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water quality problems. Other requirements, such as for unpaved roads, are a result of San Diego Water Board's identification of water quality problems through investigations and complaints during the previous permit period. Other new or modified requirements address program deficiencies that have been noted during audits, report reviews, and other San Diego Water Board compliance assessment activities. Additional changes in the monitoring program provide consistency with the Code of Federal Regulations, USEPA guidance, State Water Board guidance, and the Southern California Monitoring Coalition recommendations.

- d. Updated individual ~~Drainage Area~~ Storm Water Management Plans (DAMP Individual SWMP), and Watershed Stormwater Management Plans (watershed SWMPs), which, together with the DAMP describe the Copermittees' runoff management programs in their entirety, are needed to guide the Copermittees' runoff management efforts and aid the Copermittees in tracking runoff management program implementation. Hereinafter, the individual DAMP SWMP is referred to as the JRMPs and the Watershed SWMP is referred to as the Watershed Workplan. It is practicable for the Copermittees to update the JRMPs and Watershed Workplans within the timeframe specified in this Order, since significant efforts to develop these programs have already occurred.
- e. Pollutants can be effectively reduced in storm water runoff by the application of a combination of pollution prevention, source control, and treatment control BMPs. Pollution prevention is the reduction or elimination of pollutant generation at its source and is the best "first line of defense." Source control BMPs (both structural and non-structural) minimize the contact between pollutants and flows (e.g., rerouting run-on around pollutant sources or keeping pollutants on-site and out of receiving waters). Treatment control BMPs remove pollutants that have been mobilized by wet-weather or dry-weather flows.
- f. Runoff needs to be addressed during the three major phases of urban development (planning, construction, and use) in order to reduce the discharge of pollutants from storm water to the MEP, effectively prohibit non-storm water discharges and protect receiving waters. Development which is not guided by water quality planning policies and principles can unnecessarily result in increased pollutant load discharges, flow rates, and flow durations which can negatively impact receiving water beneficial uses. Construction sites without adequate BMP implementation can result in sediment runoff rates which greatly exceed natural erosion rates of undisturbed lands, causing siltation and impairment of receiving waters. Existing development can generate substantial pollutant loads which are can be discharged in runoff to receiving waters.
- g. Annual reporting requirements included in this Order are necessary to meet federal requirements and to evaluate the effectiveness and compliance of the Copermittees' programs.

**Comment [CP8]:** Terminology in this paragraph was not correct for the Santa Margarita Region.

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- h. This Order establishes Storm Water Action Levels (SALs) for selected pollutants based on USEPA Rain Zone 6 (arid southwest) Phase I MS4 monitoring data for pollutants in storm water. The SALs were computed as the 90<sup>th</sup> percentile of the data set, utilizing the statistical based population approach, one of three approaches recommended by the State Water Board's Storm Water Panel in its report, 'The Feasibility of Numerical Effluent Limits Applicable to Discharges of Storm Water Associated with Municipal, Industrial and Construction Activities (June 2006). SALs are identified in Section D of this Order. Copermittees must implement a timely, comprehensive, cost-effective storm water pollution control program to reduce the discharge of pollutants in storm water from the permitted areas so as not to exceed the SALs to the MEP. Exceedance of SALs may indicate inadequacy of programmatic measures and BMPs required in this Order.

**2. Development Planning**

- a. The Standard Storm Water Mitigation Plan (SSMP) requirements contained in this Order are consistent with Order WQ-2000-11 adopted by the State Water Board on October 5, 2000. In the precedential order, the State Water Board found that the design standards, which essentially require that runoff generated by 85 percent of storm events from specific development categories be infiltrated or treated, reflect the MEP standard. The order also found that the SSMP requirements are appropriately applied to the majority of the Priority Development Project categories that are also contained in Section F.1 of this Order. The State Water Board also gave California Regional Water Quality Control Boards (Regional Water Boards) the needed discretion to include additional categories and locations, such as retail gasoline outlets (RGOs), in SSMPs.
- b. Controlling runoff pollution by using a combination of onsite source control and site design BMPs augmented with treatment control BMPs before the runoff enters the MS4 is important for the following reasons: (1) Many end-of-pipe BMPs (such as diversion to the sanitary sewer) are typically ineffective during significant storm events. (2) Whereas, onsite source control BMPs can be applied during all runoff conditions end-of-pipe BMPs are often incapable of capturing and treating the wide range of pollutants which can be generated on a sub-watershed scale; (3) End-of-pipe BMPs are more effective when used as polishing BMPs, rather than the sole BMP to be implemented; (4) End-of-pipe BMPs do not protect the quality or beneficial uses of receiving waters between the pollutant source and the BMP; and (5) Offsite end-of-pipe BMPs do not aid in the effort to educate the public regarding sources of pollution and their prevention.
- c. Use of Low-Impact Development (LID) site design BMPs at new development, redevelopment and retrofit projects can be an effective means for minimizing the

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impact of storm water runoff discharges from the development projects on receiving waters. LID is a site design strategy with a goal of maintaining or replicating the pre-development hydrologic regime through the use of design techniques. LID site design BMPs help preserve and restore the natural hydrologic cycle of the site, allowing for filtration and infiltration which can greatly reduce the volume, peak flow rate, velocity, and pollutant loads of storm water runoff. Current runoff management, knowledge, practices and technology have resulted in the use of LID BMPs as an acceptable means of meeting the storm water MEP standard.

- d. RGOs ~~are~~ can be significant sources of pollutants in storm water runoff. RGOs are points of convergence for motor vehicles for automotive related services such as repair, refueling, tire inflation, and radiator fill-up and consequently produce significantly higher loadings of hydrocarbons and trace metals (including copper and zinc) than other developed areas.
- e. Industrial sites ~~are~~ can be significant sources of pollutants in runoff. Pollutant concentrations and loads in runoff from industrial sites are similar or exceed pollutant concentrations and loads in runoff from other land uses, such as commercial or residential land uses. As with other land uses, LID site design, source control, and treatment control BMPs are needed at industrial sites in order to meet the MEP standard. These BMPs are necessary where the industrial site is larger than 10,000 square feet. The 10,000 square feet threshold is appropriate, since it is consistent with requirements in other Phase I NPDES storm water regulations throughout California.
- f. If not properly designed or maintained, certain BMPs implemented or required by municipalities for runoff management may create a habitat for vectors (e.g. mosquitoes and rodents). Proper BMP design and maintenance to avoid standing water, however, can prevent the creation of vector habitat. Nuisances and public health impacts resulting from vector breeding can be prevented with close collaboration and cooperative effort between municipalities, local vector control agencies, and the California Department of Public Health during the development and implementation of runoff management programs.
- g. The increased volume, velocity, frequency and discharge duration of storm water runoff from developed areas has the potential to greatly accelerate downstream erosion, impair stream habitat in natural drainages, and negatively impact beneficial uses. Development and urbanization increase pollutant loads in storm water runoff and the volume of storm water runoff. Impervious surfaces can neither absorb water nor remove pollutants and thus lose the purification and infiltration provided by natural vegetated soil. Hydromodification measures for discharges to hardened channels ~~are~~ may be needed for these as to not prevent potential future restoration-rehabilitation of the hardened channels to their natural state, thereby restoring the chemical, physical, and biological integrity and beneficial uses of local receiving waters. Any rehabilitation of hardened channels

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must take into account flood control considerations, which are within the jurisdiction of the Riverside County Flood Control and Water Conservation District, under Water Code App. Section 48.

**Comment [DB9]:** See legal comments in Attachment 7

### 3. Construction and Existing Development

- a. In accordance with federal NPDES regulations and to ensure the most effective oversight of industrial and construction site discharges, discharges of runoff from industrial and construction sites are subject to dual (State and local) storm water regulation. Under this dual system, each Copermitee, consistent with its jurisdiction, is responsible for enforcing its local permits, plans, and ordinances, and the San Diego Water Board is responsible for enforcing the General Construction Activities Storm Water Permit, State Water Board Order 2009-0009-DWQ, NPDES No. CAS000002 (General Construction Permit) and the General Industrial Activities Storm Water Permit, State Water Board Order 97-03 DWQ, NPDES No. CAS000001 (General Industrial Permit) and any reissuance of these permits. NPDES municipal regulations require that municipalities develop and implement measures to address runoff from industrial and construction activities. Those measures may include the implementation of other BMPs in addition to those BMPs that are required under the statewide general permits for activities subject to both State and local regulation.
- b. Identification of sources of pollutants in runoff (such as municipal areas and activities, industrial and commercial sites/sources, construction sites, and residential areas), development and implementation of BMPs to address those sources, and updating ordinances and approval processes are necessary for the Copermitees to ensure that discharges of pollutants from its MS4 in storm water are reduced to the MEP and that illegal non-storm water discharges are not occurring. Inspections and other compliance verification methods are needed to ensure minimum BMPs are implemented. Inspections are especially important at areas that are at high risk for pollutant discharges.
- c. Historic and current development sometimes may makes use of natural drainage patterns and features as conveyances for runoff. Urban streams owned or operated by the Copermitees that are used in this manner are part of the municipalities' MS4s regardless of whether they are natural, anthropogenic, or partially modified features. In these cases, the urban stream is both an MS4 and receiving water.
- d. As operators of the MS4s, the Copermitees cannot passively receive and discharge pollutants from third parties. By providing free and open access to an MS4 that conveys discharges to waters of the U.S., the operator essentially accepts responsibility for discharges into the MS4 that it does not prohibit or otherwise control. These discharges may cause or contribute to a condition of

**Comment [CP10]:** Not all non-storm water discharges need to be prohibited.

**Comment [DB11]:** The MS4 can never be comprised of natural waterbodies. See definition in federal MS4 regulations and legal comments in Attachment 7

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~~contamination or a violation of water quality standards.~~

- e.d. Waste and pollutants which are deposited and accumulate in MS4 drainage structures will be discharged from these structures to waters of the U.S. unless they are removed. These discharges may cause or contribute to, or threaten to cause or contribute to, a condition of pollution in receiving waters. For this reason, pollutant discharges from storm water into MS4s must be reduced using a combination of management measures, including source control and an effective MS4 maintenance program implemented by each Copermittee.
- f.e. Enforcement of local runoff related ordinances, permits, and plans is an essential component of every runoff management program and is specifically required in the federal storm water regulations and this Order. Each Copermittee is, to the extent of its legal authority, individually responsible for adoption and enforcement of ordinances and/or policies, implementation of identified control measures/BMPs needed to prevent or reduce pollutants in storm water runoff, and for the allocation of funds for the capital, operation and maintenance, administrative, and enforcement expenditures necessary to implement and enforce such control measures/BMPs under its jurisdiction. Education is an important aspect of every effective runoff management program and the basis for changes in behavior at a societal level. Education of municipal planning, inspection, and maintenance department staffs is especially critical to ensure that in-house staffs understand how their activities impact water quality, how to accomplish their jobs while protecting water quality, and understand their specific roles and responsibilities for compliance with this Order. Public education, designed to target various urban land users and other audiences, is also essential to inform the public of how individual actions affect receiving water quality and how adverse effects can be minimized.
- g.f. Public participation during the development of runoff management programs is necessary to ensure that all stakeholder interests and a variety of creative solutions are considered.
- g. Retrofitting existing development with storm water treatment controls, including LID, ~~is may be~~ necessary to address storm water discharges from existing development that may cause or contribute to a condition of pollution or a violation of water quality standards. Although SSMP BMPs are required for redevelopment, the current rate of redevelopment will not address water quality problems in a timely manner. Cooperation with private landowners is necessary to effectively identify, implement and maintain retrofit projects for the preservation, restoration, and enhancement of water quality.
- h. Emergency Copermittee public works projects required to protect public health and safety are exempted from these requirements until the emergency ends, at which time they need to comply with the requirements.

**Comment [DB12]:** The MS4 operators are obligated to take storm water under state law, and therefore must "passively" receive such waters, whether or not they contain pollutants. Moreover, a number of separately permitted sources discharge into the MS4 through rights granted under the NPDES program. Control over such permitted sources is the responsibility of the owner of that permitted discharge in question.

**DRAFT****4. Watershed Runoff Management**

a. Since runoff within a watershed can flow from and through multiple land uses and political jurisdictions, watershed-based runoff management can greatly enhance the protection of receiving waters. Such management provides a means to focus on the most important water quality problems in each watershed. By focusing on the most important water quality problems, watershed efforts can maximize protection of beneficial use in an efficient manner. Effective watershed-based runoff management actively reduces pollutant discharges and abates pollutant sources causing or contributing to watershed water quality problems.

Watershed-based runoff management that does not actively reduce pollutant discharges and abate pollutant sources causing or contributing to watershed water quality problems can necessitate implementation of the iterative process outlined in section A.3 of this Order. Watershed management of runoff does not require Copermittees to expend resources outside of their jurisdictions. In some cases, however, this added flexibility provides more, and possibly more effective, alternatives for minimizing waste discharges. Watershed management requires the Copermittees within a watershed to develop a watershed-based management strategy, which can then be implemented on a jurisdictional basis.

a.b. The Copermittees have jointly pursued several watershed based management programs including the Upper Santa Margarita River Integrated Regional Watershed Management Plan (USMR IRWM). The USMR IRWM management team, which includes the County of Riverside and the Riverside County Flood Control and Water Conservation District, has also formed cooperative agreements with the San Diego and Orange County IRWM programs to integrate watershed planning efforts of the three counties. These efforts have identified and prioritized key watershed management issues related to the protection and restoration of beneficial uses in the Permit Area. The Board encourages the Copermittees to use these forums to prioritize actions and support the allocation of resources to protect water quality.

b.c. Some runoff issues, such as general education, monitoring, and training, can be effectively addressed on a regional basis. Regional approaches to runoff management can improve program consistency and promote sharing of resources, which can result in implementation of more efficient programs.

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

**DRAFT****E. STATUTE AND REGULATORY CONSIDERATIONS**

1. The RWL language specified in this Order is consistent with language recommended by the USEPA and established in State Water Board Order WQ-99-05, *Own Motion Review of the Petition of Environmental Health Coalition to Review Waste Discharge Requirements Order No. 96-03, NPDES Permit No. CAS0108740*, adopted by the State Water Board on June 17, 1999. The RWL language in this Order requires compliance with water quality standards, which for storm water MS4 discharges is to be achieved through an iterative approach requiring the implementation of improved and better-tailored BMPs over time. Compliance with receiving water limits based on applicable water quality standards is necessary to ensure that MS4 discharges will not cause or contribute to violations of water quality standards and the creation of conditions of pollution, contamination, or nuisance.
2. The Basin Plan, identifies the following existing and potential beneficial uses for surface waters in Riverside County: Municipal and Domestic Supply (MUN), Agricultural Supply (AGR), Industrial Process Supply (PROC), Hydropower Generation (POW), Industrial Service Supply (IND), Ground Water Recharge (GWR), Contact Water Recreation (REC1), Non-contact Water Recreation (REC2), Warm Freshwater Habitat (WARM), Cold Freshwater Habitat (COLD), Wildlife Habitat (WILD), Rare, Threatened, or Endangered Species (RARE), Spawning, Reproduction and/or Early Development (SPWN) and Preservation of Biological Habitats of Special Significance (BIOL).
3. This Order is in conformance with State Water Board Resolution No. 68-16, *Statement of Policy with Respect to Maintaining High Quality Waters in California*, and the federal Antidegradation Policy described in 40 CFR 131.12.
4. Section 6217(g) of the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA) requires coastal states with approved coastal zone management programs to address non-point pollution impacting or threatening coastal water quality. CZARA addresses five sources of non-point pollution: agriculture, silviculture, urban, marinas, and hydromodification. This NPDES permit addresses the management measures required for the urban category, with the exception of septic systems. The adoption and implementation of this NPDES permit relieves the Copermittee from developing a non-point source plan, for the urban category, under CZARA. The San Diego Water Board addresses septic systems through the administration of other programs.
5. Section 303(d)(1)(A) of the CWA requires that "Each state shall identify those waters within its boundaries for which the effluent limitations...are not stringent enough to implement any water quality standard (WQS) applicable to such waters." The CWA also requires states to establish a priority ranking of impaired water bodies known as Water Quality Limited Segments and to establish Total Maximum Daily Loads

Comment [DB13]: See legal comments in Attachment 7

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(TMDLs) for such waters. This priority list of impaired water bodies is called the Section 303(d) List. The 2006 Section 303(d) List was approved by the State Water Board on October 25, 2006. On June 28, 2007, the 2006 303(d) list for California was given final approval by the USEPA. The 303(d) List was recently updated, and on December 16, 2009, the 2008 303(d) List was approved by the San Diego Water Board. The 2008 List is awaiting State Water Board and USEPA approval.

6. This Order does not constitute an unfunded local government mandate subject to subvention under Article XIII B, Section (6) of the California Constitution for several reasons, including, but not limited to, the following. First, this Order implements federally mandated requirements under CWA §402. (33 U.S.C. § 1342(p)(3)(B).) Second, the local agency Copermitees' obligations under this Order are similar to, and in many respects less stringent than, the obligations of non-governmental and new dischargers who are issued NPDES permits for storm water and non-storm water discharges. Third, the local agency Copermitees have the authority to levy service charges, fees, or assessments sufficient to pay for compliance with this Order. Fourth, the Copermitees have requested permit coverage in lieu of compliance with the complete prohibition against the discharge of pollutants contained in CWA §301, subdivision (a) (33 U.S.C. § 1311(a)) and in lieu of numeric restrictions on their MS4 discharges (i.e. effluent limitations). Fifth, the local agencies' responsibility for preventing discharges of waste that can create conditions of pollution or nuisance from conveyances that are within their ownership or control under State law predates the enactment of Article XIII B, Section (6) of the California Constitution. Likewise, the provisions of this Order to implement TMDLs are federal mandates. The CWA requires TMDLs to be developed for water bodies that do not meet federal water quality standards. (33 U.S.C. sec. 1313(d).) Once the USEPA or a state develops a TMDL, federal law requires that permits must contain effluent limitations consistent with the assumptions of any applicable wasteload allocation. (40 C.F.R. sec. 122.44(d)(1)(vii)(B).)

7. Runoff treatment and/or mitigation must occur prior to the discharge of runoff into receiving waters. Treatment BMPs must not be constructed in waters of the U.S. or State unless the runoff flows are sufficiently pretreated to protect the values and functions of the water body. Federal regulations at 40 CFR 131.10(a) state that in no case shall a state adopt waste transport or waste assimilation as a designated use for any waters of the U.S. Authorizing the construction of an runoff treatment facility within a water of the U.S., or using the water body itself as a treatment system or for conveyance to a treatment system, would be tantamount to accepting waste assimilation as an appropriate use for that water body. Furthermore, the construction, operation, and maintenance of a pollution control facility in a water body can negatively impact the physical, chemical, and biological integrity, as well as the beneficial uses, of the water body. Without federal authorization (e.g., pursuant to CWA § 404), waters of the U.S. may not be converted into, or used as, waste treatment or conveyance facilities. Similarly, waste discharge requirements pursuant to CWC §13260 are required for the conversion or use of waters of the

**Comment [DB14]:** This finding is inaccurate and inappropriate, as the Commission on State Mandates, and not the Regional Board, has exclusive jurisdiction in determining whether a requirement is an unfunded state mandate. See legal comment white paper.

**Comment [CP15]:** The federal regulations (that do not allow waste assimilation), do not apply to waters of the state.



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State as waste treatment or conveyance facilities. Diversion from waters of the U.S./State to treatment facilities and subsequent return to waters of the U.S. is allowable, provided that the effluent complies with applicable NPDES requirements.

8. The issuance of waste discharge requirements and an NPDES permit for the discharge of runoff from MS4s to waters of the U.S. is exempt from the requirement for preparation of environmental documents under the California Environmental Quality Act (CEQA) (Public Resources Code, Division 13, Chapter 3, section 21000 et seq.) in accordance with the CWC section 13389.
9. Storm water discharges from developed and developing areas in Riverside County are ~~significant potential~~ sources of certain pollutants that can cause, may be causing, threatening to cause or contributing to water quality impairment in the waters of Riverside County. Furthermore, as delineated in the CWA section 303(d) list in Table 2, the San Diego Water Board has found that there is a reasonable potential that municipal storm water and non-storm water discharges from MS4s cause or may cause or contribute to an excursion above water quality standards for the following pollutants: Indicator Bacteria, Copper, Manganese, Iron, Chlorpyrifos, Sulfates, Phosphorous, Nitrogen, Toxicity, and Turbidity. In accordance with CWA section 303(d), the San Diego Water Board is required to establish TMDLs for these pollutants to these waters to eliminate impairment and attain water quality standards. Therefore, certain early pollutant control actions and further pollutant impact assessments by the Copermittees are warranted and required pursuant to this Order.
10. This Order requires each Copermittee to effectively prohibit all types of unauthorized discharges of non-storm water into its MS4. However, historically pollutants have been identified as present in dry weather ~~non-storm water discharges from the MS4s~~ conditions within the receiving waters through 303(d) listings, monitoring conducted by the Copermittees under Order No. R9-2004-0001, and there are others expected to be present in dry weather non-storm water discharges because of the nature of these discharges. These pollutants in the receiving waters may be associated with activities that may or may not be under the authority of the Copermittees to address. This Order includes action levels for pollutants in non-storm water, dry weather discharges from the MS4. The non-storm water action levels are designed to ensure that the Order's requirement to effectively prohibit all types of unauthorized discharges of non-storm water into the MS4 from areas under the authority of the Copermittees is being complied with. Non-storm water action levels in the Order are based upon numeric or narrative water quality objectives and criteria as defined in the Basin Plan, the State Water Board's Water Quality Control Plan for Ocean Waters of California (Ocean Plan), and the State Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California

Comment [CP16]: This is not on the 303(d) list.

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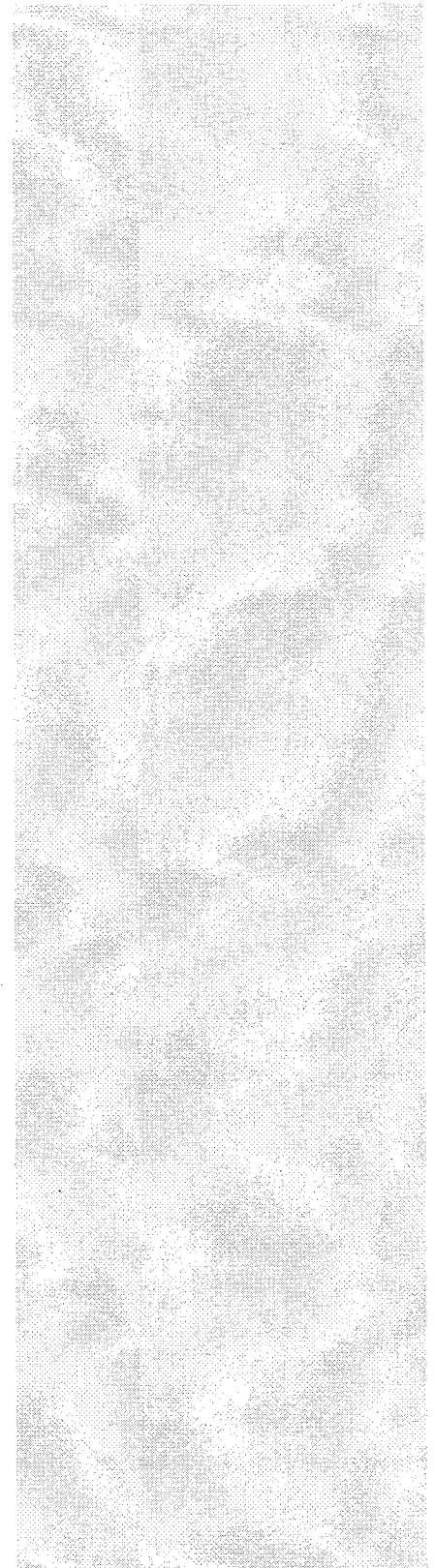
(State Implementation Policy or SIP). An exceedance of an action level requires specified responsive action by the Copermittees. This Order describes what actions the Copermittees must take when an exceedance of an action level is observed. Exceedances of non-storm water action levels do not alone constitute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

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

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**F. PUBLIC PROCESS**

1. The San Diego Water Board has notified the Copermitees, all known interested parties, and the public of its intent to consider adoption of an Order prescribing waste discharge requirements that would serve to renew an NPDES permit for the existing MS4 discharges of pollutants in waters of the U.S.
2. The San Diego Water Board has held a public hearing on October 13, 2010 and heard and considered all comments pertaining to the terms and conditions of this Order.



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**IT IS HEREBY ORDERED** that the Copermittees, in order to meet the provisions contained in Division 7 of the CWC and regulations adopted thereunder, and the provisions of the CWA and regulations adopted thereunder, must each comply with the following to the extent of their legal authorities established under the California Constitution and any their enabling acts:

**A. PROHIBITIONS AND RECEIVING WATER LIMITATIONS**

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

**Comment [DB17]:** See legal comment white paper. The scope of this Order is the discharge from MS4s. Moreover, MS4s are not receiving waters.

**Comment [DB18]:** This change clarifies that the iterative process reflected in Part A.3 applies to the entire provision.

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

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Board<sup>4</sup> directs an earlier submittal. The report must include an implementation schedule. The San Diego Water Board may require modifications to the report

- (2) Submit any modifications to the report required by the San Diego Water Board within 30 days of notification;
- (3) Within 30 days following acceptance of the report described above by the San Diego Water Board, the Copermittee must revise its JRMP and monitoring program to incorporate the approved modified BMPs that have been and will be implemented, the implementation schedule, and any additional monitoring required; and
- (4) Implement the revised JRMP and monitoring program in accordance with the approved schedule.

- b. The Copermittee must repeat the procedure set forth above to comply with the receiving water limitations for continuing or recurring exceedances of the same water quality standard(s) that occur following implementation completion of scheduled actions unless directed to do otherwise by the San Diego Water Board's Executive Officer.
- c. Nothing in section A.3 prevents the San Diego Water Board from enforcing any provision of this Order while the Copermittee prepares and implements the above report but the Copermittees shall not be liable for violation of section A.3 provided that they are in compliance with the requirements of this section.

4. In addition to the above prohibitions, discharges from MS4s are subject to all Basin Plan prohibitions cited in Attachment A to this Order.

**B. NON-STORM WATER DISCHARGES**

1. Each Copermittee must effectively prohibit all types of non-storm water discharges into its MS4 unless such discharges are either authorized by a separate NPDES permit; or not prohibited in accordance with sections B.2, and B.3, and B.4 below.
2. The following categories of non-storm water discharges are not prohibited unless a Copermittee or the San Diego Water Board identifies the discharge category as a source of pollutants to waters of the U.S. Where the Copermittee(s) have identified a category as a source of pollutants, the category must be addressed as an illicit discharge and prohibited through ordinance, order or similar means. The San Diego

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

**Comment [DB19]:** This change reiterates that the iterative process is in effect so long as the Copermittees remain in compliance with the process set forth in section A.3.

**Comment [CP20]:** Change consistent with the addition of B.4. below, and the comments thereto.

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Water Board may identify categories of discharge that either require prohibition, or other controls for non-anthropogenic sources. For a discharge category determined to be a source of pollutants, the Copermitee, under direction of the San Diego Water Board, must either prohibit the discharge category or develop and implement appropriate control measures for non-anthropogenic sources to prevent the discharge of pollutants to the MS4 and report to the San Diego Water Board pursuant to Section K.1 and K.3 of this Order. The discharge categories are:

- a. Diverted stream flows;
- b. Rising ground waters;
- c. Uncontaminated ground water infiltration [as defined at 40 CFR 35.2005(20)] to MS4s;
- d. Uncontaminated pumped ground water<sup>5</sup>;
- e. Foundation drains<sup>5</sup>;
- f. Springs;
- g. Water from crawl space pumps<sup>5</sup>;
- h. Footing drains<sup>5</sup>;
- i. Air conditioning condensation;
- j. Flows from riparian habitats and wetlands;
- k. Water line flushing<sup>6,7</sup>;
- 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<sup>8</sup>.

3. Emergency fire fighting flows (i.e., flows necessary for the protection of life or property) do not require BMPs and need not be prohibited.

- a. As part of the JRMP, each Copermitee must develop and implement a program to address pollutants from non-emergency fire fighting flows (i.e., flows from controlled or practice blazes and maintenance activities) identified as significant sources of pollutants to waters of the U.S.
- b. Building fire suppression system maintenance discharges (e.g. sprinkler line flushing) may contain waste. Therefore, such discharges are to be prohibited by the Copermitees as illicit discharges through ordinance, order, or similar means.

4. As part of the JRMP, the Copermitees must develop and implement a program to

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

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

<sup>7</sup> Requires enrollment under Order R9-2002-0020.

<sup>8</sup> Excluding saline swimming pool discharges.

**Comment [DB21]:** See legal comments in Attachment 7

**Comment [DB22]:** See legal comments white paper.

**Comment [CP23]:** See discussion in the comment letter, and Attachment 6

**Comment [CP24]:** As noted in the comment letter and Attachment 6, irrigation runoff has not been shown to be an actual source of pollutants to the receiving waters in this watershed.

As such the comment letter requests that THE CONDITIONAL EXEMPTION BE RESTORED as shown in the redlines above.

Should the Board decide to prohibit the discharge anyway, the Copermitees request that at a minimum that the category of discharges be managed through a JRMP program similar to non-emergency fire fighting flows, as shown in these redlines

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address pollutants from landscape irrigation, irrigation water and lawn watering identified as significant sources of pollutants to waters of the United States.

4.5. Each Copermittee must examine all dry weather effluent analytical monitoring results collected in accordance with section F.4 of this Order and Receiving Waters and MS4 Discharge Monitoring and Reporting Program No. R9-2010-0016 to identify water quality problems which may be the result of any non-prohibited discharge category(ies) identified above in section B.2. Follow-up investigations must be conducted to identify and control, pursuant to section B.2, any non-prohibited discharge category(ies) listed above.

**C. NON-STORM WATER DRY WEATHER ACTION LEVELS**

1. Each Copermittee, beginning no later than July 1, 2012, must implement the non-storm water dry weather action level (NAL) monitoring as described in Attachment E of this Order.
2. In response to an exceedance of an NAL, the Copermittee(s) having jurisdiction must investigate and seek to identify the source of the exceedance in a timely manner. However, if any Copermittee identifies a number of NAL exceedances that prevents it from adequately conducting source investigations at all sites in a timely manner, then that Copermittee may submit a prioritization plan and timeline that identifies the timeframe and planned actions to investigate and report its findings on all of the exceedances. Depending on the source of the pollutant exceedance, the Copermittee(s) having jurisdiction must take action as follows:
  - a. If the Copermittee identifies the source of the exceedance as natural (non-anthropogenically influenced) in origin and in conveyance into the MS4; then the Copermittee must report its findings and documentation of its source investigation to the San Diego Water Board in its Annual Report.
  - b. If the Copermittee identifies the source of the exceedance as an illicit discharge or connection, then the Copermittee must eliminate the discharge to its MS4 pursuant to Section F.4.f and report the findings, including any enforcement action(s) taken, and documentation of the source investigation to the San Diego Water Board in the Annual Report. If the Copermittee is unable to eliminate the source of discharge prior to the Annual Report submittal, then the Copermittee must submit, as part of its Annual Report, its plan and timeframe to eliminate the source of the exceedance. Those dischargers seeking to continue such a discharge must become subject to a separate NPDES permit prior to continuing any such discharge.
  - c. If the Copermittee identifies the source of the exceedance as an exempted category of non-storm water discharge, then the Copermittees must determine if this is an isolated circumstance or if the category of discharges must be

**Comment [CP25]:** Per discussions with Board staff on 8/18

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addressed through the prevention or prohibition of that category of discharge as an illicit discharge. The Copermittee must submit its findings including a description of the steps taken to address the discharge and the category of discharge, to the San Diego Water Board for review in its Annual Report. Such description must include relevant updates to or new ordinances, orders, or other legal means of addressing the category of discharge, and the anticipated schedule for doing so. The Copermittees must also submit a summary of its findings with the Report of Waste Discharge.

- d. If the Copermittee identifies the source of the exceedance as a non-storm water discharge in violation or potential violation of an existing separate NPDES permit (e.g. the groundwater dewatering permit), then the Copermittee must report, within three business days, the findings to the San Diego Water Board including all pertinent information regarding the discharger and discharge characteristics.
  - e. If the Copermittee is unable to identify the source of the exceedance after taking and documenting reasonable steps to do so, then the Copermittee must perform additional focused sampling. If the results of the additional sampling indicate a recurring exceedance of NALs with an unidentified source, then the Copermittee must update its programs within a year to address the common contributing sources that may be causing such an exceedance. The Copermittee's annual report must include these updates to its programs including, where applicable, updates to their watershed workplans (Section G.2), retrofitting consideration (Section F.3.d) and program effectiveness work plans (Section J.4).
  - f. The Copermittees or any interested party, may evaluate existing NALs and propose revised NALs for future Board consideration.
3. NALs can help provide an assessment of the effectiveness of the prohibition of non-storm water discharges and of the appropriateness of exempted non-storm water discharges. An exceedance of an NAL does not alone constitute a violation of the provisions of this Order. An exceedance of an NAL may indicate a lack of compliance with the requirement that need to enhance the Copermittees efforts to effectively prohibit all types of unauthorized non-storm water discharges into the MS4 or other prohibitions set forth in Sections A and B of this Order. Failure to timely implement required actions specified in this Order following an exceedance of an NAL constitutes a violation of this Order. Neither the absence of exceedances of NALs nor compliance with required actions following observed exceedances, excuses any non-compliance with the requirement to effectively prohibit all types of unauthorized non-storm water discharges into the MS4s or any non-compliance with the prohibitions in Sections A and B of this Order. During any annual reporting period in which one or more exceedances of NALs have been documented the Copermittee must report in response to Section C.2 above, a description of whether and how the observed exceedances did or did not result in a discharge from the MS4 that caused, or threatened to cause or contribute to a condition of pollution, contamination, or nuisance in the receiving waters.

**Comment [CP26]:** 'lack of compliance' is in contradiction with the second sentence. The proposed language is more appropriate.



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

**Comment [CP27]:** The previous sentence requires outfalls to be selected consistent with Attachment E. This sentence is not needed and is duplicative of Attachment E.

At a minimum, this language will need to be modified to be consistent with changes being requested in the Attachment 4 to the Comment Letter, including any footnotes.

Table 3.a.1: General Constituents

Parameter	Units	AMAL	MDAL	Instantaneous Maximum	Basis
Fecal Coliform	MPN/100 ml	200 <sup>A</sup> 400 <sup>B</sup>	-		BPO
Enterococci	MPN/100 ml	33	-	64 <sup>C</sup> 151 <sup>C</sup>	BPO
Turbidity	NTU	-	20		BPO
pH	Units	Within limit of 6.5 to 8.5 at all times			BPO
Dissolved Oxygen	mg/L	Not less than 5.0 in WARM waters and not less than 6.0 in COLD waters			BPO
Total Nitrogen	mg/L	-	1.0	See MDAL	BPO
Total Phosphorus	mg/L	-	0.1	See MDAL	BPO
Methylene Blue Active Substances	mg/L	-	0.5	See MDAL	BPO
Iron	mg/L	-	0.3	See MDAL	BPO
Manganese	mg/L	-	0.05	See MDAL	BPO

**Comment [CP28]:** This value was incorrectly referencing the criteria for beach areas and needs to be updated to reflect the shown values for infrequently used areas.

A – Based on a minimum of not less than five samples for any 30-day period  
 B – No more than 10 percent of total samples may exceed 400 per 100 ml during any 30 day period  
 C – This Value has been set to Basin Plan Criteria for Designated Beach in infrequently used Areas  
 BPO – Basin Plan Objective  
 MDAL – Maximum Daily Action Level                      AMAL – Average Monthly Action Level

Table 3.a.2: Priority Pollutants

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

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Silver	ug/L	*	*
Zinc	ug/L	*	*

CTR – California Toxic Rule

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

\*\* - Action Levels developed on a case-by-case basis (see below), but calculated criteria are not to exceed Maximum Contaminant Levels under the California Code of Regulations<sup>9</sup>

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

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

**D. STORM WATER ACTION LEVELS**

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

Table 4. Storm Water Action Levels

Pollutant	Action Level
Turbidity (NTU)	126
Nitrate & Nitrite total (mg/L)	2.6
P total (mg/L)	1.46

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

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Cd total (µg/L)	3.0
Cu total (µg/L)	127
Pb total (µg/L)	250
Zn total (µg/L)	976

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

**E. LEGAL AUTHORITY**

1. Each Copermitee must, to the extent of their legal authority established under the California Constitution and any enabling acts, establish, maintain, and enforce adequate legal authority within their legal authority to control pollutant discharges into and from its MS4 through ordinance, statute, permit, contract or similar means. Nothing herein shall authorize a Copermitee or other discharger regulated under the terms of this order to divert, store or otherwise impound water if such action is reasonably anticipated to harm downstream water rights holders in the exercise of their water rights. This legal authority must, at a minimum, authorize the Copermitee 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

**Comment [CP29]:** Conflicts with attachment E, which states to select 'representative' outfalls.

**Comment [CP30]:** Consistent with NALs section

**Comment [CP31]:** The previous sentence requires outfalls to be selected consistent with Attachment E. This sentence is not needed and is duplicative of Attachment E.

At a minimum, this language will need to be modified to be consistent with changes being requested in the Attachment 4 to this comment letter, including any footnotes.

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construction storm water permits, as well as to those sites which do not. Grading ordinances must be updated and enforced as necessary to comply with this Order;

- b. Prohibit all identified illicit discharges not otherwise allowed pursuant to section B.2;
  - c. Prohibit and eliminate illicit connections to the MS4;
  - d. Control the discharge of spills, dumping, or disposal of materials other than storm water to its MS4;
  - e. Require compliance with conditions in Copermittee ordinances, permits, contracts or orders (i.e., hold dischargers to its MS4 accountable for their contributions of pollutants and flows);
  - f. Utilize enforcement mechanisms to require compliance with Copermittee storm water ordinances, permits, contracts, or orders;
  - g. Control the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements among Copermittees.
  - h. Control of the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements with other owners of the MS4 such as the State of California Department of Transportation, the U.S. federal government, or sovereign Native American Tribes is encouraged;
  - i. Carry out all inspections, surveillance, and monitoring necessary to determine compliance and noncompliance with local ordinances and permits and with this Order, including the prohibition on illicit discharges to the MS4. This means the Copermittee must have authority to enter, monitor, inspect, take measurements, review and copy records, and require regular reports from industrial facilities discharging into its MS4, including construction sites;
  - j. Require the use of BMPs to prevent or reduce the discharge of pollutants into from MS4s from storm water to the MEP; and
  - k. Require documentation on the effectiveness of BMPs implemented to reduce the discharge of storm water pollutants from the MS4 to the MEP.
2. Each Copermittee must submit on or before June 30, 2012, a statement certified by its chief legal counsel that the Copermittee has taken the necessary steps to obtain and maintain full legal authority within their jurisdiction to implement and enforce each of the requirements contained in 40 CFR 122.26(d)(2)(i)(A-F) and this Order. As applicable to each Copermittee, these statements must include:
- a. Citation of runoff related ordinances and the reasons they are enforceable;
  - b. Identification of the local administrative and legal procedures available to mandate compliance with runoff related ordinances and therefore with the conditions of this Order, and a statement as to whether enforcement actions can be completed administratively or whether they must be commenced and completed in the judicial system; and
  - c. A brief description of how runoff related ordinances are adopted and the process by which they may be challenged.

**Comment [DB32]:** See legal comments in Attachment 7. The Copermittees' responsibility under the Clean Water Act is to reduce the discharge of pollutants from the MS4 to the MEP. Therefore, the purpose of the BMP is to reduce pollutants in such discharges.

**Comment [CP33]:** To address limitations of the District

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**F. JURISDICTIONAL RUNOFF MANAGEMENT PROGRAM (JRMP)**

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

Each Copermittee must develop and implement an updated JRMP for its jurisdiction no later than July 1, 2012. Each updated JRMP must meet the requirements of section F of this Order, reduce the discharge of storm water pollutants from the MS4 to the MEP, effectively prohibit non-storm water discharges, and prevent runoff discharges from the MS4 from causing or contributing to a violation of water quality standards. In addition, each Copermittee's JRMP must identify all departments and positions within its jurisdiction that conduct runoff related activities, and their roles and responsibilities under this Order. This identification must include an up to date organizational chart specifying these departments and key personnel.

**1. DEVELOPMENT PLANNING COMPONENT**

Each Copermittee must implement a program which meets the requirements of this section ~~as applicable to their authority, that and is designed to~~ (1) reduces Development Project discharges of storm water pollutants from the MS4 to the MEP; (2) prevents Development Project discharges from the MS4 from causing or contributing to a violation of water quality standards; (3) prevents illicit discharges into the MS4; and (4) manages increases in runoff discharge rates and durations from Development Projects that are likely to cause increased erosion of stream beds and banks, silt pollutant generation, or other impacts to beneficial uses and stream habitat due to increased erosive force.

**a. GENERAL PLAN**

Each Copermittee ~~(except the District)~~ must revise as needed its General Plan or equivalent plan (e.g., Comprehensive, Master, or Community Plan) to include water quality and watershed protection principles and policies that direct land-use decisions and require implementation of consistent water quality protection measures for all development, redevelopment, and retrofit projects. Examples of water quality and watershed protection principles and policies to be considered include the following:

- (1) Minimize the amount of impervious surfaces and directly connected impervious surfaces in areas of new development and redevelopment and where feasible slow runoff and maximize on-site infiltration of runoff.

**Comment [DB34]:** See legal comments in Attachment 8

**Comment [DB35]:** See general comment 1 in Attachment 7

**Comment [CP36]:** See legal comments in Attachment 8

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- (2) Implement pollution prevention methods supplemented by pollutant source controls and treatment BMPs. Use small collection strategies located at, or as close as possible to, the source (i.e., the point where water initially meets the ground) to minimize the transport of urban runoff and pollutants offsite and into an MS4.
- (3) Preserve, and where possible, create, or restore areas that provide important water quality benefits, such as riparian corridors, wetlands, and buffer zones. Encourage land acquisition of such areas.
- (4) Limit disturbances of natural water bodies and natural drainage systems caused by development including roads, highways, and bridges.
- (5) Prior to making land use decisions, utilize methods available to estimate increases in pollutant loads and flows resulting from projected future development. Require incorporation of BMPs to mitigate the projected increases in pollutant loads and flows.
- (6) Avoid development of areas that are particularly susceptible to erosion and sediment loss; or establish development guidance that identifies these areas and protects them from erosion and sediment loss.
- (7) Reduce pollutants associated with vehicles and increasing traffic resulting from development.
- (8) Post-development runoff from a site must not contain pollutant loads that cause or contribute to an exceedance of receiving water quality objectives and which have not been reduced to the MEP.

**b. ENVIRONMENTAL REVIEW PROCESS**

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

**c. APPROVAL PROCESS CRITERIA AND REQUIREMENTS FOR ALL DEVELOPMENT PROJECTS**

For all proposed Development Projects, each Copermittee, during the planning process, and prior to project approval and issuance of local permits, must prescribe the necessary requirements so that Development Project discharges of storm water pollutants from the MS4 will be reduced to the MEP, will not cause or contribute to a violation of water quality standards, and will comply with the Copermittee's ordinances, permits, plans, and requirements, and with this Order.

**Comment [CP37]:** This is duplicative of section A and is not needed. Further, the end of this sentence specifically requires compliance with this order.

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Performance Criteria: Discharges from each approved development project must be subject to the following management measures:

- (1) Source control BMPs that reduce storm water pollutants of concern in runoff; prevent illicit discharges into the MS4; ~~prevent~~ minimize irrigation runoff; storm drain system stenciling or signage; properly design outdoor material storage areas; properly design outdoor work areas; and properly design trash storage areas.
- (2) The following LID BMPs listed below must be implemented at all Development Projects where applicable and feasible.
  - (a) Conserve natural areas, including existing trees, other vegetation, and soils,
  - (b) Construct streets, sidewalks, or parking lot aisles to the minimum widths necessary, provided that public safety is not compromised,
  - (c) Minimize the impervious footprint of the project,
  - (d) Minimize soil compaction to landscaped areas,
  - (e) Minimize disturbances to natural drainages (e.g., natural swales, topographic depressions, etc.), and
  - (f) Disconnect impervious surfaces through distributed pervious areas.
- (3) Buffer zones for natural water bodies, where technically feasible. Where buffer zones are technically infeasible, require project proponent to implement other buffers such as trees, access restrictions, etc;
- (4) Other measures necessary so that grading or other construction activities meet the provisions specified in section F.2 of this Order.
- (5) Submittal of documentation of a mechanism under which ongoing long-term maintenance of all structural post-construction BMPs will be conducted.
- (6) Infiltration and Groundwater Protection

To protect groundwater quality, each Copermittee must apply restrictions to the use of treatment control BMPs that are designed to primarily function as large, centralized infiltration devices (such as large infiltration trenches and infiltration basins). Such restrictions must be designed so that the use of such infiltration treatment control BMPs does not cause or contribute to an exceedance of groundwater quality objectives. At a minimum, each treatment control BMP designed to primarily function as a centralized infiltration device must meet the restrictions below, unless the Development Project demonstrates to the Copermittee that a restriction is not necessary to protect groundwater quality. The Copermittees may collectively or individually develop alternative restrictions on the use of treatment control BMPs which

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are designed to primarily function as centralized infiltration devices. Alternative restrictions developed by the Copermittees can partially or wholly replace the restrictions listed below. The restrictions do not apply to small infiltration systems dispersed throughout a development project.

- (a) Runoff must undergo pretreatment such as sedimentation or filtration prior to infiltration;
  - (b) All dry weather flows containing significant pollutant loads must be diverted from infiltration devices and treated through other BMPs;
  - (c) Pollution prevention and source control BMPs must be implemented at a level appropriate to protect groundwater quality at sites where infiltration treatment control BMPs are to be used;
  - (d) Infiltration treatment control BMPs must be adequately maintained so that they remove storm water pollutants to the MEP;
  - (e) The vertical distance from the base of any infiltration treatment control BMP to the seasonal high groundwater mark must be at least 10 feet. Where groundwater basins do not support beneficial uses, this vertical distance criteria may be reduced, provided groundwater quality is maintained;
  - (f) The soil through which infiltration is to occur must have physical and chemical characteristics (such as appropriate cation exchange capacity, organic content, clay content, and infiltration rate) which are adequate for proper infiltration durations and treatment of runoff for the protection of groundwater beneficial uses;
  - (g) Infiltration treatment control BMPs must not be used for areas of industrial or light industrial activity; and other high threat to water quality land uses and activities as designated by each Copermittee unless first treated or filtered to remove pollutants prior to infiltration; and
  - (h) Infiltration treatment control BMPs must be located a minimum of 100 feet horizontally from any water supply wells.
- (7) Where feasible, landscaping with native or low water species shall be preferred in areas that drain to the MS4 or to waters of the U.S.
- (8) Rain water harvesting, where feasible, ~~must be implemented~~ shall be encouraged as part of the site design and construction, ~~and to supplement offsite beneficial uses.~~

**d. STANDARD STORM WATER MITIGATION PLANS (SSMPs) – APPROVAL PROCESS**



**DRAFT****CRITERIA AND REQUIREMENTS FOR PRIORITY DEVELOPMENT PROJECTS**

On or before June 30, 2012, the Copermittees must submit an updated SSMP, to the San Diego Water Board's Executive Officer for a 30 day public review and comment period. The San Diego Water Board's Executive Officer has the discretion to determine whether to hold a public hearing or to limit public input to written comments. Within 180 days of determination that the SSMP is in compliance with this Order's provisions, each Copermittee must amend its local ordinances consistent with the updated SSMP, and begin implementing the updated SSMP. Any updated local ordinances must be submitted to the San Diego Water Board with the applicable Annual Report. The SSMP must meet the requirements of section F.1.d of this Order to (1) be designed to reduce Priority Development Project discharges of storm water pollutants from the MS4 to the MEP, and (2) be designed to prevent Priority Development Project runoff discharges from the MS4 from causing or contributing to a violation of water quality standards.<sup>10</sup>

**Comment [CP38]:** Per discussions with Board staff on 8/18

**Comment [DB39]:** See general comment 1 in Attachment 7.

**Comment [DB40]:** See general comment 1 in Attachment 7.

**(1) Definition of Priority Development Project:**

Priority Development Projects are:

- (a) All new Development Projects that fall under the project categories or locations listed in section F.1.d.(2), and
- (b) Those redevelopment projects that create, add, or replace at least 5,000 square feet of impervious surfaces on an already developed site and the existing development and/or the redevelopment project falls under the project categories or locations listed in section F.1.d.(2). Where redevelopment results in an increase of less than fifty percent of the impervious surfaces of a previously existing development, and the existing development was not subject to SSMP requirements, the numeric sizing criteria discussed in section F.1.d.(6) applies only to the addition or replacement, and not to the entire development. Where redevelopment results in an increase of more than fifty percent of the impervious surfaces

<sup>10</sup> Updated SSMP and hydromodification requirements must apply to all priority projects or phases of priority projects which have not yet begun grading or construction activities at the time any updated SSMP or hydromodification requirement commences. If lawful prior approval of a project exists, whereby application of an updated SSMP or hydromodification requirement to the project is illegal, the updated SSMP or hydromodification requirement need not apply to the project. Updated Development Planning requirements set forth in Sections F.1. (a) through (h) of this Order must apply to all projects or phases of projects, unless, at the time any updated Development Planning requirement commences, the projects or project phases meet any one of the following conditions: (i) the project or phase has begun grading or construction activities; or (ii) a Copermittee determines that lawful prior approval rights for a project or project phase exist, whereby application of the Updated Development Planning requirement to the project is legally infeasible. Where feasible, the Permittees must utilize the SSMP and hydromodification update periods to ensure that projects undergoing approval processes include application of the updated SSMP and hydromodification requirements in its plans.

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of a previously existing development, the numeric sizing criteria applies to the entire development.

~~(c) Redevelopment also does not include projects that are implemented solely pursuant to section F.3.d of this order.~~

**Comment [CP41]:** Important not to penalize proactive efforts to retrofit existing development.

~~(b)(d) PDPs do not include Emergency projects required to protect public health and safety, consistent with CEQA § 15269.~~

~~(c) One-acre threshold: In addition to the Priority Development Project Categories identified in section F.1.d.(2), Priority Development Projects must also include all other post-construction pollutant-generating new Development Projects that result in the disturbance of one acre or more of land by July 1, 2012.<sup>11</sup>~~

**Comment [amm42]:** Request deletion as disturbance threshold inappropriately captures non-development related activity (maintenance, agricultural, etc.) Further, the one acre threshold is not appropriately supported in the Fact Sheet.

**(2) Priority Development Project Categories**

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

(a) New development projects that create 10,000 square feet or more of impervious surfaces (collectively over the entire project site) including commercial, industrial, residential (excluding individual single family home projects not part of a larger common plan of development), mixed-use, and public projects. This category includes development projects on public or private land which fall under the planning and building authority of the Copermitees.

(b) Automotive repair shops. This category is defined as a facility that is categorized in any one of the following Standard Industrial Classification (SIC) codes: 5013, 5014, 5541, 7532-7534, or 7536-7539.

(c) Restaurants. This category is defined as a facility that sells prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption (SIC code 5812), where the land area for development is greater than 5,000 square feet. Restaurants where land development is less than 5,000 square feet must meet all SSMP requirements except for

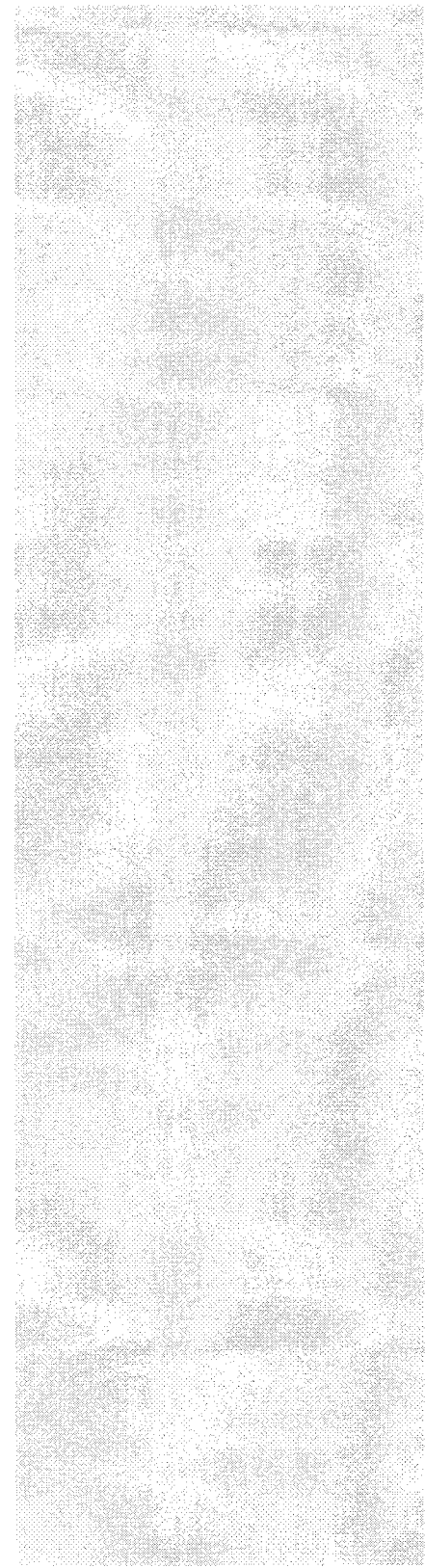
<sup>11</sup> Pollutant-generating Development Projects are those projects that generate pollutants at levels greater than natural background levels.

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LID and structural treatment BMP and numeric sizing criteria requirement F.1.d.(4) and F.1.d.(6) and hydromodification requirement F.1.h.

- (d) All hillside development greater than 5,000 square feet. This category is defined as any development which creates 5,000 square feet of impervious surface which is located in an area with known erosive soil conditions, where the development will grade on any natural slope that is twenty-five percent or greater.
- (e) Environmentally Sensitive Areas (ESAs). All development located within, or directly adjacent to, or discharging directly to an ESA (where discharges from the development or redevelopment will enter receiving waters within the ESA), which either creates 2,500 square feet of impervious surface on a proposed project site or increases the area of imperviousness of a proposed project site to 10 percent or more of its naturally occurring condition. "Directly adjacent" means situated within 200 feet of the ESA. "Discharging directly to" means outflow from a drainage conveyance system that is composed entirely of flows from the subject development or redevelopment site, and not commingled with flows from adjacent lands.
- (f) Impervious parking lots 5,000 square feet or more and potentially exposed to runoff. Parking lot is defined as a land area or facility for the temporary parking or storage of motor vehicles used personally, for business, or for commerce.
- (g) Street, roads, highways, and freeways. This category includes any paved impervious surface that is 5,000 square feet or greater used for the transportation of automobiles, trucks, motorcycles, and other vehicles. To the extent that the Copermittees develop revised standard roadway design and post-construction BMP guidance that comply with the provisions of Section F.1 of the Order, then public works projects that implement the ~~revised standard roadway sections designs/guidance~~ do not have to develop a project specific SSMP. The standard roadway design and post-construction BMP guidance must be submitted with the Copermittee's updated SSMP.
- (h) Retail Gasoline Outlets (RGOs). This category includes RGOs that meet the following criteria: (a) 5,000 square feet or more or (b) a projected Average Daily Traffic (ADT) of 100 or more vehicles per day.

(3) Pollutants of Concern



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

**(4) Low Impact Development BMP Requirements**

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

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

- (i) Each Copermittee must require LID BMPs or make a finding of technical infeasibility for each Priority Development Project in accordance with the LID waiver program in Section F.1.d.(7);
- (ii) Each Copermittee must incorporate formalized consideration, such as thorough checklists, ordinances, and/or other means, of LID BMPs into the plan review process for Priority Development Projects;
- (iii) On or before July 1, 2012, each Copermittee, to the extent of its jurisdiction, must review its local codes, policies, and ordinances and identify barriers therein to implementation of LID BMPs. Following the identification of these barriers to LID implementation, where feasible, the Copermittee must take, by the end of the permit cycle, appropriate actions to remove such barriers. The Copermittees must include this review with the updated JRMP.

**Comment [DB43]:** See legal comments in Attachment 8.

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

- (i) Maintain or restore natural storage reservoirs and drainage corridors (including depressions, areas of permeable soils, swales, and ephemeral and intermittent streams) to the extent feasible<sup>12</sup>;
- (ii) Projects with landscaped or other pervious areas must, where feasible, properly design and construct the pervious areas to

**Comment [CP44]:** Footnote edits per discussions with Board staff on 8/18

<sup>12</sup> Priority Development Projects proposing to dredge or fill materials in waters of the U.S. must obtain a CWA §401 Water Quality Certification. Discharges of dredge or fill materials in and/or waters of the State must obtain a CWA §401 Water Quality Certification and/or Waste Discharge Requirements.

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effectively receive and infiltrate, retain and/or treat runoff from impervious areas, prior to discharge to the MS4. Soil compaction for these areas must be minimized. The amount of the impervious areas that are to drain to pervious areas must be based upon the total size, soil conditions, slope, and other pertinent factors.

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

**Comment [CP45]:** This requirement is clearly specifying the method of compliance in contradiction with state law (CWC 13360).

(c) LID BMPs sizing criteria:

- (i) LID BMPs must be sized and designed to ensure onsite retention without runoff, of the volume of runoff produced from a 24-hour 85<sup>th</sup> percentile storm event<sup>13</sup> ("design capture volume");
- (ii) If onsite infiltration LID BMPs are technically infeasible per section F.1.d.(7)(b), other LID BMPs may treat any volume that is not retained onsite provided that the other LID BMPs are sized to hold the design storm volume that is not infiltrated. The LID BMPs must be designed for an appropriate surface loading rate to prevent erosion, scour and channeling within the BMP.

(d) If it is shown to be technically infeasible per Section F.1.d.(7)(b) to retain and/or treat the remaining volume up to and including the design capture volume using LID BMPs, then the project must implement conventional treatment control BMPs in accordance with Section F.1.d.(6) below and must participate in the LID waiver program in Section F.1.d.(7).

(e) All LID BMPs must be designed and implemented with measures to avoid the creation of nuisance or pollution associated with vectors, such as mosquitoes, rodents, and flies.

(5) Source Control BMP Requirements

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

**Comment [DB46]:** See general comment 1 in Attachment 7.

<sup>13</sup> This volume is not a single volume to be applied to all of Riverside County. The size of the 85<sup>th</sup> percentile storm event is different for various parts of the County. The Copermittees are encouraged to calculate the 85<sup>th</sup> percentile storm event for each of its jurisdictions using local rain data pertinent to its particular jurisdiction (0.6 inch standard is a rough average for the County and should only be used where appropriate rain data is not available). In addition, isopluvial maps may be used to extrapolate rainfall data to areas where insufficient data exists in order to determine the volume of the local 85<sup>th</sup> percentile storm event in such areas. Where the Copermittees will use isopluvial maps to determine the 85<sup>th</sup> percentile storm event in areas lacking rain data, the Copermittees must describe their method for using isopluvial maps in its SSMPs.

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- (a) Prevent illicit discharges into the MS4;
- (b) Minimize storm water pollutants of concern in runoff;
- (c) ~~Eliminate~~ Minimize irrigation runoff;
- (d) Include storm drain system stenciling or signage;
- (e) Include properly designed outdoor material storage areas;
- (f) Include properly designed outdoor work areas;
- (g) Include properly designed trash storage areas;
- (h) Include water quality protection requirements applicable to individual priority project categories.

**(6) Treatment Control BMP Requirements**

Each Copermittee must require each Priority Development Project that meets the Copermittee's technical infeasibility criteria in Section F.1.d(7) below, to implement conventional treatment control BMPs to treat the portion of the "design capture volume" that was not treated by LID BMPs per Section F.1.d(4) above. Conventional treatment control BMPs must meet the following requirements:

- (a) All treatment control BMPs for a single Priority Development Project must collectively be sized to comply with the following numeric sizing criteria:
  - (i) Volume-based treatment control BMPs must be designed to mitigate (infiltrate, filter, or treat) the remaining portion of the design capture volume that was not retained and/or treated with LID BMPs; or
  - (ii) Flow-based treatment control BMPs must be designed to mitigate (filter, or treat) either: a) the maximum flow rate of runoff produced from a rainfall intensity of 0.2 inch of rainfall per hour, for each hour of a storm event; or b) the maximum flow rate of runoff produced by the 85<sup>th</sup> percentile hourly rainfall intensity (for each hour of a storm event), as determined from the local historical rainfall record, multiplied by a factor of two.
- (b) All treatment control BMPs for Priority Development Projects must, at a minimum:
  - (i) Be ranked with high or medium pollutant removal efficiency for the project's most significant pollutants of concern, as the pollutant removal efficiencies are identified in the Copermittees' SSMP. Treatment control BMPs with a low removal efficiency ranking must only be approved by a Copermittee when a feasibility analysis has been conducted which exhibits that implementation of treatment control BMPs with high or medium removal efficiency rankings are infeasible for a Priority Development Project or portion of a Priority

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- (ii) Development Project.  
Be correctly sized and designed so as to remove storm water pollutants to the MEP.
- (c) Target removal of pollutants of concern from runoff.
- (d) Be implemented close to pollutant sources, and prior to discharging into waters of the U.S.
- (e) Include proof of a mechanism under which ongoing long-term maintenance will be conducted to ensure proper maintenance for the life of the project. The mechanisms may be provided by the project proponent or Copermittee.
- (f) Be designed and implemented with measures to avoid the creation of nuisance or pollution associated with vectors, such as mosquitoes, rodents, and flies.

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

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

- (a) Prior to implementation, the LID waiver program must clearly exhibit that it will not allow Priority Development Projects to result in a net impact (after consideration of any mitigation) from pollutant loadings over and above the impact caused by projects meeting LID requirements;
- (b) For each Priority Development Project participating, the Copermittee must find that it is technically infeasible to implement LID BMPs that comply with the requirements of Section F.1.(d)(4). The Copermittee(s) must develop criteria to determine the technical feasibility of implementing LID BMPs. Each Priority Development Project participating must demonstrate that LID BMPs were implemented as much as feasible given the site's unique conditions. Technical infeasibility may result from conditions including, but not limited to:
  - (i) Locations that cannot meet the infiltration and groundwater protection requirements in section F.1.c.(6) for large, centralized infiltration BMPs. Where infiltration is technically infeasible, the

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- project must still examine the feasibility of other onsite LID BMPs;
- (ii) Insufficient demand for storm water reuse;
  - (iii) Smart growth and infill or redevelopment locations where the density and/or nature of the project would create significant difficulty for compliance with the LID BMP requirements;
  - ~~(iii)~~ (iv) Results of a Cost-Benefit Analysis; and
  - ~~(iv)~~ (v) Other site, geologic, soil, or implementation constraints identified in the Copermittees updated SSMP document.

**Comment [CP47]:** This had been agreed to in discussions with RB staff, but was omitted from the draft.

- (c) Each Priority Development Project that participates in the LID waiver program must mitigate for the pollutant loads expected to be discharged due to not implementing the LID retention BMPs in section F.1.d.(4). The pollutant loading must be estimated for each project participating in the LID waiver program. The estimated impacts from not implementing the required LID retention BMPs in section F.1.d.(4) must be fully mitigated. Mitigation projects must be implemented within the same hydrologic unit as the Priority Development Project. Mitigation projects outside of the hydrologic subarea but within the same hydrologic unit may be approved provided that the project proponent demonstrates that mitigation projects within the same hydrologic subarea are infeasible and that the mitigation project will address similar beneficial use impacts as expected from the Priority Development Projects pollutant load. Onsite mitigation may include increasing the conventional treatment sizing factors to achieve pollutant load removal equal to or greater than the pollutant load removal expected from implementing onsite retention of the design capture volume. Offsite mitigation projects may include green streets projects, existing development retrofit projects, retrofit incentive programs, regional BMPs and/or riparian restoration projects. Project applicants seeking to utilize these alternative compliance provisions may propose other offsite mitigation projects, which the Copermittees may approve if they meet the requirements of this subpart.
- (d) A Copermittee may choose to implement additional mitigation programs (e.g., pollutant credit system, mitigation fund) as part of the LID waiver program provided that the mitigation program clearly exhibits that it will not allow Priority Development Projects to result in a net impact from pollutant loadings over and above the impact caused by projects meeting LID requirements. Any additional mitigation programs that a Copermittee chooses to implement must be submitted to the San Diego Water Board Executive Officer for review and acceptance prior to implementation.

(8) LID and Treatment Control BMP Standards

- (a) As part of the SSMP, each Copermittee must develop and require Priority Development Projects to implement siting, design, and maintenance criteria for each LID and treatment control BMP listed in the SSMP to



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determine feasibility and applicability and so that implemented LID and treatment control BMPs are constructed correctly and are effective at pollutant removal, runoff control, and vector minimization. Development of BMP \_\_design worksheets which can be used by project proponents is encouraged.

- (b) LID and treatment control BMPs implemented at any Priority Development Projects must mitigate (treat through infiltration, settling, filtration or other unit processes) the required volume or flow of runoff from all developed portions of the project, including landscaped areas.
- (c) All LID and treatment control BMPs must be located so as to remove pollutants from runoff prior to its discharge to any receiving waters. Multiple Priority Development Projects may use shared post-construction BMPs as long as construction of any shared BMP is completed prior to the use or occupation of any Priority Development Project from which the BMP will receive runoff. Post construction BMPs must not be constructed within a waters of the U.S. or waters of the State.

**(9) Implementation Process**

- (a) As part of its local SSMP, each Copermittee, to the extent of its jurisdiction, must implement a process to verify compliance with SSMP requirements. The process must identify at what point in the planning process Priority Development Projects will be required to meet SSMP requirements and at a minimum, the Priority Development Project must implement the required post-construction BMPs prior to occupancy and/or the intended use of any portion of that project. The process must also include identification of the roles and responsibilities of various municipal departments in implementing the SSMP requirements, as well as any other measures necessary for the implementation of SSMP requirements.
- (b) Each Copermittee, to the extent of its jurisdiction, must establish a mechanism not only to track post-construction BMPs, but also to ensure that appropriate easements and ownerships are properly recorded in public records and the information is conveyed to all appropriate parties when there is a change in project or site ownership.

Comment [DB48]:

Comment [DB49]:

**(10) Post-construction BMP Review**

- (a) The Copermittees must review and update the BMPs that are listed in their SSMP as options for treatment control. At a minimum, the update must include removal of obsolete or ineffective BMPs and addition of LID BMPs that can be used for treatment, such as bioretention cells, bioretention swales, etc. The update must also add appropriate LID BMPs to any tables or discussions in the local SSMPs addressing pollutant

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removal efficiencies of treatment control BMPs. In addition, the update must include review and revision where necessary of treatment control BMP pollutant removal efficiencies.

- (b) The update must incorporate findings from BMP effectiveness studies conducted by the Copermitees for projects funded wholly or in part by the State Water Board or Regional Water Boards.
- (c) Each Copermitee must implement a mechanism for annually incorporating findings from local treatment BMP effectiveness studies (e.g., ones conducted by, or on-behalf of, public agencies in Riverside County) into SSMP project reviews and permitting

**e. BMP CONSTRUCTION VERIFICATION**

Prior to occupancy and/or intended use of any portion of the Priority Development Project subject to SSMP requirements, each Copermitee, to the extent of its jurisdiction, must inspect the constructed site design, source control, and treatment control BMPs applicable to the constructed portion of the project to verify that they have been constructed and are operating in compliance with all specifications, plans, permits, ordinances, and this Order.

**Comment [DB50]:** See District-specific comments in Attachment 8.

**f. BMP MAINTENANCE TRACKING**

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

**Comment [CP51]:** Per discussions with Board staff on 8/18

**Comment [CP52]:** Logistical issue for populating a database with BMPs that have as-of-yet not been individually tracked, and a potential legal issues for verifications of those BMPs that were built without requirements for such verifications.

**Comment [CP53]:** Per discussions with Board staff on 8/18

- (2) Each Copermitee must verify that approved post-construction BMPs are operating effectively and have been adequately maintained by implementing the following measures:
  - (a) The designation of high priority SSMP Projects must consider the following:
    - (i) BMP size,
    - (ii) Recommended maintenance frequency,
    - (iii) Likelihood of operational and maintenance issues,

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- (iv) Location,
- (v) Receiving water quality,
- (vi) Compliance record,
- (vii) Land use,
- (viii) and other pertinent factors;

~~At a minimum, high priority projects include those projects that generate pollutants (prior to treatment) within the tributary area of a 303(d) listed waterbody impaired for that pollutant; or those projects generating pollutants within the tributary area for have been determined to be the source of an observed action level exceedance of that pollutant.~~

**Comment [CP54]:** See discussion in comment letter

- (b) Beginning on July 1, 2012, each Copermitttee must implement a program to verify that the required structural post-construction BMPs on the inventoried SSMP projects have been implemented, are maintained, and operating effectively through inspections, self-certifications, surveys, or other equally effective approaches with the following conditions:
- (i) The implementation, operation, and maintenance of all (100 percent) approved and inventoried final project public and private SSMPs (a.k.a. WQMPs) must be verified every five years;
  - (ii) All (100 percent) projects with BMPs that are high priority must be inspected by the Copermitttee annually prior to each rainy season;
  - (iii) All (100 percent) Copermitttee projects with BMPs must be inspected by the Copermitttee annually;
  - ~~(iv) At least 20 percent of all approved and inventoried SSMP projects must be inspected by the Copermitttee annually;~~
  - ~~(v)(iv)~~ At the discretion of the Copermitttee, its inspections may be coordinated with the facility inspections implemented pursuant to section F.3. of this Order;
  - ~~(vi)(v)~~ For verifications performed through a means other than direct Copermitttee inspection, adequate documentation must be submitted to the Copermitttee to provide assurance that the required maintenance has been completed;
  - ~~(vii)(vi)~~ Appropriate follow-up measures (including re-inspections, enforcement, maintenance, etc.) must be conducted to ensure the treatment BMPs continue to reduce storm water pollutants as originally designed; and
  - ~~(viii)(vii)~~ Inspections must note observations of vector conditions, such as mosquitoes. Where conditions are identified as contributing to mosquito production, the Copermitttee must notify its local vector control agency.

**Comment [CP55]:** Per discussions with Board staff on 8/18.

**g. ENFORCEMENT OF DEVELOPMENT SITES**

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Each Copermittee must, ~~to the extent of its jurisdiction~~, enforce its storm water ordinance for all development projects as necessary to maintain compliance with this Order. Copermittee ordinances or other regulatory mechanisms must include appropriate sanctions to achieve compliance. Sanctions must include the following tools or their equivalent: Non-monetary penalties, fines, bonding requirements, liens, and/or permit or occupancy denials for non-compliance.

**Comment [CP56]:** See District-specific comments in Attachment 8

#### **h. HYDROMODIFICATION – LIMITATIONS ON INCREASES OF RUNOFF DISCHARGE RATES AND DURATIONS<sup>14</sup>**

Each Copermittee shall collaborate with the other Copermittees to develop and implement a Hydromodification Management Plan (HMP) to manage increases in runoff discharge rates and durations from all Priority Development Projects. The HMP must be incorporated into the SSMP and implemented by each Copermittee so that estimated post-project runoff discharge rates and durations must not exceed pre-development discharge rates and durations. Where the proposed project is located on an already developed site, the pre-project discharge rate and duration must be that of the ~~pre-developed, naturally occurring project~~ condition. The draft HMP must be submitted to the San Diego Water Board on or before June 30, 2013~~2014~~. The HMP will be made available for public review and comment and the San Diego Water Board Executive Officer will determine whether to hold a public hearing before the full San Diego Water Board or whether public input will be through written comments to the Executive Officer only.

**Comment [CP57]:** It is not appropriate to require a single property owner to mitigate the effects caused by previous owners of that land. The current property owners can only be held responsible for their own actions.

(1) The HMP must:

- (a) Identify a method for assessing susceptibility and geomorphic stability of channel segments which receive runoff discharges from Priority Development Projects. A performance standard must be established that ensures that the geomorphic stability within the channel will not be compromised as a result of receiving runoff discharges from Priority Development Projects.
- (b) Identify a range of runoff flows<sup>15</sup> based on continuous simulation of the entire rainfall record (or other analytical method proposed by the

<sup>14</sup> Updated SSMP and hydromodification requirements must apply to all Priority Development Projects or phases of Priority Development Projects which have not yet begun grading or construction activities at the time any updated SSMP or hydromodification requirement commences. If a Copermittee determines that lawful prior approval of a project exists, whereby application of an updated SSMP or hydromodification requirement to the project is legally infeasible, the updated SSMP or hydromodification requirement need not apply to the project. The Copermittees must utilize the SSMP and hydromodification update periods to ensure that projects undergoing approval processes include application of the updated SSMP and hydromodification requirements in its plans.

<sup>15</sup> The identified range of runoff flows to be controlled should be expressed in terms of peak flow rates of rainfall events, such as "10% of the pre-development 2-year runoff event up to the pre-development 10-year runoff event."

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

- (c) Identify a method to assess and compensate for the loss of sediment supply to streams due to development. A performance and/or design standard must be created and required to be met by Priority Development Projects to ensure that the loss of sediment supply due to development does not cause or contribute to increased erosion within channel segments downstream of Priority Development Project discharge points.
- (d) Designate and require Priority Development Projects to implement control measures so that (1) post-project runoff flow rates and durations do not exceed pre-development (~~naturally occurring~~) runoff flow rates and durations by more than 10 percent for the range of runoff flows identified under section F.1.h.(1)(b), where the increased flow rates and durations will result in increased potential for erosion or other significant adverse impacts to beneficial uses; (2) post-project runoff flow rates and durations do not result in channel conditions which do not meet the channel standard developed under section F.1.h.(1)(a) for channel segments downstream of Priority Development Project discharge points; and (3) the design of the project and/or control measures ~~compensate for~~ minimize the loss of sediment supply due to development.
- (e) Include a protocol to evaluate potential hydrograph change impacts to downstream watercourses from Priority Development Projects to meet the range of runoff flows identified under Section F.1.h.(1)(b).
- (f) Include other performance criteria (numeric or otherwise) for Priority Development Projects as necessary to prevent runoff from the projects from increasing and/or continuing unnatural rates of erosion of channel beds and banks, silt pollutants generation, or other impacts to beneficial uses and stream habitat due to increased erosive force.

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(g) Include a review of pertinent literature.

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

**Comment [CP58]:** This is not a necessary component of the HMP and unnecessarily increases costs.

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

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

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

**Comment [CP59]:** Per discussions with Board staff on 8/18

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

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(d) In-stream management and control measures.

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

(3) As part of the HMP, the Copermittees may develop a waiver program that allows a redevelopment Priority Development Project, as defined in Section F.1.d.(1)(b), to implement offsite mitigation measures. A waiver may be granted if onsite management and control measures are technically infeasible to fully achieve post-project runoff flow rates and durations that do not exceed the pre-development (naturally occurring) runoff flow rates and durations. Redevelopment projects that are granted a waiver under the program must not have post-project runoff flow rates and durations that exceed the pre-project runoff flow rates and durations. The estimated incremental hydromodification impacts from not achieving the pre-development (naturally occurring) runoff flow rates and durations for the project site must be fully mitigated. The offsite mitigation must be within the same stream channel system to which the project discharges. Mitigation projects not within the same stream channel system but within the same hydrologic unit may be approved provided that the project proponent demonstrates that mitigation within the same stream channel is infeasible and that the mitigation project will address similar impacts as expected from the project.

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

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

(5) HMP Reporting and Implementation

**Comment [CP60]:** Per discussions with Board staff on 8/18

Additionally, "wherever feasible" is an appropriate addition to this language for three reasons:

- 1)Based on the prioritization already identified in this section, instream controls will be a 'last resort'
- 2)If a project were to need to mitigate in-stream, preventing any man made materials would unnecessarily eliminate potentially viable solutions, even to the extent of eliminating options that would rehabilitate stream functions and uses.
- 3)The Water Board will still have oversight of the final in-stream plans through the 401 certifications, which will allow the Board to additionally ensure that such instream controls do not adversely affect the stream.

**Comment [CP61]:** Per discussions with Board staff on 8/18

**Comment [CP62]:** This is not needed and makes the language confusing. The HMP must be approved by the board anyway. See legal comment white paper.

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- (a) On or before June 30 , 2013, the Copermitees must submit to the San Diego Water Board a draft HMP that has been reviewed by the public, including the identification of the appropriate limiting range of flow rates per section F.1.h.(1)(b).
- (b) Within 180 days of receiving San Diego Water Board comments on the draft HMP, the Copermitees must submit a final HMP that addressed the San Diego Water Board's comments.
- (c) Within 90 days of receiving a determination of adequacy from the San Diego Water Board issued at a noticed public hearing, each Copermitee must incorporate and implement the HMP for all Priority Development Projects.
- (d) ~~Prior to acceptance of the HMP by the San Diego Water Board, the early implementation measures likely to be included in the HMP must be encouraged by the Copermitees.~~

(6) Interim Hydromodification Criteria

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

- (a) Runoff from the Priority Development Project discharges (1) directly to a conveyance channel or storm drain that is concrete lined all the way from the point of discharge to the ocean, bay, lagoon, water storage reservoir or ~~lake Murrieta or Temecula creeks~~; and (2) the discharge is in full compliance with Copermitee requirements for connections and discharges to the MS4 (including both quality and quantity requirements); and (3) the discharge will not cause increased upstream or downstream erosion or adversely impact downstream habitat; and (4) the discharge is authorized by the Copermitee.
- (b) The Priority Development Project disturbs less than one acre. The Copermitee has the discretion to require a project specific WQMP to address hydrologic condition concerns on projects less than one acre on a case by case basis. The disturbed area calculation should include all disturbances associated with larger common plans of development.
- (c) The runoff flow rate, volume, velocity, and duration for the post-

**Comment [CP63]:** As seen in the San Diego HMP process, things can change after submitting it to the Board for approval. This requirement will create problems where a project implements the early measures, and such early measures may conflict with the final requirements, thereby forcing the project to re-design.

**Comment [CP64]:** All the way to the ocean is unreasonable and unnecessary. In the interim, very few projects are expected within the watershed, and the cumulative effects of such few projects is negligible.



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

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

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

**i. UNPAVED ROADS DEVELOPMENT**

The Copermittees must develop, where they do not already exist, and implement or require implementation of erosion and sediment control BMPs after construction of new unpaved roads that are within their legal authority to regulate. At a minimum, the BMPs must include:

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

**Comment [CP65]:** Pursuant to the comment letter:  
 THE COPERMITTEES REQUEST THIS SECTION BE DELETED IN ITS ENTIRETY.  
 See the comment letter, attachment 5, for further discussion of the issues and justification for this request.  
 Should the board decide to include such requirements despite the request and justifications provided in the comment letter, the edits shown below are the minimum changes that should be made.  
**Comment [CP66]:** These are specifying the method of compliance.

**2. CONSTRUCTION COMPONENT**

Each Copermittee must implement a construction program as applicable to its jurisdiction, which meets the requirements of this section, and is designed to prevents illicit discharges into the MS4, implements and maintains structural and non-structural BMPs to reduce pollutants in storm water runoff from construction sites to the MS4, reduces construction site discharges of storm water pollutants from the MS4 to the MEP, and prevents construction site discharges from the MS4 from causing or contributing to a violation of water quality standards.

**Comment [DB67]:** See general comment 1 in Attachment 7

**a. ORDINANCE UPDATE**

By July 1, 2012, each Copermittee (except the District) must review and update its grading ordinances and other ordinances as necessary to comply with the

**Comment [CP68]:** See District Legal Comments in Attachment 8

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requirements of achieve full compliance with this Order, including requirements for the implementation of all designated BMPs and other measures.

**Comment [DB69]:** See legal comments in Attachment 7

**b. SOURCE IDENTIFICATION**

Each Copermittee must maintain an updated watershed-based inventory of all construction sites within its jurisdiction. The use of an automated database system, such as Geographical Information Systems (GIS) is strongly encouraged.

**c. SITE PLANNING AND PROJECT APPROVAL PROCESS**

Each Copermittee must incorporate consideration of potential water quality impacts prior to approval and issuance of construction and grading permits.

- (1) Each construction and grading permit must require proposed construction sites to implement designated BMPs and other measures so that illicit discharges into the MS4 are prevented, storm water pollutants discharged from the site will be reduced to the MEP, and construction discharges from the MS4 are prevented from causing or contributing to a violation of water quality standards.
- (2) Prior to permit issuance, the project proponent's runoff management plan (or equivalent construction BMP plan) must be required to comply, and reviewed to verify compliance with the local grading ordinance, other applicable local ordinances, and this Order.
- (3) Prior to permit issuance, each Copermittee must verify that project proponents subject to California's statewide General NPDES Permit for Storm Water Discharges Associated With Construction Activities, (hereinafter General Construction Permit), have existing coverage under the General Construction Permit.

**Comment [CP70]:** Specifying method of compliance

**d. BMP IMPLEMENTATION**

- (1) Designate BMPs: Each Copermittee must designate a minimum set of BMPs and other measures to be implemented at all construction sites within their jurisdiction. The designated minimum set of BMPs must include:
  - (a) Management Measures:
    - (i) Pollution prevention, where appropriate;

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- (ii) Development and implementation of a runoff management plan;
- (iii) Minimization of areas that are cleared and graded to only the portion of the site that is necessary for construction;
- (iv) Minimization of exposure time of disturbed soil areas;
- (v) Minimization of grading during the rainy season and correlation of grading with seasonal dry weather periods to the extent feasible;
- (vi) Limitation of grading to a maximum disturbed area as determined by each Copermittee before either temporary or permanent erosion controls are implemented to prevent storm water pollution. 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;
- (vii) Temporary stabilization and reseeded of disturbed soil areas as rapidly as feasible;
- (viii) Wind erosion controls;
- (ix) Tracking controls;
- (x) Non-stormwater management measures to prevent illicit discharges and control storm water pollution sources;
- (xi) Waste management measures;
- (xii) Preservation of natural hydrologic features where feasible;
- (xiii) Preservation of riparian buffers and corridors where feasible;
- (xiv) Evaluation and maintenance of all BMPs, until removed; and
- (xv) Retention, reduction, and proper management of all storm water pollutant discharges on site to the MEP standard.

**(b) Erosion and Sediment Controls:**

- (i) Erosion prevention. Erosion prevention is to be used as the most important measure for keeping sediment on site during construction;
- (ii) Sediment controls. Sediment controls are to be used as a supplement to erosion prevention for keeping sediment on-site during construction;
- (iii) Slope stabilization must be used on all active slopes during rain events regardless of the season and on all inactive slopes during the rainy season and during rain events in the dry season;
- (iv) Permanent revegetation or landscaping as early as feasible; and
- (v) Erosion and sediment controls must be required during the construction of unpaved roads.

(2) Each Copermittee must implement, or require implementation of,

**Comment [CP71]:** Conflicts with the 'off-the-shelf' approach that may be appropriate for some sites. This issue was discussed with staff.

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enhanced<sup>16</sup> measures to address the threat to water quality posed by all construction sites tributary to CWA section 303(d) water body segments impaired for sediment or turbidity. Each Copermitee must also implement, or require implementation of, enhanced, measures for construction sites within, or adjacent to, or discharging directly to receiving waters within environmentally sensitive areas (as defined in Attachment C of this Order).

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

**Comment [CP72]:** Specifying method of compliance, in violation of CWC 13360.

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

~~(4)~~**(3) Implement BMPs:** Each Copermitee must implement, or require the implementation of, the designated minimum BMPs and any additional measures necessary to comply with this Order at each construction site within its jurisdiction year round. BMP implementation requirements, however, can vary based on wet and dry seasons. Dry season BMP implementation must plan for and address unseasonal rain events that may occur during the dry season (May 1 through September 30).

#### **e. INSPECTION OF CONSTRUCTION SITES**

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

<sup>16</sup> Enhanced BMPs are control actions specifically targeted to the pollutant or condition of concern and should be of higher quality and effectiveness than the minimum control measures otherwise required. Enhanced in this Order means better, not simply more, BMPs.

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(1) During the rainy season, each Copermitttee must inspect at least ~~every two weeks~~ monthly, all construction sites within its jurisdiction meeting any of the following criteria:

- (a) All sites ~~30-50~~ acres or more in size with rough grading or with active, unstabilized slopes occurring during the rainy season;
- (b) All sites one acre or more, and within the same hydrologic subarea and tributary to a CWA section 303(d) water body segment impaired for sediment; or within, directly adjacent to, or discharging directly to a receiving water within an ESA; and
- (c) Other sites determined by the Copermitttees or the San Diego Water Board as a significant threat to water quality. In evaluating threat to water quality, the following factors must be considered: (1) soil erosion potential; (2) site slope; (3) project size and type; (4) sensitivity of receiving water bodies; (5) proximity to receiving water bodies; (6) non-storm water discharges; (7) known past record of non-compliance by the operators of the construction site; and (8) any other relevant factors.

(2) During the rainy season, each Copermitttee must inspect at least ~~monthly twice during the wet season~~, all construction sites with one acre or more of soil disturbance not meeting the criteria specified above in section F.2.e.(1).

- (3) During the rainy season, each Copermitttee must inspect construction sites less than one acre in size as needed to ensure compliance with its ordinances and this Order.
- (4) Each Copermitttee must inspect all construction sites as needed during the dry season. Sites meeting the criteria in section F.2.e.(1) must be inspected at least once in August or September each year.

(5) Re-inspections: Based upon site inspection findings, each Copermitttee must implement all follow-up actions (i.e., re-inspection, enforcement) necessary to comply with this Order. Reinspection frequencies must be determined by each Copermitttee based upon the severity of deficiencies, the nature of the construction activity, and the characteristics of soils and receiving water quality.

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

- (a) Check for coverage under the General Construction Permit (Notice of Intent (NOI) and/or Waste Discharge Identification No.) during initial

**Comment [CP73]:** This section is setting the minimum frequencies, and as such should provide flexibility to inspect more frequently those sites that warrant additional focus / follow-up. The changes shown to F.2.e.(1) and (2) are to provide such flexibility. Additionally these frequencies are consistent with Riverside County's Santa Ana MS4 permit - which promotes consistency within the areas serviced by the County.

**Comment [CP74]:** See comment above

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inspections;

- (b) Assessment of compliance with Copermittee ordinances and permits related to runoff, including the implementation and maintenance of designated minimum BMPs;
- (c) Assessment of BMP effectiveness;
- (d) Visual observations for non-storm water discharges, potential illicit connections, and potential discharge of pollutants in storm water runoff;
- (e) ~~Review of site monitoring data results, if the site monitors its runoff~~
- (f) Education and outreach on storm water pollution prevention, as needed; and
- (g) Creation of a written or electronic inspection report.

- (7) The Copermittees must track the number of inspections for each inventoried construction site throughout the reporting period to verify that each site is inspected at the minimum frequencies required.

**f. ENFORCEMENT OF CONSTRUCTION SITES**

- (1) Each Copermittee must develop and implement an escalating enforcement process that achieves prompt corrective actions at construction sites within their jurisdiction, for violations of the Copermittee's water quality protection permits, requirements, and ordinances. This enforcement process must include authorizing the Copermittee's construction site inspectors to take immediate enforcement actions when appropriate and necessary. The enforcement process must include appropriate sanctions such as stop work orders, non-monetary penalties, fines, bonding requirements, and/or permit denials for non-compliance.
- (2) Each Copermittee must be able to respond to construction complaints received from third-parties and to ensure the San Diego Water Board that corrective actions have been implemented, if warranted.

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

- (1) In addition to the notification requirements in Attachment B, each Copermittee must notify the San Diego Water Board when the Copermittee issues high level enforcement (as defined in the Copermittee's JRMP) to a construction site that poses a significant threat to water quality in its jurisdiction as a result of violations of its storm water ordinances.
- (2) Each Copermittee must annually notify the San Diego Water Board, prior to the commencement of the rainy season, of all construction sites with alleged

**Comment [CP75]:** This is a new and inappropriate requirement. Monitoring data is only required under the Statewide General Construction Permit, which is the Regional Board's responsibility to inspect and review.

Copermittee review of data which falls under the regional board's responsibility should be optional.

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violations that pose a significant threat to water quality. Information may be provided as part of the JRMP annual report if submitted prior to the rainy season. Information provided must include, but not be limited to, the following:

- (a) WDID number if enrolled under the General Construction Permit
- (b) Site Location, including address
- (c) Current violations or suspected violations

**3. EXISTING DEVELOPMENT COMPONENT**

**a. MUNICIPAL**

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

**Comment [DB76]:** See general comment 1 in Attachment 7

(1) Source Identification / Inventory

Each Copermittee must maintain an updated watershed-based inventory of all its municipal areas and those activities that have the potential to generate and discharge pollutants. The inventory must include the name, address (if applicable), and a description of the area/activity; which pollutants are potentially generated by the area/activity; whether the area/activity is adjacent to an ESA; and identification of whether the area/activity is tributary to and within the same hydrologic sub area as a CWA section 303(d) water body segment and generates pollutants for which the water body segment is impaired. Linear facilities, such as roads, streets, and highways, do not need to be individually inventoried. The use of an automated database system, such as Geographical Information Systems (GIS) is highly recommended.

**Comment [CP77]:** Sites that do not have the potential to discharge pollutants, cannot affect discharges from the MS4.

**Comment [CP78]:** Per discussions with Board staff on 8/18

(2) General BMP Implementation

- (a) **Pollution Prevention:** Each Copermittee must implement pollution prevention methods in its municipal program and must require their use by appropriate departments, personnel, and contractors.
- (b) **Designate Minimum BMPs:** Each Copermittee must designate a minimum set of BMPs for all municipal areas and those activities that have the potential to generate and discharge pollutants. The designated minimum

**Comment [CP79]:** See comment above

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BMPs for municipal areas and activities must be area or activity specific as appropriate.

- (c) Each Copermitttee must designate BMPs for special events that are expected to generate significant trash and litter. Controls to consider must include:
  - (i) Temporary screens on catch basins and storm drain inlets;
  - (ii) Temporary fencing to prevent windblown trash from entering adjacent water bodies and MS4 channels;
  - (iii) Proper management of trash and litter;
  - (iv) Catch basin cleaning following the special event and prior to an anticipated rain event;
  - (v) Street sweeping of roads, streets, highways and parking facilities following the special event; and
  - (vi) Other equivalent controls.
- (d) Designate BMPs for ESAs and 303(d) Impairments: Each Copermitttee must designate enhanced measures for its municipal areas and activities tributary to and within the same hydrologic sub area as a CWA section 303(d) impaired water body segments when an area or those activities have the potential to generate pollutants for which the water body segment is impaired. Each Copermitttee must also designate additional controls for its municipal areas and activities within or directly adjacent to or discharging directly to receiving waters within environmentally sensitive areas (as defined in Attachment C of this Order).
- (e) Implement BMPs: Each Copermitttee must implement, or require the implementation of, the designated minimum and enhanced BMPs and any additional measures necessary based on its inventory to comply with this Order for each of its municipal area and those activities that have the potential to discharge pollution.

**Comment [CP80]:** Per discussions with Board staff on 8/18

(3) **BMP Implementation for Management of Pesticides, Herbicides, and Fertilizers**

Each Copermitttee must implement BMPs to reduce the contribution of storm water pollutants to the MEP associated with the application, storage, and disposal of pesticides, herbicides and fertilizers from its municipal areas and activities from its MS4 to MS4s and receiving waters. Such BMPs must include, at a minimum:

**Comment [DB81]:** The Copermitttees are required to reduce pollutants in discharges from the MS4. See legal comments in Attachment 7

- (a) Educational activities, permits, certifications and other measures for municipal applicators and distributors;
- (b) Integrated Pest Management (IPM) measures that rely on emphasize non-chemical solutions;

**Comment [CP82]:** There are cases where pesticides may be necessary due to health concerns (rodent infestations, etc) The concept of IPM does not preclude the use of chemical solutions where such solutions are needed or appropriate.



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- (c) ~~The use of native vegetation;~~
- (d) Schedules for irrigation and chemical application; and
- (e) The collection and proper disposal of unused pesticides, herbicides, and fertilizers.

**Comment [CP83]:** This is clearly overly specifying method of compliance, and is illegal pursuant to CWC 13360.

**(4) BMP implementation for Flood Control Structures**

- (a) Each Copermitttee must implement procedures to assure that flood management projects assess the impacts on the water quality of receiving water bodies.
- (b) Each Copermitttee must include water quality protection measures, where feasible, when retrofitting existing flood control structural devices.
- (c) Each Copermitttee must evaluate its existing flood control structures as part of ongoing routine maintenance, identify structures causing or contributing to a condition of pollution, ~~implement~~ identify measures to reduce or eliminate the structure's effect on pollution, and evaluate the feasibility of retrofitting the structural flood control device. The inventory and evaluation must be completed by and submitted to the San Diego Water Board in each the 2<sup>nd</sup> year (i.e. FY 2012/2013) JRMP Annual Report.

**Comment [CP84]:** This is not required by the federal regulations as an ongoing permit requirement.

Accordingly, the Copermitttees, request deletion of the section.

Should the board decide not to remove the section, at a minimum, the language should be restored to not require anything more than the O.C. Permit.

**(5) BMP Implementation for Sweeping of Municipal Areas**

Where municipal area sweeping is implemented as an MS4 BMP for municipal roads, streets, highways, and parking facilities, each Copermitttee must design and implement the program based on the following criteria:

- (a) Roads, streets, highways, and parking facilities identified as consistently generating the highest volumes of trash and/or debris must be swept at least two times per month.
- (b) Roads, streets, highways, and parking facilities identified as consistently generating moderate volumes of trash and/or debris must be swept at least monthly.
- (c) Roads, streets, highways, and parking facilities identified as generating low volumes of trash and/or debris must be swept as necessary, but no less than once per year.

**Comment [CP85]:** These are new requirements that are not necessary, and were not included in the draft OC Permit.

Further it is overly specific in forcing the Copermitttees to identify high/moderate/ and low (trash) volume streets. Such specificity is not necessary.

**(6) Operation and Maintenance of Municipal Separate Storm Sewer System (MS4) and Treatment Controls**

- (a) Treatment Controls: Each Copermitttee must implement a schedule of inspection and maintenance activities to verify proper operation of all its municipal structural treatment controls designed to reduce storm water pollutant discharges to or from its MS4s and related drainage structures.

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- (b) ~~MS4 and Facilities~~: Each Copermittee must implement a schedule of maintenance activities for its MS4 and ~~facilities (including but not limited to catch basins, storm drain inlets, detention basins, etc)~~. The maintenance activities must, at a minimum, include:
- (i) Inspection and removal of accumulated waste at least once a year between May 1 and September 30 of each year for all MS4 ~~facilities~~ catch basins and storm drain inlets, with Additional ~~facilities~~ cleaning as necessary between October 1 and April 30 of each year;
  - (ii) Following two years of inspections, any MS4 ~~facility~~ that requires inspection and cleaning less than annually may be inspected as needed, but not less than every other year;
  - (iii) Open channels and basins must be cleaned of observed anthropogenic litter in a timely manner;
  - (iv) Maintenance activities within open channels must not adversely impact beneficial uses within those channels;
  - (v) Record keeping of the maintenance and cleaning activities including the overall quantity of waste removed;
  - (vi) Proper disposal of waste removed pursuant to applicable laws; and
  - (vii) Measures to eliminate waste discharges during MS4 maintenance and cleaning activities.
- (7) Infiltration From Sanitary Sewer to MS4/ Provide Preventive Maintenance
- (8) Each Copermittee must implement controls and measures to prevent and eliminate infiltration of seepage from sanitary sewers to MS4s ~~through thorough, routine preventive maintenance of the MS4~~. Each Copermittee that operates both a municipal sanitary sewer system and a MS4 must implement controls and measures to prevent and eliminate infiltration of seepage from the sanitary sewers to the MS4s that must include overall sanitary sewer and MS4 surveys and thorough, routine preventive maintenance of both.
- (a) Each Copermittee must implement controls to limit infiltration of seepage from sanitary sewers to municipal separate storm sewer systems where necessary. Such controls must include:
- (i) Adequate plan checking for construction and new development;
  - (ii) Incident response training for its municipal employees that identify sanitary sewer spills;
  - (iii) Code enforcement inspections;
  - (iv) MS4 maintenance and inspections;
  - (v) Interagency coordination with sewer agencies; and

**Comment [CP86]:** The term 'facilities' is confusing and unnecessary.

Request use of the language from the 2004 MS4 permit as shown in these redlines (though (b)(ii) ). This is much clearer and simple to comply with.

**Comment [CP87]:** Although the shown redlines will be much clearer, should board staff reject such changes, at a minimum the word 'detention basins' should be removed as it would otherwise conflict with subpart (iii) below.

**Comment [CP88]:** The MS4 Copermittees that do not own nor operate a sewer system cannot prevent seepage by maintaining their MS4.

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- (vi) Proper education of its municipal staff and contractors conducting field operations on the MS4 or its municipal sanitary sewer (if applicable).

**(9) Inspection of Municipal Areas and Activities**

- (a) At a minimum, each Copermittee must inspect their following high priority municipal areas and activities annually:

- (i) Roads, Streets, Highways, and Parking Facilities;
- (ii) Flood Management Projects and Flood Control Devices not otherwise inspected per Section F.3.a.(6)(b);
- (iii) Areas and activities tributary to and within the same hydrologic sub area as a CWA section 303(d) impaired water body segment, where an area or activity generates has the potential to discharge pollutants<sup>17</sup> for which the water body segment is impaired.
- (iv) Areas and activities within or adjacent to or discharging directly to receiving waters within environmentally sensitive areas (as defined in Attachment C of this Order);
- (v) Municipal Facilities:
  - [a] Active or closed municipal landfills;
  - [b] Publicly owned treatment works (including water and wastewater treatment plants) and sanitary sewage collection systems;
  - [c] Solid waste transfer facilities;
  - [d] Land application sites;
  - [e] Corporate yards including maintenance and storage yards for materials, waste, equipment and vehicles; and
  - [f] Household hazardous waste collection facilities.
- (vi) Municipal airfields;
- (vii) Parks and recreation facilities;
- (viii) Special event venues following special events (festivals, sporting events, etc.);
- (ix) Power washing activities; and
- (x) Other municipal areas and activities that the Copermittee determines may contribute a significant pollutant load to the MS4.

- (b) Other municipal areas and activities must be inspected as needed and in response to water quality data, valid public complaints, and findings from municipal or contract staff.

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

**Comment [CP89]:** Per discussions with Board staff on 9/18

**Comment [CP90]:** See footnote explaining this change. The idea is that if a project has LID or Treatment Control BMPs in place – it should no longer be a mandatory high-priority site for municipal inspection purposes. It would then be subject to the requirements of Section F.1.f.

<sup>17</sup> A project is considered to have the potential to discharge a pollutant if it does not have LID or treatment controls BMPs in place that treat the design capture volume for the areas of the site generating that pollutant.

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(10) Enforcement of Municipal Areas and Activities

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

(11) Copermittee Maintained Unpaved Roads Maintenance

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

**Comment [CP91]:** Pursuant to the comment letter:  
 THE COPERMITTEES REQUEST THIS SECTION BE DELETED IN ITS ENTIRETY.  
 See the comment letter, attachment 5, for further discussion of the issues and justification for this request.  
 Should the board decide to include such requirements despite the request and justifications provided in the comment letter, the edits shown below are the minimum changes that should be made.

**Comment [CP92]:** Regular maintenance of unpaved roads may have unintended negative effects by virtue of further loosening soil to maintain the roads. This requirement should be removed, or revised to only be required where necessary to resolve significant problems impacting streams and riparian habitat.

**Comment [CP93]:** Specifying method of compliance

**b. COMMERCIAL / INDUSTRIAL**

Each Copermittee (except the District) must implement a commercial / industrial program that meets the requirements of this section for facilities whose operation is under its jurisdiction, and is designed to prevent illicit discharges into the MS4, reduces commercial / industrial discharges of storm water pollutants from the MS4 to the MEP, and prevents commercial / industrial discharges from the MS4 from causing or contributing to a violation of water quality standards.

**Comment [CP94]:** See District-specific Legal comments

**Comment [DB95]:** See general comment 1 in Attachment 7

(1) Source Identification

- (a) Each Copermittee must maintain an updated watershed-based inventory of all industrial and commercial sites/sources within its jurisdiction (regardless of ownership) that could contribute a significant pollutant load to the MS4. The inventory must include the following minimum information for each industrial and commercial site/source: name; address; pollutants potentially generated by the site/source; and

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identification of whether the site/source is tributary to a CWA §303(d) water body segment and generates pollutants for which the water body segment is impaired; and a narrative description including SIC codes which best reflects the principal products or services provided by each facility.

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

(i) Commercial Sites/Sources:

- [a] Automobile repair, maintenance, fueling, or cleaning;
- [b] Airplane repair, maintenance, fueling, or cleaning;
- [c] Boat repair, maintenance, fueling, or cleaning;
- [d] Equipment repair, maintenance, fueling, or cleaning;
- [e] Automobile and other vehicle body repair or painting;
- [f] Mobile automobile or other vehicle washing;
- [g] Automobile (or other vehicle) parking lots and storage facilities;
- [h] Retail or wholesale fueling;
- [i] Pest control services;
- [j] Eating or drinking establishments, including such retail establishments with food markets;
- [k] Mobile carpet, drape or furniture cleaning;
- [l] Cement mixing or cutting;
- [m] Masonry;
- [n] Painting and coating;
- [o] Botanical or zoological gardens and exhibits;
- [p] Landscaping;
- [q] Nurseries and greenhouses;
- [r] Golf courses, parks and other recreational areas/facilities;
- [s] Cemeteries;
- [t] Pool and fountain cleaning;
- [u] ~~Marinas;~~
- [v] Portable sanitary services;
- [w] Building material retailers and storage;
- [x] Animal boarding facilities and kennels;
- [y] Mobile pet services;
- [z] Power washing services;
- [aa] Plumbing services; and
- [bb] Other sites and sources with a history of un-authorized discharges to the MS4.

Comment [CP96]: Clearly not applicable within this permit area.

(ii) Industrial Sites/Sources:

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- [a] Industrial Facilities, as defined at 40 CFR § 122.26(b)(14), including those subject to the General Industrial Permit or other individual NPDES permit;
- [b] Operating and closed landfills;
- [c] Facilities subject to SARA Title III; and
- [d] Hazardous waste treatment, disposal, storage and recovery facilities.

(iii) ESAs and 303(d) Listed Waterbodies: All other commercial or industrial sites/sources tributary to and within the same hydrologic sub area as a CWA Section 303(d) impaired water body segment, where the site/source generates pollutants for which the water body segment is impaired. All other commercial or industrial sites/sources within or directly adjacent to or discharging directly to receiving waters within environmentally sensitive areas (as defined in Attachment C of this Order) or that generate pollutants tributary to determined to be the source of an observed exceedance of an action level.

**Comment [CP97]:** See discussion in the comment letter.

**Comment [CP98]:** Per discussions with Board staff on 8/18

**Comment [CP99]:** See discussion in the comment letter.

(iv) All other commercial or industrial sites/sources that the Copermittee determines may contribute a significant pollutant load to the MS4.

**(2) General BMP Implementation**

(a) Pollution Prevention: Each Copermittee must require the use of pollution prevention methods by the inventoried industrial and commercial sites/sources, where appropriate.

**Comment [c100]:** From 2004 permit

(b) Designate / Update Minimum BMPs: Each Copermittee must designate a minimum set of BMPs for all inventoried industrial and commercial sites/sources. Where BMPs have already been designated, each Copermittee must review and update its existing BMPs for adequacy within one year of permit adoption by no later than the submittal of the JRMP. Copermittees may continue to regularly review and update their designated BMPs for adequacy and subsequently submit any updates in their Annual Report. The designated minimum BMPs must be specific to facility types and pollutant-generating activities, as appropriate.

**Comment [CP101]:** Per discussions with Board staff on 8/18

(c) Designate Enhanced BMPs for ESAs and 303(d) Impairments: Each Copermittee must designate enhanced measures for inventoried industrial and commercial sites/sources tributary to and within the same hydrologic subarea as a CWA section 303(d) impaired water body segments (where a site/source generates pollutants for which the water body segment is impaired). Each Copermittee must also designate additional controls for industrial and commercial sites/sources within or directly adjacent to or discharging directly to coastal lagoons, the ocean, or other receiving

**Comment [CP102]:** Per discussions with Board staff on 8/18

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waters within environmentally sensitive areas (as defined in Attachment C of this Order). Copermitees may continue to regularly review and update their designated enhanced BMPs for adequacy and subsequently submit any updates in their next Annual Report.

- (d) Implement BMPs: Each Copermitee must implement, or require the implementation of, the designated minimum and enhanced BMPs and any additional measures necessary based on inspections, incident responses, and water quality data to comply with this Order at each industrial and commercial site/source within its jurisdiction.

**(3) Mobile Businesses Program**

- (a) Each Copermitee must develop and implement a program ~~designed to reduce the discharge of storm water pollutants from the MS4 attributable to from mobile businesses to the MEP and to prohibit non-storm water discharges pursuant to Section B of this Order.~~ Each Copermitee must keep as part of its commercial source inventory a listing of mobile businesses known to operate ~~have bases of operation~~ within its jurisdiction that conduct services listed above in section F.3.b.(1)(a). The program must include:

- (i) Development and implementation of minimum standards and BMPs to be required for each of the various types of mobile businesses;
- (ii) Development and implementation of an enforcement strategy which specifically addresses the unique characteristics of mobile businesses;
- (iii) Notification of those mobile businesses known to operate ~~have bases~~ of operation within the Copermitee's jurisdiction of the minimum standards and BMP requirements;
- (iv) Development and implementation of an outreach and education strategy; and
- (v) Inspection of mobile businesses as needed to implement the program.

- (b) If they choose to, the Copermitees may cooperate in developing and implementing their programs for mobile businesses, including sharing of mobile business inventories, BMP requirements, enforcement action information, and education.

**(4) Inspection of Industrial and Commercial Sites/Sources**

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

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

**Comment [DB103]:** See general comment 1 Attachment 7 to the comment letter

**Comment [DB104]:** This change reflects the purpose of the Order, which is to reduce pollutants discharged from the MS4.

**Comment [CP105]:** This is an appropriate change, as it sets clear responsibility among the Copermitees.

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- (i) ~~Review of BMP implementation plans, if the site uses or is required to use such a plan;~~
- (ii) ~~Review of facility monitoring data, if the site monitors its runoff;~~
- (iii) Check for coverage under the General Industrial Permit (Notice of Intent (NOI) and/or Waste Discharge Identification Number), if applicable;
- (iv) Assessment of compliance with Copermitttee ordinances and Copermitttee issued permits related to runoff;
- (v) Assessment of the implementation, maintenance and effectiveness of the designated minimum and/or enhanced BMPs;
- (vi) Visual observations for non-storm water discharges, potential illicit connections, and potential discharge of pollutants in storm water runoff; and
- (vii) Education and training on storm water pollution prevention, as conditions warrant.

**Comment [CP106]:** See discussion in comment letter.

- (b) ~~Each Copermitttee must annually notify the San Diego Water Board, prior to the commencement of the rainy season, of all Industrial Sites and Industrial Facilities subject to the General Industrial Permit or other individual NPDES permit with alleged violations of the Copermitttees ordinances, that pose a significant threat to water quality.~~

**Comment [CP107]:** Per discussions with Board staff on 8/18, (comparable language added to F.3.b(5)(b) )

- (e)(b)      Frequencies: At a minimum all sites determined to pose a high threat to water quality must be inspected each year. All inventoried sites must be inspected at least once during a five year period. In evaluating threat to water quality, each Copermitttee must consider, at a minimum, the following:
  - (i) Type of activity (SIC code);
  - (ii) Materials used at the facility;
  - (iii) Wastes generated;
  - (iv) Pollutant discharge potential, including whether the facility generates a pollutant that exceeds an action level;
  - (v) Non-storm water discharges;
  - (vi) Size of facility;
  - (vii) Proximity to receiving water bodies;
  - (viii) Sensitivity of receiving water bodies;
  - (ix) Whether the facility is subject to the General Industrial Permit or an individual NPDES permit;
  - (x) Whether the facility has filed a No Exposure Certification/Notice of Non-Applicability;
  - (xi) Facility design;
  - (xii) Total area of the site, portion of the site where industrial or commercial activities occur, and area of the site exposed to rainfall and runoff;
  - (xiii) The facility's compliance history; and



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(xiv) Any other relevant factors.

(d)(c) Third-Party Certifications: Each Copermitttee may propose to develop and implement a third party certification program subject to San Diego Water Board Executive Officer acceptance. This program would verify industrial and commercial site/source compliance with the Copermitttees' ordinances, permits, and this Order. To the extent that third party certifications are conducted to fulfill the requirements of Section F.3.b.(4) above, the Copermitttee retains responsibility for compliance with this Order and will be responsible for conducting and documenting quality assurance and quality control of the third-party certifications.

(i) The Copermitttee's proposed third party certification program must include the following:

- [a] A description of the procedures and measures for quality assurance and quality control;
- [b] A listing of sites/sources that may and may not participate in the program;
- [c] The representative percentage of certifications that would qualify to satisfy the inspection requirements in section F.3.b(4)(c) above;
- [d] Photo documentation of potential storm water violations identified during the third party inspection;
- [e] Reporting to the Copermitttee of identified significant potential violations, including imminent or observed illegal discharges, within 24 hours of the third party inspection;
- [f] Reporting to the Copermitttee of all findings within one week of the inspection being conducted; and
- [g] Copermitttee follow-up and/or enforcement actions for identified potential storm water violations within two business days of the potential violation report receipt.

(e)(d) Based upon site inspection findings, each Copermitttee must implement all follow-up actions and enforcement necessary to comply with this Order.

(f)(e) To the extent that the San Diego Water Board has conducted an inspection of an industrial site during a particular year, the requirement for the responsible Copermitttee to inspect this facility during the same year is deemed satisfied.

(g)(f) The Copermitttees must track the number of inspections for the inventoried industrial and commercial sites/sources throughout the reporting period to verify that the sites/sources are inspected at the minimum frequencies listed in this Order.

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**(5) Enforcement of Industrial and Commercial Sites/Sources**

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

- (a) Each Copermitttee shall annually notify the San Diego Water Board, prior to the commencement of the wet season, of any unresolved high level enforcement action (as defined in the Copermitttee's JRMP) that poses a significant threat to water quality in its jurisdiction as a result of violations of their storm water ordinances.

**Comment [DB108]:** See legal comments in Attachment 7

**Comment [CP109]:** Per discussions with Board staff on 8/18, language such as this would serve as an alternative to F.3.b.(4)(b) above. This proposed language is more consistent with the requirements in the Construction section.

**c. RESIDENTIAL**

Each Copermitttee (except the District) must implement a residential program that meets the requirements of this section, and is designed to prevent illicit discharges into the MS4, reduces residential discharges of storm water pollutants from the MS4 to the MEP, and prevents residential discharges from the MS4 from causing or contributing to a violation of water quality standards.

**Comment [DB110]:** See legal comments in Attachment 8

**Comment [DB111]:** See general comment 1 in Attachment 7

**(1) Threat to Water Quality Prioritization**

Each Copermitttee must, within its jurisdiction, identify residential areas and activities that pose a high threat to water quality. At a minimum, these must include:

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

**Comment [CP112]:** Per discussions with Board staff on 8/18

**Comment [CP113]:** These requirements should be focused on discharges of pollutants.

**Comment [CP114]:** This inappropriately separates the risk (pollutant discharge potential) from the action (regulation, minimum BMPs, etc), and should not be a mandated component of this permit.

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Attachment C of this Order).

(2) BMP Implementation

- (a) Pollution Prevention: Each Copermittee must actively encourage the use of pollution prevention methods by residents.
- (b) Designate BMPs: Each Copermittee must designate minimum BMPs for high-threat-to-water quality residential areas and activities. The designated minimum BMPs for high-threat-to-water quality residential areas and activities must be area or activity specific.
- (c) Hazardous Waste BMPs: Each Copermittee must facilitate the proper management and disposal of used oil, toxic materials, and other household hazardous wastes. Such facilitation must include educational activities, public information activities, and establishment of collection sites operated individually and/or jointly by the Copermittee(s) or a private entity. Curbside collection of household hazardous wastes is encouraged.
- (d) Implement BMPs: Each Copermittee must implement, or require implementation of, the designated minimum BMPs and any additional measures necessary to comply with Sections A and B of this Order.
- (e) Each Copermittee must implement, or require implementation of, BMPs for residential areas and activities that have not been designated a high threat to water quality, as necessary.

(3) Enforcement of Residential Areas and Activities

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

(4) Common Interest Areas (CIA) / Home Owner Association (HOA) Areas, and Mobile Home Parks

Each Copermittee must ensure that effective measures exist and are implemented or required to be implemented to ensure that runoff within and from common interest developments, including areas managed by associations and mobile home parks, and meets the objectives of this section and Order.

- (a) BMP Implementation: Each Copermittee must implement or require implementation of management measures based on a review of pertinent factors, including:
  - (i) Maintenance duties and procedures typically used by CIA/HOA

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- (ii) maintenance associations within its jurisdiction;
- (iii) Whether streets and storm drains are publicly or privately owned within the CIA/HOA or mobile home park;
- (iv) Whether the CIA/HOA area or mobile home park has been identified as a high priority residential area based on an evaluation of the site potential to generate pollutants contributing to a 303(d) listed waterbody or an observed action level exceedance;
- (v) Other activities conducted or authorized by the HOA that may pose a significant risk to inland receiving waters.

(b) Legal Authority and Enforcement: By July 1, 2012, each Copermitee must review, and if necessary update, its Municipal Code to verify that they have the legal authority to implement and enforce its ordinances within CIA/HOA areas and mobile home parks.

**(5) Privately Owned Unpaved Roads Maintenance**

- (a) ~~The Copermitees must require implementation of BMPs for erosion and sediment control during maintenance activities on privately owned unpaved roads, particularly in or adjacent to stream channels or wetlands.~~
- (b) ~~The Copermitees must enforce their ordinances against illegal construction and maintenance grading activities on privately owned unpaved roads, so as to prevent impacts to water quality.~~

**Comment [CP115]:** Pursuant to the comment letter,  
 THE COPERMITTEES REQUEST THIS SECTION BE DELETED IN ITS ENTIRETY.  
 See further discussion on this issue in Attachment 5 to this comment letter

**d. RETROFITTING EXISTING DEVELOPMENT**

Each Copermitee must develop and implement a retrofitting program that meets the requirements of this section upon submittal of the ROWD. The goals of the existing development retrofitting program are to provide an means to the Copermitees to address the impacts of existing development through retrofit projects that reduce impacts from hydromodification, promote LID, support riparian and aquatic habitat restoration, reduce the discharges of storm water pollutants from the MS4 to the MEP, and prevent discharges from the MS4 from causing or contributing to a violation of water quality standards. Where feasible, at the discretion of the Copermitee, the existing development retrofitting program may be coordinated with flood control projects and other infrastructure improvement programs.

**Comment [CP116]:** Clarifying edit Per discussions with Board staff on 8/18

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

**Comment [CP117]:** See District-specific comment white paper. (Attachment 8)

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

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

- (a) Feasibility;
- (b) Cost effectiveness;
- (c) Pollutant removal effectiveness, including reducing pollutants exceeding action level;
- (d) Tributary area potentially treated;
- (e) Maintenance requirements;
- (f) Landowner cooperation;
- (g) Neighborhood acceptance;
- (h) Aesthetic qualities;
- (h)(i) Environmental Constraints (such as regulatory permits)
- (i)(j) Efficacy at addressing concern; and
- (i)(k) Potential improvements effects on public health and safety

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

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

- (a) Demonstration retrofit projects;
- (b) Retrofits on public land and easements that treat runoff from private developments;
- (c) Education and outreach;
- (d) Subsidies for retrofit projects;
- (e) Requiring retrofit projects as enforcement, mitigation or ordinance compliance;

**Comment [CP118]:** See District-specific comment white paper, Attachment 8.

**Comment [CP119]:** There may be external constraints by other regulatory agencies that may affect the ranking of a particular candidate.

**Comment [CP120]:** A particular retrofit opportunity may have both positive and/or negative effects on public health and safety, and both should be considered.

**Comment [CP121]:** See District-specific comment white paper. (Attachment 8)

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- (f) Public and private partnerships; and
- (g) Fees for existing discharges to the MS4 and reduction of fees for retrofit implementation.

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

**Comment [CP122]:** Per discussions with Board staff on 8/18

**Comment [CP123]:** Per discussions with Board staff on 8/18

(6) Where constraints on retrofitting preclude effective BMP deployment on existing developments at locations critical to protect receiving waters (as identified in section F.3.d.(1)), a Copermittee may propose a regional mitigation project to improve water quality. Such regional projects may include but are not limited to:

- (a) Regional water quality treatment BMPs;
- (b) Urban creek or wetlands restoration and preservation;
- (c) Daylighting and restoring underground creeks;
- (d) Localized rainfall storage and reuse to the extent such projects are fully protective of downstream water rights;
- (e) Hydromodification project; and
- (f) Removal of invasive plant species.

(7) A retrofit project or regional mitigation project may qualify as a Watershed Water Quality Activity provided it meets the requirements in section G. Watershed Workplan.

**4. ILLICIT DISCHARGE DETECTION AND ELIMINATION**

Each Copermittee must implement a program that meets the requirements of this section and is designed to actively detect and eliminate illicit discharges and disposal into the MS4. The program must address all types of illicit discharges and connections excluding those non-storm water discharges not prohibited by the Copermittee in accordance with section B of this Order.

**Comment [DB124]:** See general comment 1 in Attachment 7

**a. PREVENT AND DETECT ILLICIT DISCHARGES AND CONNECTIONS**

Each Copermittee must implement measures to prevent and detect illicit discharges to the MS4.

~~(1) Legal Authority: Each Copermittee must retain legal authority to prevent and eliminate illicit discharges and connections to the MS4.~~

**Comment [DB125]:** This measure is already covered in Part E of the Order.

~~(2)~~(1) Inspections: Each Copermittee must include use of appropriate

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Copermittee personnel and contractors to assist in identifying illicit discharges and connections during their daily activities.

- (a) Visual inspections for illegal discharges and connections must be conducted during routine maintenance of all MS4 facilities.
- (b) Copermittee staff and contractors conducting non-MS4 field operations must be trained to report suspected illegal discharges and connections to proper Copermittee staff.

**b. MAINTAIN MS4 MAP**

Each Copermittee must maintain an updated map of its entire MS4 and the corresponding drainage areas within its jurisdiction. The use of GIS is strongly encouraged. The MS4 map must include all segments of the storm sewer system owned, operated, and maintained by the Copermittee, as well as all known locations of inlets that discharge and/or collect runoff into the Copermittee's MS4, all known locations of access points (i.e. manholes) to the Copermittee's MS4, all known locations of connections with other MS4s (e.g. Caltrans), and all known locations of all the outfalls that discharge runoff from the Copermittee's MS4. The accuracy of the MS4 map must be confirmed during dry weather field screening and analytical monitoring and must be updated at least annually. The MS4 map including any GIS layers must be submitted with the updated JRMP.

**Comment [CP126]:** These are not required under the federal regulations, and are not necessary for the Copermittees' programs.

**c. FACILITATE PUBLIC REPORTING OF ILLICIT DISCHARGES AND CONNECTIONS - PUBLIC HOTLINE**

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

**d. DRY WEATHER FIELD SCREENING AND ANALYTICAL MONITORING**

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

**e. INVESTIGATION / INSPECTION AND FOLLOW-UP**

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

- (1) Develop response criteria for data: Each Copermitttee must develop, update, and use numeric criteria action levels (or other actions level criteria where appropriate) to determine when follow-up investigations will be performed in response to water quality monitoring. The criteria must include required non-storm water action levels (see Section C) and a consideration of 303(d)-listed waterbodies and environmentally sensitive areas (ESAs) as defined in Attachment C.
  
- (2) Respond to data: Each Copermitttee must investigate portions of the MS4 for which water quality data or conditions indicates a potential illegal discharge or connection.
  - (a) Obvious illicit discharges (i.e. color, odor, or significant exceedances of action levels) must be investigated immediately.
  
  - (b) Field screen data: Within two business days of receiving dry weather field screening results that exceed action levels, the Copermitttee(s) having jurisdiction must either initiate an investigation to identify the source of the discharge or document the rationale for why the discharge does not pose a threat to water quality and does not need further investigation. This documentation must be included in the Annual Report.
  
  - (c) Analytical data: Within five business days of receiving analytical laboratory results that exceed action levels, the Copermitttee(s) having jurisdiction must either initiate an investigation to identify the source of the discharge or document the rationale for why the discharge does not pose a threat to water quality and does not need further investigation. This documentation must be included in the Annual Report.
  
- (3) Respond to notifications: Each Copermitttee must respond to and resolve each reported incident (e.g., public hotline, staff notification, etc.) made to the Copermitttee in a timely manner. Criteria may be developed to assess the validity of, and prioritize the response to, each report.

**f. ELIMINATION OF ILLICIT DISCHARGES AND CONNECTIONS**

Each Copermitttee must take immediate action to initiate steps necessary to eliminate all detected illicit discharges, illicit discharge sources, and illicit connections after detection within its jurisdiction. Elimination measures may include an escalating series of enforcement actions for those illicit discharges



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that are not a serious threat to public health or the environment. Illicit discharges that pose a serious threat to the public's health or the environment must be eliminated immediately.

**g. ENFORCE ORDINANCES**

Each Copermitttee must implement and enforce its ordinances, orders, or other legal authority to prevent illicit discharges and connections to its MS4 and to eliminate detected illicit discharges and connections to its MS4.

**Comment [DB127]:** This requirement is already covered in Part E.1 of the Order.

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

Each Copermitttee must implement management measures and procedures (including a notification mechanism) to prevent, respond to, contain and clean up all sewage (see below) and other spills that may discharge into its MS4 from any source (including private laterals and failing septic systems). Copermitttees must coordinate with spill response teams to prevent entry of spills into the MS4 and contamination of surface water, ground water and soil. Each Copermitttee must coordinate spill prevention, containment and response activities throughout all appropriate Copermitttee departments, programs and agencies so that maximum water quality protection is available at all times.

**Comment [CP128]:** The Copermitttees do not own nor operate such systems, and as such cannot 'prevent' such spills from occurring.

**Comment [CP129]:** Per discussions with Board staff on 8/18

**5. PUBLIC PARTICIPATION COMPONENT**

Each Copermitttee must incorporate a mechanism for public participation in the updating, development, and implementation of the JRMP.

**6. EDUCATION COMPONENT**

Each Copermitttee must implement education programs designed to (1) measurably increase the knowledge regarding MS4s, impacts of runoff on receiving waters, and potential BMP solutions for the target audience; and (2) to measurably change the behavior of target communities and thereby reduce pollutants in storm water discharges from MS4s to the MEP and eliminate prohibited non-storm water discharges to MS4s and the environment. At a minimum, the education programs must meet the requirements of this section and address the following target communities within their jurisdiction:

**Comment [DB130]:** See general comment 1 in Attachment 7 to the comment letter.

**Comment [DB131]:** See legal comments white paper in Attachment 8 to the comment letter.

**Comment [DB132]:** See District-specific comment white paper in Attachment 8 to the comment letter.

- Copermitttee Departments and Personnel

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- New Development / Redevelopment Project Applicants, Developers, Contractors, Property Owners, and other Responsible Parties
- Construction Site Owners and Operators
- Commercial Facility Owners and Operators
- Industrial Facility Owners and Operators
- Residential Community and General Public
- ~~Quasi-Governmental Agencies / Districts (i.e., educational institutions, water districts, sanitation districts, etc.)~~

**Comment [CP133]:** These entities are subject to individual NPDES regulations, and the Copermittees should not be required to educate them on the general requirements below.

**a. General Requirements**

(1) At a minimum, the Copermittee education programs must implement educational programs for educate each target community on the following topics as appropriate to the community's activities and their impact discharges from the MS4 :

**Comment [CP134]:** The language should be clear that the minimum topics should be tailored as appropriate to the target audience.

- (a) Applicable water quality laws, regulations, permits, and/or other requirements;
- (b) Best management practices;
- (c) General runoff concepts;
- (d) Existing water quality, including local water quality conditions, impaired waterbodies and environmentally sensitive areas; and
- (e) Other topics as determined by the Copermittee, such as public reporting mechanisms, water conservation, low-impact development techniques, and public health and vector issues associated with runoff.

(2) Each Copermittee must implement educational activities, public information activities, and other appropriate activities to facilitate the proper management and disposal of used oil and toxic materials.

**b. Specific Requirements**

(1) Copermittee Departments and Personnel

- (a) Each Copermittee must implement an education program so its staff and contractors (and Planning Boards and Elected Officials, if applicable) responsible for implementing the requirements of this Order have an understanding of the following topics, as applicable to their responsibilities:
  - (i) Applicable water quality laws and regulations;
  - (ii) The potential effects and impacts that Copermittee departments and personnel activities related to their job duties can have on water quality);

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- (iii) Plan review policies and procedures to verify consistent application;
- (iv) Methods of minimizing impacts to receiving water quality resulting from development, construction, and other potential pollutant generating activities;
- (v) Proper implementation of erosion and sediment control, source control, treatment control, and other BMPs to minimize the impacts to receiving water quality resulting from development, construction, and other potential pollutant generating activities;
- (vi) Applicable recordkeeping and tracking mechanisms;
- (vii) Inspection and enforcement procedures and BMP implementation, and review of monitoring data.

(b) Each Copermittee must train its staff responsible for oversight and conducting storm water compliance inspections and enforcement of construction activities (e.g. construction, building, code enforcement, grading review staffs, inspectors, and other responsible construction staff) annually prior to the rainy season.

(c) Each Copermittee must train its staff responsible for conducting storm water compliance inspections and enforcement of industrial and commercial facilities at least once a year.

(2) New Development / Redevelopment and Construction Sites

As early in the planning and development process as possible and all through the permitting and construction process, each Copermittee must notify parties responsible for the project about the importance of educating all construction workers in the field about storm water issues and BMPs, in addition to the topics under Section F.6.a.(1).

(3) Commercial and Industrial Sites / Sources

At least once during the five-year period of this Order, each Copermittee must notify the owner/operator of each of its inventoried commercial and industrial site/source of the BMP requirements applicable to the site/source.

(4) Residential and General Public

Each Copermittee shall collaboratively conduct or participate in development and implementation of a program to educate residential and general public target communities. The Copermittee residential and general public education programs must address potential pollutant generating activities (e.g., car washing, mobile operations, yard maintenance) and pollutant generating products (e.g., pesticides, fertilizers, household chemicals). ~~The target audiences of the residential and general public education programs must include underserved target audiences (e.g., disadvantaged~~

**Comment [CP135]:** As discussed in the comment letter, this is a requirement for other NPDES permits, and it is inappropriate to mandate upon the Copermittees.

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~~communities), residents and managers of CIA/HOA areas, and owners and residents of mobile home parks.~~

**Comment [DB136]:** The requirement to educate the residential and general public communities will necessarily include these underserved audiences.

**G. WATERSHED WATER QUALITY WORKPLAN**

Each Copermittee must collaborate with other Copermittees to develop and implement a Watershed Water Quality Workplan (Watershed Workplan) designed to identify, prioritize, address, and mitigate the highest priority water quality issues/pollutants in the Upper Santa Margarita Watershed relating to discharges from the MS4.

**Comment [DB137]:** See general comment 1 in Attachment 7 to the comment letter.

**1. Watershed Workplan Components:**

The work plan must, at a minimum:

- a. Characterize the receiving water quality in the watershed. Characterization must include assessment and analysis of regularly collected water quality data, reports, monitoring and analysis generated in accordance with the requirements of the Receiving Waters Monitoring and Reporting Program, as well as applicable information available from other public and private organizations. This characterization must include an updated watershed map.
- b. Identify and prioritize water quality problem(s) in terms of constituents by location, in the watershed's receiving waters. In identifying water quality problem(s), the Copermittees must, at a minimum, give consideration to TMDLs, receiving waters listed on the CWA section 303(d) list, waters with persistent violations of water quality standards, toxicity, or other impacts to beneficial uses, and other pertinent conditions.
- c. Identify the likely sources, pollutant discharges and/or other factors causing the highest water quality problem(s) within the watershed resulting from discharges from the MS4. Efforts to determine such sources must include, but not be limited to: use of information from the construction, industrial/commercial, municipal, and residential source identification programs required within the JRMP of this Order; water quality monitoring data collected as part of the Receiving Water Monitoring and Reporting Program required by this Order, and additional focused water quality monitoring to identify specific sources within the watershed.
- d. Develop a watershed BMP implementation strategy to attain receiving water quality objectives in the identified highest priority water quality problem(s) and locations. The BMP implementation strategy must include a schedule for implementation of the BMP ~~projects~~ to abate specific receiving water quality problems and a list of criteria to be used to evaluate BMP effectiveness. Identified watershed water quality problems may be the result of jurisdictional discharges that will need to be addressed with BMPs applied in a specific jurisdiction in order to generate a benefit to the watershed. This implementation

**Comment [CP138]:** Changes in this section are requested pursuant to discussions with Board staff on 8/18.

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strategy must include a map of any implemented and/or proposed structural BMPs.

- e. Develop a strategy to monitor improvements in receiving water quality directly resulting from implementation of the BMPs described in the Watershed Workplan. The monitoring strategy must review the necessary data to report on the measured pollutant reduction that results from proper BMP implementation. Monitoring must, at a minimum, be conducted in the receiving water to demonstrate reduction in pollutant concentrations and progression towards attainment of receiving water quality objectives.
- f. Establish a schedule for development and implementation of the Watershed strategy outlined in the Workplan. The schedule must, at a minimum, include forecasted dates of planned actions to address Provisions E.2(a) through E.2(e) and dates for watershed review meetings through the remaining portion of this Permit cycle. Annual watershed workplan review meetings must be open to the public and appropriately publically noticed such that interested parties may come and provide comments on the watershed program.

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

**3. Copermittee Collaboration** – Watershed Copermittees must collaborate to develop and implement the accepted Watershed Workplan. Watershed Copermittee collaboration must include frequent regularly scheduled meetings. The Copermittees must pursue efforts to obtain any interagency agreements, or other coordination efforts, with non-Copermittee owners of the MS4 (such as Caltrans, Native American tribes, and school districts) where determined by the Copermittee as necessary to control the contribution of pollutants from one portion of the shared MS4 to another portion of the shared MS4. The Copermittees must, as appropriate, participate in watershed management efforts to address water quality issues within the entire Santa Margarita Watershed (such as the County of San Diego and U.S. Marine Corps Camp Pendleton).

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

**5. Watershed Workplan Review and Updates** – Watershed Copermittees must review and update the Watershed Workplan annually to identify needed changes to

**Comment [CP139]:** Goal is to pursue these agreements where we determine it is needed. Otherwise this requirement is diverting our time and resources from other more important efforts.

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

- 6. Pyrethroid Toxicity Reduction Evaluation** – The Watershed Copermittees must incorporate the pyrethroid pollutant reduction program<sup>18</sup> into the Watershed Workplan. The pyrethroid pollutant reduction program must include the following elements:

- a. Pursue state and federal regulatory change.
- b. Implement a set of source controls targeted specifically at urban pyrethroid use,
- c. Through the annual reporting process, monitor the implementation of those controls, assess effectiveness, and identify sources or areas where additional effort is needed,
- d. Implement additional controls as needed,
- e. Continue to monitor implementation, as well as conditions within the target receiving waters, assess effectiveness, and re-evaluate control programs.

**H. FISCAL ANALYSIS**

1. **Secure Resources:** Each Copermittee must exercise its full authority to secure the resources necessary to meet all requirements of this Order. If the Copermittees are unable to secure the funding necessary to implement the requirements of this order, the Copermittees may request modification of the Order consistent with the MEP standard.
2. **Annual Analysis:** Each Copermittee must conduct an annual fiscal analysis of the necessary capital and operation and maintenance expenditures necessary to accomplish the activities of the programs required by this Order. The analysis must include estimated expenditures for the current reporting period, the preceding period, and the next reporting period.
  - a. Each analysis must include a description of the source of funds that are proposed to meet the necessary expenditures.
  - b. Each analysis must include a narrative description of circumstances resulting in a 25 percent or greater annual change for any budget line items.

**Comment [CP140]:** This clarifies that the Copermittees have the option to request modification of the order for reasons such as inability to obtain the requisite funding for the programs.

<sup>18</sup> The pyrethroid pollutant reduction program is described in the "Riverside County – Santa Margarita Region Pyrethroid Source Identification Toxicity Reduction Evaluation, Final Phase II Report", January 2009 by MACTEC.

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3. Annual Reporting: Each Copermitttee must submit its annual fiscal analysis with the annual JRMP report.

**I. TOTAL MAXIMUM DAILY LOADS**

1. The waste load allocations (WLAs) of fully approved and adopted TMDLs are incorporated as Water Quality Based Effluent Limitations on a pollutant by pollutant, watershed by watershed basis. Early TMDL requirements, including monitoring, may be required and inserted into this Order pursuant to Finding E.10.
2. The Cities of Wildomar and Murrieta must comply with the requirements and WLAs assigned to the discharges from their MS4s contributing to the Lake Elsinore/Canyon Lake (San Jacinto Watershed) Nutrient TMDLs as specified in Section VI.D.2 of the Santa Ana Water Board's Order R8-2010-0033, including the relevant sections of the fact sheet and findings, and subsequent revisions thereto.

**J. PROGRAM EFFECTIVENESS ASSESSMENT AND REPORTING**

Beginning with the Annual Report due in 2013, each Copermitttee must annually assess and report upon the effectiveness of its JRMP and Watershed Workplan implementation to (1) reduce the discharge of storm water pollutants from its MS4 to the MEP; (2) prohibit non-stormwater discharges; and (3) prevent runoff discharges from the MS4 from causing or contributing to a violation of water quality standards.

**1. Program Effectiveness Assessments**

**a. IDENTIFY EFFECTIVENESS ASSESSMENTS**

With the JRMP and Watershed Workplan submittal, each Copermitttee must establish assessment measures or methods for each of the six outcome levels described by CASQA<sup>19</sup>, using data from each JRMP program component as appropriate, the MRP, and the Watershed Workplan.

- (1) Assessment interval: For each established assessment measure or method, an assessment interval must be established as appropriate to the measure or method.
- (2) Projected Timeframe: For each established assessment measure or method, each Copermitttee must identify the projected timeframe within which the associated outcome level can adequately assess change.

<sup>19</sup> Effectiveness assessment outcome levels as defined by CASQA are defined in Attachment C of this Order. See "Municipal Stormwater Program Effectiveness Assessment Guidance" (CASQA, May 2007) for guidance for assessing program activities at the various outcome levels.

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**b. PERFORM ASSESSMENTS**

- (1) Annually: Each year, the Copermittee must perform each applicable assessment based on the associated assessment interval, and determine whether the desired outcome has been met;
- (2) With the submittal of the Report of Waste Discharge, the Copermittees must determine whether their program implementation is resulting in the protection and/or improvement of water quality through an Integrated Assessment;

**2. Respond to Assessments**

- a. Where the assessments indicate that the desired outcome level has not been achieved at the end of the projected timeframe, the Copermittee must review its applicable activities and BMPs to identify any modifications and improvements needed to maximize effectiveness, as necessary to comply with this Order. If the Copermittee determines that the existing activities/BMPs are adequate, or that the projected timeframe should be extended, justification and an updated timeframe for attainment of the outcome level must be provided in the Annual Report.
- b. Each Copermittee must develop and implement a work plan and schedule to address any program modifications and improvements in response to the findings of its assessment. The work plan and schedule must be provided and updated with the applicable Annual Report. The work plan must include, at a minimum, the following:

- (1) A description of the program modifications / improvements that will be implemented to achieve the intended outcome level.
- (2) A schedule for development and implementation of the program modifications / improvements, including any significant milestones.
- (3) Establishment of appropriate assessment measure(s) or method(s), assessment interval(s), and projected timeframe(s) in accordance with Section J.1.a. for the program modifications / improvements.
- ~~(1) The problems and priorities identified during the assessment;~~
- ~~(2) A list of priority pollutants and known or suspected sources;~~
- ~~(3) A brief description of the strategy employed to reduce, eliminate or mitigate the negative impacts;~~
- ~~(4) A description and schedule for new and/or modified BMPs. The schedule is to include dates for significant milestones;~~
- ~~(5) A description of how the selected activities will address an identified high priority problem. This will include a description of the expected effectiveness and benefits of the new and/or modified BMPs;~~
- ~~(6) A description of implementation effectiveness metrics;~~
- ~~(7) A description of how efficacy results will be used to modify priorities and~~

**Comment [CP141]:** Although the Copermittees prefer to not be required to develop another compliance document, the edits below are intended to focus such a document on information that is relevant to the Copermittees' response.



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implementation; and  
(8) A review of past activities implemented, progress in meeting water quality standards, and planned program adjustments.

**3. Assessment and Response Reporting**

Each Copermittee must include a summary of its effectiveness assessments within each Annual Report. Beginning with the FY 2012-2013 Annual Report, the Program Effectiveness reporting must include:

- a. The results of each of the effectiveness assessments performed pursuant to J.1.b, including the demonstrated CASQA effectiveness level(s);
- b. Responses to effectiveness assessments; A description of any program modifications planned in accordance with section J.2, including the work plan and identified schedule for implementation. The description must include the basis for determining that each modified activity and/or BMP represents an improvement expected to result in improved water quality;
- c. A description of any steps to be implemented to improve the Copermittee's ability to assess program effectiveness.

**K. REPORTING**

The Copermittees may propose alternate reporting criteria and schedules, as part of their updated JRMP, for the Executive Officer's acceptance.

**1. Runoff Management Plans**

**a. JURISDICTIONAL RUNOFF MANAGEMENT PLANS**

- (1) The written account of the overall program to be conducted by each Copermittee to meet the jurisdictional requirements of section F of this Order is referred to as the Jurisdictional Runoff Management Plan (JRMP). Each Copermittee must revise and update its existing JRMP so that it describes all activities the Copermittee will undertake to implement the requirements of this Order. Each Copermittee must submit its updated and revised JRMP to the San Diego Water Board no later than June 30, 2012.
- (2) At a minimum, each Copermittee's JRMP must be updated and revised to

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demonstrate compliance with each applicable section of this Order.

**b. WATERSHED WORKPLANS**

Copermittees must update and revise the Watershed Workplan to describe any changes in water quality problems or priorities, and any necessary change to actions Copermittees will take to implement jurisdictional or watershed BMPs to address those identified. The Copermittees must assemble and submit the Watershed Workplan to the San Diego Water Board no later than June 30, 2012, and must implement the Workplan within 90 days unless otherwise directed by the San Diego Water Board.

**2. Other Required Reports and Plans**

**a. SSMP UPDATES**

- (1) Copermittees must submit their updated SSMP in accordance with the applicable requirements of section F.1 with the JRMP by June 30, 2012.
- (2) Within 180 days of determination that the SSMP is in compliance with this Order's provisions, each Copermittee must amend its ordinances consistent with the SSMP and implement the updated SSMP. Any amended or new ordinances must be submitted to the San Diego Water Board within 30 days of adoption of the applicable annual report.

**Comment [CP142]:** Per discussions with Board staff on 8/18

**b. HMP**

- (1) By June 30, 2013, the Copermittees must submit to the San Diego Water Board Executive Officer a draft HMP that has been reviewed by the public, including identification of the appropriate limiting range of flow rates in accordance with the applicable requirements of section F.1.h.
- (2) Within 180 of receiving San Diego Water Board comments on the draft HMP, the Copermittees must submit a final HMP that addressed the San Diego Water Board's comments.
- (3) Within 90 days of receiving a finding of adequacy from the Executive Officer each Copermittee must incorporate and implement the HMP for all Priority Development Projects.
- (4) Prior to acceptance of the HMP by the San Diego Water Board, the early implementation measures likely to be included in the HMP shall be

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encouraged by the Copermitees.

**c. REPORT OF WASTE DISCHARGE**

The Copermitees must submit to the San Diego Water Board, no later than 180 days in advance of the expiration date of this Order, a Report of Waste Discharge (ROWD) as an application for issuance of new waste discharge requirements. The fourth annual report for this Order ~~may supplement~~ serve as the ROWD, provided the ROWD ~~it~~ contains the minimum information below.

At a minimum, the ROWD must include the following: (1) Proposed changes to the Copermitees' runoff management programs; (2) Proposed changes to monitoring programs; (3) Justification for proposed changes; (4) Name and mailing addresses of the Copermitees; (5) Names and titles of primary contacts of the Copermitees; (6) Any other information necessary for the reissuance of this Order and (7) Any other information required by federal regulations for permit reapplications.

**3. Annual Reports**

**a. JURISDICTIONAL RUNOFF MANAGEMENT PROGRAM (JRMP) ANNUAL REPORTS**

- (1) Each Copermitee must generate individual JRMP Annual Reports that cover implementation of its jurisdictional activities during the past annual reporting period. Each Annual Report must verify and document compliance with this Order as directed in this section. Each Copermitee must retain records in accordance with the Standard Provisions in Attachment B of this Order, available for review, that document compliance with each requirement of this Order. The reporting period for these annual reports must be the previous fiscal year.
- (2) Each Copermitee must submit its JRMP Annual Reports to the San Diego Water Board by October 31 of each year, beginning on October 31, 2013.
- (3) Each JRMP Annual Report must contain, at a minimum, the following information, as applicable to the Copermitee:
  - (a) Information required to be reported annually in Section H (Fiscal Analysis) of this Order;
  - (b) Information required to be reported annually in Section J (Program Effectiveness) of this Order;
  - (c) The completed Reporting Checklist found in Attachment D, and
  - (d) Information for each program component as described in the following Table 9:

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Table 9. Annual Reporting Requirements

Program Component	Reporting Requirement
New Development	<p>1. All updated relevant sections of the General Plan and environmental review process and a description of any planned updates within the next annual reporting period, if applicable</p> <p>2. All revisions to the SSMP, including where applicable:                      (a) Identification and summary of where the SSMP fails to meet the requirements of this Order;                      (b) Updated procedures for identifying pollutants of concern for each Priority Development Project;                      (c) Updated treatment BMP ranking matrix; and                      (d) Updated site design and treatment control BMP design standards;</p> <p>3. Number of Priority Development Projects reviewed and approved during the reporting period. Brief description of BMPs required at approved Priority Development Projects. Verification that site design, source control, and treatment BMPs were required on all applicable Priority Development Projects;</p> <p>4. Name (or other identifier) and location of all Priority Development Projects that were granted a waiver from implementing LID BMPs pursuant to section F.1.d.(4) during the reporting period;</p> <p>5. Updated watershed-based BMP maintenance tracking database of approved treatment control BMPs and treatment control BMP maintenance within its jurisdiction, including updates to the list of high-priority Priority Development Projects; and verification that the requirements of this Order were met during the reporting period.</p>
New Development	<p>6. Name and brief description of all approved Priority Development Projects <del>required to exempted from implementing</del> hydrologic control measures in compliance with section F.1.h including a brief description of the management measures planned to protect downstream beneficial uses and prevent adverse physical changes to downstream stream channels;</p> <p>7. Number and description of all enforcement activities applicable to the new development and redevelopment component and a summary of the effectiveness of those activities;</p>
Construction	<p>1. All updated relevant ordinances and description of planned ordinance updates within the next annual reporting period, if applicable;</p> <p>2. A description of any changes to procedures used for identifying priorities for inspecting sites and enforcing control measures that consider the nature of the construction activity, topography, and the characteristics of soils and receiving water quality;</p> <p>3. Any changes to the designated minimum and enhanced BMPs;</p>

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Program Component	Reporting Requirement
	4. Summary of the inspection program, including the following information: (a) Total number and date of inspections conducted at each facility; (b) <del>Number, date, and types of enforcement actions by facility;</del> (c) Brief description of each high-level enforcement actions at construction sites including the <del>effectiveness</del> <u>outcome</u> of the enforcement. Supporting paper (or electronic) files must be maintained by the Copermittees and made available upon San Diego Water Board request. Supporting files must include a record of inspection dates, the results of each inspection, photographs (if any), and a summary of any enforcement actions taken.
Municipal	1. Updated source inventory; 2. All changes to the designated municipal BMPs; 3. Descriptions of any changes to procedures to assure that flood management projects assess the impacts on the water quality of receiving water bodies; 4. Summary and assessment of BMPs retrofits implemented at flood control structures, including: (a) List of projects retrofitted; and (b) List and description of structures evaluated for retrofitting; (c) List of structures still needing to be evaluated and the schedule for evaluation.; 5. Summary of the municipal structural treatment control operations and maintenance activities, including: (a) Number of inspections and types of facilities; and (b) Summary of findings;
Municipal	6. Summary of the MS4 and MS4 facilities operations and maintenance activities, including: (a) Number and types of facilities maintained; (b) Amount of material removed; and (c) <u>Updates to the List of facilities planned for bi-annual inspections and the justification;</u> 7. <u>Summary of the municipal areas/programs inspection activities,</u> including: (a) Number and date of inspections conducted at each facility; (c) <del>The BMP violations identified during the inspection by facility;</del> (d) <del>Number, date and types of enforcement actions by facility;</del> (e) Summary of inspection findings and follow-up activities for each facility; 8. Description of activities implemented to address sewage infiltration into the MS4; 9. <del>Description of BMPs and their implementation for unpaved roads construction and maintenance.</del>

**Comment [CP143]:** As drafted (without the changes shown) the requirements will be a significant and lengthy reporting exercise. Request keeping this as a 'summary' report on compliance with the inspection frequencies, and identifying any follow-up actions (as shown via the markup).

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Program Component	Reporting Requirement
Commercial / Industrial	1. Updated inventory of commercial / industrial sources; 2. Summary of the inspection program, including the following information: (a) Number and date of inspections conducted at each facility or mobile business;; (c) The BMP violations identified during the inspection by facility; (d) Number, date, and types of <u>high-level</u> enforcement actions by facility or mobile business, <u>and the outcome of each</u> ; (e) Brief description of each high-level enforcement actions at commercial/industrial sites including the effectiveness of the enforcement and follow-up activities for each facility; 3. All changes to designated minimum and enhanced BMPs; 4. A list of industrial sites, including each name, address, and SIC code, that the Copermittee suspects may require coverage under the General Industrial Permit, but has not submitted an NOI;
Residential	1. All updated minimum BMPs required for residential areas and activities; 2. Quantification and summary of applicable runoff and storm water enforcement actions within residential areas and activities; 3. Description of efforts to manage runoff and storm water pollution in common interest areas and mobile home parks;
Retrofitting Existing Development	1. Updated inventory and prioritization of existing developments identified as candidates for retrofitting. 2. Description of efforts to retrofit existing developments during the reporting year.
Retrofitting Existing Development	3. Description of efforts taken to encourage private landowners to retrofit existing development. 4. A list of all <u>known</u> retrofit projects that have been implemented within the reporting period, including site location, a description of the retrofit project, pollutants expected to be treated, and the tributary acreage of runoff that will be treated. 5. Any proposed retrofit or regional mitigation projects and timelines for future implementation. 6. Any proposed changes to the Copermittee's overall retrofitting program.
Illicit Discharge Detection and Elimination	1. Any changes to the legal authority to implement Illicit Discharge Detection and Elimination activities; 2. Any Changes to the established investigation procedures; 3. Any changes to public reporting mechanisms, including phone numbers and web pages; 4. Summaries of illicit discharges (including spills and water quality data events) and how each significant case was resolved; 5. A description of instances when field screening and analytical data exceeded action levels, including those instances for which no investigation was conducted;

**Comment [CP144]:** As drafted (without the changes shown) the requirements will be a significant and lengthy reporting exercise. Request keeping this as a 'summary' report on compliance with the inspection frequencies, and identifying the high-level enforcement actions (as shown via the markup).

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Program Component	Reporting Requirement
	6. A description of follow-up and enforcement actions taken in response to investigations of illicit discharges and a description of the outcome of the investigation/enforcement actions;
Workplans	Updated workplans including priorities, strategy, implementation schedule and effectiveness evaluation;

- (4) Each JRMP Annual Report must also include the following information regarding non-storm water discharges (see Section B.2. of this Order):
- (a) Identification of non-storm water discharge categories identified as a source of pollutants to waters of the U.S;
  - (b) A description of any updates to ordinances, orders, or similar means to prohibit non-storm water discharge categories identified under section B.2 above ;
  - (c) Identification of any control measures to be required and implemented for non-storm water discharge categories identified as needing controls by the San Diego Water Board; and
  - (d) A description of a program to address pollutants from non-emergency fire fighting flows identified by the Copermittee to be significant sources of pollutants.

**4. Interim Reporting Requirements**

For the reporting periods, prior to submittal of the JRMP, Each JRMP Annual Report must be submitted in accordance with the requirements and deadlines described in Order No. 2004-001.

**5. Universal Reporting Requirements**

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

**Comment [CP145]:** Per discussions with Board staff on 8/18

**L. MODIFICATION OF PROGRAMS**

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Modifications of JRMPs and/or Watershed Workplan may be initiated by the Executive Officer of the San Diego Water Board or by the Copermittees. Requests by Copermittees must be made to the Executive Officer, and must be submitted during the annual review process. Requests for modifications should be incorporated, as appropriate, into the Annual Reports or other deliverables required or allowed under this Order.

1. Minor modifications to JRMPs, and/or Watershed Workplan, may be accepted by the Executive Officer where the Executive Officer finds the proposed modification complies with all discharge prohibitions, receiving water limitations, and other requirements of this Order.
2. Proposed modifications that are not minor require amendment of this Order in accordance with this Order's rules, policies, and procedures.

**M. PRINCIPAL COPERMITTEE RESPONSIBILITIES**

Within 180 days of adoption of this Order, the Copermittees must designate the Principal Copermittee and notify the San Diego Water Board of the name of the Principal Copermittee. The Principal Copermittee must, at a minimum:

1. Serve as liaison between the Copermittees and the San Diego Water Board on general permit issues, and when necessary and appropriate, represent the Copermittees before the San Diego Water Board.
2. Coordinate permit activities among the Copermittees and facilitate collaboration on the development and implementation of programs required under this Order.
3. ~~Produce and submit~~ Coordinate the submittal of the documents and reports as required by section K of this Order and Receiving Waters and MS4 Discharge Monitoring and Reporting Program No. R9-2010-0016 in Attachment E of this Order.

**Comment [CP146]:** Per discussions with Board staff on 8/18

**N. RECEIVING WATERS AND MS4 DISCHARGE MONITORING AND REPORTING PROGRAM**

Pursuant to CWC section 13267, the Copermittees must comply with all the requirements contained in Receiving Waters and MS4 Discharge Monitoring and Reporting Program No. R9-2010-0016 in Attachment E of this Order.

**O. STANDARD PROVISIONS, REPORTING REQUIREMENTS, AND NOTIFICATIONS**

1. Each Copermittee must comply with Standard Provisions, Reporting Requirements,



October 13, 2010

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and Notifications contained in Attachment B of this Order. This includes 24 hour/5 day reporting requirements for any instance of non-compliance with this Order as described in section 5.e of Attachment B.

2. All plans, reports and subsequent amendments submitted in compliance with this Order must be implemented immediately (or as otherwise specified). All submittals by Copermittees must be adequate to implement the requirements of this Order.

I, David W. Gibson, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Diego Region, on October 13, 2010.

**\\TENTATIVE\\**

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David W. Gibson  
Executive Officer

'Attachment 9':  
Comments on the Monitoring and Reporting Program

Receiving Waters  
and MS4 Discharge Monitoring  
and Reporting Program  
No. R9-2010-0016

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TBA

**I. PURPOSE**

- A. This Receiving Waters and MS4 Discharge Monitoring and Reporting Program (MRP) is intended to meet the following goals as they relate to discharges from the Copermittees' MS4:
1. Assess compliance with Order No. R9-2010-0016;
  2. Measure and improve the effectiveness of the Copermittees' runoff management programs;
  3. Assess the chemical, physical, and biological impacts to receiving waters resulting from MS4 discharges;
  4. Characterize storm water discharges;
  5. Identify sources of specific pollutants;
  6. Prioritize drainage and sub-drainage areas that need management actions;
  7. Detect and eliminate illicit discharges and illicit connections to the MS4;
  8. Assess the overall health of receiving waters; and
  9. Provide information to implement required BMP improvements.
- B. This Receiving Waters and MS4 Discharges Monitoring and Reporting Program is designed to answer the following core management questions<sup>1</sup>:
1. Are conditions in receiving waters protective, or likely to be protective, of beneficial uses?
  2. What is the extent and magnitude of the current or potential receiving water problems?
  3. What is the relative MS4 discharge contribution to the receiving water problem(s)?
  4. What are the sources of pollutants in MS4 discharges that contribute to receiving water problem(s)?
  5. Are conditions in receiving waters getting better or worse?

**II. MONITORING PROGRAM**

The Monitoring Program is designed to assess the condition of receiving waters, monitor pollutants in storm and non-storm water effluent from the MS4, and conduct Special Studies to address conditions of concern. Where feasible, the Monitoring Program is designed to allow the Copermittees to

<sup>1</sup> Core management questions from "Model Monitoring Program for Municipal Separate Storm Sewer Systems in Southern California: A report from the Stormwater Monitoring Coalition's Model Monitoring Technical Committee." Technical Report No. 419. August 2004.

'Attachment 9':  
Comments on the Monitoring and Reporting Program

Receiving Waters  
and MS4 Discharge Monitoring  
and Reporting Program  
No. R9-2010-0016

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combine required monitoring elements or efforts that are not mutually exclusive while still meeting the requirements of the Order.

**A. Receiving Waters Monitoring Program**

Each Copermittee must 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 must be conducted on a watershed basis for the Santa Margarita Hydrologic Unit (HU) and must be designed to meet the goals and answer the questions listed in section I above. The monitoring program must include the following components:

**1. MASS LOADING STATION (MLS) MONITORING**

- a. Locations: The following existing mass loading stations must continue to be monitored: Lower Temecula Creek, Lower Murrieta Creek at the USGS Weir, and a permanent reference station.<sup>2</sup> Copermittees may propose, for San Diego Water Board review and approval, changing the location of a mass loading station.
- b. Frequency: Each mass loading station must be monitored each year ~~three~~ two times during wet weather events and twice during dry weather flow conditions.
- c. Timing: Each mass loading station must be monitored for the first wet weather event of the season which meets USEPA's criteria described in 40 CFR 122.21(g)(7). Monitoring of the ~~third~~ second wet weather event must be conducted after February 1. Dry weather mass loading monitoring events must be sampled at least three months apart between May and October. If flows are not evident for the second event, then sampling must be conducted during non-rain events in the following wet weather season.
- d. Protocols: Protocols for mass loading sampling and analysis including analytical methods, target reporting limits, and data reporting formats must be compatible with the State Water Resources Control Board's (State Water Board's) State Surface Water Ambient Monitoring Program (SWAMP). If the mass loading sampling and analysis are determined to be impracticable with the SWAMP standards, the Copermittees must provide a written explanation and discussion in the submittal of the Planned

Comment [CP1]: See discussion in Attachment 4 to the Comment Letter

Comment [CP2]: Consistent with above

<sup>2</sup> A map depicting mass loading stations can be found in the Fact Sheet for Order R9-2010-0016.

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Monitoring Program. Wet weather samples must be time-weighted composites, collected for the duration of the entire runoff event. Where such monitoring is not practical, such as for large watersheds with significant groundwater recharge flows, composites must be collected at a minimum during the first 3 hours of flow or for the duration of the entire runoff event if it is less than three hours. Grab samples are acceptable for Dry weather event sampling must be time-weighted composites composed of 24 discrete hourly samples, whereby the mass loads of pollutants are calculated as the product of the composite sample concentration and the total volume of water discharged past the monitoring point during the time of sample collection.

- (1) Automatic samplers must be used to collect wet weather samples from mass loading stations.
  - (2) Grab samples must be analyzed for temperature, pH, specific conductance, biochemical oxygen demand, oil and grease, total coliform, fecal coliform, enterococcus and for total petroleum hydrocarbons whenever a sheen is observed.
- e. Copermittees must measure or estimate flow rates and volumes for each mass loading station sampling event to determine mass loadings of pollutants. Data from nearby USGS gauging stations may be utilized, or flow rates may be estimated in accordance with the USEPA Storm Water Sampling Guidance Document (EPA-833-B-92-001), Section 3.2.1.
- f. In the event that the required number of sampling events are not conducted during one monitoring year at any given station, the Copermittees must provide a written explanation for the reduced number of sampling events in the subsequent Receiving Waters Monitoring Annual Report. The explanation must include, at a minimum, streamflow data from the nearest USGS gauging station, a full description of any equipment failures and subsequent remedies, efforts made to resample a future event, and any quality assurance or quality control issues encountered. The explanation must also include a description of steps taken to prevent further sampling failures.
- g. The following constituents must be analyzed for each monitoring event at each station:

**Comment [CP3]:** As discussed in our meeting, this is a large watershed with significant GW recharge flows

**Comment [CP4]:** See discussion in Attachment 4 to the Comment Letter

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**Table 1. Analytical Testing for Mass Loading (A.1) and Bioassessment (A.2)**

<b>Conventionals, Nutrients, Hydrocarbons</b>	<b>Pesticides</b>	<b>Metals (Total and Dissolved)</b>	<b>Bacteriological (mass loading)</b>
<ul style="list-style-type: none"> <li>• Total Dissolved Solids</li> <li>• Total Suspended Solids</li> <li>• Turbidity</li> <li>• Total Hardness</li> <li>• pH</li> <li>• Specific Conductance</li> <li>• Temperature</li> <li>• Dissolved Oxygen</li> <li>• Total Phosphorus</li> <li>• Dissolved Phosphorus</li> <li>• Nitrite <sup>o</sup></li> <li>• Nitrate <sup>o</sup></li> <li>• Total Kjeldahl Nitrogen</li> <li>• Ammonia</li> <li>• Biological Oxygen Demand, 5-day</li> <li>• Chemical Oxygen Demand</li> <li>• Total Organic Carbon</li> <li>• Dissolved Organic Carbon</li> <li>• Methylene Blue Active Substances</li> <li>• Oil and Grease</li> <li>• Sulfate</li> </ul>	<ul style="list-style-type: none"> <li>• Diazinon</li> <li>• Chlorpyrifos</li> <li>• Malathion</li> <li>• Carbamates</li> <li>• Pyrethroids</li> </ul>	<ul style="list-style-type: none"> <li>• Arsenic</li> <li>• Cadmium</li> <li>• Total Chromium</li> <li>• Hexavalent Chromium</li> <li>• Copper</li> <li>• Lead</li> <li>• Iron</li> <li>• Manganese</li> <li>• Nickel</li> <li>• Selenium</li> <li>• Zinc</li> <li>• Mercury</li> <li>• Silver</li> <li>• Thallium</li> </ul>	<ul style="list-style-type: none"> <li>• Total Coliform</li> <li>• Fecal Coliform</li> <li>• Enterococcus</li> </ul>

<sup>o</sup> Nitrate and nitrite may be combined and reported as nitrate + nitrite.

**Comment [CP5]:** See discussion in Attachment 4 to the Comment Letter

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- h. Toxicity testing must be conducted for each monitoring event at each station according to the following Table 2:

Table 2. Toxicity Testing for Mass Loading (A.1) and Bioassessment (A.2)

Program Component	Dry Weather Flows	Storm Water Flows
	Freshwater Organisms	Freshwater Organisms
Mass Loading	3-2 chronic* 3-2 acute*	3-2 acute*
Bioassessment**	3-2 chronic* 3-2 acute*	n/a
Sediment Toxicity Special Study	1 chronic 1 acute	n/a
<p>Table Notes</p> <p>* Toxicity testing must include use of <i>Pimephales promelas</i> (fathead minnow), <i>Hyalella azteca</i> and <i>Pseudokirchneriella subcapitata</i> (formerly <i>Solenastrum capricornutum</i>, unicellular algae).</p> <p>** Duplicative toxicity testing is not required for bioassessment stations located at mass loading stations as bioassessment must be conducted in conjunction with dry weather mass loading</p> <p>Species Notes:</p> <p>1. Acute toxicity may be determined during the course of chronic toxicity monitoring per U.S. EPA protocols.</p>		

**Comment [CP6]:** See discussion in Attachment 4 to the Comment Letter

**Comment [CP7]:** Consistent with the changes discussed in the comment letter

- i. The presence of acute toxicity must be determined in accordance with USEPA protocol (EPA-821-R-02-012). The presence of chronic freshwater toxicity must be determined in accordance with USEPA protocol (EPA-821-R-02-013).

**2. Stream Assessment Monitoring**

Copermittees must conduct Stream Assessment Monitoring using multiple lines of evidence to assess the condition of biological communities in freshwater receiving waters. Stream assessment must include the collection and reporting of the following specified instream biological, chemical, physical (including habitat) data.

- a. Locations: At a minimum, the program must consist of station identification, sampling, monitoring, and analysis of data for six ~~three~~ stream assessment stations in order to determine the biological and physical integrity of streams within the County of Riverside. The two existing mass loading stations at Murrieta and Temecula Creeks ~~must continue to be monitored. Two reference stream bioassessment stations, including and the existing Adobe Creek reference station, must continue to be monitored.~~

**Comment [CP8]:** See discussion in Attachment 4 to the Comment Letter

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identified, sampled, monitored, and analyzed. Copermitees may propose, for San Diego Water Board review and approval, changing the location of a Bioassessment station. Locations of alternate reference stations must be identified according to protocols outlined in "A Quantitative Tool for Assessing the Integrity of Southern Coastal California Streams," by Ode, et al. 2005.<sup>3</sup>

**Comment [CP9]:** Language from MLS section. This is to allow for changes in MLS locations, and then allow the stream assessment stations to follow.

b. Frequency: Stream assessment stations must be monitored in May or June (to represent the influence of wet weather on the communities) and or September or October (to represent the influence of dry weather flows on the communities). The timing of monitoring of stream assessment stations must coincide with dry weather monitoring of mass loading stations.

**Comment [CP10]:** See discussion in Attachment 4 to the Comment Letter

c. Parameters / Methods: Stream assessment monitoring must include bioassessment, aquatic chemistry, and aqueous toxicity.

(1) Aquatic chemistry and aqueous toxicity must be conducted as outlined in Tables 1 and 2 using the same parameters and methods as the mass loading station monitoring.

(2) Bioassessment analysis procedures must include calculation of the Index of Biotic Integrity (IBI) for benthic macroinvertebrates for all bioassessment stations, as outlined in "A Quantitative Tool for Assessing the Integrity of Southern Coastal California Streams," by Ode, et al. 2005.

(3) Monitoring of stream bioassessment stations Bioassessment must be conducted according to bioassessment Standard Operating Procedures (SOP) developed by the Surface Water Ambient Monitoring Program (SWAMP), as amended.<sup>4</sup> In collecting macroinvertebrate samples, the discharger must use the "Reachwide Benthos (Multihabitat) Procedure." The discharger must conduct, concurrently with all required macroinvertebrate collections, the "full" suite of physical/habitat characterization measurements specified in the SWAMP Bioassessment SOP, and as summarized in the SWAMP

**Comment [CP11]:** Only the Bioassessment component of stream assessment monitoring must be conducted according to the SOP.

<sup>3</sup> 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.

<sup>4</sup> Ode, P.R. 2007. Standard operating procedures for collecting macroinvertebrate samples and associated physical and chemical data for ambient bioassessments in California. California State Water Resources Control Board Surface Water Ambient Monitoring Program (SWAMP) Bioassessment SOP 001.

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*Stream Habitat Characterization Form — Full Version.*<sup>5</sup>

- (4) Monitoring of stream assessment stations must incorporate assessment of algae using SWAMP's SOP for Collecting Stream Algae Samples.<sup>6</sup> Assessment of freshwater algae must include algal taxonomic composition (diatoms and/or soft algae) and algal biomass. Future bioassessment must incorporate algal IBI scores, when developed.
- d. A qualified professional environmental laboratory must perform all Bioassessment sampling, laboratory, quality assurance, and analytical procedures in accordance with the Southern California Regional Watershed Monitoring Program Bioassessment Quality Assurance Project Plan.<sup>7</sup> The Copermittees must utilize future Quality Assurance Project Plans as developed by SWAMP.
- (1) The Copermittees must have and follow a quality assurance (QA) plan that covers the required stream assessment monitoring. External QA check must be funded by the Copermittees, and performed by the California Department of Fish and Game's Aquatic Bioassessment Laboratory. An alternate laboratory with equivalent expertise and performance may be used if approved in advance in writing by San Diego Water Board.
- (2) Identified organisms must be archived (i.e., retained) by the Copermittee(s) for a period of not less than three years from the date that all QA steps are completed. The identified organisms must be relinquished to the San Diego Water board upon request by the San Diego Board.
- (3) The macroinvertebrate results (i.e., taxonomic identifications consistent with the specified SAFIT STEs, and number of organisms within each taxa) must be submitted to the San Diego Water Board in electronic format. SWAMP is currently developing standardized formats for reporting bioassessment data. All bioassessment data collected after those formats become available must be submitted using the SWAMP

**Comment [CP12]:** This section is referring to the Bioassessment component of stream assessment monitoring

<sup>5</sup> Available at:

[http://www.waterboards.ca.gov/water\\_issues/programs/swamp/docs/reports/fieldforms\\_fullversion052908.pdf](http://www.waterboards.ca.gov/water_issues/programs/swamp/docs/reports/fieldforms_fullversion052908.pdf)

<sup>6</sup> Fletcher et al. 2009. Standard Operating Procedures for Collecting Stream Algae Samples and Associated Physical Habitat and Chemical Data for Ambient Bioassessments in California.



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formats. Until those formats are available, the biological data must be submitted in MS-Excel<sup>87</sup> (or equivalent) format.

{4} The physical/habitat data must be reported using the standard format titled *SWAMP Stream Habitat Characterization Form — Full Version*.

Formatted: Indent: Left: 1.25", No bullets or numbering

**3. Follow-up Analysis and Actions (TIE and TRE Triad Approach)**

When results from the required monitoring indicate water quality impacts at a mass loading station or stream assessment station as defined in Table 3, Copermittees within the watershed(s) that discharge to that location must evaluate the extent and causes of MS4 discharge pollution in receiving waters and prioritize and implement management actions to eliminate or reduce sources of pollutants from the MS4 as described in Table 3. Toxicity Identification Evaluations (TIEs) must be conducted to determine the cause of toxicity as outlined in Table 3 below. Other follow-up activities, which must be conducted by the Copermittees, are also identified in Table 3. Once the cause of toxicity has been identified by a TIE, the Copermittees must perform source identification projects as needed and implement the measures necessary to reduce or eliminate the pollutant discharges and abate the sources causing the toxicity.

<sup>8</sup> Any version of Excel, 2000 or later, may be used.

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approval. Documentation of participation and monitoring must be included in the annual report(s).

**B. Wet Weather MS4 Discharge Monitoring**

Each Copermittee must collaborate with the other Copermittees to develop, conduct, and report on a year-round, watershed-based, Wet Weather MS4 Discharge Monitoring Program. The monitoring program design, implementation, analysis, assessment, and reporting must be conducted on a watershed basis for each of the hydrologic subareas within the Santa Margarita HU under jurisdiction of the Copermittees. The monitoring program must be designed to meet the goals, and answer the questions, listed in Section I above, as well as to implement required Storm Water Action Levels (SALs) in the Order. The monitoring program must include the following components;

**1. MS4 OUTFALL MONITORING**

The Copermittees must collaborate to develop and implement a monitoring program to characterize pollutant discharges from MS4 outfalls in each watershed during wet weather. The program must include the rationale and criteria for selection of outfalls to be monitored. The program must, at a minimum, include collection of samples for pollutants listed in Table 4 (below). This monitoring program must be designed to sample a representative percentage<sup>11</sup> of the major outfalls within each hydrologic subarea and must begin no later than the 2012-2013 monitoring year.

a. The program must comply with Section D of this Order for Storm Water Action Levels (SALs). Samples must be collected during the first 24 hours of the storm water discharge or for the entire storm water discharge if it is less than 24 hours.

(1) Sampling may be done utilizing grab samples, though composite samples are encouraged. Grab samples may be utilized only for pH, indicator bacteria, DO, temperature and hardness.

(2) All other constituents must be sampled using 24-hour composite samples or for the entire storm water discharge if the storm event is less than 24 hours.

b. Sampling to compare MS4 outfall discharges with total metal SALs must include a measurement of receiving water hardness at each

<sup>11</sup> A representative percentage determination must consider hydrologic conditions, total drainage area of the site, population density of the site, traffic density, age of the structures or buildings in the area, and land use

**Comment [CP13]:** See discussion in Attachment 4 to the Comment Letter, including footnote

**Comment [CP14]:** See discussion in Attachment 4 to the Comment Letter  
Language from the Inland Aquatic Habitat Monitoring section.

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types (commercial, residential and industrial), and other considerations as appropriate.

outfall. If a total metal concentration exceeds a SAL in Section D of the Order, that concentration must be compared to the California Toxic Rule criteria and the USEPA 1-hour maximum concentration for the detected level of receiving water hardness associated with that sample. If it is determined that the sample's total metal concentration for that specific pollutant exceeds the SAL but does not exceed the applicable 1-hour criteria for the measured level of hardness, then the SAL shall be considered not exceeded for that measurement.

Table 4. Analytical Testing for Wet Weather MS4 Discharges

Conventionals, Nutrients, Hydrocarbons	Pesticides	Metals (Total and Dissolved)	Bacteriological
<ul style="list-style-type: none"> <li>• Total Dissolved Solids</li> <li>• Total Suspended Solids</li> <li>• Turbidity*</li> <li>• Total Hardness</li> <li>• pH</li> <li>• Specific Conductance</li> <li>• Temperature</li> <li>• Dissolved Oxygen</li> <li>• Total Phosphorus*</li> <li>• Dissolved Phosphorus</li> <li>• Nitrite ◊*</li> <li>• Nitrate ◊*</li> <li>• Total Kjeldahl Nitrogen</li> <li>• Ammonia</li> <li>• Biological Oxygen Demand, 5-day</li> <li>• Chemical Oxygen Demand</li> <li>• Total Organic Carbon</li> <li>• Dissolved Organic Carbon</li> <li>• Oil and Grease</li> <li>• Sulfate</li> </ul>	<ul style="list-style-type: none"> <li>• Diazinon</li> <li>• Chlorpyrifos</li> <li>• Pyrethroids</li> </ul>	<ul style="list-style-type: none"> <li>• Arsenic</li> <li>• Cadmium*</li> <li>• Chromium</li> <li>• Copper*</li> <li>• Lead*</li> <li>• Nickel</li> <li>• Selenium</li> <li>• Zinc*</li> <li>• Mercury</li> <li>• Silver</li> <li>• Thallium</li> <li>• Iron</li> <li>• Manganese</li> </ul>	<ul style="list-style-type: none"> <li>• Fecal Coliform</li> <li>• Enterococcus</li> <li>• E. coli</li> </ul>

◊ Nitrate and nitrite may be combined and reported as nitrate + nitrite.  
★ Pollutant for which there is a Storm Water Action Level

**Comment [CP15]:** See discussion in Attachment 4 to the Comment Letter

2. SOURCE IDENTIFICATION MONITORING

The Copermittees must collaborate to develop and implement a monitoring program to identify sources of pollutants causing the priority water quality problems within each hydrologic subarea. The monitoring program must include focused monitoring which moves upstream into each watershed as necessary to identify source areas,

**Comment [CP16]:** Source identifications for wet weather may or may not include "monitoring".

**See discussion in Attachment 4 to the Comment Letter**

**Comment [CP17]:** This presumes we are starting at the 'bottom of the watershed'. We may approach this differently, but would come up with something to help identify source areas.

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or other methods to identify the societal sources of pollutants, as appropriate. This monitoring program must be implemented within each hydrologic subarea and must begin no later than the 2012-2013 monitoring year.

**Comment [CP18]:** This is necessary because some pollutants have broad societal sources that cannot be pinpointed through focused source ID 'Monitoring'.

**3. COMMENCEMENT OF MS4 OUTFALL AND SOURCE IDENTIFICATION MONITORING**

The Principal Copermittee must submit to the San Diego Water Board for review and approval, a detailed draft of the wet weather MS4 discharge monitoring program to be implemented. The description must identify and provide the rationale for all constituents monitored, locations of monitoring, frequency of monitoring, and analyses to be conducted with the data generated. The draft must be submitted With the proposed monitoring program (Secion III.A.1).

**C. Non-Storm Water Dry Weather Action Levels and Illicit Discharge Detection and Elimination**

Each Copermittee must collaborate with the other Copermittees to conduct, and report on a year-round watershed based Dry Weather Non-storm Water MS4 Discharge Monitoring Program. The monitoring program's implementation, analysis, assessment, and reporting must be conducted to assess compliance with section B and C of this Order, meet the goals of the MRP, and conduct Illicit Discharge Detection and Elimination Activities under Section F.4 of this Order. The monitoring program must also be designed to assess the contribution of dry weather flows to Clean Water Act Section 303(d) listed impairments. The monitoring program must include the following components:

**1. MS4 OUTFALL MONITORING**

Each Copermittee's program must be designed to determine levels of pollutants in effluent discharges from the MS4 into receiving waters. Each Copermittee must conduct the following dry weather field screening and analytical monitoring tasks:

**a. Dry Weather Non-storm Water Effluent Analytical Monitoring Station Identification**

- (1) Sampling Stations must be located at major outfalls pursuant to section C of this Order. Other outfall sampling points (or any other point of access such as manholes) identified by the

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Copermittees as potential high risk sources of polluted effluent or as identified under Section C.4 of the Order must be sampled.

- (2) Each Copermittee must clearly identify each dry weather effluent analytical monitoring station on its MS4 Map as either a separate GIS layer or a map overlay hereinafter referred to as a Dry Weather Non-storm Water Effluent Analytical Stations Map.

b. Develop Dry Weather Non-storm Water Effluent Analytical Monitoring Procedures

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

- (1) Determining Sampling Frequency: Effluent analytical monitoring must be conducted at major outfalls and identified stations. The Copermittees must sample a representative number of major outfalls and identified stations within each hydrologic subarea.<sup>12</sup> The sampling must be done to assess compliance with dry weather non-storm water action levels pursuant to section C of this Order. All monitoring conducted must be preceded by a minimum of 72 hours of dry weather.
- (2) Sampling of non-storm water discharges may be done utilizing grab samples. If a ponded MS4 discharge is observed at a monitoring station, the Copermittee(s) must record the observation and collect at least one (1) grab sample. See discussion in Attachment 4 to the Comment Letter. If flow is evident, a 1-hour composite sample may be taken. The Copermittee(s) must estimate the flow using techniques such as by measuring the width of water surface, approximate depth of water, and approximate flow velocity.
- (3) Effluent samples must undergo analytical laboratory analysis for (a) all constituents described in *Table 4. Analytical Testing for Wet Weather MS4 Discharges*; *Table 1. Analytical Testing for Mass Loading and Bioassessment* of this Order; (b) Constituents with assigned non-storm water action levels under Section C of this Order; and (c) Total Residual Chlorine.

<sup>12</sup> A representative percentage determination must consider hydrologic conditions, total drainage area of the site, population density of the site, traffic density, age of the structures or buildings in the area, and land use

**Comment [CP19]:** See discussion in Attachment 4 to the Comment Letter, including footnote

**Comment [CP20]:** Table 4 is more appropriate – consistency for all MS4 outfall stations.

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types (commercial, residential and industrial) , and other considerations as appropriate.

- (4) If the station is dry (i.e. no flowing or ponded MS4 discharge is observed), the Copermittee(s) must make and record all applicable observations on the MS4 outfall and receiving waters monitoring site, including any evidence of past non-storm water flows and the presence of trash.

2. SOURCE IDENTIFICATION MONITORING

The Copermittees must collaborate to develop and implement a monitoring program to identify sources of pollutants in non-storm water discharges in accordance with Sections C and F.4 of this Order. The source identification portion of the monitoring program must include: the following components:

- a. Development and/or update of response criteria for dry weather non-storm water effluent analytical monitoring results:
  - (1) Response Criteria must include action levels described in Section C of this Order.
  - (2) Response Criteria must include evaluation of LC<sub>50</sub> levels for toxicity to appropriate test organisms.
- b. Develop and/or update Illicit Discharge Detection and Elimination response procedures for source identification follow up investigations and elimination in the event of exceedance of dry weather non-storm water effluent analytical monitoring result criteria (see above). These procedures must be consistent with procedures required in section C, F.4.d, and F.4.e. of this Order.

3. COMMENCEMENT OF MS4 OUTFALL AND SOURCE IDENTIFICATION MONITORING

The Copermittees must commence implementation of dry weather effluent analytical monitoring under the requirements of this Order no later than **July 1, 2012**. If monitoring indicates an illicit connection or illegal discharge, the Copermittee(s) must conduct the follow-up investigation and elimination activities described in sections C, F.4.d and F.4.e of this Order. In the interim period until the dry weather non-storm water effluent analytical monitoring program of this Order is implemented, each Copermittee must continue to implement dry weather field screening and analytical monitoring as it was most recently implemented pursuant to Order No. 2004-001.

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**D. High Priority Inland Aquatic Habitat Monitoring**

**Comment [CP21]:** See discussion in Attachment 4 to the Comment Letter

The Copermittees must develop and submit for approval to the San Diego Water Board by April 01, 2012, an inland aquatic habitat monitoring program for areas supporting high priority aquatic and/or riparian species. The goal of the monitoring program is to assess if MS4 storm water and non-storm water discharges are affecting high priority inland aquatic habitat. The monitoring will assist the Copermittees in preventing the degradation of high quality waters within the jurisdiction of this Order that support high priority species by identifying discharges from MS4s which may cause or have the potential to cause impairment of beneficial uses within these areas.<sup>1310</sup> High priority species include those federally and/or state listed as endangered, threatened, or as a species of concern. The design and goal of the monitoring program must be consistent with the criteria listed in Section I.B of this Monitoring Program, including evaluation of the protection of high priority species in receiving waters. The Copermittees must implement the program unless otherwise directed in writing by the San Diego Water Board.

The monitoring program must include the following components:

1. OUTFALL AND RECEIVING WATER MONITORING

The program must be designed to determine levels of pollutants in storm water and non-storm water effluent discharges from the MS4 discharged into high priority inland aquatic habitat(s) and the level of those pollutants found in ambient receiving waters subject to the discharge. The Copermittees must conduct the following field screening and analytical monitoring tasks:

a. MS4 and Receiving Waters Monitoring Station Identification

- (1) MS4 Discharge Stations must be major outfalls that directly discharge into high priority inland aquatic habitat. MS4 Discharge Stations may be selected in conjunction with monitoring required under Section II.B and II.C of the Receiving Waters and MS4 Discharge Monitoring Program.
- (2) Receiving water station(s) must be located upstream and downstream of the discharge within the high priority inland aquatic habitat. Receiving water stations must be located to prevent any significant co-mingling of receiving water flows with

<sup>10 13</sup>In accordance with requirements of State Water Resources Control Board Resolution No. 68-16, Statement of Policy with Respect to Maintaining High Quality Waters in California.

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other sources.

b. Develop Analytical Monitoring Procedures

Each Copermittee must develop procedures for analytical monitoring (these procedures must be consistent with 40 CFR part 136), including field observations, pollutants to be monitored, analyses to be conducted, and quality assurance/control. At a minimum, the procedures must meet the following guidelines and criteria:

- (1) Determining Sampling Frequency: The Copermittees must sample a representative number of major outfalls and receiving waters that are considered high priority inland aquatic habitat. Sampling of the discharge and receiving waters must be paired and occur during both storm and non-storm conditions.
- (2) Sampling may be done utilizing grab samples, though composite samples are encouraged. ~~Sampling of storm and non-storm water discharges from the MS4 must be done in accordance with Section II.B and II.C.~~ If ponded discharge or receiving waters is/are observed at a monitoring station, the Copermittees must make written observations and collect at least one (1) grab sample. The Copermittee(s) must estimate the flow using techniques such as by measuring the width of water surface, approximate depth of water, and approximate flow velocity
- (3) The proposed constituents for which samples will undergo analytical laboratory analysis.
- (4) Procedures for recording applicable observations when monitoring stations are dry (i.e. no flowing water or ponded conditions).

3. ASSESSMENT OF MONITORING RESULTS

The program must include a discussion of monitoring results within the monitoring annual report. The discussion must include an evaluation of the contribution of MS4 discharges to ambient water conditions within high priority inland aquatic habitats, as well as any actions taken to prevent and/or reduce sources of those pollutants.

4. SOURCE IDENTIFICATION MONITORING



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The Copermittees must collaborate to conduct source identification monitoring in accordance with Section II.B and II.C of the Monitoring and Reporting Program of this Order.

**E. Special Studies**

1. The Copermittees must conduct special studies, including any monitoring required for TMDL development and implementation, as directed by the San Diego Water Board.

2. Stormwater Monitoring Coalition Regional Monitoring of Southern California's Coastal Watersheds:

The Copermittees must implement the monitoring program developed by the Bioassessment Workgroup of the Stormwater Monitoring Coalition, for Regional Monitoring of the Southern California's Coastal Watersheds within the San Juan Hydrologic Unit. Each Copermittee must evaluate the results of the monitoring program within and downstream of its jurisdiction and integrate the results into program assessments and modifications.

3. Low Impact Development Integrated Management Practices, testing and demonstration facility

The Southern California Stormwater Monitoring Coalition (SMC) is conducting a study to measure the effectiveness of various LID BMPs. The Copermittees must participate in that study through implementation of their plan to construct an LID IMP Testing and Demonstration Facility at the District's headquarters. The project shall monitor effectiveness of the tested BMPs at pollutant reduction. The results of this study shall be summarized in the fourth year annual report and utilized in future revisions to the County's LID BMP manual.

- 2.4. Sediment Toxicity Study

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

**Comment [CP22]:**  
See discussion in Attachment 4 to the Comment Letter

**Comment [CP23]:** See discussion in Attachment 4 to the Comment Letter

**Comment [CP24]:** Request remove  
See discussion in Attachment 4 to the Comment Letter

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The Sediment Toxicity Special Study must include the following elements:

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

3.5. **Trash and Litter Investigation**

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

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otherwise directed in writing by the San Diego Water Board

The Trash and Litter Investigation must include the following elements:

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

4.6. Agricultural, Federal and Tribal Input Study

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

The Agricultural, Federal and Tribal Input Special Study must include the following elements:

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

**Comment [CP25]:** Request remove  
See discussion in Attachment 4 to the  
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- b. Frequency: One storm event must be monitored at each sampling location each year for at least 2 years.
- c. Parameters/Methods: At a minimum, analysis must include those constituents listed in Table 1 of the MRP (see II.A.1). Grab samples may be utilized, though composite samples are preferred. Copermittees must also measure or estimate flow rates and volumes of discharges into the MS4.
- d. Results: Results and Discussion from the Agricultural, Federal and Tribal Input Study must be included in the Monitoring Annual Report.

5. MS4 and Receiving Water Maintenance Study

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

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

- a-e. Locations: The Copermittees must identify suitable sampling locations, including at least one reference system that is not subject to maintenance activities.
- b-f. Parameters/Methods: At a minimum, the Copermittees must monitor pre and post maintenance activities for indicator bacteria, turbidity (NTU), temperature, dissolved oxygen and nutrients (Nitrite, Nitrate, Total Kjeldahl Nitrogen, Ammonia and Total Phosphorous). Copermittees must also measure or estimate flow rates and volumes.
- e-g. Results and Discussion from the MS4 and Receiving Water Maintenance Study must be included in the Annual Monitoring Report. The Discussion must include relevance of findings to CWA

**Comment [CP26]:** Request remove  
See discussion in Attachment 4 to the  
Comment Letter