerard J. Thibeault

Executive Officer


Attachment 1
SAN BERNARDINO COUNTY PROJECT AREA
SHOWING 1998 303(d) LISTED WATERBODIES
WITHIN THE SANTA ANA RIVER WATERSHED
California Environmental Protection Agency
Santa Ana Regional Water Quality Control Board
1998 Region 8 303(d) listed rivers
1998 Region 8 303(d) listed lakes
Major roads
City Boundaries
N
4 0 4 8 12 Miles
Data Sources:
The 1998 303(d) listed waterbodies were created by Regional Board and SWRCB staff using GeoWBS. These data layers are a subset of a hydrography and lakes layer based on USGS DLG-3 format on a 1:100,000 scale.
The city boundaries are from the US Dept. of Commerce Census Bureau TIGER/Line from the 2000 Consolidated Cities dataset.
Other data layers were obtained from the SWRCB.
Big Bear Lake
Summit Creek
Metcalf Creek
Mill Creek Reach 1
Mill Creek Reach 2
Mill Creek Reach 3
Santa Ana River Reach 4
Lytle Creek
Cucamonga Creek, Valley Reach
Chino Creek Reach 1
Chino Creek Reach 2
Prado Park Lake
Yucaipa
Mentone
Redlands
Loma Linda
Highland
San Bernardino
Colton
Grand Terrace
Crestline
Running Springs
Rialto
Bloomington
Fontana
Muscoy
Rancho Cucamonga
Ontario
Upland
Montclair
San Antonio Heights
Chino
Chino Hills

Attachment 2

Inland Surface Streams

A. Santa Ana River

Santa Ana River, Reaches 4, 5, and 6

B. San Bernardino Mountain Streams

Mill Creek Drainage

Mill Creek, Reaches 1 and 2

Mountain Home Creek

Mountain Home Creek, East Fork

Monkey Face Creek

Alger Creek

Falls Creek

Vivian Creek

High Creek

Other Tributaries: Lost, Oak Cove, Green, Skinner, Momyer and Glen Martin Creeks, and other Tributaries to these Creeks

Bear Creek Drainage

Bear Creek

Siberia Creek

Slide Creek

All Other Tributaries to these Creeks

Big Bear Lake Tributaries

North Creek

Metcalf Creek

Grout Creek

Rathbone (Rathbun) Creek

Other Tributaries to Big Bear Lake: Johnson, Minnelusa, Polique, and Red Ant Creeks, and other Tributaries to these Creeks

Baldwin Lake Drainage

Shay Creek

Other Tributaries to Baldwin Lake: Sawmill, Green, and Caribou Canyons and other Tributaries to these Creeks.

C. Other Streams Draining to Santa Ana River (Mountain Reaches)

Cajon Creek

City Creek

Devil Canyon Creek

East Twin and Strawberry Creeks

Waterman Canyon Creek

Fish Creek

Forsee Creek

Plunge Creek

Barton Creek

Bailey Canyon Creek

Kimbark Canyon, East Fork Kimbark Canyon, Ames Canyon and West Fork Cable Canyon Creeks

Valley Reaches of Above Streams

Other Tributaries (Mountain Reach): Alder, Badger Canyon, Bledsoe Gulch, Borea Canyon, Breakneck, Cable Canyon, Cienega Seca, Cold, Converse, Coon, Crystal, Deer, Elder, Fredalba, Frog, Government, Hamilton, Heart Bar, Hemlock, Keller, Kilpecker, Little Mill, Little Sand Canyon, Lost, Meyer Canyon, Mile, Monroe Canyon, Oak, Rattlesnake, Round Cienega, Sand, Schneider, Staircase, Warm Springs Canyon and Wild Horse Creeks, and other tributary to these Creeks.

D. San Gabriel Mountain Streams (Mountain Reaches)

San Antonio Creek

Lytle Creek (South, Middle, and North Forks) and Coldwater Canyon Creek

Day and East Etiwanda Creeks

Valley Reaches of Above Streams

Cucamonga Creek (Mountain Reach)

Cucamonga Creek (Valley Reach)

Other Tributaries (Mountain Reaches): San Sevaine, Deer, Duncan Canyon, Henderson Canyon, Stoddard Canyon, Icehouse Canyon, Cascade Canyon, Cedar, Falling Rock, Kerkhoff and Cherry Creeks, and other Tributaries to these Creeks.

E. San Timoteo Area Streams

San Timoteo Creek, Reaches 1 and 2

Oak Glen, Potato Canyon and Birch Creeks

Yucaipa Creek

F. Prado Area Streams

Chino Creek

G. Lake and Reservoirs

Baldwin Lake

Big Bear Lake

Jenks Lake

Attachment 3

LIST OF OTHER ENTITIES WITH THE POTENTIAL TO DISCHARGE POLLUTANTS TO THE SAN BERNARDINO COUNTY STORM WATER CONVEYANCE SYSTEM[7]

Government Agencies

U.S. Army Corps of Engineers

U.S. Department of Agriculture - Forest Services, San Bernardino County National Forest

California Department of Transportation (Cal Trans)

California Department of Parks and Recreation - Chino Hills State Park

Inland Valley Development Agency, San Bernardino International Trade Center and Airport

Hospitals

Bear Valley Community Hospital

Chino Community Hospital

Doctors Hospital

Kaiser Foundation Hospital

Loma Linda Community Hospital

Loma Linda University Medical Center

Mountains Community Hospital

Ontario Community Hospital

Patton State Hospital

U.S. Department of Veterans Affair - Jerry L. Pettis Memorial Veterans Medical Center

Redlands Community Hospital

St. Bernardino Medical Center

San Antonio Community Hospital

San Bernardino Community Hospital

San Bernardino County Hospital

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[7] If any entity on this list is determined to cause or contribute to violations of this Order, the RWQCB will require the entity to either:1) secure an NPDES permit; or 2) become a permittee under this permit if acceptable to the existing permittees and subject to execution of the implementation agreement. Please refer to Finding 24 on page 8 of this Order.

Railroads

AT&SF Railway Company

Southern Pacific Railroad Company

School Districts

Alta Loma Elementary School District

Bear Valley Unified School District

Central Elementary School District

Chaffey Joint Union High School District

Chino Valley Unified School District

Colton Joint Unified School District

Cucamonga Elementary School District

Etiwanda Elementary School District

Fontana Unified School District

Mountain View Elementary School District

Mt. Baldy joint Elementary School District

Ontario-Montclair Elementary School District

Rialto Unified School District

Rim of the World Unified School District

Redlands Unified School District

San Bernardino City Unified School District

Upland Unified School District

Yucaipa Joint Unified School District

Universities and Colleges

California State University - California State University San Bernardino

San Bernardino Community College District - Chaffey College Campus

San Bernardino Community College District - Crafton Hills College Campus

San Bernardino Community College District - San Bernardino Valley College Campus

University of Redlands

Loma Linda University

Water Districts

Big Bear Municipal Water District

Inland Empire Utilities Agency

Cucamonga County Water District

East Valley Water District

Monte Vista Water District

San Bernardino Valley Municipal Water District

West San Bernardino County Water District

Yucaipa Valley Water District

Transportation

Omnitrans

Metrolink (Fontana, Montclair, Ontario, Rancho Cucamonga, Rialto, San Bernardino)

Redlands Municipal Airport

Rialto Municipal Airport

Chino Airport

Cable Airport

Other Potential Dischargers

United States Postal Service

California National Guard

ATTACHMENT 4

GLOSSARY

Beneficial Uses – The uses of water necessary for the survival or well being of man, plants, and wildlife. These uses of water serve to promote the tangible and intangible economic, social, and environmental goals. "Beneficial Uses" that may be protected against include, but are not limited to: domestic, municipal, agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves. Existing beneficial uses are uses that were attained in the surface or ground water on or after November 28, 1975; and potential beneficial uses are uses that would probably develop in future years through the implementation of various control measures. "Beneficial Uses" are equivalent to "Designated Uses" under federal law. [California Water Code Section 13050(f)].

Best Available Technology (BAT) – BAT is the acronym for best available technology economically achievable. BAT is the technology-based standard established by congress in CWA section 402(p)(3)(A) for industrial dischargers of storm water. Technology-based standards establish the level of pollutant reductions that dischargers must achieve, typically by treatment or by a combination of treatment and best management practices, or BMPs. For example, secondary treatment (or the removal of 85% suspended solids and BOD) is the BAT for suspended solid and BOD removal from a sewage treatment plant. BAT generally emphasizes treatment methods first and pollution prevention and source control BMPs secondarily.

The best economically achievable technology that will result in reasonable further progress toward the national goal of eliminating the discharge of all pollutants is determined in accordance with regulations issued by the Environmental Protection Agency Administrator. Factors relating to the assessment of best available technology shall take into account the age of equipment and facilities involved, the process employed, the engineering aspects of the application of various types of control techniques, process changes, the cost of achieving such effluent reduction, non-water quality environmental impact (including energy requirements), and such other factors as the permitting authority deems appropriate.

Best Conventional Technology (BCT) – BCT is an acronym for Best Conventional Technology. BCT is the treatment techniques, processes and procedure innovations, and operating methods that eliminate or reduce chemical, physical, and biological pollutant constituents.

Best Management Practices – Best Management Practices (BMPs) are defined in 40 CFR 122.2 as schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. In the case of municipal storm water

permits, BMPs are typically used in place of numeric effluent limits.

Bioaccumulate – The progressive accumulation of contaminants in the tissues of organisms through any route including respiration, ingestion, or direct contact with contaminated water, sediment, pore water, or dredged material to a higher concentration than in the surrounding environment. Bioaccumulation occurs with exposure and is independent of the tropic level.

Biological Integrity – Defined in Karr J.R. and D.R. Dudley. 1981. Ecological perspective on water quality goals. Environmental Management 5:55-68 as: "A balanced, integrated, adaptive community of organisms having a species composition, diversity, and functional organization comparable to that of natural habitat of the region." Also referred to as ecosystem health.

Clean Water Act Section 402(p) – [33 USC 1342(p)] is the federal statute requiring municipal and industrial dischargers to obtain NPDES permits for their discharges of storm water.

Clean Water Act Section 303(d) Listed Water Body – is an impaired water body in which water quality does not meet applicable water quality standards and/or is not expected to meet water quality standards, even after the application of technology-based pollution controls required by the CWA. The discharge of urban runoff to these water bodies by the Co-permittees is significant because these discharges can cause or contribute to violations of applicable water quality standards.

Contamination – As defined in the Porter-Cologne Water Quality Control Act, contamination is "an impairment of the quality of waters of the State by waste to a degree which creates a hazard to the public health through poisoning or through the spread of disease." 'Contamination' includes any equivalent effect resulting from the disposal of waste whether or not waters of the U.S. are affected.

Debris – Debris is defined as the remains of anything destroyed or broken, or accumulated loose fragments of rock.

Effluent Limitations – Limitations on the volume of each waste discharge, and the quantity and concentrations of pollutants in the discharge. The limitations are designed to ensure that the discharge does not cause water quality objectives to be exceeded in the receiving water and does not adversely affect beneficial uses.

Effluent limitations are limitations of the quantity and concentrations of pollutants in a discharge. The limitations are designed to ensure that the discharge does not cause water quality objectives to be exceeded in the receiving water and does not adversely affect beneficial uses. In other words, an effluent limit is the maximum concentration of a pollutant that a discharge can contain. To meet effluent limitations, the effluent typically must undergo one or more forms of treatment to remove pollutants in order to lower the pollutant concentration below the limit. Effluent limits are typically numeric (e.g., 10 mg/l).

Erosion – When land is diminished or wane away due to the effects of wind, water, or glacial ice. Often the eroded debris (silt or sediment) becomes a pollutant via storm water runoff. Erosion occurs naturally but can be intensified by land clearing activities such as farming, development, road building, and timber harvesting.

Grading – The cutting and/or filling of the land surface to a desired slope or elevation.

Hazardous Material – Any substance that poses a threat to human health or the environment due to its toxicity, corrosiveness, ignitability, explosive nature or chemical reactivity. These also include materials named by the U.S. EPA to be reported if a designated quantity of the material is spilled into the waters of the United States or emitted into the environment.

Illicit Discharge – Any discharge to a municipal separate storm sewer that is prohibited under local, state, or federal statutes, ordinances, codes, or regulations. The term illicit discharge includes all non-storm water discharges except discharges pursuant to an NPDES permit, discharges that are identified in Section III, Discharge Limitations/Prohibitions, of this Order, and discharges authorized by the Regional Board Executive Officer. .

MEP – MEP is the acronym for Maximum Extent Practicable. Maximum Extent Practicable means the standard for implementation of storm water management programs to reduce pollutants in storm water. CWA section 402(p)(3)(B)(iii) requires that municipal permits "shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Adminstrator or the State determines appropriate for the control of such pollutants. Specifically, municipalities must choose effective BMPs, and reject applicable BMPs only where other effective BMPs will serve the same purpose.

Municipal Storm Water Conveyance System – (See Municipal Separate Storm Sewer System or MS4).

Municipal Separate Storm Sewer System (MS4) – MS4 is an acronym for Municipal Separate Storm Sewer System. A Municipal Separate Storm Sewer System is a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, natural drainage features or channels, modified natural channels, man-made channels, or storm drains): (i) Owned or operated by a State, city town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or designated and approved management agency under section 208 of the CWA that discharges to waters of the United States; (ii) Designated or used for collecting of conveying storm water; (iii) Which is not a combined sewer; (iv) Which is not part of the Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

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

National Pollution Discharge Elimination System (NPDES) – Permits issued under Section 402(p) of the Federal Clean Water Act for regulating discharge of pollutants to waters of the United States.

Non-Point Source Pollution (NPS) – Non point source refers to diffuse, widespread sources of pollution. These sources may be large or small, but are generally numerous throughout a watershed. Non Point Sources include but are not limited to urban, agricultural, or industrial areas, roads, highways, construction sites, communities served by septic systems, recreational boating activities, timber harvesting, mining, livestock grazing, as well as physical changes to stream channels, and habitat degradation. NPS pollution can occur year round any time rainfall, snowmelt, irrigation, or any other source of water runs over land or through the ground, picks up pollutants from these numerous, diffuse sources and deposits them into rivers, lakes, and coastal waters or introduces them into ground water.

Non-Storm Water – Non-storm water consists of all discharges to and from a storm water conveyance system that do not originate from precipitation events (i.e., all discharges from a conveyance system other than storm water). Non-storm water includes illicit discharges, non-prohibited discharges, and NPDES permitted discharges. An illicit discharge is defined at 40 CFR 122.26(b)(2) as any discharge to a municipal storm water conveyance system that is not composed entirely of storm water except discharges pursuant to a separate NPDES permit and discharges resulting from emergency fire fighting activities.

Nuisance – As defined in the Porter-Cologne Water Quality Control Act a nuisance is "anything which meets all of the following requirements: 1) Is injurious to health, or is indecent, or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property. 2) Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal. 3) Occurs during, or as a result of, the treatment or disposal of wastes."

Numeric Effluent Limitations – The typical method by which effluent limits are prescribed for pollutants in waste discharge requirements implementing the federal NPDES regulations. When numeric effluent limits are met at the "end-of-pipe," the effluent discharge generally will not cause water quality standards to be exceeded in the receiving waters (i.e., water quality standards will also be met).

Person – A person is defined as an individual, association, partnership, corporation, municipality, State or Federal agency, or an agent or employee thereof. [40 CFR 122.2].

Point Source – Any discernible, confined, and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operations, landfill leachate collection systems, vessel, or other floating craft from which pollutants are or may be discharged.

Pollution – As defined in the Porter-Cologne Water Quality Control Act, pollution is "the alteration of the quality of the waters of the U.S. by waste, to a degree that unreasonably affects either of the following: A) The waters for beneficial uses; or 2) Facilities that serve these beneficial uses." Pollution may include contamination.

Pollutant – A pollutant is broadly defined as any agent that may cause or contribute to the degradation of water quality such that a condition of pollution or contamination is created or aggravated.

Pollution Prevention – Pollution prevention is defined as practices and processes that reduce or eliminate the generation of pollutants, in contrast to source control, treatment, or disposal.

Post-Construction BMPs – A subset of BMPs including structural and non-structural controls which detain, retain, filter, or educate to prevent the release of pollutants to surface waters during the final functional life of development.

Receiving Water Limitations – Waste discharge requirements issued by the SARWQCB typically include both: (1) "Effluent Limitations" (or "Discharge Limitations") that specify the technology-based or water-quality-based effluent limitations; and (2) "Receiving Water Limitations" that specify the water quality objectives in the Basin Plan as well as any other limitations necessary to attain those objectives. In summary, the "Receiving Water Limitations" provision is the provision used to implement the requirement of CWA section 301(b)(1)(C) that NPDES permits must include any more stringent limitations necessary to meet water quality standards.

Sediment – Soil, sand, and minerals washed from land into water. Sediment resulting from anthropogenic sources (i.e. human induced land disturbance activities) is considered a pollutant. This Order regulates only the discharges of sediment from anthropogenic sources and does not regulate naturally occurring sources of sediment. Sediment can destroy fish-nesting areas, clog animal habitats, and cloud waters so that sunlight does not reach aquatic plants.

Storm Water – "Storm water" is as defined urban runoff and snowmelt runoff consisting only of those discharges which originate from precipitation events. Storm water is that portion of precipitation that flows across a surface to the storm drain system or receiving waters. Examples of this phenomenon include: the water that flows off a building's roof when it rains (runoff from an impervious surface); the water that flows into streams when snow on the ground begins to melt (runoff from a semi-pervious surface); and the water that flows from a vegetated surface when rainfall is in excess of the rate at which it can infiltrate into the underlying soil (runoff from a pervious surface). When all factors are equal, runoff increases as the perviousness of a surface decreases. During precipitation events in urban areas, rain water picks up and transports pollutants

through storm water conveyance systems, and ultimately to waters of the United States.

Toxicity – Adverse responses of organisms to chemicals or physical agents ranging from mortality to physiological responses such as impaired reproduction or growth anomalies.

Total Maximum Daily Load (TMDL) – The TMDL is the maximum amount of a pollutant that can be discharged into a water body from all sources (point and non-point) and still maintain water quality standards. Under Clean Water Act Section 303(d), TMDLs must be developed for all water bodies that do not meet water quality standards after application of technology-based controls.

Urban Runoff – Urban runoff is defined as all flows in a storm water conveyance system and consists of the following components: (1) storm water (wet weather flows) and (2) non-storm water illicit discharges (dry weather flows).

Waste – As defined in California Water Code Section 13050(d), "waste includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal."

Article 2 of CCR Title 23, Chapter 15 (Chapter 15) contains a waste classification system which applies to solid and semi-solid waste which cannot be discharged directly or indirectly to water of the state and which therefore must be discharged to land for treatment, storage, or disposal in accordance with Chapter 15. There are four classifications of waste (listed in order of highest to lowest threat to water quality): hazardous waste, designated waste, nonhazardous solid waste, and inert waste.

Water Quality Objective – Numerical or narrative limits on constituents or characteristics of water designated to protect designated beneficial uses of the water. [California Water Code Section 13050 (h)] California's water quality objectives are established by the State/Regional Water Boards in the Water Quality Control Plans.

As stated in the Porter-Cologne Requirements for discharge (CWC 13263): "(Waste discharge) 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 objectives reasonably required for that purpose, other waste discharges, the need to prevent nuisance, and the provisions of Section 13241."

Numeric or narrative limits for pollutants or characteristics of water designed to protect the beneficial uses of the water. In other words, a water quality objective is the maximum concentration of a pollutant that can exist in a receiving water and still generally ensure that the beneficial uses of the receiving water remain protected (i.e., not impaired). Since water quality objectives are designed specifically to protect the beneficial uses, when the objectives are violated the beneficial uses are, by definition, no longer protected and become impaired. This is a fundamental concept under the Porter Cologne Act. Equally fundamental is Porter Cologne's definition of pollution. A condition of pollution exists when the water quality needed to support designated

beneficial uses has become unreasonably affected or impaired; in other words, when the water quality objectives have been violated. These underlying definitions (regarding beneficial use protection) are the reason why all waste discharge requirements implementing the federal NPDES regulations require compliance with water quality objectives. (Water quality objectives are also called water quality criteria in the Clean Water Act.)

Water Quality Standards – are defined as the beneficial uses (e.g., swimming, fishing, municipal drinking water supply, etc.,) of water and the water quality objectives necessary to protect those uses.

Waters of the United States – Waters of the United States can be broadly defined as navigable surface waters and all tributary surface waters to navigable surface waters. Groundwater is not considered to be a Waters of the United States.

As defined in 40 CFR 122.2, the Waters of the U.S. are defined as: **(a) All waters, which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;** (b) All interstate waters, including interstate "wetlands;" (c) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, "wetlands," sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation or destruction of which would affect or could affect interstate or foreign commerce including any such waters: (1) Which are or could be used by interstate or foreign travelers for recreational or other purposes; (2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or (3) Which are used or could be used for industrial purposes by industries in interstate commerce; (d) All impoundments of waters otherwise defined as waters of the United States under this definition**: (e) Tributaries of waters identified in paragraphs (a) through (d) of this definition;** (f) The territorial seas; and (g) "Wetlands" adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) through (f) of this definition. Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with the EPA.

Watershed – That geographical area which drains to a specified point on a water course, usually a confluence of streams or rivers (also known as drainage area, catchment, or river basin).

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

SANTA ANA REGION

MONITORING AND REPORTING PROGRAM NO. R8-2002-0012

NPDES NO. CAS618036

FOR

THE SAN BERNARDINO COUNTY FLOOD CONTROL DISTRICT, THE COUNTY OF SAN BERNARDINO, AND THE INCORPORATED CITIES OF SAN BERNARDINO COUNTY WITHIN THE SANTA ANA REGION

AREA-WIDE URBAN STORM WATER RUNOFF

I. GENERAL

1) Revisions of the monitoring and reporting program may be necessary to ensure that the discharger is in compliance with requirements and provisions contained in this Order. Revisions may be made by the Executive Officer at any time during the term of this Order, and may include a reduction or increase in the number of parameters to be monitored, the frequency of monitoring, number of sampling locations, or the number of samples collected.
2) All sample collection, handling, storage, and analyses shall be in accordance with 40 CFR Part 136.
3) The permittees are authorized to complement monitoring data from other sources provided those sources are identical to sources in the Santa Ana Watershed.
4) The Executive Officer is authorized to allow the permittees to participate in statewide, national, or other monitoring programs in lieu of this monitoring program.
5) The permittees shall develop and submit a consolidated monitoring program for approval by the Executive Officer of the Regional Board. The consolidated program for water quality monitoring should be capable of attaining the objectives mentioned below.

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 of this monitoring program:

1) To define water quality status, trends, and pollutants of concern associated with urban storm water discharges and their impact on the beneficial uses of the receiving waters.
2) To identify the sources of pollutants in storm water runoff to the maximum extent possible.
3) To characterize pollutants and to assess the influence of land use on water quality.
4) To identify significant water quality problems related to storm water discharges within the watershed.

5) To evaluate the effectiveness of existing management programs, including an estimate of pollutant reductions achieved by the structural and nonstructural BMPs.

6) To identify other sources of pollutants in storm water runoff to the extent possible (e.g., atmospheric deposition, contaminated sediments, other non-point sources, etc.).

7) To conduct monitoring in cooperation with Riverside County for investigation of bacteriological impairments in the upper Santa Ana River.

8) To verify and to control illegal discharges.

9) To identify those waters which without additional action to control pollution from storm water discharges cannot reasonably be expected to attain or maintain applicable water quality standards or the goals and requirements of the Basin Plan.

10) To evaluate costs and benefits to the stakeholder including the public.

The Principal Permittee has been monitoring storm water and receiving waters since the first permit term. It is recognized that some of these objectives may not have been attainable during the previous permit terms. It is hoped that continuous monitoring for long term shall help to accomplish these objectives. The Regional Board authorizes the Executive Officer to evaluate and determine adequate progress toward meeting each objective.

This Order references three components of the monitoring program: (1) The existing monitoring program shall continue to be implemented until the integrated watershed monitoring program is approved; (2) An integrated watershed monitoring program is to be developed under this Order to identify data gaps and to attain the above-mentioned objectives; and (3) Other regional monitoring efforts where the permittees participate or make monetary contributions.

III. MONITORING PROGRAM REQUIREMENTS

1. By July 1, 2003, the permittees shall complete the GIS-based mapping of drainage area information, including drainage system facilities, land uses, and receiving waters.

2. By December 1, 2003, the permittees shall complete an assessment of the relative pollutant loading from different drainage areas to the receiving waters. This information shall be reported in the annual reports starting in 2004.

3. By December 1, 2003, the permittees shall evaluate the effectiveness of selected BMPs in controlling pollutant loads in urban storm water runoff. The results shall be included in the annual reports starting from 2004.

4. By July 1, 2002, the principal permittee, in collaboration with the co-permittees,

shall develop and submit for approval of the Executive Officer a bacteriological monitoring program to determine the sources of bacteriological contamination in the Santa Ana River. This program shall include wet and dry weather monitoring in the River and its major tributaries within the permittees' jurisdiction.

5. By July 1, 2003, the permittees shall revise and submit for approval of the Executive Officer an integrated watershed monitoring program geared towards achieving the above stated objectives and additional objectives that the Executive Officer may deem appropriate. In developing this program, the principal permittee is encouraged to seek cooperation with the permittees from the Riverside and Orange 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:

   a. Uniform guidelines for quality control, quality assurance, data collection and data analyses.

   b. A mechanism for the collection, analyses and interpretation of existing data from San Bernardino County monitoring programs and other similar programs. These and other data from local, regional or national sources should 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.

   c. A description of the monitoring program including:

      1) The number of monitoring stations;

      2) Environmental indicators (e. g., ecosystem, biological, habitat, chemical, sediment, stream health, etc.) chosen for monitoring;

      3) Parameters selected for field screening and for laboratory work; and

      4) Total number of samples to be collected from each station, receiving water and major outfall monitoring, 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.

   d. A mechanism for analyzing the collected data and interpreting the results including:

      1) An evaluation of the effectiveness of the best management practices,

and need for any refinement of the management practices;

2) An evaluation of water quality status, trends, and pollutants of concern associated with urban storm water discharges and their impact on the beneficial uses of the receiving waters;

3) Characterization and identification of sources of pollutants in storm water runoff and an assessment of the influence of land use on water quality;

4) Identification of significant water quality problems related to storm water discharges within the watershed;

5) Evaluation of the effectiveness of existing management programs, including an estimate of pollutant reductions achieved by the structural and nonstructural BMPs;

6) Evaluation of sources of bacteriological contamination in the upper Santa Ana River in coordination with Riverside County;

7) Identification of those waters which without additional action to control pollution from storm water discharges cannot reasonably be expected to attain or maintain applicable water quality standards specified in the Basin Plan; and

8) Analysis and interpretation of the collected data to determine the impact of storm water runoff and/or validate any water quality models.

6. The pemittees shall cooperate with the Southern California Coastal Water Research Project (SCCWRP) in regional monitoring and assessment efforts including, but not limited to the evaluation and development of an Index of Biological Integrity for Southern California.

7. The permittees shall coordinate with SCCWRP and the Regional Board to identify appropriate bioassessment station locations. Station selection and sampling scheme shall be identified in the revised Monitoring Program, and sampling should commence no later than October 2003.

8. Pending approval of the integrated watershed monitoring program, the permittees shall continue existing wet weather monitoring at storm drain monitoring Sites 2, 3, and 5, as identified in the approved monitoring program amended on January 24, 2001. The permitees shall focus on source identification and source control efforts based on the results of these and other monitoring efforts.

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 U.S. EPA, Region 9, no later than November 15 of each year. This progress report may be submitted in a mutually agreed upon electronic format. At a minimum, the 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 ROWD. The effectiveness may be measured in terms of how successful the program has been in eliminating illicit/illegal discharges and in 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. An analysis and discussion of the monitoring results and any impacts on the receiving waters. Also, recommendations for corrective actions during the upcoming year of management program implementation and monitoring.

   e. An analysis of the effectiveness of the overall storm water management program and identification of proposed programs which will result in the attainment of the water quality standards, and a time schedule to implement the new programs.

   f. An assessment of the public education program (including industrial facilities and construction sites) and educational activities proposed for the upcoming year.

   g. A progress report on the prosecution of illegal dischargers and reduction or elimination of illegal discharges.

   h. An assessment of the permittees' compliance status with the Receiving Water Limitations, Section IV of the Order, including any proposed modifications to the ROWD and MSWMP if the Receiving Water Limitations are not fully achieved.

3. Permittees shall be responsible for the submittal of all required information and 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:

Reporting Schedule (Order R8-2002-0012)		
ITEM	**COMPLETION DATE/FREQ.**	**REPORT DUE DATE**
II. Evaluate ordinances to determine authority to impose administrative fines for storm water violations	March 1, 2003	Nov. 15, 2003
IV. RECEIVING WATER LIMITATIONS: Pollutant source investigation and control plan to prevent or reduce pollutants from MS4 systems causing or contributing to exceedance of water quality standards	As needed	Nov. 15
V. IMPLEMENTATION AGREEMENT: Evaluate storm water management structure and implementation agreement	Annually	July 1
VI. LEGAL AUTHORITY/ ENFORCEMENT: Review water quality ordinances and provide a report on the effectiveness of these ordinances and their enforcement, in prohibiting different types of discharges	One Time	Nov. 15, 2003
The principal permittee or subcommittee shall develop a restaurant inspection program	March 1, 2003	March 1, 2003
Submit a statement signed by legal counsel that permittee has obtained all necessary authority to comply with this Order through adoption of ordinances and/or municipal code modifications	One Time	March 1, 2004
VII. ILLEGAL/ILLICIT CONNECTIONS; LITTER, DEBRIS AND TRASH CONTROL: Spills , leaks, and/or illegal dumping (with immediate threat to human health or environment) shall be promptly investigated and reported	Ongoing	Within 24 hours by phone or e-mail, written within 10 days
All sewage spills above 1,000 gallons and all reportable quantities of hazardous substance and hazardous waste spills	Ongoing	Within 24 hours
All other spill incidents	Annually	Nov. 15

Update Illicit connection database on an ongoing basis and report annually	Nov. 15, 2002, annually thereafter	Nov. 15
Identify control measures implemented to reduce and/or eliminate the discharge of trash and debris	Annually	Nov. 15
Review litter/trash control ordinances to determine need for revision	July 1, 2003	Nov.15, 2003
Determine need for additional debris control measures	July 1, 2003	Nov.15, 2003
VIII. MUNICIPAL INSPECTIONS OF CONSTRUCTION SITES: Develop an inventory of all construction sites	January 31, 2003 & updated by Sept. 30 annually thereafter	Nov. 15
IX. MUNICIPAL INSPECTIONS OF INDUSTRIAL FACILITIES: Develop an inventory of industrial facilities with business permits or other authorization that have potential of discharging pollutants to the MS4, provide copy of inspection database	July 1, 2003 & updated annually	Nov. 15
Identify the remaining industrial facilities that do not have business permits or other authorization	September 1, 2005 & updated annually	Nov. 15
X. MUNICIPAL INSPECTIONS OF COMMERCIAL FACILITIES: Develop an inventory of listed commercial facilities that have potential of discharging pollutants to the MS4, provide copy of inspection database	July 1, 2003 & updated annually	Nov. 15
XI. SEWAGE SPILLS, INFILTRATION INTO MS4 SYSTEMS FROM LEAKING SANITARY SEWER LINES, ANS SEPTIC SYSTEM FAILURES:		
Propose a mechanism to determine the effect of septic system failure on storm water quality	One Time	July 1, 2003
Propose a unified response mechanism to respond to any sewage spills	One Time	July 1, 2003
Review current oversight programs for portable toilets to determine the need for any revision	One Time	July 1, 2003
XII.A. NEW DEVELOPMENT (INCLUDING SIGNIFICANT RE-DEVELOPMENT): Establish a	One Time	October 15, 2002

mechanism to ensure all construction projects and industrial sites filed NOI for coverage under the General Permit prior to issuance of local permits or approvals		
Review and modify approval/permitting process to incorporate BMPs in the Guidelines for New Development and Redevelopment	One Time	September 1, 2002
Review planning procedure and CEQA document preparation process to ensure storm water-related issues are properly considered and addressed	One Time	February 15, 2003
Review and/or incorporate watershed protection principles and policies into the General Plan	July 1, 2004	Nov. 15, 2004
Review current grading/erosion control ordinances	One Time	September 1, 2003
Identify a new development site and propose study to evaluate the effectiveness of a selected BMP	One Time	Nov. 15, 2003
Review Guidelines for New Development and Redevelopment to determine the need for any revisions	One Time	July 1, 2003
XII.B. WATER QUALITY MANAGEMENT PLAN (WQMP) FOR RUNOFF (FOR NEW DEVELOPMENT/SIGNIFICANT RE-DEVELOMENT): Review existing BMPs for new development and submit revised WQMP for urban runoff from new developments/significant redevelopments	One Time	January 1, 2004
XIII. PUBLIC EDUCATION AND OUTREACH: Public awareness survey to determine effectiveness of current public and business education strategy	One Time	October 30, 2002
Propose a study for measuring changes in the public's knowledge and behavior as a result of the education program	One Time	January 15, 2003
Recommend any changes to the public and business education program	One Time	January 15, 2003
Develop public education material to encourage the public to report illegal dumping from residential, industrial, construction, and commercial sites into public streets, storm drains and other waterbodies	One Time	Sept. 15, 2002

Develop BMP guidance for household use of fertilizer, pesticides, herbicides, and other chemicals, guidance for mobile vehicle maintenance, carpet cleaners, commercial landscape maintenance, and pavement cutting	One Time	July 1, 2003
Determine best method of establishing a mechanism(s) for providing educational and General Industrial Permit materials to businesses within jurisdiction	One Time	January 15, 2003
XIV. MUNICIPAL FACILITIES/ACTIVITIES: Complete assessment of flood control facilities to evaluate opportunities to configure and/or reconfigure channel segments to function as pollution control devices and optimize beneficial uses	September 1, 2003	Nov. 15, 2003
Develop list of BMPs for fire-fighting training, non-emegency firefighting activities, etc.	One Time	July 1, 2003
Develop and distribute to all permittees a BMP fact sheet to address public agency activities	October 1, 2002	Nov. 15, 2002
Develop and distribute BMP guidance for public agency, contract field operations and maintenance staff to provide guidance in appropriate pollution control measures, how to respond to spills, etc.	October 1, 2002	Nov. 15, 2002
Evaluation of efficiency and cost effectiveness of the available BMPs for litter control and develop recommendations for any needed improvements	July 1, 2003	Nov. 15, 2003
Identify areas not subject to street sweeping due to lack of continuous curb and gutter and evaluate their potential for impacting storm water quality	One Time	Nov. 15, 2003
Inspect and maintain at least 80% of drainage facilities on an annual basis, with 100% of facilities in a two-year period. Evaluate if inspection and maintenance schedule need to be increased.	Annually	Nov. 15
XVI. PROGRAM MANAGEMENT: Evaluate the management plan to determine need for revisions	By October 1, Annually	Nov. 15
XVII. FISCAL RESOURCES: Prepare and submit a unified fiscal analysis to the EO	Annually	Nov. 15
XIX. PERMIT EXPIRATION AND RENEWAL: **Submit** Report of Waste Discharge	180 days prior to expiration	October 28, 2006

MONITORING PROGRAM REQUIREMENTS: GIS-based mapping of drainage area information	One Time	July 1, 2003
Assessment of relative pollutant loading from different drainage areas to receiving waters	Dec. 1, 2003, One Time	Nov. 15, 2004
Evaluate effectiveness of selected BMPs in controlling pollutant loads	Dec. 1, 2003, Annually thereafter	Nov. 15, 2004
Submit bacteriological monitoring program	One Time	July 1, 2002
Submit integrated watershed monitoring program	One Time	July 1, 2003
REPORTING: Annual progress report	Annually	Nov. 15

Ordered by_____

Gerard J. Thibeault
Executive Officer
April 26, 2002

California Regional Water Quality Control Board

Santa Ana Region

3737 Main Street, Suite 500

Riverside, CA 92501- 3348

FACT SHEET

April 26, 2002

ITEM: 13

SUBJECT: Waste Discharge Requirements for the San Bernardino County Flood Control District (SBCFCD), the County of San Bernardino, and the Incorporated Cities of San Bernardino County within the Santa Ana Region, Storm Water Runoff Management Program, San Bernardino County, Order No. R8-2002-0012 (NPDES No. CAS618036)

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 (U.S.). 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 from 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 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) started regulating municipal storm water runoff in 1990.

The attached pages contain information concerning an application for renewal of waste discharge requirements and a National Pollutant Discharge Elimination System (NPDES) permit. Order No. R8-2002-0012, NPDES No. CAS618036, prescribes waste discharge requirements for urban storm water runoff from the cities and the unincorporated areas in San Bernardino County within the jurisdiction of the Santa Ana Regional Board. On September 1, 2000, the San Bernardino County Flood Control District (SBCFCD) and the County of San Bernardino, in cooperation with the cities of Big Bear Lake, Chino, Chino Hills, Colton, Fontana, Grand Terrace, Highland, Loma Linda, Montclair, Ontario, Rancho Cucamonga, Redlands, Rialto, San Bernardino, Upland, and Yucaipa (hereinafter collectively referred to as permittees or dischargers), submitted NPDES Application No. CAS618036 (Report of Waste Discharge) for reissuance of their area-wide NPDES storm water permit. The permit renewal application was submitted in accordance with the requirements specified in the previous

NPDES storm water permit (Order No. 96-32, NPDES No. CA 618036), which expired on March 1, 2001. The permit application also follows guidance provided by the staff of the State Water Resources Control Board (State Board) and the Regional Water Quality Control Boards (Regional Boards).

On March 2, 2001, Order No. 96-32, NPDES No. CAS 618036, 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. R8-2002-0012 regulates discharges of urban storm water from the upper Santa Ana watershed to waters of the U.S., ultimately draining to the Pacific Ocean.

II. REGULATORY BACKGROUND/CLEAN WATER ACT REQUIREMENTS

Urban runoff includes dry and wet weather flows 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 U.S. Urban runoff may contain pathogens (bacteria, viruses, protozoa), sediment, trash, fertilizers (nutrients, mostly compounds of nitrogen and phosphorus), oxygen-demanding substances (decaying and/or decomposable matter), pesticides (DDT, chlordane, diazinon, chlorpyrifos) heavy metals (cadmium, copper, chromium, 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 watersheds undergo urbanization, pervious surface area decreases, runoff volume and velocities increase, riparian habitats and wetland habitats decrease, 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, cause toxicity to marine organisms, and impact human health and the environment.

The United States Environmental Protection Agency (U.S. EPA) recognizes urban runoff as the number one source of estuarine pollution in coastal communities[1]. Recent studies[2] conducted in the Southern California area have established a definite link between storm water runoff from urban areas and pollution in nearshore zones. A number of Orange County beaches were closed during the summer of 1999 and 2000 due to microbial contamination. During wet weather or storm conditions, discharges from the San Bernardino County areas may ultimately drain into the Pacific Ocean and can have an impact on Orange County beaches. 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 and their sources in urban runoff and lists some of the adverse impacts these pollutants could have on receiving waters.

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[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 Storm water 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.

Table 1[3]

Pollutants/Impacts of Urbanization

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 U.S. waters have declined, but remaining inputs and contaminated sediments in urban and industrial areas pose threats to living resources.
Pesticides (DDT, diazinon, chlorpyrifos)	Urban runoff; residential, commercial, industrial, and farm use; agricultural runoff	Legacy pesticides (DDT, chlordane, dieldrin) have been banned; still persists in the environment; some of the other pesticide uses have been 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 (NRC, 1993a, 2000a).
Petroleum products (oil, grease, petroleum hydrocarbons, PAHs)	Runoff and atmospheric deposition from land activities; shipping and tanker operations; accidental spills; oil gas production activities; natural seepage; PAHs from internal combustion engines	Petroleum hydrocarbons can affect bottom organisms and larvae; spills affect birds, mammals and aquatic life. While oil pollution from ships, accidental spills, and production activities has decreased, diffuse inputs from land-based activities have not (NRC, 1985).
Radioactive isotopes	Atmospheric fallout, industrial and military activities	Bioaccumulation may pose human health risks where contamination is heavy.
Sediments	Erosion from farming, construction activities, forestry, mining, development; river diversions; 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.
Plastics and other debris	Boats, fishing nets, containers, trash, urban runoff	Entangles aquatic life or is ingested; degrades wetlands and 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 surfaces	Kills some temperature-sensitive species; displaces others.
Pathogens (bacteria, protozoa, viruses)	Sewage, urban runoff, livestock, wildlife, and discharges from boats.	Pose health risks to swimmers and consumers of seafood. Sanitation has improved, but standards have been raised (NRC 1999a).
Alien species	Fishery stocking, aquarists	Displace native species, introduce new diseases; growing worldwide problem (NRC 1996).

[3] Adapted from "Marine Pollution in the United States" prepared for the Pew Oceans Commission, 2001.

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 San Bernardino 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.

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 regulation, 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 this permit 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. During the next review of the Basin Plan, staff will recommend that this matter be incorporated on the triennial review list. 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 which are discharged to municipal storm drain systems in San Bernardino County are tributary to various water bodies (inland surface streams, 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, hydropower generation, water contact recreation, non-contact water recreation, and sportfishing, warm freshwater habitat, cold freshwater habitat, preservation of biological habitats of special significance, wildlife habitat and preservation of rare, threatened or endangered species. The ultimate goal of this storm water management program is to protect the beneficial uses of the receiving waters.

IV. PROJECT AREA

The permitted area is delineated by the Santa Ana-Lahontan Regional Board boundary line on the north and northeast, the Santa Ana-Colorado River Basin Regional Board boundary line on the east, the San Bernardino-Riverside County boundary line on the south and southeast, the San Bernardino-Orange County boundary line on the southwest, and the San Bernardino-Los Angeles County boundary line on the west (see Attachment 1). The permittees serve a population of approximately 1.33 million, occupying an area of approximately 985 square miles. The latest figures estimated 384 miles of aboveground and 334 miles of below ground storm drain channels in the project area. Approximately seven percent (7%) of the San Bernardino County surface area 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 feeding operations. However, the CWA specifically excludes discharges from agricultural sources from regulations under this program. Areas of the County not addressed or which are excluded under the storm water regulations and areas not under the jurisdiction of the permittees are excluded from coverage under this permit. These areas or activities include the following:

- Federal lands and state properties, including, but not limited to, military bases, national forests, hospitals, schools, colleges and universities, and highways;
- Native American tribal lands;
- Open space and rural (non-urbanized) areas;
- Agricultural lands; and
- Utilities and special districts.

Discharges from the project area drain into the Santa Ana River. The watershed regulated under this Order is generally referred to as the Upper Santa Ana River Basin.

V. WATERSHED MANAGEMENT/UPPER SANTA ANA RIVER BASIN

To regulate and control storm water discharges from the San Bernardino County area to the San Bernardino County storm drain systems, an area-wide approach is essential. The entire storm drain system in San Bernardino County is not controlled by a single entity; the SBCFCD, several cities, and the State Department of Transportation

(Caltrans) manage the system. In addition to the cities and the SBCFCD, there are a number of other significant contributors of urban storm water runoff to these storm drain systems. These include: large institutions, such as the State University system; schools; hospitals; federal facilities, such as military installations; State agencies, such as Caltrans; water and wastewater management agencies, such as San Bernardino Valley Municipal Water District and Inland Empire Utilities Agency; the National Forest Service; and state parks. 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 storm water permit to each of the entities within the permitted area whose land/facilities drain into the county storm drain systems. The Regional Board has concluded that the best management option for the San Bernardino County area is to issue an area-wide storm water permit. Some of the storm drain systems in the project area discharge into storm drain systems controlled by other entities, such as the County of Riverside, the County of Orange, and the County of Los Angeles.

Cooperation and coordination among all the stakeholders are essential for efficient and economical management of the watershed. It is also critical to manage non-point sources at a level consistent with the management of urban storm water runoff in a watershed in order to successfully prevent or remedy water quality impairment. Regional Board staff will facilitate coordination of monitoring and management programs among the various stakeholders, when necessary.

An integrated watershed management approach is consistent with the Strategic Plan and Initiatives (June 22, 1995) for the State and Regional Boards. A watershed wide approach is also necessary for implementation of the load and waste load allocations to be developed under the TMDL process. 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, source control measures, and, if necessary, treatment techniques should be considered.

1. SUB-WATERSHEDS AND MAJOR CHALLENGES

The Santa Ana River Watershed in San Bernardino County can be subdivided into the following sub-watersheds:

A. UPPER SANTA ANA RIVER WATERSHED

The Upper Santa Ana River Watershed includes the upper reaches of the Santa Ana River (Reaches 4, 5 and 6) and its tributaries.

1. Reach 4 of the Santa Ana River: Reach 4 of the Santa Ana River is the portion of the River from Mission Boulevard bridge in Riverside to the San Jacinto fault (Bunker Hill Dike) in San Bernardino. There is perennial flow in this reach of the River, mostly from the upstream

discharges of treated municipal wastewater. Much of this reach is also maintained as a flood control facility. This reach of the River is posted to warn against water contact recreation, due to microbial problems. The wastewater discharges from the sewage treatment plants to this reach of the River are tertiary treated and are not expected to be sources of microbial contamination. This Order requires the permittees to investigate other sources, such as the transient population living along this stretch of the River, wild life, etc., and storm water and dry weather urban runoff to determine the cause of microbial contamination along Reach 4 of the River. Lytle Creek and Cajon Creek are the other major tributaries to this reach of the River.

Other major problems along this reach of the River include the buildup of total dissolved solids (TDS, dissolved salts or minerals) and nitrogen, largely in nitrate form. The buildup of TDS and nitrates can impact downstream beneficial uses, including reclamation. The buildup of TDS and nitrate is mostly due to agricultural uses, including dairies and the application of fertilizers, municipal and industrial wastewater discharges, and reuse and recycling operations. A complex set of programs and policies are included in the Basin Plan to address this problem, including a water supply plan, a wastewater management plan, and a groundwater management plan. Other elements of the Basin Plan include the non-point source program and the storm water program. The Basin Plan identifies the Statewide General Permits and the MS4 permits as the regulatory tools for storm water management in the Basin.

2. Reach 5 of the Santa Ana River: This reach of the River extends from the San Jacinto Fault in San Bernardino to the Seven Oaks Dam. Most of this reach of the River is maintained as a flood control facility and is dry, except during storm flows. Major tributaries to this reach include San Timoteo Creek, City Creek, Plunge Creek, and Warm Creek. These tributaries are usually dry, except for the discharge of treated wastewater from Yucaipa Valley Water District to San Timoteo Creek and from the City of Beaumont to Coopers Creek (a tributary to San Timoteo Creek). These wastewater discharges flow for a short distance and percolate into the ground. No major water quality problems have been identified in this stretch of the River or its tributaries.

3. Reach 6 of the Santa Ana River: This reach includes the River upstream of Seven Oaks Dam. Major tributaries include Bear Creek, Forsee Creek, and Rattlesnake Creek. Flows consist mostly of snowmelt and storm water runoff. Water quality in this reach of the River tends to be very good.

B. CHINO BASIN WATERSHED

The Chino Basin Watershed covers about 405 square miles and lies largely in the southwestern corner of San Bernardino County, and part of western Riverside County. This permit only covers those portions of the watershed

that are within San Bernardino County under the jurisdiction of this Board. Surface drainage is generally southward, from the San Gabriel Mountains toward the Santa Ana River and Prado Flood Control Basin. Major surface waterbodies in the Chino Basin Watershed include:

- San Antonio Creek
- Chino Creek
- Cucamonga Creek
- Day Creek, and
- Deer Creek

Although it was originally developed as an irrigated agricultural area, and then into dairies, the watershed is being steadily urbanized. The municipalities under this permit in the Chino Basin Watershed include Chino, Chino Hills, Fontana, Montclair, Ontario, Rancho Cucamonga, Rialto, and Upland. The Chino-Corona Agricultural Preserve has the highest concentration of dairy animals in the nation. The ground and surface water quality in the area have been adversely impacted by these dairy operations.

The dairies within the Region are regulated under the Board's General Dairy Permit, Order No. 99-11, NPDES No. CAG018001. The General Dairy Permit allows discharge of storm water from dairies only for storms exceeding a 24-hour 25-year frequency. The area lacks appropriate flood control facilities, and runoff from upstream urbanized areas often inundates some of the dairies in the area, even during light or moderate storm and runoff events. This causes dairy waste containment facilities to fail and overflow into surface drainage facilities. This overflow causes nutrient, TDS, TSS, and microbial problems in the receiving waters. The San Bernardino and Riverside County Flood Control Districts, in cooperation with local municipalities, are coordinating an effort to construct flood control facilities in the area.

Groundwater problems (mostly TDS and nitrate) in the Chino Basin Watershed are being addressed through a comprehensive watershed management plan. As part of this plan, desalters are being developed to pump and treat contaminated groundwater in the southern part of Chino Basin. One desalter has been built, and a second one is being designed. A co-composting facility owned by the Inland Empire Utilities Agency accepts manure from Chino Basin dairies. The co-composting facility is required to distribute the products outside of the Chino Basin Watershed to reduce the re-introduction of TDS and nutrients to this watershed from the land application of the composted product.

C. BIG BEAR LAKE WATERSHED

The Big Bear Lake watershed is located in the San Bernardino Mountains. Major waterbodies in this watershed include:

- Big Bear Lake
- Baldwin Lake (currently a dry lakebed)

- Stanfield Marsh
- Shay Meadows
- Rathbone (Rathbun) Creek
- Summit Creek
- Grout Creek

Big Bear Lake is a high mountain reservoir occupying a relatively small, east to west oriented basin. The basin supports a large number of recreational activities. Lake recreational activities include fishing, swimming, boating and water skiing. Areas adjacent to the lake are used for camping, skiing, hiking, equestrian trails and other outdoor activities. Water in the Lake is also used for municipal supplies. A number of water quality problems have been identified for the Lake.

The 1998 303(d) list of impaired water bodies (see below) designated the following waterbodies in this sub-watershed as impaired: Big Bear Lake (nutrients, copper, mercury and siltation); Grout Creek (metals and nutrients); Knickerbocker Creek (metals and pathogens); Summit Creek (nutrients); and Rathbone Creek (nutrients and siltation). The problem pollutants have been identified as coming from resource extraction activities, urban runoff, snow skiing activities, construction and land developments, and non-point sources. In conjunction with local stakeholders, work is underway to develop TMDLs for these pollutants. The TMDLs are expected to be complete by 2004/2005.

2. CWA SECTION 303(d) LIST AND TMDLS*:*

Pursuant to Section 303(b) of the CWA, the 1998 water quality assessment identified a number of water bodies as impaired. These are waterbodies where the designated beneficial uses are not met and the water quality objectives are being violated. The impaired waterbodies in San Bernardino County within the Santa Ana Regional Board's jurisdiction are listed in Table 2 and shown on Attachment 1 of the permit.

Table 2

CLEAN WATER ACT SECTION 303(D) LISTED WATERBODIES & TMDL SCHEDULE

Waterbody	Hydro Unit	Size Affected	Pollutant Stressor	Source	Priority	TMDL Schedule	Permittees
Big Bear Lake	801.710	2970 acres 2970 acres 2970 acres 2970 acres 2970 acres 2970 acres 2970 acres 2970 acres	Copper Mercury Metals Noxious aquatic plants Nutrients Sedimentation/Siltation	Resource Extraction Resource Extraction Resource Extraction Construction/Land development Construction/Land development Snow Skiing Activities Construction/Land development Snow Skiing Activities	Medium Medium Medium Medium Medium Medium Medium Medium	01/02 – 01/05	City of Big Bear Lake County of San Bernardino
Summit Creek	801.710	1 mile	Nutrients	Construction/Land Development	Medium	01/02 – 01/05	City of Big Bear Lake, County of San Bernardino
Knickerbocker Creek	801.710	2 miles 2 miles	Metal Pathogens	Unknown Non-point Source Unknown Non-point Source	Medium	01/03 – 01/05	City of Big Bear Lake, County of San Bernardino
Grout Creek	801.720	2 miles 2 miles	Metal Nutrients	Unknown Non-point Source Unknown Non-point Source	Medium	01/02 – 0105	City of Big Bear Lake, County of San Bernardino
Rathbone Creek	801.720	2 miles 2 miles	Nutrients Sedimentation/Siltation	Snow Skiing Activities Unknown Non-point Source	Medium	01/02 – 01/05	City of Big Bear Lake, County of San Bernardino
Mountain Home Creek, East Fork	801.700	1 mile	Pathogens	Unknown Non-point Source	Low	01/08 – 01/11	County of San Bernardino
Mountain Home Creek	801.580	4 miles	Pathogens	Unknown Non-point Source	Low	01/08 – 01/11	County of San Bernardino
Mill Creek (Prado Area)	801.250	4 miles	Nutrients Pathogens Suspended Solids	Agriculture, Dairies Dairies Dairies	Medium Medium Medium	01/00 – 01/05 01/00 – 01/05 01/00 – 01/05	Ontario, Rancho Cucamonga, Upland, SBCFCD, County of San Bernardino
Mill Creek, Reach 1	801.580	5 miles	Pathogens	Unknown Non-point Source	Low	01/08 –01/11	Redlands, SBCFCD, County of San Bernardino
Mill Creek, Reach 2	801.580.	8 miles	Pathogens	Unknown Non-point Source	Low	01/08 – 01/11	SBCFCD, County of San Bernardino
Santa Ana River, Reach 4	801.270	12 miles	Pathogens	Non-point Source	Low	01/08 – 01/11	Colton, Rialto, Highland, Grand Terrace, Redlands, City of San Bernardino, SBCFCD, County of San Bernardino
Lytle Creek	801.400	18 miles	Pathogens	Unknown Non-point Source	Low	01/08 – 01/11	City of San Bernardino, SBCFCD, County of San Bernardino
Chino Creek, Reach 1	801.210	2 miles	Nutrients Pathogens	Agriculture Dairies Dairies Urban Runoff/ Storm Sewers	Medium Medium	01/00 – 01/05	Chino, Chino Hills, SBCFCD, County of San Bernardino
Chino Creek, Reach 2	801.210	10 miles	High Coliform Count	Unknown Non-point Source	Low	01/08 – 01/11	Chino, Chino Hills, SBCFCD, County of San Bernardino
Prado Park Lake	801.210	60 acres	Nutrients Pathogens	Non-point Source Non-point Source	Low Low	01/08 – 01/11 01/08 – 01/11	Chino, Chino Hills, County of San Bernardino
Cucamonga Creek, Valley Reach	801.210	13 miles	High Coliform Count	Unknown Non-point Source	Low	01/08 – 01/11	Ontario, Rancho Cucamonga, Upland, SBCFCD, County of San Bernardino

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 are being developed for all pollutants identified in Table 2. However, this permit may be reopened to include TMDL implementation, if other implementation methodologies are not effective.

VI. FIRST AND SECOND 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 requested areawide NPDES permits for storm water runoff. On August 29, 1990, the Regional Board issued Order No. 90-136 to the San Bernardino County permittees (first term permit). In 1996, the Board adopted Order No. 96-32 (second term permit). First and second term permits included the following requirements:

1. Prohibited non-storm water discharges to the MS4s, with certain exceptions.
2. 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 (MEP).
3. Required the discharges from the MS4s to meet water quality standards in receiving waters.
4. Required the municipalities to identify and eliminate illicit connections and illegal discharges to the MS4s.
5. Required the municipalities to establish legal authority to enforce storm water regulations.
6. Required monitoring of dry weather flows, storm flows, and receiving water quality, and required program assessment.

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). The 1993 DAMP included a number of best management practices (BMPs) and a very extensive public education program. The monitoring programs for the first and second term permit included 10 monitoring stations within streams and flood control channels. The findings and conclusions from these monitoring stations and monitoring programs of other municipal permittees (Riverside County, Orange County and others) have been used to identify problem areas and to re-evaluate the monitoring program and the effectiveness of the BMPs. The future direction of some of these program elements will depend 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 illegal 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 illegal/illicit connections and have adopted appropriate ordinances to establish legal authority. Some of the more specific achievements during the first and second term permits are as follows:

1. Interagency Agreements and Coordination: Established a program management structure through an interagency Implementation Agreement and established a Management Committee as an overall decision making body with designated representatives from each of the permittees. Participated in regional monitoring programs and focused special studies/research programs. Worked with other local and State agencies 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.

2. Ordinances, Plans and Policies: Adopted Model Storm Drain Ordinance and Implementation Plan and Model Guidelines for New Development and Redevelopment; developed the Municipal Activities Pollution Prevention Strategy (MAPPS) which contains a complete list of BMPs for corporate yard activities and Criteria for MS4 Inspections.

3. 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 review and revision of CEQA Process and General Plan elements to address storm water quality issues, litter control measures, street sweeping frequencies and methods, public agency activities and facilities, illegal discharges and illicit connections to the MS4 systems, and existing monitoring programs. A public survey was conducted to determine the public's understanding of storm water pollution and prevention, and the effectiveness of the Storm Water Program's campaigns.

4. 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 industrial dischargers were notified of the storm water regulatory requirements. Gas/service stations were targeted and a fact sheet developed with BMP information. Business Recognition Programs were instituted as incentives for storm water management. Fact sheets, brochures, and flyers were developed and distributed to residents. The permittees also participated in radio and television advertisements, presentations at schools and participation in regional events to increase awareness of pollution prevention among the general public. A 24-hour hotline was established for reporting illegal dumping or any violations of the storm water program as well as to provide information regarding the storm water program. A website was completed that highlights the storm drain system and storm water pollution prevention services offered by the San Bernardino County Storm Water Program,

BMPs, "Adopt-A-Gutter" program, and contacts/links to other related resources.

5. Public Agency Training: Training was provided to public agency employees to implement New Development Guidelines and Public Works BMPs, to conduct investigations of reported water quality problems, and to conduct inspections of industrial facilities and public work projects. The municipal planners were trained to recognize water quality related problems in proposed developments.

6. Related Activities: Modified flood control facilities by channel stabilization, creation of a sediment basin and expansion of an existing basin, eliminated illegal connections and permitted and/or documented illicit connections to the MS4s.

VII. FIRST AND SECOND TERM PERMITS; WATER QUALITY IMPROVEMENTS

An accurate and quantifiable measurement of the impact of the above stated storm water management programs is difficult, due to 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, the amount of used oil collected, the amount of debris removed, etc.

The water quality monitoring data did not indicate any discernible trends or significant changes. However, the non-conventional monitoring data 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. It is expected that continuation of these programs and policies will eliminate and/or control pollutants in storm water runoff.

During the second term permit, 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 management plan (ROWD) and other requirements specified in this Order, the goals and objectives of the storm water regulations will be met, including protection of the beneficial uses of all receiving waters.

VIII. FUTURE DIRECTION/2000 ROWD

The NPDES permit renewal application describes the area-wide Storm Water Management Program for the third permit term and it includes programs and policies the permittees are proposing to implement during the third term permit. The 2000 ROWD is the principal guidance document for urban storm water management programs in San Bernardino County and includes the following major components:

1. Provides a framework for the program management activities and municipal storm water management program development.

2. Provides the legal authority to control discharges to the MS4s.
3. Improves current BMPs to achieve further reduction in pollutant loading to the MS4s.
4. Includes programs and policies to increase public education processes and to seek public support for urban storm water pollution prevention BMPs.
5. Ensures controls for new developments and significant redevelopments.
6. Ensures that construction sites implement appropriate pollution control measures.
7. Ensures that industrial sites are in compliance with storm water regulations.
8. Includes programs and policies to eliminate illegal discharges and illicit connections to the MS4s.
9. Includes continued monitoring of urban runoff.
10. 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 improve control of pollutants in storm water runoff from storm water conveyance 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 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 (MEP) 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 MEP standard and water quality standards (water quality objectives and beneficial uses). The U. S. 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 agency. Any requirements included in the Order that are more stringent than the federal storm water regulations is 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 San Bernardino County's urban storm water management program and the proposed programs and policies for the next five years (third term permit). This Order recognizes

the performance commitments made by the permittees for the third permit term in implementing the storm water regulations. Therefore, this Order is less prescriptive compared to some of the other MS4 NPDES permits for urban runoff issued by other Regional Boards. However, it hopes to achieve the same or better water quality benefits because of the programs and policies already being implemented or proposed for implementation.

The major requirements include: 1) Discharge prohibitions; 2) Receiving water limitations; 3) Adequate legal authority; 4) Prohibition on illicit connections and illegal discharges; 5) Inspection activities by the municipalities; 6) Sewage spills, sanitary sewer line leaks, septic system failures and portable toilet discharges; 7) New development/re-development requirements; 8) Public and business education; 9) Municipal facilities and activities; 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, a separate Waste Discharge Requirement 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 U.S. 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 U.S. 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. LEGAL AUTHORITY

Each permittee has 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 illegal discharges. In the case of the County, additional action has sometimes included recovery of investigation and cleanup

costs from the responsible party. In the event of egregious or repeated violations, the option exists for 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 referrals to the District Attorney. Therefore, by November 15, 2003, the permittees are required 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 progress in establishing this program must be fully documented in the annual reports submitted by the permittees and the number, nature and amount of fines and/or penalties levied must be reported, beginning with the 2003/2004 annual report.

4. ILLEGAL 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 illegal 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 MS4s do not become a source of pollutants in receiving waters.

5. MUNICIPAL INSPECTION PROGRAM

Inspections by the municipalities of construction, industrial, and commercial activities within their jurisdiction are required, in order to control the discharge of pollutants entering the MS4 system. The municipalities are required to inventory companies and sites in the above categories, prioritize those companies and sites with respect to their threat to water quality and their proximity to sensitive receiving waters, and perform regular inspections to ensure compliance with local ordinances. While initial observations of non-compliance may result in educational type of enforcement, repeated non-compliance is expected to result in more disciplinary forms of enforcement, such as monetary penalties, stop work orders, or permit suspension or revocation.

During the second term permit, the permittees focused on identifying industrial and commercial facilities in each permittee's jurisdiction and on developing education and outreach materials. The permittees also developed and implemented a storm water inspection program that utilized existing inspection programs to check for storm water elements. This Order requires the permittees to prioritize these facilities by a specified date, based on threat to water quality, and prescribes a minimum inspection frequency for facilities based on this prioritization scheme.

This Order requires the permittees to continue their inspection programs and enforce local ordinances for storm water violations at all construction sites, including those covered under the Statewide General Construction Permit. This Order further requires the permittees to prioritize these sites by a specified date, based on threat to water quality, and prescribes a minimum inspection frequency for these sites based on this prioritization scheme.

6. SEWAGE SPILLS, SANITARY SEWER LINE LEAKS, SEPTIC SYSTEM FAILURES AND PORTABLE TOILET DISCHARGES

The permittees are required to determine if exfiltration from leaking sanitary sewer lines, sewage spills from blocked sewer lines, leaks and spills from sewer lines, improper use of portable toilets, and failing septic systems are causing or contributing to urban storm water pollution problems in their jurisdictions. If any of these is determined to be a problem, the permittees are required to develop and implement a plan to address these problems**.** In certain areas, the permittees may not have any control over sanitary sewer systems. In such cases, the permittees are required to work with the sanitation district for the area to develop acceptable solutions to these problems**.**

The permittees have already developed a sewage spill response policy and, where appropriate, entered into agreements with the sanitation districts for responding to sewage spills in a timely manner.

The Regional Board may consider issuing a separate Waste Discharge Requirement Order to address sanitary sewer overflows.

7. NEW DEVELOPMENT AND SIGNIFICANT REDEVELOPMENT

During the second term permit, the permittees developed Guidelines for New Development and Redevelopment. The permittees are required to implement these guidelines. 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 have the option of using a number of methodologies. The permittees/project proponents may propose BMPs based on a watershed approach, establish a storm water pollution prevention fund for such regional solutions, or propose other innovative and proven alternatives to address storm water pollution. If a set of measures acceptable to the Executive Officer is not developed and approved by December 1, 2003, the permittees are required to use the numeric sizing criteria specified in this Order. The numeric criteria are identical to the ones used by the San Diego Regional Board in its MS4 permit for permittees within the San Diego County area (Order No. 2001-01).

8. 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 programs and has targeted various groups including businesses, industry, developers, utilities, environmental groups, institutions, homeowners, school children, and the general public. The permittees have developed a number of educational materials, have 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.

9. MUNICIPAL 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 term permit required the permittees to develop and implement a Municipal Activities Pollution Prevention Strategy to address public agency facilities and activities that are not regulated under the State's General Industrial Activities Storm Water Permit. For the third term permit, the permittees are proposing to regroup the program elements into seven groups: (1) Sewage Sytems; (2) Maintenance Areas and Materials Storage Areas; (3) Landscape Maintenance; (4) Storm Drain Systems; (5) Streets and Roads; (6) Municipal Activities Pollution Prevention training; and (7) Training. Performance commitments are included in the ROWD for each of these seven groups. These commitments and other requirements to ensure water quality protection are included in this Order.

10. MONITORING AND REPORTING REQUIREMENTS

During the first and second term permits, the permittees conducted system characterization, BMP evaluation, and storm water discharge, and receiving water monitoring. These early programs focused on identifying pollutants, estimating pollutant loads, tracking compliance with water quality objectives, and identifying sources of pollutants. The San Bernardino County monitoring programs, as well as other monitoring programs nationwide, have shown 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 are a number of pollutants in urban storm water runoff. A definite link between pollutants in urban runoff and beneficial use impairments has been established only in a few cases.

In 2000, the permittees re-evaluated their monitoring program and proposed a revised monitoring program. The overall goal of the proposed Monitoring Program is to provide information in support of effective implementation of the areawide storm water program. The monitoring program goals are to evaluate BMP effectiveness, identify key pollutants of concern and their sources, evaluate impacts from urban runoff sources to local receiving waters, and participate in regional monitoring and research programs.

To accomplish these goals, the monitoring program focuses on the following areas:

1. Characterization and mapping of drainage areas including identification of pollutants of concern;
2. BMP effectiveness studies to evaluate the usefulness of sedimentation basins and other available technologies for storm water pollution prevention;
3. Receiving water monitoring of selected sites for key chemical and physical constituents, focusing on sites upstream and downstream of the urbanized area on the Santa Ana River and Cucamonga Creek;

4. Additional monitoring to provide bacteriological data in cooperation with Riverside County;
5. Source identification to identify sources of pollutants of concern; and
6. Data analysis using statistical methods.

Historical wet weather monitoring has shown elevated pollutant concentrations at monitoring Sites 2, 3 and 5. Monitoring Site 2 is located 400 feet south of Freeway 60, west of Archibald Avenue, on the east side of Cucamonga Creek Channel, in the City of Ontario. Land use within this drainage area is primarily commercial and industrial. Site No. 3 is located at Hellman Avenue, between Pine Avenue/Schleisman Road and Chino-Corona Road/Chandler Street, 75 feet east of Hellman Avenue bridge on the south side of Cucamonga Creek Channel near the City of Chino on the San Bernardino County/Riverside County line. This site drains the entire Cucamonga Creek, however the area between Site No. 2 and this site is mainly agricultural. Site No. 5 is located in the Hunts Lane access road north of Hospitality Lane, in a manhole located in the asphalt parking lot behind the Souplantation Restaurant in the City of San Bernardino. This site receives flows from predominantly restaurants mixed with businesses. Using wet weather monitoring data from 1994-99, the 2000 ROWD identified Site 5 to have the highest average concentration for BOD, copper, zinc, and TSS while Site 3 has the highest average concentrations for nitrate and phosphorus. First flush data from the 1999-2000 monitoring events showed elevated levels consistent with prior years' data for Sites 2, 3, and 5.

The permittees are required to continue first flush monitoring at storm drain monitoring Sites 2, 3, and 5 and focus source identification and control efforts at these locations pending approval of an integrated watershed monitoring program.

The permittees also participate in a number of other regional monitoring programs, such as the Southern California Coastal Water Research Project's (SCCWRP) Storm Water Monitoring / Research Cooperative Program.

The permittees are encouraged to continue their participation in regional and watershed-wide monitoring programs. By July 1, 2003, the permittees are required to re-evaluate their Water Quality Monitoring Program and submit a revised plan for approval. The revised integrated watershed monitoring program will identify data gaps from previous and other monitoring efforts, aim to attain the above-mentioned objectives and will incorporate statewide requirements for municipal storm water monitoring programs.

X. WATER QUALITY BENEFITS/COST ANALYSIS/FISCAL ANALYSIS

There are direct and indirect benefits from clean beaches, clean water, and 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 U.S. waters were swimmable and fishable. In 2001, 2/3 of the U.S. waters meet these criteria. In the 1995 "*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 lakes and beaches and other water recreational facilities also attract tourists.

The true magnitude of the urban runoff problem is still elusive and any cost estimate for cleaning up urban runoff would be premature short of end-of-pipe treatments. 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 to combat the problem. The costs incurred by the permittees in implementing these programs and policies are available.

The area-wide program is funded by the permittees. The principal permittee prepares an annual budget for the Management Committee. The principal permittee allocates 95 percent of the approved budget costs to the co-permittees based on percentage calculated using the cost allocation formula defined in the Implementation Agreement. The area-wide program 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; responding to Water Code Section 13267 requests; budget and other program documentation; and coordination of consultant studies, co-permittee meetings, and training seminars. For the next permit term, the projected average annual area-wide budget is about $650,000. The overall costs increased from $2.50M in 1996-2001 to $3.25M for the next permit term.

The permittees identified the following budget for Fiscal Year (2001/02):

EXPENDITURE ITEMS	AMOUNT ($)	PERCENTAGE
Annual NPDES Permit Fee	10,000	1.25
Monitoring Program	150,000	18.75
Public Education Program	350,000	43.75
Consultant Costs	50,000	6.25
Administration	170,000	21.25
Participation in Statewide NPDES Issues	40,000	5.00
Contingency	30,000	3.75
Total	800,000	100.00

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 the 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 improving protection for the beneficial uses of waters of the United States. 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 WORKSHOPS

The Regional Board recognizes the significance of San Bernardino 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 first public workshop regarding this draft Order was conducted at the September 26, 2001 Board meeting held at the City Council Chambers of Corona. The second public workshop was conducted at the January 23, 2002 Board meeting, also held at the City Council Chambers of Corona. 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.

XIII. PUBLIC HEARING

The Regional Board will hold a public hearing regarding the proposed waste discharge requirements at the April 26, 2002 Board meeting to be held at the City Council Chambers of Corona, 815 W. Sixth Street, Corona. 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. This and other information are also available at the website at: www.swrcb.ca.gov/rwqcb8.

XIV. INFORMATION AND COPYING

Persons wishing further information may write to the above address or call Mr. Muhammad Bashir at (909) 320-6396. 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 Friday (excluding holidays).

XV. REGISTER OF INTERESTED PERSONS

Any person interested in a particular application or group of applications may leave his/her 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.

XVI. RECOMMENDATIONS

Adopt Order No. R8-2002-0012, NPDES No. CAS618036, as presented.

In addition to the dischargers, comments were solicited from the following agencies and/or persons:

U.S. Environmental Protection Agency - Terry Oda/Eugene Bromley, Permit Issuance 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 - Jorge Leon/Elizabeth Miller Jennings, 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) - John Short
California Regional Water Quality Control Board, San Francisco Bay Region (2) - Dale Boyer
California Regional Water Quality Control Board, Central Coast Region (3) - Jennifer Biting
California Regional Water Quality Control Board, Los Angeles Region (4) - Wendy Philips
California Regional Water Quality Control Board, Central Valley Region (5) - George D. Day
California Regional Water Quality Control Board, Central Valley Region (5R), Redding - Carole Crowe
California Regional Water Quality Control Board, Central Valley Region (5F), Fresno - Jarma Bennett
California Regional Water Quality Control Board, Lahonton Region (6SLT), South Lake Tahoe - Mary Fiore-Wagner
California Regional Water Quality Control Board, Lahonton Region (6V), Victorville - Gene Rodash
California Regional Water Quality Control Board, Colorado River Basin Region (7) - Abdi Haile/Pat Garcia
California Regional Water Quality Control Board, San Diego Region (9) - Bob Morris
State Department of Fish and Game - Long Beach
State Department of Health Services - San Bernardino
State Department of Parks and Recreation
South Coast Air Quality Management District, Diamond Bar
Orange County Environmental Management Agency, Environmental Resources Division - Christopher CromptonKaren Ashby Orange County Environmental Management Agency, Department of Public Works, Flood Programs - Herb Nakasone
San Bernardino County Flood Control District - Naresh Varma
Caltrans, District 8, San Bernardino - Paul Lambert
Southern Pacific Railroad
Atchison, Topeka & Santa Fe Railway Company
U.S. Department of the Air Force, March Air Force Base
Camp Dresser and McKee - Jeff Endicott
Building Industry Association - Tim Piasky
L.A. County Department of Public Works - Mustafa Ariki

U.S. Department of Agriculture - Forest Services, San Bernardino County National Forest

Environmental Organizations
Sierra Club, San Gorgonio Chapter
Natural Resources Defense Council (NRDC) - David Beckman/Heather Hoecherl
Tri-County Conservation League - Press Enterprise - Gary Polakovic
Santa Ana Watershed Project Authority - Joseph Grindstaff
Orange County Water District - Bill Mills
Metropolitan Water District - George Muse
Western Municipal Water District - Don Harriger
San Bernardino Valley Municipal Water District
Southern California Association of Governments, Los Angeles
Inland Empire West Resource Conservation District - General Manager
Big Bear Municipal Water District - General Manager
Inland Empire Utilities Agency - General Manager
Cucamonga County Water District - General Manager
East Valley Water District - General Manager
Monte Vista Water District - General Manager
West San Bernardino County Water District - Butch Araiz
Yucaipa Valley Water District - General Manager

Hospitals (Administrator)
Bear Valley Community Hospital
Chino Community Hospital
Doctors Hospital
Kaiser Foundation Hospital
Loma Linda Community Hospital
Loma Linda University Medical Center
Mountains Community Hospital
Ontario Community Hospital
Patton State Hospital
U.S. Department of Veterans Affairs - Memorial Veterans Medical Center
Redlands Community Hospital
St. Bernardine Medical Center
San Antonio Community Hospital
San Bernardino Community Hospital
San Bernardino County Hospital

Universities and Colleges (Chancellor)
California State University - California State University San Bernardino
San Bernardino Community College District - Chaffey College Campus
San Bernardino Community College District - Crafton Hills College Campus
San Bernardino Community College District - San Bernardino Valley College Campus
University of Redlands
Loma Linda University

School Districts (Superintendent)
Alta Loma Elementary School District
Bear Valley Unified School District
Central Elementary School District
Chaffey Joint Union High School District
Chino Unified School District
Colton Joint Unified School District
Cucamonga Elementary School District
Etiwanda Elementary School District
Fontana Unified School District
Mountain View Elementary School District
Mt. Baldy Joint Elementary School District
Ontario-Montclair Elementary School District
Rialto Unified School District
Rim of the World Unified School District
Redlands Unified School District
San Bernardino City Unified School District
Upland Unified School District
Yucaipa Joint Unified School District

Permittees
City of Big Bear Lake - Brian Gengler
City of Chino - David Crosley
City of Chino Hills - John Mura
City of Colton - Kathy Kivley
City of Fontana - Curtis Aaron
City of Grand Terrace - John Donlevey
City of Highland - Larry Williams
City of Loma Linda - Dennis Barton
City of Montclair - Mario Orioli
City of Ontario - Glen Stott
City of Rancho Cucamonga - Bob Zetterberg
City of Redlands - Tom Fujiwara
City of Rialto - Bruce Cluff
City of San Bernardino - Michael Grubbs
City of Upland - Steve Gapuzan
City of Yucaipa - Fred Hawkins
San Bernardino County Transportation/Flood Control Department - Naresh Varma
San Bernardino County - Jim Squire