

**STATE WATER RESOURCES CONTROL BOARD
WATER QUALITY ORDER NO. XXXX-XXXX-DWQ
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
GENERAL PERMIT NO. CASXXXXXX**

**WASTE DISCHARGE REQUIREMENTS (WDRs)
FOR
STORM WATER DISCHARGES FROM SMALL MUNICIPAL SEPARATE STORM
SEWER SYSTEMS (MS4s) (GENERAL PERMIT)**

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FINDINGS

The State Water Resources Control Board (State Water Board) finds that:

1. The State Water Board views storm water as a resource and an asset in an era of dwindling water supplies. Harvesting rainwater and storm water at the source may be a more sustainable alternative to transporting water across long distances. In addition to augmenting water supply, source control of storm water can prevent impacts from flooding, mitigate storm water pollution, and create green space and enhance wildlife habitat. California encourages alternative, innovative multi-objective solutions to help use and protect this valuable resource, while at the same time controlling pollution due to runoff.
2. Urban development creates new pollution sources as human population increases and brings with it proportionately higher levels of car emissions, car maintenance wastes, municipal sewage, pesticides, household hazardous wastes, pet wastes, trash, etc. which can either be washed or directly dumped into the municipal separate storm sewer system (MS4). As a result, the runoff leaving the developed urban area is greater in pollutant load than the pre-development runoff from the same area. Also, when natural vegetated pervious ground cover is converted to impervious surfaces such as paved highways, streets, rooftops, walkways and parking lots, the natural absorption and infiltration abilities of the land are lost. Therefore, runoff leaving developed urban area is significantly greater in runoff volume, velocity, peak flow rate, and duration than pre-development runoff from the same area. The increased volume, velocity, rate, and duration of runoff greatly accelerate the erosion of downstream natural channels. In addition, the greater the impervious cover the greater the significance of the degradation.
3. Pollutants of concern found in urban runoff include sediments, non-sediment solids, nutrients, pathogens, oxygen-demanding substances, petroleum hydrocarbons, heavy metals, floatables, polycyclic aromatic hydrocarbons (PAHs), trash, and pesticides and herbicides.
4. Trash and litter are a pervasive problem in California. Controlling trash is one of the priorities in California not only because of trash discharge prohibitions required in certain Regional Water Board Basin Plans, but also because trash and litter cause particularly major impacts on our enjoyment of California waterways. There are significant impacts on aquatic life and habitat in those waters and eventually to the global ocean ecosystem, where plastic often floats, persists in the environment for hundreds of years, if not forever, concentrates organic toxins, and is ingested by aquatic life. There are also physical impacts, as aquatic species can become entangled and ensnared and can ingest plastic that looks like prey, losing the ability to feed properly.
5. A higher percentage of impervious area correlates to a greater pollutant loading, resulting in turbid water, nutrient enrichment, bacterial contamination, organic matter loads, toxic compounds, temperature increases, and increases in trash or debris.

6. Conventional landscaping relies on large lawns, non-native plants, abundant irrigation, and heavy use of fertilizers, herbicides, and pesticides. It frequently requires significant mowing, blowing, trimming, and removal of plants debris. Adopting more storm water-friendly landscape practices reduces pollutants and also provides tangible water conservation, wildlife habitat, and energy saving benefits.
7. When water quality impacts are considered during the planning stages of a project, new development and many redevelopment projects can more efficiently incorporate measures to protect water quality.
8. In California, urban storm water is listed as the primary source of impairment for ten percent of all rivers, ten percent of all lakes and reservoirs, and 17 percent of all estuaries (2010 Integrated Report). Although these numbers may seem low, urban areas cover just six percent of the land mass of California and so their influence is disproportionately large. Urbanization causes changes in the landscape, including increased loads of chemical pollutants, increased toxicity, changes to flow magnitude, frequency, and seasonality of various discharges, physical changes to stream, lake, or wetland habitats, changes in the energy dynamics of food webs, sunlight, and temperature; and biotic interactions between native and exotic species. In addition to surface water impacts, urbanization can alter the amount and quality of storm water that infiltrates and recharges groundwater aquifers.
9. Education and awareness programs help change human behavior with respect to reducing the amount of pollution generated from storm water sources within the Permittee's MS4 system. In addition to education, encouraging public participation in local storm water programs can lead to program improvement as well as enabling people to identify and report a pollution-causing activity, such as spotting an illicit discharge.
10. Field experience in conducting outfall surveys indicates that illicit discharges may be present at 2 to 5 percent of all outfalls at any given time. Given that pollutants are being introduced into the receiving water during dry weather, illicit discharges may have an amplified effect on water quality and biological diversity.¹ Therefore, implementation of an effective Illicit Discharge and Detection Elimination program is an essential component of an effective municipal storm water program.
11. In 1990, the U.S. Environmental Protection Agency (U.S. EPA) promulgated rules establishing Phase I of the National Pollutant Discharge Elimination System (NPDES) storm water program. The Phase I program for MS4s requires operators of "medium" and "large" MS4s, that is, those that generally serve populations of 100,000 or greater, to implement a storm water management program as a means to control polluted discharges from these MS4s.
12. A MS4 is a conveyance or system of conveyances that is: 1) owned by a state, city, town, village, or other public entity that discharges to waters of the U.S.; 2) designed or used to collect or convey storm water (including storm drains, pipes, ditches, etc.); 3) not a combined sewer; and 4) not part of a Publicly Owned Treatment Works or sewage treatment plant.

¹

13. On December 8, 1999, U.S. EPA promulgated regulations under authority of the Clean Water Act (CWA) § 402(p)(6). These Storm Water Phase II Final Rule (Phase II Rule) regulations require State Water Board to issue NPDES storm water permits to operators of Small MS4s.
14. On April 30, 2003, the State Water Board adopted Water Quality Order No. 2003-005-DWQ, NPDES General Permit CAS000004 WDRs for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (General Permit) to comply with Clean Water Act § 402(p)(6).
15. Title 40 of the Code of Federal Regulations (40 CFR) §122.26(b)(16) defines Small MS4s as those not defined as “large” or “medium” MS4s under §122.26(b)(4) or (b)(7) or designated under 40 CFR §122.26(a)(1)(v). The term Small MS4s includes systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. 40 CFR §122.26(b)(16)(iii). These latter subsets of Small MS4s are referred to herein as Non-traditional Small MS4s. Non-traditional Small MS4s discharge the same types of pollutants that are typically associated with urban runoff. Separate storm sewers in very discrete areas, such as individual buildings are not defined as Small MS4s.
16. Of the Small MS4s defined by federal regulations, only “Regulated Small MS4s” must obtain an NPDES permit. Small MS4s are designated as Regulated Small MS4s in this Order in three ways as described in Finding 17, and Findings 18-21, and Finding 22.²
17. Under 40 CFR §122.32(a)(1) all Small MS4s located within an “urbanized area” as determined by the latest Decennial Census by the Bureau of the Census (Urbanized Area) are automatically designated as Regulated Small MS4s.
18. Under 40 CFR 122.32(a)(2) and §123.35(b) the State Water Board is directed to develop a process, as well as criteria, to designate Small MS4s located outside of an Urbanized Area as Regulated Small MS4s. These criteria are to evaluate whether a storm water discharge results in or has the potential to result in exceedances of water quality standards, including impairment of designated uses, or other significant water quality impacts, including habitat and biological impacts.
19. Under guidance provided in 40 CFR §123.35(b)(1)(ii), for determining other significant water quality impacts, U.S. EPA recommends a balanced consideration of the following designation criteria on a watershed or other local basis: discharge to sensitive waters, high growth or growth potential, high population density, contiguity to an urbanized area, significant contributor of pollutants to waters of the U.S., and ineffective protection of water quality by other programs.

² In addition to the designation criteria specified in this Order, the State Water Board may designate a Small MS4 as a Regulated Small MS4 in response to a petition received under [40 CFR 122.26\(f\)](#). Any person may petition the State Water Board to require an NPDES permit for a discharge composed entirely of storm water that contributes to a violation of a water quality standard or is a significant contributor of pollutants to the waters of the United States (id.). The State Water Board must make a final determination on any petition within 180 days after receiving the petition (40 CFR [§123.35\(c\)](#)).

20. The State Water Board is required to apply the designation criteria at a minimum to all Small MS4s located outside of Urbanized Areas serving jurisdictions with a population density of at least 1,000 people per square mile and a population of at least 10,000. 40 CFR §123.35(b)(2). The State Water Board has discretion to apply the criteria to jurisdictions with smaller population or lower density. All such jurisdictions are then Regulated Small MS4s.
21. In developing the designation criteria, the State Water Board included factors indicative of the potential to result in exceedances of water quality standards and other significant water quality impacts. The following criteria are used to designate Small MS4s outside of Urbanized Areas as Regulated Small MS4s in this General Permit.
- a. High population density – High population density means a density greater than 1,000 residents per square mile. Also to be considered in this definition is a high density created by a non-residential population, such as tourists or commuters.
 - b. High growth or growth potential – If the population of an area grew by more than 25 percent between 2000 and 2010, it is a high growth area. If an area anticipates population growth of more than 25 percent over a 10-year period ending prior to the end of the first permit term, it has high growth potential.
 - c. Significant contributor of pollutants to waters of the U.S. – Specific conditions presented by the MS4 may lead to significant pollutant loading to waters of the U.S. that are otherwise unregulated or inadequately regulated. An example of such a condition may be the presence of a large transportation industry.
 - d. Discharge to sensitive water bodies – Sensitive water bodies are receiving waters which are a priority to protect. They include the following:
 - Areas of Special Biological Significance (ASBS) as defined in the California Ocean Plan;
 - Areas providing or known to provide habitat for chinook and coho salmon and steelhead;
 - Beaches that serve more than 50,000 people between April 1 and October 31 and are adjacent to flowing storm drains or creeks.³

Additional criteria to qualify as a sensitive water body may exist and may be used by the State and Regional Water Boards on a case-by-case basis.

Only Traditional Small MS4s with a population greater than 5,000 will be designated as a Regulated Small MS4 by application of the criteria specified under (d). Criteria (a) through (c) will be applied to Small MS4s of any size for designation as a Regulated Small MS4.

³ California Assembly Bill 411

22. 40 CFR § 123.35(b)(4) requires designation as a Regulated Small MS4 of any Small MS4 outside an Urbanized Area that contributes substantially to the pollutant loadings of a physically interconnected MS4 regulated by the NPDES storm water program. A Small MS4 is interconnected with a separately permitted MS4 if storm water that has entered the Small MS4 is allowed to flow directly into a permitted MS4. In general, if the Small MS4 discharges more than 10 percent of its storm water to the permitted MS4, or its discharge makes up more than 10 percent of the permitted MS4's total storm water volume, it is a significant contributor of pollutants to the permitted MS4. In specific cases, the MS4s involved or third parties may show that the 10 percent threshold is inappropriate for the MS4 in question.
23. Regulated Small MS4s may seek a waiver from Phase II requirements if they meet criteria specified in 40 CFR 122.32(c)-(e)⁴ and additional criteria developed by the State Water Board.
24. Permittees that were regulated under the previous General Permit, Order 2003-0005-DWQ, continue to be designated under this Order. These Permittees are listed in Attachment A, Renewal Traditional and Non-traditional Small MS4s.
25. New Traditional Small MS4s designated under this Order based on the criteria described in findings 16-21 are listed in Attachment B.
26. New Non-traditional Small MS4s designated under this Order based on criteria as defined in Findings 16-21 are listed in Attachment C.
27. K-12 School Districts not previously designated as Regulated Small MS4s have been listed in Attachment E. These School Districts are not designated under this Order, but the appropriate Regional Water Board may designate a K-12 School District as a Regulated Small MS4 on a case-by-case basis during the term of this Order.
28. California Small MS4 Permittees face highly variable conditions both in terms of threats to water quality from their storm water discharges and resources available to manage those discharges. Therefore, one set of prescriptive requirements is not an appropriate regulatory approach for all Regulated Small MS4s. This Order contains Compliance Tiers with specific provisions to address differences between Traditional and Non-traditional Small MS4s.
29. Compliance Tiers are identified within Section E, Provisions, and is based on the Small MS4's New or Renewal Permittee status and/or population based on the 2010 U.S. Decennial Census data (Census). This Order further divides Traditional Small MS4s with a population less than and Non-traditional Small MS4s into the following different categories:
 - Traditional MS4s with a population of 5,000 or less
 - Fairgrounds
 - Flood Management Agencies
 - Harbors, Ports, and Marinas

⁴ Waiver criteria also found at 40 CFR 123.35(d).

- Institutions of Higher Education (Community Colleges, State Colleges and Universities)
 - Military Bases
 - Public Schools K-12, including Charter Schools
 - State Parks/Beaches/Historical Areas
 - State and Federal Prisons/Health Institutions
 - State Vehicular Recreation Areas
 - Transit Agencies (Heavy Rail)
30. The different categories of Traditional and Non-traditional Small MS4 Permittees must comply with certain provisions listed in Section E of this Order. The category-specific compliance provisions are identified in Table 1.
 31. A Regional Water Board Executive Officer can determine a Renewal Traditional or Non-traditional Small MS4 Permittee's current implementation of its storm water program BMPs meets the MEP standard and is equally or more effective at reducing pollutant discharges than implementation of the requirements of this Order. The Regional Board Executive Officer may require continued implementation of the Permittee's current program BMPs and reporting requirements in lieu of implementation of the requirements of this Order.
 32. This Order modifies the existing General Permit, Order 2003-0005-DWQ by establishing the storm water management program requirements in the permit and defining the minimum acceptable elements of the municipal storm water management program. Permit requirements are known at the time of permit issuance and not left to be determined later through iterative review and approval of Storm Water Management Plans (SWMPs).
 33. SWMPs are no longer submitted for Regional Water Board approval. Instead, the Permittees' storm water management programs are reviewed by Regional Water Boards during their review of Annual Reports as part of the administration of the permit.
 34. Minimum measures have been established in this Order to simplify assessment of compliance and allow the public to more easily assess each Permittee's compliance.
 35. Each provision establishes the required task description, minimum implementation levels (i.e., minimum percentage of facilities inspected annually, escalating enforcement, reporting requirements for tracking projects, number of monitoring sites, etc.), and specific reporting elements to substantiate that the Permittee meets these implementation levels. Regional Water Board staff will be able to evaluate each individual Permittee's compliance through online Annual Report review and the program evaluation (audit) process.
 36. The provisions contained in this Order were derived from two main U.S. EPA documents: MS4 Program Evaluation Guide⁵ and the MS4 Permit Improvement Guide⁶ along with interviews and information gathered from a lengthy collaborative stakeholder process.
 37. Consistent with 40 CFR §122.34(a), this Order requires MS4 owners and operators to reduce pollutant discharges from MS4s to the maximum extent practicable (MEP). The

⁵ Municipal Separate Storm Sewer System (MS4) Program Evaluation Guidance, USEPA, EPA-833-R-07-003, January 1, 2007

⁶ MS4 Permit Improvement Guide, USEPA, April 1, 2010

MEP standard requires Permittees apply Best Management Practices (BMPs) that are effective in reducing or eliminating the discharge of pollutants to the waters of the U.S. MEP emphasizes pollutant reduction and source control BMPs to prevent pollutants from entering storm water runoff. MEP may require treatment of the storm water runoff if it contains pollutants. The MEP standard is an ever-evolving, flexible, and advancing concept, which considers technical and economic feasibility. BMP development is a dynamic process and may require changes over time as the Permittees gain experience and/or the state of the science and art progresses. To do this, the Permittees must conduct and document evaluation and assessment of each relevant element of its program, and their program as a whole, and revise activities, control measures/BMPs, and measurable goals, as necessary to meet MEP. MEP is the cumulative result of implementing, evaluating, and creating corresponding changes to a variety of technically appropriate and economically feasible BMPs, ensuring that the most appropriate BMPs are implemented in the most effective manner. This process of implementing, evaluating, revising, or adding new BMPs is commonly referred to as the “iterative approach.”

38. The Order's Receiving Water Limitations language is consistent with State Water Board Order WQ-99-05 adopted by the State Water Board on June 17, 1999. Receiving Water Limitations apply to all Permittees subject to this Order.
39. Total Maximum Daily Loads (TMDL) are numerical calculations of the maximum amount of a pollutant that a water body can assimilate and still meet water quality standards. A TMDL is the sum of the allowable loads of a single pollutant from all contributing point sources (the waste load allocations) and non-point sources (load allocations), background contribution, plus a margin of safety. Discharges from Small MS4s are point source discharges subject to TMDLs. This Order requires Permittees to comply with all applicable TMDLs approved pursuant to 40 CFR § 130.7 for which the Permittee has been assigned a Waste Load Allocation or has been identified in Attachment G. The Regional Water Boards have submitted implementation requirements to the State Water Board, and approved by the Office of Administrative Law and the U.S. EPA, for applicable TMDLs which are summarized in Attachment G and are an enforceable component of this Order.
40. Post-construction standards cannot be developed without assessing watershed process and identifying metrics that are indicative of healthy watersheds.
41. The post-construction requirements and design standards contained in this Order are consistent with State Water Board Order WQ 2000-11.
42. Permittees will submit Annual Reports electronically using the State Water Board's Storm Water Multi-Application Reporting and Tracking System (SMARTS). The purpose of the Annual Report is to evaluate (1) the implementation of Permittees' storm water program; (2) the effectiveness of BMPs and Measurable Goals, 3) the Permittee's improvement opportunities to achieve MEP, and 4) any supplemental information required by a Regional Water Board in accordance with the Regional Water Board's specific requirements.
43. To apply for General Permit coverage authorizing storm water discharges to surface waters pursuant to this Order, the Permittees electronically file a Notice of Intent (NOI) using SMARTS and mail the appropriate permit fee to the State Water Board. The NOI represents the Permittee's commitment to comply with the BMPs specified in this Order to achieve compliance with the minimum control measures specified at 40 CFR §122.34 paragraphs (b)(1) through (b)(6).

44. Under 40 CFR Part 122, a Separate Implementing Entity (SIE) can implement a storm water management program for another entity such as a municipality, agency, or special district. The SIE implements parts or all of a storm water program for a Permittee. Permittees relying on a SIE to implement their entire program must electronically file an NOI using SMARTS and mail appropriate fee to the State Water Board.
45. Each Permittee is individually responsible for adoption and enforcement of ordinances and/or policies, implementation of identified control measures/BMPs needed to prevent or reduce pollutants in storm water, for allocation of funds for the capital, operation and maintenance (O&M), and enforcement expenditures necessary to implement and enforce such control measures/BMPs within the Permittee's jurisdiction. Enforcement actions concerning this Order will be pursued only against the individual Permittee responsible for specific violations of this Order.
46. In accordance with 40 CFR §122.28(b)(3), a Regional Water Board may issue an individual MS4 NPDES Permit to a Permittee otherwise subject to this Order, or adopt an alternative general permit that covers storm water discharges regulated by this Order. The applicability of this Order is automatically terminated on the effective date of the individual permit or the date of approval for coverage under the alternative general permit.
47. Certain BMPs implemented or required by Permittees for urban runoff management may create a habitat for vectors (e.g., mosquitoes and rodents) if not properly designed or maintained. Close collaboration and cooperation among the Permittees, local vector control agencies, Regional Water Board staff, and the California State Department of Public Health is necessary to identify and implement appropriate vector control measures that minimize potential nuisances and public health impacts resulting from vector breeding.
48. 40 CFR § 131.12 requires that state water quality standards include an anti-degradation policy consistent with the federal policy. The State Water Board established California's anti-degradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal anti-degradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The Regional Water Board's Water Quality Control Plans (Basin Plans) implement, and incorporate by reference, both the State and federal anti-degradation policies.
49. This action to adopt an NPDES Permit is exempt from the provisions of the California Environmental Quality Act (Public Resources Code § 21100, et seq.) in accordance with §13389 of the Porter-Cologne Water Quality Control Act (Division 7 of the California Water Code). County of Los Angeles et al., v. California Water Boards et al., (2006), 143 Cal.App.4th 985.
50. Following public notice in accordance with State and federal laws and regulations, the State Water Board, in a public hearing on (insert public hearing date) heard

and considered all comments. The State Water Board has prepared written responses to all significant comments.

51. The State Water Board has considered the costs of complying with this Order and whether the required BMPs meet the minimum MEP Standard required by federal law.
52. This Order shall serve and become effective as an NPDES permit and the Permittees shall comply with all its requirements 100 days after adoption by the State Water Board. Requirements prescribed by this Order supersede the requirements prescribed by Order No. 2003-0005-DWQ except for compliance purposes for violations occurring before the effective date of this Order.

IT IS HEREBY ORDERED that operators of Small MS4s subject to this Order shall comply with the following:

A. APPLICATION REQUIREMENTS FOR BOTH TRADITIONAL AND NON-TRADITIONAL SMALL MS4S

1. Deadline for Application

Renewal and New Permittees (either individually, through a Separate Implementing Entity or as a Co-Permittee) shall electronically file an NOI via SMARTS and mail the appropriate fee to the State Water Board within two months of the General Permit effective date (May 15, 2012)

2. General Permit Coverage

General Permit coverage will be in effect upon receipt of the following:

- a. NOI via SMARTS
- b. Appropriate fee (in accordance with the most recent fee schedule⁷)
- c. Permit boundary map delineating permit jurisdictions. At a minimum the map shall include the following:
 - (1) Phase II MS4 Permit Boundary
 - (2) City/County Boundaries
 - (3) Main Arterial Streets
 - (4) Highways
 - (5) Waterways
 - (6) Phase 1 MS4 Permit Boundary (if applicable)

3. Waiver Certification

Regulated Small MS4s may seek a waiver from the General Permit requirements if they meet criteria specified in 40 CFR §122.32(c)-(e).

In order for a Regional Water Board to waive requirements for a Regulated Small MS4, (1) the Regulated Small MS4 must certify that its discharges do not cause or contribute to, or have the potential to cause or contribute to, a water

⁷ California Code of Regulations, Title 23, Division 3, Chapter 9 Waste Discharge Reports and Requirements, Article 1 Fees.

quality impairment, and (2) the Regulated Small MS4 must meet one of the following waiver options:

a. Traditional and Non-traditional Small MS4s

(1) Option 1:

- (a) the jurisdiction served by the system is less than 1,000 people within the urbanized area;
- (b) the Regulated Small MS4 certifies that the system is not contributing substantially to the pollutant loadings of a physically interconnected regulated MS4; and
- (c) the Regulated Small MS4 certifies that, if the Small MS4 discharges any pollutants identified as a cause of impairment of any water body to which it discharges, storm water BMPs are not needed based on waste load allocations that are part of an EPA approved or established TMDL that addresses the pollutant(s) of concern.

(2) Option 2

- (a) The jurisdiction served by the system is less than 10,000 people;
- (b) the Regional Water Board has evaluated all waters of the U.S. that receive a discharge from the system;
- (c) the Regional Water Board has determined that storm water BMPs are not needed based on wasteload allocations that are part of an EPA approved or established TMDL that addresses the pollutant(s) of concern or an equivalent analysis; and
- (d) the Regional Water Board has determined that future discharges from the Regulated Small MS4 do not have the potential to result in exceedances of water quality standards.

(3) Option 3 (applicable to Small MS4s outside an Urbanized Area only)

- (a) Small Disadvantaged Community – a community with a population of 20,000 or less with an annual median household income (MHI) that is less than 80 percent of the statewide annual MHI (CWC § 79505.5 (a)).

b. Non-traditional Small MS4s Outside an Urbanized Area

- (1) State parks with an average of 5,000 visitors per year.

If the conditions of any waiver option are not met by the Regulated Small MS4, then the Regulated Small MS4 must submit a NOI via SMARTS and appropriate fee for coverage under this General Permit or apply for an individual NPDES permit.

The State Water Board or a Regional Water Board can, at any time, require a previously waived Regulated Small MS4 to comply with this General Permit or an individual NPDES permit if circumstances change so that the conditions of

the waiver are no longer met. Changed circumstances can also allow a Regulated Small MS4 to request a waiver at any time.

4. Waiver Certification Application Requirements - A Waiver Certification will be in effect upon completion of the following:
 - a. Annual Waiver Certification via SMARTS. Initial submittal shall be within two months of General Permit effective date.
 - b. Annual fee of \$200 plus any applicable surcharge.
 - c. Letter via SMARTS from Regional Water Board or its Executive Officer waiving requirements.

The Regulated Small MS4 is automatically waived if a certification letter is not received within 6 months of submittal to the Regional Water Board.

B. DISCHARGE PROHIBITIONS

1. Discharges of waste that are prohibited by Statewide Water Quality Control Plans or applicable Regional Water Quality Control Plans (Basin Plans) are prohibited.
2. Discharges of storm water to surface water of the State or waters of the U.S. in a manner causing or threatening to cause a condition of pollution or nuisance as defined in Water Code § 13050 are prohibited.
3. Discharges of material other than storm water to waters of the U.S. or another permitted MS4 shall be effectively prohibited, except as allowed under this Provision or as otherwise authorized by a separate NPDES permit. The following non-storm water discharges are not prohibited provided any pollutant discharges are identified and appropriate control measures to minimize the impacts of such discharges, are developed under this storm water program. This provision does not obviate the need to obtain any other appropriate permits for such discharges.
 - a. water line flushing;
 - b. diverted stream flows;
 - c. rising ground waters;
 - d. uncontaminated ground water infiltration (as defined at 40 CFR §35.2005(20)) to separate storm sewers;
 - e. uncontaminated pumped ground water;
 - f. discharges from potable water sources;
 - g. foundation drains;
 - h. air conditioning condensation;
 - i. springs;
 - j. water from crawl space pumps;
 - k. footing drains;
 - l. flows from riparian habitats and wetlands; and
 - m. dechlorinated swimming pool discharges.

Discharges or flows from fire-fighting activities are excluded from the effective prohibition against non-storm water and need only be addressed where they are identified as significant sources of pollutants to waters of the U.S.

If a Regional Water Board Executive Officer determines that any individual or class of non-storm water discharge(s) listed above may be a significant source of pollutants to waters of the U.S. or physically interconnected MS4, or poses a threat to water quality standards (beneficial uses), the Regional Water Board Executive Officer may require the appropriate Permittee to monitor and submit a report and to implement BMPs on the discharge.

4. Discharges of Incidental Runoff shall be controlled. Regulated Small MS4s shall require parties responsible for incidental runoff to implement Sections B.4.a-e below to control the incidental runoff. Incidental runoff is defined as unintended small amounts (volume) of runoff from potable and recycled water use areas, such as unintended, minimal over-spray from sprinklers that escapes the area of intended use. Water leaving an intended use area is not considered incidental if it is part of the facility design, if it is due to excessive application, if it is due to intentional overflow or application, or if it is due to negligence.
 - a. Detect leaks (for example, from broken sprinkler heads) and correct the leaks either within 72 hours of learning of the leak, or prior to the release of 1,000 gallons, whichever occurs first,
 - b. Properly design and aim of sprinkler heads,
 - c. Do not water during precipitation events,
 - d. Management of any ponds containing recycled water such that no discharge occurs unless the discharge is a result of a 25-year, 24-hour storm event or greater, and the appropriate Regional Water Board is notified by email no less than four hours prior to the discharge. The notification is to include identifying information, including the Permittee's name and permit identification number and
 - e. Any other actions necessary to prevent the discharge of incidental runoff to the MS4 or waters of the U.S.

Non-storm water discharge runoff that is not incidental is prohibited, unless otherwise specified in Section B.3 above.

Incidental runoff may be regulated by waste discharge requirements or, where necessary, waste discharge requirements that serves as a NPDES permit, including MS4 permits.

5. Discharge to Areas of Special Biological Significance (ASBS) is prohibited unless an exception is granted by the State Water Board. In considering an exception, the State Water Board must determine that the exception will not compromise protection of ocean waters for beneficial uses, and, the public

interest will be served. Implementation requirements for discharges to ASBS which have been approved by the State Water Board are enforceable under this Order.

C. EFFLUENT LIMITATIONS

1. Permittees shall implement BMPs that reduce pollutants in storm water to the technology-based standard of MEP.
2. Storm water discharges regulated by this Order shall not contain a hazardous substance in amounts equal to or in excess of a reportable quantity listed in 40 CFR Part 117 or 40 CFR Part 302.

D. RECEIVING WATER LIMITATIONS

Discharges shall not cause or contribute to an exceedance of water quality standards contained in a Statewide Water Quality Control Plan, the California Toxics Rule (CTR), or in the applicable Regional Water Board Basin Plan.

The Permittee shall comply with Receiving Water Limitations through timely implementation of control measures/BMPs and other actions to reduce pollutants in the discharges and other requirements of this Order including any modifications. The storm water program shall be designed to achieve compliance with Receiving Water Limitations. If exceedance(s) of water quality objectives or water quality standards persist notwithstanding implementation of other storm water program requirements of this Order, the Permittee shall assure compliance with Receiving Water Limitations by complying with the following procedure:

1. Upon a determination by either the Regulated Small MS4 or the Regional Water Board that MS4 discharges are causing or contributing to an exceedance of an applicable water quality standard, the Regulated Small MS4 shall promptly notify and thereafter submit a report to the Regional 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 shall include an implementation schedule. The Regional Board may require modifications to the report;
2. Submit any modifications to the report required by the Regional Water Board within 30 days of notification;
3. Implement the actions specified in the report in accordance with the approved schedule.
4. So long as the Regulated Small MS4 has complied with the procedure set forth above and is implementing the actions, the Regulated Small MS4 does not have to repeat the same procedure for continuing or recurring exceedances of the same receiving water limitations unless directed by the State Water Board or the Regional Water Board to develop additional BMPs.

E. PROVISIONS FOR BOTH TRADITIONAL AND NON-TRADITIONAL SMALL MS4 PERMITTEES

E.1. TRADITIONAL SMALL MS4 PERMITTEES

Section E applies to all Traditional Small MS4 Permittees, whether coverage under the Order is obtained individually or as a Co-Permittee with another MS4 Permittee. Compliance Tiers for New or Renewal Permittees are identified within Section E. Traditional Small MS4s with a population of 5,000 or less shall comply with specific provisions identified in Table 1.

E.2. NON-TRADITIONAL SMALL MS4 PERMITTEES

Table 1 identifies the different categories of Non-traditional Small MS4s and the specific compliance provisions.

E.3. SEPARATE IMPLEMENTING ENTITY

Permittees, both Traditional and Non-traditional Small MS4s, may rely on a Separate Implementing Entity to satisfy one or more of the permit obligations, if the Separate Implementing Entity can appropriately and adequately address the storm water issues of the Permittee. The Separate Implementing Entity must agree to implement the BMPs, or components thereof, to achieve compliance with the Order. If the Separate Implementing Entity fails to implement the BMPs, the Permittee remains responsible for compliance with this Order.

E.4. PROGRAM MANAGEMENT ELEMENT

Compliance Tiers

- a) New Traditional Small MS4 Permittees** with a population greater than 5,000 shall comply with all requirements of this Section.
- b) New Traditional Small MS4 Permittees** with a population of 5,000 or less shall comply with the requirements of the Order sections listed in Table 1.⁸
- c) Renewal Traditional Small MS4 Permittees** shall evaluate their existing program and update the program as necessary to ensure their program meets the minimum standards of this Section.⁹ The Permittee shall implement their updated program to comply with the minimum standards of this Section.

⁸ Does not apply to New Traditional Small MS4 Permittees in unincorporated areas where the local County has a population greater than 5,000.

⁹ If a Regional Water Board Executive Officer determines a Renewal Traditional Small MS4 Permittee's current implementation of its program BMPs meets the MEP standard and is equally or more effective at reducing pollutant discharges than implementation of the requirements of this Section, the Executive Officer may require continued implementation of the Permittee's current program BMPs and reporting requirements in lieu of implementation of the requirements of this Section.

- d) Non-traditional Small MS4 Permittees** shall develop and implement regulatory mechanisms such as policies, standards, or specific contract language that provide adequate legal authority necessary to implement and enforce the requirements of this Section.

To effectively implement a coordinated storm water program, the Permittee shall have an overarching Program Management element in its storm water management program. The Program Management element shall include the following:

E.4.a. Legal Authority

- (i) **Task Description** - By May 15, 2013, the Permittee shall review and revise relevant ordinances or other regulatory mechanisms, or adopt any new ordinances or other regulatory mechanisms, to obtain adequate legal authority to control pollutant discharges into and from its MS4, and to meet the requirements of this Order.
- (ii) **Implementation Level** –At a minimum, the Permittee shall have adequate legal authority to:
- (a) Prohibit and eliminate non-storm water discharges to the MS4. Exceptions to this prohibition may include the non-storm water discharges in B.3, only if they are considered non-significant contributors of pollutants.
 - (b) Prohibit and eliminate illicit discharges and illegal connections to the MS4. Illicit connections include pipes, drains, open channels, or other conveyances that have the potential to allow an illicit discharge to enter the MS4. Illicit discharges include all non-storm water discharges not otherwise authorized in this Order, including discharges from charity car washes, mobile cleaning and pressure wash operations,
 - (c) Respond to the discharge of spills, and prohibit dumping or disposal of materials other than storm water into the MS4.
 - (d) Require parties responsible for incidental runoff to implement Discharge Prohibition, B.4.a-e to control incidental runoff.
 - (f) Require operators of construction sites, new or redeveloped land; and industrial and commercial facilities to minimize the discharge of pollutants to the MS4 through the installation, implementation, and maintenance of BMPs consistent with the California Storm Water Quality Association (CASQA) Best Management Practice Handbooks or equivalent.
 - (g) Request from a construction site or industrial facility operator a copy of the NOI submitted to the Water Boards, as well as supporting materials such as storm water pollution prevention plans (SWPPPs), inspection reports, and monitoring results, information required by local development policy or public health regulations, and other information deemed necessary to assess compliance with this Order. The Permittee shall also have the authority to review designs and proposals for new development and redevelopment to determine whether adequate BMPs will be installed, implemented, and

maintained during construction and after final stabilization (post-construction).

- (h) Enter private property for the purpose of inspecting at reasonable times any facilities, equipment, practices, or operations for active or potential polluted storm water discharges, or non-compliance with local ordinances/standards or requirements in this Order.
- (i) Require that dischargers promptly cease and desist discharging and/or cleanup and abate a discharge, including the ability to:
 - (1) Effectively require the discharger to abate and clean up their discharge, spill, or pollutant release within 48 hours of notification;
 - (2) Require abatement, within 30 days of notification, for uncontrolled sources of pollutants that could pose an environmental threat;
 - (3) Perform the clean up and abatement work and bill the responsible party, if necessary;
 - (4) Provide the option to order the cessation of activities until such problems are adequately addressed if a situation persists where pollutant-causing sources or activities are not abated;
 - (5) Require a new timeframe and notify the appropriate Regional Water Board when all parties agree that clean-up activities cannot be completed within the original timeframe and notify the appropriate Regional Water Board in writing within five business days of the determination that the timeframe requires revision.
- (j) A Traditional Small MS4 Permittee shall have the ability to:
 - (1) Levy citations or administrative fines against responsible parties either immediately at the site, or within a few days.
 - (2) Require recovery and remediation costs from responsible parties.
- (k) The Permittee shall have the ability to impose more substantial civil or criminal sanctions (including referral to a city or district attorney) and escalate corrective response, consistent with its Enforcement Response Plan developed pursuant to Section E.4.c., for persistent non-compliance, repeat or escalating violations, or incidents of major environmental harm.
- (l) Control of the contribution of pollutants and flows from one portion of the MS4 to another portion of the MS4 through interagency agreements or other similar agreements with other owners of MS4s contributing runoff to or receiving runoff from the Permittee's MS4.
- (m) Require documentation on the effectiveness of BMPs implemented to reduce the discharge of pollutants to the MS4 to the MEP and protect water quality.

E.4.b. Certification

- (i) **Task Description** – The Permittee shall certify by its Principal Executive Officer, Ranking Elected Official, or Duly Authorized Representative as described in 40 CFR 122.22(b) that the Permittee has and will maintain full

legal authority to implement and enforce each of the requirements contained in this Order.

(ii) **Implementation Level** – The Permittee’s certification statement shall include the following:

- (a) Identification of all departments within the Permittee’s jurisdiction that conduct storm water-related activities and their roles and responsibilities under this Order; and an up-to-date organizational chart specifying these departments, key personnel, and contact information.
- (b) Citation of storm water runoff related ordinances, identification of the topics each ordinance addresses, and a description of the reasons the ordinances are enforceable;
- (c) Identification of the local administrative and legal procedures and ordinances available to mandate compliance with storm water-related ordinances and therefore with the conditions of this Order.
- (d) A description of how storm water related-ordinances are reviewed and implemented.
- (e) A description of whether the municipality can issue administrative orders and injunctions, or whether it must work through the court system for enforcement actions.

(iii) **Reporting** –

- (a) All Permittees shall submit by September 15, 2013 online Annual Report, a statement signed by both the Permittee’s legal counsel and an authorized signatory certifying the Permittee has adequate legal authority in accordance with 40 CFR 122.26(d)(2)(i)(A-F) to comply with all Order requirements.

E.4.c. Enforcement Measures and Tracking

- (i) **Task Description** - The Permittee shall develop and implement an Enforcement Response Plan. The Enforcement Response Plan shall contain enforcement procedures and actions and identify the Permittee’s responses to violations and describe how the Permittee will address repeat and continuing violations by implementing progressively stricter responses as needed to achieve compliance.
- (ii) **Implementation Level** - The Enforcement Response Plan shall describe how the Permittee will use each of the following types of enforcement responses based on the type of violation:
 - (a) Verbal Warnings – Verbal warnings are primarily consultative in nature. At a minimum, verbal warnings shall specify the nature of the violation and required corrective action.

- (b) Written Notices – Written notices shall include nature of the violation and the required corrective action, with deadlines for taking such action.
- (c) Escalated Enforcement Measures – The Permittee shall establish legal authority to employ any combination of the enforcement actions below (or their functional equivalent), and to escalate enforcement responses where necessary to correct persistent non-compliance, repeat or escalating violations, or incidents of major environmental harm:
 - (1) Citations (with Fines) – The Enforcement Response Plan shall describe when the Permittee will assess monetary fines, which may include civil and administrative penalties.
 - (2) Stop Work Orders – The Enforcement Response Plan shall describe when the Permittee will issue stop work orders that require construction activities to be halted, except for those activities directed at cleaning up, abating discharge, and installing appropriate BMPs.
 - (3) Withholding of Plan Approvals or Other Authorizations – Where a facility is in non-compliance, the Enforcement Response Plan shall describe how the Permittee’s own approval or authorization processes that affect the facility’s ability to discharge to the MS4 can be used to abate the violation.
 - (4) Additional Measures – The Enforcement Response Plan may also describe other escalated measures the Permittee has under its local legal authorities. The Permittee may perform work necessary to improve erosion control measures and collect the funds from the responsible party in an appropriate manner, such as collecting against the project’s bond or directly billing the responsible party to pay for work and materials.
- (d) NPDES Permit Referrals–For those construction projects or industrial facilities subject to the State’s CGP or IGP, the Permittee shall:
 - (1) Refer non-filers (i.e., those facilities that cannot demonstrate that they obtained permit coverage) to the appropriate Regional Water Board within 30 days of making that determination. In making such referrals, at a minimum include the following documentation:
 - (a) Construction project or industrial facility location.
 - (b) Name of owner or operator.
 - (c) Estimated construction project size or type of industrial activity (including the Standard Industrial or the North American Industry Classification if known).
 - (d) Records of communication with the owner or operator regarding filing requirements.
 - (2) Refer ongoing violations to the appropriate Regional Water Board provided that the Permittee has made a good faith

effort of progressive enforcement to achieve compliance with its own ordinances. At a minimum, the Permittee's good faith effort shall include documentation of two follow-up inspections and two warning letters or notices of violation. In making such referrals, the Permittee shall include, at a minimum, the following information:

- (a) Construction project or industrial facility location
 - (b) Name of owner or operator
 - (c) Estimated construction project size or type of industrial activity (including Standard Industrial Classification or North American Industry Classification System if known)
 - (d) Records of communication with the owner or operator regarding the violation, including at least two follow-up inspections, two warning letters or notices of violation, and any response from the owner or operator
- (e) Enforcement Tracking –Track instances of non-compliance either in hard-copy files or electronically. The enforcement case documentation shall include, at a minimum, the following:
- (1) Name of owner/operator
 - (2) Location of construction project or industrial facility
 - (3) Description of violation
 - (4) Required schedule for returning to compliance
 - (5) Description of enforcement response used, including escalated responses if repeat violations occur or violations are not resolved within the time specified in the enforcement action.
 - (6) Accompanying documentation of enforcement response (e.g., notices of noncompliance, notices of violations, etc.)
 - (7) Any referrals to different departments or agencies
 - (8) Date violation was resolved
- (f) Recidivism Reduction – The Permittee shall identify chronic violators of any provision of this Order or of any related local ordinance or regulation and reduce the rate of noncompliance recidivism. The Permittee shall develop incentives, disincentives, or increase inspection frequency at the operator's sites to prevent chronic violations.
- (iii) **Reporting** – By September 15, 2013 online Annual Report and annually thereafter, submit an Enforcement Response Plan summarizing all enforcement activities including inspections of chronic violators and the incentives, disincentives, or escalated enforcement responses at each site. Summarizations of enforcement activities shall at a minimum include the following information for each type of site or facility:

- (a) Number of violations, including a listing of sites or facilities with identified violations
- (b) Number of enforcement actions, including types
- (c) Other follow-up actions taken
- (d) Demonstration that compliance has been achieved for all violations, or a description of actions that are being taken to achieve compliance

E.4.d. Ensure Adequate Resources to Comply with Order

- (i) **Task Description** - The Permittee shall secure the resources necessary to meet all requirements of this Order.
- (ii) **Implementation Level** - Conduct an annual analysis of the following:
 - (a) Capital and O&M expenditures needed, allocated and spent.
 - (b) Necessary staff resources needed and allocated to meet the requirements of this Order, including any development, implementation, and enforcement activities required.
 - (c) Estimated expenditures for the reporting period, the preceding period, and the next reporting period.
 - (d) Description of the source of funds that are proposed to meet the necessary expenditures, including legal restrictions on the use of such funds.
 - (e) Description of the staff resources necessary to meet the requirements of this Order.
- (iii) **Reporting** – By September 15, 2013 online Annual Report and annually thereafter, submit a summary of the annual fiscal analysis. The summary shall include the information included in Section E.4.d.(ii), as well as the costs for staffing resources, maintaining existing structural BMPs, creating new BMPs, retrofitting existing BMPs to include green infrastructure, developing and disseminating storm water information to stakeholders, and developing non-structural storm water programs.

E.5. PUBLIC OUTREACH AND EDUCATION PROGRAM

E.5.a. Compliance Options

- a) New Traditional Small MS4 Permittees** with a population greater than 5,000 shall comply with all requirements of this Section.

- b) **New Traditional Small MS4 Permittees** with a population of 5,000 or less shall comply with the requirements of the Order sections listed in Table 1.¹⁰
- c) **Renewal Traditional Small MS4 Permittees** shall evaluate their existing program and update the program as necessary to ensure their program meets the minimum standards of this Section.¹¹ The Permittee shall implement their updated program to comply with the minimum standards of this Section.
- d) **Non-traditional Small MS4 Permittees** shall comply with the requirements of the Order sections listed in Table 1.

The Permittee shall comply with the requirements in this Section by participating in one or more of the following:

- (i) Contributing to a countywide storm water program, as determined appropriate by the Permittee members, so that the countywide storm water program conducts outreach and education on behalf of its members; or
 - (ii) Contributing to a regional outreach and education collaborative effort (a regional outreach and education collaborative effort occurs when all or a majority of the Permittees collaborate to conduct regional outreach and education. Regional outreach and education collaboration includes Permittees defining a uniform and consistent message, deciding how best to communicate the message, and how to facilitate behavioral changes. Then collaboratively apply what is learned through local jurisdiction groups, pooling resources and skills.); or
 - (iii) Fulfilling outreach and education requirements within their jurisdictional boundaries on their own; or
 - (iv) A combination of the previous options, so that all requirements are fulfilled.
- (v) **Reporting** – By September 15, 2013 online Annual Report, the Permittee shall identify which compliance options it will use to comply with each of the education and outreach requirements in this Section. For each outreach and education requirement in this Section that the Permittee will comply with through contribution to a countywide storm water program or regional outreach and education collaborative effort, the Permittee shall include in September 15, 2013 online Annual Report documentation, such as a written agreement, letter, or similar document, that confirms the collaboration with other MS4s.

E.5.b. Public Outreach and Education

Compliance Tiers

¹⁰ Does not apply to New Traditional Small MS4 Permittees in unincorporated areas where the local County has a population greater than 5,000.

¹¹ If a Regional Water Board Executive Officer determines a Renewal Traditional Small MS4 Permittee's current implementation of its program BMPs meets the MEP standard and is equally or more effective at reducing pollutant discharges than implementation of the requirements of this Section, the Executive Officer may require continued implementation of the Permittee's current program BMPs and reporting requirements in lieu of implementation of the requirements of this Section.

- a) **New Traditional Small MS4 Permittees** with a population greater than 5,000 shall comply with all requirements of this Section.
- b) **New Traditional Small MS4 Permittees** with a population of 5,000 or less shall comply with the requirements of the Order sections listed in Table 1.¹²
- c) **Renewal Traditional Small MS4 Permittees** shall evaluate their existing program and update the program as necessary to ensure their program meets the minimum standards of this Section.¹³ The Permittee shall implement their updated program to comply with the minimum standards of this Section.
- d) **Non-traditional Small MS4 Permittees** shall comply with the requirements of the Order sections listed in Table 1.
- (i) **Task Description** – By May 15, 2013, the Permittee shall develop and implement a comprehensive storm water public outreach and education program. The public outreach and education program shall be designed to reduce pollutant discharges in storm water runoff and non-storm water discharges to the MS4 through behavior changes in target communities. The Public Outreach and Education Program shall (1) measurably increase the knowledge of targeted communities regarding the municipal storm drain system, impacts of urban runoff and non-storm water discharges on receiving waters, and potential BMP solutions for the target audiences and (2) measurably change the behavior of target audiences, thereby reducing pollutant releases to the MS4 and the environment.
- (ii) **Implementation Level** –The Permittee shall, at a minimum:
- (a) Develop and implement a public education strategy that establishes education tasks based on water quality problems, target audiences, and anticipated task effectiveness. The strategy must include identification of who is responsible for implementing specific tasks, a schedule for task implementation, and a budget for implementing the tasks. The strategy must demonstrate how specific high priority storm water quality issues in the community or local pollutants of concern are addressed. The Permittee shall use Community-Based Social Marketing (CBSM)¹⁴ strategies or equivalent.

¹² Does not apply to New Traditional Small MS4 Permittees in unincorporated areas where the local County has a population greater than 5,000.

¹³ If a Regional Water Board Executive Officer determines a Renewal Traditional Small MS4 Permittee's current implementation of its Public Outreach and Education BMPs meets the MEP standard and is equally or more effective at reducing pollutant discharges than implementation of the requirements of this section, the Executive Officer may require continued implementation of the Permittee's current Public Education and Outreach BMPs and reporting requirements in lieu of implementation of the requirements of this Section.

¹⁴ A variation of social marketing, referred to as Community-Based Social Marketing (CBSM) by Canadian environmental psychologist Doug McKenzie-Mohr.

- (b) Implement surveys at least twice during the five year permit to gauge level of awareness and behavior change in target audiences and effectiveness of education tasks.
- (c) Use of CBSM strategies or equivalent. The Public Education strategy shall at a minimum include the following Permittee actions:
 - (1) Research on barriers to desired behaviors and benefits of desired behaviors (ex. Literature review, observation, focus groups).
 - (2) Elicit commitment to implement desired behavior from target audience.
 - (3) Provide prompts reminding target audience of desired behavior.
 - (4) Use the concept of social norms/modeling of desired behavior.
 - (5) Use education messages that are specific, easy to remember, from a credible source, and appropriate for the target audience.
 - (6) Create incentives for the desired behavior.
 - (7) Remove barriers to the desired behavior.
- (d) Development and conveyance of a specific storm water message that focuses on the following:
 - (1) Local pollutants of concern
 - (2) Target audience
 - (3) Behavior of concern
 - (4) Regional water quality issues
- (e) Development and dissemination of appropriate educational materials in multiple languages when appropriate (e.g. the materials can utilize various media such as printed materials, billboard and mass transit advertisements, signage at select locations, stenciling at storm drain inlets, radio advertisements, television advertisements, and websites);
- (f) Utilization of public input (e.g., the opportunity for public comment, or public meetings) in the development of the program;
- (g) Distribution of the educational materials, using whichever methods and procedures determined appropriate during development of the public education strategy, in such a way that is designed to convey the program's message to 20% of the target audience each year;
- (h) Coordination with outreach programs for the Water Efficient Landscape Ordinance to explain the benefits of storm water-friendly landscaping;
- (i) Technical and financial assistance and implementation guidance related to storm water-friendly landscaping¹⁵;
- (j) Development and conveyance of messages specific to reducing illicit discharges with information about how the public can report incidents to the appropriate authorities;
- (k) Development and conveyance of messages specific to proper application of pesticides, herbicides, and fertilizers;
- (l) Storm water education for school-age children. The Permittee may use California's Education and Environment Initiative Curriculum¹⁶ or equivalent.

¹⁵ For example, Surfrider's Ocean Friendly Garden Program (<http://www.surfrider.org/programs/entry/ocean-friendly-gardens>)

¹⁶ <http://www.californiaeei.org/>

- (m) Reducing discharges from charity car washes, mobile cleaning and pressure washing operations, and landscape irrigation.
- (iii) **Reporting** – By September 15, 2013 online Annual Report and annually thereafter, report on the public education strategy and general program development and progress. By September 15, 2017 online Annual Report, summarize changes in public awareness and behavior resulting from the implementation of the program and any modifications to the public outreach and education program. Report on the public education and CBSM strategies such as pilot programs, survey results, research on barriers to desired behaviors and benefits of desired behaviors, commitments from target audience to implement desired behavior, prompts, implementation of the social norms/modeling, education messages, incentives for desired behaviors, methods for removing barriers to behavior change, development of education materials, methods for educational material distribution, public input, Water Efficient Landscape Ordinance, technical and financial assistance for storm water friendly landscaping, reporting of illicit discharges, proper application of pesticides, herbicides, and fertilizers, elementary school education, reduction of discharges from charity car washes, mobile cleaning and pressure washing operations, and landscape irrigation efforts. Annually report number of trainings, describe the technical and financial program and implementation, and the study and results to date. For each whole five years of the permit life, submit the online Annual Report summarizing the changes in public awareness and behavior.

E.5.c. Industrial/Commercial Outreach and Education Program

Compliance Tiers

- a) **New Traditional Small MS4 Permittees** with a population greater than 5,000 shall comply with all requirements of this Section.
- b) **Renewal Traditional Small MS4 Permittees** shall evaluate their existing program and update the program as necessary to ensure their program meets the minimum standards of this Section.¹⁷ The Permittee shall implement their updated program to comply with the minimum standards of this Section.
- c) **Non-traditional Small MS4 Permittees** shall comply with the requirements of the Order sections listed in Table 1.
- (i) **Task Description** - By May 15, 2013 the Permittee shall develop and implement a comprehensive industrial/commercial outreach and education program. The industrial/commercial outreach and education

¹⁷ If a Regional Water Board Executive Officer determines a Renewal Traditional Small MS4 Permittee's current implementation of its Industrial/Commercial Outreach and Education Program BMPs meets the MEP standard and is equally or more effective at reducing pollutant discharges than implementation of the requirements of this section, the Executive Officer may require continued implementation of the Permittee's current Industrial/Commercial Outreach and Education Program BMPs and reporting requirements in lieu of implementation of the requirements of this Section.

program shall be designed to reduce pollutant discharges in storm water runoff and non-storm water discharges to the MS4 through behavior changes in the industrial/commercial community. The multi-media program shall (1) measurably increase the knowledge of the industrial/commercial community regarding the municipal storm drain system, impacts of industrial/commercial facility runoff and non-storm water discharges on receiving waters, and potential BMP solutions for the industrial/commercial community and (2) measurably change the behavior of the industrial/commercial community, thereby reducing pollutant releases to the MS4 and the environment.

(ii) **Implementation Level** –The program shall include, at a minimum:

- (a) Development of a watershed-based inventory of the high priority industrial and commercial facilities (see Section E.7.b. for criteria) within the Permittee’s jurisdiction and facilities covered under the NPDES General Storm Water Permit for Discharges of Storm Water Associated with Industrial Activity (IGP).
- (b) Development and implementation of an industrial/commercial outreach and education strategy that establishes measurable goals and prioritizes education tasks based on water quality problems, target audiences, and anticipated task effectiveness. The strategy must include identification of who is responsible for implementing specific tasks and attaining measurable goals, a schedule for task implementation, and a budget for implementing the tasks and meeting the measurable goals. The strategy must include measurable goals designed to demonstrate how specific high priority storm water quality issues in the community or local pollutants of concern are addressed.
- (c) Implementation of CBSM to address the Permittee’s highest priority water quality problems. For each high priority water quality problem, implementation of CBSM shall first be conducted on a pilot project level. CBSM techniques found to be effective at the pilot project level shall be implemented jurisdiction-wide by permit year four. Pilot project and jurisdiction level CBSM shall include the following Permittee actions:
 - (1) Research on barriers to desired behaviors and benefits of desired behaviors (ex. Literature review, observation, surveys, and focus groups).
 - (2) Elicit commitment to implement desired behavior from industrial/commercial community.
 - (3) Provide prompts reminding industrial/commercial community of desired behavior.
 - (4) Use the concept of social norms/modeling of desired behavior.
 - (5) Use education messages that are specific, easy to remember, from a credible source, and appropriate for the target audience.
 - (6) Create incentives for the desired behavior.
 - (7) Remove barriers to the desired behavior.
- (d) Identify the frequency at which outreach will be conducted, and mechanisms used for outreach (direct mailings, site visits, trade

association events, and/or inspections). At a minimum, materials shall be distributed to the industrial/commercial facilities at least once during the five-year term of the Order.

- (e) Conduct outreach to industrial/commercial facilities. Develop and distribute outreach materials (in multiple languages when appropriate) for the high priority industrial/commercial facilities. Outreach materials shall educate owners and operators about statute and regulations prohibiting discharge of sediment and other pollutants from their facilities into MS4s, discuss storm water pollution, address the specific activities typically conducted at that facility type, provide guidelines regarding the types of BMPs that may be implemented to prevent and/or mitigate non-storm water discharges at that facility type, and explain penalties for noncompliance.

- (iii) **Reporting** – By September 15, 2013 online Annual Report and annually thereafter, report program progress and mechanisms used for outreach and education. This includes a watershed-based inventory of high priority facilities, outreach strategy and implementation, implementation of CBSM, pilot projects, research on barriers to desired behaviors and benefits of desired behaviors, commitments from target audience to implement desired behavior, prompts, implementation of the social norms/modeling, education messages, incentives for desired behaviors, methods for removing barriers to behavior change, outreach materials, and distribution of outreach materials.

E.5.d. Construction Outreach and Education Program

Compliance Tiers

- a) New Traditional Small MS4 Permittees** with a population greater than 5,000 shall comply with all requirements of this Section.

- b) New Traditional Small MS4 Permittees** with a population of 5,000 or less shall comply with the requirements of the Order sections listed in Table 1.¹⁸

- c) Renewal Traditional Small MS4 Permittees** shall evaluate their existing program and update the program as necessary to ensure their program meets the minimum standards of this Section.¹⁹ The Permittee shall implement their updated program to comply with the minimum standards of this Section.

¹⁸ Does not apply to New Traditional Small MS4 Permittees in unincorporated areas where the local County has a population greater than 5,000.

¹⁹ If a Regional Water Board Executive Officer determines a Renewal Traditional Small MS4 Permittee's current implementation of its Construction Outreach and Education BMPs meets the MEP standard and is equally or more effective at reducing pollutant discharges than implementation of the requirements of this section, the Executive Officer may require continued implementation of the Permittee's current Construction Education and Outreach BMPs and reporting requirements in lieu of implementation of the requirements of this Section.

- d) Non-traditional Small MS4 Permittees** shall comply with the requirements of the Order sections listed in Table 1.
- (i) **Task Description** – By May 15, 2013, the Permittee shall develop and implement, a construction outreach and education program for construction sites smaller than one acre. The construction outreach and education program shall be designed to reduce pollutant discharges in storm water runoff and non-storm water discharges to the MS4 through behavior changes in target communities. The multi-media program shall (1) measurably increase the knowledge of the construction community regarding the municipal storm drain system, impacts of urban runoff and non-storm water discharges on receiving waters, and potential BMP solutions for the target audiences and (2) measurably change the behavior of the construction community, thereby reducing pollutant releases to the MS4 and the environment.
- (ii) **Implementation Level** –The program shall include, at a minimum:
- (a) Development of a watershed-based inventory of the high priority residential and commercial construction sites within the Permittee's jurisdiction.
 - (b) Development and implementation of a construction outreach and education strategy that establishes measurable goals and prioritizes education tasks based on water quality problems, target audiences, and anticipated task effectiveness. The strategy must include identification of who is responsible for implementing specific tasks and attaining measurable goals, a schedule for task implementation, and a budget for implementing the tasks and meeting the measurable goals. The strategy must include measurable goals designed to demonstrate how specific high priority storm water quality issues in the community or local pollutants of concern are addressed. Establish who is responsible for specific tasks and goals and a budget for meeting the tasks and goals.
 - (c) Implementation of CBSM to address the MS4's highest priority water quality problems. For each high priority water quality problem, implementation of CBSM shall first be conducted on a pilot project level. CBSM techniques found to be effective at the pilot project level shall be implemented jurisdiction-wide by permit year four. Pilot project and jurisdiction level CBSM shall include the following Permittee actions:
 - (1) Research on barriers to desired behaviors and benefits of desired behaviors (ex. Literature review, observation, focus groups).
 - (2) Elicit commitment to implement desired behavior from construction community.
 - (3) Provide prompts reminding construction community of desired behavior.
 - (4) Use the concept of social norms/modeling of desired behavior.
 - (5) Use education messages that are specific, easy to remember, from a credible source, and appropriate for the target audience.
 - (6) Create incentives for the desired behavior.
 - (7) Remove barriers to the desired behavior.

- (iii) **Reporting** – By September 15, 2013 online Annual Report and annually thereafter, report program progress and mechanisms used for outreach and education including measurable increases in the knowledge of the construction community and measurable changes in the construction community's behavior. This includes a watershed-based inventory of high priority residential and commercial construction sites, outreach and education strategy and implementation, implementation of CBSM, pilot project, research on barriers to desired behaviors and benefits of desired behaviors, commitments from target audience to implement desired behavior, prompts, implementation of the social norms/modeling, education messages, incentives for desired behaviors, methods for removing barriers to behavior change.

E.6. PUBLIC INVOLVEMENT AND PARTICIPATION PROGRAM

Compliance Tiers

- a) **New Traditional Small MS4 Permittees** with a population greater than 5,000 shall comply with all requirements of this Section.
- b) **New Traditional Small MS4 Permittees** with population of 5,000 or less shall comply with the requirements of the Order sections listed in Table 1.²⁰
- c) **Renewal Traditional Small MS4 Permittees** shall evaluate their existing program and update the program as necessary to ensure their program meets the minimum standards of this Section.²¹ The Permittee shall implement their updated program to comply with the minimum standards of this Section.
- d) **Non-traditional Small MS4 Permittees** shall comply with the requirements of the Order sections listed in Table 1.
 - (i) **Task Description** – By May 15, 2013 the Permittee shall involve the public in the planning and implementation of activities related to the development and implementation of the program. The public participation and involvement program shall encourage volunteerism, public comment and input on policy, and activism in the community.
 - (ii) **Implementation Level** – At a minimum, the Permittee shall:

²⁰ Does not apply to New Traditional Small MS4 Permittees in unincorporated areas where the local County has a population greater than 5,000.

²¹ If a Regional Water Board Executive Officer determines a Renewal Traditional Small MS4 Permittee's current implementation of its Public Involvement and Participation BMPs meets the MEP standard and is equally or more effective at reducing pollutant discharges than implementation of the requirements of this section, the Executive Officer may require continued implementation of the Permittee's current Public Involvement and Participation BMPs and reporting requirements in lieu of implementation of the requirements of this section.

- (a) Develop a public involvement and participation strategy that establishes who is responsible for specific tasks and goals and a budget for meeting the tasks and goals.
 - (b) Establish a citizen advisory group (either a stand-alone group or utilize an existing group or process). The advisory group shall consist of a balanced representation of all affected parties, including residents, business owners, and environmental organizations in the MS4 service area and/or affected watershed. The Permittee shall invite the citizen advisory group to participate in the development and implementation of all parts of the community's storm water program.
 - (c) Create opportunities for citizens to participate in the implementation of BMPs through sponsoring activities (e.g., stream/beach/lake clean-ups, storm drain stenciling, volunteer monitoring, and educational activities).
 - (d) Ensure the public can easily find information about the Permittee's storm water program.
- (iii) **Reporting** – By September 15, 2013 online Annual Report and annually thereafter, describe the public involvement program and summarize the MS4s efforts related to facilitating public involvement, including efforts to engage citizen advisory groups and increase citizen participation.

E.7. ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM

- a) **New Traditional Small MS4 Permittees** with a population greater than 5,000 shall comply with all requirements of this Section.
- b) **New Traditional Small MS4 Permittees** with a population of 5,000 or less shall comply with the requirements of the Order sections listed in Table 1.²²
- c) **Renewal Traditional Small MS4 Permittees** shall evaluate their existing program and update the program as necessary to ensure their program meets the minimum standards of this Section.²³ The Permittee shall implement their updated program to comply with the minimum standards of this Section as follows:
 - By May 15, 2013 comply with Sections E.7.e.
 - By May 15, 2014 comply with Sections E.7.a, b, c, & f.
 - By May 15, 2015 comply with Sections E.7.d.
 - Online Annual Reporting for sections above shall occur on September 15th of the same year.

²² Does not apply to New Traditional Small MS4 Permittees in unincorporated areas where the local County has a population greater than 5,000.

²³ If a Regional Water Board Executive Officer determines a Renewal Traditional Small MS4 Permittee's current implementation of its Illicit Discharge Detection and Elimination BMPs meets the MEP standard and is equally or more effective at reducing pollutant discharges than implementation of the requirements of this Section, the Executive Officer may require continued implementation of the Permittee's current Illicit Discharge Detection and Elimination BMPs and reporting requirements in lieu of implementation of the requirements of this Section.

- d) Non-traditional Small MS4** Permittees shall comply with the requirements of the Order sections listed in Table 1.

The Permittee shall use the Center for Watershed Protection's guide on Illicit Discharge Detection and Elimination (IDDE): A Guidance Manual for Program Development and Technical Assistance or equivalent, to develop and implement an IDDE program to detect, investigate, and eliminate illicit discharges, including illegal dumping, into the its MS4.²⁴

E.7.a. MS4 Mapping

- (i) **Task Description** – By May 15, 2014, the Permittee shall maintain an up-to-date and accurate storm drain system map within a geographic information system (GIS).
- (ii) **Implementation Level** - The storm drain system map shall at a minimum show:
- (a) The location of all MS4 outfalls and drainage areas contributing to those outfalls that are operated by the Permittee.
 - (b) The location (and name, where known to the Permittee) of all water bodies receiving discharges from those outfall pipes. Each mapped outfall shall be located using a geographic position system (GPS) and given an individual alphanumeric identifier, which shall be noted on the map. Photographs must be taken of outfalls to provide baseline information and track operation & maintenance needs over time.
 - (c) Priority areas identified under Section E.7.b
 - (d) Field screening stations identified under Section E.7.c.
 - (e) Location of urbanized area boundaries based on the latest Census data.
- (iii) **Reporting** – By September 15, 2014 online Annual Report, submit map and annually thereafter updated maps if any of the storm drain systems have been modified or added.

E.7.b. Identifying Priority Areas

- (i) **Task Description** – By May 15, 2014, the Permittee shall develop a list of priority areas that are likely to have illicit discharges.
- (ii) **Implementation Level** – The Permittee shall, at a minimum, identify the following as priority areas and 20 percent of the Permittee's urbanized boundary shall be identified as priority.
- (a) Areas with older infrastructure that is more likely to have illicit connections and a history of sewer overflows or cross-connections;

²⁴ The Center for Watershed Protection's guide on Illicit Discharge Detection and Elimination (IDDE): A Guidance Manual for Program Development and Technical Assistance (available as a free download at www.cwp.org)

- (b) Industrial, commercial, or mixed use areas;
- (c) Areas with a history of past illicit discharges;
- (d) Areas with a history of illegal dumping;
- (e) Areas with onsite sewage disposal systems;
- (f) Areas upstream of sensitive water bodies; and
- (g) Areas that drain to outfalls greater than 36 inches that directly discharge to the ocean.

(iii) **Reporting** – By September 15, 2014 online Annual Report, submit basis for selection of each priority area and create a list of all priority areas identified in the system. In subsequent online Annual Reports, update changing priorities.

E.7.c. Field Screening to Detect Illicit Discharges

(i) **Task Description** – By May 15, 2015, the Permittee shall develop and implement a dry weather field screening and analytical monitoring program procedures to detect and eliminate illicit connections and illicit discharges to the MS4. These procedures shall be included as part of the IDDE.

(ii) **Implementation Level** – The program shall consist (1) field observations; (2) field screening monitoring; and (3) analytical monitoring at selected stations. At a minimum the Permittee shall:

(a) Identify stations within each priority area where field screening and analytical monitoring will take place. In addition, if the Permittee is made aware of illicit discharges that occur during the permit term outside of the priority areas, the Permittee shall include field screening stations in those areas. Stations shall be selected according to one of the following methods:

(1) Stations shall be either major outfalls or other outfall points (or any other point of access such as manholes) randomly located throughout the priority area by placing a grid over a drainage system map and identifying those cells of the grid which contain a segment of the storm drain system or major outfall. This random selection shall use the following guidelines and criteria:

(a) A grid system consisting of perpendicular north-south and east-west lines spaced ¼ mile apart shall be overlaid on a map of the storm drain system, creating a series of cells;

(b) All cells that contain a segment of the storm drain system shall be identified and one field screening and analytical monitoring station shall be selected in each cell.

(2) Stations may be selected non-randomly provided adequate coverage of the entire priority area is ensured and that the selection

of stations meets, exceeds, or provides equivalent coverage to the requirements given above.

- (b) Conduct dry weather field screening and analytical monitoring at each station identified above at least once a year.
 - (c) Sample runoff according to appropriate quality assurance/quality control techniques and if flow or ponded runoff is observed at a field screening station and there has been at least seventy-two (72) hours of dry weather. The Permittee shall also record general information such as time since last rain, precipitation depth of last rain, site description (e.g., type of flow (sheet, concentrated, channel), runoff velocity and flow, dominant land uses), and visual observations (e.g., odor, color, clarity, presence of trash and other debris).
 - (d) Conduct a follow-up investigation if the benchmarks associated with the constituents are exceeded.
- (iii) **Reporting** – By September 15, 2015 online Annual Report, submit a report summarizing the field screening and analytical monitoring program procedures, including a summary of the field screening and illicit discharge investigation results. If the Permittee finds that after two subsequent field screening tests have been completed that the field screening station is dry (i.e., no flowing or ponded runoff), select an alternate station for monitoring. In subsequent online Annual Reports, the Permittee shall assess the IDDE program to determine whether updates are needed.

E.7.d. Illicit Discharge Detection and Elimination Source Investigations

- (i) **Task Description** – By May 15, 2016, the Permittee shall develop written procedures for conducting investigations into the source of all illicit discharges, including procedures to eliminate such discharges once the source is located. These procedures shall be included as part of the Illicit Discharge Detection and Elimination program.
- (ii) **Implementation Level** - At a minimum, the Permittee shall conduct investigation(s) to identify and locate the source of any illicit discharge within 48 hours of becoming aware of the suspected illicit discharge. When conducting investigations, the Permittee shall comply with the following:
 - (a) Illicit discharges suspected of being sanitary sewage and/or significantly contaminated shall be investigated within 24 hours.
 - (b) Report immediately the occurrence of any dry weather flows believed to be an immediate threat to human health or the environment to local Health Department.
 - (c) Determine and document through its investigations the source of all illicit discharges. If the source of the discharge is found to be a discharge authorized under a NPDES permit, no further action is required.

- (d) If the observed discharge is intermittent, the Permittee shall document that a minimum of three (3) separate investigations were made to observe the discharge when it was flowing. If these attempts are unsuccessful, the Permittee shall include written documentation in the online Annual Report.
 - (e) Corrective Action to Eliminate Illicit Discharge – Once the source of the illicit discharge has been determined, the Permittee shall immediately notify the responsible party of the problem, and require the responsible party to conduct all necessary corrective actions to eliminate the illicit discharge within 48 hours of notification. Upon being notified that the discharge has been eliminated, the Permittee shall conduct a follow-up investigation and field screening to verify that the discharge has been eliminated. The Permittee shall document follow-up investigation. The Permittee may seek recovery and remediation costs from responsible parties or require compensation for the cost of field screening and investigations. Resulting enforcement actions shall follow the program's Enforcement Response Plan.
- (iii) **Reporting** – Report annually all tracked investigations. At a minimum the report shall include:
- (a) Date(s) the suspected/actual illicit discharge was reported, observed, or detected, including a description of how the MS4 became aware of the illicit discharge;
 - (b) Date the illicit discharge was investigated;
 - (c) Results of the investigation;
 - (d) Any follow-up of the investigation, including enforcement;
 - (e) Date the investigation was closed;
 - (f) A summary of each illicit discharge that was reported, observed, or detected, and its current status.
 - (g) Confirmation that all identified sources of illicit discharges were eliminated.

E.7.e. Spill Response Plan

- (i) **Task Description** – By May 15, 2013, the Permittee shall develop and implement a spill response plan. The plan shall address how to prevent spills of any material other than storm water from discharging into the MS4.
- (ii) **Implementation Level** – At a minimum, the spill response plan will outline how to respond to illicit discharges and spills, including coordination of a qualified spill responder, containment and clean up procedures. In addition, the spill response plan shall outline how to notify other operators within 48 hours of discovery and record the information.

- (iii) **Reporting** – By September 15, 2013 online Annual Report, submit the spill response plan and annually thereafter submit a summary of any spills and spill response activities, including follow-up actions to abate each spill.

E.7.f. Illicit Discharge Education & Training

- (i) **Task Description** - By May 15, 2015, the Permittee shall develop and implement a training program for all Permittee staff who, as part of their normal job responsibilities, may be notified of, come into contact with, or otherwise observe an illicit discharge or illicit connection to the storm drain system.
- (ii) **Implementation Level** – The training program shall include at a minimum:
- (a) Identification of an illicit discharge or connection.
 - (b) Proper procedures for reporting and responding to the illicit discharge or connection.
 - (c) Follow-up training shall be provided as needed to address changes in procedures, techniques, or staffing.
 - (d) The Permittee shall annually perform an assessment of their trained staff's knowledge of illicit discharge response and shall provide refresher training as needed.
 - (e) New staff who, as part of their normal job responsibilities may be notified of, come into contact with, or otherwise observe and illicit discharge or illicit connection shall be trained no later than six months after the start of employment.
 - (f) Contact information, including the procedure for reporting an illicit discharge, shall be included in each of the Permittee's fleet vehicles that are used by field staff.
- (iii) **Reporting** - The Permittee shall document and maintain records of the training provided and the staff trained annually in the online Annual Report.

E.8. CONSTRUCTION SITE STORM WATER RUNOFF CONTROL PROGRAM

Compliance Tiers

- a) **New Traditional Small MS4 Permittees** with a population greater than 5,000 shall comply with the following:
- By May 15, 2013 comply with Sections E.8. a, d, and e.
 - By May 15, 2014, comply with Sections E.8. b and c.
 - Online Annual Reporting for the sections above shall occur on September 15th of the same year.

- b) **New Traditional Small MS4 Permittees** with a population of 5,000 or less shall comply with the requirements of the Order sections listed in Table 1.²⁵
- c) **Renewal Traditional Small MS4 Permittees** shall evaluate their existing program and update the program as necessary to ensure their program meets the minimum standards of this Section.²⁶ The Permittee shall implement their updated program to comply with the minimum standards of this Section.
- d) **Non-traditional Small Permittees** shall comply with the requirements of the Order sections listed in Table 1.

The Permittee shall develop, implement, and enforce a program to prevent construction site discharges of pollutants and impacts on beneficial uses of receiving waters to MEP. The program shall include the development of an enforceable erosion and sediment control ordinance for all projects that disturb soil.

The Permittee shall require operators of public and private construction activity within its jurisdiction to select, install, implement, and maintain BMPs that comply with the State Water Board's current CGP.

E.8.a. Construction Site Inventory

- (i) **Task Description** - Each Permittee shall maintain an inventory of all grading and construction activity within its jurisdiction. At a minimum, this inventory shall include all public and private construction sites that result in a total land disturbance of either one acre or more or that result in a total land disturbance of less than one acre if part of a larger common plan or development or sale.
- (ii) **Implementation Level** – By August 15, 2012, complete an inventory and continuously update as new projects are permitted and projects are completed.

The inventory shall contain:

- (a) Relevant contact information for each project (e.g., name, address, phone, email, etc. for the owner and contractor),
- (b) The basic site information including location, status, size of the project and area of disturbance,
- (c) The proximity all water bodies, water bodies listed as impaired by sediment-related pollutants, and water bodies for which a sediment-related TMDL has been adopted and approved by USEPA.

²⁵ Does not apply to New Traditional Small MS4 Permittees in unincorporated areas where the local County has a population greater than 5,000.

²⁶ If a Regional Water Board Executive Officer determines a Renewal Traditional Small MS4 Permittee's current implementation of its Construction Site Storm Water Runoff Control BMPs meets the MEP standard and is equally or more effective at reducing pollutant discharges than implementation of the requirements of this section, the Executive Officer may require continued implementation of the Permittee's current Construction Site Storm Water Runoff Control BMPs and reporting requirements in lieu of implementation of the requirements of this section.

- (d) Significant threat to water quality status, based on consideration of factors listed in Table 2.
 - (e) Current construction phase, as described in Section E.8.c.ii.b.
 - (f) The required inspection frequency,
 - (g) The project start and anticipated completion dates,
 - (h) Whether the project has coverage under the State Water Board's CGP,
 - (i) The date the Permittee approved the erosion and sediment control plan in accordance with Section E.8.b.
- (iii) **Reporting** – The Permittee shall submit an up to date construction site inventory enumerating items listed in Sections E.8.a (ii) a through i with each online Annual Report.

E.8.b. Construction Plan Review and Approval Procedures

- (i) **Task Description** – By May 15, 2013 the Permittee shall develop procedures to review and approve relevant construction plan documents.
- (ii) **Implementation Level** – The review procedures shall meet the following minimum requirements:
 - (a) Prior to issuing a grading or building permit, the Permittee shall require each operator of a construction activity within its jurisdiction to prepare and submit an erosion and sediment control plan. The Permittee shall not approve any erosion and sediment control plan unless it contains appropriate site-specific construction site BMPs that meet the minimum requirements of the erosion and sediment control ordinance. If the erosion and sediment control plan is revised, the Permittee shall review and approve those revisions.
 - (b) Require that the erosion and sediment control plan include the rationale used for selecting or rejecting BMPs, including quantifying the expected soil loss from different BMPs.
 - (c) Prior to issuing a grading or building permit, verify that the construction site operators have existing coverage under applicable permits, including, but not limited to the State Water Board's CGP, State Water Board 401 Water Quality Certification, U.S. Army Corp 404 permit, and California Department of Fish and Game 1600 Agreement.
 - (d) Prior to issuance of a grading or building permit, the operator shall submit the erosion and sediment control plan prior to the disturbance of land for the Permittee's review and written approval. The construction site operator shall be prohibited from commencing construction activity prior to receipt of written approval.
 - (e) Conduct and document review of each erosion and sediment control plan using a checklist or similar process.
- (iii) **Reporting** – By September 15, 2013 online Annual Report, submit summary of review procedures.

E.8.c. Construction Site Inspection and Enforcement

- (i) **Task Description** – By May 15, 2014, the Permittee shall use legal authority to implement procedures for inspecting public and private construction projects and conducting enforcement if necessary.

- (ii) **Implementation Level** – The inspection procedures shall be implemented as follows:
 - (a) Inspect the public and private construction projects as specified in Table A below:

Table A: Inspection Frequencies

Site	Inspection Frequency Shall Occur
a. All sites one (1) acre or larger that discharge to a tributary listed by the state as an impaired water for sediment or turbidity under the CWA § 303(d)	1) when two or more consecutive days with greater than 50% chance of rainfall are predicted by NOAA ²⁷ and 2) within 48 hours of a ½-inch rain event and at least once every two weeks
b. Other sites one (1) acre or more determined to be a significant threat to water quality*	
c. All other construction sites with one (1) acre or more of soil disturbance not meeting the criteria above	At least monthly
d. Construction sites less than one (1) acre in size	As needed based on the evaluation of the factors that are a threat to water quality*
*In evaluating the threat to water quality, the following factors shall be considered: soil erosion potential; site slope; project size and type; sensitivity of receiving water bodies; proximity to receiving water bodies; non-storm water discharges; past record of non-compliance by the operators of the construction site; and any water quality issues relevant to the particular MS4.	

- (b) The Permittee shall inspect all phases of construction as follows:
- (1) Prior to Land Disturbance: Prior to allowing an operator to commence land disturbance, the Permittee shall perform an inspection to ensure all necessary erosion and sediment structural and non-structural BMP materials and procedures are available per the erosion and sediment control plan.
 - (2) Grading and Land Development:²⁸ During grading and land development activities, conduct inspections in accordance with the frequencies specified in Section E.8.c Table A of this Order.
 - (3) Streets and Utilities:²⁹ During street and utilities activities, conduct inspections in accordance with the frequencies specified in Table A of this Order.
 - (4) Vertical Construction:³⁰ During vertical construction activities, conduct inspections in accordance with the frequencies specified in Table A of this Order.
 - (5) Final Landscaping and Site Stabilization:³¹ At the conclusion of the project, the Permittee shall inspect 10% of all projects to ensure that all graded areas have reached final stabilization and that all trash, debris, and construction materials, and temporary erosion and sediment BMPs are removed.

²⁷ www.srh.noaa.gov/forecast

²⁸ Activities include cuts and fills, rough and finished grading; alluvium removals; canyon cleanouts; rock undercuts; keyway excavations; and stockpiling of select material for capping operations.

²⁹ Activities include excavation and street paving, lot grading, curbs, gutters and sidewalks, public utilities, public water facilities including fire hydrants, public sanitary sewer systems, storm sewer system and/or other drainage improvement.

³⁰ The build out of structures from foundations to roofing, including rough landscaping.

³¹ All soil disturbing activities at each individual parcel within the site have been completed.

- (c) The Permittee shall develop, implement, and revise as necessary, standard operating procedures that identify the inspection and enforcement procedures the Permittee will follow. Inspections of construction sites, and the standard operating procedures, shall include, but are not limited to:
- (1) Verification of active coverage under the State Water Board's CGP.
 - (2) Review of the applicable erosion and sediment control plan and inspection of the construction site to determine whether all BMPs have been selected, installed, implemented, and maintained according to the plan and current construction activity and schedule.
 - (3) Assessment of compliance with the Permittee's legal authority related to storm water runoff, including the implementation and maintenance of minimum BMPs designated in the Permittee's legal authority.
 - (4) Assessment of the appropriateness of the planned BMPs and their effectiveness.
 - (5) Visual observation and record keeping of non-storm water discharges, potential illicit connections, and potential discharge of pollutants in storm water runoff.
 - (6) Development of a written or electronic inspection report generated from an inspection checklist used in the field
 - (7) Tracking of the number of inspections for the inventoried construction sites throughout the reporting period to verify that the sites are inspected at the minimum frequencies required in Table A of this Order.
 - (8) Take all necessary follow-up actions (e.g., re-inspection, enforcement) to ensure compliance in accordance with the Permittee's Legal Authority and Enforcement Response Plan. The Permittee shall track and report these follow-up and enforcement actions.
- (iii) **Reporting** – By September 14, 2014 online Annual Report and annually thereafter, summarize the following information:
- (a) Total number of active sites disturbing less than one acre of soil requiring inspection;
 - (b) Total number of active sites disturbing one acre or more of soil;
 - (c) Total number of inspections conducted based upon the frequency Table A above;
 - (d) Number and percentage of violations;
 - (e) Number and percentage of each type of enforcement action taken as listed in each Permittee's Enforcement Response Plan;
 - (f) Number of sites with discharges, actual and those inferred through evidence, of sediment or other construction related materials;
 - (g) Number and percentage of violations fully corrected prior to the next rain event but no longer than 10 business days after the violations are discovered or otherwise considered corrected in a timely, though longer period.
 - (h) Number and percentage of violations not fully corrected 30 days after the violations are discovered.

- (i) Number of follow-up inspections that demonstrated the operator continued to implement BMPs according to plan and the number of follow-up inspections that required further enforcement.
- (j) In each online Annual Report, submit the databases or tabular summaries produced in Section E.8.c (ii).

E.8.d. Permittee Staff Training

- (i) **Task Description** – The Permittee shall ensure that all staff whose primary job duties are related to implementing the construction storm water program are adequately trained.
- (ii) **Implementation Level** – The Permittee may conduct in-house training or contract with consultants. Training shall be provided to the following staff positions of the MS4:
 - (a) Plan Reviewers and Permitting Staff - Ensure staff and consultants are qualified individuals, knowledgeable in the technical review of local erosion and sediment control plans, and are certified pursuant to a State Water Board sponsored program as a Qualified SWPPP Developer (QSD).
 - (b) Erosion Sediment Control/Storm Water Inspectors - The Permittee shall ensure inspectors are qualified individuals, knowledgeable in inspection procedures, and are certified pursuant to a State Water Board sponsored program as either a *Qualified SWPPP Developer (QSD)* or a Qualified SWPPP Practitioner (QSP) or designated person on staff with each credential (QSD to supervise plan review, QSP to supervise inspection operations).
 - (c) Third-Party Plan Reviewers, Permitting Staff, and Inspectors - If the Permittee utilizes outside parties to conduct inspections and/or review plans, the Permittee shall ensure these staff are trained per the requirements listed in Section E.8.d.
- (iii) **Reporting** – By September 15, 2014 and annually thereafter, submit the following information:
 - (a) Training topics covered.
 - (b) Dates of training.
 - (c) Number and percentage of Permittees' staff, as identified in Sections a-c above, attending each training.
 - (d) Results of any surveys conducted to demonstrate the awareness and potential behavioral changes in the attendees.

E.8.e. Construction Site Operator Education

- (i) **Task Description** – The Permittee shall develop and distribute educational materials to construction site operators.
- (ii) **Implementation Level** – The Permittee shall do the following:
 - (a) Each year, provide information on training opportunities for construction operators on BMP selection, installation, implementation, and maintenance as well as overall program compliance.

- (b) Develop or utilize existing outreach tools (i.e. brochures, posters, etc.) aimed at educating construction operators on appropriate selection, installation, implementation, and maintenance of storm water BMPs, as well as overall program compliance.
- (c) Distribute appropriate outreach materials to all construction operators who will be disturbing land within the MS4 boundary. The Permittee's contact information and website shall be included in these materials.
- (d) Update the existing website to include information on appropriate selection, installation, implementation, and maintenance of BMPs, as well as overall program compliance.

(iii) **Reporting** – By September 15, 2015 online Annual Report and annually thereafter, include the following information:

- (a) Training topics covered;
- (b) Dates of training;
- (c) Number and percentage of Permittee's operators, inspectors, and number of Contractors attending each training;
- (d) Results of any surveys conducted to demonstrate the awareness and potential behavioral changes in the attendees.

E.9. POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR PERMITTEE OPERATIONS PROGRAM

Compliance Tiers

a) New Traditional Small MS4 Permittees with a population greater than 5,000 shall comply with all requirements of this Section.

b) New Traditional Small MS4 Permittees with a population of 5,000 or less shall comply with the requirements of the Order sections listed in Table 1.³²

c) Renewal Traditional Small MS4 Permittees shall evaluate their existing program and update the program as necessary to ensure their program meets the minimum standards of this Section.³³ The Permittee shall implement their updated program to comply with the following:

- By May 15, 2013 comply with Sections E. 9 a, b, h and k.
- By May 15, 2014 comply with Sections E.9.c, d, and f.
- By May 15, 2015 comply with Sections E.9.e and g.
- Online Annual Reporting for the above sections shall occur on September 15th of the same year.

d) Non-traditional Small MS4 Permittees shall comply with the requirements of the Order sections listed in Table 1.

³² Does not apply to New Traditional Small MS4 Permittees in unincorporated areas where the local County has a population greater than 5,000.

³³ If a Regional Water Board Executive Officer determines a Renewal Traditional Small MS4 Permittee's current implementation of its Pollution Prevention/Good Housekeeping for Permittee Operations BMPs meets the MEP standard and is equally or more effective at reducing pollutant discharges than implementation of the requirements of this section, the Executive Officer may require continued implementation of the Permittee's Pollution Prevention/Good Housekeeping for Permittee Operations BMPs and reporting requirements in lieu of implementation of the requirements of this section.

The Permittee shall develop and implement a program to prevent or reduce the amount of pollutant runoff from Permittee operations. The Permittee shall train employees on how to incorporate pollution prevention/good housekeeping techniques into Permittee operations. Permittee shall implement appropriate BMPs for preventing or reducing the amount of storm water pollution generated by Permittee operations.

E.9.a. Inventory of Permittee-Owned and Operated Facilities

(i) **Task Description** - By May 15, 2013, the Permittee shall develop and maintain an inventory of Permittee-owned or operated facilities within their jurisdiction that are a threat to water quality.

(ii) **Implementation Level** - At a minimum, the inventory shall include the following facilities:

- Animal control facilities
- Chemical storage facilities
- Composting facilities
- Equipment storage and maintenance facilities (including landscape-related operations)
- Fuel farms
- Hazardous waste disposal facilities
- Hazardous waste handling and transfer facilities
- Incinerators
- Landfills
- Materials storage yards
- Pesticide storage facilities
- Public buildings, including schools, libraries, police stations, fire stations, Permittee (municipal) buildings, restrooms, and similar buildings
- Public parking lots
- Public golf courses
- Public swimming pools
- Public parks
- Public works yards
- Public marinas
- Recycling facilities
- Salt or de-icing storage facilities
- Solid waste handling and transfer facilities
- Vehicle storage and maintenance yards
- Other (as directed by appropriate Regional Water Board)

(iii) **Reporting** – By September 15, 2014 online Annual Report submit inventory. Submit an updated inventory in Annual Reports annually thereafter.

E.9.b. Map of Permittee-owned or operated facilities

- (i) **Task Description** – By May 15, 2013, submit map of the area covered by the MS4 permit and identify where the Permittee-owned or operated facilities and storm water BMPs are located.

- (ii) **Implementation Level** - The map shall identify the storm water drainage system corresponding to each of the facilities as well as the receiving waters to which these facilities discharge. The map shall also show the facility and the manager of each facility, including contact information.

- (iii) **Reporting** – By September 15, 2013 online Annual Report, submit the completed map and annually thereafter if any of the provided information has changed.

E.9.c. Facility Assessment

- (i) **Task Description** – By May 15, 2014, the Permittee shall conduct a comprehensive inspection and assessment of pollutant discharge potential and pollutant “hotspots”.³⁴

- (ii) **Implementation Levels** - Conduct an annual review and assessment of all municipally owned or operated facilities to determine their potential to impact surface waters. The assessment shall include the following:
 - (a) Identification of pollutant hotspots

Based on the comprehensive assessment, the Permittee shall identify as pollutant “hotspots” those facilities that have a high potential to generate storm water and non-storm water pollutants. Among the factors to be considered are the type and volume of pollutants stored at the site, the presence of improperly stored materials, activities that should not be performed outside (e.g., changing automotive fluids, vehicle washing), proximity to water bodies, poor housekeeping practices, and the discharge of pollutant(s) of concern to receiving water(s). Pollutant “hotspots” shall include, at a minimum, the Permittee’s maintenance yards, hazardous waste facilities, fuel storage locations, and any other facilities at which chemicals or other materials have a high potential to be discharged in storm water.

- (b) Documentation of the comprehensive assessment procedures and results.

The Permittee shall document the procedures it uses for conducting the comprehensive assessment along with a copy of any site evaluation checklists used to conduct the comprehensive assessment.

³⁴ The Permittee shall use the Center for Watershed Protection’s guide on Urban Subwatershed and Site Reconnaissance: a User’s Manual (available as a free download at www.cwp.org) or equivalent when identifying priority areas. Hotspots are specific operations in a subwatershed that may generate high storm water pollution.

- (iii) **Reporting** – By September 15, 2014 online Annual Report, include the results of the Permittee’s annual assessment, any identified deficiencies and corrective actions taken, list of the pollutant “hotspots”.

E.9.d. Storm Water Pollution Prevention Plans

- (i) **Task Description** – By May 15, 2015, the Permittee shall develop and implement SWPPPs for pollutant “hotspots.”
- (ii) **Implementation Level** – The Permittee shall implement the following:
 - (a) For each pollutant “hotspot”, the Permittee shall develop and implement a site-specific SWPPP that identifies a set of storm water BMPs (i.e., structural and non-structural BMPs, and operational improvements) to be installed, implemented, and maintained to minimize the discharge of pollutants in storm water.
 - (b) The SWPPP(s) shall be kept on-site at each of the Permittee-owned or operated facilities’ offices for which it was completed. The SWPPP shall be updated as necessary.
- (iii) **Reporting** – By September 15, 2015 online Annual Report, submit a summary of SWPPPs developed for pollutant “hot spots.” In subsequent online Annual Report, submit s summary of SWPPPs updated.

E.9.e. Inspections, Visual Monitoring and Remedial Action

- (i) **Task Description** – By May 15, 2016, the Permittee shall conduct regular inspections of Permittee-owned and operated facilities.
- (ii) **Implementation Level** – Inspections shall be conducted as follows:
 - a) Weekly Hotspot visual inspections – Perform weekly visual inspections in accordance with the developed standing operating procedures of all hotspot Permittee-owned or operated facilities to ensure materials and equipment are clean and orderly, to minimize the potential for pollutant discharge, and to ensure implementation of BMPs. The Permittee shall look for evidence of spills and immediately clean them up to prevent contact with precipitation or runoff. The weekly inspections shall be tracked in a log for every facility, and records kept with the SWPPP. The inspection report shall also include any identified deficiencies and the corrective actions taken to correct the deficiencies.
 - b) Quarterly Hotspot comprehensive inspections – At least once per quarter, a comprehensive inspection of hotspot facilities, including all storm water BMPs, shall be performed, with specific attention paid to

the following, but not limited to waste storage areas, dumpsters, vehicle and equipment maintenance/fueling areas, material handling areas, and similar potential pollutant-generating areas. The quarterly inspection results shall be documented and records kept with the SWPPP. This inspection shall be performed in accordance with the developed standard operating procedures. The inspection report shall also include any identified deficiencies and the corrective actions taken to correct deficiencies.

- c) Quarterly Hotspot visual observation of storm water and non-storm water discharges – At least once per quarter, visually observe discharge location from “hot spot” facilities. Where discharges are observed identify any observed problems (e.g., color, foam, sheen, turbidity) associated with pollutant sources or BMPs shall be remedied within three days or before the next storm event, whichever is sooner. Visual observations shall be documented, and records kept with the SWPPP. This inspection shall be done in accordance with the developed standard operating procedures. The inspection report shall also include any identified deficiencies and the corrective actions taken to correct the deficiencies.
 - d) Annual Non-Hotspot Inspections – Annually inspect each inventoried municipal facility that is not a hotspot. The inspection shall investigate and assess each of the items identified in Section E.9.e.ii.a-c.
- (iii) **Reporting** – By September 15, 2016 online Annual Report and annually thereafter, the following information shall be summarized:
- (a) Total number of facilities required to be inspected.
 - (b) Total number of facilities inspected (visual and comprehensive inspections) and frequency of inspections
 - (c) Summary of spills and corrective actions
 - (d) Results of the quarterly visual observations of storm water discharges

E.9.f. Storm Drain System Assessment and Prioritization

- (i) **Task Description** – By May 15, 2015, the Permittee shall develop and implement procedures to assess and prioritize the MS4 storm drain system, including but not limited to catch basins, pipe and pump infrastructure, above-ground conveyances, including receiving water bodies within the Permittee's MS4 jurisdiction, and detention basins.

If flood conveyance management is undertaken by another entity, the Permittee shall coordinate with the flood conveyance management entity by May 15, 2015 assess and prioritize the MS4 storm drain system.

- (ii) **Implementation Level** – The Permittee shall implement the following:
 - (a) Assessment/prioritization of catch basins– Assign a priority to all catch basins within the Permittee's jurisdiction as consistently generating

high, medium, and low volumes of trash and/or debris. At a minimum, 20 percent of catch basins shall be prioritized as high priority.

(b) Assign a high priority to catch basins that receive citizen complaints/reports.

(iii) **Reporting** – By September 15, 2015 online Annual Report, submit procedures and prioritization list. If flood conveyance management is undertaken by another entity, submit a summary report of coordination by September 15, 2015 online Annual Report.

E.9.g. Maintenance of Storm Drain System

(i) **Task Description** – By May 15, 2016, the Permittee shall begin maintenance of all high priority storm drain systems. Maintenance shall be completed by the end of the permit term.

(ii) **Implementation Level** – Based on Section E.9.f. the Permittee shall begin maintenance of storm drain systems. Storm drain systems that receive citizen complaints/reports shall be assigned a high priority level.

(a) Storm drain systems inspection – Based on the priorities assigned above, develop a strategy to inspect storm drain systems within the Permittee's jurisdiction. At a minimum, inspect all catch basins of high priority systems annually.

(b) Storm drain cleaning - Clean all catch basins and other systems within one week of inspection that are found to be one-third full.

(c) Catch basin labeling – Ensure that each catch basin in high foot traffic areas includes a legible storm water awareness message (e.g., a label, stencil, marker, or pre-cast message such as “drains to the creek” or “only rain in the drain”). Catch basins with illegible or missing labels shall be recorded and re-labeled within one month of inspection.

(d) Maintenance of surface drainage structures –Visually monitor all Permittee-owned open channels, detention basins, and other drainage structures for debris at least once per year and identify and prioritize problem areas, such as those with recurrent illegal dumping, for inspection at least three times per year. At a minimum, removal of trash and debris from open channels and other drainage structures shall occur annually. Removal of trash and debris from high priority areas shall occur at least three times per year.

(e) Disposal of waste materials - Develop a procedure to dewater and dispose of materials extracted from catch basins. This procedure shall ensure that water removed during the catch basin cleaning process and waste material will not reenter the MS4.

(iii) **Reporting** – By September 15, 2016 online Annual Report, summarize the following information:

(a) Storm sewer maintenance schedule

- (b) List of storm sewer systems and the priority assigned
- (c) Documentation of all required storm sewer systems maintenance logs
- (d) Documentation of waste material disposal procedure

E.9.h. Permittee Operations and Maintenance Activities (O&M)

- (i) **Task Description** – By May 15, 2014, the Permittee shall assess their O&M activities for potential to discharge pollutants in storm water and inspect all BMPs on a quarterly basis.

- (ii) **Implementation Level** - The Permittee shall implement the following:
 - (a) Develop and implement O&M activity assessment. The following Permittee O&M activities shall be included in the assessment for their potential to discharge pollutants in storm water:
 - (1) Road and parking lot maintenance, including sidewalk repair, curb and gutter repair, pothole repair, pavement marking, sealing, and re-paving
 - (2) Bridge maintenance, including re-chipping, grinding, and saw cutting
 - (3) Cold weather operations, including plowing, sanding, and application of deicing compounds and maintenance of snow disposal areas
 - (4) Right-of-way maintenance, including mowing, herbicide and pesticide application, and planting vegetation
 - (5) Permittee-sponsored or sanctioned events such as large outdoor festivals, parades, or street fairs
 - (6) Green waste deposited in the street
 - (7) Graffiti removal

 - (b) Identify all materials that could be discharged from each of these O&M activities. Typical pollutants associated with these activities include metals, chlorides, hydrocarbons (e.g. benzene, toluene, ethylbenzene, and xylene), sediment, and trash.

 - (c) Develop and implement a set of BMPs that, when applied during Permittee O&M activities, will reduce the discharge of pollutants in storm water. The Permittee shall use the CASQA Municipal Handbook or equivalent.

 - (d) Inspection of BMPs – All BMPs implemented during O&M activities shall be visually inspected quarterly.

- (iii) **Reporting** – By September 15, 2014, online Annual Report, submit the following:
 - (a) List of BMPs and associated pollutants with each O&M activity

- (b) BMPs applied during Permittee O&M activities
- (c) Log of inspections

E.9.i. Incorporation of Water Quality and Habitat Enhancement Features in Flood Management Facilities

The Permittee shall identify opportunities for incorporating water quality and habitat enhancement features into new and existing flood management facilities. Flood management facilities are generally designed to handle a significant amount of storm water and can, in many cases, be modified and enhanced to include water quality and habitat enhancement features for less than the cost of building new BMPs.

- (i) **Task Description** – The Permittee shall develop and implement a process for incorporating water quality and habitat enhancement features into new and existing flood management facilities.
- (ii) **Implementation Level** - By May 15, 2014, the Permittee shall develop and implement a process to incorporate water quality and habitat enhancement features in the design of all new and retrofitted flood management projects that are associated with the MS4 or that discharge to the MS4. By May 15, 2015, the Permittee shall assess at least two existing flood management projects per year to determine whether changes or additions can be made to enhance water quality and habitat functions. The Permittee shall implement changes or additions to two flood management projects per year to enhance water quality and habitat functions, unless a feasibility analysis demonstrates the infeasibility of such changes or additions.
- (iii) **Reporting** – By September 15, 2014 online Annual Report, submit a summary of the development and implementation process to incorporate water quality and habitat enhancement design into new and retrofitted flood management projects. By September 15, 2015 online Annual Report and annually thereafter, submit a list of new and existing flood management projects and consideration of BMPs.

E.9.j. Pesticide, Herbicide, and Fertilizer Application and Management

- (i) **Task Description** – By May 15, 2013, the Permittee shall implement a program which focuses on pollution prevention and source control BMPs to reduce the amount of pesticides, herbicides and fertilizers used during their Permittee operations and activities.
- (ii) **Implementation Tasks** – The Permittee shall implement the following:
 - (a) Evaluation of pesticides, herbicides and fertilizers used and application activities performed to identify pollution prevention and source control opportunities.

- (b) Based on the above evaluation, the Permittee shall implement practices that reduce the discharge of pesticides, herbicides and fertilizers. At a minimum the Permittee shall do the following, but not limited to:
- (1) Implement educational activities and require permits, certifications, and other measures for municipal applicators and distributors.
 - (2) Implement integrated pest management measures that rely on non-chemical solutions, including:
 - Use of native and climate appropriate plants (reduces water usage and fertilization)
 - Keeping clippings and leaves away from waterways and out of the street using mulching, composting, or landfilling
 - Preventing application of pesticides and fertilizers when two or more consecutive days with greater than 50% chance of rainfall are predicted by NOAA³⁵
 - Limiting or replacing herbicide and pesticide use (e.g., manual weed and insect removal)
 - Limiting or eliminating the use of fertilizers, including prohibiting application within five feet of pavement, 25 feet of a storm drain inlet, or 50 feet of a water body
 - Reducing mowing of grass to allow for greater pollutant removal, but not jeopardizing public safety
 - (3) Implement schedules for chemical application that minimize the discharge of such constituents due to irrigation and expected precipitation.
 - (4) Collect and properly dispose of unused pesticides, herbicides, and fertilizers.
 - (5) Minimize irrigation run-off
- (c) Record the types and amounts of pesticides, herbicides and fertilizers used in the permit area.
- (iii) **Reporting** - By September 15, 2013 online Annual Report, provide an evaluation of materials used and activities performed for pollution prevention and source control opportunities and a list of practices implemented to minimize the use of herbicide, pesticide, and fertilizers. By September 15, 2013 online Annual Report, identify the measure that the Permittee will use to demonstrate reductions in the application of pesticides, herbicides, and fertilizers. In subsequent annual reports, use this measure to demonstrate reductions in pesticide, herbicide, and fertilizer application.

E.9.k. Training and Education

- (i) **Task Description** – The Permittee shall develop an annual employee training program for appropriate employees involved in implementing pollution prevention and good housekeeping practices in the Pollution

³⁵ www.srh.noaa.gov/forecast

Prevention/Good Housekeeping for Permittee Operations sections of this General Permit.

(ii) **Implementation Level** – The training program shall include the following:

- (a) Annual training for all employees implementing this program element. This annual training shall include a general storm water education component, any new technologies, operations, or responsibilities that arise during the year, and the permit requirements that apply to the staff being trained. Employees shall receive clear guidance on appropriate storm water BMPs to use at municipal facilities and during typical O&M activities.
- (b) An annual assessment of trained staff's knowledge of pollution prevention and good housekeeping and shall revise the training as needed.
- (c) A requirement that any contractors hired by the Permittee to perform O&M activities shall be contractually required to comply with all of the storm water BMPs, good housekeeping practices, and standard operating procedures described above.

The Permittee shall provide oversight of contractor activities to ensure that contractors are using appropriate BMPs, good housekeeping practices and following standard operating procedures.

(iii) **Reporting** – By September 15, 2013 online Annual Report and annually thereafter, summarize oversight procedures and identify and track all personnel requiring training and assessment and records.

E.10. TRASH REDUCTION PROGRAM

Compliance Tiers

All Traditional Small MS4 Permittees with a population greater than 25,000 shall require at least 20 percent of the Permittee's jurisdiction zoned, commercial retail/wholesale, comply with a Trash Abatement Plan as required in this Section.

(i) **Task Description** – By May 15, 2016, the Permittee shall develop, implement and enforce a Trash Abatement Plan.

(ii) **Implementation Level** – The Trash Abatement Plan shall at a minimum include the following:

- (a) Adopt a trash reduction ordinance to prevent or remove trash loads from the Permittee's MS4.
- (b) By May 15, 2016, require installation of trash capture structural controls and enhanced maintenance measures to significantly reduce trash discharged from at least 20 percent of the Permittee's jurisdiction zoned as commercial/retail/wholesale.

- (iii) **Reporting** – By September 15, 2016 online Annual Report, submit Trash Abatement Plan that includes ordinance and summary of commercial/retail/wholesale facilities with trash capture structural controls.

E.11. INDUSTRIAL/COMMERCIAL FACILITY RUNOFF CONTROL PROGRAM

Compliance Tiers

- a) New Traditional Small MS4 Permittees** with a population greater than 5,000 shall comply with all requirements in this Section.
- b) New Traditional Small MS4 Permittees** with a population of 5,000 or less shall comply with the requirements of the Order sections listed in Table 1.³⁶
- c) Renewal Traditional Small MS4 Permittees** shall evaluate their existing program and update the program as necessary to ensure their program meets the minimum standards of this Section.³⁷ The Permittee shall implement their updated program to comply with all requirements in this Section.
- d) Non-traditional MS4 Permittees shall** comply with the requirements of the Order sections listed in Table 1.

Develop, implement, and enforce an effective inspection and oversight program to ensure that pollutant discharges from industrial/commercial facilities in the Permittee's jurisdiction are reduced to the MEP and do not cause or contribute to violations of water quality standards.

E.11.a. Industrial/Commercial Inventory

- (i) **Task Description** – By May 15, 2013, the Permittee shall maintain an inventory of all industrial/commercial facilities/sources within the Permittee's jurisdiction (regardless of ownership) that could discharge pollutants in storm water to the MS4.
- (ii) **Implementation Level** - The inventory shall include the following:
- (a) Minimum information for each industrial facility/source:
- Facility name;
 - Address;
 - Nature of business or activity;

³⁶ Does not apply to New Traditional MS4 Small Permittees in unincorporated areas where the local County has a population greater than 5,000.

³⁷ If a Regional Water Board Executive Officer determines a Renewal Traditional Small MS4 Permittee's current implementation of its Industrial/Commercial Facility Runoff BMPs meets the MEP standard and is equally or more effective at reducing pollutant discharges than implementation of the requirements of this section, the Executive Officer may require continued implementation of the Permittee's current Industrial/Commercial Facility Runoff BMPs and reporting requirements in lieu of implementation of the requirements of this section.

- Physical location (decimal latitude-longitude) of storm drain receiving discharge;
 - Name of receiving water and if the facility/source is tributary to a CWA Section 303(d) listed water body segment or water body segment subject to a TMDL;
 - Pollutants potentially generated by the facility/source;
 - Identification of whether the facility/source is a tributary to an impaired water body segment, where the facility/source generates pollutants for which the water body segment is impaired;
 - A narrative description including SIC codes, which best reflects the principal products or services provided by each facility;
 - Incorporation of facility information into GIS is required.
- (b) At a minimum, the following facilities/sources shall be included in the inventory.

(1) Commercial Facilities/Sources:

- Agricultural chemical dealers, fertilizer/pesticide mixing facilities and green waste/compost facilities;
- Compost facilities
- Airplane repair, maintenance, fueling, or cleaning;
- Animal facilities/pet washing and veterinary facilities
- Automobile and other vehicle body repair or painting;
- Automobile (or other vehicle) parking lots and storage facilities;
- Automobile mechanical repair, maintenance, fueling, or cleaning;
- Boat repair, maintenance, fueling, or cleaning;
- Botanical or zoological gardens and exhibits;
- Building material retailers and storage;
- Cement mixing or cutting (stone, concrete, tile)
- Charitable car wash areas;
- Eating or drinking establishments (e.g., restaurants), including food markets;
- Equipment repair, maintenance, fueling, or cleaning;
- Golf courses, parks and other recreational areas/facilities;
- Outside Farmers Market
- Landscape supply operations;
- Marinas
- Masonry works;
- Meat cutting, packing, and processing;
- Mobile automobile or other vehicle washing;
- Mobile carpet, drape or furniture cleaning;
- Mobile power washing services;
- Nurseries and greenhouses;
- Painting and coating (manufacture, distribution, and sale facilities, and application services);
- Pest control services;
- Pool and fountain cleaning;
- Portable sanitary services;

- Preproduction plastics transfer and storage facility;
 - Refuse haulers, transfer stations, and tallow rendering facilities and vehicles;
 - Recycling centers; and
 - Retail or wholesale fueling.
- (2) Industrial Facilities/Sources:
- (a) Industrial Facilities, as defined at 40 CFR § 122.26(b)(14), including those subject to the State Water Board's IGP or other individual NPDES permit;
 - (b) Operating and closed landfills;
 - (c) Facilities subject to Title III of the Superfund Amendments and Reauthorization Act; and
 - (d) Hazardous waste treatment, disposal, storage and recovery facilities
- (3) All other commercial or industrial facilities/sources tributary to an impaired water body segment, where the facility/source generates pollutants for which the water body segment is impaired.
- (4) All other commercial or industrial facility/sources that the Permittee determines may contribute a significant pollutant load to the MS4.
- (c) The Permittee shall determine if the facilities that are required to be covered under a NPDES storm water permit have done so. Upon discovering any facilities requiring permit coverage but are not yet permitted, the Permittee shall notify the appropriate Regional Water Board per Section E.4.c., and include copies of the notification in the on-line Annual Report.
- (d) The Permittee shall update the inventory annually. The update shall be accomplished through collection of new information obtained during inspections and contacts with commercial and industrial facility operators and owners, or through other readily available intra-agency informational databases (e.g., business licenses, pretreatment permits, sanitary sewer hook-up permits, and State Water Resources Control Board Storm Water Multiple Application and Report Tracking System (SMARTS) database).
- (e) Prioritize all facilities into high, medium, and low categories on the basis of the following:
- (1) Type of activity (SIC code);
 - (2) Materials used at the facility/source;
 - (3) Wastes generated;
 - (4) Pollutant discharge potential;
 - (5) Non-storm water discharges;
 - (6) Proximity of facility/source to receiving water bodies;
 - (7) Sensitivity of receiving water bodies;
 - (8) Whether the facility/source is subject to the General Industrial Permit or an individual NPDES permit;
 - (9) Whether the facility/source has filed a No Exposure Certification/Notice of Non-Applicability;

- (10) Facility/Source design;
 - (11) Total area of the facility, area of the facility where industrial or commercial activities occur, and area of the facility exposed to rainfall and runoff;
 - (12) Time since previous inspection;
 - (13) The facility/source's compliance history; and
 - (14) Any other relevant factors.
- (f) Explain how the priority assigned to any one facility may be modified based on the facility inspection findings and the facility's potential to discharge pollutants.
- (g) Annually prioritize the inventory of commercial and industrial facilities/sources to identify the facilities/sources the Permittee will inspect according to Section E.11.c [Inspection of Commercial and Industrial Facilities/Sources]. The prioritization shall be based on potential threat to water quality and watershed health, and shall take into account the following information:
- (1) Type of activity (SIC code);
 - (2) Materials used at the site/source;
 - (3) Wastes generated;
 - (4) Pollutant discharge potential;
 - (5) Non-storm water discharges;
 - (6) Proximity of site/source to receiving water bodies;
 - (7) Sensitivity of receiving water bodies;
 - (8) Whether the site/source is subject to the General Industrial Permit or an individual NPDES permit;
 - (9) Whether the site/source has filed a No Exposure Certification/Notice of Non-Applicability;
 - (10) Site/Source design;
 - (11) Total area of the site, area of the site where industrial or commercial activities occur, and area of the site exposed to rainfall and runoff;
 - (12) Time since previous inspection;
 - (13) The site/source's compliance history; and
 - (14) Any other relevant factors.

E.11.b. Industrial/Commercial Storm Water BMPs

- (i) **Task Description** – By May 15, 2014, the Permittee shall require industrial and commercial facilities included in the inventory to select, install, implement, and maintain storm water BMPs.
- (ii) **Implementation Level** – The Permittee shall notify the owner/operator of each industrial and commercial facility/source of the storm water requirements for BMPs by May 15, 2014.

The Permittee shall require implementation of BMPs consistent with the CASQA Industrial/Commercial BMP Handbook or equivalent and require

maintenance. The BMPs the Permittee shall require must include the following:

- (a) Minimize Exposure – Industrial/commercial facilities shall minimize the exposure of manufacturing, processing, and material storage areas (including loading and unloading, storage, disposal, cleaning, maintenance, and fueling operations) to rain, snow, snowmelt, and runoff by either locating these industrial materials and activities inside or protecting them with storm resistant coverings (although significant enlargement of impervious surface area is not recommended). The facilities shall implement, where appropriate:
 - (1) Using grading, berming, or curbing to prevent runoff of contaminated flows and divert run-on away from these areas
 - (2) Locating materials, equipment, and activities so that leaks are contained in existing containment and diversion systems (confine the storage of leaky or leak-prone vehicles and equipment awaiting maintenance to protected areas)
 - (3) Cleaning up spills and leaks promptly using dry methods (e.g., absorbents) to prevent the discharge of pollutants
 - (4) Using drip pans and absorbents under or around leaky vehicles and equipment or store indoors where feasible
 - (5) Using spill/overflow protection equipment
 - (6) Draining fluids from equipment and vehicles prior to on-site storage or disposal
 - (7) Performing all cleaning operations indoors, under cover, or in bermed areas that prevent runoff and run-on and also that capture any overspray
 - (8) Ensuring that all wash water drains to a proper collection system (i.e., not the storm water drainage system)
- (b) Good Housekeeping – Industrial/commercial facilities shall keep clean all exposed areas that are potential sources of pollutants, using such measures as sweeping at regular intervals, keeping materials orderly and labeled, and storing materials in appropriate containers.
- (c) Maintenance – Industrial/commercial facilities shall regularly inspect, test, maintain, and repair all industrial equipment and systems to avoid situations that may result in leaks, spills, and other releases of pollutants in storm water discharged to receiving waters.
- (d) Spill Prevention and Response Procedures – Industrial/commercial facilities shall minimize the potential for leaks, spills and other releases that may be exposed to storm water and develop plans for effective response to such spills if or when they occur. At a minimum, the facilities shall implement:
 - (1) Procedures for plainly labeling containers (e.g., “Used Oil,” “Spent Solvents,” “Fertilizers and Pesticides,”) that could be susceptible to spillage or leakage to encourage proper handling and facilitate rapid response if spills or leaks occur;
 - (2) Preventative measures such as barriers between material storage and traffic areas, secondary containment provisions, and procedures for material storage and handling;

- (3) Procedures for expeditiously stopping, containing, and cleaning up leaks, spills, and other releases. Employees who may cause, detect, or respond to a spill or leak shall be trained in these procedures and have necessary spill response equipment available; and
 - (4) Procedures for notification of appropriate facility personnel, emergency response agencies, and regulatory agencies such as the Regional Water Board.
-
- (e) Erosion and Sediment Control BMPs – Industrial/commercial facilities shall stabilize exposed areas and contain runoff using structural and/or non-structural BMPs to minimize onsite erosion and sedimentation, and the resulting discharge of pollutants.
 - (f) Management of Runoff – Industrial/commercial facilities shall divert, infiltrate, reuse, contain, or otherwise reduce storm water runoff, to minimize pollutants in discharges.
 - (g) Salt or De-icing Materials, Storage Piles or Piles Containing Salt – Industrial/commercial facilities shall enclose or cover storage piles of salt, or piles containing salt, used for deicing or other commercial or industrial purposes, including maintenance of paved surfaces. If a permanent storage structure is required but does not exist, one shall be built within 2 years, and seasonal cover (e.g., tarping) shall be used as an interim BMP until the permanent structure is completed. Facilities shall implement appropriate measures (e.g., good housekeeping, diversions, containment) to minimize exposure resulting from adding to or removing materials from the pile. Piles do not need to be enclosed or covered if storm water runoff from the piles is not discharged or if discharges from the piles are authorized under another NPDES permit.
 - (h) Employee Training – All facility employees who work in areas where industrial materials or activities are exposed to storm water, or who are responsible for implementing activities necessary to manage storm water shall be trained. Training shall include how to select, install, implement, and maintain storm water BMPs and conducted at least annually.
 - (i) Non-Storm water Discharges – Industrial/commercial facilities shall eliminate non-storm water discharges not authorized by other applicable NPDES permit.
 - (j) Waste, Garbage and Floatable Debris – Facilities shall ensure that waste, garbage, and floatable debris are not discharged to receiving waters by keeping exposed areas free of such materials or by intercepting them before they are discharged. All dumpsters shall be covered to prevent exposure to waste and garbage and the generation of pollutants and floatable debris.
 - (k) Dust Generation and Vehicle Tracking of Industrial Materials – Industrial/commercial facilities shall minimize generation of dust and off-site tracking of raw, final, or waste materials.

- (iii) **Reporting** – By September 15, 2014 online Annual Report, submit a list of Industrial/Commercial facilities notified of storm water requirements for BMPs.

E.11.c. Industrial and Commercial Facility Inspections

- (i) **Task Description** – By May 15, 2016, the Permittee shall develop and implement a program to inspect all commercial and industrial facilities included in its inventory.
- (ii) **Implementation Level** – The Industrial and Commercial Facility Inspection Plan shall provide details of the inspection program. The Inspection Plan shall at a minimum include:
 - (a) A copy of the inventory.
 - (b) A prioritization of all facilities into high, medium, and low categories on the basis of the potential for water quality impact using criteria such as pollutant sources on site, pollutants of concern, proximity to a water body, and violation history of the facility (per Section E.11.a). The different priority categories will be assigned different inspection frequencies, with the highest priority facilities receiving more frequent inspections. Describe the process for prioritizing inspections and frequency of inspections. If any geographical areas are to be targeted for inspections due to high potential for storm water pollution, these areas shall be listed in the Inspection Plan. At a minimum, at least 20% of inventoried commercial and industrial facilities shall be prioritized as high priority.
 - (c) An explanation how the priority assigned to any one facility may be modified based on the facility inspection findings and the facility's potential to discharge pollutants.
- (iii) **Reporting** – By September 15, 2015 online Annual Report, submit an update of program implementation and the Industrial and Commercial Facility Inspection Plan.

E.11.d. Inspection Requirements

- (i) **Task Description** – The Permittee shall inspect Industrial and Commercial Facilities at a regular frequency.
- (ii) **Implementation Level** – By May 15, 2016, the Permittee shall conduct Inspections of Industrial and Commercial Facilities as follows:
 - (a) As specified in Section E.11.c, inspect facilities based on the following inspection frequency:
 - (1) Facilities with high potential for water quality impact shall be inspected annually.
 - (2) Facilities with medium potential for water quality impact shall be inspected at least once every three years.

- (3) Facilities with low potential for water quality impact shall be inspected at least once every five years.
 - (4) Facilities with written violation occurring in the previous year shall be inspected at least annually until compliance is achieved.
 - (5) For facilities that the local inspector determines will have no exposure of commercial or industrial activities to storm water, no inspections are required.
- (iii) **Reporting** – By September 15, 2016 online Annual Report, list the facilities and the inspection frequency and annually thereafter continue to track facilities for significant change in potential for water quality impact and amend inspection frequency.

E.11.e. Scope of inspection

- (i) **Task Description** – The Inspections of Industrial and Commercial Inspections shall be conducted consistently.
- (ii) **Implementation Level** – The Permittee shall conduct the inspections as follows:
 - (a) Evaluate the facility's compliance with the requirement to select, design, install, and implement storm water BMPs;
 - (b) Evaluate the appropriateness and effectiveness of active BMPs;
 - 1) Review of facility/source monitoring data, if the facility/sources monitor runoff;
 - (b) Conduct a visual observation for evidence of unauthorized discharges, illicit connections, and potential discharge of pollutants to storm water;
 - (c) Verify whether the facility is required to be authorized under the State Industrial Storm Water General Permit, and whether the facility has in fact obtained such permit coverage.
 - (d) Evaluate the facility's compliance with local storm water requirements.
 - (e) Document Inspection - At a minimum, the Permittee shall document the following for each inspection:
 - (1) Facility name and facility personnel contacts
 - a) The inspection date and time;
 - (2) The name(s) and signature(s) of the inspector(s);
 - (3) Weather information
 - a) description of any discharges occurring at the time of the inspection;
 - (4) Any previously unidentified discharges of non-storm water or pollutants from the facility;
 - (5) Any BMPs needing maintenance or repairs;
 - a) an evaluation of the appropriateness and effectiveness of active BMPs;
 - (6) Any failed BMPs that need replacement;
 - (7) Any incidents of noncompliance observed;
 - (8) Any additional BMPs needed to comply with the permit requirements; and

- (9) A record of any photos, samples, plans, data, or documents taken or received during the inspection to support potential enforcement, if necessary.
- (f) Track Inspections - Inspection findings shall be tracked to ensure inspections are conducted at the frequency specified, highlight and document repetitive noncompliant facilities, and aid follow-up and enforcement activities.
- (g) Enforcement – The Permittee shall enforce appropriate local ordinances, codes, and permits at all commercial and industrial facility/sources as necessary to maintain compliance with this Order. Ensure that all necessary follow-up and enforcement activities are conducted as necessary to require necessary implementation and maintenance of the BMPs. The Permittee shall utilize the Enforcement Response Plan (pursuant to Section E.4.c) for all enforcement actions. The Permittee shall respond to all complaints received from third parties and document the implementation of any required corrective actions.

E.11.f. Staff Training

- (i) **Task Description** – By May 15, 2016, the Permittee shall ensure all staff or consultants whose primary job duties are implementing the industrial/commercial storm water program are trained to conduct facility inspections.
- (ii) **Implementation Level** – The training shall cover the following:
 - (a) Permittee facility inspection and documentation protocols (including inspection techniques and strategies, data gathering, field measurements, sample collection, and record keeping), and enforcement procedures;
 - (b) Knowledge of pollutants of concern, receiving waters, and water quality objectives, and numeric benchmarks or standards (pursuant to Section E.12);
 - (c) Installation and maintenance techniques of applicable BMPs for Industrial/Commercial storm water discharges;
 - (d) Assessment of the effectiveness of structural and non-structural BMPs;
 - (e) Good housekeeping measures;
 - (f) Knowledge of the tools or skills to raise awareness and change the behaviors of non-compliant dischargers;
 - (g) The requirements of the State Water Board's IGP or other related local ordinances, codes, permits and enforcement policies, including elements in an effective SWPPP;
 - (h) Training when new staff or consultants assume an inspectors job;
 - (i) Follow-up training every other year to address changes in regulations, inventories, prioritizations, procedures, skills, techniques, and staffing.
- (iii) **Reporting** – By September 15, 2016, online Annual Report document and maintain records of the staff trained, the training provided, and the results of surveys conducted to demonstrate the attendees changes in

awareness and potential behavioral changes. The Permittee shall report the qualifications, certifications, or training records for consultants conducting inspections on the Permittee's behalf.

E.12. POST CONSTRUCTION STORM WATER MANAGEMENT PROGRAM

Compliance Tiers

a) New Traditional Small MS4 Permittees with a population greater than 25,000 or with a population greater than 5,000 located within Endangered Species Habitat shall comply with all requirements in this Section.

b) New Traditional Small MS4 Permittees with a population of 25,000 or less shall require all projects that disturb one or more acres or are part of a larger plan of development to comply with the Post-Construction Requirements in 2009 – 0009 – DWQ (CGP).

c) Renewal Traditional Small MS4 Permittees with a population greater than 25,000 shall evaluate their existing program to ensure their program meets the minimum standards of this Section.

d) Renewal Traditional Small MS4 Permittees with a population of 25,000 or less shall require all projects that disturb one or more acres or are part of a larger plan of development to comply with the Post-Construction Requirements in 2009 – 0009 – DWQ (CGP).

e) Non-traditional Small MS4 Permittees with Urban Land Uses totaling greater than 10% of any single HUC 12 shall comply with all requirements in this Section.

f) Non-traditional Small MS4 Permittees with Urban Land Uses totaling 10% or less of any single HUC 12 shall require all projects that disturb one or more acres or are part of a larger plan of development to comply with the Post-Construction Requirements in 2009 – 0009 – DWQ (CGP).

The Permittee shall use their planning authorities to include appropriate source control, site design, and storm water treatment measures in new development and redevelopment projects. This shall be accomplished through a tiered approach that includes watershed baseline characterization and the implementation of measures to reduce the adverse effects of projects the environment.

E.12.a. Permittee located within a Phase I MS4 permit area

(i) **Task Description** - For region-wide consistency, a Permittee located within a Phase I MS4 permit area shall implement the regional Phase I MS4 post-construction storm water management requirements for new and redevelopment projects.

(ii) **Implementation Level** – The Permittee shall apply the Phase I MS4 post-construction requirements for new and redevelopment projects. The Permittee shall develop a summary report describing the steps they will

take to require their new and redevelopment projects to comply with the Phase I MS4 post-construction requirements. The summary report shall also describe the steps the Permittee will take to coordinate with the outlying Phase I MS4 Permittee to implement the requirements.

- (iii) **Reporting** - The Permittee shall submit by September 16, 2013 online Annual Report, the summary report identified in Section E.12.a.ii.

In subsequent online Annual Reports, the Permittee shall submit an inventory of projects subject to the Phase I MS4 Permittee post-construction for new and redevelopment standards and confirmation that they comply with the Phase I post-construction requirements.

E.12.b. A Permittee located within a Phase II MS4 permit area

E.12.b.1. Watershed Baseline Characterization

- (i) **Task Description** - By May 12, 2015, the Permittee shall conduct watershed characterization and identify dominant watershed processes potentially affected by changes in storm water runoff caused by new and redevelopment projects. Permittees are encouraged to partner with other entities to gather the information necessary to complete this task.
- (ii) **Implementation Level** – The Permittee shall complete a watershed characterization for all HUC 12 level watersheds with five percent or more of total watershed area under MS4 jurisdiction. The watershed characterization shall include the following data collection and analysis tasks:
- (a) Subwatershed delineations based on spatial and tabular data from the following sources:
 - (1) NHD Plus Catchments (U.S. EPA and USGS)
 - (2) NHD Flow (U.S. EPA and USGS)
 - (3) NHD Flow Line and Waterbodies (U.S. EPA and USGS)
 - (4) USGS HUC 12 Boundaries (USGS), and
 - (5) Where available, local subwatershed boundaries determined by infrastructure (sewersheds).
 - (b) Meteorological Characterization based on data from:
 - (1) Precipitation: National Climatic Data Center (NCDC) Summary of the data precipitation data
 - (2) Evapotranspiration: California Irrigation Management Information Management System (CIMIS)
 - (3) Near-real-Time Monthly High-Resolution Precipitation Climate Data Set for the Conterminous United States
 - (c) Physical Landscape Attributes:
 - (1) Land use
 - (2) Imperviousness
 - (3) Transportation
 - (4) Soils
 - (5) Geology
 - (6) Groundwater basins

- (7) Rivers, streams, wetlands, lakes, and surface water impoundments
 - (8) Wetlands and riparian areas
 - (9) Appropriated streams
 - (10) Dams and fish passage barriers
 - (11) Distribution of federally listed coho and Chinook salmon, and steelhead
 - (12) A storm drain map that includes all outfall locations \geq 18 inches in diameter.
- (d) Results of a rapid assessment of second order and higher streams in each subwatershed.³⁸
- (e) Using the information gathered in (a) – (d) above, rank the health of the following watershed process(es) within each subwatershed where urbanization exists or is anticipated:
- (1) Groundwater recharge and discharge
 - (2) Surface runoff
 - (3) Evapotranspiration
 - (4) Sediment supply and delivery to stream channels
 - (5) Water quality constituent fate and transport
- (iii) **Reporting** – By September 15, 2015 online Annual Report, submit watershed characterization and identification of dominant watershed processes potentially affected by changes in storm water runoff caused by new and redevelopment projects.

E.12.b.2. Development of Watershed Sediment Budgets

- (i) **Task Description** - By May 1, 2013, the Permittee shall develop sediment budgets for each subwatershed wholly or partially within their jurisdictions.
- (ii) **Implementation Level** – Develop the sediment budgets using the information gathered in Section E.12.b.1. (Watershed Baseline Characterization) and following the procedures in Reid and Dunne (1996)³⁹ or equivalent.
- (iii) **Reporting** – By September 15, 2015 online Annual Report, submit sediment budgets for each subwatershed.

E.12.b.3. Water Quality Runoff Standards

The Permittee shall require all projects fitting the category descriptions listed below to capture, infiltrate, and evapotranspire the runoff from the 85th percentile storm event to the maximum extent practicable. Runoff from the 85th percentile storm that cannot be captured, infiltrated, and evapotranspired must be treated via a flow-through device designed to treat runoff at a flow rate produced by a rain event equal to at least two times the 85th percentile hourly rainfall intensity for the applicable area, based on historical records of hourly rainfall depths.

³⁸ The Permittee shall use the Center for Watershed Protection's guide on the Unified Stream Assessment (available as a free download at www.cwp.org) or equivalent when conducting rapid assessment of stream corridors.

³⁹ Reid, L.M. and T. Dunne. 1996. *Rapid Evolution of Sediment Budgets*. Catena Verlag, Reiskirchen, Germany. 164 pp.

For regulated special projects and projects located in subwatersheds that have a high rank for groundwater recharge and/or discharge, runoff from the 85th percentile storm must be captured, infiltrated, and evapotranspired on-site. If this standard cannot be met, the volume of runoff equivalent to the excess volume must be captured, infiltrated, and evapotranspired within the same subwatershed.

- i. Regulated Projects - By May 15, 2014, the Permittee shall regulate projects. Regulated projects as they are defined below, do not include detached single-family home projects that are not part of a larger plan of development.

(a) Regulated Special Project Categories

- (1) New Development or redevelopment projects that fall into one of the categories listed below and that create and/or replace 5,000 square feet or more of impervious surface (collectively over the entire project site). This category includes development projects of the following four types on public or private land that fall under the planning and permitting authority of a Permittee:
 - (i) Commercial Developments;
 - (ii) Automotive Repair Shops;
 - (iii) Retail Gasoline Outlets; or
 - (iv) Uncovered parking lots that are stand-alone or part of any other development project. This category includes the top uncovered portion of parking structures unless drainage from the uncovered portion is connected to the sanitary sewer along with the covered portions of the parking structure.

Specific exclusions are:

- Interior remodels;
- Routine maintenance or repair such as:
- roof or exterior wall surface replacement,
- pavement resurfacing within the existing footprint.

- (2) Where a redevelopment project in the categories specified above results in an alteration of more than 50 percent of the impervious surface of a previously existing development, runoff from the entire project, consisting of all existing, new, and/or replaced impervious surfaces, must be included in the treatment system design.
- (3) Where a redevelopment project in the categories specified above results in an alteration of less than 50 percent of the impervious surface of a previously existing development, only runoff from the new and/or replaced impervious surface of the project must be included in the treatment system design.

- (4) For any private development project in the categories specified above for which a planning application has been deemed complete by a Permittee on or before the Permit effective date, the treatment standards shall not apply so long as the project applicant is diligently pursuing the project. Diligent pursuance may be demonstrated by the project applicant's submittal of supplemental information to the original application, plans, or other documents required for any necessary approvals of the project by the Permittee.
- (5) The Permittee shall require applicable new development and re-development projects to adhere to the following treatment thresholds.
 - i. Oil and Grease – 50 percent oil and grease removal
 - ii. Total Phosphorus – 40 percent total phosphorus removal
 - iii. Dissolved Metals – At least 50 percent dissolved metal removal
 - iv. Total Suspended Solids – 80 percent total suspended solids removal.

(b) Other Development Projects

New development projects that create 10,000 square feet or more of impervious surface (collectively over the entire project site) including commercial, industrial, residential housing subdivisions (i.e., detached single-family home subdivisions, multi-family attached subdivisions (town homes), condominiums, and apartments), mixed-use, and public projects are held to the standards above. This category includes development projects on public or private land that fall under the planning and building authority of a Permittee. Detached single-family home projects that are not part of a larger plan of development are excluded.

(c) Other Redevelopment Projects

Redevelopment projects that create and/or replace 10,000 square feet or more of impervious surface (collectively over the entire project site) including commercial, industrial, residential housing subdivisions (i.e., detached single-family home subdivisions, multi-family attached subdivisions (town homes), condominiums, and apartments), mixed-use, and public projects. Redevelopment is any land-disturbing activity that results in the creation, addition, or replacement of exterior impervious surface area on a site on which some past development has occurred. This category includes redevelopment projects on public or private land that fall under the planning and building authority of a Permittee.

Specific exclusions to this category are:

- Interior remodels.

- Routine maintenance or repair such as:
 - roof or exterior wall surface replacement, or
 - pavement resurfacing within the existing footprint.
- (1) Where a redevelopment project in the categories specified above results in an alteration of more than 50 percent of the impervious surface of a previously existing development, runoff from the entire project, consisting of all existing, new, and/or replaced impervious surfaces, must be included in the treatment system design.
- (2) Where a redevelopment project in the categories specified above results in an alteration of less than 50 percent of the impervious surface of a previously existing development, only runoff from the new and/or replaced impervious surface of the project must be included in the treatment system design.

(d) Road Projects

Any of the following types of road projects that create 10,000 square feet or more of newly constructed contiguous impervious surface and that fall under the building and planning authority of a Permittee:

- (1) Construction of new streets or roads, including sidewalks and bicycle lanes built as part of the new streets or roads.
- (2) Widening of existing streets or roads with additional traffic lanes.
 - (i) Where the addition of traffic lanes results in an alteration of more than 50 percent of the impervious surface of an existing street or road, runoff from the entire project, consisting of all existing, new, and/or replaced impervious surfaces, must be included in the treatment system design.
 - (ii) Where the addition of traffic lanes results in an alteration of less than 50 percent of the impervious surface of an existing street or road, only the runoff from new and/or replaced impervious surface of the project must be included in the treatment system design. However, if the runoff from the existing traffic lanes and the added traffic lanes cannot be separated, any onsite treatment system must be designed and sized to treat runoff from the entire street or road. If an offsite treatment system is installed or in-lieu fees paid, the offsite treatment system or in-lieu fees shall address only the runoff from the added traffic lanes.
- (3) Construction of impervious trails that are greater than 10 feet wide or are creek-side (within 50 feet of the top of bank).
- (4) Specific exclusions are:
 - Sidewalks built as part of new streets or roads and built to direct storm water runoff to adjacent vegetated areas.
 - Bicycle lanes that are built as part of new streets or roads that direct storm water runoff to adjacent vegetated areas.

- Impervious trails built to direct storm water runoff to adjacent vegetated areas, or other non-erodible permeable areas, preferably away from creeks or towards the outboard side of levees.
- Sidewalks, bicycle lanes, or trails constructed with permeable surfaces.⁴⁰

(iii) **Reporting** – For each Regulated Project approved, the following information shall be reported annually in the online Annual Report:

- Project Name, Number, Location (cross streets), and Street Address;
- Name of Developer, Phase No. (if project is being constructed in phases, each phase shall have a separate entry), Project Type (e.g., commercial, industrial, multiunit residential, mixed-use, public), and description;
- Project watershed(s);
- Total project site area and total area of land disturbed;
- Total new impervious surface area and/or total replaced impervious surface area;
- If a redevelopment or road widening project, total pre-project impervious surface area and total post-project impervious surface area;
- Status of project (e.g., application date, application deemed complete date, project approval date);
- Source control measures;
- Site design measures;
- All post-construction storm water treatment systems installed onsite, at a joint storm water treatment facility, and/or at an offsite location;
- O&M responsibility mechanism for the life of the project.
- Water quality treatment calculations used;
- Alternative compliance measures for Regulated Project (if applicable)
- Hydromodification standards used

E.12.b.4. Interim Hydromodification Management

(i) **Task Description** – The Permittee shall develop and implement Interim Hydromodification Management procedures. Hydromodification management projects are Regulated Projects that create and/or replace one acre or more of impervious surface. A project that does not increase impervious surface area over the pre-project condition is not a hydromodification management project.

(ii) **Implementation Level** - By May 15, 2014, the Permittee shall implement the following Interim Hydromodification Standard:

⁴⁰ Permeable surfaces include pervious concrete, porous asphalt, unit pavers, and granular materials.

(a) Post-project runoff shall not exceed estimated pre-project volume and rate for the 2-year, 24-hour storm in the following geomorphic provinces (Figure 1):

- Coast Ranges
- Klamath Mountains
- Cascade Range
- Modoc Plateau
- Basin and Range
- Sierra Nevada
- Great Valley

(b) Post-project runoff shall not exceed estimated pre-project volume and rate for the 5-year, 24-hour storm in the following geomorphic provinces (Figure 1):

- Transverse Ranges
- Peninsular Ranges
- Mojave Desert
- Colorado Desert



Figure 1. California Geomorphic Provinces

- (iii) **Reporting** – By September 15, 2014, submit verification that the Interim Hydromodification Management procedures are being implemented.

E.12.b.5. Long-Term Watershed Process Management

- (i) **Task Description** – By May 15, 2016, the Permittee shall use the Watershed Characterization to develop and implement numeric criteria to protect watershed processes affected by storm water on all applicable new and redevelopment projects.
- (ii) **Implementation Level** – The Permittee shall:
 - (a) **Numeric criteria:** Develop numeric criteria to support and protect watershed processes affected by storm water in all applicable new and redevelopment projects. At a minimum, numeric criteria shall be developed to support and protect the following watershed processes:
 - (1) Groundwater recharge and discharge
 - (2) Surface runoff
 - (3) Evapotranspiration
 - (4) Sediment supply and delivery to stream channels
 - (5) Water quality constituent fate and transport
 - (b) **Applicability Thresholds.** Select Applicability Thresholds for applying numeric criteria for protecting watershed processes affected by storm water to new and redevelopment projects. Applicability thresholds shall be sufficient to maintain the watershed processes necessary to achieve long-term watershed health.
- (iii) **Reporting** – By September 15, 2015 online Annual Report, submit numeric criteria to protect watershed processes affected by storm water on all applicable new and redevelopment projects.

E.12.b.6. Implementation Strategy for Watershed Process Management

- (i) **Task Description** – Develop and enact a strategy for implementing numeric criteria for protecting watershed processes affected by storm water in new and redevelopment projects.
- (ii) **Implementation Level** –
 - (a) **Enforceable Mechanisms** – The Permittee shall by May 15, 2017, adopt enforceable mechanisms for implementing numeric criteria to protect watershed processes affected by storm water on all applicable new and redevelopment projects. The Permittee shall:
 - (1) Conduct an analysis of all applicable codes, regulations, standards, and/or specifications and identify modifications and/or additions necessary to effectively implement numeric criteria for protecting watershed processes affected by storm water in new and redevelopment projects.
 - (2) Approve new and/or modified enforceable mechanisms that effectively resolve regulatory conflicts and implement numeric criteria for protecting watershed processes affected by storm water in new and redevelopment projects.

- (3) Apply new and/or modified enforceable mechanisms to all applicable new and redevelopment projects.
 - (b) The Permittee shall provide appropriate education and outreach for all applicable target audiences, and shall include specific guidance for BMP design and compliance with numeric criteria.
- (iii) **Reporting** – By September 15, 2017 online Annual Report, submit strategy for implementing numeric criteria for protecting watershed processes affected by storm water in new and redevelopment projects. The Permittee shall report annually on measurable goals, schedules, and target audiences for education and outreach the municipality will conduct in support of the following strategic objectives: enforceable mechanisms, applicability thresholds, BMP design, and compliance with watershed process criteria.

E.12.b.7. Watershed-Based Storm Water Management

- (i) **Task Description** – The Permittee shall use results of watershed characterization to modify general and specific plans and policies to ensure watershed process protection is fully considered in land planning decisions that impact storm water management of existing and future development.
- (ii) **Implementation Level** –
 - (a) The Permittee shall evaluate their regulations to:
 - (1) identify barriers to using development methods that protect watershed processes;
 - (2) identify gaps in development methods for the promotion of watershed process protection; and
 - (3) identify how the following design principles can be incorporated into their regulations:
 - (i) Natural Systems and Green Infrastructure
 - (ii) Infill and Redevelopment
 - (iii) Compact Design
 - (iv) Use Mix
 - (v) Streets and Mobility
 - (vi) Parking
 - (iii) **Reporting** – By September 15, 2017 online Annual Report, submit plan with NOI including identified gaps/impediments and how/when the City plans to adjust their regulations accordingly.

E.12.b.8. Operation and Maintenance of Storm Water Treatment Systems

- (i) **Task Description** – The Permittee shall by May 15, 2014 implement an O&M Verification Program.
- (ii) **Implementation Level** – At a minimum, the O&M Verification Program shall include the following elements:

- (a) Conditions of approval or other legally enforceable agreements or mechanisms for all Regulated Projects that, at a minimum, require at least one of the following from all project proponents and their successors in control of the Project or successors in fee title:
- (1) The project proponent's signed statement accepting responsibility for the O&M of the installed treatment system(s) and hydromodification control(s) (if any) until such responsibility is legally transferred to another entity;
 - (2) Written conditions in the sales or lease agreements or deed for the project that requires the buyer or lessee to assume responsibility for the O&M of the installed treatment system(s) and hydromodification control(s) (if any) until such responsibility is legally transferred to another entity;
 - (3) Written text in project deeds, or conditions, covenants and restrictions for multi-unit residential projects that require the homeowners association or, if there is no association, each individual owner to assume responsibility for the O&M of the installed treatment system(s) and hydromodification control(s) (if any) until such responsibility is legally transferred to another entity;
or
 - (4) Any other legally enforceable agreement or mechanism, such as recordation in the property deed, that assigns the O&M responsibility for the installed treatment system(s) and hydromodification control(s) (if any) to the project owner(s) or the Permittee.
- (b) Coordination with the appropriate mosquito and vector control agency with jurisdiction to establish a protocol for notification of installed treatment systems and hydromodification management controls.
- (c) Conditions of approval or other legally enforceable agreements or mechanisms for all Regulated Projects that require the granting of site access to all representatives of the Permittee, local mosquito and vector control agency staff, and Water Board staff, for the sole purpose of performing O&M inspections of the installed treatment system(s) and hydromodification control(s) (if any).
- (d) A written plan and implementation of the plan that describes O&M (including inspection) of all Regional Projects and regional controls that are Permittee-owned and/or operated.
- (e) A database or equivalent tabular format of all Regulated Projects (public and private) that have installed treatment systems. This database or equivalent tabular format shall include the following information for each Regulated Project:
- Name and address of the Regulated Project;

- Specific description of the location (or a map showing the location) of the installed treatment system(s) and hydromodification control(s) (if any);
 - Date(s) that the treatment system(s) and hydromodification controls (if any) is/are installed;
 - Description of the type and size of the treatment system(s) and hydromodification control(s) (if any) installed;
 - Responsible operator(s) of each treatment system and hydromodification control (if any);
 - Dates and findings of inspections (routine and follow-up) of the treatment system(s) and hydromodification control(s) (if any) by the Permittee; and
 - Any problems and corrective or enforcement actions taken.
- (f) Maintenance Approvals: The Permittee shall ensure that systems and hydromodification controls installed by Regulated Projects are properly operated and maintained for the life of the projects. In cases where the responsible party for a treatment system or hydromodification control has worked diligently and in good faith with the appropriate State and federal agencies and the Permittee to obtain approvals necessary to complete maintenance activities for the treatment system or hydromodification management control, but these approvals are not granted, the Permittee shall be deemed to be in compliance with this Provision.

(iii) Reporting

- (a) For each Regulated Project inspected during the reporting period (fiscal year) the following information shall be reported in tabular form as part of the online Annual Report:
- Name of facility/site inspected.
 - Location (street address) of facility/site inspected.
 - Name of responsible operator for installed storm water treatment systems and hydromodification management controls.
 - For each inspection:
 - Date of inspection.
 - Type of inspection (e.g., initial, annual, follow-up, spot).
 - Type(s) of storm water treatment systems inspected (e.g., swale, bioretention unit, tree well, etc.) and an indication of whether the treatment system is an onsite, joint, or offsite system.
 - Type of hydromodification management controls inspected.
 - Inspection findings or results (e.g., proper installation, proper O&M, system not operating properly because of plugging, bypass of storm water because of improper installation, maintenance required immediately, etc.).

- Enforcement action(s) taken, if any (e.g., verbal warning, notice of violation, administrative citation, administrative order).
- (b) On an annual basis, before the wet season, provide a list of newly installed (installed within the reporting period) storm water treatment systems and hydromodification management controls to the local mosquito and vector control agency and the appropriate Regional Water Board. This list shall include the facility locations and a description of the storm water treatment measures and HM controls installed.
- (c) Each Permittee shall report the following information in the online Annual Report:
- (1) A discussion of the inspection findings for the year and any common problems encountered with various types of treatment systems and/or hydromodification management controls. This discussion shall include a general comparison to the inspection findings from the previous year.
 - (2) A discussion of the effectiveness of the Permittee's O&M Program and any proposed changes to improve the O&M Program (e.g., changes in prioritization plan or frequency of O&M inspections, other changes to improve effectiveness of program).

E.13. RECEIVING WATER MONITORING

Compliance Tiers

a) New and Renewal Traditional Small MS4 Permittees with a population greater than 25,000 and **Non-traditional Small MS4s Permittees** with Urban Land Uses⁴¹ totaling greater than 10% of any single HUC 12⁴², whether or not they are part of a CDP, shall comply with the monitoring requirements in this Section (Figure 2 - Water Quality Monitoring Flow Chart)

b) All Permittees that discharge to an ASBS or AB 411 Beaches must comply with the monitoring provisions in the latest Ocean Plan.

(i) **Task Description** – The Permittee shall develop and implement a Water Quality Monitoring plan.

The Permittees may choose to comply with any requirement of this Provision through a collaborative effort to conduct or cause to be conducted the required monitoring in their jurisdictions. Where all or a majority of the Permittees collaborate to conduct water quality monitoring, this shall be considered a regional monitoring collaborative.

Where an existing collaborative body has initiated plans, before the adoption of this Order, to conduct monitoring that would fulfill a requirement(s) of this

⁴¹ Urban Land Uses: derived from National Land Cover Database or local land use data, if available.

⁴² HUC refers to Hydrologic Unit Code 12 in the Federal Watershed Boundary Dataset.

Provision, but the monitoring would not meet this Provision's due date(s) by a year or less, the Permittees may request the Executive Officer adjust the due date(s) to synchronize with such efforts.

The types, quantities, and quality of data required within E.13 establish the minimum level-of-effort that a regional monitoring collaborative must achieve. Provided these data types, quantities, and quality are obtained, a regional monitoring collaborative may develop its own sampling design. In addition, a monitoring plan designed to assist in the recovery of an endangered species (e.g. coho salmon) may be permitted with the approval of the Executive Officer.

(ii) **Implementation Level** – The Water Quality Monitoring plan shall include the following:

(a) **Receiving Water Monitoring** –

- (1) Where a Permittee with a population greater than 25,000 occupies a single HUC 12 watershed, the Permittee shall conduct Receiving Water Monitoring.
- (2) Where a Permittee with a population greater than 25,000 occupies multiple HUC 12 watersheds, the Permittee shall conduct monitoring in any watershed containing 25 percent or more of the permittee's total urbanized land use area.
- (3) Where multiple Permittees have urban land uses in an urbanized area, all Permittees must conduct, contribute to, or otherwise participate in Receiving Water Monitoring.
- (4) Where the urbanized area spans five or more HUC 12 watersheds, Receiving Water Monitoring shall be rotated on an annual basis among those watersheds with more than 10 percent urban land use.

Receiving water sampling locations should be selected to represent the contribution of urban storm water discharges to the receiving water. Generally, the Permittee should locate sampling stations at the farthest downstream extent of the urbanized portion of the watershed.

The Permittee shall sample for the parameters at the frequencies listed in Table B.

(b) **Follow-up Analysis and Actions** – When results from the receiving water monitoring indicate the need for follow-up analysis and actions, the Permittee shall take the following actions. If the trigger stressor or source is already known, proceed directly to step 2. The first follow-up action shall be initiated as soon as possible, and no later than the second fiscal year after the sampling event that triggered the follow-up analysis and action. Conduct a site-specific study (or non-site specific if the problem is widespread) in a stepwise process to identify and isolate the cause(s) of the trigger stressor/source. This study should follow guidance for Toxicity

Reduction Evaluations (TRE)⁴³ or Toxicity Identification Evaluations (TIE).⁴⁴ A TRE, as adapted for urban storm water data, allows the Permittee to use other sources of information (such as industrial facility storm water monitoring reports) in attempting to determine the trigger cause, potentially eliminating the need for a TIE. If a TRE does not result in identification of the stressor/source, the Permittee shall conduct a TIE.

- (1) Identify and evaluate the effectiveness of options for controlling the cause(s) of the trigger stressor/source.
 - (2) Implement one or more controls.
 - (3) Confirm the reduction of the cause(s) of trigger stressor/source.
- (iii) **Reporting** – By September 15, 2013 online Annual Report and annually thereafter, the Permittee shall report on the status of receiving water monitoring. The Permittee shall furnish details on Regional Monitoring collaboration, if applicable.

Permittees participating in a collaborative effort shall submit Water Quality Monitoring plan by September 15, 2014 online Annual Report.

Permittees not participating in a regional collaborative effort shall submit by September 15, 2013 online Annual Report,

All Permittees shall report the following annually:

- (a) Water Quality Standard Exceedances - When data collected pursuant to Table B indicate that storm water runoff or dry weather discharges are or may be causing or contributing to exceedance(s) of applicable water quality standards, including narrative standards, a discussion of possible pollutant sources based on the follow-up analysis and actions. When data collected pursuant to Table B indicate that discharges are causing or contributing to an exceedance of an applicable water quality standard, the Permittee shall notify the appropriate Regional Water Board within 30 days of such a determination.
- (b) Follow-up Analysis and Action is needed.

⁴³ USEPA. August 1999. *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants*. EPA/833B-99/002. Office of Wastewater Management, Washington, D.C.

⁴⁴ Select TIE methods from the following references after conferring with SWAMP personnel: For sediment: (1) Ho KT, Burgess R., Mount D, Norberg-King T, Hockett, RS. 2007. *Sediment toxicity identification evaluation: interstitial and whole methods for freshwater and marine sediments*. USEPA, Atlantic Ecology Division/Mid-Continental Ecology Division, Office of Research and Development, Narragansett, RI, or (2) Anderson, BS, Hunt, JW, Phillips, BM, Tjeerdema, RS. 2007. *Navigating the TMDL Process: Sediment Toxicity*. Final Report- 02-WSM-2. Water Environment Research Federation. 181 pp. For water column: (1) USEPA. 1991. *Methods for aquatic toxicity identification evaluations. Phase I Toxicity Characterization Procedures*. EPA 600/6-91/003. Office of Research and Development, Washington, DC., (2) USEPA. 1993. *Methods for aquatic toxicity identification evaluations. Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity*. EPA 600/R-92/080. Office of Research and Development, Washington, DC., or (3) USEPA. 1996. *Marine Toxicity Identification Evaluation (TIE), Phase I Guidance Document*. EPA/600/R-95/054. Office of Research and Development, Washington, DC.

- (c) Standard Report Content – All monitoring reports shall include the following:
- (1) The purpose of the monitoring and briefly describe the study design rationale.
 - (2) Quality Assurance/Quality Control summaries for sample collection and analytical methods, including a discussion of any limitations of the data.
 - (3) Brief descriptions of sampling protocols and analytical methods.
 - (4) Sample location description, including water body name and segment and latitude and longitude coordinates.
 - (5) Sample ID, collection date (and time if relevant), media (e.g., water, filtered water, bed sediment, tissue).
 - (6) Concentrations detected, measurement units, and detection limits.
 - (7) Assessment, analysis, and interpretation of the data for each monitoring program component.
 - (8) A listing of volunteer and other non-Permittee entities that are included in the report.
 - (9) Assessment of compliance with applicable water quality standards.
 - (10) A signed certification statement.
- (d) Data Accessibility – The Permittee shall make electronic reports available through a regional data center, and optionally through their web sites. The Permittee shall notify stakeholders and members of the general public about the availability of electronic and paper monitoring reports through notices distributed through appropriate means, such as an electronic mailing list.
- (iv) **Monitoring Protocols and Data Quality** – Where applicable, monitoring data must be SWAMP comparable. Minimum data quality shall be consistent with the latest version of the SWAMP Quality Assurance Project Plan (QAPrP)⁴⁵ for applicable parameters, including data quality objectives, field and laboratory blanks, field duplicates, laboratory spikes, and clean techniques, using the most recent Standard Operating Procedures. A Regional Monitoring Collaborative may adapt the SWAMP QAPrP.

⁴⁵ The current SWAMP QAPrP at the time of Permit issuance is dated September 1, 2008, and is available at <http://swamp.mpsl.mlml.calstate.edu/resources-and-downloads/quality-assurance/quality-assurance-program-plan>

Table B Receiving Water Monitoring Parameters, Methods, Frequency, and Triggers for Response

Receiving Water Monitoring Parameter	Sampling Method and/or Protocol ⁴⁶	Minimum Sampling Occurrence ⁴⁷	Duration of Sampling	Minimum # Sample Sites to Monitor/Yr	Result(s) that Trigger Stressor/Source Identification
General Water Quality (DO, T, Conductivity, pH)	A specific method is not required. Analyses must meet the measurement quality objectives (MQOs) and holding times that appear in Tables A25 and B42 of the 2008 <i>Surface Water Ambient Monitoring Program Quality Assurance Program Plan</i> (QAPrP) ⁹	2/yr (Concurrent with bioassessment & during the Aug. - Sept. timeframe)	15-minute intervals for 1-2 weeks		20% of results in one water body exceed one or more water quality standard or established threshold
Temperature	A specific method is not required. Analyses must meet the measurement quality objectives (MQOs) and holding times that appear in Tables A24 and B42 of the 2008 <i>Surface Water Ambient Monitoring Program Quality Assurance Program Plan</i>	60-minute intervals	60-minute intervals April through Sept.		20% of results in one water body exceed applicable temperature threshold ⁴⁸

⁴⁶

⁴⁷ Refers to the number of sampling events at a specific site in a given year.

⁴⁸ If temperatures exceed applicable threshold (e.g., Maximum Weekly Average Temperature, Sullivan K., Martin, D.J., Cardwell, R.D., Toll, J.E., Duke, S. 2000. *An Analysis of the Effects of Temperature on Salmonids of the Pacific Northwest with Implications for Selecting Temperature Criteria*, Sustainable Ecosystem Institute) or spike with no obvious natural explanation observed.

Receiving Water Monitoring Parameter	Sampling Method and/or Protocol ⁴⁶	Minimum Sampling Occurrence ⁴⁷	Duration of Sampling	Minimum # Sample Sites to Monitor/Yr	Result(s) that Trigger Stressor/Source Identification
	(QAPrP) ⁹				
Pathogen Indicators ⁴⁹	A specific method is not required. Analyses must meet the measurement quality objectives (MQOs) and holding times that appear in Tables A3 and B3 of the 2008 <i>Surface Water Ambient Monitoring Program Quality Assurance Program Plan</i> (QAPrP) ⁹	1/yr (During Summer)	Follow U.S. EPA protocol		Exceedance of USEPA criteria
Nutrients (total phosphorus, dissolved orthophosphate, total nitrogen, nitrate, ammonia)	A specific method is not required. Analyses must meet the measurement quality objectives (MQOs) and holding times that appear in Tables A1 and B1 of the 2008 <i>Surface Water Ambient Monitoring Program Quality Assurance Program Plan</i> (QAPrP) ⁹	1/yr (Spring Sampling)	Grab sample	Spring	20% of results in one water body exceed one or more water quality standard or established threshold
Biological Assessment ⁵⁰ (Includes Physical Habitat)	SWAMP Std Operating	1/yr (Spring)	Grab sample	Spring	BMI metrics that indicate substantially degraded community

⁴⁹ Includes fecal coliform and *E. Coli*.

⁵⁰ The same general location must be used to collect benthic community, sediment chemistry, and sediment toxicity samples. General Water Quality Parameters need not be collected twice, where it is collected by a multi-parameter probe at a subset of these sample sites.

Receiving Water Monitoring Parameter	Sampling Method and/or Protocol ⁴⁶	Minimum Sampling Occurrence ⁴⁷	Duration of Sampling	Minimum # Sample Sites to Monitor/Yr	Result(s) that Trigger Stressor/Source Identification
Assessment and General Water Quality Parameters ⁵¹)	Procedure ^{52,53,54} for Biological Assessments & PHab;	Sampling)			as per Table C

⁵¹ Includes dissolved oxygen, temperature, conductivity, and pH.

⁵² Ode, P.R. 2007. Standard Operating Procedures for Collecting Benthic 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), as subsequently revised (<http://swamp.mpsl.mlml.calstate.edu/resources-and-downloads/standard-operating-procedures>). Permittees may coordinate with Water Board staff to modify their sampling procedures if these referenced procedures change during the Permit term.

⁵³ Biological assessments shall include benthic macroinvertebrates and algae. Bioassessment sampling method shall be multihabitat reach-wide. Macroinvertebrates shall be identified according to the Standard Taxonomic Effort Level II of the Southwestern Association of Freshwater Invertebrate Taxonomists, using the most current SWAMP approved method. Current guidelines are documented in (1) SWAMP Standard Operating Procedure (SOP) and Interim Guidance on Quality Assurance for SWAMP Bioassessments, Memorandum to SWAMP Roundtable from Beverly H. van Buuren and Peter R. Ode, 5-21-07, and (2) Amendment to SWAMP Interim Guidance on Quality Assurance for SWAMP Bioassessments, Memorandum to SWAMP Roundtable from Beverly H. van Buuren and Peter R. Ode, 9-17-08. For algae, include mass (ash-free dry weight), chlorophyll a, diatom and soft algae taxonomy, and reachwide algal percent cover. Physical Habitat (PHab) Assessment shall include the SWAMP basic method plus 1) depth and pebble count + CPOM, 2) cobble embeddedness, 3) discharge measurements, and 4) in-stream habitat. Permittees may coordinate with Water Board staff to modify these sampling procedures if SWAMP procedures change during the Permit term.

⁵⁴ Algae shall be collected in a consistent timeframe as Regional SWAMP. For guidance on algae sampling and evaluation: Fetscher, A. and K. McLaughlin, May 16, 2008. Incorporating Bioassessment Using Freshwater Algae into California's Surface Water Ambient Monitoring Program (SWAMP). Technical Report 563 and current SWAMP-approved updates to Standard Operating Procedures therein. URL: <http://swamp.mpsl.mlml.calstate.edu/resources-and-downloads/standard-operating-procedures>

Receiving Water Monitoring Parameter	Sampling Method and/or Protocol ⁴⁶	Minimum Sampling Occurrence ⁴⁷	Duration of Sampling	Minimum # Sample Sites to Monitor/Yr	Result(s) that Trigger Stressor/Source Identification
Toxicity– Bedded Sediment, fine-grained ⁵⁵	A specific method is not required. Analyses must meet the measurement quality objectives (MQOs) that appear in Tables A9-A24 of the 2008 <i>Surface Water Ambient Monitoring Program Quality Assurance Program Plan (QAPrP)</i> ⁹	1/yr	Grab sample	At fine-grained depositional area at bottom of watershed	See Table C
Pollutants – Bedded Sediment, ⁵⁶ fine-grained	A specific method is not required. Analyses must meet the measurement quality objectives (MQOs) and holding times that appear in Appendices A and B of the 2008 <i>Surface Water Ambient Monitoring Program Quality Assurance Program Plan (QAPrP)</i> ⁹	1/yr	Grab sample	At fine-grained depositional area at bottom of watershed	See Table C

⁵⁵ Bedded sediments should be fine-grain from depositional areas. Grain size and TOC must be reported. Coordinate with TMDL Provision requirements as applicable. Analytes shall include all of those reported in MacDonald et al. 2000 (including copper, nickel, mercury) as well as, zinc and pyrethroids. Coordinate with TMDL Provision requirements as applicable. MacDonald, D.D., G.G. Ingersoll, and T.A. Berger. 2000. Development and Evaluation of Consensus-based Sediment Quality Guidelines for Freshwater Ecosystems. *Archives of Environ. Contamination and Toxicology* 39(1):20–31.

²⁰ *Surface Water Ambient Monitoring Program Quality Assurance Program Plan*; Moss Landing Marine Laboratories, Moss Landing, CA, 2008. URL: <http://swamp.mpsl.mml.calstate.edu/resources-and-downloads/quality-assurance/quality-assurance-program-plan>

Figure 2 - Water Quality Monitoring Flow Chart

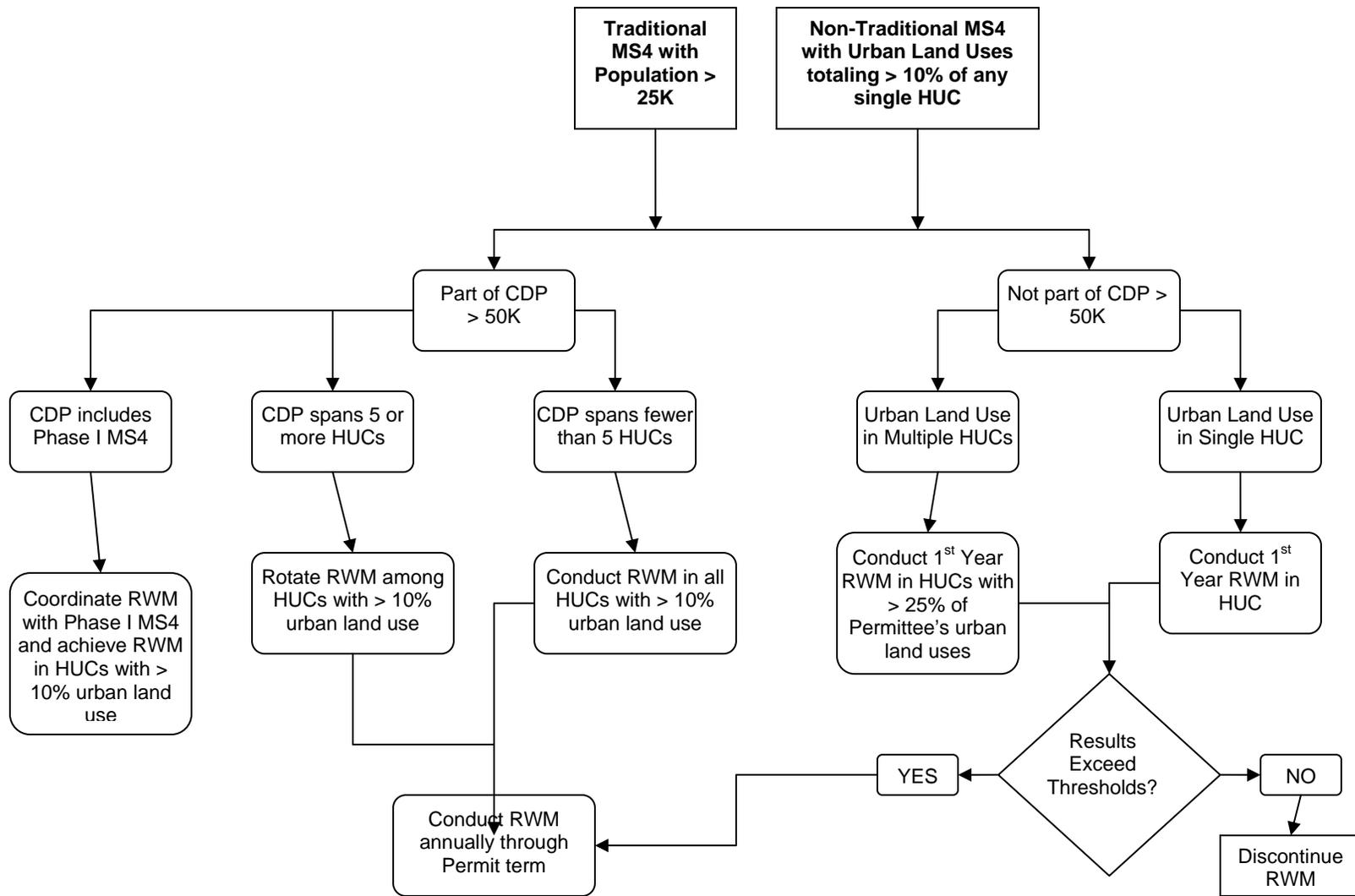


Table C. Sediment Triad Approach to Determining Follow-Up Actions

Chemistry Results⁵⁷	Toxicity Results⁵⁸	Bioassessment Results⁵⁹	Action
No chemicals exceed Threshold Effect Concentrations (TEC), mean Probable Effects Concentrations (PEC) quotient < 0.5 and pyrethroids < 1.0 Toxicity Unit (TU) ⁶⁰	No Toxicity	No indications of alterations	No action necessary
No chemicals exceed TECs, mean PEC quotient < 0.5 and pyrethroids < 1.0 TU	Toxicity	No indications of alterations	(1) Take confirmatory sample for toxicity. (2) If toxicity repeated, attempt to identify cause and spatial extent. (3) Where impacts are under Permittee's control, take management actions to minimize upstream sources causing toxicity; initiate no later than the second fiscal year following the sampling event.
No chemicals exceed TECs, mean PEC quotient < 0.5 and pyrethroids < 1.0 TU	No Toxicity	Indications of alterations	Identify the most probable cause(s) of the alterations in biological community. Where impacts are under Permittee's control, take management actions to minimize the impacts causing physical habitat disturbance; initiate no later than the second fiscal year following the sampling event.
No chemicals exceed TECs, mean PEC quotient < 0.5 and pyrethroids < 1.0 TU	Toxicity	Indications of alterations	(1) Identify cause(s) of impacts and spatial extent. (2) Where impacts are under Permittee's control, take management actions to minimize impacts; initiate no later than the second fiscal year following the sampling event.
3 or more chemicals exceed PECs, the mean PEC quotient is > 0.5, or pyrethroids > 1.0 TU	No Toxicity	Indications of alterations	(1) Identify cause of impacts. (2) Where impacts are under Permittee's control, take management actions to minimize the impacts caused by urban runoff; initiate no later than the second fiscal year following the sampling event.
3 or more chemicals exceed PECs, the mean PEC quotient is > 0.5, or pyrethroids > 1.0 TU	Toxicity	No indications of alterations	(1) Take confirmatory sample for toxicity. (2) If toxicity repeated, attempt to identify cause and spatial extent. (3) Where impacts are under Permittee's control, take management actions to minimize upstream sources; initiate no later than the second fiscal year following the sampling event.

⁵⁷ TEC and PEC are found in MacDonald, D.D., G.G. Ingersoll, and T.A. Berger. 2000. Development and Evaluation of Consensus-based Sediment Quality Guidelines for Freshwater Ecosystems. *Archives of Environ. Contamination and Toxicology* 39(1):20–31.

⁵⁸ Toxicity is exhibited when *Hyallolela* survival statistically different than and < 20 percent of control.

⁵⁹ Alterations are exhibited if metrics indicate substantially degraded community.

⁶⁰ Toxicity Units (TU) are calculated as follows: TU = Actual concentration (organic carbon normalized) ÷ Reported *H. azteca* LC₅₀ concentration (organic concentration normalized). Weston, D.P., R.W. Holmes, J. You, and M.J. Lydy, 2005. Aquatic Toxicity Due to Residential Use of Pyrethroid Insecticides. *Environ. Science and Technology* 39(24):9778–9784.

Chemistry Results ⁵⁷	Toxicity Results ⁵⁸	Bioassessment Results ⁵⁹	Action
3 or more chemicals exceed PECs, the mean PEC quotient is > 0.5, or pyrethroids > 1.0 TU	No Toxicity	No Indications of alterations	If PEC exceedance is Hg or PCBs, address under TMDLs
3 or more chemicals exceed PECs, the mean PEC quotient is > 0.5, or pyrethroids > 1.0 TU	Toxicity	Indications of alterations	(1) Identify cause(s) of impacts and spatial extent. (2) Where impacts are under Permittee's control, take management actions to address impacts.

E.14. PROGRAM EFFECTIVENESS ASSESSMENT AND IMPROVEMENT

E.14.a. PROGRAM EFFECTIVENESS ASSESSMENT AND IMPROVEMENT PLAN

Compliance Tiers

a) All Permittees shall comply with requirements in this Section.

(i) **Task Description** - The Permittee shall develop and implement a Program Effectiveness Assessment and Improvement Plan that tracks short and long-term progress of the storm water program. The Program Effectiveness Assessment and Improvement Plan will assist the Permittee to adaptively manage its storm water program and make necessary modifications to the program to improve program effectiveness, achieve the MEP standard, and protect water quality, and to document the Permittee's compliance with permit conditions. The Program Effectiveness Assessment and Improvement Plan shall identify the strategy used to gauge the effectiveness of each BMP and program implementation as a whole. The effectiveness assessments will build upon each other from one year to the next and shall identify modifications to the program the Permittee must undertake to improve effectiveness.

(ii) **Implementation Level** - The Program Effectiveness Assessment and Improvement Plan may be modeled upon the Municipal Storm Water Program Effectiveness Assessment Guidance (CASQA, May 2007) and the State Water Board's Effectiveness Assessment Guidance (Draft 2010).

- (a) The Program Effectiveness Assessment and Improvement Plan shall include the following minimum elements:
- (1) Implementation of storm water program elements
 - (2) Identification and targeting of Target Audience(s)
 - (3) BMP performance (including expected pollutant removal efficiency and BMP Condition (See Section E.14.b.))
 - (4) Pollutant source reduction
 - (5) Pollutant load quantification (Section E.14.c)
 - (6) MS4 discharge effluent and receiving water quality data, including analysis of the data (Section E.13.c)

(b) The Program Effectiveness Assessment and Improvement Plan shall indicate the following Outcome Levels:

- (1) Storm Water Program Activities
- (2) Behavior
- (3) Pollutant Load Reductions
- (4) MS4 Discharge Quality
- (5) Receiving Water Conditions

(c) The Program Effectiveness Assessment and Improvement Plan shall ask and answer the following Management Questions for each applicable significant activity/control measure. Answers to Management Questions must be based on quantitative data appropriate to the question being answered.

(1) Was the control measure/significant activity implemented in accordance with the permit requirements? (*CASQA Level 1*). The Permittee shall develop quantitative data using measurement methods including, but not limited to, the following:

- (i) Confirmation – Documenting whether an activity or task has been completed, expressed as positive or negative outcome (i.e., yes or no)
- (ii) Tabulation – Simple accounting expressed in absolute (e.g., number of people participating), or relative terms (e.g. percent increase in recycled household hazardous waste)

(2) To what extent did the control measure/significant activity change the target audience's behavior? (*CASQA Level 3*). The Permittee shall develop quantitative data using measurement methods including, but not limited to, the following:

- (i) Surveys - Surveys to discern knowledge, attitudes, awareness, behavior of specific population, etc. Evaluate available survey results from Sections E.5.b., E.8.d.
- (ii) Inspections - Inspections or site visits to directly observe or assess a practice. Evaluate available information from Section E.7.d.

(3) To what extent did the control measure/significant activity reduce pollutant loads from their sources to the storm drain system? (*CASQA Level 4*). Discuss relative to pollutant load and load reduction calculations developed in Section E.14.c.

(d) The Program Effectiveness Assessment and Improvement Plan shall identify assessment methods the Permittee will use to assess BMP performance at reducing pollutant loads wherever feasible, using the following methods:

- (1) Direct quantitative measurement of pollutant load removal for BMPs that lend themselves to such measurement (e.g., measuring sediment collected through street-sweeping activities);
- (2) Science-based estimates of pollutant load removal for BMPs where direct measurement of pollutant removal is overly challenging (e.g., removal of heavy metals through a bioswale);

- (3) Direct quantitative measurement of behaviors that serve as proxies of pollutant removal or reduction (e.g., the percentage of construction sites demonstrated by inspection to be in compliance with permit conditions); or
 - (4) Visual comparison (e.g., using photographs to compare the amount of trash in a creek between one year and the next).
- (e) The Program Effectiveness Assessment and Improvement Plan shall include Water Quality Monitoring Data, where available, to answer the following Management Questions and assess the effectiveness of control measures/significant activities and the overall storm water program:
- (1) To what extent did implementation of the control measure/significant activity or storm water program enhance or change the urban runoff and discharge quality? (*CASQA Level 5*)
 - (2) To what extent did implementation of the control measure/significant activity or storm water program enhance or change receiving water quality? (*CASQA Level 6*)
 - (3) Did exceedance(s) of water quality objectives or water quality standards persist notwithstanding implementation of the storm water program?

(iii) **Reporting** – By September 15, 2013 online Annual Report submit the Program Effectiveness Assessment and Improvement Plan summarizing short and long-term progress of the storm water program. Report annually any necessary modifications to the storm water program, per Section E.14.d., to improve program effectiveness, to achieve the MEP standard, protect water quality, and to document the Permittee’s compliance with permit conditions.

E.14.b. Best Management Practice Condition Assessment

Compliance Tiers

a) Renewal Traditional Small MS4 Permittees required to comply with Attachment 4, Section B, Design Standards of WQO 2003-0005-DWQ (existing General Permit) shall comply with all requirements in this Section.

- (i) **Task Description** – By May 15, 2015, the Permittee shall inventory and assess the maintenance condition of urban storm water BMPs (including BMPs used for flood control) within the Permittee’s jurisdiction.
- (ii) **Implementation Level** – Develop and implement a methodology similar to the Lake Tahoe BMP Rapid Assessment Methodology⁶¹ to inventory, map, and determine the relative maintenance condition of the urban storm water BMPs. The methodology shall be a simple and repeatable field observation and data management tool that determines relative condition of structural post-construction BMPs. The condition of the BMPs shall inform the Permittee of the relative urgency of the need for maintenance. The methodology must, at a minimum:

⁶¹ 2NDNATURE LLC et al. September 2009. BMP RAM Technical Document, Lake Tahoe Basin. Prepared for the U.S. Army Corps of Engineers, Sacramento District.

- (a) Inventory and map existing and proposed post-construction BMPs into GIS.
 - (b) Rank BMPs for maintenance based on field observations and capacity to remove pollutants of concern from storm water runoff and/or reduce hydromodification impacts. For instance, regional BMPs should receive higher priority than lot-scale BMPs, and BMPs designed to remove pollutants for which receiving water is impaired should receive higher priority than other BMPs.
 - (c) Establish a long-term plan for conducting regular maintenance of BMPs, including the frequency of such maintenance.
- (iii) **Reporting** – By September 15, 2015 online Annual Report, submit a summary of methodology, including the results and schedule of all activities in the above section.

E.14.c. Municipal Watershed Pollutant Load Quantification

Compliance Tiers

- a) New Traditional Small MS4 Permittees** shall comply with all requirements in this Section by May 15, 2017.
- b) Renewal Traditional Small MS4 Permittees** shall comply with all requirements in this Section by May 15, 2015.
- c) Non-traditional Small MS4 Permittees** shall comply with all requirements in this Section by May 15, 2017.

- (i) **Task Description** – The Permittee shall quantify annual subwatershed pollutant loads. At a minimum, annual loads for the following constituents shall be quantified:
- (a) sediment (measured as total suspended solids or suspended sediment concentration)
 - (b) fecal coliform bacteria
 - (c) total phosphorus
 - (d) total nitrogen
 - (e) cadmium
 - (f) chromium
 - (g) copper
 - (h) lead
 - (i) nickel
 - (j) zinc
 - (k) trash

Additional pollutants of concern as identified by the Permittee in consultation with the Regional Boards shall also be quantified.

In addition, any reductions associated with BMPs and other program elements shall be quantified. The Permittee shall integrate this information into its assessment of program effectiveness according to Section E.14. The report shall also identify storm water retrofit opportunities.⁶²

(ii) **Implementation Level** – The Permittee shall use the Center for Watershed Protection’s Watershed Treatment Model or other equivalent simplified spreadsheet method to calculate annual runoff, pollutant loads, and BMP removal efficiency. The Permittee shall use pollution concentration data from the National Stormwater Quality Database, local monitoring data for pollutant loads and BMP removal efficiency, or other centralized databases (e.g., International Storm Water BMP Database⁶³). The Permittee shall justify all assumptions used to model BMP pollutant reductions on the basis of appropriate data, and shall recalibrate the model at appropriate intervals by modifying the assumptions on the basis of data collected per Section E.14. In addition, the Permittee shall not count pollutant reductions from treatment BMPs rated less than “acceptable,” or equivalent, using the methodology developed according to Section E.12.a.

(iii) **Reporting** –
New Traditional Small MS4 Permittees – By September 15, 2017 online Annual Report, submit quantification report of annual subwatershed pollutant loads.

Renewal Traditional Small MS4 Permittees – By September 15, 2015 online Annual Report, submit quantification report of annual subwatershed pollutant loads.

Non-traditional Small MS4 Permittees - By September 15, 2017 online Annual Report, submit quantification report of annual subwatershed pollutant loads.

E.14.d. Storm Water Program Modifications

Compliance Tiers

a) All Permittees shall comply with requirements in this Section.

(i) **Task Description** – Based on the information gained from the effectiveness assessment, the Permittee shall make modifications to control measures/significant activities, including new BMPs or modification to existing BMPs, as specified below. The Permittee shall also evaluate information gained from activities per Section E.12.b to identify BMPs intended to achieve increased pollutant load reductions.

⁶² The Permittee shall use the Center for Watershed Protection’s guide on Urban Stormwater Retrofit Practices (available as a free download at) or equivalent when identifying retrofit opportunities.

⁶³ www.bmpdatabase.org

The Permittee shall consult with the Regional Water Board in setting expectations for the scope, timing, and frequency of BMP modifications.

(ii) **Implementation Level** – By May 15, 2016, maintenance shall commence for the highest priority BMPs identified in the BMP Condition Assessment (Section E.14.b.). By May 15, 2017, maintenance of high priority BMPs shall be completed. At a minimum, 20% of the total number of BMPs must be maintained annually. Further Program Modifications shall include:

- (a) Improving upon BMPs that did not accomplish goals;
- (b) Continuing and expanding upon BMPs that proved to be effective, including identifying new BMPs or modifications to existing BMPs designed to increase pollutant load reductions;
- (c) Discontinuing BMPs that may no longer be productive and replacing with more effective BMPs; and
- (d) Shifting priorities to make more effective use of resources

(iii) **Reporting** – By September 15, 2016, online Annual Report summarizes maintenance activities of highest priority BMPs. By September 15, 2017 online Annual Report, summarize completion of maintenance of high priority BMPs. Report annually any necessary modifications to the storm water program to improve program effectiveness, to achieve the MEP standard, protect water quality, and to document the Permittee

E.15. TOTAL MAXIMUM DAILY LOADS COMPLIANCE REQUIREMENTS

E.15.a. The Permittee shall comply with all applicable TMDLs approved pursuant to 40 CFR § 130.7 for which the Permittee has been assigned a Waste Load Allocation or has been identified in Attachment G.

E.15.b. Waste Load Allocations (WLA), Load Allocations (LA) and implementation requirements are specified in the adopted and approved Regional Water Board Basin Plans and authorizing resolutions which are incorporated herein by reference as enforceable parts of this General Permit. Applicable Basin Plan amendments and resolutions are identified in Attachment G. Attachment G additionally contains a list of requirements developed by the Regional Boards for compliance with the implementation requirements of the relevant TMDLs. These requirements are an enforceable component of this Order. In some cases, dates are given that fall outside the term of this General Permit. Compliance dates that have already passed are enforceable on the effective date of this General Permit. Compliance dates that exceed the term of this General Permit are included for reference, and become enforceable in the event that this General Permit is administratively extended.

E.15.c. Notwithstanding requirements described in E.15.a. and E.15.e., the State Water Board may revise this General Permit to incorporate any modifications or revisions to the TMDLs in Attachment G, or to incorporate any new TMDLs adopted during the term of this General Permit that assign a WLA to the Permittee or that identifies the Permittee as a responsible party. In revising Attachment G, the State Water Board will allow adequate public review.

E.15.d. The Permittee shall report the status of their implementation of the specific TMDL implementation requirements that have been incorporated into the General Permit with each online Annual Report via SMARTS. Reporting on TMDL implementation shall include the following information:

- (i) A description of BMPs implemented, including types, number, and locations
- (ii) An assessment of the effectiveness of implemented BMPs in progressing towards attainment of wasteload allocations within the TMDLs' specified timeframes
- (iii) All monitoring data, including a statistical analysis of the data to assess progress towards attainment of wasteload allocations within the TMDLs' specified timeframes
- (iv) Based on results of the effectiveness assessment and monitoring, a description of the additional BMPs that will be implemented to attain wasteload allocations within the TMDLs/ specified timeframes

E.15.e. The Permittee shall comply with implementation requirements specified in Category 4b demonstrations associated with Clean Water Act Sections 303d, 306b, and 314 Integrated Reporting and Listing Decisions. Implementation requirements described in Category 4b demonstrations are effective upon Regional Water Board approval of that region's Integrated Reporting and Listing Decisions and associated Category 4b demonstrations.

E.16 ONLINE ANNUAL REPORTING PROGRAM

E.16.a. The Permittee shall submit online Annual Reports electronically via the State Water Board SMARTS by September 15 of each year. Each online Annual Report shall report on the previous fiscal year beginning July 1 and ending June 30. The online Annual Reporting requirements are set forth in Provisions E. The Permittee shall retain documentation as necessary to support their online Annual Report. The Permittee shall make this supporting information available during normal business hours, unless agreed to by the Regional Water Board's Executive Officer.

E.16.b. Permittees involved in regional programs shall coordinate with the members to identify reporting responsibility. SMARTS will accept only one report on behalf of Permittees involved in a regional program. The one report submitted on behalf of Permittees involved in a regional program

must include full reporting and demonstration of compliance for each of the Permittees in the regional program

E.16.c. The Permittee shall certify in each online Annual Report that they are in compliance with all requirements of the General Permit. If a Permittee is unable to certify compliance with a requirement, it must submit in the online Annual Report the reason for failure to comply, a description and schedule of tasks necessary to achieve compliance, and an estimated date for achieving full compliance.

F. REGIONAL WATER BOARD AUTHORITIES

Regional Water Boards are responsible for overseeing compliance with this General Permit. Oversight may include, but is not limited to, reviewing reports, requiring modification to storm water program components and various submissions, imposing region-specific monitoring requirements, conducting inspections and program evaluations (audits), taking enforcement actions against violators of this General Permit, and making additional designations of a Permittee per the criteria described in this General Permit and Fact Sheet. The Regional Water Boards may also issue individual permits to a Regulated Small MS4s, and alternative general permits to categories of Regulated Small MS4s. Upon issuance of such permits by a Regional Water Board, this General Permit shall no longer regulate the affected Small MS4(s).

G. PERMIT EXPIRATION AND PERMIT RE-OPENER

This Order expires on January 15, 2017. If a new order is not adopted by that date, dischargers shall continue to implement the requirements of this Order until a new one is adopted. The State Board may reopen and modify this Order at any time prior to its expiration.

CERTIFICATION

The undersigned, Clerk to the Board, does hereby certify that the foregoing is a full, true, and correct copy of an order duly and regularly adopted at a meeting of State Water Board held on _____.

Jeanine Townsend
Clerk to the Board