ATTACHMENT E – PROVISIONS FOR NON-TRADITIONAL PERMITTEES

OVERVIEW

This attachment describes the requirements with which Non-Traditional MS4s, identified in Attachment A Table A6.3 must comply.

E1. PROGRAM MANAGEMENT

E1.1 Legal Authority – Renewal and New Permittees

Within 1 year of the effective date of this Order, Renewal Small MS4 Permittees shall review and revise as necessary relevant ordinances, policies, contractual provisions, tenant and lease agreements, base orders, conditions of lease, resolutions or other regulatory mechanisms, or adopt any new relevant ordinances, policies, or other regulatory mechanisms, to obtain legal authority, to the extent allowable under state or local law, to reduce or eliminate pollutants discharging from its storm drain system pursuant to the requirements of this Order. New Permittees shall do so within 2 years of the effective date of this Order or of the Permittee's effective date of designation, whichever is later. These ordinances, policies or other regulatory mechanisms shall include authority to:

1. Prohibit dumping or disposal of materials other than stormwater and authorized non-stormwater discharges into the Permittee's MS4;
2. Effectively prohibit non-stormwater discharges through the MS4. Detect and eliminate unauthorized non-stormwater discharges (illicit discharges) and illegal connections to the Permittee's MS4;
3. Respond to the discharge of spills into the MS4 or spills that may discharge into the MS4;
4. Require parties responsible for discharges in excess of incidental runoff from landscaped areas to implement actions necessary to prevent recurring discharges;
5. Require operators of construction sites, new development or redevelopment projects, and industrial and commercial facilities to minimize the discharge of pollutants to the MS4 through the installation, implementation, and maintenance of best management practices consistent with the current California Stormwater Quality Association Best Management Practice Handbooks or equivalent;
6. Require information necessary to assess compliance with this Order. The Permittee shall only require information in compliance with the Homeland

Security Act or any other federal law that concerns security in the United States;

7. Review designs and proposals for new development and redevelopment to determine whether adequate best management practices will be installed, implemented, and maintained during construction and after final stabilization (post-construction);
8. Enter private property for the purpose of inspecting, at reasonable times, any facilities, equipment, practices, or operations for active or potential stormwater discharges, or non-compliance with local ordinances/standards or requirements in this Order, as consistent with any applicable state and federal laws;
9. Require responsible parties to promptly cease and desist discharging and cleanup and abate actual and threatened discharges, including the ability to:
    a. Require the responsible parties to abate and clean-up their illicit discharge or spill no later than within 72 hours of notification and to expedite clean-up of high-risk illicit discharges or spills;
    b. Require abatement within 30 days of notification of uncontrolled sources of pollutants that could pose an environmental threat;
    c. Perform clean-up and abatement work and bill the responsible party, if necessary;
    d. Order the cessation of activities until activities resulting in pollutant discharges are adequately addressed or abated;
    e. Require a revised timeframe when all parties agree that clean-up activities cannot be completed within the required timeframe. The responsible party shall provide written notification to the appropriate Regional Water Board within five business days of the determination that the timeframe requires revision.
10. Levy citations or administrative fines against responsible parties; and
11. Require recovery and remediation costs from responsible parties.

E1.2 Certification

The Permittee's authorized signatory or duly authorized representative shall certify that the Permittee has and will maintain full legal authority to implement and enforce each of the requirements contained in this Order. Renewal Permittees shall submit a certification statement in their first annual report. New Permittees shall submit a certification statement in their second annual report.

The Permittee shall update its certification statement as necessary. The Permittee's certification statement shall include the following:

1. Identification of all departments within the Permittee's jurisdiction that conduct stormwater-related activities and their roles and responsibilities under this Order;
2. Citation of the Permittee's stormwater runoff related regulatory mechanisms, and identification of the requirements of this Order that correspond with each regulatory mechanism;
3. Identification of the local administrative and legal procedures available to mandate compliance with stormwater related ordinances and therefore with the conditions of this Order;
4. A description of the procedures to review, update, and implement stormwater-related ordinances and other regulatory mechanisms;
5. A statement that the Permittee will implement enforcement actions consistent with its adopted ordinances, relevant policies, contractual provisions, base orders, resolutions, or other regulatory mechanisms; and
6. A statement that the Permittee has adequate legal authority to comply with all Order requirements.

E1.3 NPDES Permit Referrals

For those construction projects or industrial facilities subject to the State Water Board Construction General Permit or Industrial General Permit, the Permittee shall:

1. Refer to SMARTS for current filing status of construction projects or industrial facilities (https://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin.xhtml);
2. Refer non-filers (i.e., those facilities that cannot demonstrate that they obtained appropriate permit coverage) to the appropriate Regional Water Board within 30 days of the MS4's determination that permit coverage would be appropriate. Non-filers include the following:
    a. Owners of regulated construction projects that have either not filed a Construction General Permit Notice of Intent or have not received a Construction General Permit erosivity waiver; and
    b. Owner/operators of regulated industrial facilities that have not filed either an Industrial General Permit Notice of Intent, No Exposure Certification, or Notice of Non-Applicability.

3. Refer owner/operators with suspected ongoing violations of the Construction General Permit or Industrial General Permit known by the Permittee to the appropriate Regional Water Board. This referral must be made within 30 days of the MS4's determination that violations may be ongoing; and
4. In making the referrals, the Permittee shall include the following documentation:
    a. Name and contact information of owner/operator;
    b. Construction project or industrial facility location;
    c. Estimated construction project size or industrial activity type (including Standard Industrial Classification Code or North American Industry Classification System Code, if known);
    d. Records of communication with the owner/operator regarding filing requirements or ongoing violations; and
    e. Any enforcement tracking documentation the Permittee has regarding the site or facility.

E1.4 Guidance Document Implementation

During the course of implementing the requirements of this Order, the Permittee shall reference the guidance document submitted with their Notice Of Intent and note any changes to the guidance document (for example, changes to the responsible implementing entity or changes to any locally-tailored best management practices carried over from a stormwater management plan developed under WQO 2003-0005). If changes are made, the Permittee shall submit the updated guidance document with the Annual Report.

E2. PUBLIC EDUCATION, OUTREACH, INVOLVEMENT, AND PARTICIPATION PROGRAM

E2.1 Definition of Public

The public for a Non-traditional MS4 Permittee is considered the following, if applicable:

1. Faculty
2. Inmates
3. Military personnel
4. Residents

5. Students
6. Staff
7. Visitors
8. Contractors
9. Tenants

E2.2 Implementation Options

1. Within 1 year of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall select one public education program implementation option below:
   a. Individually fulfill public education and public participation program requirements within their jurisdictional boundaries;
   b. Contribute to a countywide stormwater program which conducts education and outreach on behalf of its members; or
   c. Contribute to a regional outreach and education collaborative effort which shall include members completing the following:
      1) Define a uniform and consistent message(s);
      2) Determine the best methods to communicate the message(s); and
      3) Collaboratively apply what is learned through local jurisdiction groups.
2. Within 1 year of the beginning of its involvement or contribution, the Permittee shall obtain documentation, such as a written agreement, letter, or similar document, which confirms any involvement in or contribution to a countywide stormwater program or regional outreach and education collaborative effort within one year of the beginning of its involvement or contribution.

E2.3 Development and Implementation

1. Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall develop and implement or review, update as necessary, and implement a written public education strategy to attain the following goals related to stormwater pollution prevention and using stormwater as a resource:
   a. Identify who is responsible for implementing specific tasks and create a schedule for task implementation;
   b. Identify the Permittee's target audiences;

c. Encourage public input (e.g., the opportunity for public comment, or public meetings) in the development of the public education program;

d. Develop and disseminate educational materials (e.g., printed materials, billboard and mass transit advertisements, signage at select locations, stenciling at storm drain inlets, radio advertisements, television advertisements, and websites) for targeted audiences, including multiple languages as appropriate and that address the following topics as applicable:

   1) Local pollutants of concern and regional water quality issues;

   2) Benefits of water-efficient and stormwater- friendly landscaping (e.g., Surfrider's Ocean Friendly Garden Program and the Department of Water Resources Water Efficient Landscape Ordinance);

   3) Proper application of pesticides, herbicides, and fertilizers;

   4) Best management practices to reduce or eliminate illicit discharges from organized car washes (e.g., see the Sacramento Stormwater Quality Partnership's River Friendly Carwash Program), mobile cleaning and pressure washing operations, and landscape irrigation; and

   5) Illicit discharge awareness and illicit discharge and spill reporting including promotion of the Permittee's illicit discharge reporting hotline per the section Illicit Discharge and Spill Response Plan.

   6) Pet waste management, including the following:

      i) Permittees shall maintain a web page on the Permittee's website with information about proper pet waste management and the impact of improperly deposited waste on water quality and public health;

      ii) Annual messaging to residents, reminding them to cleanup accumulated pet waste in their yards that could otherwise get washed into streams and beaches; and

      iii) Messaging regarding pet waste management and associated impacts to the beaches and their catchments.

e. As applicable within the Permittee's jurisdiction, provide independent, parochial, and public schools with materials to educate school-age children about the effects of pollutants in stormwater discharge, the actions the Permittee is taking to protect/enhance stormwater quality, and the actions school-age children can do to help protect receiving

water quality in their local area. The Permittee is encouraged to use environmental and place-based experiential learning materials that are integrated into school curricula and school facility management. The Permittee may refer to Sac Splash (www.sacsplash.org) , the Effie Yeaw Nature Center (www.sacnaturecenter.net), or California's Education and Environment Initiative Curriculum (http://www.californiaeei.org) for examples.

2. Construction and Post Construction Education – The Permittee shall develop and implement a strategy to educate project proponents, designers, and implementors of Regulated Construction and Post Construction projects. This shall include providing training to key stakeholders, including developers, contractors, construction site operators, and owner/builders, on the Permittee's post-construction requirements and permitting process. Training shall be provided early in the planning process and as appropriate to ensure understanding and proper implementation of measures.

E2.4 Public Participation Program

The Permittee shall involve the public in the development and implementation of its stormwater management program. At a minimum, within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall:

1. Create opportunities for the public to participate in the implementation of stormwater pollution prevention activities by sponsoring Permittee activities or supporting private activities.
2. Develop electronic, paper, or other communication techniques to ensure the public can easily find information about the Permittee's stormwater management program and opportunities to participate.

E3. ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM

The Permittee shall implement an Illicit Discharge Detection and Elimination Program to detect, investigate, and eliminate illicit discharges, including illegal dumping, into its storm drain system pursuant to the following requirements.

E3.1 Illicit Discharge and Spill Response Plan

Within 1 year of the effective date of this Order or the effective date of the Permittee's Designation, whichever is later, the Permittee shall develop and implement or review, update as necessary, and implement an Illicit Discharge and Spill Response Plan that, at a minimum, includes the following elements:

1. A publicly accessible method or methods to receive illicit discharge and spill notifications 24 hours a day (e.g., 24-hour hotline, internet complaint website). Anonymous reporting shall be accommodated by at least one reporting method. The Permittee is encouraged to accommodate electronic photo submittals;
2. An illicit discharge and spill complaint response process that provides the following:
    a. Material characterization, source identification, containment, abatement, and recovery;
    b. Ability to respond to a reported illicit discharge and conduct assessment and clean-up and abatement, 24-hours-a-day;
    c. Receiving water impact assessment, including visual observation and water quality sampling, as appropriate.[1] The Permittee may reference indicator parameters and action level concentrations found in the Center for Watershed Protection's Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assistance (https://www3.epa.gov/npdes/pubs/idde_manualwithappendices.pdf);
    d. Identification of responsible party, as applicable;
    e. Response timelines for illicit discharges and spills shall be based upon threats to water quality and human health as follows:
        1) Illicit discharges and spills known or suspected of being either sanitary sewage, hazardous, or contaminated shall be investigated as soon as possible, but no later than 24 hours of the Permittee becoming aware of the discharge.
        2) The Permittee shall investigate any suspected illicit discharge or spill not meeting the above criteria within 72 hours of becoming aware of the suspected illicit discharge or spill.
        3) For investigations that require more than 72 hours, the Permittee shall identify the actions being taken to identify and locate the source of the suspected illicit discharge.
    f. Roles and responsibilities of responding agencies for all times of day, including illicit discharge and spill response referral process (i.e., transfer

[1] These requirements may be satisfied through collaboration with neighboring Permittees, particularly where a discharge passes through a neighboring Permittee's MS4 prior to reaching receiving waters.

of incident command) and notification to appropriate federal, state, and local agencies;

g. A description of who, how, and what is used to clean-up and verify clean-up of illicit discharges and spills, for both hazardous and non-hazardous substances, including storm drain system cleaning;

3. An Illicit Discharge and Spill Enforcement Protocol that describes:

   a. The various illicit discharge and spill levels, such as nuisance, immediate response, and emergency and hazardous material spills, and the associated response and enforcement actions for each;

4. If applicable, any entities responsible for enforcement and when they take enforcement action. A protocol to track and query the following:

   a. Details of illicit discharge and spill complaints and complaint response, including, but not limited to, time of notification, location of illicit discharge or spill, responsible party or parties, quantity and type of material, and whether actual or potential illicit discharges and spills are abated;

   b. Responding parties;

   c. Response time to illicit discharges and spills;

   d. Inspector's notes and findings;

   e. History of prior illicit discharges and spills; and

   f. Follow-up actions, including but not limited to, re-inspections, receipt of compliance documentation, referrals to other divisions or agencies, cost recovery, fines, and other enforcement.

E3.2 Illicit Discharge Source Areas

1. Within 1 year of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall develop and implement or review, update as necessary, and then implement written procedures to proactively identify and abate the following sources of potential or actual illicit discharges:

   a. Areas with a history of past illicit discharges;

   b. Areas with a history of illegal dumping;

   c. Areas with onsite sewage disposal systems;

   d. Areas with infrastructure more likely to have illegal connections and a history of sanitary sewer overflows or cross-connections;

e. Other areas that are likely to have illicit discharges.

2. Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall create or review and update as necessary, a map or maps which may be in hard copy, electronic, or geographic information system (GIS) form and which shall include the following:

   a. The MS4 Map developed pursuant to Order Provision E4.11; and

   b. All areas identified as Illicit Discharge Source Areas.

   c. Location of dry weather flows identified per the section Dry Weather Flow Investigation and Sampling.

   d. The permit boundary.

3. The maps shall be reviewed annually at minimum and updated as necessary.

E3.3 Dry Weather Flow Investigation and Sampling

1. Within 1 year of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall develop or review and update as necessary, written procedures to proactively identify, investigate, and eliminate (per section Illicit Discharge and Spill Response Plan) sources of dry weather flows from MS4 outfalls flowing or ponding more than 72 hours after the last rain event. Procedures shall include the following:

   a. A process to investigate outfalls that are flowing or ponding more than 72 hours after the last rain event. The investigation shall include sampling when the Permittee cannot determine that the flow is an authorized non-stormwater discharger or eliminate the illicit discharge(s)causing the dry weather flow. Sampling shall include the indicators parameters and actions levels in Table E3.1 Indicator Parameters and Action Level Concentrations, below, and any other parameters of concern based on observation of the flow and other relevant information. The Permittee shall conduct a follow up investigation if action level concentrations are exceeded and the source of the illicit discharge has not been identified and eliminated. The Permittee may reference the Center for Watershed Protection's 2004 document titled "Illicit Discharge Detection and Elimination, A Guidance Manual for Program Development and Technical Assessments" for appropriate field test methods (https://www3.epa.gov/npdes/pubs/idde_manualwithappendices.pdf);

Table E3.1 Indicator Parameters and Action Level Concentrations

Indicator Parameter	Action Level Concentration
Ammonia	Greater than or equal to 50 milligrams per liter
Color	Greater than or equal to 500 color units
Conductivity	Greater than or equal to 2,000 microsiemens per centimeter
Hardness	Less than or equal to 10 milligrams per liter as $CaCO_3$ or greater than or equal to 2,000 milligrams per liter as $CaCO_3$
pH	Less than or equal to 5 or greater than or equal to 9
Potassium	Greater than or equal to 20 milligrams per liter
Turbidity	Greater than or equal to 1,000 Nephlometric Turbidity Units

b. Frequency and timeline of proposed outfall investigations;

c. Processes to abate the source of illicit dry weather discharge within time frames specified in the Illicit Discharge and Spill Response Plan;

d. A process to coordinate with field staff with institutional knowledge of chronic dry weather flows or that may observe dry weather flows, for example, during maintenance or inspections near or at outfalls;

e. Documentation of dry weather investigation findings, including dates of inspection and sampling, as well as sampling results.

2. Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall implement these Dry Weather Flow Investigation and Sampling procedures.

E3.4 Potential Illicit Discharge Source/Facility Inventory

1. Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall create or review and update an inventory of all industrial/commercial facilities/sources within the Permittee's jurisdiction (regardless of ownership) that could discharge pollutants in stormwater to the MS4. The inventory shall include the following information for each source.

a. Facility/source name;
b. Owner/operator contact information;
c. Address or location (geographical coordinates);
d. Nature of business or activity;
e. Standard Industrial Classification (SIC) codes (when known);
f. Physical location (geographical coordinates) of the Permittee's storm drain inlets that would receive potential discharges;
g. Name of receiving water;
h. Date of most recent inspection;
i. Issues identified and corrective actions required during inspection;
j. Date corrective actions were implemented; and
k. Notation whether the facility or operation has the following related to the Industrial General Permit: Enrollment (include Waste Discharge Identification number for enrolled facilities) or Notice of Termination if applicable.

2. At a minimum, the following industrial and commercial facilities/sources shall be included in the inventory:

a. Vehicle salvage yards;
b. Metal and other recycled materials (e.g., plastic, paper, engine oil) collection;
c. Waste transfer;
d. Vehicle mechanical repair, maintenance, or cleaning;
e. Building trade central facilities or yards;
f. Corporation yards;
g. Landscape nurseries and greenhouses;
h. Building material retailers and storage;
i. Plastic manufacturers;
j. Retail and wholesale fueling;
k. Pet boarding, grooming, supply;
l. Restaurants;
m. Grocery stores;
n. Strip malls;
o. Other commercial businesses; and

p. Other facilities determined by the Permittees or Regional Water Boards to have reasonable potential to contribute pollutants to stormwater runoff.

3. The Permittee shall determine if the facilities that may be required to be covered under the Industrial General Permit have done so. Upon discovering any facilities suspected of needing permit coverage but are not yet permitted, the Permittee shall notify the appropriate Regional Water Board per section Certification.

4. The Permittee shall update the inventory annually, including adding or removing facilities/sources. 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 (for example, the SMARTS database).

E3.5 Potential Illicit Discharge Source/Facility Inspections

1. Within 1 year of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall develop written procedures to inspect and prioritize for inspection facilities/sources identified in the inventory created for section Potential Illicit Discharge Source/Facility Inventory. The inspections may be accomplished by incorporating stormwater elements into existing inspection programs.

2. Inspections shall be performed by appropriately trained staff and include at least the following activities:

   a. Observations for appropriate best management practices to prevent stormwater runoff pollution or illicit discharge;

   b. Observations for evidence of unauthorized discharges, illegal connections, and potential discharge of pollutants to stormwater;

   c. Observations for noncompliance with Permittee ordinances and other local requirements;

   d. Verification of coverage under the Industrial General Permit, if applicable; and

   e. Documenting inspections and findings of inspections.

3. Within 3 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall begin inspections of at least 20% of all facilities annually.

4. The Permittee shall inspect all inventoried facilities/sources at least once every five years.
5. The Permittee shall conduct follow-up inspections to verify corrective actions have been taken in accordance with the Illicit Discharge and Spill Response Plan.

E3.6 Illicit Discharge Detection and Elimination Staff Training

Within 2 years of the effective date of Order or the Permittee's effective date of designation, whichever is later, the Permittee shall implement a biennial 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 a spill, illicit discharge or illegal connection to the storm drain system. The training program shall include, at a minimum:

1. Identification of an illicit discharge or illegal connection;
2. Lessons learned from historical spills and illicit discharges;
3. Proper procedures for reporting and responding to the spill, illicit discharge or illegal connection;
4. Follow-up training as needed to address changes in regulations, procedures, techniques, or staffing;
5. A biennial assessment of trained staff's knowledge of identifying, reporting, and responding to illicit discharges and revisions to the training as needed;
6. Training for new staff no later than six months after the start of employment; and
7. Contact information, including the procedure for reporting a spill or illicit discharge, shall be included in each of the Permittee's fleet vehicles that are used by field staff.

E4. POLLUTION PREVENTION AND GOOD HOUSEKEEPING FOR PERMITTEE OPERATIONS PROGRAM

The Permittee shall develop and implement a pollution prevention and good housekeeping for Permittee operations program to prevent or reduce the amount of pollutant runoff from Permittee operations. The Permittee shall implement appropriate best management practices for preventing or reducing the amount of stormwater pollution generated by Permittee operations.

E4.1 Inventory of Permittee-Owned and Operated Facilities

1. Within 1 year of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall develop or review and update as necessary an inventory of Permittee-owned or operated facilities within their jurisdiction that are a threat to water quality. The inventory shall include all Permittee-owned or operated facilities within their jurisdiction that are potential sources of pollution in stormwater, including the following:

    a. Airports;
    b. Animal control facilities;
    c. Chemical storage facilities;
    d. Composting facilities;
    e. Equipment storage and maintenance facilities (including landscape-related operations);
    f. Fuel farms;
    g. Fire stations and training facilities;
    h. Hazardous waste disposal facilities;
    i. Hazardous waste handling and transfer facilities;
    j. Incinerators;
    k. Landfills;
    l. Materials storage yards;
    m. Pesticide storage facilities;
    n. Public parking lots;
    o. Public golf courses;
    p. Public swimming pools;
    q. Public parks and recreation areas;
    r. Public works yards;
    s. Public marinas;
    t. Recycling facilities;
    u. Salt or de-icing storage facilities;
    v. Solid waste handling and transfer facilities;
    w. Transportation hubs (e.g., bus transfer stations);
    x. Vehicle storage and maintenance areas;
    y. Vehicle fueling facilities; and
    z. Other (as directed by the appropriate Regional Water Board).

2. The inventory shall include the following for each facility:

    a. Name and type of facility;
    b. The facility manager's name, title, and contact information;

c. Physical address (if applicable) and decimal latitude-longitude coordinates of facility;
d. Date of last assessment or inspection;
e. Industrial General Permit Waste Discharge Identification Number if applicable; and
f. Indication of facilities identified as hotspots as required in the section Identification of Pollutant Hotspots.

E4.2 Map of Permittee-Owned and Operated Facilities

Within 1 year of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall create or review and update as necessary a map or maps of the Permittee-owned or operated facilities identified in section Inventory of Permittee-Owned and Operated Facilities. The map(s) shall include the following:

1. The location of the facilities;
2. The stormwater drainage system serving the facilities, including drain inlets and outfalls;
3. The receiving waters to which these facilities discharge or identification of neighboring MS4 where a discharge passes through a neighboring MS4 prior to reaching receiving waters; and
4. Identification of hotspot facilities as required in the section Identification of Pollutant Hotspots.

E4.3 Identification of Pollutant Hotspots

1. Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall conduct an initial inspection and assessment of all facilities in the inventory (created per section Inventory of Permittee-Owned and Operated Facilities) that were not already subject to an initial inspection under the previous Small MS4 permit. The inspections shall identify actual or potential pollutant discharge and Hotspot Facilities using the Center for Watershed Protection's guide on Urban Subwatershed and Site Reconnaissance, or equivalent. See Chapter 4 of the Center for Watershed Protection's Unified Subwatershed and Site Reconnaissance: A User's Manual. Among the factors to be considered in identifying hotspot facilities are:
   a. The type and volume of pollutants stored at the site;
   b. The presence of improperly stored materials;

c. Outdoor material handling and equipment maintenance activities

d. Disturbed or erodible soils;

e. Proximity to water bodies;

f. Poor housekeeping practices;

g. History of deficient pollution prevention best management practice implementation; and

h. History of illicit discharges.

2. Hotspots shall include, at a minimum, the following:

a. The Permittee's maintenance and corporation yards;

b. Vehicle storage, maintenance, washing areas;

c. Hazardous waste facilities;

d. Fuel storage or dispensing locations;

e. Airports;

f. Marinas; and

g. Any other facilities at which chemicals or other materials are likely to be discharged in stormwater.

3. The Permittee shall document initial inspection and assessment procedures and results of site evaluation checklists used to conduct the initial inspection and assessment.

4. The Permittee shall update the inventory of Permittee-owned or operated facilities annually. Permittees shall conduct the initial inspection and assessment for any facilities added to the inventory within one year.

E4.4 Hotspot Facility Stormwater Pollution Prevention Plan

1. Within 3 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, for each hotspot facility identified per section Identification of Pollutant Hotspots, the Permittee shall develop or update as needed and implement written site-specific Stormwater Pollution Prevention Plans that identify existing stormwater best management practices installed, implemented, and maintained or identify additional needed best management practices to minimize the discharge of pollutants to protect water quality.

2. The Stormwater Pollution Prevention Plan(s) shall be kept on-site at each of the Permittee-owned or operated facilities' offices for which it was completed and shall be updated as necessary.
3. At a minimum the Stormwater Pollution Prevention Plan will include the following:
    a. Facility address;
    b. Owner/operator name and contact information;
    c. Purpose of the document;
    d. Key staff/contacts at the facility;
    e. Site map with drainage and discharge locations identified;
    f. Types and location of pollutant generating materials that are handled and stored at the facility that may be exposed to stormwater;
    g. Facility stormwater best management practices;
    h. Spill control and cleanup procedures including spill kit location;
    i. Spill notification procedures (e.g., fire department, Certified Unified Program Agency);
    j. Dates of scheduled quarterly and annual inspections per section Hotspot Facility Inspections, Visual Monitoring and Remedial Action; and
    k. Inspection procedures and checklist for inspections conducted to ensure proper selection, implementation, and maintenance of all best management practices.
4. The Stormwater Pollution Prevention Plan requirements may be satisfied by existing documents such as the Hazardous Materials Business Plan, Spill Prevention Control and Countermeasures Plan, Industrial General Permit Stormwater Pollution Prevention Plan, or other equivalent document if all minimum requirements are included.

E4.5 Hotspot Facility Inspections, Visual Monitoring and Remedial Action

Within 3 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, New Permittees shall implement an inspection program of Permittee-owned or operated hotspot facilities per the requirements of this section. Renewal Permittees shall continue their existing hotspot facility inspection programs and review and make any necessary updates for compliance with this section within 3 years of the effective date of this Order. The inspections performed as a part of Stormwater Pollution Prevention Plan implementation for facilities covered under the Industrial

General Permit can be counted towards the facility inspection requirements in this section.

1. Inspection Frequency - The Permittee shall conduct quarterly best management practice implementation inspections and an annual Comprehensive Inspection.
2. Hotspot Facility Quarterly best management practice Implementation Inspections - The permittee shall conduct quarterly best management practice Implementation Inspections that include the following elements at minimum:
    a. Observation of facility discharge locations for stormwater and non-stormwater discharges. Where discharges are observed, identify any observed problems (e.g., color, foam, sheen, turbidity) associated with pollutant sources or best management practices;
    b. An inspection of all areas of pollutant generating activity and associated potential pollutant sources for evidence of, or the potential for, pollutants entering the stormwater conveyance system;
    c. Inspection of best management practices to identify implementation deficiencies and determine the need for maintenance or follow-up; and
    d. Identification of any deficiencies and a schedule of follow-up actions that will be completed to correct deficiencies as soon as practicable.
3. Hotspot Facility Annual Comprehensive Inspections - Once per year concurrent with one of the quarterly inspections, conduct a review of the Stormwater Pollution Prevention Plan and effectiveness of all best management practices and their implementation to ensure pollutants are not being discharged.
4. The Permittee shall document all inspection dates, inspection results, and corrective actions. Facilities shall maintain a log of inspection reports with their procedures.

E4.6 Permittee Operations and Maintenance Activities

Within 3 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall assess its operation and maintenance activities for potential to discharge pollutants in stormwater. Assessments shall be conducted pursuant to the following requirements:

1. The Permittee shall conduct an assessment to identify operation and maintenance activities that have a potential to discharge pollutants in stormwater including but not limited to the following:

a. Road and parking lot maintenance, including sidewalk repair, curb and gutter repair, pothole repair, pavement marking, sealing, and re-paving;

b. Bridge maintenance, including re-chipping, grinding, saw cutting, and painting;

c. Cold weather operations, including plowing, sanding, and application of deicing compounds and maintenance of snow disposal areas;

d. Right-of-way maintenance, including mowing, herbicide and pesticide application, and planting vegetation;

e. Material stockpiling (e.g., asphalt and concrete grindings, construction debris, soil);

f. Permittee-sponsored or sanctioned events such as large outdoor festivals, parades, or street fairs;

g. Green waste deposited in the street;

h. Graffiti removal; and

i. Hydrant flushing.

2. The Permittee shall identify all materials that could be discharged from each of these operation and maintenance activities, and the pollutant characteristics of the materials. Typical pollutants associated with these activities include metals, chlorides, hydrocarbons (e.g., benzene, toluene, ethylbenzene, and xylene), sediment, green waste, herbicide, pesticide, dried paint, and trash.

3. The Permittee shall develop, implement, and document best management practices that, when applied during Permittee operation and maintenance activities, will reduce or eliminate pollutants in stormwater and non-stormwater discharges. The Permittee shall refer to the California Stormwater Quality Association Municipal Handbook or equivalent when developing the best management practices.

4. The Permittee shall annually evaluate all best management practices implemented during operation and maintenance activities for effectiveness and revise as necessary.

5. The Permittee shall maintain a procedure to dewater and dispose of materials extracted from storm drain system. This procedure shall ensure that water removed during the cleaning process and waste material will not reenter the MS4.

E4.7 Water Quality and Habitat Enhancement in Flood Management Facilities

Within 3 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall develop and implement a process or review, update, and implement existing processes as necessary to incorporate water quality and habitat enhancement features in the design of all new and rehabilitated flood management projects that discharge to the storm drain system.

E4.8 Landscape Design and Maintenance

Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall develop and implement a landscape design and maintenance program or review, update, and implement existing programs to reduce the amount of water, pesticides, herbicides and fertilizers applied during Permittee operations and activities. The program shall address the following requirements:

1. The Permittee shall evaluate pesticides, herbicides and fertilizers used and application activities performed and identify pollution prevention and source control opportunities.
2. The Permittee shall implement landscape management measures that rely on non-chemical solutions that reduce the discharge of pesticides, herbicides and fertilizers including the following:
    a. Create drought-resistant soils by amending soils with compost;
    b. Create soil microbial community through the use of compost, compost tea, or inoculation;
    c. Use native or climate appropriate plants to reduce the amount of water, pesticides, herbicides and fertilizers used;
    d. Practice grass cycling on decorative turf landscapes to reduce water use and the need for fertilizers;
    e. Keep grass clippings and leaves away from waterways and out of the street using mulching or composting;
    f. Prevent application of pesticides, herbicides and fertilizers during irrigation or within 48 hours of predicted rainfall with greater than 50% probability as predicted by National Oceanic and Atmospheric Administration (NOAA);
    g. Limit or replace herbicide and pesticide use (e.g., conducting manual weed and insect removal); and

h. Reduce grass mowing to allow for greater pollutant removal and infiltration without jeopardizing public safety.

3. The Permittee shall implement educational activities for municipal applicators and their contractors as part of section Pollution Prevention and Good Housekeeping Staff Training.
4. The Permittee shall collect and properly dispose of unused pesticides, herbicides, and fertilizers.
5. The Permittee shall minimize irrigation run-off by using an evapotranspiration-based irrigation schedule and rain sensors.
6. The Permittee shall maintain an inventory of each pesticide, herbicide and fertilizer used during Permittee operations and activities in the permit area. The inventory shall include the following:
   a. Name and type of each pesticide, herbicide and fertilizer; and
   b. Approximate annual usage (e.g., gallons/year, cubic feet/year) of each pesticide, herbicide, and fertilizer.

E4.9 Stormwater Asset Management Inventory

The Permittee shall conduct stormwater asset management activities and establish intended levels of service for their MS4 consistent with this Order.

1. Asset Inventory Timeline
   a. Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall develop an Asset Inventory to include outfalls at a minimum. Renewal Permittees may review and update an existing outfall inventory to include the Asset Categories.
   b. Within 5 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall populate the Asset Inventory to include Asset Characteristics for all assets.
2. Asset Categories

   The Permittee shall include in the Asset Inventory all hard assets critical to the MS4, including, but not limited to the following categories:

   a. Storm Drain System – Including the following storm drain system assets:

1) Outfalls – Outfalls (or outlets) to receiving waters, the Permittee's own or any neighboring MS4s, or to structural controls/best management practices;

2) Stormwater Conveyance System – All segments of the MS4 including pipes, ditches, channels. Permittee may use a logical grouping system where feasible and estimates where necessary. The characteristics of conveyance features may be populated using information gained during routine field inspections;

3) Inlets– Inlets to the MS4 (e.g., drop inlets, storm drain inlets, catch basins, curb face openings). The Permittee shall specify presence of internal storage (e.g., sump) and water quality device (e.g., screen, filter, separator, trash Full Capture Systems);

4) Roads – All roadways that convey stormwater, including curb and gutter systems. The Permittee may rely on other roadway repair, maintenance tracking, and plans to complete the roads inventory, so long as the Permittees ensure the other tools and documents account for stormwater quality when informing and prioritizing roadway improvements.

b. Structural Controls/best management practices

1) The Permittee may rely on its Post-Construction Inventory to assist populating the asset inventory;

2) Water quality-based centralized and decentralized best management practices – Stormwater control measures that contribute to reductions of stormwater volume and pollutant loading; and

3) Non-water quality-based centralized and decentralized best management practices – Stormwater control measures that have the primary function of flood control and provides minimal reduction of stormwater volume or pollutant loading.

c. Equipment – All equipment and systems, individually valued over $5,000 in replacement costs, used to convey stormwater, and maintain and improve the MS4.

3. Asset Characteristics

The Asset Inventory shall include the following information for each asset (if applicable):

a. Asset description, class, and category;

b. Purchase, installation, and establishment date;

c. Useful life when new;

d. Type or material;

e. Size and capacity.

E4.10 Stormwater Asset Management Level of Service

1. Condition and Effectiveness Assessments – permittee shall conduct the following condition and effectiveness assessments:

   a. Condition Assessments – The permittee may implement a risk-based condition assessment, or comparable assessment method, to cost effectively and efficiently assess condition.

   b. Effectiveness Assessments – Permittee shall assess each asset's effectiveness at complying with this order based on factors such as design, capacity, quality, and intended function.

   c. Schedule of Condition and Effectiveness Assessments

      1) When addressing the Storm Drain System assets, the Permittee may propose a less precise and simplified approach, potentially by grouping assets. The Permittee shall submit as part of the Asset Maintenance and Improvement Planning an approach to conduct assessments of public storm drain infrastructure. The approach may be based on current permittee scheduling of inspections and maintenance, or impromptu visits to assets allowing staff to gather desired information to populate the asset management database.

      2) Structural controls/best management practices – Within 3 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall assess the conditions of all public structural controls.

      3) Private structural controls/best management practices – Within 5 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall assess all private structural controls/best management practices.

2. Valuation – By the end of Year 5, and thereafter as storm drain system components are inventoried, for each inventoried asset, identify the following (if applicable):

   a. Principal cost (if applicable); and

b. Lifecycle Costs – (1) Annual operations and maintenance costs and other ongoing expenses (2) Replacement costs.

E4.11 MS4 Map

Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall maintain an MS4 Map (updated as changes occur, at a minimum annually) to include individual identifiers and descriptions, which include information such as name, type, and discharge information, where applicable, for the below system components:

1. Hard Assets – Refer to subsection Hard Assets under the section Stormwater Asset Management Inventory. The map shall identify which portions of the system are open channels (e.g., ditches, manmade channels) and other conveyance features (e.g., culverts, pipes, curb-and-gutter). Type of structural controls/best management practices shall be identified. The map shall also identify flow direction;
2. Ephemeral, intermittent, and perennial waterbodies including, but not limited to, the following:
   a. National Hydrography Dataset Flow Line (U.S. EPA and United States Geological Survey), linear features of types: stream/river, canal/ditch, pipeline, artificial path, coastline, and connector;
   b. National Hydrography Dataset Water Body (U.S. EPA and United States Geological Survey), polygonal features of types: playa, ice mass, lake, pond, reservoir, swamp, marsh, and estuary;
   c. National Wetlands Inventory (a national program established by the United States Fish and Wildlife Service to map wetlands, available at http://www.fws.gov/wetlands/); and
   d. Relevant environmental documents (e.g., developed per California Environmental Quality Act, National Environmental Policy Act) that include waterbody delineations reflecting current conditions.
3. Drainage Catchments – Delineated drainage areas defined by both natural topographic divides and anthropogenic features such as constructed portions of the MS4, that reasonably represent areas that convey stormwater runoff to outlets/outfalls or to other drainage areas; and
4. Other Components – Identify other critical components (e.g., cleanouts, pump stations, diversion structures, trash capture devices, infiltration galleries) of system influencing maintenance capacity and conveyance.

E4.12 Asset Maintenance and Improvement Planning

1. Routine Asset Maintenance Plan - Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall develop and implement a Routine Asset Maintenance Plan to ensure all assets are properly functioning and do not present risks to water quality. At a minimum the plan shall include the following:

    a. Assigned frequency of inspection and maintenance of assets within the inventory based on a prioritization process that assigns highest priority assets more frequent inspections. Lowest priority assets may not require inspection and maintenance. Priority shall be based on potential threat to water quality, operating capacity (e.g., accumulation of sediment, trash, and other pollutants, or condition assessment). Areas/assets with high potential threat to water quality or high pollutant loading rates relative to treatment capacity are required to be assigned high priority.

    b. At a minimum, inspection and maintenance of all catch basins and Permittee owned structural controls/best management practices are required to be completed annually prior to the rainy season.

    c. Devices installed pursuant to Attachment H – Trash Implementation Requirements, shall be maintained to remain in compliance with those provisions. Permittee shall document inspections and maintenance conducted per the Routine Asset Maintenance Plan. Documentation of inspection and maintenance may be stored within databases required by other provisions (e.g., post-construction provisions, trash provisions) or required inspections and maintenance of those provisions may be documented within the asset management database, if applicable.

2. A Long-term Asset Operation and Improvement Plan – Within 5 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall develop, implement, and update annually thereafter as additional storm drain system components are inventoried, a Long-term Asset Operation and Improvement Plan that evaluates data obtained through condition assessments performed per section Stormwater Asset Management Level of Service to inform the following based on a 20-year timeframe which includes the following:

    a. List of known infrastructure repairs or improvements needed (e.g., deteriorated infrastructure, routinely flooded areas).

    b. Deferred maintenance needs (e.g., structural controls with deferred maintenance).

c. Prioritization and Schedule – Develop a schedule, informed by a prioritization process, based on risk of failure and useful life of the asset outlining the following:

   1) Maintenance of inventoried assets;

   2) Rehabilitation and replacement of inventoried assets; and

   3) Installation, generation, and initiation of new assets.

d. Forecasted costs – Projected costs necessary to implement the Long-term Asset Operation and Improvement Plan to meet the required level of service, for the next 20 years.

e. 20-year Financial Strategy – Compare forecasted costs with available funding sources and identify the financial strategy for sustained funding of asset management and development to sustain service and performance.

3. Labeling storm drain inlets

   a. Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, New Permittees shall ensure each storm drain inlet in high foot traffic areas includes a legible stormwater awareness message (e.g., a label, stencil, marker, or pre-cast message such as "drains to the creek" or "only rain in the drain").

   b. After storm drain inlets have been labeled, inlets with illegible or missing labels shall be recorded and relabeled within one month of inspection.

E4.13 Alternative and Existing Asset Management Programs

A Permittee may propose, for Regional Water Board Executive Officer approval, an alternative or existing approach for stormwater asset management and planning, provided the Permittee demonstrates the approach includes elements equivalent to the requirements in this Order.

E4.14 Pollution Prevention and Good Housekeeping Staff Training

The Permittee shall train all staff involved in implementing pollution prevention and good housekeeping practices as specified in this section. The training shall occur at least once every two years and include at a minimum:

1. A general stormwater education component;

2. Training on the applicable permit requirements including clear guidance on appropriate stormwater best management practices to use at municipal facilities and during typical operation and maintenance activities;

3. Follow-up training as needed to address changes in procedures, techniques, or staffing;
4. A biennial assessment of trained staff's knowledge of pollution prevention and good housekeeping and revisions to the training as needed; and
5. Training for new staff who will be involved in implementing pollution prevention and good housekeeping practices no later than three months after the start of employment.

E4.15 Third Party Activities

The Permittee shall require that any contractors hired by the Permittee to perform operation and maintenance activities shall be contractually required to comply with all the stormwater best management practices, good housekeeping practices, and standard operating procedures described above. The Permittee shall provide oversight of contractor activities to ensure that contractors are using appropriate best management practices, good housekeeping practices and following standard operating procedures.

E4.16 Pet Waste Pollution Prevention and Control

The Permittee shall implement pet waste pollution prevention and control measures to prevent pathogen discharges to receiving waters.

1. Permittees without significant outdoor pet populations or pet waste management issues may make a statement to that effect. Part 2 of this section is not required for those permittees.
2. Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall identify and create a pet waste hotspot inventory. The inventory shall include locations owned and operated by the Permittee with high potential for dog or other pet waste accumulation.
    a. The pet waste hotspot inventory shall include the following information for each site:
        1) Site name (park name, trail name, or other geographic identifier);
        2) Description of BMPs currently employed at the site (signage, waste bag dispensers, trash bins, etc.) and the maintenance schedule for those BMPs;
        3) Identification of sites with improper pet waste disposal determined by at least one site visit by Permittee staff. The site visit may be conducted as part of other routine maintenance or inspections.

4) Date and findings of minimum single site visit.

5) Description of any proposed BMPs or increased maintenance necessary to prevent improper disposal of pet waste at the site.

b. Locations to be documented in the pet waste hotspot inventory include but are not limited to the following:

1) Dog parks

2) Recreational areas where dogs are allowed such as trails.

c. The inventory shall be reviewed annually at a minimum.

E5. CONSTRUCTION SITE STORMWATER RUNOFF PROGRAM

The Permittee shall develop, implement, and enforce a program to prevent construction site discharges of pollutants and impacts on beneficial uses of receiving waters which includes the following elements:

E5.1 Construction Site Stormwater Runoff Control Ordinance

1. Applicability – Regulated Construction Projects are defined as follows:

   a. All land disturbances required to be enrolled in the Construction General Permit;

   b. All land disturbances less than 1 acre;

   c. All land disturbances over 1 acre that have received an erosivity waiver; and

   d. Other construction projects and activities the Permittee or Regional Water Board may elect to include as Regulated Construction Projects, due to proximity to receiving waters, threat to water quality, or other factors.

2. Within 1 year of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall develop and implement contract language, and in-house policies/procedures (e.g. ordinances, contractual provisions, base orders, resolutions, condition of lease provisions, tenant improvement agreements, specifications or other regulatory mechanisms) to ensure the Permittee's in-house construction operators and outside contractors implement the following pollution prevention measures, at a minimum, for all Regulated Construction Projects:

   a. Erosion controls;

b. Sediment controls;
c. Soil stabilization;
d. Dewatering pollution controls;
e. Source controls;
f. Run-on and runoff control;
g. Seasonal grading restrictions;
h. Protection of existing riparian and wetland vegetation and habitat;
i. Prevention of non-stormwater discharges;
j. Final site stabilization;
k. Prevention of pollutant discharges into post-construction stormwater control measures during all stages of construction (e.g., bioretention basins, infiltration chambers); and
l. Other pollution prevention measures as appropriate.

E5.2 Construction Site Inventory and Tracking

1. Within 1 year of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall develop or review and update as necessary a construction site inventory. The Permittee shall maintain the inventory to track the following elements for each Regulated Construction Project having received a grading or building permit or similar discretionary approval. For Regulated Construction Projects subject to the Construction General Permit the Permittee may obtain the inventory information from the SMARTS database. The inventory shall include the following:

   a. Relevant contact information for each project including name, address, phone, email, for the landowner and primary contractor/developer;
   b. Project location (address (if applicable) and geographic coordinates);
   c. Area of land disturbance;
   d. Area of pre- and post-project impervious surfaces;
   e. Project receiving waters;
   f. Identification of downstream waterbodies that are impaired by sediment-related pollutants or 303(d)listed for sediment or turbidity;
   g. Current construction phase listing each activity that applies (e.g., permitted not initiated, staging, clearing and grubbing, mass grading, utilities, streets, vertical, exterior finishing, interior finishing);
   h. Construction General Permit Risk Level

i. Site priority based on subsection Construction Site Inspection under section Construction Site Inspection and Enforcement;
j. Required inspection frequency;
k. Date of last completed inspection;
l. Date of approval for construction (e.g., grading or building permit);
m. Unresolved follow-up enforcement actions and date of violation;
n. The project start and anticipated completion dates; and
o. The date the Permittee approved the site-specific construction stormwater pollution control plan in accordance with this Provision.

E5.3 Construction Plan Review and Approval Procedures

1. The Permittee shall verify prior to initiation of construction, that all Regulated Construction Projects have site-specific construction stormwater pollution control plan that includes the following at a minimum:
   a. All measures necessary to be consistent with the Permittees construction site stormwater pollution prevention ordinance(s).
   b. Site-specific best management practice information, including supporting design calculations as appropriate, to ensure best management practices are properly sized, located, and effective.
   c. The Permittee shall ensure the Applicant uses appropriate site-specific construction site best management practices based on the CASQA Construction / New Development and Redevelopment Handbook or equivalent or other best management practices approved by the Permittee. The Practices shall include the following:
      6) Erosion Control best management practices;
      7) Sediment Control best management practices;
      8) Tracking Control best management practices;
      9) Run-on and Run-off Control best management practices;
      10) Non-Stormwater Management best management practices;
   d. A list of state and federal permits that impose conditions on the land-disturbing elements of the Regulated Construction Project, including, but not limited to, the Construction General Permit, 401 Water Quality Certification, U.S. Army Corps 404 permit, and California Department of Fish and Wildlife 1600 Agreement.

2. Verification shall be conducted by the Permittee or third-party plan reviewers that are adequately trained, either in-house or through contracted consultants, or CASQA training materials to:
   a. Perform technical review of local erosion and sediment control plans,
   b. Evaluate and identify proper control measure selection, installation, implementation, and maintenance,
   c. Implement administrative requirements such as inspection reporting/tracking,
   d. Implement Permittee's Illicit Discharge and Spill Response Plan
3. The Permittee shall require site-specific construction stormwater pollution control plans be kept on site and readily accessible to contractors and inspectors.
4. The Permittee shall have a procedure to ensure all dewatering activities to the MS4 are authorized by the Regional or State Board prior to start of dewatering.
5. The Permittee shall review and approve revisions to previously approved construction stormwater pollution control plans and shall ensure they are consistent with the Permittee's construction stormwater contract language and in house policies and procedures.
6. The Stormwater Pollution Prevention Plan developed pursuant to the Construction General Permit may substitute for the site-specific construction stormwater pollution control plan for projects where a Stormwater Pollution Prevention Plan is developed. The Permittee is responsible for reviewing applicable portions of the Stormwater Pollution Prevention Plan for compliance with the Permittee's contract language and in house policies and procedures and this Order.

E5.4 Construction Site Inspection and Enforcement

1. Construction Inspection Procedures

   Within 1 year of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall develop and implement procedures for inspecting construction projects to verify compliance with the Permittee's construction site stormwater contract language and in-house policies and procedures and conduct enforcement if necessary. Construction site inspections shall include assessment of compliance with the Permittee's construction site stormwater runoff contract

language and in-house policies and procedures, and other applicable ordinances.

2. Construction Site Inspection
The Permittee shall inspect all Regulated Construction Projects and enforce the Permittee's stormwater pollution prevention ordinance(s). The inspection procedures shall be consistent with the Construction Program Requirements of this Order.

   a. Inspections shall verify at a minimum:

      1) Proper installation of best management practices consistent with Permittee approved construction site stormwater pollution control plan;

      2) Adequate best management practice maintenance;

      3) Best management practice effectiveness; and

      4) Pollutants of concern are not discharging or have potential to discharge from the Regulated Construction Project.

   b. The Permittee shall conduct annual inspections of all non-priority Regulated Construction Projects and verify they are prepared for rain events.

   c. At a minimum, the Permittee shall inspect all Regulated Construction Projects at the following intervals:

      1) At least once prior to the first forecast rain event with potential to produce runoff after July 1 of each year;

      2) At least once during the rainy season from October 1 through April 30.

   d. The Permittee may temporarily reduce inspection frequency for inactive Regulated Construction Projects that the Permittee has verified are stabilized and do not present a threat to water quality.

   e. At the conclusion of a Regulated Construction Project, the Permittee shall inspect to ensure that all disturbed areas have been stabilized and that all temporary erosion and sediment control measures have been removed.

   f. The Permittee may leverage existing inspections and personnel to conduct Regulated Construction Project inspections and enforcement.

3. Alternative Construction Site Oversight
The Permittee may propose, for Regional Water Board Executive Officer

approval, an alternative approach for construction site oversight, provided the Permittee demonstrates the approach will be equally effective at reducing the discharge of pollutants from construction sites to the maximum extent practicable.

E5.5 Permittee Construction Staff Training

1. The Permittee shall ensure that all Permittee and Third-Party Plan Reviewers, Permitting, Stormwater Inspectors, and Code Enforcement staff, implementing the construction site stormwater runoff control program are adequately trained, either in-house or through contracted consultants, to:
   a. Perform technical review of local site-specific construction stormwater pollution control plan,
   b. Evaluate and identify proper control measure selection, installation, implementation, and maintenance,
   c. Implement administrative requirements such as inspection reporting/tracking,
2. All staff conducting Regulated Construction Project inspections shall be trained to identify pollutants of concern and verify they are not discharging or have potential to discharge from the Regulated Construction Project.
3. The Permittee shall maintain at least one designated staff member certified pursuant to a State Water Board sponsored program for the following roles:
   a. A Qualified Stormwater Pollution Prevention Plan Developer (QSD) to supervise plan review; and
   b. A Qualified Stormwater Pollution Prevention Plan Practitioner (QSP) to supervise inspection operations.

E6 POST-CONSTRUCTION STORMWATER MANAGEMENT PROGRAM

E6.1 New and Existing Permittee Program Requirements

1. Within 1 year of the effective date of this Order, Renewal Permittees shall review previously adopted or referenced performance criteria for Post-Construction stormwater controls, such as biotreatment and media filters to ensure they are still applicable or adopt or reference new criteria.
2. Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, New Permittees shall adopt or reference appropriate performance criteria for Post-Construction stormwater controls such as biotreatment and media filters.

E6.2 Effective Date for Applicability

1. All public and private projects under the Permittee's jurisdiction that meet any of the below approval milestones shall comply with the post-construction requirements of this Order.
    a. Projects that have not yet received project-specific discretionary approval.
    b. Projects that have received discretionary approval but that have been subsequently modified to include additional impervious area through a process such as a tentative map extension.
    c. Projects that do not require discretionary approval and that have not received ministerial approval.
    d. Public projects that require no ministerial or discretionary approval and have not filed a CEQA Notice of Determination or Notice of Exemption.
2. Effective Date of Post-Construction Requirements
    a. New Permittees

        Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, New Permittees shall require the Post-Construction Stormwater Management Program be applied on applicable Regulated Projects and Small Projects.

    b. Renewal Permittees

        Within 1 year of the effective date of this Order, Renewal Permittees shall require the Post-Construction Stormwater Management Program be applied on applicable Regulated Projects and Small Projects.

E6.3 Enforceable Mechanisms

Within 1 year of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall develop or modify enforceable mechanisms that will effectively implement the requirements in the Post-Construction Stormwater Management Program and may include municipal codes, regulations, standards, and specifications. The Permittee shall:

1. Conduct an analysis of all applicable codes, regulations, standards, and specifications to identify modifications or additions necessary to fill gaps and remove impediments to effective implementation of project-scale development requirements.

2. Approve new or modified enforceable mechanisms that effectively resolve regulatory conflicts and implement the requirements in the Post-Construction Stormwater Management Program if necessary.
3. Apply new or modified enforceable mechanisms to all applicable new and redevelopment projects.
4. Develop and make available specific guidance for permittee's plan review process and low impact development Permanent Stormwater Control Measures and best management practice design.
5. Develop a policy and mechanism to coordinate Post-Construction Stormwater Management Program requirements are met for all approving and designing agencies involved during the planning and design stages for a project. The policy must include a visual flow chart that clearly identifies the project planning and design phase and mechanism by which each approving and designing agency is provided the Post-Construction Stormwater Management Program requirements for each project.

E6.4 Small Projects

1. Small Projects include all projects that create and/or replace (including projects with no net increase in impervious footprint) 2,500 square feet or more but less than 5,000 square feet of impervious surface and not part of a larger plan of development.
2. Small projects do not include linear utility projects and road projects.
3. The Permittee shall require Small Projects to maximize opportunities to implement runoff reduction measures but require implementation of no less than one runoff reduction measure listed in subsection Runoff Reduction Measures under section Low Impact Development Design Standards.

E6.5 Regulated Projects

1. Regulated Projects are those projects that fit into the Regulated Project Categories, listed below.
2. Regulated Projects include projects on public or private land that fall under the jurisdictional authority, planning authority, or building authority of the Permittee.
3. The Permittees shall require Regulated Projects to implement low impact development design standards per the Low Impact Development Design Standards section.

4. The Permittee shall develop and implement an equivalent process for reviewing and implementing these requirements for both public and private development projects if applicable.

E6.6 Regulated Project Categories

1. New Development Projects
   a. New development is any land-disturbing activity that results in the creation or addition of exterior impervious surface area on a site on which no past development has occurred.
   b. Regulated Projects include new private and public development projects that create 5,000 square feet or more of impervious surface (collectively over the entire project site). Public infrastructure improvements associated with private development projects shall be considered part of the overall private development project.
2. Redevelopment Projects
   a. 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.
   b. Regulated Projects include private and public redevelopment projects that create and/or replace 5,000 square feet or more of impervious surface (collectively over the entire project site).
   c. Specific exclusions to this category are:
      1) Interior remodels; and
      2) Routine maintenance or repair such as:
         a) Roof or exterior wall surface replacement; and
         b) Pavement resurfacing within the existing footprint that does not expose the underlying soil or pervious subgrade.
         c) Full depth reclamation that does not change the pre-project drainage patterns and is not associated with non-excluded new or redevelopment projects.
   d. Partial Site Redevelopment
      1) Where a redevelopment project results in an increase of 50 percent or more of the impervious surface of a previously existing development, the entire project, consisting of all existing, new, and replaced impervious surfaces, shall be included in the stormwater control design (i.e., Permanent Stormwater Control Measures) and

shall be designed and sized to treat stormwater runoff from the entire redevelopment project).

2) Where a redevelopment project results in an increase of less than 50 percent of the impervious surface of a previously existing development, only the new and replaced impervious surface of the project shall be included in the stormwater control design (i.e., Permanent Stormwater Control Measures shall be designed and sized to treat stormwater runoff from the new and replaced impervious surface of the project).

3. Road and Linear Utility Projects

Regulated Projects include any of the following types of road projects and linear utility projects that create and/or replace 5,000 square feet or more of impervious surface and that fall under the jurisdictional authority, planning authority, or building authority of a Permittee:

a. New development and redevelopment of streets or roads.

1) Where the addition of new impervious surface results in an alteration of 50 percent or more of the impervious surface of an existing street or road, the entire project, consisting of all existing, new, and replaced impervious surfaces, shall be included in the stormwater control design (i.e., Permanent Stormwater Control Measures shall be designed and sized to treat stormwater runoff from the entire street or road that had additional traffic lanes added).

2) Where the addition of new impervious surface results in an alteration of less than 50 percent of the impervious surface of an existing street or road, only the new and replaced impervious surface of the project shall be included in the stormwater control design (i.e., Stormwater Control Measures shall be designed and sized to treat stormwater runoff from only the new traffic lanes).

b. Linear utility projects that create and/or replace more than 5,000 square feet of contiguous impervious surface.

c. The following road and linear utility projects are excluded from the above requirements and are not considered new development or redevelopment projects unless they are associated with non-excluded new or redevelopment projects:

1) Trenching, excavation, and resurfacing associated with linear utility projects;

2) Full-depth reclamation that does not change pre-project drainage patterns;

d. The following road and linear utility projects are excluded from the above requirements and are not considered new or redevelopment projects:

1) Pavement grinding and resurfacing of existing roadways and parking lots that does not expose the underlying soil or pervious subgrade; and
2) Routine replacement of damaged pavement such as pothole repair or replacement of short, non-contiguous sections of roadway.

E6.7 Source Control Measures

Regulated Projects with pollutant-generating activities and sources shall be required to implement standard permanent and operation source control measures as applicable.

Measures for the following pollutant generating activities and sources shall be designed consistent with recommendations from the CASQA Stormwater BMP Handbook for New Development and Redevelopment or equivalent manual:

1. Accidental spills or leaks
2. Interior floor drains
3. Parking/storage areas and maintenance
4. Indoor and structural pest control
5. Landscape/outdoor pesticide use
6. Pools, spas, ponds, decorative fountains, and other water features
7. Restaurants, grocery stores, and other food service operations
8. Refuse areas
9. Industrial processes
10. Outdoor storage of equipment or materials
11. Vehicle and equipment cleaning
12. Vehicle and equipment repair and maintenance
13. Fuel dispensing areas
14. Loading docks
15. Fire sprinkler test water

16. Drain or wash water from boiler drain lines, condensate drain lines, rooftop equipment, drainage sumps, and other sources
17. Unauthorized non-storm water discharges
18. Building and grounds maintenance

E6.8 Low Impact Development Design Standards

The Permittee shall adopt and implement requirements and standards to ensure design and construction of Regulated Projects that achieve low impact development design standards to reduce runoff, treat stormwater, and provide baseline hydromodification management to meet the Criteria for Stormwater Treatment, Retention and Peak Flow Control. The Permittee shall only approve projects that meet the following criteria:

E6.8.1 Site Assessment Methods

At the earliest planning stages, the Permittee shall require Regulated Projects to assess and evaluate how site conditions, such as soils, vegetation, and flow paths will influence the placement of buildings and paved surfaces. The evaluation will be used to meet the goals of capturing and treating runoff and assuring these goals are incorporated into the project design. The Permittee may adopt or reference an existing low impact development site assessment methodology.

The Permittee shall require Regulated Projects to consider optimizing the site layout through the following methods:

a. Define the development envelope and protected areas, identifying areas that are most suitable for development and areas to be left undisturbed.
b. Concentrate development on portions of the site with less permeable soils and preserve areas that can promote infiltration.
c. Limit overall impervious coverage of the site.
d. Employ development setbacks from creeks, wetlands, and riparian habitats.
e. Preserve as many healthy, vigorous, and mature trees as feasible.
f. Conform the site layout along natural landforms.
g. Avoid excessive grading and disturbance of vegetation and soils.
h. Replicate the site's natural drainage patterns.

E6.8.2 Drainage Management Areas

A Drainage Management Area is a watershed area draining to a single discharge location or Permanent Stormwater Control Measure. The Permittee shall require each Regulated Project to provide a map or diagram delineating the pre- and post-development discrete Drainage Management Areas within the developed portions of the project site and demonstrate how stormwater from each Drainage Management Area will be managed to meet the Low Impact Development Design standards.

Permanent Stormwater Control Measures shall be sized to manage the runoff from the entire Drainage Management Area, including all new, replaced, and existing areas draining to the Permanent Stormwater Control Measure.

E6.*8.3 Permanent Stormwater Control Measure Selection and Sizing*

a. Target Pollutants of Concern

Permanent Stormwater Control Measures shall be selected and designed to treat the following pollutants of concern: dissolved and particulate metals, pathogens, nutrients, sediment, hydrocarbons, trash, and fine sediment. This requirement may be met by directing flow and debris into a Permanent Stormwater Control Measure or multiple Permanent Stormwater Control Measures that control these pollutants. Other site-specific, TMDL, and 303(d)-listed pollutants shall also be identified and treated to the maximum extent practicable.

b. Permanent Stormwater Control Measure Prioritization

All projects subject to low impact development requirements shall identify and maximize implementation opportunities for each of the following Low Impact Development measures, in the following order of priority:

1. Site Assessment Methods
2. Runoff Reduction Measures
3. Bioretention Stormwater Control Measures
4. Flow-Through, Vegetation-Based Stormwater Control Measures
5. Subsurface Infiltration
6. Flow-Through, Non-Vegetated Stormwater Control Measures

c. Stormwater Control Measures for High-Risk Areas

Facilities serving high-risk areas such as fueling stations, truck stops, auto repairs, and heavy industrial sites may be required to provide additional treatment to address pollutants of concern unless these high-risk areas are not hydraulically connected to stormwater runoff and Permanent Stormwater Control Measures.

E6.8.4 Runoff Reduction Measures

Runoff Reduction Measures are Permanent Stormwater Control Measures that reduce the amount of stormwater runoff from a site and reduce area required for control by bioretention, Flow-Through, and subsurface infiltration Stormwater Control Measures. Runoff reduction measures shall be described in the Post-Construction Stormwater Control Plan and preserved and maintained to retain their stormwater control functions. Below are descriptions of the runoff reduction measures that may be used, design requirements, and crediting towards compliance with post-construction requirements.

Runoff reduction measures include Impervious Connection to Vegetated Areas, Interceptor Trees, Pervious Pavement, and Green Roofs, as described in the following sections.

E6.8.4.1 Impervious Connection to Vegetated Areas

1. Description - Impervious Connection to Vegetated Areas

   This Impervious Connection to Vegetated Areas site design measure utilizes properly configured vegetated areas that intercept, slow, and allow infiltration of stormwater runoff from directly connected impervious areas while allowing sediment and other pollutants to settle and infiltrate. Vegetated areas may receive stormwater runoff from impervious areas such as driveways, roads, roof downspouts, and parking lots.

2. Design and Maintenance Requirements - Impervious Connection to Vegetated Areas

   a. The vegetated area shall be sized and designed to maximize infiltration of the design storm.

   b. The maximum paved area that may drain to a single vegetated area is 5,000 square feet. Paved surfaces shall sheet flow onto vegetated areas.

   c. The maximum rooftop area that may drain to a single vegetated area is 600 square feet.

   d. Vegetated area slopes shall not exceed 15 percent.

e. The vegetated area length (in direction of flow) shall be as long as the site will reasonably allow, but in no instance shall be less than 15 feet. Where concentrated flow from rooftops are directed to vegetated areas, sufficient vegetated area width and appropriate design measures shall be provided to dissipate flows, prevent concentrated flows and erosion, and maximize infiltration.

f. Level spreaders shall be utilized where impervious contributing paved areas and vegetated areas exceed 5 percent slope or where conditions are present that cause concentrated flow. The level spreader shall be a minimum of 10 feet in length (perpendicular to flow) per one cubic foot per second of stormwater flow that is directed to it and in no instance shall be less than 10 feet in length.

g. Vegetation shall be selected to thrive without fertilization and pesticide application, be non-invasive, and grow in great enough density to trap pollutants.

h. Vegetated areas shall be designed and maintained to remain fully functional and free of erosion.

i. Vegetated areas shall be protected from vehicular traffic and other activities that may compact soils, cause erosion, or damage vegetation.

j. The vegetated area shall not contain any built-upon areas except for incidental areas such as utility boxes, signs, and lamp posts.

k. Bioretention, infiltration, detention, or retention basins and chambers do not qualify as an impervious area disconnection site design measure. Such features shall be designed in accordance with section Criteria for Stormwater Treatment, Retention and Peak Flow Control.

3. Crediting - Impervious Connection to Vegetated Areas

a. A maximum of 50 percent of the drainage management area controlled by the vegetated area may be used to meet the requirements of section on Criteria for Stormwater Treatment, Retention and Peak Flow Control.

b. Self-retaining area design and crediting criteria are subject to Regional Board Executive Officer approval and may only be allowed in instances where the self-retaining areas would retain the applicable design criteria flow or volume.

E6.8.4.2 Interceptor Tree Planting and Preservation

1. Description - Interceptor Tree Planting and Preservation

   Interceptor trees are evergreen or deciduous trees that intercept rainwater on their leaves and branches. Intercepted water is held within the tree canopy and runs down the branches and trunk of the tree where it may infiltrate into the soil at an enhanced rate. Credit for interceptor trees applies to both planted and preserved trees.

2. Design and Maintenance Requirements - Interceptor Tree Planting and Preservation

   a. Mature tree canopies shall overhang impervious areas and trunks shall be located within 25 feet of project impervious areas.

   b. Existing and planted trees shall be and remain healthy. Trees and their root zones shall be adequately protected during construction.

   c. Infrastructure surrounding trees shall be designed to prevent girdling of the tree trunk at all life stages.

   d. Pervious surfaces surrounding the base of new and established trees shall be of sufficient area to allow for infiltration of stemflow and throughfall stormwater runoff. Pervious areas may include bare soil, pervious pavement, permeable pavers, and suspended pavement over uncompacted or structural soil.

   e. Soils that support the selected tree species shall be used.

   f. A minimum of two cubic feet of uncompacted or structural soil volume shall be provided for each square foot of estimated mature tree canopy. Adequate soil volume shall be provided to support the estimated mature tree canopy area and shall be certified by a landscape architect or other qualified professional.

   g. Where feasible, a mulch layer consisting of tree leaves or an introduced mulch layer shall surround trees to help build a healthy and infiltrative soil, retain moisture from rainfall and runoff, and increase evaporation and infiltration of runoff.

   h. Inspection and maintenance plans shall accompany proposals to claim credit for existing and planted trees. At a minimum, inspection and maintenance plans shall include appropriate annual watering, mulch maintenance, and replacement of dead and dying trees.

   i. Native species and trees with large canopies at maturity are preferred. Dwarf, palm, and invasive species are not acceptable.

j. To maintain existing tree health, avoid grade changes that may impact tree roots or accumulation of excess moisture in the trunk area.

k. Where possible, existing plants that are compatible with the tree's irrigation requirements should be preserved.

3. Crediting - Interceptor Tree Planting and Preservation

a. For each drainage management area, an amount equivalent to 75 percent of the actual or estimated mature evergreen tree canopy area may be subtracted from the total impervious area requiring control under the section Criteria for Stormwater Treatment, Retention and Peak Flow Control.

b. For each drainage management area, an amount equivalent to 50 percent of the actual or estimated mature deciduous tree canopy area may be subtracted from the total impervious area requiring control under the section Criteria for Stormwater Treatment, Retention and Peak Flow Control.

E6.8.4.3 Pervious Pavement Systems

1. Description - Pervious Pavement Systems

A pavement system consisting of permeable interlocking concrete pavement (PICP), pervious or permeable concrete unit pavers, pervious grid pavements, pervious concrete, porous asphalt, turf block, grasscrete, and bricks and stones, set on a gravel base with gravel joints, which stores and infiltrates rainfall at a rate equal to natural areas, or that stores and infiltrates the rainfall runoff volume described in section E6.8.5 Criteria for Stormwater Treatment, Retention, and Peak Flow Control.

2. Design and Maintenance Requirements - Pervious Pavement Systems

a. To be considered "pervious," the surface shall infiltrate into the underlying soil at a rate that is equal to or greater than the pre-project pervious, uncompacted soil conditions.

b. Project proponents utilizing this site design measure shall have and implement an inspection and maintenance plan to ensure that the pavement infiltration capacity is maintained over time. Pervious pavement shall be maintained (e.g., vacuum swept) at an appropriate frequency to maintain full functionality.

c. Pervious pavement should not be used in areas with medium to heavy vehicular traffic. Parking lots are acceptable.

d. Limit use in potentially high pollutant loading areas.

e. No erodible areas or area of high sediment generation may drain onto porous and permeable pavements.

f. No liners or other barriers or design elements, such as lime treatment, which would limit infiltration shall be used below pervious pavement and permeable paver sections.

g. In systems with underdrains, sufficient storage below the underdrain shall be provided by increasing the depth of the permeable base such that the design storm runoff volume will infiltrate.

h. Pervious pavement systems should not be used in areas of known soil or groundwater contamination without Regional Water Board prior authorization.

i. Pervious pavement systems that lose their infiltration capacity shall be replaced.

3. Crediting - Pervious Pavement Systems

a. Pervious pavement systems may be considered pervious areas when sizing Permanent Stormwater Control Measures to meet the requirements of the section Criteria for Stormwater Treatment, Retention and Peak Flow Control.

b. Stormwater control credit may not be claimed for any runoff directed to pervious pavement systems.

E6.8.4.4 Green Roofs

1. Description – Green Roofs

Green roofs are roofs that are entirely or partially covered with vegetation and soils. Green roofs function as a soil and plant-based filtration feature that removes pollutants through a variety of natural physical, biological, and chemical treatment processes prior to discharge.

2. Design and Maintenance Requirements – Green Roofs

a. Shall be adequately designed by a qualified engineer, including an appropriate assessment of the necessary load reserves.

b. Overflow requirements shall be considered in the design.

c. Roof design shall provide a sufficient soil layer to support healthy plants, ensure soil is secure and will not erode or sluff, and provide adequate drainage for both plant health and high flow bypass.

d. The green roof system planting media shall be sufficiently deep to provide capacity within the pore space of the media for the required runoff volume specified by section Criteria for Stormwater Treatment, Retention and Peak Flow Control.

e. Plants selected shall be suited for the unique shallow soil conditions.

f. Vegetation should be selected to thrive without irrigation but may be irrigated during establishment and during the dry weather to keep vegetation alive.

g. Green roof plant cover density shall be a minimum of 51 percent.

h. Surface mulching material shall be non-floatable in order to prevent clogging of downstream inlets.

i. Project proponents utilizing green roofs shall have and implement a maintenance plan to ensure that minimum plant cover density and functionality is maintained over time.

3. Crediting – Green Roofs

Green roof areas may be considered pervious areas when sizing Permanent Stormwater Control Measures to meet the requirements of section Criteria for Stormwater Treatment, Retention and Peak Flow Control.

E6.8.4.5 Rainwater Capture and Use

1. Description - Rainwater Capture and Use

Rainwater capture and use involves collecting stormwater runoff from impervious surfaces in tanks (e.g., rain barrels and cisterns) that are appropriately sized to allow for use of the collected runoff. Collected runoff may be used for irrigation, greywater systems, or other uses. Cisterns can be installed above or below ground depending upon design requirements and site conditions.

2. Design and Maintenance Requirements - Rainwater Capture and Use

a. Project proponents shall demonstrate to the Permittee through water balance calculations how the captured water will be stored and used to meet section Criteria for Stormwater Treatment, Retention and Peak Flow Control.

b. Project proponents utilizing rainwater capture and use shall have and implement a maintenance and operations plan to ensure that rainwater capture will continue to meet section Criteria for Stormwater Treatment, Retention and Peak Flow Control.

c. Rain barrels and cisterns shall be designed and maintained to prevent mosquito breeding.

d. Rain barrels and cisterns shall be opaque, water-tight, vented, completely covered and all openings shall be screened.

e. If used for peak flow controls, design calculations shall show continuous capacity to control peak flows, or include appropriately sized detention storage in addition to the retention volumes stored.

3. Crediting - Rainwater Capture and Use

   For each Drainage Management Area, the volume captured from the design storm may apply to the total volume of stormwater required for control under section Criteria for Stormwater Treatment, Retention and Peak Flow Control.

E6.8.5 Criteria for Stormwater Treatment, Retention and Peak Flow Control

The Permittee shall require all Regulated Projects be designed to treat, retain, or capture and use stormwater to meet the following hydraulic design criteria:

1. Water Quality Treatment Requirements

   Regulated Projects creating and/or replacing between 5,000 and 22,000 square feet of impervious surface shall size and design Permanent Stormwater Control Measures to:

   a. Treat the greater of:

      1) The runoff flow rate produced from a rain event equal to at least 0.2 inches per hour intensity;

      2) The runoff flow rate produced from a rain event equal to at least two times the 85th percentile hourly rainfall intensity (in inches per hour), as determined from local hourly rainfall records; or

   b. Retain the volume of runoff specified in section Retention Requirements, below.

2. Retention Requirements

Regulated Projects that create and/or replace greater than 22,000 square feet of impervious surface shall retain a volume of stormwater runoff from the drainage management area equivalent to the volume:

a. Generated by the 85th percentile, 24-hour rainfall event as determined from local rainfall records[2] ; or

b. Annual runoff required to achieve 80 percent or more retention, determined in accordance with the methodology in section 5 of the California Stormwater Quality Association's Stormwater Best Management Practice Handbook, New Development and Redevelopment (2003), using local rainfall data.

3. Peak Flow Control Requirements

a. Regulated Projects that create and/or replace greater than 22,000 square feet of impervious surface shall implement peak flow controls to match pre-development peak flow conditions from the 2-year, 24-hour rain event.

b. Peak flow controls may be designed such that they meet the requirements of both the sections Retention Requirements and the Peak Flow Control Requirements, thus not requiring two separate control measures.

E6.8.6 Selection of Permanent Stormwater Control Measures for Stormwater Retention and Treatment

The Permittee shall require Regulated Projects to meet stormwater retention and treatment criteria by implementing Permanent Stormwater Control Measures consistent with the below order of prioritization and design criteria. Implementation of lower-priority Permanent Stormwater Control Measures shall be justified in the Stormwater Control Plan. Use of lower priority Permanent Stormwater Control Measure does not exempt a drainage management area from section Target Pollutants of Concern and section Criteria for Stormwater Treatment, Retention, Peak Flow Control, or the need for offsite alternatives if retention and peak flow requirements cannot be met onsite.

1. Bioretention Stormwater Control Measures

[2] Determined using the formula and volume capture coefficients in Urban Runoff Quality Management, Water Environment Federation Manual of Practice No. 23/ASCE Manual of Practice No. 87 (1998) pages 175-178.

a. Bioretention Stormwater Control Measures retain stormwater runoff using vegetated depressions and soils engineered to capture, treat, and infiltrate stormwater runoff. Bioretention best management practices implemented to the maximum extent practicable standard are considered the highest priority Permanent Stormwater Control Measure for all Regulated Projects and shall be demonstrated to be infeasible, per subsection Biofiltration under section Flow-Through Stormwater Control Measures, before Biofiltration or Subsurface Infiltration Stormwater Control Measures are considered.

b. Bioretention Stormwater Control Measure Design Standards

   Bioretention best management practices designed to the maximum extent practicable standard shall achieve applicable treatment and retention requirements and comply with the following design standards:

   1) Bioretention Stormwater Control Measures shall be vegetated and include at least 51 percent vegetation cover at plant maturity. Appropriate plants shall be selected for the specified soil mix and hydrologic conditions.

      a) Bioretention Stormwater Control Measures shall be designed without horizontal liners or barriers that interfere with infiltration. A vertical liner may be used to prevent lateral flow and to separate the native soil from the bioretention soil media and aggregator an adjacent geotechnical hazard.

      b) Bioretention Stormwater Control Measures designed to achieve retention requirements shall be designed without perforated pipes installed at the bottom of the BMP. In locations with low in-situ soil infiltration rates or other conditions limiting infiltration, the Stormwater Control Measure may be designed with an elevated perforated pipe where the retention volume is achieved below the pipe elevation.

      c) Bioretention Stormwater Control Measures shall have a planting medium area sufficient to ensure that the design maximum surface loading rate does not exceed 5 inches per hour, based on the flow rates calculated according to the criteria in Criteria for Stormwater Treatment, Retention, and Peak Flow Control.

      d) Bioretention Stormwater Control Measures shall have a minimum surface reservoir volume equal to surface area times a depth of 6 inches.

e) Bioretention Stormwater Control Measures shall have a minimum planting medium depth of 18 inches. The planting medium shall sustain a minimum infiltration rate of 5 inches per hour throughout the life of the project and shall maximize runoff retention and pollutant removal.

f) A mixture of sand (60 to 70 percent) meeting the specifications of American Society for Testing and Materials (ASTM) C33 Method and compost (30 to 40 percent) may be used.

g) Bioretention Stormwater Control Measures shall have subsurface drainage/storage (gravel) layer with an area equal to the surface area and having a minimum depth of 12 inches.

h) Bioretention Stormwater Control Measures shall have no compaction of soils beneath the facility.

i) Pesticides shall not be used in bioretention Stormwater Control Measures.

j) Bioretention Stormwater Control Measures shall be designed with a high flow bypass that is not connected to the underdrain. High flow bypasses shall not create erosive conditions.

k) Bioretention Stormwater Control Measure mulch shall be aged, stabilized, non-floating mulch.

2. Flow-Through Stormwater Control Measures

a. Flow-through Stormwater Control Measures are Stormwater Control Measures that do not fully meet the Bioretention Stormwater Control Measure criteria but may be used when use of a Bioretention Stormwater Control Measure is demonstrated to be infeasible as described in subsection Biofiltration, below. Flow-through Stormwater Control Measures shall treat all pollutants of concern to the maximum extent practicable and be used in conjunction with another Stormwater Control Measure, a combination of Stormwater Control Measures, or offsite alternative to fully meet stormwater retention and peak flow control requirements, where applicable. Flow-through Stormwater Control Measures shall be selected in the following order of priority.

b. Biofiltration:

Biofiltration Stormwater Control Measures are designed consistent with the Bioretention Stormwater Control Measure Design Standards, except they are installed with underdrains and where necessary,

impermeable liners. Stormwater Control Measures in this category utilize plants and soils to treat stormwater prior to discharge but may not retain the entire volume specified in the section Retention Requirements. These Stormwater Control Measures may be allowed in the circumstances where installation of Bioretention Stormwater Control Measures are infeasible for one of the following four reasons.

1) Stormwater retention would cause or exacerbate a geotechnical or structural hazard as established by the geotechnical expert for the project.
2) Stormwater retention may mobilize pollutants in areas of known groundwater contamination.
3) Stormwater Control Measure placement is only feasible on a plaza or other elevated structure (e.g., flow-through planter).
4) Other criteria approved by a Regional Water Board Executive Officer.

c. Alternative Flow-Through Stormwater Control Measures

Alternative flow-through Stormwater Control Measures are Stormwater Control Measures that do not meet biofiltration criteria and are often proprietary devices with varying levels of design, treatment capabilities, and performance. Alternative Stormwater Control Measures may be selected, in the following order of priority, in instances where 1) higher-priority Stormwater Control Measures would interfere with historic structures or landscapes and whose original configuration is required to be preserved by local ordinance in order to maintain their historic integrity, or 2) projects that create or replace an acre or less of impervious area, and are located in a designated pedestrian-oriented commercial district (e.g., smart growth projects), and have at least 85 percent of the entire project site covered by permanent structures:

1) Landscape-based flow-through Stormwater Control Measures that do not meet the Bioretention or Biofiltration Stormwater Control Measure criteria. Example best management practices include tree-box media filter units and modular wetlands.
2) Physical structured Stormwater Control Measures that are not landscape-based. Example Stormwater Control Measures include in-vault media filters, chambered separator units, hydrodynamic separators, physical filters, trash excluders, and trash separators.

3. Subsurface Infiltration Stormwater Control Measures

   a. Subsurface infiltration Stormwater Control Measures are stormwater holding and infiltration systems that rely upon unsaturated soils above the water table to provide stormwater treatment and include, but are not limited to, infiltration trenches, infiltration basins, dry ponds, dry wells, sumps, infiltration galleries, and underground modular storage units. Subsurface Infiltration Stormwater Control Measures may only be permitted to meet retention requirements after Bioretention Stormwater Control Measures are demonstrated infeasible per subsection Biofiltration, under section Flow-Through Stormwater Control Measures. Subsurface infiltration Stormwater Control Measures may only be permitted to meet water quality treatment control requirements after Bioretention and Biofiltration Stormwater Control Measures are demonstrated infeasible.

   b. Subsurface infiltration Stormwater Control Measures shall 1) be technically feasible, 2) fully infiltrate all stormwater within 72 hours, 3) be protected from construction phase discharges and kept offline until the project site is stabilized and prepared for final occupancy, 4) achieve the required treatment, retention, and peak flow requirements, and 5) not degrade groundwater quality.

   c. Applicants of projects with proposed subsurface infiltration of stormwater shall demonstrate in the Post-Construction Stormwater Control Plan compliance with local guidelines, if available, or approval by the Regional Water Board Executive Officer (see below).

   d. Local Infiltration Guidelines

      The Permittee may propose local infiltration guidelines for runoff that has not been fully treated by Biofiltration or Flow-Through Stormwater Control Measures. These guidelines, if approved, shall be incorporated into their ordinances to include both vertical and horizontal setback criteria taking into account both surface conditions (for example, land use such as residential, industrial, etc.) and subsurface conditions (for example, soil conditions, areas of known contamination, depth to groundwater, etc.). Proposed guidelines shall be submitted to the Regional Water Board Executive Officer for approval.

   e. Regional Water Board Approval

      If local infiltration guidelines have not been proposed by the Permittee and approved by the Regional Board Executive officer,

then proposals for subsurface infiltration of stormwater are subject to the prior review and approval of the applicable Regional Water Board Executive Officer on a project-by-project basis. Proposals shall demonstrate that 1) Bioretention Stormwater Control Measures are infeasible per sections subsection Biofiltration, under section Flow-Through Stormwater Control Measures, 2) Flow-Through Stormwater Control Measures are infeasible, 3) subsurface infiltration is feasible, and 4) subsurface infiltration will not degrade groundwater. Proposals shall include the following information:

1) Depth between bottom of infiltration system and seasonally high groundwater. The smaller the distance to groundwater, the greater the threat to water quality and potential for decrease in infiltration rates;
2) Depth between bottom of infiltration system and underlying impermeable layers that may restrict infiltration of stormwater;
3) Proximity of the infiltration system to wells and springs used for drinking water supplies. In certain site-specific conditions, infiltrated stormwater may be a threat to drinking water if hydraulically connected and in close proximity to water supply wells;
4) Proximity to onsite wastewater treatment systems (e.g., septic systems, drain fields). Stormwater infiltration may interfere with the designed operation of onsite wastewater treatment systems or mobilize pollutants;
5) Soil type and characteristics underlying the infiltration system. There is a direct relationship between soil pore space and hydraulic conductivity, and potential for stormwater effects on groundwater. Additionally, soil properties affect pollutant treatment capacity, such as the positive effect of soil cation exchange capacity on phosphorous and metals removal;
6) Proximity to areas of known groundwater contamination. Stormwater infiltration may mobilize groundwater contaminants and plumes;
7) Characterization of expected pollutant sources. Site-specific, potential pollutant sources from the contributing area shall be evaluated for threat to groundwater and need for pre-treatment. For instance, areas subject to deicing practices may produce

pollutants that threaten groundwater, and areas with copper roofs or galvanized metals may transport dissolved metals;

8) Proximity to building foundations, utilities, and nearby structures. Infiltration of stormwater adjacent these features may interfere with infiltration, compromise building foundations or base material surrounding utilities, or result in seepage of water into subsurface building spaces;

9) Proximity to landforms that may present or exacerbate geotechnical hazards as a result of stormwater infiltration e.g., low-angle geologic formations and jointing, historic and pre-historic landslides, karst terrain;

10) A maintenance plan that ensures sediment and debris do not interfere with the short- and long-term ability of the system to function as designed. Stormwater infiltration systems may be easily clogged by sediment;

11) A groundwater mounding analysis may be required, where appropriate, such as areas where infiltration occurs in close proximity to:

a) Seasonally high groundwater elevation;

b) Contaminated groundwater;

c) Onsite wastewater treatment systems

d) Building, structure, or underground utility;

e) Other infiltration best management practices; and

f) Soils with low saturated hydraulic conductivity.

4. Alternatives to Onsite Retention and Peak Flow Control Requirements

Permittees may allow Regulated Projects to fulfill a portion or all of its retention or peak flow requirements at an offsite location in the following two instances.

a. Project Specific Limitations

The Permittee may allow a Regulated Project to offset retention or peak flow requirements at an offsite location only when all of the following are satisfied:

1) Foregoing onsite retention and peak flow control will not result in significant impacts to receiving waters, such as bank erosion or channel incision.

2) Opportunities to implement the requirements (per section Criteria for Stormwater Treatment, Retention, and Peak Flow Control) have been maximized onsite and full or partial compliance with the remaining requirements are demonstrated technically infeasible per sections subsection Biofiltration under section Flow-Through Stormwater Control Measures and subsection Subsurface Infiltration Stormwater Control Measures.

3) The offsite offset project provides hydraulically sized retention and peak flow control (per section Permanent Stormwater Control Measure Selection and Sizing) of stormwater runoff that meets or exceeds the foregone amount from the applicable Regulated Project.

4) Offsite offset project(s) are within the same watershed as the Regulated Project. Offsite offset project sites located outside the watershed have prior approval of the Regional Board Executive Officer.

5) Offsite offset projects shall be completed as soon as practicable and no longer than three years from the date of the applicable Regulated Project's certificate of occupancy unless a longer period is otherwise authorized by the Regional Water Board Executive Officer.

b. Approved Watershed or Regional Plan

1) Watershed or Regional Plans are plans that present a coordinated strategy to mitigate specific development impacts using regional and watershed-scale stormwater control measures. A project or projects from an approved Watershed or Regional Plan may be used to offset the Regulated Project's required retention or peak flow requirements. Proposed Watershed or Regional Plans shall be subject to the prior review and approval of the Regional Board Executive Officer and shall include, at a minimum:

2) Demonstration that implementation of projects per the Watershed or Regional Plan will be as effective in meeting the applicable per section Permanent Stormwater Control Measure Selection and Sizing requirements as meeting them on site.

3) Quantitative analysis (e.g., calculations and modeling) used to evaluate offsite compliance.

4) A demonstration that forgoing onsite retention and peak flow control will not result in significant impacts to receiving waters, such as bank erosion or channel incision.

5) A consideration of the long-term cumulative impacts of urbanization, including existing and future development.

6) A description of proposed offset project(s). The proposed offset projects may include existing facilities or prospective projects.

7) The location of the proposed offset project(s), which must be within the same watershed as the Regulated Project. Offset project sites located outside the watershed are subject to the approval of the Regional Board Executive Officer.

8) Offset projects shall be completed as soon as practicable and no longer than three years from the date of the applicable Regulated Project's certificate of occupancy unless a longer period is otherwise authorized by the Regional Water Board Executive Officer.

E6.9 Operations and Maintenance of Post-Construction Stormwater Control Measures

E6.9.1 Permittee's Operation and Maintenance Plan

The Permittee shall ensure that operation and maintenance plans exist for all Permanent Stormwater Control Measures in its MS4 boundary. The Permittee's Operation and Maintenance Plan shall:

1. Require regulated project proponents and their successors develop and implement an adequate Operations and Maintenance Plan.
2. Require at least one of the following from all Regulated Project proponents and their successors in control of the project or successors in fee title:
   a. The project proponent's signed statement accepting responsibility for the operation and maintenance of Permanent Stormwater Control Measures until such responsibility is legally transferred to another entity;
   b. Written conditions in the sales or lease agreements or deed for the project that requires the buyer or lessee to assume responsibility for the operation and maintenance of the installed Permanent Stormwater Control Measures (if any) until such responsibility is legally transferred to another entity;

c. 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 operation and maintenance of the installed Permanent Stormwater Control Measures (if any) until such responsibility is legally transferred to another entity; or

d. Any other legally enforceable agreement or mechanism, such as recordation in the property deed, which assigns the operation and maintenance responsibility for the installed Permanent Stormwater Control Measures (if any) to the project owner(s) or the Permittee.

3. Develop and implement a written plan that describes operation, maintenance, and inspection of all Permittee-owned or operated Permanent Stormwater Control Measures.

4. Coordinate with the appropriate mosquito and vector control agency to establish a protocol for notification of installed Permanent Stormwater Control Measures. Before October 1st of every year, the Permittee shall submit a list of Permanent Stormwater Control Measures installed within the reporting year to the local mosquito and vector control agency and the appropriate Regional Water Board. The Permittee may submit the list of Regulated Projects. This list shall include the facility locations and a brief description of the Permanent Stormwater Control Measures.

5. Submit requests for a Deferred Maintenance Exemption to the appropriate Regional Water Board when the following conditions are met:

   a. The Permanent Stormwater Control Measure responsible party has worked diligently and in good faith with the appropriate state and federal agencies and the Permittee to obtain approvals necessary to complete deferred maintenance activities; and

   b. Approvals are not granted because maintenance would result in significant impacts to waters of the state.

E6.9.2 Maintenance Assessment / Inspection of Stormwater Treatment Facilities.

The Permittee shall ensure that all Regulated Project Permanent Stormwater Control Measures are properly operated and maintained for the life of the projects. The Permittee shall implement an Operations and Maintenance Verification Program (Verification Program) to verify that all Permanent Stormwater Control Measures maintain full functionality. At a minimum, the Verification Program shall include the following elements:

1. Conditions of approval or other legally enforceable agreements or mechanisms for all Regulated Projects that require the granting of site access to all Permittee representatives for the purpose of performing operation and maintenance inspections of the installed Permanent Stormwater Control Measures.
2. A database or equivalent tabular format inventory of all Regulated Projects (public and private) that have installed Permanent Stormwater Control Measures. This Post-Construction Inventory shall include the following information for each Regulated Project:
    a. Name and address of the Regulated Project;
    b. Specific description of the location (or a map showing the location) of the installed Permanent Stormwater Control Measures (if any);
    c. Installation date(s) of the Permanent Stormwater Control Measures;
    d. Description of the type and size of the installed Permanent Stormwater Control Measures;
    e. Responsible operator(s) of Permanent Stormwater Control Measures;
    f. Dates and findings of Permittee inspections (routine and follow-up) of the Permanent Stormwater Control Measures; and
    g. Corrective and enforcement actions taken.
3. A process for Permittee verification of the relative maintenance condition of Permanent Stormwater Control Measures. Maintenance condition shall be determined using one of the following options:
    a. Self-Certification Program – The Permittee shall implement a program that includes:
        1) Requirement that authorized parties demonstrate proper maintenance and operations by submitting self-certification annual reports that include:
            a) Field observations to determine the effectiveness of the Permanent Stormwater Control Measures in removing pollutants of concern from stormwater runoff and reducing hydromodification impacts as designed.
            b) Long-term plan for conducting regular maintenance of Permanent Stormwater Control Measures, including vegetation. The long-term plan shall identify the frequency of regular maintenance activities.

2) An inventory and map of existing Permanent Stormwater Control Measures, in GIS if available.

3) Permittee assessments of the self-certification program annual reports. Assessment shall include a ranking of Permanent Stormwater Control Measures and verification that the control measures are operating to remove pollutants as designed. Regional Permanent Stormwater Control Measures should receive higher priority than lot-scale Permanent Stormwater Control Measures, and Permanent Stormwater Control Measures designed to remove pollutants for which receiving water is impaired should receive priority attention over other Permanent Stormwater Control Measures.

4) Permittee onsite inspections of at least one-half of all Permanent Stormwater Control Measures every five years. The inspections shall:

   a) Identify whether the Permanent Stormwater Control Measure is functioning as designed;

   b) Include a review of the owner's operations and maintenance actions and documentation to verify conformance with the Operation and Maintenance Plan;

   c) Identify maintenance actions needed and timeline for their implementation; and

   d) Determine whether self-certification reports reflect actual site conditions.

b. Permittee-led Inspection Program – Permittees shall develop and implement an annual inspection program to verify Permanent Stormwater Control Measures are properly maintained and operated. The inspection program shall include the following:

   1) An inventory and map of existing Permanent Stormwater Control Measures, in GIS if available.

   2) Permittee inspection of all Permanent Stormwater Control Measures, at a minimum of once every five years, or more frequently as appropriate based on inspection results. Inspections shall include:

      a) Field inspection of the facility;

b) Identify whether the Permanent Stormwater Control Measure is functioning as designed;

c) Identify maintenance actions needed and timeline for their implementation;

d) Review of the owner's operations and maintenance actions and documentation to verify conformance with the Operation and Maintenance Plan; and

e) Documentation of the inspection.

E6.9.3 Permanent Stormwater Control Measure Field Verification

The Permittee shall establish and implement a mechanism (a checklist or other tools) to verify that Permanent Stormwater Control Measures are constructed as designed and approved in accordance with these Permanent Stormwater Management Requirements.

1. Prior to temporary and final occupancy of each Regulated Project, the Permittee shall field verify that the Runoff Reduction, treatment, retention, and peak flow controls have been implemented in accordance with these Post-Construction Requirements. The Permittee may accept third-party verification of Permanent Stormwater Control Measures conducted and endorsed by a registered professional engineer, geologist, architect or landscape architect.

E6.10 Planning and Development Review Process

1. The Permittee shall incorporate into their planning and project initiation process standard procedures that require consideration of potential stormwater quality impacts early in the planning process of any project that meets the criteria of this Order for new development and redevelopment projects. Each Permittee shall clearly demonstrate the developer and Permittee considered stormwater quality site issues before the facilities/projects reached final design. The Permittee must demonstrate review in the conceptual design of stormwater quality protection at the earliest possible stage in the project planning, initiation, and similar discretionary or ministerial approval process:
2. The Permittee shall establish a plan review and approval process for regulated projects that includes an organizational structure for communication, coordination, and delineated authority between and among departments that have jurisdiction over project review, plan approval, and

project construction to ensure all required post-construction measures are designed to meet this order.

3. For each Regulated Project subject to the Low Impact Development requirements, the Permittee shall develop a Post-Construction Stormwater Control Plan that includes the following and other necessary information to show how the proposed project will comply with the requirements.
    a. Project Name, application number, and location including address and assessor's parcel number.
    b. Name of Applicant.
    c. Project Phase number (if project is being constructed in phases).
    d. Project Type (e.g., commercial, industrial, multiunit residential, mixed-use, public), and description.
    e. Total project site area.
    f. Total new and replaced impervious surface area.
    g. Summary of Site Assessment.
    h. Pre-and post-development Drainage Management Areas.
    i. Summary of Permanent Stormwater Control Measures used.
    j. Justification wherever 1) lower-priority Permanent Stormwater Control Measures are selected due to infeasibility of higher priority Permanent Stormwater Control Measures and 2) Alternatives to Onsite Retention and Peak Flow Control Requirements are used to meet retention and peak flow requirements. The justification(s) shall cite relevant portions of the Order allowing selection of lower priority Permanent Stormwater Control Measures and allowance of the offsite projects.
    k. Summary of Source Controls, Runoff Reduction Measures, and Permanent Stormwater Control Measures by Drainage Management Area, as well as for the entire site.
    l. Supporting calculations that document proper design and sizing of runoff reduction measures and stormwater control measures used to comply with the applicable requirements.
4. The Permittee shall not grant approval for construction of impervious surfaces, until the Post-Construction Stormwater Control Plan for the Regulated Project sufficiently demonstrates the Regulated Project design meets the Low Impact Development Design Requirements.

5. New Non-Traditional Permittees shall review their planning and permitting process to assess any gaps or impediments impacting effective implementation of these post-construction requirements specified in section Planning and Development Review Process. Where these are found to exist, Permittees shall seek solutions to promote implementation of these requirements within the context of public safety and community goals for land use.

   In Years 1-3 of their enrollment under this Order, new Non-Traditional Permittees shall conduct the review using an existing guide or template already developed for MS4s (such as the Municipal Regulatory Update Assistance Program (http://www.casqa.org/LIDDemo/LIDTraining/tabid/246/Default.aspx).

   a. Within 1 year of the effective date of this Order or the Permittee's effective date of designation, whichever is later, new Non-Traditional Permittees shall conduct an analysis of the landscape code to correct gaps and impediments impacting effective implementation of post-construction requirements.

   b. Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, new Non-Traditional Permittees shall complete any changes to the landscape code to effectively administer post-construction requirements.

   c. Within 3 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, New Permittees shall complete any changes to the planning and permitting process to effectively administer these provisions.

E6.11 Alternative Post-Construction Stormwater Management Requirements Based on Assessment and Maintenance of Watershed Processes

1. Small MS4s subject to this Order, in place of complying with the requirements set forth in Sections E6.1 through E6.9 and Section E10.6 (Post-Construction Program Reporting) of this Order, shall comply with post-construction stormwater management requirements based on a watershed-process approach developed by Regional Water Boards that includes the following:

   a. Completion of a comprehensive assessment of dominant watershed processes affected by urban stormwater.

   b. Low impact development runoff reduction measures, numeric runoff treatment and retention controls, and hydromodification controls that will

maintain watershed processes and protect water quality and beneficial uses.

c. A process by which Regional Board staff will actively engage Permittees to adaptively manage requirements as determined by the assessment of watershed processes.

d. An annual reporting program that involves Regional Water Board staff and State Water Board staff to inform statewide watershed process-based criteria.

2. The regional watershed-process based approach shall be approved by the Regional Water Board following a public process.

E6.12 Alternative Post-Construction Stormwater Management Program

1. A Permittee may propose alternative post-construction measures in lieu of some or all of section Post-Construction Stormwater Management Program requirements for multiple benefit projects.

2. Multiple Benefit Projects

   a. Multiple benefit projects include projects that address any of the following, in addition to water quality:

      1) Water supply;
      2) Flood control;
      3) Habitat enhancement;
      4) Open space preservation;
      5) Recreation; and
      6) Climate change.

   b. Multiple benefit projects may be applied at various scales including project site, municipal or sub-watershed level.

   c. Multiple benefit projects may include, but are not limited to, projects developed under Watershed Improvement Plans (Water Code section 16100 et seq.), Stormwater Resource Plans, Integrated Regional Water Management Plan implementation and green infrastructure projects.

3. Alternative post-construction measures for multiple benefit projects must be equally or more protective of water quality than equivalent requirements it is replacing.

4. If the Regional Water Board or Executive Officer finds, after an opportunity for public comments, that the alternative measures are consistent with the maximum extent practicable standard, alternative post-construction

measures for multiple benefit projects, as described above, may be implemented.

E7. TMDL DEMONSTRATION OF COMPLIANCE AND TIME SCHEDULE ORDERS

Attachment G contains a list of TMDL-specific responsible Permittees and implementation, monitoring, and reporting requirements, which are applicable to identified responsible Permittees. The sections TMDL Demonstration of Compliance Report and Request for Time Schedule Order, below, provide the reporting requirements for TMDL demonstration of compliance.

E7.1 TMDL Demonstration of Compliance Report

For purposes of this section, the wasteload allocations specified in the applicable TMDLs (as identified in the Fact Sheet) are incorporated by reference. Permittees shall submit a TMDL Demonstration of Compliance Report, as follows:

1. Submit to SMARTS and the applicable Regional Water Board Executive Officer for review and consideration of approval.
2. Prior to the deadline to comply with the final wasteload allocation, a Permittee may demonstrate compliance with the applicable TMDL wasteload allocations, if the permittee reports and substantiates that it is timely implementing all best management practices, maintenance, and other requirements specified in Attachment G for that TMDL. Alternatively, the Permittee may make a demonstration of compliance in accordance with subsection E7.1.3.
3. On or after the deadline to attain the final wasteload allocation, a Permittee may demonstrate compliance with the applicable TMDL wasteload allocations if the Permittee meets one or more of the criteria in subsections (a) through (g), as follows:
    a. *Receiving Water Quality Monitoring.* Receiving water monitoring and analysis by the Permittee or other responsible parties under the TMDL, as approved by the Regional Water Board or its designee, demonstrates attainment of the applicable receiving water limitation in the waterbody as determined at the TMDL monitoring attainment locations or as determined at or immediately downstream of the Permittee's discharge; or
    b. *Loads from Other Sources.* Receiving water monitoring does not demonstrate attainment of the applicable receiving water limitation in the waterbody, but the Permittee demonstrates, through an approach

approved by the Regional Water Board or its designee, that exceedances of the receiving water limitations for the receiving water are due to loads from other sources and pollutant loads from the Permittee are not causing or contributing to the exceedances; or

c. *Concentrations.* Where the wasteload allocation is expressed as a concentration, sampling of the Permittee's discharge, as approved by the Regional Water Board or its designee, indicates that the discharge has attained the applicable wasteload; or

d. *Mass-Based Wasteload.* Where a mass-based wasteload has been allocated to an individual or jointly to a group or is expressed as a percent reduction in load, the Permittee demonstrates, through an approach approved by the Regional Water Board or its designee, that the Permittee's discharge is attaining the individual or joint allocation or the percent reduction; or

e. *Allowable Exceedance Days.* Where a wasteload allocation is expressed as the number of allowable exceedance days, the Permittee demonstrates, through an approach approved by the Regional Water Board or its designee, that the Permittee's discharge conforms to the allowable exceedance days; or

f. *No Discharge.* The Permittee demonstrates, in a manner approved by the Regional Water Board or its designee, that no discharges, either directly or indirectly, from the permittee's MS4 to the applicable water body occurred during the relevant time period; or

g. *Other Factors.* The Permittee demonstrates the attainment of the wasteload allocation through other factors as described by the specific TMDL(s) and as approved by the Regional Water Board or its designee.

E7.2 Request for Time Schedule Order

In some cases, Attachment G includes dates that fall outside the term of this Order. Compliance deadlines for wasteload allocations and other permit requirements that exceed the term of this Order become enforceable in the event that this Order is administratively extended. Some wasteload allocation compliance deadlines have already passed and are enforceable on the effective date of this Order.

1. Requests for Extensions and Time Schedule Orders

   Where a final deadline to attain a wasteload allocation has passed and the Permittee has not demonstrated compliance, the Permittee may seek a time schedule order pursuant to Water Code section 13300 from the Regional

Water Board. Permittees may request a time schedule order individually or together with other Permittees subject to the TMDL. Permittees may also request time schedule orders where the Permittee has not timely complied with a best management practice-based water quality based effluent limits or other TMDL-related permit requirement.

A request to the applicable Regional Water Board for a time schedule order shall include the following information:

a. Any available data demonstrating the current quality of the MS4 discharge(s) in terms of the applicable wasteload allocation units (i.e., concentration or load) of the target pollutant(s) to the receiving waters subject to the TMDL;

b. A description and chronology of structural controls and source control efforts carried out by the permittee since the effective date of the TMDL to reduce the pollutant load in the MS4 discharges to the receiving waters subject to the TMDL;

c. Justification of the need for additional time to achieve the requirements;

d. The specific actions the Permittee will take in order to meet the TMDL requirements and a time schedule of interim and final deadlines proposed to implement those actions. The actions will reflect the requirements specified for the TMDL in Attachment G; and

e. A demonstration that the time schedule requested is as short as possible, taking into account the technological, operational, and economic factors that affect the design, development, and implementation of the control measures that are necessary to comply with the TMDL requirements.

E8. WATER QUALITY MONITORING

E8.1 Regional Monitoring Programs

1. Upon approval by the applicable Regional Water Board Executive Officer, Permittees may participate in a Regional Water Board approved monitoring program (e.g., Delta Monitoring Program, San Francisco Bay Regional Monitoring Program) in lieu of all or a portion of the Water Quality Monitoring section.

2. As part of its approval, the applicable Regional Water Board Executive Officer shall determine that the Regional Water board approved monitoring program adequately substitutes for the requirements of the Water Quality

Monitoring section being substituted for by the approved monitoring program.

3. All Permittees participating in an approved regional monitoring program at the time of the Order effective date shall consult with the Regional Water Board within 1 year of the effective date of the permit to assess which elements of this Order's Water Quality Monitoring section are adequately addressed by the approved monitoring program and which elements the Permittees should continue to implement.
4. Permittees participating in a regional monitoring program shall complete a memorandum of agreement to participate in the program within 1 year of the Effective date of this Order or the Permittee's effective date of designation, whichever is later.
5. Where a regional monitoring group has initiated plans before the effective date of this Order to conduct monitoring that achieves compliance the Water Quality Monitoring section, the Permittee may request the Executive Officer of the applicable Regional Board tailor compliance dates in this permit to synchronize with the monitoring program. Additionally, existing regional monitoring efforts shall be reviewed and approved by a Regional Water Board Executive Officer.
6. Where a Permittee receives grant funding to conduct monitoring that achieves compliance with the Water Quality Monitoring section, the Permittee may request the Regional Water Board Executive Officer tailor compliance dates in this permit to synchronize with the monitoring program.

E8.2 Areas of Special Biological Significance Monitoring

All Permittees that discharge to an ASBS and are covered by an Ocean Plan exception shall comply with the monitoring requirements described in the terms, prohibitions, and special conditions in Attachment F.

E8.3 TMDL Monitoring

Permittees shall implement monitoring requirements assigned to them in Attachment G.

E8.4 303(d) Monitoring

1. All Permittees that discharge to waterbodies listed as impaired on the 303(d) list at the time of adoption of this Order (see the State Water Board's Surface Water Quality Assessment web page (https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/#impaired) where urban runoff is listed as the source, shall consult

with the Regional Water Board within 1 year of the effective date of the permit to assess whether new or continued monitoring is necessary and if so, determine the monitoring study design and a monitoring implementation schedule. Permittees shall implement monitoring of 303(d) impaired water bodies as specified by the Regional Water Board Executive Officer. Permittees are encouraged to consider participation in regional monitoring efforts to satisfy monitoring requirements for 303(d) impaired water bodies.

2. Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall complete and have available a report that includes a summary of baseline data collections and discussion of monitoring program results.
3. Within 5 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall complete and have available a report that includes a comparison of data collection to baseline data, and discussion of monitoring program results.
4. At a minimum, the monitoring reports shall include the following information:
    a. The purpose of the monitoring, contextual background and a description of the study design and rationale.
    b. Sampling site(s) locations, including latitude and longitude coordinates, water body name and water body segment if applicable. Sampling design, including sampling protocol, time of year, sampling frequency and length of sampling.
    c. Methods used for sample collection: list methods used for sample collection, sample or data collection identification, collection date, and media if applicable.
    d. Results of data collection, including concentration detected, measurement units, and detection limits if applicable.
    e. Quantifiable assessment analysis and interpretation of data for each monitoring parameter or other data type.
    f. Comparison to reference sites (if applicable), guidelines or targets
    g. Discussion of whether data collected addresses the objective(s) or question(s) in the study plan.
    h. Quantifiable discussion of program/study pollutant reduction effectiveness.

E8.5 Additional Monitoring

The State Water Board or the Regional Water Boards may order additional monitoring as necessary to demonstrate compliance with this Order per Water Code section 13383.

E8.6 Quality Assurance Project Plans

For all monitoring, the Permittee shall prepare, maintain, and implement a Quality Assurance Project Plan. Monitoring samples shall be collected and analyzed according to the Quality Assurance Project Plan developed for the purpose of compliance with this Order. Quality assurance guidance is available on the Surface Water Ambient Monitoring Program Quality Assurance web page at https://www.waterboards.ca.gov/water_issues/programs/swamp/quality_assurance.html and the Water Boards QA/QC website on Developing a QAPP: https://www.waterboards.ca.gov/water_issues/programs/quality_assurance/qapp.html.

E8.7 Monitoring Plans and Reports

1. Before conducting any new water quality monitoring or making changes to any existing water quality monitoring programs already in place, the Permittee shall complete and have available a monitoring plan that includes a summary of any available baseline data collections or monitoring program results.

   At a minimum, the monitoring plan shall include the following information:

   a. The purpose of the monitoring, contextual background and a description of the study design and rationale.

   b. Sampling site(s) locations, including latitude and longitude coordinates, water body name and water body segment if applicable.

   c. Sampling design, including sampling protocol, time of year, sampling frequency and length of sampling.

   d. Methods to be used for sample collection.

2. Within 5 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall complete and have available a monitoring report that includes a comparison of data collected to baseline data, and a discussion of monitoring program results.

   At a minimum, the monitoring report shall include the following information:

a. The purpose of the monitoring, contextual background and a description of the study design and rationale.

b. Sampling site(s) locations, including latitude and longitude coordinates, water body name and water body segment if applicable. Sampling design, including sampling protocol, time of year, sampling frequency and length of sampling.

c. Methods used for sample collection.

d. Sample or data collection identification, collection date, and media if applicable.

e. Results of data collection, including concentration detected, measurement units, and detection limits and laboratory qualifiers, if applicable.

f. Quantifiable assessment analysis and interpretation of data for each monitoring parameter or other data type.

g. Comparison to reference sites (if applicable), guidelines or targets.

h. Discussion of whether data collected addresses the objective(s) or question(s) in the study plan.

i. Quantifiable discussion of program/study pollutant reduction effectiveness.

E8.8 Data Submittal

Water quality data shall be uploaded to SMARTS and shall conform to the California Environmental Data Exchange Network "CEDEN Minimum Data Templates" format, available at http://ceden.org/.

E9. PROGRAM EFFECTIVENESS ASSESSMENT AND IMPROVEMENT

E9.1 Program Effectiveness Assessment and Improvement Plan

1. Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, New Permittees shall develop and implement a Program Effectiveness Assessment and Improvement Plan that tracks annual and long-term effectiveness of the stormwater program. Within 1 year of the effective date of this Order, Renewal Permittees shall update their existing Program Effectiveness and Assessment and Improvement Plans to be compliant with this section of this Order.

2. Permittees that have a Program Effectiveness Assessment and Improvement Plan, or equivalent, approved by the applicable Regional

Water Board, or that have a schedule approved by the applicable Regional Water Board to develop and implement such a Plan, shall update the approved Plan or schedule as necessary to comply with the section Program Effectiveness Assessment and Improvement Plan.

3. The Program Effectiveness Assessment and Improvement Plan shall include the following elements, at a minimum as applicable:

   a. Description of the strategy used to gauge the effectiveness of prioritized BMPs and program implementation as a whole. Prioritized BMPs include BMPs implemented based on pollutants of concern. Where pollutants of concern are unidentified, prioritized BMPs are based on common pollutants of concern (i.e., sediment, bacteria, trash, nutrients).

   b. Description of how permittee tracks short and long-term progress of the storm water program at implementation of storm water program elements

   c. Identification and targeting of target audience(s)

4. Annually after development of the Program Effectiveness Assessment and Improvement Plan, the Permittee shall assess progress towards implementing the Program Effectiveness Assessment and present previous years short and long-term progress of the storm water program through an effectiveness assessment report. The effectiveness assessment report shall incorporate assessments of BMP performance to improve effectiveness. The effectiveness assessments shall build upon each other from one year to the next and shall identify modifications to the program the Permittee must undertake to improve effectiveness.

E9.2 Stormwater Program Modifications

1. Within the fifth year of enrollment in this Order, the Permittee shall modify best management practices or the entire program to improve compliance with conditions of this Order and improve program effectiveness at reducing pollutant loads, achieving the maximum extent practicable standard, and protecting water quality. The Permittee shall identify and summarize best management practices and program modifications identified in priority program areas. Modifications shall include:

   a. Improving upon best management practices that are underperforming;

   b. Continuing and expanding upon best management practices that proved to be effective, including identifying new best management practices or modifications to existing best management practices designed to increase pollutant load reductions;

c. Discontinuing best management practices that may no longer be productive and replacing with more effective best management practices; and

d. Shifting priorities to make more effective use of resources.

2. The Permittee shall use information gained through the program effectiveness assessment and MS4 discharge and receiving water monitoring to identify priority areas for program improvement.

3. The Permittee shall consult with the applicable Regional Water Board in setting expectations for the scope, timing, and frequency of best management practice modifications.

E10. REPORTING PROGRAM

E10.1 Annual Report and Annual Reporting Requirements

1. By October 15 of each year, the Permittee shall use the State Water Board's SMARTS to submit a summary of the past year activities for each program element and certify compliance with all requirements of this Order. If a Permittee is unable to certify compliance with a requirement, the Permittee shall submit in SMARTS the reason for failure to comply, a description and schedule of tasks necessary to achieve compliance, and an estimated date for achieving full compliance.

2. Permittees shall complete and retain all Annual Report information on the previous fiscal year beginning July 1 and ending June 30. The Permittee shall retain documentation as necessary to support their Annual Report. The Permittee shall make this supporting information available during normal business hours, unless otherwise agreed to by the applicable Regional Water Board's Executive Officer.

3. The Permittee shall submit, when requested by the Executive Officer of the applicable Regional Water Board, a detailed written online Annual Report or in-person presentation of the Annual Report that addresses the activities described in this Attachment. The detailed Annual Report shall clearly refer to the requirements of this Order and describe in quantifiable terms, the status of activities undertaken to comply with each requirement.

4. Permittees involved in regional programs may coordinate with the members to identify reporting responsibility. The one report submitted on behalf of Permittees involved in a regional program shall include a summary of the past year activities for each program element and certification of compliance

with all requirements of this Order for each of the Permittees in the regional program.

E10.2. Program Management Reporting

E10.2.1 One-Time Per Permit Term Reporting Items

1. In Year 1 for Renewal Permittees and Year 2 for New Permittees, the Permittee shall submit a certification statement per Certification section.

E10.2.2 Annual Reporting Items

1. In Year 1, and annually thereafter, report the total number of actions taken within each category of enforcement (verbal warnings, written notices, escalated enforcement actions) and of those identify the following:
    a. Number of corrective actions resolved within permitted time frame; and
    b. Number of cleanup and abatement actions performed or contracted by the Permittee for discharges not generated by Permittee.
2. In Year 1, and annually thereafter, submit a list of chronic violators including identification information.
3. In Year 1, and annually thereafter, submit a list of NPDES referrals including documentation information per section NPDES Permit Referrals.
4. In Year 1, and annually thereafter if the Permittee has made any changes to their guidance document, the Permittee shall submit an updated guidance document per Section D1.4.

E10.3 Public Education and Outreach Reporting

E10.3.1 One-Time per Permit Term Reporting Items

1. In Year 1, report the compliance option selected per Compliance Options section.
2. In Year 1, submit any necessary documentation for collaborative options per Compliance Options section, item 2.
3. In Year 2, submit the public education strategy developed per the Development and Implementation section.

4. In Year 2, list the years that surveys will be conducted per the Development and Implementation section, item 3.

E10.3.2 Annual reporting items

In Year 2, and annually thereafter, submit a summary of all actions completed per the public education strategy and identify which are completed independently or by the group. At a minimum include:

1. List and description of public education and public participation and involvement activities conducted.
2. Total annual expenditure/cost-share to conduct the program.
3. Submit annual reports as required by the Community Based Social Marketing program if required by the Regional Board.

E10.4 Illicit Discharge Detection and Elimination Program Reporting

E10.4.1 One-time Per Permit Term Reporting Items

1. In Year 1, submit Illicit Discharge and Spill Response Plan per the Illicit Discharge and Spill Response section.
2. In Year 1, submit procedures for Illicit Discharge and Spill Response section, item 2.
3. In Year 1, submit Dry Weather Flow Investigation and Sampling procedures per the Dry Weather Flow Investigation and Sampling section.
4. In Year 1, submit procedures for Potential Illicit Discharge Source/Facility Inspections per the Potential Illicit Discharge Source/Facility Inspections section, item 1.
5. In Year 2, submit Illicit Discharge Source Areas map per the Illicit Discharge Source Areas section, item 2.

E10.4.2 Annual Reporting Items

1. Report number of complaints and notifications of illicit discharges and spills.
2. Report findings of any dry weather flow investigations.
3. Beginning in Year 3, and annually thereafter, submit updated Illicit Discharge Source/Facility Inventory per Potential Illicit Discharge Source/Facility Inventory section.

4. Beginning in Year 2, and annually thereafter, submit documentation of the past year's staff training events including dates and locations of the training and list of staff trained per the Illicit Discharge Detection and Elimination Staff Training section.

E10.5 Pollution Prevention and Good Housekeeping Program Reporting

E10.5.1 One-time per Permit Term Reporting Items

1. In Year 1, submit the map of permittee owned and operated facilities per the Map of Permittee-Owned and Operated Facilities section.
2. In Year 2, submit a copy of the Inventory of Permittee-Owned or Operated Facilities including those identified as hotspots.
3. In Year 1, submit the documentation of municipal Operation and Maintenance activities and their corresponding best management practices as identified in the Permittee Operations and Maintenance Activities section.

E10.5.2 Annual Reporting Items

1. In Year 1, and annually as changes are made, submit the updated MS4 Map per the MS4 Map section.
2. In Year 2, and annually thereafter, submit an asset inventory and map per the Stormwater Asset Management Inventory section.
3. In year 2, and annually thereafter if changes are made, submit the Routine Asset Maintenance Plan per the Asset Maintenance and Improvement Planning section, item 1.
4. In Year 5, and annually thereafter if changes are made, submit the Long-Term Asset Operation and Improvement Plan per the Asset Maintenance and Improvement Planning Section, item 2.
5. In Year 1, and annually thereafter, report dates, content, and staff roster of staff training conducted per the Pollution Prevention and Good Housekeeping Staff Training section.
6. In Year 2, and annually thereafter, describe actions taken to comply with Provision E4.16. Reporting shall either include a statement on non-applicability or identify the BMPs implemented, and the numbers or frequency (as applicable) and locations of actions taken to reduce bacteria from domestic animal sources.

E10.6 Construction Site Stormwater Runoff Program Reporting

E10.6.1 One-time per permit term reporting items

In Year 1, upload the adopted ordinance that complies with this Order and errata sheet as necessary citing changes or added language.

E10.6.2 Annual reporting items

1. Inventory and Tracking
   a. Submit an updated Regulated Construction Project inventory.
   b. Number of Priority Regulated Construction Projects.
   c. Number of Non-Priority Regulated Construction Projects.
2. Construction Site Inspection and Enforcement
   a. Number of inspections performed.
   b. Number of inspections leading to enforcement within each category below:
      - Written notices.
      - Escalated enforcement actions by category (citations/fines, plan review or other authorization withheld, stop work orders).
3. Permittee Construction Staff Training

   List staff certified as Qualified Stormwater Pollution Prevention Plan Developer (QSD) and Qualified Stormwater Pollution Prevention Plan Practitioner (QSP).
4. Construction Site Operator Outreach and Education

   Submit link to stormwater website containing materials used for outreach and education.

E10.7 Post-Construction Program Reporting

E10.7.1 One-time per permit term reporting items

1. In Year 2– New Permittees – Report/Verify mechanism for requiring these post-construction requirements (Upload a copy of the Legal Authority).
2. In Year 1 submit policy and flowchart for project approval coordination per Section E6.3.5.

E10.7.2 Annual reporting items

1. Small Projects
    a. Number of projects that have received approval.
2. Regulated Projects

    For each Regulated Project approved during the reporting period, the following information shall be reported electronically in tabular form:

    a. Project Name, Location
    b. Project Type (e.g., commercial, residential, mixed use, industrial, recreational)
    c. Project Watershed
    d. Total project site area and total area of land disturbed
    e. Total new impervious surface area and total replaced impervious surface area.
    f. Total pre-project impervious surface area and total post-project impervious surface area
    g. Discretionary or Ministerial project approval
    h. Status of project (i.e., initial application submittal, tentative and final approval, Post-Construction Stormwater Control Plan approved (y/n), construction commenced (y/n), construction completed).
    i. Specific runoff reduction measures used.
    j. Are peak flow controls required per section E6.7.5.3? (Y/N)
    k. Where are Post-construction stormwater control systems for the regulated project installed? Onsite, at a shared stormwater treatment facility, or at an offsite location?
    l. Post-Construction Operation and Maintenance responsible party
    m. Post-construction Operation and Maintenance Plan provided (Y/N)?
    n. Stormwater Retention and Treatment sizing criteria used (i.e., flow or volume-based)
    o. Date of as built field verification
3. Operations and Maintenance:
    a. Total Number of sites with installed stormwater control measures.
    b. Number of permittee-led inspections performed.
4. Post-Construction Stormwater Control Measure Field Verification and Long-Term Maintenance Assessment
    a. Number of projects field verified by Permittee staff.
    b. Number of projects verified by a third party.

E10.8 Total Maximum Daily Loads Compliance Reporting

The Permittee shall complete and report the status of their implementation of the specific TMDL implementation requirements that have been incorporated into the permit with each Annual Report via SMARTS. Reporting on TMDL implementation shall include the following information:

1. A description of best management practices implemented, including types, number, and locations; and
2. All supplemental information and reports required under the specific TMDL implementation requirements in Attachment G; and
3. An assessment of the effectiveness of implemented best management practices in progressing towards attainment of wasteload allocations within the TMDLs' specified timeframes; and
4. All monitoring data, including a statistical analysis of the data to assess progress towards attainment of wasteload allocations within the TMDLs' specified timeframes; and
5. Based on results of the effectiveness assessment and monitoring, a description of the additional best management practices that will be implemented to attain wasteload allocations within the TMDLs specified timeframes.

E10.9 Water Quality Monitoring Reporting

E10.9.1 One-time per permit term reporting items

1. In Year 1, Permittees participating in a regional monitoring program shall upload statement of commitment to that program per the requirements in the Regional Monitoring Programs section.
2. In Year 1, Permittees conducting monitoring shall submit a monitoring plan per the requirements in the Monitoring Plans and Reports section, item 1.
3. In Year 5, Permittees conducting monitoring shall submit a monitoring report per the requirements in the Monitoring Plans and Reports section, item 2.

E10.9.2 Annual reporting items

In Year 2, and annually thereafter, Permittees conducting monitoring shall submit a report of the results of monitoring activities for the reporting year.

E10.10 Program Effectiveness Assessment and Improvement Reporting

E10.10.1 One-time per permit term reporting items

1. In Year 2 submit the Program Effectiveness Assessment and Improvement Plan.
2. In Year 5 submit an analysis of the effectiveness of modifications made at improving best management practice or program effectiveness.
3. In Year 5 submit the list of best management practice or program modifications the Permittee will make for priority program areas as specified in the Stormwater Program Modifications section, item 1, including identification of priority program areas and the schedule the Permittee will follow to complete identified modifications during the next permit term.

E10.10.2 Annual reporting items

Beginning in Year 3, describe implementation of the Program Effectiveness Assessment and Improvement Plan. Summarize data obtained through quantitative best management practice performance assessments and the short and long-term progress of the stormwater program and provide an analysis of the data to improve program effectiveness, to achieve the Maximum Extent Practicable standard, and protect water quality.