

Regional Board Meeting
June 21, 2006

Item 3

Supporting Document # 1

Tentative Order No. R9-2006-0011

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION
TENTATIVE ORDER NO. R9-2006-0011
NPDES NO. CAS0108758
WASTE DISCHARGE REQUIREMENTS
FOR DISCHARGES OF URBAN RUNOFF FROM
THE MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4s)
DRAINING THE WATERSHEDS OF THE COUNTY OF SAN DIEGO,
THE INCORPORATED CITIES OF SAN DIEGO COUNTY,
THE SAN DIEGO UNIFIED PORT DISTRICT,
AND THE SAN DIEGO COUNTY REGIONAL AIRPORT AUTHORITY**

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RECEIVING WATERS MONITORING AND REPORTING PROGRAM NO. R9-2006-0011

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

A. BASIS FOR THE ORDER

1. This Order is based on the federal Clean Water Act (CWA), the Porter-Cologne Water Quality Control Act (Division 7 of the Water Code, commencing with Section 13000), applicable state and federal regulations, all applicable provisions of statewide Water Quality Control Plans and Policies adopted by the State Water Resources Control Board (SWRCB), the Water Quality Control Plan for the San Diego Basin adopted by the Regional Board, the California Toxics Rule, and the California Toxics Rule Implementation Plan.
2. This Order renews National Pollutant Discharge Elimination System (NPDES) Permit No. CAS0108758, which was first issued on July 16, 1990 (Order No. 90-42), and then renewed on February 21, 2001 (Order No. 2001-01). On August 25, 2005, in accordance with Order No. 2001-01, the County of San Diego, as the Principal Permittee, submitted a Report of Waste Discharge (ROWD) for renewal of their MS4 Permit.

B. REGULATED PARTIES

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

Table 1. Municipal Copermittees

1. City of Carlsbad	12. City of Oceanside
2. City of Chula Vista	13. City of Poway
3. City of Coronado	14. City of San Diego
4. City of Del Mar	15. City of San Marcos
5. City of El Cajon	16. City of Santee
6. City of Encinitas	17. City of Solana Beach
7. City of Escondido	18. City of Vista
8. City of Imperial Beach	19. County of San Diego
9. City of La Mesa	20. San Diego Unified Port District
10. City of Lemon Grove	21. San Diego County Regional Airport Authority
11. City of National City	

C. DISCHARGE CHARACTERISTICS

1. Urban runoff contains waste, as defined in the California Water Code (CWC), and pollutants that adversely affect the quality of the waters of the State. The discharge of urban runoff from an MS4 is a "discharge of pollutants from a point source" into waters of the U.S. as defined in the CWA.
2. The most common categories of pollutants in urban runoff include total suspended solids, sediment (due to anthropogenic activities); pathogens (e.g., bacteria, viruses, protozoa);

heavy metals (e.g., copper, lead, zinc and cadmium); petroleum products and polynuclear aromatic hydrocarbons; synthetic organics (e.g., pesticides, herbicides, and PCBs); nutrients (e.g., nitrogen and phosphorus fertilizers), oxygen-demanding substances (decaying vegetation, animal waste), and trash.

3. The discharge of pollutants and/or increased flows from MS4s may cause or threaten to cause the concentration of pollutants to exceed applicable receiving water quality objectives and impair or threaten to impair designated beneficial uses resulting in a condition of pollution (i.e., unreasonable impairment of water quality for designated beneficial uses), contamination, or nuisance.
4. Pollutants in urban runoff can threaten human health. Human illnesses have been clearly linked to recreating near storm drains flowing to coastal waters. Also, urban runoff pollutants in receiving waters can bioaccumulate in the tissues of invertebrates and fish, which may be eventually consumed by humans.
5. Urban runoff discharges from MS4s often contain pollutants that cause toxicity to aquatic organisms (i.e., adverse responses of organisms to chemicals or physical agents ranging from mortality to physiological responses such as impaired reproduction or growth anomalies). Toxic pollutants impact the overall quality of aquatic systems and beneficial uses of receiving waters.
6. The Copermittees discharge urban runoff into lakes, drinking water reservoirs, rivers, streams, creeks, bays, estuaries, coastal lagoons, the Pacific Ocean, and tributaries thereto within ten of the eleven hydrologic units (watersheds) comprising the San Diego Region as shown in Table 2 below. Some of the receiving water bodies have been designated as impaired by the Regional Board and the United States Environmental Protection Agency (USEPA) in 2002 pursuant to CWA section 303(d). Also shown below are the watershed management areas (WMAs) as defined in the Regional Board report, Watershed Management Approach, January 2002.

Table 2. Common Watersheds and CWA Section 303(d) Impaired Waters

REGIONAL BOARD WATERSHED MANAGEMENT AREA (WMA)	HYDROLOGIC UNIT(S)	MAJOR SURFACE WATER BODIES	303(d) POLLUTANT(S) OF CONCERN OR WATER QUALITY EFFECT	COPERMITTEES
Santa Margarita River	Santa Margarita (902.00)	Santa Margarita River and Estuary, Pacific Ocean	1. Eutrophic 2. Nitrogen 3. Phosphorus 4. Total Dissolved Solids	1. County of San Diego
San Luis Rey River	San Luis Rey (903.00)	San Luis Rey River and Estuary, Pacific Ocean	1. Bacterial Indicators 2. Eutrophic 3. Chloride 4. Total Dissolved Solids	1. City of Escondido 2. City of Oceanside 3. City of Vista 4. County of San Diego
Carlsbad	Carlsbad (904.00)	Batiquitos Lagoon San Elijo Lagoon Agua Hedionda Lagoon Buena Vista Lagoon And Tributary Streams Pacific Ocean	1. Bacterial Indicators 2. Eutrophic 3. Sedimentation/Siltation 4. Nutrients 5. Total Dissolved Solids	1. City of Carlsbad 2. City of Encinitas 3. City of Escondido 4. City of Oceanside 5. City of San Marcos 6. City of Solana Beach 7. City of Vista 8. County of San Diego

REGIONAL BOARD WATERSHED MANAGEMENT AREA (WMA)	HYDROLOGIC UNIT(S)	MAJOR SURFACE WATER BODIES	303(d) POLLUTANT(S) OF CONCERN OR WATER QUALITY EFFECT	COPERMITTEES
San Dieguito River	San Dieguito (905.00)	San Dieguito River and Estuary, Pacific Ocean	1. Bacterial Indicators 2. Sulfate 3. Color 4. Nitrogen 5. Phosphorus 6. Total Dissolved Solids	1. City of Del Mar 2. City of Escondido 3. City of Poway 4. City of San Diego 5. City of Solana Beach 6. County of San Diego
Mission Bay	Peñasquitos (906.00)	Los Peñasquitos Lagoon Mission Bay, Pacific Ocean	1. Bacterial Indicators 2. Metals 3. Eutrophic 4. Sedimentation/Siltation 5. Toxicity	1. City of Del Mar 2. City of Poway 3. City of San Diego 4. County of San Diego
San Diego River	San Diego (907.00)	San Diego River, Pacific Ocean	1. Bacterial Indicators 2. Eutrophic 3. pH 4. Total Dissolved Solids 5. Oxygen (Dissolved)	1. City of El Cajon 2. City of La Mesa 3. City of Poway 4. City of San Diego 5. City of Santee 6. County of San Diego
San Diego Bay	Pueblo San Diego (908.00) Sweetwater (909.00) Otay (910.00)	San Diego Bay Sweetwater River Otay River Pacific Ocean	1. Bacterial Indicators 2. Metals 3. Sediment Toxicity 4. Benthic Community Degradation 5. Diazinon 6. Chlordane 7. Lindane 8. PAHs 9. PCBs	1. City of Chula Vista 2. City of Coronado 3. City of Imperial Beach 4. City of La Mesa 5. City of Lemon Grove 6. City of National City 7. City of San Diego 8. County of San Diego 9. San Diego Unified Port District 10. San Diego County Regional Airport Authority
Tijuana River	Tijuana (911.00)	Tijuana River and Estuary Pacific Ocean	1. Bacterial Indicators 2. Low Dissolved Oxygen 3. Metals 4. Eutrophic 5. Pesticides 6. Synthetic Organics 7. Trace Elements 8. Trash 9. Solids	1. City of Imperial Beach 2. City of San Diego 3. County of San Diego

7. The Copermittees' water quality monitoring data submitted to date documents persistent exceedances of Basin Plan water quality objectives for various urban runoff-related pollutants (diazinon, fecal coliform bacteria, total suspended solids, turbidity, metals, etc.) at various watershed monitoring stations. At some monitoring stations, such as Agua Hedionda, statistically significant upward trends in pollutant concentrations have been observed. Persistent toxicity has also been observed at some watershed monitoring stations. In addition, bioassessment data indicates that the majority of watersheds have Poor to Very Poor Index of Biotic Integrity ratings. In sum, the above findings indicate that urban runoff discharges are causing or contributing to water quality impairments, and are a leading cause of such impairments in San Diego County.
8. When natural vegetated pervious ground cover is converted to impervious surfaces such as paved highways, streets, rooftops, and parking lots, the natural absorption and infiltration abilities of the land are lost. Therefore, runoff leaving a developed urban area is significantly greater in runoff volume, velocity, peak flow rate, and duration than pre-development runoff from the same area. The increased volume, velocity, rate, and duration of runoff greatly accelerate the erosion of downstream natural channels. Significant declines in the biological integrity and physical habitat of streams and other receiving waters have been found to occur with as little as a 10% conversion from natural to impervious surfaces. The increased runoff

characteristics from new development must be controlled to protect against increased erosion of channel beds and banks, sediment pollutant generation, or other impacts to beneficial uses and stream habitat due to increased erosive force.

9. Urban development creates new pollution sources as human population density increases and brings with it proportionately higher levels of car emissions, car maintenance wastes, municipal sewage, pesticides, household hazardous wastes, pet wastes, trash, etc. which can either be washed or directly dumped into the MS4. As a result, the runoff leaving the developed urban area is significantly greater in pollutant load than the pre-development runoff from the same area. These increased pollutant loads must be controlled to protect downstream receiving water quality.
10. Development and urbanization especially threaten environmentally sensitive areas (ESAs), such as water bodies designated as supporting a RARE beneficial use (supporting rare, threatened or endangered species) and CWA 303(d) impaired water bodies. Such areas have a much lower capacity to withstand pollutant shocks than might be acceptable in the general circumstance. In essence, development that is ordinarily insignificant in its impact on the environment may become significant in a particular sensitive environment. Therefore, additional control to reduce pollutants from new and existing development may be necessary for areas adjacent to or discharging directly to an ESA.
11. Although dependent on several factors, the risks typically associated with properly managed infiltration of runoff (especially from residential land use areas) are not significant. The risks associated with infiltration can be managed by many techniques, including (1) designing landscape drainage features that promote infiltration of runoff, but do not "inject" runoff (injection bypasses the natural processes of filtering and transformation that occur in the soil); (2) taking reasonable steps to prevent the illegal disposal of wastes; (3) protecting footings and foundations; and (4) ensuring that each drainage feature is adequately maintained in perpetuity.

D. URBAN RUNOFF MANAGEMENT PROGRAMS

1. General

- a. This Order specifies requirements necessary for the Copermittees to reduce the discharge of pollutants in urban runoff to the maximum extent practicable (MEP). However, since MEP is a dynamic performance standard which evolves over time as urban runoff management knowledge increases, the Copermittees' urban runoff management programs must continually be assessed and modified to incorporate improved programs, control measures, best management practices (BMPs), etc. Absent evidence to the contrary, this continual assessment, revision, and improvement of urban runoff management program implementation is expected to ultimately achieve compliance with water quality standards.
- b. Although the Copermittees have generally been implementing the jurisdictional urban runoff management programs required pursuant to Order No. 2001-01 since February 21, 2002, urban runoff discharges continue to cause or contribute to violations of water quality standards. This Order contains new or modified requirements that are necessary to improve Copermittees' efforts to reduce the discharge of pollutants in urban runoff to the MEP and achieve water quality standards. Some of the new or modified requirements, such as the expanded Watershed Urban Runoff Management Program section, are designed to specifically

address these high priority water quality problems. Other new or modified requirements address program deficiencies that have been noted during audits, report reviews, and other Regional Board compliance assessment activities.

- c. Updated Jurisdictional Urban Runoff Management Plans (JURMPs) and Watershed Urban Runoff Management Plans (WURMPs), and a new Regional Urban Runoff Management Plan (RURMP), which describe the Copermittees' urban runoff management programs in their entirety, are needed to guide the Copermittees' urban runoff management efforts and aid the Copermittees in tracking urban runoff management program implementation. It is practicable for the Copermittees to update the JURMPs and WURMPs, and create the RURMP, within one year, since significant efforts to develop these programs have already occurred.
- d. Pollutants can be effectively reduced in urban runoff by the application of a combination of pollution prevention, source control, and treatment control BMPs. Pollution prevention is the reduction or elimination of pollutant generation at its source and is the best "first line of defense". Source control BMPs (both structural and non-structural) minimize the contact between pollutants and flows (e.g., rerouting run-on around pollutant sources or keeping pollutants on-site and out of receiving waters). Treatment control BMPs remove pollutants from urban runoff.
- e. Urban runoff needs to be addressed during the three major phases of development (planning, construction, and use) in order to reduce the discharge of pollutants to the MEP and protect receiving waters. Development which is not guided by water quality planning policies and principles can unnecessarily result in increased pollutant load discharges, flow rates, and flow durations which can impact receiving water beneficial uses. Construction sites without adequate BMP implementation result in sediment runoff rates which greatly exceed natural erosion rates of undisturbed lands, causing siltation and impairment of receiving waters. Existing development generates substantial pollutant loads which are discharged in urban runoff to receiving waters.
- f. Annual reporting requirements included in this Order are necessary to meet federal requirements and to evaluate the effectiveness and compliance of the Copermittees' programs.

2. Development Planning

- a. The Standard Urban Storm Water Mitigation Plan (SUSMP) requirements contained in this Order are consistent with Order WQ-2000-11 adopted by the SWRCB on October 5, 2000. In the precedential order, the SWRCB found that the design standards, which essentially require that urban runoff generated by 85 percent of storm events from specific development categories be infiltrated or treated, reflect the MEP standard. The order also found that the SUSMP requirements are appropriately applied to the majority of the Priority Development Project categories contained in Section D.1 of this Order. The SWRCB also gave Regional Water Quality Control Boards the discretion to include additional categories and locations, such as retail gasoline outlets (RGOs), in future SUSMPs.
- b. Controlling urban runoff pollution by using a combination of onsite source control and site design BMPs augmented with treatment control BMPs before the runoff enters the MS4 is important for the following reasons: (1) Many end-of-pipe BMPs

(such as diversion to the sanitary sewer) are typically ineffective during significant storm events. Whereas, onsite source control BMPs can be applied during all runoff conditions; (2) End-of-pipe BMPs are often incapable of capturing and treating the wide range of pollutants which can be generated on a sub-watershed scale; (3) End-of-pipe BMPs are more effective when used as polishing BMPs, rather than the sole BMP to be implemented; (4) End-of-pipe BMPs do not protect the quality or beneficial uses of receiving waters between the source and the BMP; and (5) Offsite end-of-pipe BMPs do not aid in the effort to educate the public regarding sources of pollution and their prevention.

- c. Use of site design BMPs at new development projects can be an effective means for minimizing the impact of urban runoff discharges from the development projects on receiving waters. Site design BMPs help preserve and restore the natural hydrologic cycle of the site, allowing for filtration and infiltration which can greatly reduce the volume, peak flow rate, velocity, and pollutant loads of urban runoff.
- d. Retail Gasoline Outlets (RGOs) are significant sources of pollutants in urban runoff. RGOs are points of convergence for motor vehicles for automotive related services such as repair, refueling, tire inflation, and radiator fill-up and consequently produce significantly higher loadings of hydrocarbons and trace metals (including copper and zinc) than other urban areas. To meet MEP, source control and treatment control BMPs are needed at RGOs that meet the following criteria: (a) 5,000 square feet or more, or (b) a projected Average Daily Traffic (ADT) of 100 or more vehicles per day. These are appropriate thresholds since vehicular development size and volume of traffic are good indicators of potential impacts of urban runoff from RGOs on receiving waters.
- e. If not properly designed or maintained, certain BMPs implemented or required by municipalities for urban runoff management may create a habitat for vectors (e.g. mosquitoes and rodents). However, proper BMP design to avoid standing water can prevent the creation of vector habitat. Nuisances and public health impacts resulting from vector breeding can be prevented with close collaboration and cooperative effort between municipalities and local vector control agencies and the State Department of Health Services during the development and implementation of urban runoff management programs.

3. Construction and Existing Development

- a. In accordance with federal NPDES regulations and to ensure the most effective oversight of industrial and construction site discharges, discharges of runoff from industrial and construction sites are subject to dual (state and local) storm water regulation. Under this dual system, the Regional Board is responsible for enforcing the General Construction Activities Storm Water Permit, SWRCB Order 97-03 DWQ, NPDES No. CAS000001 (General Construction Permit) and the General Industrial Activities Storm Water Permit, SWRCB Order 99-08 DWQ, NPDES No. CAS000002 (General Industrial Permit), and each municipal Copermittee is responsible for enforcing its local permits, plans, and ordinances, which may require the implementation of additional BMPs than required under the statewide general permits.
- b. Identification of sources of pollutants in urban runoff (such as municipal areas and activities, industrial and commercial sites/sources, construction sites, and residential

areas), development and implementation of BMPs to address those sources, and updating ordinances and approval processes are necessary for the Copermittees to ensure that discharges of pollutants into and from its MS4 are reduced to the MEP. Inspections and other compliance verification methods are needed to ensure minimum BMPs are implemented. Inspections are especially important at high risk areas for pollutant discharges.

- c. Historic and current development makes 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.
- d. As operators of the MS4s, the Copermittees cannot passively receive and discharge pollutants from third parties. By providing free and open access to an MS4 that conveys discharges to waters of the U.S., the operator essentially accepts responsibility for discharges into the MS4 that it does not prohibit or control. These discharges may cause or contribute to a condition of contamination or a violation of water quality standards.
- e. Waste and pollutants which are deposited and accumulate in MS4 drainage structures will be discharged from these structures to waters of the U.S. unless they are removed or treated. These discharges may cause or contribute to, or threaten to cause or contribute to, a condition of pollution in receiving waters. For this reason, pollutant discharges into MS4s must be reduced to the MEP unless treatment within the MS4 occurs.
- f. Enforcement of local urban runoff related ordinances, permits, and plans is an essential component of every urban runoff management program and is specifically required in the federal storm water regulations and this Order. Each Copermittee is individually responsible for adoption and enforcement of ordinances and/or policies, implementation of identified control measures/BMPs needed to prevent or reduce pollutants in storm water runoff, and for the allocation of funds for the capital, operation and maintenance, administrative, and enforcement expenditures necessary to implement and enforce such control measures/BMPs under its jurisdiction.
- g. Education is an important aspect of every effective urban runoff management program and the basis for changes in behavior at a societal level. Education of municipal planning, inspection, and maintenance department staffs is especially critical to ensure that in-house staffs understand how their activities impact water quality, how to accomplish their jobs while protecting water quality, and their specific roles and responsibilities for compliance with this Order. Public education, designed to target various urban land users and other audiences, is also essential to inform the public of how individual actions impact receiving water quality and how these impacts can be minimized.
- h. Public participation during the development of urban runoff management programs is necessary to ensure that all stakeholder interests and a variety of creative solutions are considered.

4. Watershed and Regional Urban Runoff Management

- a. Since urban runoff does not recognize political boundaries, watershed-based urban runoff management can greatly enhance the protection of receiving waters within a watershed. Such management provides a means to focus on the most important water quality problems in each watershed. By focusing on the most important water quality problems, watershed efforts can maximize protection of beneficial use in an efficient manner. Watershed management of urban runoff does not require Copermittees to expend resources outside of their jurisdictions. Watershed management requires the Copermittees within a watershed to develop a watershed-based management strategy, which can then be implemented on a jurisdictional basis.
- b. Some urban runoff issues, such as residential education, can be effectively addressed on a regional basis. Regional approaches to urban runoff management can improve program consistency and promote sharing of resources, which can result in implementation of more efficient programs.
- c. Both regionally and on a watershed basis, it is important for the Copermittees to coordinate their water quality protection and land use planning activities to achieve the greatest protection of receiving water bodies. Copermittee coordination with other watershed stakeholders, especially Caltrans, the Department of Defense, and Native American Tribes, is also important. Establishment of a management structure, within which the Copermittees subject to this Order will fund and coordinate those aspects of their joint obligations, will help promote implementation of urban runoff management programs on a watershed and regional basis in a most cost effective manner.

E. STATUTE AND REGULATORY CONSIDERATIONS

1. The Receiving Water Limitations (RWL) language specified in this Order is consistent with language recommended by the USEPA and established in SWRCB Water Quality Order 99-05, adopted by the SWRCB on June 17, 1999. The RWL in this Order require compliance with water quality standards through an iterative approach requiring the implementation of improved and better-tailored BMPs over time. Compliance with receiving water limits based on applicable water quality standards is necessary to ensure that MS4 discharges will not cause or contribute to violations of water quality standards and the creation of conditions of pollution.
2. The Water Quality Control Plan for the San Diego Basin (Basin Plan), identifies the following beneficial uses for surface waters in San Diego County: Municipal and Domestic Supply (MUN), Agricultural Supply (AGR), Industrial Process Supply (PROC), Industrial Service Supply (IND), Ground Water Recharge (GWR), Contact Water Recreation (REC1) Non-contact Water Recreation (REC2), Warm Freshwater Habitat (WARM), Cold Freshwater Habitat (COLD), Wildlife Habitat (WILD), Rare, Threatened, or Endangered Species (RARE), Freshwater Replenishment (FRSH), Hydropower Generation (POW), and Preservation of Biological Habitats of Special Significance (BIOL). The following additional beneficial uses are identified for coastal waters of San Diego County: Navigation (NAV), Commercial and Sport Fishing (COMM), Estuarine Habitat (EST), Marine Habitat (MAR), Aquaculture (AQUA), Migration of Aquatic Organisms (MIGR), Spawning, Reproduction, and/or Early Development (SPWN), and Shellfish Harvesting (SHELL).

3. This Order is in conformance with SWRCB Resolution No. 68-16 and the federal Antidegradation Policy described in 40 CFR 131.12.
4. Section 6217(g) of the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA) requires coastal states with approved coastal zone management programs to address non-point pollution impacting or threatening coastal water quality. CZARA addresses five sources of non-point pollution: agriculture, silviculture, urban, marinas, and hydromodification. This NPDES permit addresses the management measures required for the urban category, with the exception of septic systems. The adoption and implementation of this NPDES permit relieves the Permittee from developing a non-point source plan, for the urban category, under CZARA. The Regional Board addresses septic systems through the administration of other programs.
5. Section 303(d)(1)(A) of the CWA requires that "Each state shall identify those waters within its boundaries for which the effluent limitations...are not stringent enough to implement any water quality standard (WQS) applicable to such waters." The CWA also requires states to establish a priority ranking of impaired waterbodies known as Water Quality Limited Segments and to establish Total Maximum Daily Loads (TMDLs) for such waters. This priority list of impaired waterbodies is called the Section 303(d) List. The current Section 303(d) List was approved by the SWRCB on February 4, 2003 and on July 25, 2003 by USEPA.
6. This Order fulfills a component of the TMDL Implementation Plan adopted by this Regional Board on August 14, 2002 for diazinon in Chollas Creek by establishing Water Quality Based Effluent Limits (WQBELs) for the Cities of San Diego, Lemon Grove, and La Mesa, the County of San Diego, and the San Diego Unified Port District; and by requiring: 1) legal authority, 2) implementation of a diazinon toxicity control plan and a diazinon public outreach/ education program, 3) achievement of the Compliance Schedule, and 4) a monitoring program. The establishment of WQBELs expressed as iterative BMPs to achieve the Waste Load Allocation (WLA) compliance schedule is appropriate and is expected to be sufficient to achieve the WLAs specified in the TMDL.
7. This Order fulfills a component of the TMDL Implementation Plan adopted by this Regional Board on February 9, 2005 for dissolved copper in Shelter Island Yacht Basin (SIYB) by establishing WQBELs expressed as BMPs to achieve the WLA of 30 kg copper / year for the City of San Diego and the San Diego Unified Port District. The establishment of WQBELs expressed as BMPs is appropriate and is expected to be sufficient to achieve the WLA specified in the TMDL.
8. This Order establishes WQBELs and conditions consistent with the requirements and assumptions of the WLAs in the TMDLs as required by 40 CFR 122.44(d)(1)(vii)(B).
9. Requirements in this Order that are more explicit than the federal storm water regulations in 40 CFR 122.26 are prescribed in accordance with the CWA section 402(p)(3)(iii) and are necessary to meet the MEP standard.
10. Urban runoff treatment and/or mitigation must occur prior to the discharge of urban runoff into a receiving water. Federal regulations at 40 CFR 131.10(a) state that in no case shall a state adopt waste transport or waste assimilation as a designated use for any waters of the U.S. Authorizing the construction of an urban runoff treatment facility within a water of the U.S., or using the water body itself as a treatment system or for conveyance to a treatment system, would be tantamount to accepting waste assimilation as an appropriate use for that

water body. Furthermore, the construction, operation, and maintenance of a pollution control facility in a water body can negatively impact the physical, chemical, and biological integrity, as well as the beneficial uses, of the water body. This is consistent with USEPA guidance to avoid locating structural controls in natural wetlands.

11. Urban runoff is a significant contributor to the creation and persistence of Toxic Hot Spots in San Diego Bay. CWC section 13395 requires regional boards to reevaluate waste discharge requirements (WDRs) associated with toxic hot spots. The SWRCB adopted the Consolidated Toxic Hot Spot Cleanup Plan in June 1999. The Plan states: "The reevaluation [of WDRs associated with toxic hot spots] shall consist of (1) an assessment of the WDRs that may influence the creation or further pollution of the known toxic hot spot, (2) an assessment of which WDRs need to be modified to improve environmental conditions at the known toxic hot spot, and (3) a schedule for completion of any WDR modifications deemed appropriate."
12. The issuance of waste discharge requirements and an NPDES permit for the discharge of urban runoff from MS4s to waters of the U.S. is exempt from the requirement for preparation of environmental documents under the California Environmental Quality Act (CEQA) (Public Resources Code, Division 13, Chapter 3, section 21000 et seq.) in accordance with the CWC section 13389.

F. PUBLIC PROCESS

1. The Regional Board has notified the Copermittees, all known interested parties, and the public of its intent to consider adoption of an Order prescribing waste discharge requirements that would serve to renew an NPDES permit for the existing discharge of urban runoff.
2. The Regional Board has, at public meetings on (date), held public hearings and heard and considered all comments pertaining to the terms and conditions of this Order.

IT IS HEREBY ORDERED that the Copermittees, in order to meet the provisions contained in Division 7 of the California Water Code (CWC) and regulations adopted thereunder, and the provisions of the Clean Water Act (CWA) and regulations adopted thereunder, shall each comply with the following:

A. PROHIBITIONS AND RECEIVING WATER LIMITATIONS

1. Discharges into and from municipal separate storm sewer systems (MS4s) in a manner causing, or threatening to cause, a condition of pollution, contamination, or nuisance (as defined in CWC section 13050), in waters of the state are prohibited.
2. Discharges from MS4s containing pollutants which have not been reduced to the maximum extent practicable (MEP) are prohibited.
3. Discharges from MS4s that cause or contribute to the violation of water quality standards (designated beneficial uses and water quality objectives developed to protect beneficial uses) are prohibited.
 - a. Each Copermittee shall comply with section A.3 and section A.4 as it applies to Prohibition 5 in Attachment A of this Order through timely implementation of control measures and other actions to reduce pollutants in urban runoff discharges in accordance with the Jurisdictional Urban Runoff Management Program and other

requirements of this Order including any modifications. The Jurisdictional Urban Runoff Management Program shall be designed to achieve compliance with section A.3 and section A.4 as it applies to Prohibition 5 in Attachment A of this Order. If exceedance(s) of water quality standards persist notwithstanding implementation of the Jurisdictional Urban Runoff Management Program and other requirements of this Order, the Copermittee shall assure compliance with section A.3 and section A.4 as it applies to Prohibition 5 in Attachment A of this Order by complying with the following procedure:

- (1) Upon a determination by either the Copermittee or the Regional Board that MS4 discharges are causing or contributing to an exceedance of an applicable water quality standard, the Copermittee shall promptly notify and thereafter submit a report to the Regional Board that describes best management practices (BMPs) that are currently being implemented and additional BMPs that will be implemented to prevent or reduce any pollutants that are causing or contributing to the exceedance of water quality standards. The report may be incorporated in the annual update to the Jurisdictional Urban Runoff Management Program unless the Regional Board directs an earlier submittal. The report shall include an implementation schedule. The Regional Board may require modifications to the report;
 - (2) Submit any modifications to the report required by the Regional Board within 30 days of notification;
 - (3) Within 30 days following approval of the report described above by the Regional Board, the Copermittee shall revise its Jurisdictional Urban Runoff Management Program and monitoring program to incorporate the approved modified BMPs that have been and will be implemented, the implementation schedule, and any additional monitoring required;
 - (4) Implement the revised Jurisdictional Urban Runoff Management Program and monitoring program in accordance with the approved schedule.
- b. So long as the Copermittee has complied with the procedures set forth above and is implementing the revised Jurisdictional Urban Runoff Management Program, the Copermittee does not have to repeat the same procedure for continuing or recurring exceedances of the same receiving water limitations unless directed by the Regional Board to do so.
 - c. Nothing in section A.3 shall prevent the Regional Board from enforcing any provision of this Order while the Copermittee prepares and implements the above report.
4. In addition to the above prohibitions, discharges from MS4s are subject to all Basin Plan prohibitions cited in Attachment A to this Order.

B. NON-STORM WATER DISCHARGES

1. Each Copermittee shall effectively prohibit all types of non-storm water discharges into its MS4 unless such discharges are either authorized by a separate National Pollutant Discharge Elimination System (NPDES) permit; or not prohibited in accordance with

sections B.2 and B.3 below.

2. The following categories of non-storm water discharges are not prohibited unless a Copermittee or the Regional Board identifies the discharge category as a significant source of pollutants to waters of the U.S. For such a discharge category, the Copermittee shall either prohibit the discharge category or develop and implement appropriate control measures to reduce the discharge of pollutants to the MEP and report to the Regional Board pursuant to Attachment D.
 - a. Diverted stream flows;
 - b. Rising ground waters;
 - c. Uncontaminated ground water infiltration [as defined at 40 CFR 35.2005(20)] to MS4s;
 - d. Uncontaminated pumped ground water;
 - e. Foundation drains;
 - f. Springs;
 - g. Water from crawl space pumps;
 - h. Footing drains;
 - i. Air conditioning condensation;
 - j. Flows from riparian habitats and wetlands;
 - k. Water line flushing;
 - l. Landscape irrigation;
 - m. Discharges from potable water sources not subject to NPDES Permit No. CAG679001, other than water main breaks;
 - n. Irrigation water;
 - o. Lawn watering;
 - p. Individual residential car washing; and
 - q. Dechlorinated swimming pool discharges.
3. Emergency fire fighting flows (i.e., flows necessary for the protection of life or property) do not require BMPs and need not be prohibited. As part of the Jurisdictional Urban Runoff Management Plan (JURMP), each Copermittee shall develop and implement a program to reduce pollutants from non-emergency fire fighting flows (i.e., flows from controlled or practice blazes and maintenance activities) identified by the Copermittee to be significant sources of pollutants to waters of the United States.
4. Each Copermittee shall examine all dry weather field screening and analytical monitoring results collected in accordance with section D.4 of this Order and Receiving Waters Monitoring and Reporting Program No. R9-2006-11 to identify water quality problems which may be the result of any non-prohibited discharge category(ies) identified above in section B.2. Follow-up investigations shall be conducted as necessary to identify and control any non-prohibited discharge category(ies) listed above.

C. LEGAL AUTHORITY

1. Each Copermittee shall establish, maintain, and enforce adequate legal authority to control pollutant discharges into and from its MS4 through ordinance, statute, permit, contract or similar means. This legal authority must, at a minimum, authorize the Copermittee to:
 - a. Control the contribution of pollutants in discharges of runoff associated with industrial and construction activity to its MS4 and control the quality of runoff from

industrial and construction sites. This requirement applies both to industrial and construction sites which have coverage under the statewide general industrial or construction storm water permits, as well as to those sites which do not. Grading ordinances shall be upgraded and enforced as necessary to comply with this Order.

- b. Prohibit all identified illicit discharges not otherwise allowed pursuant to section B.2 including but not limited to:
 - (1) Sewage;
 - (2) Discharges of wash water resulting from the hosing or cleaning of gas stations, auto repair garages, or other types of automotive services facilities;
 - (3) Discharges resulting from the cleaning, repair, or maintenance of any type of equipment, machinery, or facility including motor vehicles, cement-related equipment, and port-a-potty servicing, etc.;
 - (4) Discharges of wash water from mobile operations such as mobile automobile washing, steam cleaning, power washing, and carpet cleaning, etc.;
 - (5) Discharges of wash water from the cleaning or hosing of impervious surfaces in municipal, industrial, commercial, and residential areas including parking lots, streets, sidewalks, driveways, patios, plazas, work yards and outdoor eating or drinking areas, etc.;
 - (6) Discharges of runoff from material storage areas containing chemicals, fuels, grease, oil, or other hazardous materials;
 - (7) Discharges of pool or fountain water containing chlorine, biocides, or other chemicals; discharges of pool or fountain filter backwash water;
 - (8) Discharges of sediment, pet waste, vegetation clippings, or other landscape or construction-related wastes; and
 - (9) Discharges of food-related wastes (e.g., grease, fish processing, and restaurant kitchen mat and trash bin wash water, etc.).
- c. Prohibit and eliminate illicit connections to the MS4;
- d. Control the discharge of spills, dumping, or disposal of materials other than storm water to its MS4;
- e. Require compliance with conditions in Copermittee ordinances, permits, contracts or orders (i.e., hold dischargers to its MS4 accountable for their contributions of pollutants and flows);
- f. Utilize enforcement mechanisms to require compliance with Copermittee storm water ordinances, permits, contracts, or orders;
- g. Control the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements among Copermittees. Control of the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements with other owners of the MS4 such as Caltrans, the Department of Defense, or Native American Tribes is encouraged;
- h. Carry out all inspections, surveillance, and monitoring necessary to determine compliance and noncompliance with local ordinances and permits and with this Order, including the prohibition on illicit discharges to the MS4. This means the Copermittee must have authority to enter, monitor, inspect, take measurements, review and copy records, and require regular reports from industrial facilities

discharging into its MS4, including construction sites;

- i. Require the use of BMPs to prevent or reduce the discharge of pollutants into MS4s to the MEP; and
 - j. Require documentation on the effectiveness of BMPs implemented to reduce the discharge of pollutants to the MS4 to the MEP.
2. Each Permittee shall include as part of its JURMP a statement certified by its chief legal counsel that the Copermittee has taken the necessary steps to obtain and maintain full legal authority to implement and enforce each of the requirements contained in 40 CFR 122.26(d)(2)(i)(A-F) and this Order. This statement shall include:
- a. Identification of all departments within the jurisdiction that conduct urban runoff related activities, and their roles and responsibilities under this Order. Include an up to date organizational chart specifying these departments and key personnel.
 - b. Citation of urban runoff related ordinances and the reasons they are enforceable;
 - c. Identification of the local administrative and legal procedures available to mandate compliance with urban runoff related ordinances and therefore with the conditions of this Order;
 - d. A finding of adequacy of enforcement tools to ensure compliance with this Order;
 - e. A description of how urban runoff related ordinances are implemented and appealed; and
 - f. Description of whether the municipality can issue administrative orders and injunctions or if it must go through the court system for enforcement actions.

D. JURISDICTIONAL URBAN RUNOFF MANAGEMENT PROGRAM

Each Copermittee shall fully implement all requirements of section D of this Order no later than July 1, 2007, unless otherwise specified in this Order. Prior to July 1, 2007, each Copermittee shall at a minimum fully implement its Jurisdictional URMP document, as the document was developed to comply with the requirements of Order No. 2001-01.

Each Copermittee shall develop and implement an updated Jurisdictional Urban Runoff Management Program for its jurisdiction. Each updated Jurisdictional Urban Runoff Management Program shall meet the requirements of section D of this Order, reduce the discharge of pollutants to the MEP, and ensure that urban runoff discharges do not cause or contribute to a violation of water quality standards.

1. Development Planning Component

Each Copermittee shall implement a program which meets the requirements of this section and (1) reduces the discharge of pollutants from Development Projects to the MEP, (2) ensures urban runoff discharges from Development Projects do not cause or contribute to a violation of water quality standards, and (3) controls urban runoff discharges from Development Projects that have the potential to cause increased erosion of stream beds and banks, silt pollutant generation, or other impacts to beneficial uses and

stream habitat due to increased erosive force.

a. GENERAL PLAN

Each Copermittee shall revise as needed its General Plan or equivalent plan (e.g., Comprehensive, Master, or Community Plan) for the purpose of providing effective water quality and watershed protection principles and policies that direct land-use decisions and require implementation of consistent water quality protection measures for Development Projects.

b. ENVIRONMENTAL REVIEW PROCESS

Each Copermittee shall revise as needed their current environmental review processes to accurately evaluate water quality impacts and cumulative impacts and identify appropriate measures to avoid, minimize and mitigate those impacts for all Development Projects.

c. APPROVAL PROCESS CRITERIA AND REQUIREMENTS FOR ALL DEVELOPMENT PROJECTS

For all proposed Development Projects, each Copermittee during the planning process and prior to project approval and issuance of local permits shall prescribe the necessary requirements to ensure that the discharge of pollutants from the Development Projects will be reduced to the MEP, will not cause or contribute to a violation of water quality standards, and will comply with Copermittee's ordinances, permits, plans, and requirements, and with this Order. The requirements shall include, but not be limited to, implementation by the project proponent of the following:

- (1) Applicable and effective pollution prevention BMPs;
- (2) Source control BMPs that reduce storm water pollutants of concern in urban runoff, including storm drain system stenciling and signage, properly designed outdoor material storage areas, properly designed trash storage areas, and implementation of efficient irrigation systems;
- (3) Site design BMPs where feasible which maximize infiltration, provide retention, slow runoff, minimize impervious footprint, direct runoff from impervious areas into landscaping, and construct impervious surfaces to minimum widths necessary;
- (4) Buffer zones for natural water bodies, where feasible. Where buffer zones are infeasible, require project proponent to implement other buffers such as trees, access restrictions, etc.;
- (5) Measures to ensure grading or other construction activities meet the provisions specified in section D.2 of this Order; and
- (6) Submittal of proof of a mechanism which will ensure ongoing long-term maintenance of all structural post-construction BMPs.

d. STANDARD URBAN STORM WATER MITIGATION PLANS (SUSMPs) – APPROVAL PROCESS CRITERIA AND REQUIREMENTS FOR PRIORITY DEVELOPMENT PROJECTS

Each Copermittee shall implement an updated local SUSMP which meets the requirements of section D.1.d of this Order and (1) reduces the discharge of pollutants from Development Projects to the MEP, (2) ensures urban runoff

discharges from Development Projects do not cause or contribute to a violation of water quality standards, and (3) controls urban runoff discharges from Development Projects that have the potential to cause increased erosion of stream beds and banks, silt pollutant generation, or other impacts to beneficial uses and stream habitat due to increased erosive force.

(1) Definition of Priority Development Project

Priority Development Projects are: a) all new Development Projects, and b) those redevelopment projects that create, add or replace at least 5,000 square feet of impervious surfaces on an already developed site, that fall under the project categories or locations listed in section D.1.d.(2). Where redevelopment results in an increase of less than fifty percent of the impervious surfaces of a previously existing development, and the existing development was not subject to SUSMP requirements, the numeric sizing criteria discussed in section D.1.d.(6)(c) applies only to the addition, and not to the entire development. Where redevelopment results in an increase of more than fifty percent of the impervious surfaces of a previously existing development, the numeric sizing criteria applies to the entire development. Where a project feature, such as a parking lot, falls into a Priority Development Project Category, the entire project footprint is subject to SUSMP requirements.

(2) Priority Development Project Categories

- (a) Housing subdivisions of 10 or more dwelling units. This category includes single-family homes, multi-family homes, condominiums, and apartments.
- (b) Commercial developments greater than 100,000 square feet. This category is defined as any development on private land that is not for heavy industrial or residential uses where the land area for development is greater than 100,000 square feet. The category includes, but is not limited to: hospitals; laboratories and other medical facilities; educational institutions; recreational facilities; municipal facilities; commercial nurseries; multi-apartment buildings; car wash facilities; mini-malls and other business complexes; shopping malls; hotels; office buildings; public warehouses; automotive dealerships; airfields; and other light industrial facilities.
- (c) Automotive repair shops. This category is defined as a facility that is categorized in any one of the following Standard Industrial Classification (SIC) codes: 5013, 5014, 5541, 7532-7534, or 7536-7539.
- (d) Restaurants. This category is defined as a facility that sells prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption (SIC code 5812), where the land area for development is greater than 5,000 square feet. Restaurants where land development is less than 5,000 square feet shall meet all SUSMP requirements except for structural treatment BMP and numeric sizing criteria requirement D.1.d.(6)(c) and hydromodification requirement D.1.d.(14).
- (e) All hillside development greater than 5,000 square feet. This category is defined as any development which creates 5,000 square feet of impervious surface which is located in an area with known erosive soil conditions, where the development will grade on any natural slope that is twenty-five percent or greater.

- (f) Environmentally Sensitive Areas (ESAs). All development located within or directly adjacent to or discharging directly to an ESA (where discharges from the development or redevelopment will enter receiving waters within the ESA), which either creates 2,500 square feet of impervious surface on a proposed project site or increases the area of imperviousness of a proposed project site to 10% or more of its naturally occurring condition. "Directly adjacent" means situated within 200 feet of the ESA. "Discharging directly to" means outflow from a drainage conveyance system that is composed entirely of flows from the subject development or redevelopment site, and not commingled with flows from adjacent lands.
- (g) Parking lots 5,000 square feet or more or with 15 or more parking spaces and potentially exposed to urban runoff. Parking lot is defined as a land area or facility for the temporary parking or storage of motor vehicles used personally, for business, or for commerce.
- (h) Street, roads, highways, and freeways. This category includes any paved surface that is 5,000 square feet or greater used for the transportation of automobiles, trucks, motorcycles, and other vehicles.
- (i) Retail Gasoline Outlets (RGOs). This category includes RGOs that meet the following criteria: (a) 5,000 square feet or more or (b) a projected Average Daily Traffic (ADT) of 100 or more vehicles per day.

(3) Pollutants of Concern

As part of its local SUSMP, each Copermittee shall develop and implement a procedure for pollutants of concern to be identified for each Priority Development Project. The procedure shall address, at a minimum: (1) Receiving water quality (including pollutants for which receiving waters are listed as impaired under CWA section 303(d)); (2) Land use type of the Development Project and pollutants associated with that land use type; and (3) Pollutants expected to be present on site.

(4) Site Design BMP Requirements

Each Copermittee shall require each Priority Development Project to meet the following site design BMP requirements:

- (a) Implement at least one site design BMP from the following list (Priority Development Projects with no landscaping or low traffic areas can be exempt from this requirement):
 - i. Drain a portion of rooftops into pervious areas prior to discharge to the MS4.
 - ii. Drain a portion of impervious sidewalks, walkways, trails, or patios into pervious areas prior to discharge to the MS4.
 - iii. Construct a portion of walkways, trails, overflow parking lots, alleys, or other low-traffic areas with permeable surfaces, such as pervious concrete, porous asphalt, unit pavers, and granular materials.
- (b) Implement at least one site design BMP from the following list:
 - i. Conserve natural areas.
 - ii. Construct streets, sidewalks, or parking lot aisles to the minimum widths necessary, provided that public safety and a walkable environment for pedestrians are not compromised.

iii. Minimize the impervious footprint of the project.

- (c) Implement all site design BMPs from the above lists in sections D.1.d.(4)(a) and D.1.d.(4)(b) where determined to be applicable and feasible by the Copermittee.

(5) Source Control BMP Requirements

Each Copermittee shall require each Priority Development Project to implement source control BMPs. The source control BMPs to be required shall:

- (a) Minimize storm water pollutants of concern in urban runoff.
- (b) Include storm drain system stenciling and signage.
- (c) Include properly designed outdoor material storage areas.
- (d) Include properly designed trash storage areas.
- (e) Include efficient irrigation systems.
- (f) Include water quality requirements applicable to individual priority project categories.

(6) Treatment Control BMP Requirements

Each Copermittee shall require each Priority Development Project to implement treatment control BMPs which meet the following treatment control BMP requirements:

- (a) Treatment control BMPs for all Priority Development Projects shall mitigate (infiltrate, filter, or treat) the required volume or flow of runoff (identified in section D.1.d.(6)(c)) from all developed portions of the project, including landscaped areas.
- (b) All treatment control BMPs shall be located so as to infiltrate, filter, or treat the required runoff volume or flow prior to its discharge to any waters of the U.S. Multiple Priority Development Projects may use shared treatment control BMPs as long as construction of any shared treatment control BMPs is completed prior to the use or occupation of any Priority Development Project from which the treatment control BMP will receive runoff.
- (c) All treatment control BMPs for a single Priority Development Project shall collectively be sized to comply with the following numeric sizing criteria:
 - i. Volume-based treatment control BMPs shall be designed to mitigate (infiltrate, filter, or treat) the volume of runoff produced from a 24-hour 85th percentile storm event, as determined from the County of San Diego's 85th Percentile Precipitation Isopluvial Map; or
 - ii. Flow-based treatment control BMPs shall be designed to mitigate (infiltrate, filter, or treat) either: a) the maximum flow rate of runoff produced from a rainfall intensity of 0.2 inch of rainfall per hour, for each hour of a storm event; or b) the maximum flow rate of runoff produced by the 85th percentile hourly rainfall intensity (for each hour of a storm event), as determined from the local historical rainfall record,

multiplied by a factor of two.

- (d) All treatment control BMPs for Priority Development Projects shall, at a minimum:
- i. Be ranked with a high or medium removal efficiency in the Copermittees' Model SUSMP which was approved by the Regional Board. Treatment control BMPs with a low removal efficiency ranking shall only be approved by a Copermittee when a feasibility analysis has been conducted which exhibits that implementation of treatment control BMPs with high or medium removal efficiency rankings are infeasible for a Priority Development Project or portion of a Priority Development Project.
 - ii. Be correctly sized and designed so as to remove pollutants to the MEP.
 - iii. Target removal of pollutants of concern from urban runoff.
 - iv. Be implemented close to pollutant sources (where shared BMPs are not proposed), and prior to discharging into waters of the U.S.
 - v. Not be constructed within a receiving water.
 - vi. Include proof of a mechanism, to be provided by the project proponent or Copermittee, which will ensure ongoing long-term maintenance.
 - vii. Ensure that post-development runoff does not contain pollutant loads which cause or contribute to a violation of water quality standards or which have not been reduced to the MEP.

(7) Site Design BMP Substitution Program

The Copermittees may develop a site design BMP substitution program for incorporation into local SUSMPs, which would allow a Priority Development Project to substitute implementation of a high level of site design BMPs for implementation of some or all treatment control BMPs. At a minimum, the program must meet the requirements below:

- (a) Prior to implementation, the program must clearly exhibit that it will achieve equal or better runoff quality from each Priority Development Project which participates in the program.
- (b) For each Priority Development Project participating, the program must require all applicable source control BMPs listed in section D.1.d.(5) to be implemented.
- (c) For each Priority Development Project participating, the program must require that runoff originating from exposed impervious parking areas, work areas, storage areas, staging areas, trash areas, and other similar areas where pollutants are generated and/or collected, must be routed through pervious areas prior to entering the MS4.
- (d) For each Priority Development Project participating, the program must require that all site design BMPs listed in section D.1.d.(4) be implemented.
- (e) The program shall only apply to Priority Development Projects and Priority Development Project categories with a relatively low potential to generate high levels of pollutants. The program shall not apply to the automotive repair shops or streets, roads, highways, or freeways Priority Development Project Categories.
- (f) The program must develop and utilize specific design criteria for each site design BMP to be utilized by the program.

- (g) The program must ensure that each Priority Development Project participating in the program is in compliance with all applicable SUSMP requirements.
- (h) The program must develop and implement a review process which ensures that each site design BMP to be implemented meets the designated design criteria. The review process must also ensure that each Priority Development Project participating in the program is in compliance with all applicable SUSMP requirements.

(8) Treatment Control BMP Design Standards

As part of its local SUSMP, each Copermittee shall develop and require Priority Development Projects to implement siting, design, and maintenance criteria for each treatment control BMP listed in its local SUSMP to ensure that implemented treatment control BMPs are constructed correctly and are effective at pollutant removal and runoff control. Development of BMP design worksheets which can be used by project proponents is encouraged.

(9) Implementation Process

As part of its local SUSMP, each Copermittee shall implement a process to ensure compliance with SUSMP requirements. The process shall identify at what point in the planning process Priority Development Projects will be required to meet SUSMP requirements. The process shall also include identification of the roles and responsibilities of various municipal departments in implementing the SUSMP requirements, as well as any other measures necessary for the implementation of SUSMP requirements.

(10) Downstream Erosion

As part of its local SUSMP, each Copermittee shall develop and apply criteria to Priority Development Projects to ensure that runoff discharge rates, durations, and velocities from Priority Development Projects are controlled to maintain or reduce downstream erosion conditions and protect stream habitat. Upon adoption of the Hydromodification Management Plan (HMP) by the Regional Board (section D.1.g), individual Copermittee criteria for control of downstream erosion shall be superseded by criteria identified in the HMP.

(11) Waiver Provision

- (a) A Copermittee may provide for a project to be waived from the requirement of implementing treatment BMPs (section D.1.d.(6)) if infeasibility can be established. A waiver of infeasibility shall only be granted by a Copermittee when all available treatment BMPs have been considered and rejected as infeasible. Copermittees shall notify the Regional Board within 5 days of each waiver issued and shall include the following information in the notification:
 - i. Name of the person granting each waiver;
 - ii. Name of developer receiving the waiver;
 - iii. Site location;
 - iv. Reason for waiver; and

v. Description of BMPs required.

- (b) The Copermittees may collectively or individually develop a program to require project proponents who have received waivers to transfer the savings in cost, as determined by the Copermittee(s), to a storm water mitigation fund. This program may be implemented by all Copermittees that issue waivers. Funds may be used on projects to improve urban runoff quality within the watershed of the waived project. The waiver mitigation program should, at a minimum, identify:
- i. The entity or entities that will manage the storm water mitigation fund (i.e., assume full responsibility for);
 - ii. The range and types of acceptable projects for which mitigation funds may be expended;
 - iii. The entity or entities that will assume full responsibility for each mitigation project including its successful completion; and
 - iv. How the dollar amount of fund contributions will be determined.

(12) Infiltration and Groundwater Protection

To protect groundwater quality, each Copermittee shall apply restrictions to the use of treatment control BMPs that are designed to primarily function as infiltration devices (such as infiltration trenches and infiltration basins). Such restrictions shall ensure that the use of such infiltration treatment control BMPs shall not cause or contribute to an exceedance of groundwater quality objectives. At a minimum, use of treatment control BMPs that are designed to primarily function as infiltration devices shall meet the conditions below. The Copermittees may collectively or individually develop alternative restrictions on the use of treatment control BMPs which are designed to primarily function as infiltration devices.

- (a) Urban runoff shall undergo pretreatment such as sedimentation or filtration prior to infiltration;
- (b) All dry weather flows containing significant pollutant loads shall be diverted from infiltration devices;
- (c) Pollution prevention and source control BMPs shall be implemented at a level appropriate to protect groundwater quality at sites where infiltration treatment control BMPs are to be used;
- (d) Infiltration treatment control BMPs shall be adequately maintained so that they remove pollutants to the MEP;
- (e) The vertical distance from the base of any infiltration treatment control BMP to the seasonal high groundwater mark shall be at least 10 feet. Where groundwater basins do not support beneficial uses, this vertical distance criteria may be reduced, provided groundwater quality is maintained;
- (f) The soil through which infiltration is to occur shall have physical and chemical characteristics (such as appropriate cation exchange capacity, organic content, clay content, and infiltration rate) which are adequate for proper infiltration durations and treatment of urban runoff for the protection of groundwater beneficial uses;
- (g) Infiltration treatment control BMPs shall not be used for areas of industrial or light industrial activity; areas subject to high vehicular traffic (25,000 or greater average daily traffic on main roadway or 15,000 or more average

- daily traffic on any intersecting roadway); automotive repair shops; car washes; fleet storage areas (bus, truck, etc.); nurseries; and other high threat to water quality land uses and activities as designated by each Permittee; and
- (h) Infiltration treatment control BMPs shall be located a minimum of 100 feet horizontally from any water supply wells.

e. TREATMENT CONTROL BMP MAINTENANCE TRACKING

- (1) Each Copermittee shall develop and utilize a watershed-based database to track and inventory approved treatment control BMPs and treatment control BMP maintenance within its jurisdiction. At a minimum, the database shall include information on treatment control BMP type, location, watershed, date of construction, party responsible for maintenance, maintenance certifications or verifications, inspections, inspection findings, and corrective actions.
- (2) Each Copermittee shall develop and implement a program to ensure that approved treatment control BMPs are operating effectively and have been adequately maintained. At a minimum, the program shall include the following:
- (a) An annual inventory of all approved treatment control BMPs within the Copermittee's jurisdiction. The inventory shall also include all treatment control BMPs approved during the previous permit cycle.
- (b) The prioritization of all projects with approved treatment control BMPs into high, medium, and low priority categories. At a minimum, projects with drainage insert treatment control BMPs shall be designated as at least a medium priority. Prioritization of other projects with treatment control BMPs shall include consideration of treatment control BMP size, recommended maintenance frequency, likelihood of operational and maintenance issues, location, receiving water quality, and other pertinent factors.
- (c) Projects with treatment control BMPs that are high priority shall be inspected by the Copermittee annually. Projects with treatment control BMPs that are medium priority shall be inspected by the Copermittee every other year. Projects with treatment control BMPs that are low priority shall be inspected once during the five year permit cycle. All inspections shall ensure effective operation and maintenance of the treatment control BMPs, as well as compliance with all ordinances, permits, and this Order. At least 20% of the projects within a jurisdiction with approved treatment BMPs shall be inspected annually.
- (d) Requirement of annual verification of effective operation and maintenance of each approved treatment control BMP by the party responsible for the treatment control BMP maintenance.
- (3) Operation and maintenance verifications and inspections shall be required and conducted prior to each rainy season.

f. BMP VERIFICATION

Prior to occupancy of each Priority Development Project subject to SUSMP requirements, each Copermittee shall inspect the constructed site design, source control, and treatment control BMPs to verify that they have been constructed in compliance with all specifications, plans, permits, ordinances, and this Order. This

initial BMP verification inspection does not constitute an operation and maintenance inspection, as required above in section D.1.e.(2)(c).

g. HYDROMODIFICATION - LIMITATIONS ON INCREASES OF RUNOFF DISCHARGE RATES AND DURATIONS

Each Copermittee shall collaborate with the other Copermittees to develop and implement a Hydromodification Management Plan (HMP) to manage increases in runoff discharge rates and durations from all Priority Development Projects, where such increased rates and durations are likely to cause increased erosion of channel beds and banks, sediment pollutant generation, or other impacts to beneficial uses and stream habitat due to increased erosive force. The HMP, once approved by the Regional Board, shall be incorporated into the local SUSMP and implemented by each Copermittee so that post-project runoff discharge rates and durations shall not exceed estimated pre-project discharge rates and durations where the increased discharge rates and durations will result in increased potential for erosion or other significant adverse impacts to beneficial uses, attributable to changes in the amount and timing of runoff.

(1) The HMP shall:

- (a) Identify an Erosion Potential (E_p) standard for channel segments which receive urban runoff discharges from Priority Development Projects. The stream E_p standard shall maintain the pre-development flow energy, sediment transport, and erosion characteristics of channel segments receiving urban runoff discharges from Priority Development Projects and prevent the channel segments from becoming unstable.
- (b) Require that the E_p for channel segments receiving urban runoff from Priority Development Projects is maintained at a value close to 1.
- (c) Utilize continuous simulation of the entire rainfall record to identify a range of rainfall events for which Priority Development Project post-development runoff rates and durations shall not exceed pre-development runoff rates and durations in order to achieve the channel E_p standard. The lower boundary of the range of rainfall events identified shall correspond with the critical channel flow (Q_c) that produces the critical shear stress that initiates channel bed movement or that erodes the toe of channel banks. The identified range of rainfall events may be different for specific watersheds, channels, or channel reaches.
- (d) Require Priority Development Projects to implement hydrologic control measures to (1) ensure that Priority Development Project's urban runoff discharge rates and durations do not exceed pre-development runoff rates and durations for the range of rainfall events identified under section D.1.g.(1)(c), and (2) do not result in a channel E_p which exceeds the channel E_p standard developed under sections D.1.g.(1)(a) and D.1.g.(1)(b) for channel segments downstream of Priority Development Project discharge points.
- (e) Include other performance criteria (numeric or otherwise) for Priority Development Projects as necessary to prevent urban runoff from the projects from increasing erosion of channel beds and banks, silt pollutant generation, or other impacts to beneficial uses and stream habitat due to increased erosive force.
- (f) Include a review of pertinent literature.

- (g) Include a protocol to evaluate potential hydrograph change impacts to downstream watercourses from Priority Development Projects.
 - (h) Include a description of how the Copermittees will incorporate the HMP requirements into their local approval processes.
 - (i) Include criteria on selection and design of management practices and measures (such as detention, retention, and infiltration) to control flow rates and durations and address potential hydromodification impacts.
 - (j) Include technical information supporting any standards and criteria proposed.
 - (k) Include a description of inspections and maintenance to be conducted for management practices and measures to control flow rates and durations and address potential hydromodification impacts.
 - (l) Include a description of pre- and post-project monitoring and other program evaluations to be conducted to assess the effectiveness of implementation of the HMP.
 - (m) Include mechanisms for addressing cumulative impacts within a watershed on channel morphology.
 - (n) Include information on evaluation of channel form and condition, including slope, discharge, vegetation, underlying geology, and other information, as appropriate.
- (2) The HMP may include implementation of planning measures (e.g., buffers and restoration activities, including revegetation, use of less-impacting facilities at the point(s) of discharge, etc.) to allow expected changes in stream channel cross sections, vegetation, and discharge rates, velocities, and/or durations without adverse impacts to channel beneficial uses. Such measures shall not include utilization of non-natural hardscape materials such as concrete, riprap, gabions, etc.
- (3) Section D.1.g.(1)(d) does not apply to Priority Development Projects where the project discharges stormwater runoff into channels or storm drains where the potential for erosion or other impacts to beneficial uses is minimal. Such situations may include discharges into channels that are concrete-lined or significantly hardened (e.g., with rip-rap, sackrete, etc.) downstream to their outfall in bays or the ocean, underground storm drains discharging to bays or the ocean, and construction of projects in highly impervious (e.g., >70%) watersheds, where the potential for single-project and/or cumulative impacts is minimal. Specific criteria for identification of such situations shall be included as a part of the HMP. However, plans to restore a channel reach may re-introduce the applicability of HMP controls, and would need to be addressed in the HMP.

(4) HMP Reporting

The Copermittees shall collaborate to report on HMP development as required in section J.1.4 of this Order.

(5) HMP Implementation

180 days after adoption of the HMP by the Regional Board, each Copermittee shall incorporate into its local SUSMP and fully implement the HMP for all applicable Priority Development Projects. Prior to approval of the HMP by the

Regional Board, the early implementation of measures likely to be included in the HMP shall be encouraged by the Copermittees.

(6) Interim Standards for Projects Disturbing 50 Acres or More

Starting July 1, 2007, Copermittees shall implement as part of its local SUSMP an updated review process which requires proponents of Priority Development Projects in this size category to complete a Hydromodification Analysis Study (HAS) which demonstrates that the project's post-development runoff rates and durations shall not exceed estimated pre-project discharge rates and durations where the increased discharge rates and durations will result in increased potential for erosion or other significant adverse impacts to beneficial uses, attributable to changes in the amount and timing of runoff. The Copermittees shall require that the HAS must demonstrate that the selected hydrologic controls for the Priority Development Project will maintain an E_p value close to one in natural channels receiving runoff from the Priority Development Project.

h. ENFORCEMENT OF DEVELOPMENT SITES

Each Copermittee shall enforce its storm water ordinance for all Development Projects and at all development sites as necessary to maintain compliance with this Order. Copermittee ordinances or other regulatory mechanisms shall include appropriate and effective sanctions to ensure compliance. Sanctions shall include the following or their equivalent: Non-monetary penalties, fines, bonding requirements, and/or permit or occupancy denials for non-compliance.

2. Construction Component

Each Copermittee shall implement a construction program which meets the requirements of this section, reduces the discharge of pollutants from construction sites to the MEP, and ensures that urban runoff discharges from construction sites do not cause or contribute to a violation of water quality standards.

a. ORDINANCE UPDATE AND APPROVAL PROCESS

- (1) Within 365 days of adoption of this Order, each Copermittee shall review and update its grading ordinances and other ordinances as necessary to achieve full compliance with this Order, including requirements for the implementation of all designated BMPs and other measures.
- (2) Prior to approval and issuance of local construction and grading permits, each Copermittee shall:
 - (a) Require all individual proposed construction sites to implement designated BMPs and other measures to ensure that pollutants discharged from the site will be reduced to the maximum extent practicable and will not cause or contribute to a violation of water quality standards.
 - (b) Prior to permit issuance, require and review the project proponent's storm water management plan to ensure compliance with their grading ordinance, other ordinances, and this Order.
 - (c) Verify that project proponents subject to California's statewide General NPDES Permit for Storm Water Discharges Associated With Construction

Activities, (hereinafter General Construction Permit), have existing coverage under the General Construction Permit.

b. SOURCE IDENTIFICATION

Each Copermittee shall maintain and update monthly a watershed based inventory of all construction sites within its jurisdiction. The use of an automated database system, such as Geographical Information System (GIS) is highly recommended.

c. BMP IMPLEMENTATION

- (1) Each Copermittee shall designate a minimum set of effective BMPs and other effective measures to be implemented at construction sites. The designated minimum set of BMPs shall include, at a minimum:
 - (a) Pollution prevention.
 - (b) Development and implementation of a storm water management plan to ensure pollutants in runoff are reduced to the MEP and will not cause or contribute to a violation of water quality standards.
 - (c) Erosion prevention, to be used as the most important measure for keeping sediment on site during construction, but never as the single method;
 - (d) Sediment controls, to be used as a supplement to erosion prevention for keeping sediment on-site during construction, and never as the single or primary method;
 - (e) Slope stabilization on all inactive slopes during the rainy season and during rain events in the dry season.
 - (f) Slope stabilization on all active slopes during rain events regardless of the season, unless advanced treatment is being implemented downstream of the slope.
 - (g) Minimization of areas that are cleared and graded to only the portion of the site that is necessary for construction;
 - (h) Minimization of exposure time of disturbed soil areas;
 - (i) Minimization of grading during the wet season and correlation of grading with seasonal dry weather periods to the extent feasible.
 - (j) Limitation of grading to a maximum disturbed area as determined by each Copermittee. The Copermittee has the option of temporarily increasing the size of disturbed soil areas by a set amount beyond the maximum, if the individual site is in compliance with applicable storm water regulations and the site has adequate control practices implemented to prevent storm water pollution.
 - (k) Implementation of advanced treatment for sediment at construction sites that are determined by the Copermittee to be a significant threat to water quality. In evaluating the threat to water quality, the following factors shall be considered by the Copermittee: (1) soil erosion potential; (2) the site's slopes; (3) project size and type; (4) sensitivity of receiving water bodies; (5) proximity to receiving water bodies; (6) non-storm water discharges; (7) ineffectiveness of other BMPs; and (8) any other relevant factors.
 - (l) Temporary stabilization and reseeded of disturbed soil areas as rapidly as feasible;
 - (m) Permanent revegetation or landscaping as early as feasible;
 - (n) Preservation of natural hydrologic features where feasible;
 - (o) Preservation of riparian buffers and corridors where feasible;

- (p) Maintenance of all BMPs, until removed; and
 - (q) Retention, reduction, and proper management of all pollutant discharges on site to the MEP standard.
- (2) Each Copermittee shall implement, or require the implementation of, the designated minimum BMPs and any additional measures necessary to comply with this Order at each construction site within its jurisdiction year round. However, BMP implementation requirements can vary based on wet and dry seasons. Dry season BMP implementation must plan for and address rain events that may occur during the dry season.
 - (3) Each Copermittee shall implement, or require implementation of, additional controls for construction sites tributary to CWA section 303(d) water bodies impaired for sediment as necessary to comply with this Order. Each Copermittee shall implement, or require implementation of, additional controls for construction sites within or adjacent to or discharging directly to coastal lagoons or other receiving waters within environmentally sensitive areas (as defined in section Attachment C of this Order) as necessary to comply with this Order.

d. INSPECTION OF CONSTRUCTION SITES

Each Copermittee shall conduct construction site inspections for compliance with its local ordinances (grading, storm water, etc.), permits (construction, grading, etc.), and this Order.

- (1) During the wet season, each Copermittee shall inspect at least biweekly (every two weeks), all construction sites within its jurisdiction meeting the following criteria:
 - (a) All sites 50 acres or more in size and grading will occur during the wet season;
 - (b) All sites 1 acre or more, and tributary to a CWA section 303(d) water body impaired for sediment or within or directly adjacent to or discharging directly to a receiving water within ESA; and
 - (c) Other sites determined by the Copermittees or the Regional Board as a significant threat to water quality. In evaluating threat to water quality, the following factors shall be considered: (1) soil erosion potential; (2) site slope; (3) project size and type; (4) sensitivity of receiving water bodies; (5) proximity to receiving water bodies; (6) non-storm water discharges; (7) past record of non-compliance by the operators of the construction site; and (8) any other relevant factors.
- (2) During the wet season, each Copermittee shall inspect at least monthly, all construction sites with one acre or more of soil disturbance not meeting the criteria specified above in section D.2.d.(1).
- (3) During the wet season, each Copermittee shall inspect as needed, construction sites less than 1 acre in size.
- (4) Each Copermittee shall inspect all construction sites as needed during the dry season.

- (5) Based upon site inspection findings, each Copermittee shall implement all follow-up actions (i.e., reinspection, enforcement) necessary to comply with this Order.
- (6) Inspections of construction sites shall include, but not be limited to:
 - (a) Check for coverage under the General Construction Permit (Notice of Intent (NOI) and/or Waste Discharge Identification No.) during initial inspections;
 - (b) Assessment of compliance with Permittee ordinances and permits related to urban runoff, including the implementation and maintenance of designated minimum BMPs;
 - (c) Assessment of BMP effectiveness;
 - (d) Visual observations for non-storm water discharges, potential illicit connections, and potential discharge of pollutants in storm water runoff;
 - (e) Education and outreach on storm water pollution prevention, as needed; and
 - (f) Creation of a written record of the inspection.
- (7) The Copermittees shall track the number of inspections for the inventoried construction sites throughout the reporting period to ensure that the sites are inspected at the minimum frequencies required.

e. **ENFORCEMENT OF CONSTRUCTION SITES**

Each Copermittee shall develop and implement an escalating enforcement process that achieves prompt and effective corrective actions at construction sites for violations of the Copermittee's water quality protection permit requirements and ordinances. This enforcement process shall include authorizing the Copermittee's construction site inspectors to take immediate enforcement actions when appropriate and necessary. The enforcement process shall include appropriate and effective sanctions such as stop work orders, non-monetary penalties, fines, bonding requirements, and/or permit denials for non-compliance.

f. **REPORTING OF NON-COMPLIANT SITES**

In addition to the notification requirements in section 5(e) of Attachment B, each Copermittee shall notify the Regional Board when the Copermittee issues a stop work order or other high level enforcement to a non-compliant construction site in their jurisdiction.

3. Existing Development Component

a. **MUNICIPAL**

Each Copermittee shall implement a municipal program which meets the requirements of this section, reduces the discharge of pollutants from municipal areas and activities to the MEP, and ensures that urban runoff discharges from municipal areas and activities do not cause or contribute to a violation of water quality standards.

(1) Source Identification

Each Copermittee shall annually update a watershed based inventory of municipal areas and activities. The inventory shall include the name, address (if applicable), and a description of the area/activity, which pollutants are potentially generated by the area/activity, and identification of whether the area/activity is tributary to a CWA section 303(d) water body and generates pollutants for which the water body is impaired. The use of an automated database system, such as Geographical Information System (GIS) is highly recommended when applicable, but not required.

(2) BMP Implementation

- (a) Each Copermittee shall implement effective pollution prevention methods in its municipal program and shall require their use by appropriate municipal departments and personnel, where appropriate.
- (b) Each Copermittee shall designate a minimum set of effective BMPs for all municipal areas and activities. The designated minimum BMPs for municipal areas and activities shall be area or activity specific as appropriate.
- (c) Each Copermittee shall implement, or require the implementation of, the designated minimum BMPs and any additional measures necessary to comply with this Order for each municipal area or activity within its jurisdiction.
- (d) Each Copermittee shall evaluate the feasibility of retrofitting existing structural flood control devices and retrofit where needed.
- (e) Each Copermittee shall implement, or require implementation of, any additional controls for municipal areas and activities tributary to CWA section 303(d) impaired water bodies (where an area or activity generates pollutants for which the water body is impaired) as necessary to comply with this Order. Each Copermittee shall implement, or require implementation of, additional controls for municipal areas and activities within or directly adjacent to or discharging directly to coastal lagoons or other receiving waters within environmentally sensitive areas (as defined in Attachment C of this Order) as necessary to comply with this Order.

(3) Operation and Maintenance of Municipal Separate Storm Sewer System and Structural Controls

- (a) Each Copermittee shall implement a schedule of inspection and maintenance activities to ensure proper operation of all municipal structural treatment controls designed to reduce pollutant discharges to or from its MS4s and related drainage structures.
- (b) Each Copermittee shall implement a schedule of maintenance activities for the MS4. The maintenance activities shall, at a minimum, include:
 - i. Inspection of all Copermittee catch basins and storm drain inlets at least once a year between May 1 and September 30 of each year. If

accumulated waste (e.g. sediment, trash, debris and other pollutants) is visible, the accumulated waste in the catch basin or storm drain shall be cleaned out. Additional cleaning shall be conducted as necessary.

- ii. Inspection of all Copermittee open channels and removal of any observed anthropogenic litter from the open channels at least once a year between May 1 and September 30, with additional inspection and removal as necessary.
- iii. Inspection, maintenance, and cleaning of other portions of the MS4 according to an established prioritized schedule.
- iv. Record keeping of the maintenance and cleaning activities including the overall quantity of waste removed.
- v. Proper disposal of waste removed pursuant to applicable laws.
- vi. Measures to eliminate waste discharges during MS4 maintenance and cleaning activities.

(4) Management of Pesticides, Herbicides, and Fertilizers

The Copermittees shall implement BMPs to reduce the contribution of pollutants associated with the application, storage, and disposal of pesticides, herbicides and fertilizers from municipal areas and activities to MS4s. Important municipal areas and activities include municipal facilities, public rights-of-way, parks, recreational facilities, golf courses, cemeteries, botanical or zoological gardens and exhibits, landscaped areas, etc.

Such BMPs shall include, at a minimum: (1) educational activities, permits, certifications and other measures for municipal applicators and distributors; (2) integrated pest management measures that rely on non-chemical solutions; (3) the use of native vegetation; (4) schedules for irrigation and chemical application; and (5) the collection and proper disposal of unused pesticides, herbicides, and fertilizers.

(5) Sweeping of Municipal Areas

Each Copermittee shall implement a program to sweep municipal roads, streets, highways, and parking facilities. The program shall include the following measures:

- (a) Roads, streets, highways, and parking facilities identified as consistently generating the highest volumes of trash and/or debris shall be swept at least two times per month.
- (b) Roads, streets, highways, and parking facilities identified as consistently generating moderate volumes of trash and/or debris shall be swept at least monthly.
- (c) Roads, streets, highways, and parking facilities identified as generating low volumes of trash and/or debris shall be swept as necessary, but no less than once per year.
- (d) Roads, streets, highways, and parking facilities shall be swept following any special events (festivals, sporting events, etc.) at those locations.

(6) Limit Infiltration From Sanitary Sewer to MS4/Provide Preventive Maintenance of Both

Each Copermittee shall implement controls and measures to limit infiltration of seepage from municipal sanitary sewers to MS4s through thorough, routine preventive maintenance of the MS4. Each Copermittee that operates both a municipal sanitary sewer system and a MS4 shall implement controls and measures to limit infiltration of seepage from the municipal sanitary sewers to the MS4s that shall include overall sanitary sewer and MS4 surveys and thorough, routine preventive maintenance of both.

(7) Inspection of Municipal Areas and Activities

(a) At a minimum, each Copermittee shall inspect the following high priority municipal areas and activities annually:

- i. Roads, Streets, Highways, and Parking Facilities.
- ii. Flood Management Projects and Flood Control Devices.
- iii. Areas and activities tributary to a C WA section 303(d) impaired water body, where an area or activity generates pollutants for which the water body is impaired. Areas and activities within or adjacent to or discharging directly to coastal lagoons or other receiving waters within environmentally sensitive areas (as defined in Attachment C of this Order).
- iv. Municipal Facilities.
 - [1] Active or closed municipal landfills;
 - [2] Publicly owned treatment works (including water and wastewater treatment plants) and sanitary sewage collection systems;
 - [3] Municipal separate storm sewer systems;
 - [4] Solid waste transfer facilities;
 - [5] Land application sites;
 - [6] Corporate yards including maintenance and storage yards for materials, waste, equipment and vehicles; and
 - [7] Household hazardous waste collection facilities.
- v. Municipal airfields.
- vi. Parks and recreation facilities.
- vii. Special event venues following special events (festivals, sporting events, etc.)
- viii. Power washing.
- ix. Other municipal areas and activities that the Copermittee determines may contribute a significant pollutant load to the MS4.

(b) Other municipal areas and activities shall be inspected as needed.

(c) Based upon site inspection findings, each Copermittee shall implement all follow-up actions necessary to comply with this Order

(8) Enforcement of Municipal Areas and Activities

Each Copermittee shall enforce its storm water ordinance for all municipal areas and activities as necessary to maintain compliance with this Order.

b. INDUSTRIAL AND COMMERCIAL

Each Copermittee shall implement an industrial and commercial program which meets the requirements of this section, reduces the discharge of pollutants from industrial and commercial sites/sources to the MEP, and ensures that urban runoff discharges from industrial and commercial sites/sources do not cause or contribute to a violation of water quality standards.

(1) Source Identification

Each Copermittee shall annually update a watershed-based inventory of all industrial and commercial sites/sources within its jurisdiction (regardless of ownership) that could contribute a significant pollutant load to the MS4. The inventory shall include the following minimum information for each industrial and commercial site/source: name; address; pollutants potentially generated by the site/source (and identification of whether the site/source is tributary to a Clean Water Act section 303(d) water body and generates pollutants for which the water body is impaired); and a narrative description including SIC codes which best reflects the principal products or services provided by each facility. The use of an automated database system, such as Geographical Information System (GIS) is highly recommended.

At a minimum, the following sites/sources shall be included in the inventory:

(a) Commercial Sites/Sources:

- i. Automobile repair, maintenance, fueling, or cleaning;
- ii. Airplane repair, maintenance, fueling, or cleaning;
- iii. Boat repair, maintenance, fueling, or cleaning;
- iv. Equipment repair, maintenance, fueling, or cleaning;
- v. Automobile and other vehicle body repair or painting;
- vi. Mobile automobile or other vehicle washing;
- vii. Automobile (or other vehicle) parking lots and storage facilities;
- viii. Retail or wholesale fueling;
- ix. Pest control services;
- x. Eating or drinking establishments, including food markets;
- xi. Mobile carpet, drape or furniture cleaning;
- xii. Cement mixing or cutting;
- xiii. Masonry;
- xiv. Painting and coating;
- xv. Botanical or zoological gardens and exhibits;
- xvi. Landscaping;
- xvii. Nurseries and greenhouses;
- xviii. Golf courses, parks and other recreational areas/facilities;
- xix. Cemeteries;
- xx. Pool and fountain cleaning;
- xxi. Marinas;
- xxii. Port-a-Potty servicing;
- xxiii. Building material retailers and storage;
- xxiv. Animal facilities; and
- xxv. Power washing services.

(b) Industrial Sites/Sources:

- i. Industrial Facilities, as defined at 40 CFR § 122.26(b)(14), including those subject to the General Industrial Permit or other individual NPDES permit;
 - ii. Operating and closed landfills;
 - iii. Facilities subject to SARA Title III; and
 - iv. Hazardous waste treatment, disposal, storage and recovery facilities.
- (c) All other commercial or industrial sites/sources tributary to a CWA Section 303(d) impaired water body, where the site/source generates pollutants for which the water body is impaired. All other commercial or industrial sites/sources within or directly adjacent to or discharging directly to coastal lagoons or other receiving waters within environmentally sensitive areas (as defined in Attachment C of this Order).
- (d) All other commercial or industrial sites/sources that the Copermittee determines may contribute a significant pollutant load to the MS4.

(2) BMP Implementation

- (a) Each Copermittee shall require the use of effective pollution prevention methods by industrial and commercial sites/sources, where appropriate.
- (b) Each Copermittee shall designate a minimum set of effective BMPs for all industrial and commercial sites/sources. The designated minimum BMPs shall be specific to facility types and pollutant generating activities, as appropriate.
- (c) Within the first year of implementation of the updated Jurisdictional Urban Runoff Management Program, each Copermittee shall notify the owner/operator of each inventoried industrial and commercial site/source of the BMP requirements applicable to the site/source.
- (d) Each Copermittee shall implement, or require the implementation of, the designated minimum BMPs and any additional measures necessary to comply with this Order at each industrial and commercial site/source within its jurisdiction.
- (e) Each Copermittee shall implement, or require implementation of, additional controls for industrial and commercial sites/sources tributary to CWA section 303(d) impaired water bodies (where a site/source generates pollutants for which the water body is impaired) as necessary to comply with this Order. Each Copermittee shall implement, or require implementation of, additional controls for industrial and commercial sites/sources within or directly adjacent to or discharging directly to coastal lagoons or other receiving waters within environmentally sensitive areas (as defined in Attachment C of this Order) as necessary to comply with this Order.

(3) Inspection of Industrial and Commercial Sites/Sources

- (a) Each Copermittee shall conduct industrial and commercial site inspections for compliance with its ordinances, permits, and this Order. Inspections shall include but not be limited to:
- i. Review of BMP implementation plans, if the site uses or is required to use such a plan;
 - ii. Review of facility monitoring data, if the site monitors its runoff;
 - iii. Check for coverage under the General Industrial Permit (Notice of Intent (NOI) and/or Waste Discharge Identification No.), if applicable;
 - iv. Assessment of compliance with Copermittee ordinances and permits related to urban runoff;
 - v. Assessment of BMP implementation, maintenance and effectiveness;
 - vi. Visual observations for non-storm water discharges, potential illicit connections, and potential discharge of pollutants in storm water runoff; and
 - vii. Education and outreach on storm water pollution prevention.
- (b) Each Copermittee shall annually inspect all sites determined to pose a high threat to water quality. In evaluating threat to water quality, each Copermittee shall address, at a minimum, the following:
- i. Type of activity (SIC code);
 - ii. Materials used at the facility;
 - iii. Wastes generated;
 - iv. Pollutant discharge potential;
 - v. Non-storm water discharges;
 - vi. Size of facility;
 - vii. Proximity to receiving water bodies;
 - viii. Sensitivity of receiving water bodies;
 - ix. Whether the facility is subject to the General Industrial Permit or an individual NPDES permit;
 - x. Whether the facility has filed a No Exposure Certification/Notice of Non-Applicability;
 - xi. Facility design;
 - xii. Total area of the site, area of the site where industrial or commercial activities occur, and area of the site exposed to rainfall and runoff;
 - xiii. The facility's compliance history; and
 - xiv. Any other relevant factors.
- (c) At a minimum, 40% of the sites inventoried as required in section D.3.b.(1) above (excluding mobile businesses) shall be inspected each year.
- (d) In addition to conducting inspections, each Copermittee shall develop and implement a program for verifying industrial and commercial site/source compliance with its ordinances, permits, and this Order, if determined to be necessary by the Copermittee. In developing the program, each Copermittee shall consider use of:

- i. Compliance certifications (including submitting monitoring results, if applicable);
 - ii. Third party inspections;
 - iii. Facility or industry specific surveys; and
 - iv. Other relevant factors.
- (e) Based upon site inspection findings, each Copermittee shall implement all follow-up actions necessary to comply with this Order.
- (f) To the extent that the Regional Board has conducted an inspection of an industrial site during a particular year, the requirement for the responsible Copermittee to inspect this facility during the same year will be satisfied.
- (g) The Copermittees shall track the number of inspections for the inventoried industrial and commercial sites/sources throughout the reporting period to ensure that the sites/sources are inspected at the minimum frequencies listed in sections D.3.b.(3)(b) and D.3.b.(3)(c).

(4) Regulation of Mobile Businesses

- (a) Each Copermittee shall develop and implement a program to reduce the discharge of pollutants from mobile businesses to the MEP. Each Copermittee shall keep as part of their inventory (section D.3.b.(1) above), a listing of mobile businesses known to operate within its jurisdiction. The program shall include:
- i. Development and implementation of minimum standards and BMPs to be required for each of the various types of mobile businesses.
 - ii. Development and implementation of an enforcement strategy which specifically addresses the unique characteristics of mobile businesses.
 - iii. Notification of those mobile businesses known to operate within the Copermittee's jurisdiction of the minimum standards and BMP requirements and local ordinances.
 - iv. Development and implementation of an outreach and education strategy.
 - v. Inspection of mobile businesses as needed.
- (b) If they choose to, the Copermittees may cooperate in developing and implementing their programs for mobile businesses, including sharing of mobile business inventories, BMP requirements, and education.

(5) Enforcement of Industrial and Commercial Sites/Sources

Each Copermittee shall enforce its storm water ordinance for all industrial and commercial sites/sources as necessary to maintain compliance with this Order. Copermittee ordinances or other regulatory mechanisms shall include appropriate and effective sanctions to ensure compliance. Sanctions shall include the following or their equivalent: Non-monetary penalties, fines, bonding requirements, and/or permit denials for non-compliance.

(6) Reporting of Industrial Non-Filers

As part of each Annual Report, each Copermittee shall report a list of industrial sites, including the name, address, and SIC code, that may require coverage under the General Industrial Permit for which a NOI has not been filed.

c. **RESIDENTIAL**

Each Copermittee shall implement a residential program which meets the requirements of this section, reduces the discharge of pollutants from residential areas and activities to the MEP, and ensures that urban runoff discharges from residential areas and activities do not cause or contribute to a violation of water quality standards.

(1) Threat to Water Quality Prioritization

Each Copermittee shall identify high threat to water quality residential areas and activities. At a minimum, these shall include:

- (a) Automobile repair, maintenance, washing, and parking;
- (b) Home and garden care activities and product use (pesticides, herbicides, and fertilizers);
- (c) Disposal of trash, pet waste, green waste, and household hazardous waste (e.g., paints, cleaning products);
- (d) Any other residential source that the Copermittee determines may contribute a significant pollutant load to the MS4;
- (e) Any residential areas tributary to a CWA section 303(d) impaired water body, where the residence generates pollutants for which the water body is impaired; and
- (f) Any residential areas within or directly adjacent to or discharging directly to a coastal lagoon or other receiving waters within an environmentally sensitive area (as defined in Attachment C of this Order).

(2) BMP Implementation

- (a) Each Copermittee shall designate minimum effective BMPs for high threat to water quality residential areas and activities. The designated minimum BMPs for high threat to water quality municipal areas and activities shall be area or activity specific.
- (b) Each Copermittee shall encourage the use of effective pollution prevention methods by residents, where appropriate.
- (c) Each Copermittee shall facilitate the proper management and disposal of used oil, toxic materials, and other household hazardous wastes. Such facilitation shall include educational activities, public information activities, and establishment of collection sites operated by the Copermittee or a private entity. Curbside collection of household hazardous wastes is encouraged.
- (d) Each Copermittee shall implement, or require implementation of, the designated minimum BMPs and any additional measures necessary to comply with this Order for high threat to water quality residential areas and

activities.

- (e) Each Copermittee shall implement, or require implementation of, BMPs for residential areas and activities that have not been designated a high threat to water quality, as necessary.
- (f) Each Copermittee shall implement, or require implementation of, any additional controls for residential areas and activities tributary to CWA section 303(d) impaired water bodies (where a residential area or activity generates pollutants for which the water body is impaired) as necessary to comply with this Order. Each Copermittee shall implement, or require implementation of, additional controls for residential areas within or directly adjacent to or discharging directly to coastal lagoons or other receiving waters within environmentally sensitive areas (as defined in section Attachment C of this Order) as necessary to comply with this Order.

(3) Enforcement of Residential Areas and Activities

Each Copermittee shall enforce its storm water ordinance for all residential areas and activities as necessary to maintain compliance with this Order.

(4) Regional Residential Education Program

Each Copermittee shall collaborate with the other Copermittees to develop and implement the Regional Residential Education Program required in section F.7 of this Order.

4. Illicit Discharge Detection and Elimination Component

Each Copermittee shall implement an Illicit Discharge Detection and Elimination program which meets the requirements of this section and actively seeks and eliminates illicit discharges and connections.

a. ILLICIT DISCHARGES AND CONNECTIONS

Each Copermittee shall implement a program to actively seek and eliminate illicit discharges and connections into its MS4. The program shall include utilization of appropriate municipal personnel to assist in identifying illicit discharges and connections during their daily activities. The program shall address all types of illicit discharges and connections excluding those non-storm water discharges not prohibited by the Copermittee in accordance with section B of this Order.

b. DEVELOP/MAINTAIN MS4 MAP

Each Copermittee shall develop and/or update its labeled map of its entire MS4 and the corresponding drainage areas within its jurisdiction. The use of a GIS is highly recommended. The accuracy of the MS4 map shall be confirmed during dry weather field screening and analytical monitoring and shall be updated at least annually.

c. DRY WEATHER FIELD SCREENING AND ANALYTICAL MONITORING

Each Copermittee shall conduct dry weather field screening and analytical monitoring of MS4 outfalls and other portions of its MS4 within its jurisdiction to detect illicit discharges and connections in accordance with Receiving Waters Monitoring and Reporting Program No. R9-2006-0011.

d. INVESTIGATION/INSPECTION AND FOLLOW-UP

- (1) Each Copermittee shall investigate and inspect any portion of the MS4 that, based on visual observations, dry weather field screening and analytical monitoring results, or other appropriate information, indicates a reasonable potential for illicit discharges, illicit connections, or other sources of non-storm water (including non-prohibited discharge(s) identified in section B of this Order). Each Copermittee shall develop/update and utilize numeric criteria action levels to determine when follow-up investigations will be performed.
- (2) Within 48 hours of receiving dry weather field screening or analytical laboratory results that exceed action levels, the Copermittees shall either conduct an investigation to identify the source of the discharge or provide the rationale for why the discharge does not pose a threat to water quality and does not need further investigation. Obvious illicit discharges (i.e. color, odor, or significant exceedances of action levels) shall be investigated immediately.

e. ELIMINATION OF ILLICIT DISCHARGES AND CONNECTIONS

Each Copermittee shall eliminate all detected illicit discharges, discharge sources, and connections immediately.

f. ENFORCE ORDINANCES

Each Copermittee shall implement and enforce its ordinances, orders, or other legal authority to prevent illicit discharges and connections to its MS4. Each Copermittee shall also implement and enforce its ordinance, orders, or other legal authority to eliminate detected illicit discharges and connections to its MS4.

g. PREVENT AND RESPOND TO SEWAGE SPILLS (INCLUDING FROM PRIVATE LATERALS AND FAILING SEPTIC SYSTEMS) AND OTHER SPILLS

Each Copermittee shall prevent, respond to, contain and clean up all sewage and other spills that may discharge into its MS4 from any source (including private laterals and failing septic systems). Spill response teams shall prevent entry of spills into the MS4 and contamination of surface water, ground water and soil to the maximum extent practicable. Each Copermittee shall coordinate spill prevention, containment and response activities throughout all appropriate departments, programs and agencies to ensure maximum water quality protection at all times.

Each Copermittee shall develop and implement a mechanism whereby it is notified of all sewage spills from private laterals and failing septic systems into its MS4. Each Copermittee shall prevent, respond to, contain and clean up sewage from any such notification.

h. FACILITATE PUBLIC REPORTING OF ILLICIT DISCHARGES AND CONNECTIONS - PUBLIC HOTLINE

Each Copermittee shall promote, publicize and facilitate public reporting of illicit discharges or water quality impacts associated with discharges into or from MS4s. Each Copermittee shall facilitate public reporting through development and operation of a public hotline. Public hotlines can be Copermittee-specific or shared by Copermittees. All storm water hotlines shall be capable of receiving reports in both English and Spanish 24 hours per day / seven days per week. Copermittees shall respond to and resolve each reported incident. All reported incidents, and how each was resolved, shall be summarized in each Copermittee’s individual JURMP Annual Report.

5. Education Component

Each Copermittee shall implement an education program using all media as appropriate to (1) measurably increase the knowledge of the target communities regarding MS4s, impacts of urban runoff on receiving waters, and potential BMP solutions for the target audience; and (2) to measurably change the behavior of target communities and thereby reduce pollutant releases to MS4s and the environment. At a minimum, the education program shall meet the requirements of this section and address the following target communities:

- Municipal Departments and Personnel
- Construction Site Owners and Developers
- Industrial Owners and Operators
- Commercial Owners and Operators
- Residential Community, General Public, and School Children

a. GENERAL REQUIREMENTS

(1) Each Copermittee shall educate each target community on the following topics where appropriate:

Table 3. Education

Laws, Regulations, Permits, & Requirements	Best Management Practices
<ul style="list-style-type: none"> • Federal, state, and local water quality laws and regulations • Statewide General NPDES Permit for Storm Water Discharges Associated with Industrial Activities (Except Construction). • Statewide General NPDES Permit for Storm Water Discharges Associated with Construction Activities • Regional Board’s General NPDES Permit for Ground Water Dewatering • Regional Board’s 401 Water Quality Certification Program • Statewide General NPDES Utility Vault Permit • Requirements of local municipal permits and 	<ul style="list-style-type: none"> • Pollution prevention and safe alternatives • Good housekeeping (e.g., sweeping impervious surfaces instead of hosing) • Proper waste disposal (e.g., garbage, pet/animal waste, green waste, household hazardous materials, appliances, tires, furniture, vehicles, boat/recreational vehicle waste, catch basin/ MS4 cleanout waste) • Non-storm water disposal alternatives (e.g., all wash waters) • Methods to minimized the impact of land development and construction • Erosion prevention • Methods to reduce the impact of residential and

ordinances (e.g., storm water and grading ordinances and permits)	charity car-washing <ul style="list-style-type: none"> • Preventive Maintenance • Equipment/vehicle maintenance and repair • Spill response, containment, and recovery • Recycling • BMP maintenance
General Urban Runoff Concepts	Other Topics
<ul style="list-style-type: none"> • Impacts of urban runoff on receiving waters • Distinction between MS4s and sanitary sewers • BMP types: facility or activity specific, site design, source control, and treatment control • Short- and long-term water quality impacts associated with urbanization (e.g., land-use decisions, development, construction) • Non-storm water discharge prohibitions • How to conduct a storm water inspections 	<ul style="list-style-type: none"> • Public reporting mechanisms • Water quality awareness for Emergency/ First Responders • Illicit Discharge Detection and Elimination observations and follow-up during daily work activities • Potable water discharges to the MS4 • Dechlorination techniques • Hydrostatic testing • Integrated pest management • Benefits of native vegetation • Water conservation • Alternative materials and designs to maintain peak runoff values • Traffic reduction, alternative fuel use

(2) Copermittee educational programs shall emphasize underserved target audiences, high-risk behaviors, and “allowable” behaviors and discharges, including various ethnic and socioeconomic groups and mobile sources.

b. SPECIFIC REQUIREMENTS

(1) Municipal Departments and Personnel Education

(a) Municipal Development Planning – Each Copermittee shall implement an education program to ensure that its planning and development review staffs (and Planning Boards and Elected Officials, if applicable) have an understanding of:

- i. Federal, state, and local water quality laws and regulations applicable to Development Projects;
- ii. The connection between land use decisions and short and long-term water quality impacts (i.e., impacts from land development and urbanization); and
- iii. Methods of minimizing impacts to receiving water quality resulting from development, including:
 - [1] Storm water management plan development and review;
 - [2] Methods to control downstream erosion impacts;
 - [3] Identification of pollutants of concern;
 - [4] Site design BMP techniques;
 - [5] Source control BMPs; and
 - [6] Selection of the most effective treatment control BMPs for the pollutants of concern.

- (b) **Municipal Construction Activities** – Each Copermittee shall implement an education program that includes annual training prior to the rainy season to ensure that its construction, building, code enforcement, and grading review staffs, inspectors, and other responsible construction staff have, at a minimum, an understanding of:
 - i. Federal, state, and local water quality laws and regulations applicable to construction and grading activities.
 - ii. The connection between construction activities and water quality impacts (i.e., impacts from land development and urbanization and impacts from construction material such as sediment).
 - iii. Proper implementation of erosion and sediment control and other BMPs to minimize the impacts to receiving water quality resulting from construction activities.
 - iv. The Copermittee’s inspection, plan review, and enforcement policies and procedures to ensure consistent application.
 - v. Current advancements in BMP technologies.
 - vi. SUSMP Requirements including treatment options, site design, source control, and applicable tracking mechanisms.
- (c) **Municipal Industrial/Commercial Activities** - Each Copermittee shall train staff responsible for conducting inspections and enforcement of industrial and commercial facilities at least once a year. Training shall cover inspection and enforcement procedures, BMP implementation, and reviewing monitoring data.
- (d) **Municipal Other Activities** – Each Copermittee shall implement an education program to ensure that municipal personnel and contractors performing activities which generate pollutants have an understanding of the activity specific BMPs for each activity to be performed.

(2) **New Development and Construction Education**

As early in the planning and development process as possible and all through the permitting and construction process, each Copermittee shall implement a program to educate project applicants, developers, contractors, property owners, community planning groups, and other responsible parties. The education program shall ensure an understanding of the topics listed in Section D.5.b.(1)(b) above and the importance of educating all construction workers in the field about stormwater issues and BMPs through formal or informal training.

(3) **Residential, General Public, and School Children Education**

Each Copermittee shall collaboratively conduct or participate in development and implementation of a plan to educate residential, general public, and school children target communities. The plan shall evaluate use of mass media, mailers, door hangers, booths at public events, classroom education, field trips, hands-on experiences, or other educational methods.

6. Public Participation Component

Each Copermittee shall incorporate a mechanism for public participation in the updating, development, and implementation of the Jurisdictional Urban Runoff Management Program.

E. WATERSHED URBAN RUNOFF MANAGEMENT PROGRAM

1. Each Copermittee shall fully implement all requirements of section E of this Order no later than July 1, 2007, unless otherwise specified in this Order. Prior to July 1, 2007, each Copermittee shall collaborate with the other Copermittees within its watershed(s) to at a minimum fully implement its Watershed URMP document, as the document was developed to comply with the requirements of Order No. 2001-01.
2. Each Copermittee shall collaborate with other Copermittees within its watershed(s) as shown in Table 4 below to develop and implement an updated Watershed Urban Runoff Management Program for each watershed. Each updated Watershed Urban Runoff Management Program shall meet the requirements of section E of this Order, reduce the discharge of pollutants to the MEP, and ensure that urban runoff discharges do not cause or contribute to a violation of water quality standards. Each Watershed Urban Runoff Management Program shall, at a minimum:
 - a. Identify the Lead Watershed Permittee for each watershed. In the event that a Lead Watershed Permittee is not selected and identified by the Copermittees, by default the Copermittee identified in Table 4 as the Lead Watershed Permittee for that watershed shall be responsible for implementing the requirements of the Lead Watershed Permittee in that watershed.
 - b. Develop an updated accurate map of the watershed (preferably in Geographical Information System (GIS) format) that identifies all receiving waters (including the Pacific Ocean); all Clean Water Act section 303(d) impaired receiving waters (including the Pacific Ocean); land uses; MS4s; major highways; jurisdictional boundaries; and inventoried commercial, industrial, and municipal sites.
 - c. Identify all pertinent water quality data that is available or will be available for a watershed. At a minimum, this shall include data from mass loading station monitoring; bioassessment monitoring; coastal storm drain monitoring; ambient bay, lagoon, and coastal receiving water monitoring; toxic hot spots monitoring; special investigations; monitoring resulting from enforcement actions; dry weather analytical monitoring and field screening; toxicity identification evaluations; total maximum daily load (TMDL) monitoring; and other applicable monitoring data from public and private organizations.
 - d. Annually assess and analyze the watershed's water quality data identified under section E.2.c above. The assessment and analysis shall annually identify and prioritize the watershed's water quality problems that are partially or fully attributable to MS4 discharges. Identified priority water quality problems shall include CWA section 303(d) listings, persistent violations of water quality standards, toxicity, impacts to beneficial uses, and other pertinent conditions. From the list of priority water quality problems, the high priority water quality problems of the watershed shall be identified, which shall include those priority water quality

problems which most significantly exceed or impact water quality standards (water quality objectives and beneficial uses).

- e. Identify and annually update the sources, pollutant discharges, and/or other factors causing the high priority water quality problems within the watershed.
- f. Develop and update annually a list of potential short and long-term Watershed Water Quality Activities that will (1) abate the sources of the watershed's high priority water quality problems, and (2) reduce the discharge of pollutants causing the watershed's high priority water quality problems.
- g. Develop and implement a collective strategy to guide Copermittee implementation of Watershed Water Quality Activities and Watershed Education Activities. The strategy shall include criteria for evaluating Watershed Water Quality Activities and Watershed Education Activities and identifying those activities which are likely to be effective in reducing pollutant discharges causing the watershed's high priority water quality problems.
- h. Annually evaluate the pollutant reduction effectiveness of the potential Watershed Water Quality Activities and Watershed Education Activities identified under sections E.2.f and E.2.j using criteria developed under section E.2.g.
- i. Implement Watershed Water Quality Activities as part of the strategy identified under section E.2.g above.
 - (1) Short-term - At a minimum, each Copermittee shall implement two Watershed Water Quality Activities within its portion of each watershed annually. The Watershed Water Quality Activities shall be effective at reducing pollutant discharges causing the watershed's high priority water quality problem(s) as determined by the evaluation conducted under section E.2.h above. If a Copermittee contributes its fair share of resources to a Watershed Water Quality Activity outside of its jurisdiction but within the watershed, the number of Watershed Water Quality Activities required of the Copermittee in that watershed is reduced by one. For each regional activity implemented within a watershed which meets the criteria of the Watershed Water Quality Activity definition, where the Copermittee contributes its fair share of resources to the regional activity, the number of Watershed Water Quality Activities required of the Copermittee in that watershed is reduced by one.
 - (2) Long-term – At a minimum, the watershed Copermittees shall collectively either implement or conduct the planning and studies necessary to implement at least one long-term Watershed Water Quality Activity which cannot be implemented on an annual basis.
- j. Develop and update annually a list of potential Watershed Education Activities that will (1) target the sources of the pollutant discharges causing the watershed's high priority water quality problems, and (2) inform appropriate target audiences of watershed concepts. Each listed Watershed Education Activity shall include a description which discusses how the activity will target sources and reduce pollutant discharges causing the identified high priority water quality problems in the watershed.

- k. Implement Watershed Education Activities as part of the strategy identified under section E.2.g above.
- (1) Source and Pollutant Discharge - At a minimum, each Copermittee shall implement two source and pollutant discharge-based Watershed Education Activities within its portion of each watershed annually. If a Copermittee contributes its fair share of resources to a Watershed Education Activity outside of its jurisdiction but within its watershed, the number of Watershed Education Activities required of the Copermittee in that watershed is reduced by one. For each regional education activity implemented within a watershed, where the Copermittee contributes its fair share of resources to the regional education activity, the number of Watershed Education Activities required of the Copermittee in that watershed is reduced by one.
 - (2) Watershed Concept - At a minimum, the watershed Copermittees shall collectively conduct watershed concept-based Watershed Education Activities which inform appropriate target audiences of watershed concepts.
- l. Implement a watershed-specific public participation mechanism within each watershed. The mechanism shall encourage participation from other organizations within the watershed (such as the Department of Defense, Caltrans, lagoon foundations, etc.)
- m. Include Copermittee collaboration to develop and implement the Watershed Urban Runoff Management Programs. Copermittee collaboration shall include frequent regularly scheduled meetings and implementation of mechanisms to facilitate watershed-based land use planning with other jurisdictions within the watershed.

Table 4. Copermittees by Watershed

RESPONSIBLE COPERMITTEE(S)	WATERSHED URBAN RUNOFF MANAGEMENT PROGRAM	HYDROLOGIC UNIT OR AREA	MAJOR RECEIVING WATER BODIES
1. County of San Diego	Santa Margarita River	Santa Margarita HU (902.00)	Santa Margarita River and Estuary, Pacific Ocean
1. City of Escondido 2. City of Oceanside 3. City of Vista 4. County of San Diego	San Luis Rey River	San Luis Rey HU (903.00)	San Luis Rey River and Estuary, Pacific Ocean
1. City of Carlsbad 2. City of Encinitas 3. City of Escondido 4. City of Oceanside 5. City of San Marcos 6. City of Solana Beach 7. City of Vista 8. County of San Diego	Carlsbad	Carlsbad HU (904.00)	Batiquitos Lagoon San Elijo Lagoon Agua Hedionda Lagoon Buena Vista Lagoon and Tributary Streams Pacific Ocean
1. City of Del Mar 2. City of Escondido 3. City of Poway 4. City of San Diego 5. City of Solana Beach 6. County of San Diego	San Dieguito River	San Dieguito HU (905.00)	San Dieguito River and Estuary Pacific Ocean
1. City of Del Mar 2. City of Poway 3. City of San Diego 4. County of San Diego	Peñasquitos	Miramar Reservoir HA (906.10) Poway HA (906.20)	Los Peñasquitos Creek Los Peñasquitos Lagoon Pacific Ocean

RESPONSIBLE COPERMITTEE(S)	WATERSHED URBAN RUNOFF MANAGEMENT PROGRAM	HYDROLOGIC UNIT OR AREA	MAJOR RECEIVING WATER BODIES
1. City of San Diego	Mission Bay	Scripps HA (906.30) Miramar HA(906.40) Tecolote HA (906.50)	Mission Bay Pacific Ocean
1. City of El Cajon 2. City of La Mesa 3. City of Poway 4. City of San Diego 5. City of Santee 6. County of San Diego	San Diego River	San Diego HU (907.00)	San Diego River Pacific Ocean
1. City of Chula Vista 2. City of Coronado 3. City of Imperial Beach 4. City of La Mesa 5. City of Lemon Grove 6. City of National City 7. City of San Diego 8. County of San Diego 9. San Diego Unified Port District	San Diego Bay	Pueblo San Diego HU (908.00) Sweetwater HU (909.00) Otay HU (910.00)	San Diego Bay Sweetwater River Otay River Pacific Ocean
1. City of Imperial Beach 2. City of San Diego 3. County of San Diego	Tijuana River	Tijuana (911.00)	Tijuana River and Estuary Pacific Ocean

- The Lead Watershed Permittee for each watershed is highlighted

F. REGIONAL URBAN RUNOFF MANAGEMENT PROGRAM

The Copermittees shall fully implement all requirements of section F of this Order no later than July 1, 2007, unless otherwise specified in this Order.

Each Copermittee shall collaborate with the other Copermittees to develop, implement, and update as necessary a Regional Urban Runoff Management Program. The Regional Urban Runoff Management Program shall meet the requirements of section F of this Order, reduce the discharge of pollutants to the MEP, and ensure that urban runoff discharges do not cause or contribute to a violation of water quality standards. The Regional Watershed Urban Runoff Management Program shall, at a minimum:

1. Develop and implement urban runoff management activities on a regional level, as determined to be necessary by the Copermittees.
2. Develop minimum standards for Jurisdictional Urban Runoff Management Program, Watershed Urban Runoff Management Program, and Regional Urban Runoff Management Program implementation and reporting, as determined to be necessary by the Copermittees.
3. Develop and implement a strategy to integrate management, implementation, and reporting of jurisdictional, watershed, and regional activities, as determined to be necessary by the Copermittees. Any such integration shall assure compliance with the jurisdictional requirements of section D and the watershed requirements of section E.
4. Facilitate TMDL management and implementation, as determined to be necessary by the Copermittees.
5. Facilitate the assessment of the effectiveness of jurisdictional, watershed, and regional programs.
6. Facilitate development of strategies for implementation of activities on a watershed level, as determined to be necessary by the Copermittees.
7. Develop and implement a Regional Residential Education Program. The program shall include:

- a. Pollutant specific education which focuses educational efforts on bacteria, nutrients, sediment, pesticides, and trash. If a different pollutant is determined to be more critical for the education program, the pollutant can be substituted for one of these pollutants.
 - b. Education efforts focused on the specific residential sources of the pollutants listed in section F.7.a.
8. Develop the standardized fiscal analysis method required in section G of this Order.

G. FISCAL ANALYSIS

1. Each Copermittee shall secure the resources necessary to meet all requirements of this Order.
2. As part of the Regional Urban Runoff Management Program, the Copermittees shall collectively develop a standardized method and format for annually conducting and reporting fiscal analyses of their urban runoff management programs in their entirety (including jurisdictional, watershed, and regional activities). This standardized method shall:
 - a. Identify the various categories of expenditures attributable to the urban runoff management programs, including a description of the specific items to be accounted for in each category of expenditures.
 - b. Distinguish between expenditures attributable solely to permit compliance and expenditures that contribute to multiple programs or were in existence prior to implementation of the urban runoff management program.
 - c. Identify a metric or metrics to be used to report program component and total program expenditures.
3. Each Copermittee shall conduct its annual fiscal analysis consistent with the standardized fiscal analysis method included in the RURMP. The annual fiscal analysis shall be conducted and reported on as part of each Copermittee's Jurisdictional Urban Runoff Management Program Annual Reports. For convenience, the fiscal analysis included in the Jurisdictional Urban Runoff Management Program Annual Reports shall address the Copermittee's urban runoff management programs in their entirety, including jurisdictional, watershed, and regional activities. The fiscal analysis shall identify the expenditures incurred by the Copermittee over the Annual Report's reporting period. The fiscal analysis shall also provide the Copermittee's urban runoff management program budget for the current reporting period. The fiscal analysis shall include a description of the source(s) of the funds that are proposed to be used to meet the necessary expenditures, including legal restrictions on the use of such funds.

H. TOTAL MAXIMUM DAILY LOADS

1. **Chollas Creek Diazinon TMDL Water Quality Based Effluent Limits (WQBELs)**
 - a. The Copermittees shall implement BMPs capable of achieving the interim and final diazinon Waste Load Allocation (WLA) concentration in the storm water discharge in Chollas Creek listed in Table 5.

Table 5. Chollas Creek Diazinon Schedule

Calendar Year	Year	Waste Load Allocation	Interim TMDL Numeric Target	% Reduction
2004	1	0.460 µg/L	0.5 µg/L	0
2005	2	0.460 µg/L	0.5 µg/L	0
2006	3	0.460 µg/L	0.5 µg/L	0
2007	4	0.414 µg/L	0.45 µg/L	10
2008	5	0.322 µg/L	0.35 µg/L	20
2009	6	0.184 µg/L	0.20 µg/L	30
2010	7	0.045 µg/L	0.05 µg/L	30

- b. The Copermittees shall not cause or contribute to the violation of the Interim TMDL Numeric Targets in Chollas Creek as listed in Table 5. If the Interim TMDL Numeric Target is violated in Chollas Creek in more than one sample in any three consecutive years, the Copermittees shall submit a report that either 1) documents compliance with the WLA through additional sampling of the urban runoff discharge or 2) demonstrates, using modeling or other technical or scientific basis, the effectiveness of additional BMPs that will be implemented to achieve the WLA. The report may be incorporated into the Watershed Urban Runoff Management Program Annual Report unless the Regional Board directs an earlier submittal. The report shall include an implementation schedule.
- c. The Copermittees in the Chollas Creek watershed shall implement the Diazinon Toxicity Control Plan and Diazinon Public Outreach/Education Program as described in the report titled, "Technical Report for Total Maximum Daily Load for Diazinon in Chollas Creek Watershed, San Diego County, August 14, 2002," to achieve the WLA listed in Table 5.

2. Shelter Island Yacht Basin WQBELs

- a. The Copermittees in the Shelter Island Yacht Basin watershed shall implement BMPs to maintain a total annual copper discharge load of less than or equal to 30 kg copper / year.
- b. The Copermittees in the Shelter Island Yacht Basin watershed shall implement, at a minimum, the BMPs included in the Copermittees' Jurisdictional Urban Runoff Management Plan which address the discharge of copper to achieve the annual copper load in Section H.2.a above.

I. PROGRAM EFFECTIVENESS ASSESSMENT

1. Jurisdictional

- a. As part of its Jurisdictional Urban Runoff Management Program, each Copermittee shall annually assess the effectiveness of its Jurisdictional Urban Runoff Management Program implementation. At a minimum, the annual effectiveness assessment shall:
- (1) Specifically assess the effectiveness of each of the following:
 - (a) Each significant jurisdictional activity or BMP implemented;

- (b) Implementation of each major component of the Jurisdictional Urban Runoff Management Program (Development Planning, Construction, Municipal, Industrial/Commercial, Residential, Illicit Discharge Detection and Elimination, and Education); and
 - (c) Implementation of the Jurisdictional Urban Runoff Management Program as a whole.
- (2) Identify and utilize measurable targeted outcomes, assessment measures, and assessment methods for each of the items listed in section I.1.a.(1) above.
 - (3) Utilize outcome levels 1-6¹ to assess the effectiveness of each of the items listed in section I.1.a.(1) above, where applicable and feasible.
 - (4) Utilize monitoring data and analysis from the Receiving Waters Monitoring Program to assess the effectiveness each of the items listed in section I.1.a.(1) above, where applicable and feasible.
 - (5) Utilize Implementation Assessment, Water Quality Assessment, and Integrated Assessment.²
- b. Based on the results of the effectiveness assessment, each Copermittee shall modify its jurisdictional activities or BMPs to maximize Jurisdictional Urban Runoff Management Program effectiveness. Jurisdictional activities or BMPs that are ineffective or less effective than other comparable jurisdictional activities or BMPs shall be replaced or improved upon by implementation of more effective jurisdictional activities or BMPs. Where monitoring data exhibits persistent water quality problems, jurisdictional activities or BMPs applicable to the water quality problems shall to be modified and improved on at least an annual basis to correct the water quality problems.
 - c. As part of its Jurisdictional Urban Runoff Management Program Annual Reports, each Copermittee shall report on its Jurisdictional Urban Runoff Management Program effectiveness assessment as implemented under each of the requirements of sections I.1.a and I.1.b above.

2. Watershed

- a. As part of its Watershed Urban Runoff Management Program, each watershed group of Copermittees (as identified in Table 4) shall annually assess the effectiveness of its Watershed Urban Runoff Management Program implementation. At a minimum, the annual effectiveness assessment shall:
 - (1) Specifically assess the effectiveness of each of the following:
 - (a) Each Watershed Water Quality Activity implemented;
 - (b) Each Watershed Education Activity implemented; and
 - (c) Implementation of the Watershed Urban Runoff Management Program as a whole.
 - (2) Identify and utilize measurable targeted outcomes, assessment measures, and assessment methods for each of the items listed in section I.2.a.(1) above.
 - (3) Utilize outcome levels 1-6 to assess the effectiveness of each of the items listed in sections I.2.a.(1)(a) and I.2.a.(1)(b) above, where applicable and feasible.

¹ Effectiveness assessment outcome levels are defined in Attachment C of this Order.

² Implementation Assessment, Water Quality Assessment, and Integrated Assessment are defined in Attachment C of this Order.

- (4) Utilize outcome levels 1-4 to assess the effectiveness of implementation of the Watershed Urban Runoff Management Program as a whole, where applicable and feasible.
 - (5) Utilize outcome levels 5 and 6 to assess the effectiveness of implementation of the Watershed Urban Runoff Management Program as a whole, focusing on the high priority water quality problem(s) of the watershed. These assessments shall exhibit the impact of Watershed Urban Runoff Management Program implementation on the high priority water quality problem(s) within the watershed.
 - (6) Utilize monitoring data and analysis from the Receiving Waters Monitoring Program to assess the effectiveness each of the items listed in section I.2.a.(1) above, where applicable and feasible.
 - (7) Utilize Implementation Assessment, Water Quality Assessment, and Integrated Assessment.
- b. Based on the results of the effectiveness assessment, the watershed Copermittees shall modify their Watershed Water Quality Activities, Watershed Education Activities, and other aspects of the Watershed Urban Runoff Management Program in order to maximize Watershed Urban Runoff Management Program effectiveness. Watershed Water Quality Activities or Watershed Education Activities that are ineffective or less effective than other comparable Watershed Water Quality Activities or Watershed Education Activities shall be replaced or improved upon by implementation of more effective Watershed Water Quality Activities or Watershed Education Activities. Where monitoring data exhibits persistent water quality problems, Watershed Water Quality Activities and Watershed Education Activities applicable to the water quality problems shall to be modified and improved on at least an annual basis to correct the water quality problems.
- c. As part of its Watershed Urban Runoff Management Program Annual Reports, each watershed group of Copermittees (as identified in Table 4) shall report on its Watershed Urban Runoff Management Program effectiveness assessment as implemented under each of the requirements of section I.2.a and I.2.b above.

3. Regional

- a. As part of the Regional Urban Runoff Management Program, the Copermittees shall annually assess the effectiveness of Regional Urban Runoff Management Program implementation. At a minimum, the annual effectiveness assessment shall:
- (1) Specifically assess the effectiveness of each of the following:
 - (a) Each regional activity or BMP implemented, including regional residential education activities; and
 - (b) The Regional Urban Runoff Management Program as a whole.
 - (2) Identify and utilize measurable targeted outcomes, assessment measures, and assessment methods for each of the items listed in section I.3.a.(1) above.
 - (3) Utilize outcome levels 1-6 to assess the effectiveness of each of the items listed in sections I.3.a.(1) above, where applicable and feasible.
 - (4) Utilize monitoring data and analysis from the Receiving Waters Monitoring Program to assess the effectiveness each of the items listed in section I.3.a.(1) above, where applicable and feasible.
 - (5) Utilize Implementation Assessment, Water Quality Assessment, and Integrated Assessment.

- (6) Include evaluation of the need for minimum standards for Jurisdictional Urban Runoff Management Program, Watershed Urban Runoff Management Program, and Regional Urban Runoff Management Program implementation, and assessment of the progress in developing such standards.
 - (7) Include evaluation of the progress in integrating management, implementation, and reporting of jurisdictional, watershed, and regional activities.
 - (8) Include evaluation of the progress in facilitating TMDL management and implementation.
 - (9) Include evaluation of the progress in developing strategies for implementation of activities on a watershed level.
 - (10) Include evaluation of whether the Copermittees' jurisdictional, watershed, and regional effectiveness assessments are meeting the following objectives:
 - (a) Assessment of watershed health and identification of water quality issues and concerns.
 - (b) Evaluation of the degree to which existing source management priorities are properly targeted to, and effective in addressing, water quality issues and concerns.
 - (c) Evaluation of the need to address additional pollutant sources not already included in Copermittee programs.
 - (d) Assessment of progress in implementing Copermittee programs and activities.
 - (e) Assessment of the effectiveness and cost-efficiency of Copermittee activities in addressing priority constituents and sources.
 - (f) Assessment of changes in discharge and receiving water quality.
 - (g) Assessment of the relationship of program implementation to changes in pollutant loading, discharge quality, and receiving water quality.
 - (h) Identification of changes necessary to improve Copermittee programs, activities, and effectiveness assessment methods and strategies.
- b. Based on the results of the effectiveness assessment, the Copermittees shall modify their regional activities and other aspects of the Regional Urban Runoff Management Program in order to maximize Regional Urban Runoff Management Program effectiveness. Regional activities that are ineffective or less effective than other comparable regional activities shall be replaced or improved upon by implementation of more effective regional activities. Where monitoring data exhibits persistent water quality problems, regional activities applicable to the water quality problems shall to be modified and improved on at least an annual basis to correct the water quality problems.
- c. Based on the results of the Copermittees' evaluation of their effectiveness assessments, the Copermittees shall modify their effectiveness assessment methods to improve their ability to accurately assess the effectiveness of their urban runoff management programs.
- d. As part of its Regional Urban Runoff Management Program Annual Reports, the Copermittees shall report on its Regional Urban Runoff Management Program effectiveness assessment as implemented under each of the requirements of sections I.3.a, I.3.b, and I.3.c above.

4. TMDL BMP Implementation Plan

- a. For each TMDL in a watershed, the Copermittees within the watershed shall annually assess the effectiveness of its TMDL BMP Implementation Plan or equivalent plan.³ At a minimum, the annual effectiveness assessment shall:
 - (1) Specifically assess the effectiveness of each of the following:
 - (a) Each BMP implemented; and
 - (b) Implementation of the TMDL BMP Implementation Plan or equivalent plan as a whole.
 - (2) Identify and utilize measurable targeted outcomes, assessment measures, and assessment methods for each of the items listed in sections I.4.a.(1) above.
 - (3) Utilize outcome levels 1-6 to assess the effectiveness of each of the items listed in section (I.4.a.(1)(a) above, where applicable and feasible.
 - (4) Utilize outcome levels 1-4 to assess the effectiveness of implementation of the TMDL BMP Implementation Plan or equivalent plan as a whole, where applicable and feasible.
 - (5) Utilize outcome levels 5 and 6 to assess the effectiveness of the TMDL BMP Implementation Plan or equivalent plan as a whole. These assessments shall exhibit the effects of the TMDL BMP Implementation Plan or equivalent plan on the impairment that is targeted.
- b. Based on the results of the effectiveness assessment, the watershed Copermittees shall modify their BMPs and other aspects of the TMDL BMP Implementation Plan or equivalent plan in order to maximize TMDL BMP Implementation Plan or equivalent plan effectiveness. BMPs that are ineffective or less effective than other comparable BMPs shall be replaced or improved upon by implementation of more effective BMPs. Where monitoring data exhibits persistent water quality problems, BMPs applicable to the water quality problems shall to be modified and improved on at least an annual basis to correct the water quality problems.
- c. As part of its Watershed Urban Runoff Management Program Annual Reports, each group of Copermittees in a watershed with a TMDL shall report on any TMDL BMP Implementation Plan or equivalent plan effectiveness assessments as implemented under each of the requirements of sections I.4.a and I.4.b above.

5. Long-term Effectiveness Assessment

- a. Each Copermittee shall collaborate with the other Copermittees to develop a Long-term Effectiveness Assessment (LTEA), which shall build on the results of the Copermittees' August 2005 Baseline LTEA. The LTEA shall be submitted by the Principal Permittee to the Regional Board by January 31, 2010.
- b. The LTEA shall be designed to address each of the objectives listed in section I.3.a.(8) of this Order, and to serve as a basis for the Copermittees' Report of Waste Discharge for the next permit cycle.
- c. The LTEA shall address outcome levels 1-6, and shall specifically include an evaluation of program implementation to changes in water quality (outcome levels 5

³ This requirement applies to those TMDLs where a TMDL BMP Implementation Plan or equivalent plan has been developed and submitted to the Regional Board.

and 6).

- d. The LTEA shall assess the effectiveness of the Receiving Waters Monitoring Program in meeting its objectives and its ability to answer the five core management questions. This shall include assessment of the frequency of monitoring conducted through the use of power analysis and other pertinent statistical methods. The power analysis shall identify the frequency and intensity of sampling needed to identify a 10% reduction in the concentration of constituents causing the high priority water quality problems within each watershed over the next permit term with 80% confidence.
- e. The LTEA shall address the jurisdictional, watershed, and regional programs, with an emphasis on watershed assessment.

J. REPORTING

1. Jurisdictional Urban Runoff Management Plans

- a. Copermittees - The written account of the overall program to be conducted by each Copermittee to meet the jurisdictional requirements of section D of this Order is referred to as the Jurisdictional Urban Runoff Management Plan (JURMP). Each Copermittee shall revise and update its JURMP so that it describes all activities the Copermittee has undertaken or is undertaking to implement the requirements of each component of Jurisdictional Urban Runoff Management Program section D of this Order. Each JURMP shall be updated and revised to specifically address the items specified in Attachment D. Each Copermittee shall submit its updated and revised JURMP to the Principal Permittee by the date specified by the Principal Permittee.
- b. Principal Permittee – The Principal Permittee shall update and revise the Unified JURMP. The Unified JURMP submittal shall contain a section describing common activities conducted collectively by the Copermittees, to be produced by the Principal Permittee, and the twenty-one individual JURMPs. The Principal Permittee shall also be responsible for collecting and assembling the individual JURMPs which cover the activities conducted by each individual Copermittee. The Principal Permittee shall submit the Unified JURMP to the Regional Board on July 1, 2007.

2. Watershed Urban Runoff Management Plans

- a. Copermittees - The written account of the program conducted by each watershed group of Copermittees is referred to as the Watershed Urban Runoff Management Plan (WURMP). The Copermittees within each watershed shall be responsible for updating and revising each WURMP, as specified in Table 4 above. Each WURMP shall be updated and revised to fully describe all activities the watershed Copermittees have undertaken or will be undertaking to implement the Watershed Urban Runoff Management Program requirements of section E of this Order. Each WURMP shall include:
 - (1) Identification of the Lead Watershed Permittee for the watershed.
 - (2) An updated watershed map.
 - (3) Identification and description of all pertinent water quality data.
 - (4) Assessment and analysis of the watershed's water quality data, including identification and prioritization of the watershed's water quality problems.

- Priority water quality problems and high priority water quality problems shall be identified.
- (5) Identification of the sources, pollutant discharges, and/or other factors causing the high priority water quality problems within the watershed.
 - (6) A list of potential Watershed Water Quality Activities, including a description of each activity, its location(s), and how it will abate sources and reduce pollutant discharges causing the identified high priority water quality problems in the watershed.
 - (7) A description of the strategy to be used to guide Copermittee implementation of Watershed Water Quality Activities and Watershed Education Activities, including criteria for evaluating and identifying effective activities.
 - (8) An evaluation of the likely effectiveness of the potential Watershed Water Quality Activities and Watershed Education Activities.
 - (9) Identification and description of the short-term Watershed Water Quality Activities to be implemented by each Copermittee for the first year of implementation, including justification for why the activities were chosen and information exhibiting that the activities will directly and significantly reduce the discharge of pollutants causing the watershed's high priority water quality problems. Plans for activity implementation beyond the first year of implementation should also be provided.
 - (10) Identification and description of efforts to implement a long-term Watershed Water Quality Activity.
 - (11) A list of potential Watershed Education Activities, including a description of each activity and how the activity targets sources causing the identified high priority water quality problems in the watershed, if applicable.
 - (12) Identification and description of the pollutant-based Watershed Education Activities to be implemented by each Copermittee for the first year of implementation, including justification for why the activities were chosen and information exhibiting that the activities will directly target the sources and discharges of pollutants causing the watershed's high priority water quality problems. Plans for activity implementation beyond the first year of implementation should also be provided.
 - (13) Identification and description of watershed concept-based Watershed Education Activities to be implemented by the Copermittees for the first year of implementation. Plans for activity implementation beyond the first year of implementation should also be provided.
 - (14) A description of the public participation mechanisms to be used and the parties anticipated to be involved.
 - (15) A description of Copermittee collaboration to occur, including a schedule for WURMP meetings and discussion of land-use planning collaboration mechanisms.
 - (16) A description of any TMDL BMP Implementation Plan or equivalent plan to be implemented under section H of this Order.⁴
 - (17) A detailed description of the effectiveness assessment to be conducted for the WURMP, including a description how each of the requirements in section I.2 of this Order will be met.

⁴ For TMDLs not yet approved by the Office of Administrative Law at the time of adoption of this Order, TMDL BMP Implementation Plans shall be submitted separately 365 days following approval of the TMDL.

- b. Lead Watershed Permittee - Each Lead Watershed Permittee shall be responsible for producing its respective WURMP, as well as for coordination and meetings amongst all member watershed Copermittees. Each Lead Watershed Permittee is further responsible for the submittal of the WURMP to the Principal Permittee by the date specified by the Principal Permittee.
- c. Principal Permittee – The Unified WURMP shall contain an updated and revised section covering common activities conducted collectively by the Copermittees, to be produced by the Principal Permittee, and the nine separate WURMPs. The Principal Permittee shall assemble and submit the Unified WURMP to the Regional Board by July 1, 2007.

3. Regional Urban Runoff Management Plan

- a. Copermittees - The written account of the regional program to be conducted is referred to as the Regional Urban Runoff Management Plan (RURMP). Each Copermittee shall collaborate with the other Copermittees to develop the RURMP. The RURMP shall describe all activities the Copermittees have undertaken or are undertaking to implement the requirements of each component of Regional Urban Runoff Management Program section F of this Order. At a minimum, the RURMP shall contain the following information:
 - (1) A description of the urban runoff management activities to be implemented on a regional level. For regional activities which are to be implemented in compliance with any jurisdictional requirements of section D or watershed requirements of section E, it shall be described how the regional activities achieve compliance with the subject jurisdictional and/or watershed requirements.
 - (2) A description of steps that will be taken to develop and implement minimum standards for jurisdictional, watershed, and regional implementation and reporting.
 - (3) A description of a strategy to integrate management, implementation, and reporting of jurisdictional, watershed, and regional activities.
 - (4) A description of steps that will be taken to facilitate TMDL management and implementation.
 - (5) A description of steps that will be taken to facilitate assessment of the effectiveness of jurisdictional, watershed, and regional programs.
 - (6) A description of steps that will be taken to facilitate development of strategies for implementation of activities on a watershed level.
 - (7) A description of the regional residential education program to be implemented.
 - (8) A description of the standardized fiscal analysis method developed as required by section G of this Order.
 - (9) A detailed description of the effectiveness assessment to be conducted for the Regional Urban Runoff Management Program, including a description how each of the requirements in section I.3 of this Order will be met.
- b. The Principal Permittee shall be responsible for creating and submitting the RURMP. The Principal Permittee shall submit the RURMP to the Regional Board on July 1, 2007.

4. Hydromodification Management Plan

- a. Copermittees - Each Copermittee shall collaborate with the other Copermittees to develop the HMP. The HMP shall be submitted for approval by the Regional Board.
- b. Principal Permittee - The Principal Permittee shall be responsible for producing and submitting each document according to the schedule below.
 - (1) January 15, 2007: Submit a detailed workplan and schedule for completion of the literature review, development of a protocol to identify an appropriate Ep standard and limiting range of rainfall events, development of guidance materials, and other required information;
 - (2) July 15, 2007: Submit progress report on completion of requirements of the HMP;
 - (3) January 15, 2008: Submit a draft HMP, including the analysis that identifies the appropriate limiting storm and the identified limiting storm event(s) or event range(s);
 - (4) July 15, 2008: Submit the HMP for Regional Board approval.

5. Long-Term Effectiveness Assessment

In accordance with section I.5 of this Order, the Principal Permittee shall submit the LTEA to the Regional Board by January 31, 2010.

6. Report of Waste Discharge

The Principal Permittee shall submit to the Regional Board, no later than 210 days in advance of the expiration date of this Order, a Report of Waste Discharge (ROWD) as an application for issuance of new waste discharge requirements. At a minimum, the ROWD shall include the following:

- a. Proposed changes to the Copermittees' urban runoff management programs.
- b. Proposed changes to monitoring programs.
- c. Justification for proposed changes.
- d. Name and mailing addresses of the Copermittees.
- e. Names and titles of primary contacts of the Copermittees.
- f. Any other information necessary for the reissuance of this Order.

7. Universal Reporting Requirements

All submittals shall include an executive summary, introduction, conclusion, recommendations, and signed certified statement. Each Copermittee shall submit a signed certified statement covering its responsibilities for each applicable URMP or other submittal. The Principal Permittee shall submit a signed certified statement covering its responsibilities for each applicable URMP or other submittal and the unified sections of the submittals for which it is responsible.

K. MODIFICATION OF PROGRAMS

Modifications of Jurisdictional Urban Runoff Management Programs, Watershed Urban Runoff Management Programs, and/or the Regional Urban Runoff Management Program may be initiated by the Executive Officer or by the Copermittees. Requests by Copermittees shall be made to the Executive Officer, and shall be submitted during the annual review

process. Requests for modifications should be incorporated, as appropriate, into the Annual Reports or other deliverables required or allowed under this Order.

1. Minor Modifications – Minor modifications to Jurisdictional Urban Runoff Management Programs, Watershed Urban Runoff Management Programs, and/or the Regional Urban Runoff Management Program may be accepted by the Executive Officer where the Executive Officer finds the proposed modification complies with all discharge prohibitions, receiving water limitations, and other requirements of this Order.
2. Modifications Requiring an Amendment to this Order – Proposed modifications that are not minor shall require amendment of this Order in accordance with this Order's rules, policies, and procedures.

L. ALL COPERMITTEE COLLABORATION

1. Each Copermittee collaborate with all other Copermittees regulated under this Order to address common issues, promote consistency among Jurisdictional Urban Runoff Management Programs and Watershed Urban Runoff Management Programs, and to plan and coordinate activities required under this Order.
 - a. Management Structure - All Copermittees shall jointly execute and submit to the Regional Board no later than 180 days after adoption of this Order, a Memorandum of Understanding, Joint Powers Authority, or other instrument of formal agreement which at a minimum:
 - (1) Identifies and defines the responsibilities of the Principal Permittee and Lead Watershed Permittees;
 - (2) Identifies Copermittees and defines their individual and joint responsibilities, including watershed responsibilities;
 - (3) Establishes a management structure to promote consistency and develop and implement regional activities;
 - (4) Establishes standards for conducting meetings, decision-making, and cost-sharing;
 - (5) Provides guidelines for committee and workgroup structure and responsibilities;
 - (6) Lays out a process for addressing Copermittee non-compliance with the formal agreement; and
 - (7) Includes any and all other collaborative arrangements for compliance with this Order.

M. PRINCIPAL PERMITTEE RESPONSIBILITIES

Within 180 days of adoption of this Order, the Copermittees shall designate the Principal Permittee and notify the Regional Board of the name of the Principal Permittee. The Principal Permittee shall, at a minimum:

1. Serve as liaison between the Copermittees and the Regional Board on general permit issues, and when necessary and appropriate, represent the Copermittees before the Regional Board.
2. Coordinate permit activities among the Copermittees and facilitate collaboration on the development and implementation of programs required under this Order.

3. Integrate individual Copermittee documents and reports into single unified documents and reports for submittal to the Regional Board as required under this Order.
4. Produce and submit documents and reports as required by section J of this Order and Receiving Waters Monitoring and Reporting Program No. 2006-11.
5. Submit to the Regional Board, within 180 days of adoption of this Order, a formal agreement between the Copermittees which provides a management structure for meeting the requirements of this Order (as described in section L).
6. Coordinate joint development by all of the Copermittees of standardized format(s) for all documents and reports required under this Order (e.g., JURMPs, WURMPs, annual reports, monitoring reports, etc.). The standardized reporting format(s) shall be used by all Copermittees. The Principal Permittee shall submit the standardized format(s) to the Regional Board for review no later than 180 days after adoption of this Order.

N. RECEIVING WATERS MONITORING AND REPORTING PROGRAM

Pursuant to CWC section 13267, the Copermittees shall comply with all the requirements contained in Receiving Waters Monitoring and Reporting Program No. R9-2006-0011.

O. STANDARD PROVISIONS, REPORTING REQUIREMENTS, AND NOTIFICATIONS

1. Each Copermittee shall comply with Standard Provisions, Reporting Requirements, and Notifications contained in Attachment B of this Order. This includes 24 hour/5day reporting requirements for any instance of non-compliance with this Order as described in section 5.e of Attachment B.
2. All plans, reports and subsequent amendments submitted in compliance with this Order shall be implemented immediately (or as otherwise specified). All submittals by Copermittees must be adequate to implement the requirements of this Order.

I, John H. Robertus, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Diego Region, on (date).

John H. Robertus
Executive Officer

ATTACHMENT A**BASIN PLAN PROHIBITIONS**

California Water Code Section 13243 provides that a Regional Board, in a water quality control plan, may specify certain conditions or areas where the discharge of waste, or certain types of waste is not permitted. The following discharge prohibitions are applicable to any person, as defined by Section 13050(c) of the California Water Code, who is a citizen, domiciliary, or political agency or entity of California whose activities in California could affect the quality of waters of the state within the boundaries of the San Diego Region.

1. The discharge of waste to waters of the state in a manner causing, or threatening to cause a condition of pollution, contamination or nuisance as defined in California Water Code Section 13050, is prohibited.
2. The discharge of waste to land, except as authorized by waste discharge requirements or the terms described in California Water Code Section 13264 is prohibited.
3. The discharge of pollutants or dredged or fill material to waters of the United States except as authorized by a NPDES permit or a dredged or fill material permit (subject to the exemption described in California Water Code Section 13376) is prohibited.
4. Discharges of recycled water to lakes or reservoirs used for municipal water supply or to inland surface water tributaries thereto are prohibited, unless this Regional Board issues a NPDES permit authorizing such a discharge; the proposed discharge has been approved by the State Department of Health Services and the operating agency of the impacted reservoir; and the discharger has an approved fail-safe long-term disposal alternative.
5. The discharge of waste to inland surface waters, except in cases where the quality of the discharge complies with applicable receiving water quality objectives, is prohibited. Allowances for dilution may be made at the discretion of the Regional Board. Consideration would include streamflow data, the degree of treatment provided and safety measures to ensure reliability of facility performance. As an example, discharge of secondary effluent would probably be permitted if streamflow provided 100:1 dilution capability.
6. The discharge of waste in a manner causing flow, ponding, or surfacing on lands not owned or under the control of the discharger is prohibited, unless the discharge is authorized by the Regional Board.
7. The dumping, deposition, or discharge of waste directly into waters of the state, or adjacent to such waters in any manner which may permit its being transported into the waters, is prohibited unless authorized by the Regional Board.
8. Any discharge to a storm water conveyance system that is not composed entirely of "storm water" is prohibited unless authorized by the Regional Board. [The federal regulations, 40 CFR 122.26(b)(13), define storm water as storm water runoff, snow melt runoff, and surface runoff and drainage. 40 CFR 122.26(b)(2) defines an illicit discharge as any discharge to a storm water conveyance system that is not composed entirely of storm water except discharges pursuant to a NPDES permit and discharges resulting from

fire fighting activities. [§ 122.26 amended at 56 FR 56553, November 5, 1991; 57 FR 11412, April 2, 1992].

9. The unauthorized discharge of treated or untreated sewage to waters of the state or to a storm water conveyance system is prohibited.
10. The discharge of industrial wastes to conventional septic tank/subsurface disposal systems, except as authorized by the terms described in California Water Code Section 13264, is prohibited.
11. The discharge of radioactive wastes amenable to alternative methods of disposal into the waters of the state is prohibited.
12. The discharge of any radiological, chemical, or biological warfare agent into waters of the state is prohibited.
13. The discharge of waste into a natural or excavated site below historic water levels is prohibited unless the discharge is authorized by the Regional Board.
14. The discharge of sand, silt, clay, or other earthen materials from any activity, including land grading and construction, in quantities which cause deleterious bottom deposits, turbidity or discoloration in waters of the state or which unreasonably affect, or threaten to affect, beneficial uses of such waters is prohibited.
15. The discharge of treated or untreated sewage from vessels to Mission Bay, Oceanside Harbor, Dana Point Harbor, or other small boat harbors is prohibited.
16. The discharge of untreated sewage from vessels to San Diego Bay is prohibited.
17. The discharge of treated sewage from vessels to portions of San Diego Bay that are less than 30 feet deep at mean lower low water (MLLW) is prohibited.
18. The discharge of treated sewage from vessels, which do not have a properly functioning US Coast Guard certified Type I or Type II marine sanitation device, to portions of San Diego Bay that are greater than 30 feet deep at mean lower low water (MLLW) is prohibited.

ATTACHMENT B**STANDARD PROVISIONS, REPORTING REQUIREMENTS, AND NOTIFICATIONS****1. STANDARD PROVISIONS – PERMIT COMPLIANCE [40 CFR 122.41]**

- (a) *Duty to comply* [40 CFR 122.41(a)].
- (1) The Copermitttee must comply with all of the conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code (CWC) and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.
 - (2) The Copermitttee shall comply with effluent standards or prohibitions established under section 307(a) of the CWA toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the Order has not yet been modified to incorporate the requirement.
- (b) *Need to halt or reduce activity not a defense* [40 CFR 122.41(c)]. It shall not be a defense for the Copermitttee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order.
- (c) *Duty to mitigate* [40 CFR 122.41(d)]. The Copermitttee shall take all reasonable steps to minimize or prevent any discharge or prevent any discharge or sludge use or disposal in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment.
- (d) *Proper operation and maintenance* [40 CFR 122.41(e)]. The Copermitttee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Copermitttee to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems that are installed by the Copermitttee only when necessary to achieve compliance with the conditions of this Order.
- (e) *Property rights* [40 CFR 122.41(g)].
- (1) This Order does not convey any property rights of any sort or any exclusive privilege.
 - (2) The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of State or local law or regulations.
- (f) *Inspection and entry* [40 CFR 122.41(i)]. The Copermitttee shall allow the Regional Water Quality Control Board, San Diego Region (Regional Board), State Water Resources Control Board (SWRCB), United States Environmental Protection Agency (USEPA), and/or their authorized representatives (including an authorized contractor acting as their representative), upon presentation of credentials and other documents as may be required by law, to:

- (1) Enter upon the Copermittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Order;
- (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order;
- (3) Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and
- (4) Sample or monitor, at reasonable times, for the purpose of assuring Order compliance or as otherwise authorized by the CWA or the CWC, any substances or parameters at any location.

(g) *Bypass* [40 CFR 122.41(m)]

(1) Definitions:

- i) "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.
- ii) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

(2) Bypass not exceeding limitations - The Copermittee may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance (g)(3), (g)(4) and (g)(5) below.

(3) Prohibition of Bypass - Bypass is prohibited, and the Regional Board may take enforcement action against a Copermittee for bypass, unless:

- i) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
- ii) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
- iii) The Copermittee submitted notice as required under Standard Provisions – Permit Compliance (g)(3) above.

(4) Notice

- i) Anticipated bypass. If the Copermittee knows in advance of the need for a bypass, it shall submit a notice, if possible at least ten days before the date of the bypass.
- ii) Unanticipated bypass. The Copermittee shall submit notice of an unanticipated bypass as required in Standard Provisions 5(e) below (24-hour notice).

- (h) *Upset* [40 CFR 122.41(n)] Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based effluent limitations because of factors beyond the reasonable control of the Copermittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- (1) Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance (h)(2) below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
- (2) Conditions necessary for a demonstration of upset. A Copermittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
- i) An upset occurred and that the Copermittee can identify the cause(s) of the upset;
 - ii) The permitted facility was at the time being properly operated;
 - iii) The Copermittee submitted notice of the upset as required in Standard Provisions – Permit Compliance (5)(e)(ii)(B) below (24-hour notice); and
 - iv) The Copermittee complied with any remedial measures required under Standard Provisions – Permit Compliance 1(c) above.
- (3) Burden of Proof. In any enforcement proceeding, the Copermittee seeking to establish the occurrence of an upset has the burden of proof.

2. STANDARD PROVISIONS – PERMIT ACTION

- (a) *General* [40 CFR 122.41(f)] This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Copermittee for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition.
- (b) *Duty to reapply* [40 CFR 122.41(b)]. If the Copermittee wishes to continue an activity regulated by this Order after the expiration date of this Order, the Copermittee must apply for and obtain new permit.
- (c) *Transfers*. This Order is not transferable to any person except after notice to the Regional Board. The Regional Board may require modification or revocation and reissuance of the Order to change the name of the Copermittee and incorporate such other requirements as may be necessary under the CWA and the CWC.

3. STANDARD PROVISIONS – MONITORING

- (a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. [40 CFR Section 122.41 (j) (1)]
- (b) Monitoring results must be conducted according to test procedures under 40 CFR Part 136, or in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise

specified in 40 CFR Part 503 unless other test procedures have been specified in this Order [40 CFR Section 122.41(j)(4)][40 CFR Section 122.44(i)(1)(iv)].

4. STANDARD PROVISIONS – RECORDS

- (a) Except for records of monitoring information required by this Order related to the Copermittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503), the Copermittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Regional Water Board Executive Officer at any time [40 CFR Section 122.41(j)(2)].
- (b) *Records of monitoring information* [40 CFR 122.41(j) (3)] shall include:
- (1) The date, exact place, and time of sampling or measurements;
 - (2) The individual(s) who performed the sampling or measurements;
 - (3) The date(s) analyses were performed;
 - (4) The individual(s) who performed the analyses;
 - (5) The analytical techniques or methods used; and
 - (6) The results of such analyses.
- (c) *Claims of confidentiality* [40 CFR Section 122.7(b)] of the following information will be denied:
- (1) The name and address of any permit applicant or Copermittee; and
 - (2) Permit applications and attachments, permits and effluent data.

5. STANDARD PROVISIONS – REPORTING

- (a) *Duty to provide information* [40 CFR 122.41(h)]. The Copermittee shall furnish to the Regional Board, SWRCB, or USEPA within a reasonable time, any information which the Regional Board, SWRCB, or USEPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Copermittee shall also furnish to the Regional Board, SWRCB, or USEPA, copies of records required to be kept by this Order.
- (b) *Signatory and Certification Requirements* [40 CFR 122.41(k)]
- (1) All applications, reports, or information submitted to the Regional Board, SWRCB, or USEPA shall be signed and certified in accordance with Standard Provisions – Reporting 5(b)ii), 5(b)iii), 5(b)iv), and 5(b) (see 40 CFR 122.22)
 - (2) *Applications* [40 CFR 122.22(a)(3)] All permit applications shall be signed by either a principal executive officer or ranking elected official.
 - (3) *Reports* [40 CFR 122.22(b)]. All reports required by this Order, and other information requested by the Regional Board, SWRCB, or USEPA shall be signed by a person described in Standard Provisions – Reporting 5(b)(2) above, or by a duly authorized

representative of that person. A person is a duly authorized representative only if:

- i) The authorization is made in writing by a person described in Standard Provisions-Reporting 5(b)(2) above;
 - ii) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and,
 - iii) The written authorization is submitted to the Regional Water Board and State Water Board.
- (4) *Changes to authorization* [40 CFR Section 122.22(c)] If an authorization under Standard Provisions – Reporting 5(b)(3) of this reporting requirement is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions – Reporting 5(b)(3) above must be submitted to the Regional Water Board and State Water Board prior to or together with any reports, information, or applications to be signed by an authorized representative.
- (5) *Certification* [40 CFR Section 122.22(d)] Any person signing a document under Standard Provisions – Reporting 5(b)(2), or 5(b)(3) above shall make the following certification:

”I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

(c) *Monitoring reports.* [40 CFR 122.41(1)(4)]

- (1) Monitoring results shall be reported at the intervals specified in the Receiving Waters Monitoring and Reporting Program No. R9-2006-0011.
- (2) Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Regional Board or SWRCB for reporting results of monitoring of sludge use or disposal practices.
- (3) If the Copermitee monitors any pollutant more frequently than required by this Order using test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Regional Board.

- (4) Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order.
- (d) *Compliance schedules.* [40 CFR Section 122.41(l)(5)] Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order shall be submitted no later than 14 days following each schedule date.
- (e) *Twenty-four hour reporting* [40 CFR Section 122.41(l)(6)]
- (1) The Copermittee shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Copermittee becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the Copermittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
 - (2) The following shall be included as information, which must be reported within 24 hours under this paragraph:
 - i) Any unanticipated bypass that exceeds any effluent limitation in the Order (See 40 CFR 122.41(g)).
 - ii) Any upset which exceeds any effluent limitation in this Order.
 - (3) The Regional Board may waive the above-required written report under this provision on a case-by-case basis if the oral report has been received within 24 hours.
- (f) *Planned changes.* [40 CFR Section 122.41(l)(1)] The Copermittee shall give notice to the Regional Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when:
- (1) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
 - (2) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants, which are not subject to effluent limitations in this Order.
 - (3) The alteration or addition results in a significant change in the Copermittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing Order, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.
- (g) *Anticipated noncompliance.* [40 CFR Section 122.41(l)(7)] The Copermittee shall give advance notice to the Regional Board or SWRCB of any planned changes in the permitted facility or activity, which may result in noncompliance with Order requirements.

- (h) *Other noncompliance* [40 CFR Section 122.41(l) 7)] The Copermittee shall report all instances of noncompliance not reported under Standard Provisions 5(c), 5(d), and 5(e) above, at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting 5(e) above.
- (i) *Other information* [40 CFR Section 122.41(l)(8)] When the Copermittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Regional Board, SWRCB, or USEPA, the Copermittee shall promptly submit such facts or information.

6. STANDARD PROVISIONS – ENFORCEMENT

- (a) The Regional Board is authorized to enforce the terms of this permit under several provisions of the CWC, including, but not limited to, Sections 13385, 13386, and 13387.

7. ADDITIONAL STANDARD PROVISIONS

- (a) *Municipal separate storm sewer systems* [40 CFR 122.42(c)]. The operator of a large or medium municipal separate storm sewer system or a municipal separate storm sewer that has been designated by the Director under 40 CFR 122.26(a)(1)(v) must submit an annual report by the anniversary of the date of the issuance of the permit for such system. The report shall include:
 - (1) The status of implementing the components of the storm water management program that are established as permit conditions;
 - (2) Proposed changes to the storm water management programs that are established as permit conditions. Such proposed changes shall be consistent with 40 CFR 122.26(d)(2)(iii); and
 - (3) Revisions, if necessary, to the assessment of controls and the fiscal analysis reported in the permit application under 40 CFR 122.26(d)(2)(iv) and 40 CFR 122.26(d)(2)(v);
 - (4) A summary of data, including monitoring data, that is accumulated throughout the reporting year;
 - (5) Annual expenditures and budget for year following each annual report;
 - (6) A summary describing the number and nature of enforcement actions, inspections, and public education programs; and
 - (7) Identification of water quality improvements or degradation.
- (b) *Storm water discharges* [40 CFR 122.42(d)]. The initial permits for discharges composed entirely of storm water issued pursuant to 40 CFR 122.26(e)(7) shall require compliance with the conditions of the permit as expeditiously as practicable, but in no event later than three years after the date of issuance of the permit.
- (c) *Other Effluent Limitations and Standards* [40 CFR 122.44(b)(1)]. If any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under Section 307(a) of the CWA for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant in this Order, the Regional Board may institute

proceedings under these regulations to modify or revoke and reissue the Order to conform to the toxic effluent standard or prohibition.

- (d) *Discharge is a privilege* [CWC section 13263(g)]. No discharge of waste into the waters of the State, whether or not such discharge is made pursuant to waste discharge requirements, shall create a vested right to continue such discharge. All discharges of waste into waters of the State are privileges, not rights.
- (e) *Review and revision of Order* [CWC section 13263(e)]. Upon application by any affected person, or on its own motion, the Regional Board may review and revise this permit.
- (f) *Termination or modification of Order* [CWC section 13381]. This permit may be terminated or modified for causes, including, but not limited to, all of the following:
 - (1) Violation of any condition contained in this Order;
 - (2) Obtaining this Order by misrepresentation, or failure to disclose fully all relevant facts.
 - (3) A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge.
- (g) *Transfers*. When this Order is transferred to a new owner or operator, such requirements as may be necessary under the CWC may be incorporated into this Order.
- (h) *Conditions not stayed*. The filing of a request by the Copermittee for modification, revocation and reissuance, or termination of this Order, or a notification of planned change in or anticipated noncompliance with this Order does not stay any condition of this Order.
- (i) *Availability*. A copy of this Order shall be kept at a readily accessible location and shall be available to on-site personnel at all times.
- (j) *Duty to minimize or correct adverse impacts*. The Copermittees shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this Order, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the noncompliance.
- (k) *Interim Effluent Limitations*. The Copermittee shall comply with any interim effluent limitations as established by addendum, enforcement action, or revised waste discharge requirements which have been, or may be, adopted by this Regional Board.
- (l) *Responsibilities, liabilities, legal action, penalties* [CWC sections 13385 and 13387]. The Porter-Cologne Water Quality Control Act provides for civil and criminal penalties comparable to, and in some cases greater than, those provided for under the CWA.

Nothing in this Order shall be construed to protect the Copermittee from its liabilities under federal, state, or local laws.

Except as provided for in 40CFR 122.41(m) and (n), nothing in this Order shall be construed to relieve the Copermittee from civil or criminal penalties for noncompliance.

Nothing in this Order shall be construed to preclude the institution of any legal action or relieve the Copermittee from any responsibilities, liabilities, or penalties to which the Copermittee is or may be subject to under Section 311 of the CWA.

Nothing in this Order shall be construed to preclude institution of any legal action or relieve the Copermittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authoring preserved by Section 510 of the CWA.

- (m) *Noncompliance.* Any noncompliance with this Order constitutes violation of the CWC and is grounds for denial of an application for modification of the Order (also see 40 CFR 122.41(a)).
- (n) *Director.* For purposes of this Order, the term "Director" used in parts of 40 CFR incorporated into this Order by reference and/or applicable to this Order shall have the same meaning as the term "Regional Board" used elsewhere in this Order, except that in 40 CFR 122.41(h) and (I), "Director" shall mean "Regional Board, SWRCB, and USEPA."
- (o) The Regional Board has, in prior years, issued a limited number of individual NPDES permits for non-storm water discharges to MS4s. The Regional Board or SWRCB may in the future, upon prior notice to the Copermittee(s), issue an NPDES permit for any non-storm water discharge (or class of non-storm water discharges) to a MS4. Copermittees may prohibit any non-storm water discharge (or class of non-storm water discharges) to a MS4 that is authorized under such separate NPDES permits.
- (p) *Effective date.* This Order shall become effective on the date of its adoption provided the USEPA has no objection. If the USEPA objects to its issuance, this Order shall not become effective until such objection is withdrawn. This Order supersedes Order No. 2001-01 upon the effective date of this Order.
- (q) *Expiration.* This Order expires five years after adoption.
- (r) *Continuation of expired order* [23 CCR 2235.4]. After this Order expires, the terms and conditions of this Order are automatically continued pending issuance of a new permit if all requirements of the federal NPDES regulations on the continuation of expired permits (40 CFR 122.6) are complied with.
- (s) *Applications.* Any application submitted by a Copermittee for reissuance or modification of this Order shall satisfy all applicable requirements specified in federal regulations as well as any additional requirements for submittal of a Report of Waste Discharge specified in the CWC and the California Code of Regulations.
- (t) *Confidentiality.* Except as provided for in 40 CFR 122.7, no information or documents submitted in accordance with or in application for this Order will be considered confidential, and all such information and documents shall be available for review by the public at the Regional Board office.
- (u) *Severability.* The provisions of this Order are severable, and if any provision of this Order, or the application of any provisions of this Order to any circumstance, is held invalid, the application of such provision to other circumstances and the remainder of this Order shall not be affected thereby.
- (v) *Report submittal.* The Copermittee shall submit reports and provide notifications as required by this Order to the following:

SOUTHERN WATERSHED PROTECTION UNIT
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION
9174 SKY PARK COURT, SUITE 100
SAN DIEGO CA 92123-4340
Telephone: (858) 467-2952 Fax: (858) 571-6972

EUGENE BROMLEY
US ENVIRONMENTAL PROTECTION AGENCY
REGION IX
PERMITS ISSUANCE SECTION (W-5-1)
75 HAWTHORNE STREET
SAN FRANCISCO CA 94105

Unless otherwise directed, the Copermittee shall submit one hard copy for the official record and one electronic copy of each report required under this Order to the Regional Board and one electronic copy to the EPA.

ATTACHMENT C

DEFINITIONS

Advanced Treatment- Using mechanical or chemical means to flocculate and remove suspended sediment from runoff from construction sites prior to discharge.

Anthropogenic Litter – Trash generated from human activities, not including sediment.

Basin Plan – Water Quality Control Plan, San Diego Basin, Region 9, and amendments, developed by the Regional Board.

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

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

Bioassessment - The use of biological community information to evaluate the biological integrity of a water body and its watershed. With respect to aquatic ecosystems, bioassessment is the collection and analysis of samples of the benthic macroinvertebrate community together with physical/habitat quality measurements associated with the sampling site and the watershed to evaluate the biological condition (i.e. biological integrity) of a water body.

Biocriteria - Under the CWA, numerical values or narrative expressions that define a desired biological condition for a water body that are legally enforceable. The USEPA defines biocriteria as: “numerical values or narrative expressions that describe the reference biological integrity of aquatic communities inhabiting waters of a given designated aquatic life use...(that)...describe the characteristics of water body segments least impaired by human activities.”

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

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

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

Construction Site – Any project, including projects requiring coverage under the General Construction Permit, that involves soil disturbing activities including, but not limited to, clearing, grading, disturbances to ground such as stockpiling, and excavation.

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

Critical Channel Flow (Qc) – The channel flow that produces the critical shear stress that initiates bed movement or that erodes the toe of channel banks. When measuring Qc, it should be based on the weakest boundary material – either bed or bank.

CWA – Federal Clean Water Act

CWC – California Water Code

Development Projects - New development or redevelopment with land disturbing activities; structural development, including construction or installation of a building or structure, the creation of impervious surfaces, public agency projects, and land subdivision.

Dry Season – May 1 through August 31 of each year.

Effectiveness Assessment Outcome Level 1 - Compliance with Activity-based Permit Requirements – Level 1 outcomes are those directly related to the implementation of specific activities prescribed by this Order or established pursuant to it.

Effectiveness Assessment Outcome Level 2 - Changes in Attitudes, Knowledge, and Awareness – Level 2 outcomes are measured as increases in knowledge and awareness among target audiences such as residents, businesses, and municipal employees.

Effectiveness Assessment Outcome Level 3 - Behavioral Change and BMP Implementation – Level 3 outcomes measure the effectiveness of activities in affecting behavioral change and BMP implementation.

Effectiveness Assessment Outcome Level 4 - Load Reductions – Level 4 outcomes measure load reductions which quantify changes in the amounts of pollutants associated with specific sources before and after a BMP or other control measure is employed.

Effectiveness Assessment Outcome Level 5 - Changes in Urban Runoff and Discharge Quality – Level 5 outcomes are measured as changes in one or more specific constituents or stressors in discharges into or from MS4s.

Effectiveness Assessment Outcome Level 6 - Changes in Receiving Water Quality – Level 6 outcomes measure changes to receiving water quality resulting from discharges into and from MS4s, and may be expressed through a variety of means such as compliance with water quality objectives or other regulatory benchmarks, protection of biological integrity, or beneficial use attainment.

Effluent Limitations – Any restriction imposed on quantities, discharge rates, and concentrations of pollutants, which are discharged from point sources into waters of the State. 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 limits are typically numeric (e.g., 10 mg/l), but can also be narrative (e.g., no toxics in toxic amounts).

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

Erosion Potential (Ep) – Ep is a measure of the amount of work done hydraulically on a stream channel above a baseline condition. An Ep standard to be used to control hydromodification impacts can be determined as follows: The total effective work done on the channel boundary is derived as the “effective work index” (W) and used as a metric to predict the likelihood of channel adjustment given watershed and channel hydrologic and geomorphic variables. The effective work index under urbanized conditions is compared to the effective work index under pre-urban conditions, expressed as the ratio Ep. The effective work index is computed as the excess shear stress that exceeds a critical value for streambed mobility or bank material erosion integrated over time and represents the total work done on the channel boundary:

$$W = C \cdot \sum_{i=1}^n (\tau_{bi} - \tau_c)^e \cdot V \cdot \Delta t \quad (1)$$

Where:

W = index of total effective work done over the length of flow record per square foot of bed or bank (ft-lbs/sq-ft).

C = a constant to convert equation to dimensional or dimensionless units of work, dependent on exponent *e*

n = number of flow records in a histogram of flows

τ_c = critical shear stress that initiates bed mobility or shear erosion of the toe of streambanks (lbs/sq-ft)

τ_{bi} = applied hydraulic shear stress, computed as $\rho g d S$ (lbs/sq-ft), on the bed or toe of banks and determined using the central channel conditions

d = depth of water (ft)

S = longitudinal slope (ft/ft)

g = gravity constant (ft/sec²)

ρ = density of water (lb/ft³)

e = exponent that captures the exponential rise in stream power with flow (ranges between 1 and 2.5, estimated as 1.5 for watersheds in Santa Clara Basin based on field measurements)

V = mid-channel velocity (ft/sec)

Δt = duration of flow (in seconds) for each flow record

The effective work index for presumed stable stream channels under pre-urban conditions is compared to stable and unstable channels under current urbanized conditions. The comparison,

expressed as a ratio, is defined as the E_p (McRae (1992, 1996)). The E_p ratios resulting from the comparison of pre-urban channel conditions and stable channels under current urbanized conditions can be used as the basis for an E_p standard to be used to control hydromodification impacts to receiving channels.

$$E_p = \frac{W_{existing}}{W_{pre-urban}} \quad (2)$$

$W_{existing}$ = work index for a stream section under existing conditions (could be either stable or unstable)

$W_{pre-urban}$ = work index for a stream section under pre-urban conditions (baseline assumed to be stable)

E_p can also be expressed as a ratio of the post-project work done to the pre-project work done to determine the risk of runoff from a Priority Development project causing downstream channel instability.

$$E_p = \frac{W_{post}}{W_{pre}} \quad (3)$$

W_{post} = work index estimated for the post-project condition

W_{pre} = work index measured for the pre-project condition

Using flow data from continuous simulation modeling, Priority Development Projects can (1) compute the excess shear stress applied to the channel boundary; (2) compute velocity; and (3) integrate the product of excess shear and velocity over the total time duration. The resulting integration is the effective work index (W). As described above, excess shear stress is the amount of applied shear (hydraulic force) that exceeds the critical shear stress for initial bed motion of bed material or erosion of bank material. The integration is done over the entire rainfall period of record. The assessment then measures the potential for erosion by computing the ratio of the post-development effective work index to the pre-development effective work index. This ratio expresses the change in work done on the channel boundary between pre- and post-development conditions. An E_p ratio of 1, where post-project work done on a channel does not exceed the pre-project work done, is assumed to maintain current channel stability conditions.

Environmentally Sensitive Areas (ESAs) - Areas that include but are not limited to all Clean Water Act Section 303(d) impaired water bodies; areas designated as Areas of Special Biological Significance by the State Water Resources Control Board (Water Quality Control Plan for the San Diego Basin (1994) and amendments); water bodies designated with the RARE beneficial use by the State Water Resources Control Board (Water Quality Control Plan for the San Diego Basin (1994) and amendments); areas designated as preserves or their equivalent under the Multi Species Conservation Program within the Cities and County of San Diego; and any other equivalent environmentally sensitive areas which have been identified by the Copermittees.

Feasibility Analysis – Detailed description of the selection process for the treatment control BMPs for a Priority Development Project, including justification of why one BMP is selected over another. For a Priority Development Project where a treatment control BMP with a low removal efficiency ranking (as identified by the Model SUSMP) is proposed, the analysis shall

include a detailed and adequate justification exhibiting the reasons implementation of a treatment control BMP with a higher removal efficiency is infeasible for the Priority Development Project or portion of the Priority Development Project.

Flow Duration – The long-term period of time that flows occur above a threshold that causes significant sediment transport and may cause excessive erosion damage to creeks and streams (not a single storm event duration). The simplest way to visualize this is to consider a histogram of pre- and post-project flows using long-term records of hourly data. To maintain pre-project flow duration means that the total number of hours (counts) within each range of flows in a flow-duration histogram cannot increase between the pre- and post-project condition. Flow duration within the range of geomorphologically significant flows is important for managing erosion.

GIS – Geographic Information System

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

Hazardous Material – Any substance that poses a threat to human health or the environment due to its toxicity, corrosiveness, ignitability, explosive nature or chemical reactivity. These also include materials named by the USEPA in 40 CFR 116 to be reported if a designated quantity of the material is spilled into the waters of the U.S. or emitted into the environment.

Hazardous Waste - Hazardous waste is defined as “any waste which, under Section 600 of Title 22 of this code, is required to be managed according to Chapter 30 of Division 4.5 of Title 22 of this code” [CCR Title 22, Division 4.5, Chapter 11, Article 1].

Household Hazardous Waste – Paints, cleaning products, and other wastes generated during home improvement or maintenance activities.

Hydromodification – The change in the natural watershed hydrologic processes and runoff characteristics (i.e., interception, infiltration, overland flow, interflow and groundwater flow) caused by urbanization or other land use changes that result in increased stream flows and sediment transport. In addition, alteration of stream and river channels, installation of dams and water impoundments, and excessive streambank and shoreline erosion are also considered hydromodification, due to their disruption of natural watershed hydrologic processes.

Illicit Connection – Any connection to the MS4 that conveys an illicit discharge.

Illicit Discharge - Any discharge to the MS4 that is not composed entirely of storm water except discharges pursuant to a NPDES permit and discharges resulting from fire fighting activities [40 CFR 122.26(b)(2)].

Implementation Assessment – Assessment conducted to determine the effectiveness of Copermittee programs and activities in achieving measurable targeted outcomes, and in determining whether priority sources of water quality problems are being effectively addressed.

Inactive Slopes – Slopes on which no grading or other soil disturbing activities are conducted for 10 or more days.

Integrated Assessment – Assessment to be conducted to evaluate whether program implementation is properly targeted to and resulting in the protection and improvement of water quality.

Jurisdictional Urban Runoff Management Plan (JURMP) – A written description of the specific jurisdictional urban runoff management measures and programs that each Copermitttee will implement to comply with this Order and ensure that pollutant discharges in urban runoff are reduced to the MEP and do not cause or contribute to a violation of water quality standards.

Maximum Extent Practicable (MEP) – The technology-based standard established by Congress in CWA section 402(p)(3)(B)(iii) that operators of MS4s must meet. Technology-based standards establish the level of pollutant reductions that dischargers must achieve, typically by treatment or by a combination of source control and treatment control BMPs. MEP generally emphasizes pollution prevention and source control BMPs primarily (as the first line of defense) in combination with treatment methods serving as a backup (additional line of defense). MEP considers economics and is generally, but not necessarily, less stringent than BAT. A definition for MEP is not provided either in the statute or in the regulations. Instead the definition of MEP is dynamic and will be defined by the following process over time: municipalities propose their definition of MEP by way of their SWMP. Their total collective and individual activities conducted pursuant to the SWMP becomes their proposal for MEP as it applies both to their overall effort, as well as to specific activities (e.g., MEP for street sweeping, or MEP for MS4 maintenance). In the absence of a proposal acceptable to the Regional Board, the Regional Board defines MEP.

In a memo dated February 11, 1993, entitled "Definition of Maximum Extent Practicable," Elizabeth Jennings, Senior Staff Counsel, SWRCB addressed the achievement of the MEP standard as follows:

“To achieve the MEP standard, municipalities must employ whatever Best Management Practices (BMPs) are technically feasible (i.e., are likely to be effective) and are not cost prohibitive. The major emphasis is on technical feasibility. Reducing pollutants to the MEP means choosing effective BMPs, and rejecting applicable BMPs only where other effective BMPs will serve the same purpose, or the BMPs would not be technically feasible, or the cost would be prohibitive. In selecting BMPs to achieve the MEP standard, the following factors may be useful to consider:

- a. Effectiveness: Will the BMPs address a pollutant (or pollutant source) of concern?*
- b. Regulatory Compliance: Is the BMP in compliance with storm water regulations as well as other environmental regulations?*
- c. Public Acceptance: Does the BMP have public support?*
- d. Cost: Will the cost of implementing the BMP have a reasonable relationship to the pollution control benefits to be achieved?*
- e. Technical Feasibility: Is the BMP technically feasible considering soils, geography, water resources, etc?*

The final determination regarding whether a municipality has reduced pollutants to the maximum extent practicable can only be made by the Regional or State Water Boards, and not by the municipal discharger. If a municipality reviews a lengthy menu of BMPs and chooses to select only a few of the least expensive, it is likely that MEP has not been met. On the other hand, if a municipal discharger employs all applicable BMPs except those where it can show that they are not technically feasible in the locality, or whose cost would exceed any benefit derived, it would have met the standard. Where a choice may be made between two BMPs that should provide generally comparable effectiveness, the discharger may choose the least expensive alternative and exclude the more

expensive BMP. However, it would not be acceptable either to reject all BMPs that would address a pollutant source, or to pick a BMP base solely on cost, which would be clearly less effective. In selecting BMPs the municipality must make a serious attempt to comply and practical solutions may not be lightly rejected. In any case, the burden would be on the municipal discharger to show compliance with its permit. After selecting a menu of BMPs, it is the responsibility of the discharger to ensure that all BMPs are implemented.”

Municipal Separate Storm Sewer System (MS4) – A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) Owned or operated by a State, city town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or designated and approved management agency under section 208 of the CWA that discharges to waters of the United States; (ii) Designated or used for collecting or conveying storm water; (iii) Which is not a combined sewer; (iv) Which is not part of the Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.26.

National Pollutant Discharge Elimination System (NPDES) - The national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 318, 402, and 405 of the CWA.

NOI – Notice of Intent

Non-Storm Water - All discharges to and from a MS4 that do not originate from precipitation events (i.e., all discharges from a MS4 other than storm water). Non-storm water includes illicit discharges, non-prohibited discharges, and NPDES permitted discharges.

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

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

Point Source - Any discernible, confined, and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operations, landfill leachate collection systems, vessel, or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.

Pollutant - Any agent that may cause or contribute to the degradation of water quality such that a condition of pollution or contamination is created or aggravated.

Pollution - As defined in the Porter-Cologne Water Quality Control Act: “the alteration of the quality of the waters of the State by waste, to a degree that unreasonably affects the either of the following: 1) The waters for beneficial uses; or 2) Facilities that serve these beneficial uses.” Pollution may include contamination.

Pollutants of Concern – Pollutants for which water bodies are listed as impaired under CWA section 303(d), pollutants associated with the land use type of a development, and/or pollutants commonly associated with urban runoff. Pollutants commonly associated with urban runoff include total suspended solids; sediment; pathogens (e.g., bacteria, viruses, protozoa); heavy metals (e.g., copper, lead, zinc, and cadmium); petroleum products and polynuclear aromatic hydrocarbons; synthetic organics (e.g., pesticides, herbicides, and PCBs); nutrients (e.g., nitrogen and phosphorus fertilizers); oxygen-demanding substances (decaying vegetation, animal waste, and anthropogenic litter).

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

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

Pre-Project or Pre-Development Runoff Conditions (Discharge Rates, Durations, Etc.) – Runoff conditions that exist onsite immediately before the planned development activities occur. This definition is not intended to be interpreted as that period before any human-induced land activities occurred. This definition pertains to redevelopment as well as initial development.

Principal Permittee – County of San Diego

Priority Development Projects - New development and redevelopment project categories listed in Section D.1.d(2) of Order No 2006-11.

Receiving Waters – Waters of the U.S.

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

Redevelopment - The creation, addition, and or replacement of impervious surface on an already developed site. Examples include the expansion of a building footprint, the addition to or replacement of a structure, and creation or addition of impervious surfaces. Replacement of impervious surfaces includes any activity that is not part of a routine maintenance activity where impervious material(s) are removed, exposing underlying soil during construction.

Redevelopment does not include trenching and resurfacing associated with utility work; resurfacing and reconfiguring surface parking lots; new sidewalk construction, pedestrian ramps, or bikelane on existing roads; and routine replacement of damaged pavement, such as pothole repair.

Regional Urban Runoff Management Plan (RURMP) – A written description of the specific regional urban runoff management measures and programs that the Copermittees will collectively implement to comply with this Order and ensure that pollutant discharges in urban runoff are reduced to the MEP and do not cause or contribute to a violation of water quality standards.

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

Shared Treatment Control BMP - BMPs used by multiple developments to infiltrate, filter, or treat the required volume or flow prior to discharge to a receiving water. This could include, for example, a treatment BMP at the end of an enclosed storm drain that collects runoff from several commercial developments.

Source Control BMP – Land use or site planning practices, or structural or nonstructural measures that aim to prevent urban runoff pollution by reducing the potential for contamination at the source of pollution. Source control BMPs minimize the contact between pollutants and urban runoff.

Storm Water – Per 40 CFR 122.26(b)(13), means storm water runoff, snowmelt runoff and surface runoff and drainage.

Standard Urban Storm Water Mitigation Plan (SUSMP) – A plan developed to mitigate the impacts of urban runoff from Priority Development Projects in accordance with Requirement F.2.b. of tentative Order No. R9-2004-001.

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

Toxicity - Adverse responses of organisms to chemicals or physical agents ranging from mortality to physiological responses such as impaired reproduction or growth anomalies). The water quality objectives for toxicity provided in the Water Quality Control Plan, San Diego Basin, Region 9, (Basin Plan), state in part...“All waters shall be free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life....The survival of aquatic life in surface waters subjected to a waste discharge or other controllable water quality factors, shall not be less than that for the same water body in areas unaffected by the waste discharge”.

Treatment Control BMP – Any engineered system designed to remove pollutants by simple gravity settling of particulate pollutants, filtration, biological uptake, media absorption or any other physical, biological, or chemical process.

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

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

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

Water Quality Assessment – Assessment conducted to evaluate the condition of non-storm water and storm water discharges, and the water bodies which receive these discharges.

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

Numeric or narrative limits for pollutants or characteristics of water designed to protect the beneficial uses of the water. In other words, a water quality objective is the maximum concentration of a pollutant that can exist in a receiving water and still generally ensure that the beneficial uses of the receiving water remain protected (i.e., not impaired). Since water quality objectives are designed specifically to protect the beneficial uses, when the objectives are violated the beneficial uses are, by definition, no longer protected and become impaired. This is a fundamental concept under the Porter Cologne Act. Equally fundamental is Porter Cologne's definition of pollution. A condition of pollution exists when the water quality needed to support designated beneficial uses has become unreasonably affected or impaired; in other words, when the water quality objectives have been violated. These underlying definitions (regarding beneficial use protection) are the reason why all waste discharge requirements implementing the federal NPDES regulations require compliance with water quality objectives. (Water quality objectives are also called water quality criteria in the CWA.)

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

Waters of the State - Any water, surface or underground, including saline waters within the boundaries of the State [CWC section 13050 (e)]. The definition of the Waters of the State is broader than that for the Waters of the United States in that all water in the State is considered to be a Waters of the State regardless of circumstances or condition. Under this definition, a MS4 is always considered to be a Waters of the State.

Waters of the United States - As defined in the 40 CFR 122.2, the Waters of the U.S. are defined as: "(a) All waters, which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and

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

Water Quality Assessment – Assessment conducted to evaluate the condition of non-storm water and storm water discharges, and the water bodies which receive these discharges.

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

Watershed Education Activity – An education activity which directly and significantly targets the sources of the pollutant discharges causing the watershed’s high priority water quality problems or informs appropriate target audiences of watershed concepts. Jurisdictional education activities which significantly exceed and are exhibited to be more protective of water quality than the baseline jurisdictional education requirements of section D.5 may be considered Watershed Education Activities. Such jurisdictional activities need not be implemented watershed-wide but must conform to the strategy developed under section E.2.g to be considered Watershed Education Activities. Activities implemented on a regional basis which significantly exceed and are exhibited to be more protective of water quality than the baseline jurisdictional education requirements of section D.5 may be considered Watershed Education Activities for a watershed, provided the activities directly targets the sources and discharges of pollutants causing the watershed’s high priority water quality problems. TMDL education activities which meet the criteria of this definition discussed above may also be considered Watershed Education Activities.

Watershed Urban Runoff Management Plan (WURMP) – A written description of the specific watershed urban runoff management measures and programs that each watershed group of Copermittees will implement to comply with this Order and ensure that pollutant discharges in urban runoff are reduced to the MEP and do not cause or contribute to a violation of water quality standards.

Watershed Water Quality Activity – An activity (such as BMP implementation or a similar management measure), implemented as part of a larger watershed water quality protection strategy, which directly and significantly abates the source(s) and/or reduces the discharge of pollutants causing the high priority water quality problem(s) within a watershed. The activity must be newly implemented during the cycle of this Order. Jurisdictional activities which significantly exceed and are exhibited to be more protective of water quality than the baseline jurisdictional requirements of section D may be considered Watershed Water Quality Activities. This may include additional jurisdictional controls implemented in compliance with sections

D.2.c(3), D.3.a(2)(e), D.3.b(2)(e), and D.3.c(2)(f) of this Order, provided these jurisdictional additional controls meet all other requirements of this definition and this Order. Such jurisdictional activities need not be implemented watershed-wide but must conform to the strategy developed under section E.2.g to be considered Watershed Water Quality Activities. Activities implemented on a regional basis which significantly exceed and are exhibited to be more protective of water quality than the baseline jurisdictional requirements of section D may be considered Watershed Water Quality Activities for a watershed, provided the activities directly and significantly abate the source(s) and/or reduce the discharge of pollutants causing the high priority water quality problem(s) within the watershed. For jurisdictional or regionally based activities to be considered Watershed Water Quality Activities in a watershed, the Copermitttee must implement the activities at all applicable locations throughout its portion of the watershed, and not just in one or a few locations. TMDL activities which meet the criteria of this definition discussed above may also be considered Watershed Water Quality Activities.

WDRs – Waste Discharge Requirements

Wet Season – September 1 through April 30 of each year.

ATTACHMENT D**INDIVIDUAL JURMP CONTENTS**

At a minimum, each Copermittee's JURMP shall be updated and revised to contain the following information:

1. Non-Storm Water Discharges
 - (a) Identification of non-storm water discharge categories identified as a source of pollutants to waters of the U.S.
 - (b) A description of whether non-storm water discharge categories identified under section 1(a) above will be prohibited or required to implement appropriate control measures to reduce the discharge of pollutants to the MEP.
 - (c) Identification of any control measures to be required and implemented for non-storm water discharge categories identified under section 1(a) above.
 - (d) A description of a program to reduce pollutants from non-emergency fire fighting flows identified by the Copermittee to be significant sources of pollutants.

2. Administrative and Legal Procedures
 - (a) Certified statement by the chief legal counsel that the Copermittee has adequate legal authority to implement and enforce each of the requirements contained in 40 CFR 122.26(d)(2)(i)(A-F) and this Order.
 - (b) Identification of all departments within the jurisdiction that conduct urban runoff related activities, and their roles and responsibilities under the Order. Include an up-to-date organizational chart specifying these departments and key personnel.
 - (c) Updated urban runoff related ordinances, with explanations of how they are enforceable.
 - (d) Identification of the local administrative and legal procedures available to mandate compliance with urban runoff related ordinances and therefore with the conditions of the Order.
 - (e) A finding of adequacy of enforcement tools to ensure compliance with this Order.
 - (f) Description of how urban runoff related ordinances are implemented and appealed.
 - (g) Description of whether the municipality can issue administrative orders and injunctions or if it must go through the court system for enforcement actions.

3. Development Planning
 - (a) A description of the water quality and watershed protection principles that have been or will be included in the Copermittee's General Plan, and a time schedule for when modifications are planned, if applicable.
 - (b) A description of the Copermittee's current environmental review process and how it addresses impacts to water quality and appropriate mitigation measures. If the Copermittee plans to modify the process during the permit term, a time schedule for modifications shall be included.
 - (c) A description of the development project approval process and requirements.
 - (d) An updated SUSMP document that meets the requirements specified in sections D.1.d and D.1.g(6). The updated SUSMP may be submitted under separate cover as an attachment to the JURMP.
 - (e) A description of the database to be used to track and inventory approved treatment control BMPs and treatment control BMP maintenance.
 - (f) A completed watershed-based inventory of approved treatment control BMPs.
 - (g) A description of the program to be implemented to ensure approved treatment control BMPs are operating effectively and have been adequately maintained, including

information on treatment control BMP inventory, prioritization, inspection, and annual verification.

- (h) A description of inspections that will be conducted to verify BMPs have been constructed according to requirements.
- (i) A description of collaboration efforts to be conducted to develop the HMP.
- (j) A description of enforcement mechanisms and how they will be used.

4. Construction

- (a) Updated grading and other applicable ordinances.
- (b) A description of the construction and grading approval processes.
- (c) Updated construction and grading project requirements.
- (d) A completed watershed-based inventory of all construction sites.
- (e) A description of steps that will be taken to maintain and update monthly a watershed-based inventory of all construction sites.
- (f) A list and description of the minimum BMPs that will be implemented, or required to be implemented, including pollution prevention.
- (g) A description of the steps that will be taken to ensure the implementation of the designated BMPs at all construction sites.
- (h) A description of planned inspection frequencies.
- (i) A description of inspection procedures.
- (j) A description of steps that will be taken to track construction site inspections to ensure that all construction sites are inspected at the minimum frequencies required.
- (k) A description of available enforcement mechanisms, under what conditions each will be used, and how they will escalate.
- (l) A description of notification procedures for non-compliant sites.

5. Municipal

- (a) A completed inventory of all municipal facilities and activities.
- (b) A description of which BMPs will be implemented, or required to be implemented, for municipal facilities and activities, including pollution prevention.
- (c) A description of steps that will be taken to ensure the implementation of designated BMPs at municipal facilities and activities.
- (d) A description of municipal maintenance activities and schedules.
- (e) A description of the management strategy and BMPs to be implemented for pesticides, herbicides, and fertilizer use.
- (f) A description of street and parking facility sweeping activities and schedules.
- (g) A description of controls and measures to be implemented to limit infiltration of seepage from sanitary sewers to MS4s.
- (h) A description of inspection frequencies and procedures.
- (i) A description of enforcement mechanisms and how they will be used.

6. Industrial and Commercial

- (a) A completed and prioritized inventory of all industrial and commercial sites/sources that could contribute a significant pollutant load to the MS4.
- (b) A list of minimum BMPs that will be implemented, or required to be implemented, for each facility type or pollutant-generating activity, including pollution prevention.
- (c) A description of the steps that will be taken to ensure the implementation of designated BMPs, including notification efforts.
- (d) Identification of high priority sites/sources and sites/sources to be inspected during the first year of implementation.

- (e) A description of the steps taken to identify sites/sources to be inspected during the first year of implementation, including rationale for their selection.
 - (f) A description of steps that will be taken to identify sites/sources to be inspected in subsequent years.
 - (g) A description of inspection procedures.
 - (h) A description compliance verification mechanisms to be implemented.
 - (i) A description of the program to be implemented to regulate mobile businesses, including notification of BMP requirements and local ordinances.
 - (j) A description of enforcement mechanisms and how they will be used.
 - (k) A description of steps that will be taken to identify non-filers and notify the Regional Board of non-filers.
7. Residential
- (a) A list of residential areas and activities that have been identified as high priority.
 - (b) A list of minimum BMPs that will be implemented, or required to be implemented, for high priority residential activities.
 - (c) A description of which pollution prevention methods will be encouraged for implementation, and the steps that will be taken to encourage implementation.
 - (d) A description of the steps that will be taken to ensure the implementation of prescribed BMPs for high priority residential activities.
 - (e) A description of efforts to facilitate proper disposal of used oil and other toxic materials.
 - (f) A description of enforcement mechanisms and how they will be used.
8. Illicit Discharge Detection and Elimination
- (a) A description of the program to actively seek and eliminate illicit discharges and illicit connections.
 - (b) An updated MS4 map, including locations of the MS4, dry weather field screening and analytical monitoring sites, and watersheds.
 - (c) A description of dry weather field screening and analytical monitoring to be conducted (including procedures) which addresses all requirements included in sections B.1-4 of Receiving Waters Monitoring and Reporting Program No. 2006-11.
 - (d) A description of investigation and inspection procedures to follow up on dry weather monitoring results or other information which indicate potential for illicit discharges and illicit connections.
 - (e) A description of procedures to eliminate detected illicit discharges and illicit connections.
 - (f) A description of enforcement mechanisms and how they will be used.
 - (g) A description of the mechanism to receive notification of spills.
 - (h) A description of measures to prevent, respond to, contain, and clean up all sewage and other spills.
 - (i) A description of efforts to facilitate public reporting of illicit discharges and connections, including a public hotline.
9. Education
- (a) A description of the content, form, and frequency of education efforts for each target community.
 - (b) A description of steps to be taken to educate underserved target audiences, high-risk behaviors, and "allowable" behaviors and discharges, including various ethnic and socioeconomic groups and mobile sources.
 - (c) A description of the content, form, and frequency of education efforts targeting municipal staff working on development planning, construction, industrial/commercial, and other aspects of the Jurisdictional Urban Runoff Management Program.

- (d) A description of the content, form, and frequency of education efforts targeting new development and construction target communities.
- (e) A description of the content, form, and frequency of jurisdictional education efforts for the residential, general public, and school children target communities.

10. Public Participation

- (a) A description of the steps that will be taken to include public participation in the development and implementation of each Copermittee's Jurisdictional Urban Runoff Management Program.

11. Fiscal Analysis

- (a) A description of the fiscal analysis to be conducted annually, consistent with the standardized fiscal analysis developed by the Copermittees as part of the Regional Urban Runoff Management Program, including identification of categories of expenditures, programs the expenditures are attributable to, and metrics to be used for reporting.

12. Program Effectiveness Assessment

- (a) A description of steps that will be taken to annually conduct program effectiveness assessments in compliance with section I.1 of the Order.
- (b) Identify measurable targeted outcomes, assessment measures, and assessment methods to be used to assess the effectiveness of:
 - (1) Each significant jurisdictional activity or BMP to be implemented.
 - (2) Implementation of each major component of the Jurisdictional Urban Runoff Management Program.
 - (3) Implementation of the Jurisdictional Urban Runoff Management Program as a whole.
- (c) Identify which of the outcome levels 1-6 will be utilized to assess the effectiveness of each of the items listed in sections 12(b)(1-3). Where an outcome level is determined to not be applicable or feasible for an item listed in section 12(b)(1-3), the Copermittee shall provide a discussion exhibiting inapplicability or infeasibility.
- (d) A description of the steps that will be taken to utilize monitoring data to assess the effectiveness of each of the items listed in sections 12(b)(1-3).
- (e) A description of the steps that will be taken to improve the Copermittee's ability to assess program effectiveness using measurable targeted outcomes, assessment measures, assessment methods, and outcome levels 1-6. Include a time schedule for when improvement will occur.
- (f) A description of the steps that will be taken to identify aspects of the Copermittee's Jurisdictional Urban Runoff Management Program that will be changed, based on the results of the effectiveness assessment.

13. JURMP Modification

- (a) Identification of the location in the JURMP of any changes made to the JURMP in order to meet the requirements of Order No. R9-2006-0011.

ATTACHMENT E**JURISDICTIONAL URBAN RUNOFF MANAGEMENT PROGRAM
ANNUAL REPORT CONTENTS**

Each Jurisdictional Urban Runoff Management Program Annual Report shall contain a comprehensive description of all activities conducted by the Copermittee to meet all requirements of section D, including the following information:

A. Development Planning

1. A description of any amendments to the General Plan, the environmental review process, development project approval processes, or development project requirements.
2. Confirmation that all development projects were required to undergo the Copermittee's urban runoff approval process and meet the applicable project requirements, including a description of how this information was tracked.
3. A listing of the development projects to which SUSMP requirements were applied.
4. Confirmation that all applicable SUSMP BMP requirements were applied to all priority development projects, including a description of how this information was tracked.
5. At least one example of a priority development project that was conditioned to meet SUSMP requirements and a description of the required BMPs.
6. A listing of the priority development projects which were allowed to implement treatment control BMPs with low removal efficiency rankings, including the feasibility analyses which were conducted to exhibit that more effective BMPs were infeasible.
7. A listing of priority development projects which implemented the site design BMP substitution program, including a description of the site design BMPs utilized for each of the development projects.
8. An updated treatment control BMP inventory.
9. The number of treatment control BMPs inspected, including a summary of inspection results and findings.
10. A description of the annual verification of operation and maintenance of treatment control BMPs, including a summary of verification results and findings.
11. Confirmation that BMP verification was conducted for all priority development projects prior to occupancy, including a description of how this information was tracked.
12. A listing of any projects which received a SUSMP waiver.
13. A description of Hydromodification Management Plan (HMP) development collaboration and participation.
14. A listing of development projects required to meet HMP requirements, including a description of hydrologic control measures implemented.
15. A listing of priority development projects not required to meet HMP requirements, including a description of why the projects were found to be exempt from the requirements.
16. A listing of development projects disturbing 50 acres or more, including confirmation that Hydromodification Analysis Studies were conducted for the projects, together with a description of hydrologic control measures implemented for each project.
17. The number of violations and enforcement actions (including types) taken for development projects, including information on any necessary follow-up actions taken. The discussion should exhibit that compliance has been achieved, or describe actions that are being taken to achieve compliance.
18. A description of notable activities conducted to manage urban runoff from development projects.

B. Construction

1. Confirmation that all construction sites were required to undergo the Copermittee's construction urban runoff approval process and meet the applicable construction requirements, including a description of how this information was tracked.
2. Confirmation that a regularly updated construction site inventory was maintained, including a description of how the inventory was managed.
3. A description of modifications made to the construction and grading ordinances and approval processes.
4. Confirmation that the designated BMPs were implemented, or required to be implemented, for all construction sites.
5. For each construction site within each priority category (high, medium, and low), identification of the period of time (weeks) the site was active within the rainy season, the number of inspections conducted during the rainy season, and the number of inspections conducted during the dry season, and the total number of inspections conducted for all sites.
6. A description of the general results of the inspections.
7. Confirmation that the inspections conducted addressed all the required inspection steps to determine full compliance.
8. The number of violations and enforcement actions (including types) taken for construction sites, including information on any necessary follow-up actions taken. The discussion should exhibit that compliance has been achieved, or describe actions that are being taken to achieve compliance.
9. A description of notable activities conducted to manage urban runoff from construction sites.

C. Municipal

1. Any updates to the municipal inventory and prioritization.
2. Confirmation that the designated BMPs were implemented, or required to be implemented, for municipal areas and activities.
3. A description of inspections and maintenance conducted for municipal treatment controls.
4. Identification of the total number of catch basins and inlets, the number of catch basins and inlets inspected, the number of catch basins and inlets found with accumulated waste, and the number of catch basins and inlets cleaned.
5. Identification of the total distance (miles) of the MS4, the distance of the MS4 inspected, the distance of the MS4 found with accumulated waste, and the distance of the MS4 cleaned.
6. Identification of the total distance (miles) of open channels, the distance of open channels inspected, the distanced of open channels found with anthropogenic litter, and the distance of open channels cleaned.
7. Amount of waste and litter (tons) removed from catch basins, inlets, the MS4, and open channels, by category.
8. Confirmation that the designated BMPs for pesticides, herbicides, and fertilizers were implemented, or required to be implemented, for municipal areas and activities.
9. Identification of the total distance of curb-miles, the distance of curb-miles swept, and the frequency of sweeping.
10. Identification of the number of municipal parking lots, the number of municipal parking lots swept, and the frequency of sweeping.
11. Amount of material (tons) collected from street sweeping.
12. A description of efforts implemented to limit infiltration from the sanitary sewer to the MS4

13. Identification of the number of sites requiring inspections, the number of sites inspected, and the frequency of the inspections.
14. A description of the general results of the inspections.
15. Confirmation that the inspections conducted addressed all the required inspection steps to determine full compliance.
16. The number of violations and enforcement actions (including types) taken for municipal areas and activities, including information on any necessary follow-up actions taken. The discussion should exhibit that compliance has been achieved, or describe actions that are being taken to achieve compliance.
17. A description of notable activities conducted to manage urban runoff from municipal areas and activities.

D. Industrial and Commercial

1. Any updates to the industrial and commercial inventory.
2. Confirmation that the designated BMPs were implemented, or required to be implemented, for industrial and commercial sites/sources.
3. A description of efforts taken to notify owners/operators of industrial and commercial sites/sources of BMP requirements, including mobile businesses.
4. Identification of the total number of industrial and commercial sites/sources inventoried and the total number inspected.
5. Justification and rationale for why the industrial and commercial sites/sources inspected were chosen for inspection.
6. Confirmation that the inspections conducted addressed all the required inspection steps to determine full compliance.
7. A description of efforts implemented to verify compliance in addition to inspections.
8. A description of efforts implemented to address mobile businesses.
9. The number of violations and enforcement actions (including types) taken for industrial and commercial sites/sources, including information on any necessary follow-up actions taken. The discussion should exhibit that compliance has been achieved, or describe actions that are being taken to achieve compliance.
10. A description of steps taken to identify non-filers and a list of non-filers (under the General Industrial Permit) identified by the Copermittees.
11. A description of notable activities conducted to manage urban runoff from industrial and commercial sites/sources.

E. Residential

1. Identification of the high threat to water quality residential areas and activities that were focused on.
2. Confirmation that the designated BMPs were implemented, or required to be implemented, for residential areas and activities.
3. A description of efforts implemented to facilitate proper management and disposal of used oil and other household hazardous materials.
4. Types and amounts of household hazardous wastes collected, if applicable.
5. The number of violations and enforcement actions (including types) taken for residential areas and activities, including information on any necessary follow-up actions taken. The discussion should exhibit that compliance has been achieved, or describe actions that are being taken to achieve compliance.
6. A description of collaboration efforts taken to develop and implement the Regional Residential Education Program.

7. A description of notable activities conducted to manage urban runoff from residential areas and activities.

F. Illicit Discharge Detection and Elimination

1. Correction of any inaccuracies in either the MS4 map or the Dry Weather Field Screening and Analytical Stations Map.
2. Reporting of all dry weather field screening and analytical monitoring results. The data should be presented in tabular and graphical form. The reporting shall include station locations, all dry weather field screening and analytical monitoring results, identification of sites where results exceeded action levels, follow-up and elimination activities for potential illicit discharges and connections, the rationale for why follow-up investigations were not conducted at sites where action levels were exceeded, any Copermittee or consultant program recommendations/changes resulting from the monitoring, and documentation that these recommendations/changes have been implemented. Dry weather field screening and analytical monitoring reporting shall comply with all monitoring and standard reporting requirements in Attachment B of Order 2006-11 and Receiving Waters Monitoring and Reporting Program No. 2006-11.
3. Any dry weather field screening and analytical monitoring consultant reports generated, to be provided as an attachment to the annual report.
4. A brief description of any other investigations and follow-up activities for illicit discharges and connections.
5. The number and brief description of illicit discharges and connections identified.
6. The number of illicit discharges and connections eliminated.
7. Identification and description of all spills to the MS4 and response to the spills.
8. A description of activities implemented to prevent sewage and other spills from entering the MS4.
9. A description of the mechanism whereby notification of sewage spills from private laterals and septic systems is received.
10. Number of times the hotline was called, as compared to previous reporting periods, and a summary of the calls.
11. A description of efforts to publicize and facilitate public reporting of illicit discharges.
12. The number of violations and enforcement actions (including types) taken for illicit discharges and connections, including information on any necessary follow-up actions taken. The discussion should exhibit that compliance has been achieved, or describe actions that are being taken to achieve compliance.
13. A description of notable activities conducted to manage illicit discharges and connections.

G. Education

1. A description of education efforts conducted for each target community.
2. A description of how education efforts targeted underserved target audiences, high-risk behaviors, and "allowable" behaviors and discharges.
3. A description of education efforts conducted for municipal departments and personnel.
4. A description of education efforts conducted for the new development and construction communities.
5. A description of jurisdictional education efforts conducted for residents, the general public, and school children.

H. Public Participation

1. A description of public participation efforts conducted.

I. Program Effectiveness Assessment

1. An assessment of the effectiveness of the Jurisdictional Urban Runoff Management Program which meets all requirements of section I.1 of this Order.

J. Fiscal Analysis

1. A fiscal analysis of the Copermittee's urban runoff management programs which meets all requirements of section G of this Order.

K. Special Investigations

1. A description of any special investigations conducted.

L. Non-Emergency Fire Fighting

1. A description of any efforts conducted to reduce pollutant discharges from non-emergency fire fighting flows.

M. JURMP Revisions

1. A description of any proposed revisions to the JURMP.

ATTACHMENT F

SCHEDULED SUBMITTALS SUMMARY

Submittal	Permit Section	Completion Date	Frequency
Submit identification of discharges not to be prohibited and BMPs required for treatment of discharges not prohibited	B.3.	July 1, 2007	One Time
Submit Certified Statement of Adequate Legal Authority	C.2	July 1, 2007	One Time
Long-Term Effectiveness Assessment	I.5 and J.5	January 31, 2010	One Time
Submit to Principal Permittee(s) individual JURMPs	J.1.a	Prior to July 1, 2007 (Principal Permittee specifies date of submittal)	One Time
Principal Permittee submits to Regional Board unified JURMP	J.1.b	July 1, 2007	One Time
Lead Watershed Permittees submit WURMPs to Principal Permittee	J.2.b	Prior to July 1, 2007 (Principal Permittee specifies date of submittal)	One Time
Principal Permittee submits to Regional Board unified WURMP	J.2.c	July 1, 2007	One Time
Principal Permittee submits RURMP to Regional Board	J.3.b	July 1, 2007	One Time
Principal Permittee submits Hydromodification Management Plan workplan	J.4.b(1)	January 15, 2007	One Time
Principal Permittee submits Hydromodification Management Plan progress report	J.4.b(2)	July 15, 2007	One Time
Principal Permittee submits draft Hydromodification Management Plan	J.4.b(3)	January 15, 2008	One Time
Principal Permittee submits final Hydromodification Management Plan workplan	J.4.b(4)	July 15, 2008	One Time
Principal Permittee submits Report of Waste Discharge	J.6	210 days prior to Order expiration	One Time
Principal Permittee submits Notification of Principal Permittee	M	180 days after adoption of the Order	One Time
Principal Permittee submits formal agreement between Copermitees which provides management structure for meeting Order requirements	M.5	180 days after adoption of Order	One Time
Submit to Principal Permittee individual Jurisdictional Urban Runoff Management Program Annual Reports	Monitoring and Reporting Program, III.1.a	Prior to September 30, 2008, and annually thereafter (Principal Permittee specifies date of submittal)	Annually
Principal Permittee submits unified Jurisdictional Urban Runoff Management Program Annual Report to Regional Board	Monitoring and Reporting Program, III.1.b	September 30, 2008, and annually thereafter	Annually
Lead Watershed Permittees submit to Principal Permittee Watershed Urban Runoff Management Program Annual Reports	Monitoring and Reporting Program, III.2.a	Prior to January 31, 2009 and annually thereafter (Principal Permittee specifies date of submittal)	Annually
Principal Permittee(s) submits unified Watershed Urban Runoff Management Program Annual Report to Regional Board	Monitoring and Reporting Program, III.2.c	January 31, 2009 and annually thereafter	Annually
Principal Permittee submits Regional Urban Runoff Management Program Annual Report to Regional Board	Monitoring and Reporting Program, III.3	January 31, 2009 and annually thereafter	Annually
Principal Permittee submits description of Receiving Waters Monitoring Program	Monitoring and Reporting Program, III.4.a	October 1, 2006 and annually thereafter	Annually
Principal Permittee submits description of various monitoring program components	Monitoring and Reporting Program, III.4.c	July 1, 2007	One Time

Submittal	Permit Section	Completion Date	Frequency
Principal Permittee submits Receiving Waters Monitoring Program Annual Report	Monitoring and Reporting Program, III.4.b	January 31, 2008 and annually thereafter	Annually
Principal Permittee submits interim Receiving Waters Monitoring Program Annual Report	Monitoring and Reporting Program, III.7	January 31, 2007	One Time
Principal Permittee submits unified interim Jurisdictional URMP and Watershed URMP Annual Reports	Monitoring and Reporting Program, III.7	January 31, 2007 and January 31, 2008	Twice
Principal Permittee(s) shall submit standardized formats for all reports required under this Order	M.6	180 days after adoption of Order	One Time

TENTATIVE RECEIVING WATERS MONITORING AND REPORTING PROGRAM
NO. R9-2006-0011

I. PURPOSE

- A. This Receiving Waters Monitoring and Reporting Program is intended to meet the following goals:
1. Assess compliance with Order No. R9-2006-0011;
 2. Measure and improve the effectiveness of the Copermittees' urban runoff management programs;
 3. Assess the chemical, physical, and biological impacts to receiving waters resulting from urban runoff discharges;
 4. Characterize urban runoff discharges;
 5. Identify sources of specific pollutants;
 6. Prioritize drainage and sub-drainage areas that need management actions;
 7. Detect and eliminate illicit discharges and illicit connections to the MS4; and
 8. Assess the overall health of receiving waters.
- B. In addition, this Receiving Waters Monitoring and Reporting Program is designed to answer the following core management questions:
1. Are conditions in receiving waters protective, or likely to be protective, of beneficial uses?
 2. What is the extent and magnitude of the current or potential receiving water problems?
 3. What is the relative urban runoff contribution to the receiving water problem(s)?
 4. What are the sources of urban runoff that contribute to receiving water problem(s)?
 5. Are conditions in receiving waters getting better or worse?

II. MONITORING PROGRAM

A. Core Receiving Waters Monitoring Program

Each Copermittee shall collaborate with the other Copermittees to develop, conduct, and report on a year round watershed based Receiving Waters Monitoring Program. The monitoring program design, implementation, analysis, assessment, and reporting shall be conducted on a watershed basis for each of the hydrologic units. The monitoring program shall be designed to meet the goals and answer the questions listed in section I above. The monitoring program shall include the following monitoring:

1. MASS LOADING STATION (MLS) MONITORING
 - a. The following existing mass loading stations shall continue to be monitored: Santa Margarita River,¹ San Luis Rey River, Agua Hedionda Creek, Escondido Creek, San Dieguito River, Penasquitos, Tecolote Creek, San Diego River, Chollas Creek, Sweetwater River, and Tijuana River. The mass loading stations shall be monitored at the frequency identified in Table 1.

¹ For the Santa Margarita River mass loading station, if Camp Pendleton will not conduct the required monitoring or prevents access for the Copermittees to conduct the required monitoring, the mass loading station location shall be moved to where the County of San Diego has land-use jurisdiction.

- b. Each mass loading station to be monitored in a given year shall be monitored twice during wet weather events and twice during dry weather flow events. The exception is the 2008-2009 monitoring year, which shall include monitoring of all mass loading stations for one dry weather flow event only if the Copermittees participate in Bight '08.
- c. Each mass loading station shall be monitored for the first wet weather event of the season which meets the USEPA's criteria as described in 40 CFR 122.21(g)(7). Monitoring of the second wet weather event shall be conducted after February 1. Dry weather mass loading monitoring events shall be sampled in October prior to the start of the wet weather season and in May after the end of the wet weather season. If flows are not evident in October, then sampling shall be conducted during non-rain events in the wet weather season.
- d. Mass loading sampling and analysis protocols shall be consistent with 40 CFR 122.21(g)(7)(ii) and with the USEPA Storm Water Sampling Guidance Document (EPA 833-B-92-001). Wet weather samples shall be flow-weighted composites, collected for the duration of the entire runoff event, where practical. Where such monitoring is not practical, such as for large watersheds with significant groundwater recharge flows, composites shall be collected at a minimum during the first 3 hours of flow. Dry weather event samples shall be flow-weighted composites, collected for a time duration adequate to be representative of changes in pollutant concentrations and runoff flows which may occur over a typical 24 hour period. A minimum of 3 sample aliquots, separated by a minimum of 15 minutes, shall be taken for each hour of monitoring, unless the Regional Board Executive Officer approves an alternate protocol. Automatic samplers shall be used to collect samples from mass loading stations. Grab samples shall be taken for temperature, pH, specific conductance, biochemical oxygen demand, oil and grease, total coliform, fecal coliform, and enterococcus.
- e. Copermittees shall measure or estimate flow rates and volumes for each mass loading station sampling event in order to determine mass loadings of pollutants. Data from nearby USGS gauging stations may be utilized, or flow rates may be estimated in accordance with the USEPA Storm Water Sampling Guidance Document (EPA-833-B-92-001), Section 3.2.1.
- f. In the event that the required number of events are not sampled during one monitoring year at any given station, the Copermittees shall submit, with the subsequent Receiving Waters Monitoring Annual Report, a written explanation for a lack of sampling data, including streamflow data from the nearest USGS gauging station.
- g. The following constituents shall be analyzed for each monitoring event at each station:

Table 2. Analytical Testing for Mass Loading and Temporary Watershed Assessment Stations

Conventionals, Nutrients, Hydrocarbons	Pesticides	Metals (Total and Dissolved)	Bacteriological
Total Dissolved Solids Total Suspended Solids Turbidity Total Hardness pH Specific Conductance Temperature Dissolved Phosphorus Nitrite Nitrate Total Kjeldahl Nitrogen Ammonia Biological Oxygen Demand, 5-day Chemical Oxygen Demand Total Organic Carbon Dissolved Organic Carbon Methylene Blue Active Substances Oil and Grease	Diazinon Chlorpyrifos Malathion	Antimony Arsenic Cadmium Chromium Copper Lead Nickel Selenium Zinc	Total Coliform Fecal Coliform Enterococcus

- h. In addition to the constituents listed in Table 2 above, monitoring stations in the Chollas Creek watershed shall also analyze samples for polychlorinated biphenyls (PCBs), Chlordane, and polycyclic aromatic hydrocarbons (PAHs) for each monitoring event.
- i. The following toxicity testing shall be conducted for each monitoring event at each station as follows:
 - (1) 7-day chronic test with the cladoceran *Ceriodaphnia dubia* (USEPA protocol EPA-821-R-02-013).
 - (2) Chronic test with the freshwater algae *Selenastrum capricornutum* (USEPA protocol EPA-821-R-02-013).
 - (3) Acute survival test with amphipod *Hyaella azteca* (USEPA protocol EPA-821-R-02-012).
- j. The presence of acute toxicity shall be determined in accordance with USEPA protocol (EPA-821-R-02-012). The presence of chronic toxicity shall be determined in accordance with USEPA protocol (EPA-821-R-02-013).

2. TEMPORARY WATERSHED ASSESSMENT STATION (TWAS) MONITORING

- a. The minimum number of temporary watershed assessment stations to be monitored in a given monitoring year is identified in Table 1. The number of stations located within each watershed may change from the number identified in Table 1, provided the total number of stations monitored in a given year is not reduced below the minimum number of stations identified in Table 1. The temporary watershed assessment stations shall be monitored and located according to a systematic plan which:
 - (1) Ensures that the Copermittees' Receiving Waters Monitoring Program most effectively answers questions 1-5 of section I.B above.
 - (2) Provides statistically useful information.

- (3) Identifies the extent and magnitude of receiving water problems within each watershed.
 - (4) Provides spatial coverage of each watershed.
 - (5) Monitors previously un-assessed sub-watershed areas.
 - (6) Focuses on specific areas of concern and high priority areas.
 - (7) Provides adequate information to assess the effectiveness of implemented programs and control measures in reducing discharged pollutant loads and improving urban runoff and receiving water quality.
- b. For each temporary watershed assessment station identified to be monitored in a given year, the station shall be monitored twice during wet weather events and twice during dry weather flow events.
 - c. Temporary watershed assessment stations shall be monitored in the same manner as the mass loading stations in accordance with the monitoring protocols and requirements outlined in sections II.A.1.c-j above.
3. BIOASSESSMENT (BA) MONITORING
- a. The minimum number of bioassessment stations to be monitored in each watershed in a given monitoring year is identified in Table 1. Bioassessment stations shall include an adequate number of reference stations, with locations of reference stations identified according to protocols outlined in "A Quantitative Tool for Assessing the Integrity of Southern Coastal California Streams," by Ode, et al. 2005.²
 - b. Bioassessment stations shall be collocated with both mass loading stations and temporary watershed assessment stations where feasible.
 - c. Bioassessment stations to be monitored in a given monitoring year shall be monitored in late spring/May (to represent the influence of wet weather on the communities) and late summer/October (to represent the influence of dry weather flows on the communities). The timing of monitoring of bioassessment stations shall coincide with dry weather monitoring of mass loading and temporary watershed assessment stations.
 - d. Monitoring of bioassessment stations shall utilize the targeted riffle composite approach, as specified in the Surface Water Ambient Monitoring Program (SWAMP) Quality Assurance Management Plan (QAMP), as amended.
 - e. Monitoring of bioassessment stations shall incorporate assessment of periphyton in addition to macroinvertebrates, using the USEPA's 1999 Rapid Bioassessment Protocols for Use in Wadeable Streams and Rivers.³
 - f. Bioassessment analysis procedures shall include calculation of the Index of Biotic Integrity (IBI) for benthic macroinvertebrates for all bioassessment

² Ode, et al. 2005. "A Quantitative Tool for Assessing the Integrity of Southern Coastal California Streams." Environmental Management. Vol. 35, No. 1, pp. 1-13.

³ USEPA, 1999. Rapid Bioassessment Protocols for Use in Wadeable Streams and Rivers. EPA-841-B-99-002.

stations, as outlined in "A Quantitative Tool for Assessing the Integrity of Southern Coastal California Streams," by Ode, et al. 2005.

- g. A professional environmental laboratory shall perform all sampling, laboratory, quality assurance, and analytical procedures.

4. FOLLOW-UP ANALYSIS AND ACTIONS

When results from the chemistry, toxicity, and bioassessment monitoring described above indicate urban runoff-induced degradation at a mass loading or temporary watershed assessment station, Copermittees within the watershed shall evaluate the extent and causes of urban runoff pollution in receiving waters and prioritize and implement management actions to eliminate or reduce sources. Toxicity Identification Evaluations (TIEs) shall be conducted to determine the cause of toxicity as outlined in Table 3 below. Other follow-up activities which shall be conducted by the Copermittees are also identified in Table 3. Once the cause of toxicity has been identified by a TIE, the Copermittees shall implement the measures necessary to reduce the pollutant discharges and abate the sources causing the toxicity.

Table 3. Triad Approach to Determining Follow-Up Actions

	Chemistry	Toxicity	Bioassessment	Action
1.	Persistent ⁴ exceedance of water quality objectives (high frequency constituent of concern identified)	Evidence of persistent toxicity ⁵	Indications of alteration ⁶	Conduct TIE to identify contaminants of concern, based on TIE metric. Address upstream sources as a high priority.
2.	No persistent exceedances of water quality objectives	No evidence of persistent toxicity	No indications of alteration	No action necessary.
3.	Persistent exceedance of water quality objectives (high frequency constituent of concern identified)	No evidence of persistent toxicity	No indications of alteration	Address upstream sources as a low priority.
4.	No persistent exceedances of water quality objectives	Evidence of persistent toxicity	No indications of alteration	Conduct TIE to identify contaminants of concern, based on TIE metric. Address upstream sources as medium priority.
5.	No persistent exceedances of water quality objectives	No evidence of persistent toxicity	Indications of alteration	No action necessary to address toxic chemicals. Address potential role of urban runoff in causing physical habitat disturbance.

⁴ Persistent exceedance shall mean exceedances of established water quality objectives, benchmarks, or action levels by a pollutant known to cause toxicity for two wet weather and/or two dry weather samples in a given year.

⁵ Evidence of toxicity shall mean where more than 50% of the toxicity tests for any given species have a No Observed Effect Concentration (NOEC) of less than 100%.

⁶ Indications of alteration shall mean an IBI score of Poor or Very Poor.

	Chemistry	Toxicity	Bioassessment	Action
6.	Persistent exceedance of water quality objective (high frequency constituent of concern identified)	Evidence of persistent toxicity	No indications of alteration	If chemical and toxicity tests indicate persistent degradation, conduct TIE to identify contaminants of concern, based on TIE metric and address upstream source as a medium priority.
7.	No persistent exceedances of water quality objectives	Evidence of persistent toxicity	Indications of alteration	Conduct TIE to identify contaminants of concern, based on TIE metric. Address upstream sources as a high priority. Address potential role of urban runoff causing physical habitat disturbance.
8.	Persistent exceedance of water quality objectives objective (high frequency constituent of concern identified)	No evidence of persistent toxicity	Indications of alteration	Address upstream source as a high priority.

5. AMBIENT BAY AND LAGOON MONITORING (ABLM)

- a. Ambient Bay and Lagoon Monitoring shall be conducted according to the schedule identified in Table 1.
- b. If results of the Ambient Bay and Lagoon Monitoring assessment to be conducted in 2006-2007 indicate a general relationship and/or linkage between conditions in bays/lagoons/estuaries with conditions at mass loading stations, then monitoring shall be conducted at the following locations: Santa Margarita River Estuary, Oceanside Harbor, San Luis Rey Estuary, Buena Vista Lagoon, Agua Hedionda Lagoon, Batiquitos Lagoon, San Elijo Lagoon, San Dieguito Lagoon, Los Penasquitos Lagoon, Mission Bay, Sweetwater River Estuary, and Tijuana River Estuary. This monitoring shall be designed to most effectively answer each of questions 1-5 of section I.B above as they pertain to bays/lagoons/estuaries.
- c. If results of the Ambient Bay and Lagoon Monitoring assessment to be conducted in 2006-2007 do not indicate a relationship and/or linkage between conditions in bays/lagoons/estuaries with conditions at mass loading stations, then monitoring shall be conducted for special investigations of the bays/lagoons/estuaries. These special investigations shall be designed to most effectively answer each of questions 1-5 of section I.B above as they pertain to bays/lagoons/estuaries, with an emphasis on answering question 4.
- d. Ambient Bay and Lagoon Monitoring shall utilize the triad approach, analyzing chemistry, toxicity, and benthic infauna data.
- e. Ambient Bay and Lagoon Monitoring shall include a water column monitoring component as necessary to supply information needed for the development, implementation, and assessment of Total Maximum Daily Loads (TMDLs).

6. COASTAL STORM DRAIN MONITORING

The Copermittees shall collaborate to develop and implement a coastal storm drain monitoring program. The monitoring program shall include:

- a. Identification of coastal storm drains which discharge to coastal waters.
- b. Monthly sampling of all flowing coastal storm drains identified in section II.A.6.a for total coliform, fecal coliform, and enterococcus.⁷ Where flowing coastal storm drains are discharging to coastal waters, paired samples from the storm drain discharge and coastal water (25 yards down current of the discharge) shall be collected. If flowing coastal storm drains are not discharging to coastal waters, only the storm drain discharge needs to be sampled.

(1) Frequency of sampling of coastal storm drains may be reduced to every other month if the paired coastal storm drain data:

- (a) Exhibits three consecutive storm drain samples with all bacterial indicators below the Copermittees' sampling frequency reduction criteria, as the sampling frequency reduction criteria was developed under Order No. 2001-01.
- (b) Exhibits that the three consecutive samples discussed in (a) above are paired with receiving water samples that do not exceed Assembly Bill (AB) 411 or Basin Plan standards.
- (c) Exhibits that less than 20% of the storm drain samples were above any of the sampling frequency reduction criteria during the previous year.

(2) The Copermittees shall notify the Regional Board of any coastal storm drains eligible for sampling frequency reduction prior to October 1 of each year. Sampling frequency reduction shall not occur prior to Regional Board notification.

(3) Re-sampling shall be implemented within 24 hours of receipt of analytical results for coastal storm drains where:

- (a) Both storm drain and receiving water samples exceed AB 411 or Basin Plan standards for any bacterial indicator.
- (b) The storm drain sample exceeds 95th percentile observations of the previous year's data for any bacterial indicator.

(4) If re-sampling conducted under section (3) above exhibits continued exceedances of a AB 411 or Basin Plan standards in either the storm drain or receiving water, investigations of sources of bacterial contamination shall commence within 24 hours of receipt of analytical results.

⁷ Coastal storm drains where sampler safety, habitat impacts from sampling, or inaccessibility are issues need not be sampled. Such coastal storm drains shall be added to the Copermittee's dry weather field screening and analytical monitoring program where feasible.

(5) Investigations of sources of bacterial contamination shall occur immediately if evidence of abnormally high flows, sewage releases, restaurant discharges, and/or similar evidence is observed during sampling.

(6) Exceedances of public health standards for bacterial indicators shall be reported to the County Department of Public Health as soon as possible.

7. TOXIC HOT SPOT MONITORING

The Copermittees shall collaborate to develop and implement a monitoring program to assess the relative contribution of urban runoff on Toxic Hot Spots in San Diego Bay.

8. PYRETHROIDS MONITORING

The Copermittees shall collaborate to develop and implement a monitoring program to effectively measure and assess the presence of pyrethroids in urban runoff and receiving waters, as well as assess the impacts of pyrethroids on beneficial uses. This monitoring program shall be implemented within each watershed and shall begin no later than the 2007-2008 monitoring year.

9. TRASH MONITORING

The Copermittees shall collaborate to develop and implement a monitoring program to effectively measure and assess the presence of trash (anthropogenic litter) in urban runoff and receiving waters, as well as assess the impacts of trash on beneficial uses. This monitoring program shall be implemented within each watershed and shall begin no later than the 2007-2008 monitoring year.

10. MS4 DISCHARGE MONITORING

The Copermittees shall collaborate to develop and implement a monitoring program to characterize pollutant discharges from MS4 outfalls in each watershed during wet and dry weather. Outfalls to be monitored shall be representative of the outfalls within each watershed in terms of size, flow, drainage area conditions (such as land use), etc. The program shall include rationale and criteria for selection of outfalls to be monitored. The program shall at a minimum include collection of samples for those pollutants causing or contributing to violations of water quality standards within the watershed. Frequency of monitoring and monitoring methods shall ensure monitoring which is representative of outfall discharge flow and pollutant conditions. This monitoring program shall be implemented within each watershed and shall begin no later than the 2007-2008 monitoring year.

11. SOURCE IDENTIFICATION STUDIES

The Copermittees shall collaborate to develop and implement a monitoring program to identify sources of discharges of pollutants causing the high priority water quality problems within each watershed. The monitoring program shall include focused monitoring which moves upstream into each watershed as necessary to identify sources. The monitoring program shall use source inventories and "Threat to Water

Quality” analysis to guide monitoring efforts. This monitoring program shall be implemented within each watershed and shall begin no later than the 2007-2008 monitoring year.

12. TMDL MONITORING

All monitoring shall be conducted as required in Investigation Order No. R9-2004-0277 for Chollas Creek.

B. Regional Monitoring Program

1. The Copermittees shall participate and coordinate with federal, state, and local agencies and other dischargers in development and implementation of a regional watershed monitoring program as directed by the Executive Officer.
2. Bight '08
 - a. During the 2008-2009 monitoring year (Permit Year 3), the Copermittees may participate in the Bight '08 study. The Copermittees shall ensure that such participation results in collection and analysis of data useful in addressing the goals and management questions of the Receiving Waters Monitoring Program. Any participation shall include the contribution of all funds not otherwise spent on full implementation of mass loading station, temporary watershed assessment station, ambient bay and lagoon, and bioassessment monitoring. All other monitoring shall continue during the 2008-2009 monitoring year (Permit Year 3) as required.
 - b. If the Copermittees do not participate in Bight '08, mass loading station, temporary watershed assessment station, ambient bay an lagoon, and bioassessment monitoring shall be conducted as follows:
 - (1) Permit Year 4 (2009-2010) monitoring shall be conducted in Permit Year 3 (2008-2009) (see Table 1).
 - (2) Permit Year 5 (2010-2011) monitoring shall be conducted in Permit Year 4 (2009-2010) (see Table 1).
 - (3) Permit Year 4 (2009-2010) monitoring shall be conducted in Permit Year 5 (2010-2011).
 - c. If the Copermittees partially participate in Bight '08, monitoring shall be conducted as described in section II.B.2.b above, with the exception of any monitoring offset by the contribution of funds to Bight '08.
3. Regional Harbor Monitoring – The Copermittees which discharge to harbors shall participate in the development and implementation of the Regional Harbor Monitoring Program.

C. Special Studies

The Copermittees shall conduct special studies as directed by the Executive Officer.

D. Dry Weather Field Screening and Analytical Monitoring

As part of its Jurisdictional Urban Runoff Management Program, each Copermittee shall update as necessary its dry weather field screening and analytical monitoring program to meet or exceed the requirements of this section. Dry weather analytical and field screening monitoring consists of (1) field observations; (2) field screening monitoring; and (3) analytical monitoring at selected stations. Each Copermittee's program shall be designed to detect and eliminate illicit connections and illegal discharges to the MS4 using frequent, geographically widespread dry weather discharge monitoring and follow-up investigations. Each Copermittee shall conduct the following dry weather field screening and analytical monitoring tasks:

1. SELECT DRY WEATHER FIELD SCREENING AND ANALYTICAL MONITORING STATIONS

Based upon a review of its past Dry Weather Monitoring Program, each Copermittee shall select dry weather analytical monitoring stations within its jurisdiction. Stations shall be either major outfalls or other outfall points (or any other point of access such as manholes) randomly located throughout the MS4 by placing a grid over a drainage system map and identifying those cells of the grid which contain a segment of the MS4 or major outfall; or, stations may be selected non-randomly provided adequate coverage of the entire MS4 system is ensured and that the selection of stations meets, exceeds, or provides equivalent coverage to the requirements given below. The dry weather analytical and field screening monitoring stations shall be established using the following guidelines and criteria:

- a. A grid system consisting of perpendicular north-south and east-west lines spaced $\frac{1}{4}$ mile apart shall be overlaid on a map of the MS4, creating a series of cells;
- b. All cells that contain a segment of the MS4 shall be identified and one dry weather analytical monitoring station shall be selected in each cell;
- c. Stations should be located downstream of any sources of suspected illegal or illicit activity;
- d. Stations shall be located to the degree practicable at the farthest manhole or other accessible location downstream in the system within each cell;
- e. Hydrological conditions, total drainage area of the site, traffic density, age of the structures or buildings in the area, history of the area, and land use types shall be considered in locating stations;
- f. Determining Number of Stations: Based upon review of previous Dry Weather Monitoring Programs, each Copermittee shall determine a minimum number of stations to be sampled each year with provisions for alternate stations to be sampled in place of selected stations that do not have flow.

2. COMPLETE MS4 MAP

Each Copermittee shall clearly identify each dry weather field screening and analytical monitoring station on its MS4 Map as either a separate GIS layer or a map

overlay hereafter referred to as a Dry Weather Field Screening and Analytical Stations Map. Each Copermittee shall confirm that each drainage area within its jurisdiction contains at least one station.

3. DEVELOP DRY WEATHER ANALYTICAL MONITORING PROCEDURES

Each Copermittee shall develop and/or update written procedures for dry weather field screening and analytical monitoring (consistent with 40 CFR part 136), including field observations, monitoring, and analyses to be conducted. At a minimum, the procedures must meet the following guidelines and criteria:

- a. **Determining Sampling Frequency:** Dry weather field screening and analytical monitoring shall be conducted at each identified station at least once between May 1st and September 30th of each year or as often as the Copermittee determines is necessary to comply with the requirements of section D.4 of Order No. R9-2006-0011.
- b. If flow or ponded runoff is observed at a dry weather field screening or analytical monitoring station and there has been at least seventy-two (72) hours of dry weather, make observations and collect at least one (1) grab sample. Record general information such as time since last rain, quantity of last rain, site descriptions (i.e., conveyance type, dominant watershed land uses), flow estimation (i.e., width of water surface, approximate depth of water, approximate flow velocity, flow rate), and visual observations (i.e., odor, color, clarity, floatables, deposits/stains, vegetation condition, structural condition, and biology).
- c. At a minimum, collect samples for analytical laboratory analysis of the following constituents for at least twenty five percent (25%) of the dry weather monitoring stations where water is present:
 - (a) Total Hardness
 - (3) Oil and Grease
 - (4) Diazinon and Chlorpyrifos
 - (5) Cadmium (Dissolved)
 - (6) Lead (Dissolved)
 - (7) Zinc (Dissolved)
 - (8) Enterococcus bacteria
 - (9) Total Coliform bacteria l
 - (10) Fecal Coliform bacteria l
- d. At a minimum, conduct field screening analysis of the following constituents at all dry weather monitoring stations where water is present:
 - (a) Specific conductance (calculate estimated Total Dissolved Solids).
 - (b) Turbidity
 - (c) pH
 - (d) Reactive Phosphorous
 - (e) Nitrate Nitrogen
 - (f) Ammonia Nitrogen

- (g) Copper (Dissolved)
 - (h) Surfactants (MBAS)
- e. If the station is dry (no flowing or ponded runoff), make and record all applicable observations and select another station from the list of alternate stations for monitoring.
 - f. Develop and/or update criteria for dry weather field screening and analytical monitoring results whereby exceedance of the criteria will require follow-up investigations to be conducted to identify and eliminate the source causing the exceedance of the criteria.
 - g. Dry weather field screening and analytical monitoring stations identified to exceed dry weather monitoring criteria for any constituents shall continue to be screened in subsequent years.
 - h. Develop and/or update procedures for source identification follow up investigations in the event of exceedance of dry weather field screening and analytical monitoring result criteria. These procedures shall be consistent with procedures required in section D.4.d of Order No. R9-2006-0011.
 - i. Develop and/or update procedures to eliminate detected illicit discharges and connections. These procedures shall be consistent with each Copermittees Illicit Discharge and Elimination component of its Jurisdictional Urban Runoff Management Plan as discussed in section D.4 of Order No. R9-2006-0011.
4. CONDUCT DRY WEATHER ANALYTICAL MONITORING

The Copermittees shall commence implementation of dry weather field screening and analytical monitoring under the requirements of this Order by May 1, 2007. Each Copermittee shall conduct dry weather analytical and field screening monitoring in accordance with its storm water conveyance system map and dry weather analytical and field screening monitoring procedures as described in section II.D.3 above. If monitoring indicates an illicit connection or illegal discharge, conduct the follow-up investigation and elimination activities as described in submitted dry weather field screening and analytical monitoring procedures and sections D.4.d and D.4.e of Order No. R9-2006-0011. Until the dry weather field screening and analytical monitoring program is implemented under the requirements of this Order, each Copermittee shall continue to implement dry weather field screening and analytical monitoring as it was most recently implemented pursuant to Order No. 2001-01.

E. Monitoring Provisions

All monitoring activities shall meet the following requirements:

1. Where procedures are not otherwise specified in this Receiving Waters Monitoring and Reporting Program, sampling, analysis and quality assurance/quality control must be conducted in accordance with the Quality Assurance Management Plan (QAMP) for the State of California's Surface Water Ambient Monitoring Program

(SWAMP), adopted by the State Water Resources Control Board (SWRCB).

2. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity [40 CFR 122.41(j)(1)].
3. The Copermittees shall retain records of all monitoring information, including all calibration and maintenance of monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the Report of Waste Discharge and application for this Order, for a period of at least five (5) years from the date of the sample, measurement, report, or application. This period may be extended by request of the Regional Board or USEPA at any time and shall be extended during the course of any unresolved litigation regarding this discharge. [40 CFR 122.41(j)(2), CWC section 13383(a)]
4. Records of monitoring information shall include [40 CFR 122.41(j)(3)]:
 - a. The date, exact place, and time of sampling or measurements;
 - b. The individual(s) who performed the sampling or measurements;
 - c. The date(s) analyses were performed;
 - d. The individual(s) who performed the analyses;
 - e. The analytical techniques or methods used; and
 - f. The results of such analyses.
5. All sampling, sample preservation, and analyses must be conducted according to test procedures approved under 40 CFR part 136, unless other test procedures have been specified in this Receiving Waters Monitoring and Reporting Program or approved by the Executive Officer [40 CFR 122.41(j)(4)].
6. The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this Order shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than two years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than four years, or both. [40 CFR 122.41(j)(5)]
7. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this Receiving Waters Monitoring and Reporting Program. [40 CFR 122.41(l)(4)(iii)]
8. All chemical, bacteriological, and toxicity analyses shall be conducted at a laboratory certified for such analyses by the California Department of Health Services or a laboratory approved by the Executive Officer.
9. For priority toxic pollutants that are identified in the California Toxics Rule (CTR) (65 Fed. Reg. 31682), the Copermittees shall instruct its laboratories to establish calibration standards that are equivalent to or lower than the Minimum Levels (MLs) published in Appendix 4 of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP). If a Copermittee can demonstrate that a particular ML is not attainable, in accordance with procedures set forth in 40 CFR 136, the lowest quantifiable concentration of the

lowest calibration standard analyzed by a specific analytical procedure (assuming that all the method specified sample weights, volumes, and processing steps have been followed) may be used instead of the ML listed in Appendix 4 of the SIP. The Copermittee must submit documentation from the laboratory to the Regional Board for approval prior to raising the ML for any priority toxic pollutant.

10. The Regional Board Executive Officer or the Regional Board may make revisions to this Receiving Waters Monitoring and Reporting Program at any time during the term of Order No R9-2006-0011, and may include a reduction or increase in the number of parameters to be monitored, locations monitored, the frequency of monitoring, or the number and size of samples collected.
11. The Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six months per violation, or by both. [40 CFR 122.41(k)(2)]
12. Monitoring shall be conducted according the USEPA test procedures approved under 40 CFR 136, "Guidelines Establishing Test Procedures for Analysis of Pollutants under the Clean Water Act" as amended, unless other test procedures have been specified in this Receiving Waters Monitoring and Reporting Program, in Order No. R9-2006-0011, or by the Executive Officer.
13. If the discharger monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR part 136, unless otherwise specified in the Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the reports requested by the Regional Board. [40 CFR 122.41(l)(4)(ii)]

III. REPORTING PROGRAM

1. Jurisdictional Urban Runoff Management Program Annual Reports

- a. Copermittees – Each Copermittee shall generate individual Jurisdictional Urban Runoff Management Plan Annual Reports which cover implementation of its jurisdictional activities during the past annual reporting period. Each Copermittee shall submit to the Principal Permittee its individual Jurisdictional Urban Runoff Management Plan Annual Report by the date specified by the Principal Permittee. Each individual Jurisdictional Urban Runoff Management Plan Annual Report shall be a comprehensive description of all activities conducted by the Copermittees to meet all requirements of each component of section D of this Order, including the information listed in Attachment F.
- b. Principal Permittee – The Principal Permittee shall submit Unified Jurisdictional Urban Runoff Management Plan Annual Reports to the Regional Board by September 30 of each year, beginning on September 30, 2008. The Unified Jurisdictional Urban Runoff Management Plan Annual Report shall contain a section covering common activities conducted collectively by the Copermittees and the

twenty-one individual Jurisdictional Urban Runoff Management Plan Annual Reports.

The Principal Permittee shall produce the section of the Unified Jurisdictional Urban Runoff Management Plan Annual Reports covering common activities conducted collectively by the Copermitees. The Principal Permittee shall also be responsible for collecting and assembling each Copermitees' individual Jurisdictional Urban Runoff Management Plan Annual Report.

- c. The reporting period for these annual reports shall be the previous fiscal year. For example, the report submitted September 30, 2008 shall cover the reporting period July 1, 2006 to June 30, 2007.

2. Watershed Urban Runoff Management Program Annual Reports

- a. Lead Watershed Permittee - Each Lead Watershed Permittee shall generate watershed specific Watershed Urban Runoff Management Program Annual Reports for their respective watershed(s), as they are outlined in Table 4 of Order No. R9-2006-0011. Copermitees within each watershed shall collaborate with the Lead Watershed Permittee to generate the Watershed Urban Runoff Management Program Annual Reports.
- b. Each Watershed Urban Runoff Management Program Annual Report shall be a comprehensive documentation of all activities conducted by the watershed Copermitees during the previous annual reporting period to meet all requirements of section E of Order No. R9-2006-0011. Each Watershed Urban Runoff Management Program Annual Report shall also serve as an update to the WURMP.⁸ Each Watershed Urban Runoff Management Program Annual Report shall, at a minimum, contain the following for its reporting period:
 - (1) A comprehensive description of all activities conducted by the watershed Copermitees to meet all requirements of section E of Order No. R9-2006-0011.
 - (2) Any updates to the watershed map.
 - (3) An updated assessment and analysis of the watershed's current and past water quality data, including identification of the watershed's priority water quality problems and high priority water quality problem(s) during the reporting period. The annual report shall clearly state if the watershed's high priority water quality problem(s) changed from the previous reporting period, and provide justification for the change(s).
 - (4) Identification of the sources, pollutant discharges, and/or other factors causing the high priority water quality problems within the watershed. The annual report shall clearly describe any changes to the identified sources, pollutant discharges, and/or other factors that have occurred since the previous reporting period, and provide justification for the changes.
 - (5) An updated list of potential Watershed Water Quality Activities. The annual report shall clearly describe any changes to the list of Watershed Water Quality

⁸ The first annual report to be submitted is not anticipated to be an update to the WURMP, since it will cover the reporting period which begins immediately after WURMP submittal.

Activities that have occurred since the previous reporting period, and provide justification for the changes.

- (6) Identification and description of the short-term Watershed Water Quality Activities implemented by each Copermittee during the reporting period, including information on the activities' location(s), as well as information exhibiting that the activities directly and significantly reduced the discharge of pollutants causing the watershed's high priority water quality problems. The annual report shall clearly describe any changes to short-term Watershed Water Quality Activities implementation that have occurred since the previous reporting period, and provide justification for the changes.
- (7) Identification and description of efforts conducted to implement long-term Watershed Water Quality Activities. The annual report shall clearly describe any changes to long-term Watershed Water Quality Activities implementation that have occurred since the previous reporting period, and provide justification for the changes.
- (8) An updated list of potential Watershed Education Activities. The annual report shall clearly describe any changes to the list of Watershed Education Activities that have occurred since the previous reporting period, and provide justification for the changes.
- (9) Identification and description of the pollutant-based Watershed Education Activities implemented by each Copermittee for the reporting period, including information exhibiting that the activities directly targeted the sources and discharges of pollutants causing the watershed's high priority water quality problems. The annual report shall clearly describe any changes to pollutant-based Watershed Education Activities implementation that have occurred since the previous reporting period, and provide justification for the changes.
- (10) Identification and description of watershed concept-based Watershed Education Activities implemented by the Copermittees during the reporting period. The annual report shall clearly describe any changes to watershed concept-based Watershed Education Activities implementation that have occurred since the previous reporting period, and provide justification for the changes.
- (11) A description of the public participation mechanisms used during the reporting period and the parties that were involved.
- (12) A description of Copermittee collaboration efforts, including implementation of land-use planning mechanisms.
- (13) A description of all TMDL activities implemented (including BMP Implementation Plan or equivalent plan activities) for each approved TMDL in the watershed. The description shall include:
 - (a) Any additional source identification information;
 - (b) The number, type, location, and other relevant information about BMP implementation, including any expanded or better tailored BMPs necessary to meet the WLAs;
 - (c) Updates in the BMP implementation prioritization and schedule;
 - (d) An assessment of the effectiveness of the BMP Implementation Plan, which meets the requirements of section I.4 Order No. R9-2006-0011; and
 - (e) A discussion of the progress to date in meeting the TMDL Numeric Targets and WLAs, which incorporates the results of the effectiveness assessment, compliance monitoring, and an evaluation of additional efforts needed to date.

(14) An assessment of the effectiveness of the WURMP, which meets the requirements of section I.2 of Order No. R9-2006-0011. The effectiveness assessment shall specifically exhibit the impact that implementation of the Watershed Water Quality Activities and the Watershed Education Activities had on the high priority water quality problem(s) within the watershed. This information shall document changes in pollutant load discharges, urban runoff and discharge quality, and receiving water quality.

- c. Principal Permittee – The Unified Watershed Urban Runoff Management Program Annual Report shall contain a section covering common activities conducted collectively by the Copermittees, to be produced by the Principal Permittee, and the nine separate Watershed Urban Runoff Management Program Annual Reports. Each Lead Watershed Copermittee shall submit to the Principal Permittee a Watershed Urban Runoff Management Program Annual Report by the date specified by the Principal Permittee. The Principal Permittee shall assemble and submit the Unified Watershed Urban Runoff Management Program Annual Report to the Regional Board by January 31, 2009 and every January 31 thereafter. The reporting period for these annual reports shall be the previous fiscal year. For example, the report submitted January 31, 2009 shall cover the reporting period July 1, 2007 to June 30, 2008.

3. RURMP Annual Reports

The Principal Permittee shall generate the Regional Urban Runoff Management Program Annual Reports. All Copermittees shall collaborate with the Principal Permittee to generate the Regional Urban Runoff Management Program Annual Reports. Each Regional Urban Runoff Management Program Annual Report shall be a comprehensive documentation of all activities conducted by the Copermittees during the previous annual reporting period to meet all requirements of section F of Order No. R9-2006-0011.

The Principal Permittee shall submit the Regional Urban Runoff Management Program Annual Report to the Regional Board by January 31, 2009 and every January 31 thereafter. The reporting period for these annual reports shall be the previous fiscal year. For example, the report submitted January 31, 2009 shall cover the reporting period July 1, 2007 to June 30, 2008.

Each Regional Urban Runoff Management Program Annual Report shall, at a minimum, contain the following:

- a. A description of the urban runoff management activities or BMPs implemented on a regional level, including information on how the activities complied with jurisdictional or watershed requirements, if applicable.
- b. A description of steps taken to develop and implement minimum standards for Jurisdictional Urban Runoff Management Program, Watershed Urban Runoff Management Program, and Regional Urban Runoff Management Program implementation and reporting.
- c. A description of steps taken to implement the strategy to integrate management, implementation, and reporting of jurisdictional, watershed, and regional activities.

This shall include a description of any progress made on development of an Integrated Annual Report Format.

- d. A description of steps taken to facilitate TMDL management and implementation.
- e. A description of steps taken to facilitate assessment of the effectiveness of jurisdictional, watershed, and regional programs.
- f. A description of steps taken to facilitate development of strategies for implementation of activities on a watershed level.
- g. A description of the regional residential education activities implemented as part of the regional residential education program.
- h. A description of steps taken to implement the standardized fiscal analysis method.
- i. An assessment of the effectiveness of the Regional Urban Runoff Management Program which meets the requirements of section I.3 of Order No. R9-2006-0011.

4. Monitoring Reporting

- a. The Principal Permittee shall submit a description of the Receiving Waters Monitoring Program to be implemented for every monitoring year. The submittals shall begin on September 1, 2006, and continue every year thereafter. The submittals shall describe all monitoring to be conducted during the upcoming monitoring year. For example, the September 1, 2006 submittal shall describe the monitoring to be conducted from October 1, 2006 through September 30, 2007.

If the Copermittees participate in Bight '08, their submittal for the 2008-2009 monitoring year shall describe the monitoring to be conducted for Bight '08 and exhibit how the monitoring will result in collection and analysis of data useful in addressing the goals and management questions of the Receiving Waters Monitoring Program.

- b. The Principal Permittee shall submit the Receiving Waters Monitoring Annual Report to the Regional Board on January 31 of each year, beginning on January 31, 2008. Receiving Waters Monitoring Annual Reports shall meet the following requirements:
 - (1) Annual monitoring reports shall include the data/results, methods of evaluating the data, graphical summaries of the data, and an explanation/discussion of the data for each monitoring program component.
 - (2) Annual monitoring reports shall include a watershed-based analysis of the findings of each monitoring program component. Each watershed-based analysis shall include:
 - (a) Identification and prioritization of water quality problems within each watershed.
 - (b) Identification and description of the nature and magnitude of potential sources of the water quality problems within each watershed.
 - (c) Exhibition of pollutant load and concentration increases or decreases at each mass loading and temporary watershed assessment station.
 - (d) Evaluation of pollutant loads and concentrations at mass loading and temporary watershed assessment stations with respect to land use, population, sources, and other characteristics of watersheds using tools such as multiple linear regression, factor analysis, and cluster analysis.

- (e) Identification of links between source activities/conditions and observed receiving water impacts.
 - (f) Identification of recommended future monitoring to identify and address sources of water quality problems.
 - (g) Results and discussion of any TIE conducted, together with actions that will be implemented to reduce the discharge of pollutants and abate the sources causing the toxicity.
- (3) Annual monitoring reports shall include a detailed description of all monitoring conducted under Investigation Order No. R9-2004-0277 for Chollas Creek. Annual monitoring reports shall also include all information required by Investigation Order No. R9-2004-0277.
 - (4) Annual monitoring reports shall include discussions for each watershed which answer each of the management questions listed in section I.B of this Receiving Waters Monitoring and Reporting Program.
 - (5) Annual monitoring reports shall identify how each of the goals listed in section I.A of this Receiving Waters Monitoring and Reporting Program has been addressed by the Copermittees' monitoring.
 - (6) Annual monitoring reports shall include identification and analysis of any long-term trends in storm water or receiving water quality. Trend analysis shall use nonparametric approaches, such as the Mann-Kendall test, including exogenous variables in a multiple regression model, and/or using a seasonal nonparametric trend model, where applicable.
 - (7) Annual monitoring reports shall provide an estimation of total pollutant loads (wet weather loads plus dry weather loads) due to urban runoff for each of the watersheds specified in Table 3 of Order No. R9-2006-0011.
 - (8) Annual monitoring reports shall for each monitoring program component listed above, include an assessment of compliance with applicable water quality standards.
 - (9) Annual monitoring reports shall describe monitoring station locations by latitude and longitude coordinates, frequency of sampling, quality assurance/quality control procedures, and sampling and analysis protocols.
 - (10) Annual monitoring reports shall use a standard report format and shall include the following:
 - (a) A stand alone comprehensive executive summary addressing all sections of the monitoring report;
 - (b) Comprehensive interpretations and conclusions; and
 - (c) Recommendations for future actions.
 - (11) All monitoring reports submitted to the Principal Permittee or the Regional Board shall contain the certified perjury statement described in Attachment B of Order No. R9-2006-0011.

- (12) Annual monitoring reports shall be reviewed prior to submittal to the Regional Board by a committee (consisting of no less than three members). All review comments shall also be submitted to the Regional Board.
 - (13) Annual monitoring reports shall be submitted in both electronic and paper formats.
- c. The Principal Permittee shall submit by July 1, 2007 a detailed description of the monitoring programs to be implemented under requirements II.A.7-11 of Receiving Waters Monitoring and Reporting Program No. R9-2006-0011. The description shall identify and provide the rationale for the constituents monitored, locations of monitoring, frequency of monitoring, and analyses to be conducted with the data generated.
 - d. By January 31, 2010, the City of San Diego shall submit a report which evaluates the data and assumptions used to estimate the WLA to Shelter Island Yacht Basin of 30 kg Cu/year. The report shall evaluate if any changes have occurred in the watershed which could cause or contribute to a higher copper urban runoff discharge and any actions necessary to address these changes. The report shall be an attachment to the Watershed Urban Runoff Management Program Annual Report for the San Diego Bay watershed.
 - e. Monitoring programs and reports shall comply with section II.E of Receiving Waters Monitoring and Reporting Program No. R9-2006-0011 and Attachment B of Order No. R9-2006-0011.
 - f. Following completion of an annual cycle of monitoring in October, the Copermittees shall make the monitoring data and results available to the Regional Board at the Regional Board's request. This shall include trend analyses, box plots, and other similar statistical analyses if requested.

5. Annual Report Integration

- a. The Copermittees are encouraged to submit, for Regional Board review and approval, an annual reporting format which integrates the information submitted in the JURMP, WURMP, and RURMP Annual Reports and Monitoring Reports. This document shall be called the "Integrated Annual Report Format." At a minimum, the Integrated Annual Report Format shall:
 - (1) Ensure exhibition of compliance with all requirements of JURMP, WURMP, and RURMP sections D, E, and F of Order No. R9-2006-0011.
 - (2) Ensure reporting of all information required in Attachment E and sections J.1-3 of Order No. R9-2006-0011.
 - (3) Ensure reporting of all information required in this Monitoring and Reporting program.
 - (4) Ensure consistent and comparable reporting of jurisdictional and watershed information by all Copermittees and watershed groups.
 - (5) Specifically identify all types of information that will be reported (e.g., amount of debris collected during street sweeping), including reporting criteria for each type of information (e.g., reported in tons).

- (6) Describe quality assurance/quality control methods to be used to assess accuracy of jurisdictional and watershed information conveyed.
 - (7) Describe each Copermittee's reporting responsibilities under the format.
 - (8) Improve the Copermittees' ability to assess JURMP and WURMP effectiveness in terms of water quality.
 - (9) Include a separate section for reporting on each Copermittee's activities.
 - (10) Include a separate section for reporting on each watershed's activities.
- b. Upon approval of the Integrated Annual Report Format by the Regional Board, an Integrated Annual Report shall be submitted annually, which may substitute for the JURMP Annual Reports, WURMP Annual Reports, RURMP Annual Report, and/or Monitoring Reports, as approved by the Regional Board. The Principal Permittee shall be responsible for the generation and submittal of the Integrated Annual Reports. Each Copermittee shall be responsible for the information in the Integrated Annual Report pertaining to its jurisdictional, watershed, regional, and monitoring responsibilities. The Integrated Annual Report shall be submitted the first January 31 following approval of the reporting format by the Regional Board, and every January 31 thereafter. The reporting period for Integrated Annual Reports shall be the previous fiscal year. For example, a report submitted January 31, 2010 shall cover the reporting period July 1, 2008 to June 30, 2009.
- c. The format and information provided in Integrated Annual Reports shall match and be consistent with the format and information described in the Integrated Annual Report Format.
- 6. Universal Reporting Requirements** - All Annual Report submittals shall include an executive summary, introduction, conclusion, recommendations, and signed certified statement. Each Copermittee shall submit signed certified statements covering its responsibilities for each applicable Annual Report. The Principal Permittee shall submit signed certified statements covering its responsibilities for each applicable Annual Report and the sections produced by the Principal Permittee.
- 7. Interim Reporting Requirements** - For the July 2005–June 2006 and July 2006–June 2007 reporting periods, Jurisdictional URMP and Watershed URMP Annual Reports shall be submitted on January 31, 2007 and January 31, 2008, respectively. Each Jurisdictional URMP and Watershed URMP Annual Report submitted for these reporting periods shall at a minimum be comprehensive descriptions of all activities conducted to fully implement the Copermittees' Jurisdictional URMP and Watershed URMP documents, as those documents were developed to comply with the requirements of Order No. 2001-01. The Principal Permittee shall be responsible for submitting these documents in a unified manner, consistent with the unified reporting requirements of sections J.1.b and J.2.c of Order No. R9-2006-0011.

For the October 2005-October 2006 monitoring period, the Principal Permittee shall submit the Receiving Waters Monitoring Annual Report on January 31, 2007. The Receiving Waters Monitoring Annual Report shall address the monitoring conducted to comply with the requirements of Order No. 2001-01.