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 unauthorized 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 Permittee'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 Permittee'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 (per Section C2.6 of this Order) 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 its 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. If selecting either option 1.b. or 1.c, above, 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. Provide documentation in the annual report per section E10.

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) to targeted audiences, including multiple languages as appropriate 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 California 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 Illicit Discharge and Spill Response Plan.

e. Pet waste management, including the following:

   1) The Permittee shall maintain information on the Permittee's website abut proper pet waste management and the impact of improperly deposited waste on water quality and public health.;

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

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

f. As applicable within the Permittee's jurisdiction, make available to 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.

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.
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 response process that provides the following:
    a. Material characterization, source identification, containment, abatement, and recovery;

b. Ability to respond to a reported emergency 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

d. Identification of responsible party, as applicable;

e. A protocol for identifying various illicit discharge and spill levels, such as nuisance, immediate response, and emergency and hazardous material spills, and the associated response actions for each including response timelines for illicit discharges and spills that are 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, significantly contaminated, or likely to cause significant harm 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 to fully resolve, the Permittee shall identify the actions being taken to complete material characterization, source identification, containment, abatement, and recovery.

f. Roles and responsibilities of responding parties (both internal and external departments, agencies, etc) for all times of day, including illicit discharge and spill response referral process (e.g., transfer of incident command) and notification to appropriate federal, state, and local agencies. Identification of departments responsible for responding to each level of illicit discharge or spill (e.g., County Department of Environmental Health, local police and fire departments, Certified Unified Program Agency);

[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.

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;and

h. If applicable, any entities responsible for enforcement and when they take enforcement action.

3. A protocol to track and query the following:

   a. Details of illicit discharge and spill notifications and responses, 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 abate illicit discharges and spills;

   d. Inspection report(s);

   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 actions.

4. Procedures for reporting a spill or illicit discharge, including relevant contact information, shall be included in each of the Permittee's fleet vehicles that are used by field staff.

E3.2 Outfall Mapping

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 and maintain an up-to-date and accurate outfall map. The map may be in hard copy and/or electronic form or within a geographic information system (GIS) The development of the outfall map shall include a visual outfall inventory involving a site visit to each outfall. Renewal Permittees that have an existing up-to-date outfall map that includes the minimum requirements specified in Section E3.2 are not required to recreate the outfall map.

2. The Outfall Map shall include the following:

   a. The location of all outfalls that are operated by the Permittee within the Permittee's regulated MS4 boundary, drainage areas, and land use(s) contributing to those outfalls. Outfalls shall be located using coordinates obtained from a global positioning system (GPS) when

possible, or located with estimated coordinates by using tools such as other maps or satellite images.

b. The location (and name, if known by the Permittee) of all waterbodies receiving direct discharges from those outfall pipes;

c. Any locations where the Permittee discharges stormwater into another MS4;

d. Field sampling stations if applicable; and

e. The permittee's regulated MS4 boundary.

E3.3 Labeling Storm Drain Inlets

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 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").
2. After storm drain inlets have been labeled (under this or any previous Orders), inlets with illegible or missing labels shall be recorded and relabeled within one month of inspection, notification, or identification of a missing label.

E3.4 Illicit Discharge Priority Area Inspections

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 then implement written procedures to identify and abate sources of potential or actual illicit discharges in Priority Areas.

   The procedures shall document the Illicit Discharge Priority Areas designated by the Permittee. Priority Areas shall include:

   a. Areas with a history of past illicit discharges;
   b. Areas with a history of illegal dumping including from encampments;
   c. Areas with onsite sewage disposal systems;
   d. Areas with infrastructure more likely to have illegal connections;
   e. Areas with a history of sanitary sewer overflows;
   f. Areas with commercial, industrial, or other types of activities determined by the Permittee as an illicit discharge risk;
   g. Areas upstream of sensitive waterbodies; and

h. Other areas determined by the Permittee as 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 Outfall Map developed pursuant to Order Provision E3.2; and

   b. All areas identified as Illicit Discharge Priority Areas.

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

4. Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall begin an Illicit Discharge Priority Area Inspection Program. At a minimum, the Program must include:

   a. Visual inspections of all Priority Areas at least every two years. The visual inspections must be preceded by at least 72 hours of dry weather.

   b. Observations for improperly maintained or absent illicit discharge prevention best management practices; and

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

   d. Investigation of dry weather flows. Upon observing any dry weather flows, the Permittee shall track the flow back to its source. If the source cannot be identified, water quality testing shall be performed.

      Sampling shall include the indicator 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 compare the sample analysis results to the Action Level Concentrations contained in Table E3.1 and 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);

e. Illicit discharge response. Dry weather flows determined to be illicit discharges shall be investigated, abated, and documented according to the procedures in the Illicit Discharge and Spill Response Plan (E3.1).

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

5. Documentation of Priority Area Inspections shall include the following at a minimum:
   a. The area inspected
   b. The dates of inspections,
   c. Identification of any dry weather flows and their source,
   d. Determination of whether the observed flows were illicit discharges or authorized non-stormwater discharges,
   e. Results of any water quality monitoring conducted during the inspection; and
   f. Locations and descriptions of any missing or inadequate best management practices observed during the inspection.

E3.5 Illicit Discharge Detection and Elimination Staff Training

Within 3 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, conduct inspections, 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. An 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

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 2 years 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 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 and snow 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. Decimal latitude-longitude coordinates of the facility's main access point and physical address, if applicable;
   d. Date of last assessment or inspection;
   e. Industrial General Permit Waste Discharge Identification Number if applicable; and
   f. Whether the facility was identified as a hotspot as required in the section Identification of Pollutant Hotspots.

E4.2 Map of Permittee-Owned and Operated Facilities

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 of the Permittee-owned or operated facilities identified in section E4.1. 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 3 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 E4.1). Facilities inspected under the previous Order and facilities subject to the Industrial General Permit, including those with No Exposure Certifications, do not need an initial inspection. 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. History of poor housekeeping practices or deficient pollution prevention best management practice implementation; and
   g. 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. Bulk fuel storage or dispensing locations;

e. Vehicle fueling locations; and

f. 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 as needed. Permittees shall conduct the initial inspection and assessment of a facility within one year of it being added to the inventory.

E4.4 Hotspot Facility Stormwater Pollution Prevention Plan

1. Within 4 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 a written site-specific Stormwater Pollution Prevention Plan that identifies existing stormwater best management practices installed, implemented, and maintained and also identifies additional best management practices that are needed 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. Purpose of the document;
   c. Key contacts at the facility;
   d. Site map with drainage and discharge locations identified;
   e. Types and location of pollutant generating materials that are handled and stored at the facility that may be exposed to stormwater;
   f. Facility stormwater best management practices;
   g. Spill control and cleanup procedures including spill kit location;
   h. Spill notification procedures (e.g., fire department, Certified Unified Program Agency);

i. Estimated or approximate dates of scheduled quarterly and annual inspections per section Hotspot Facility Inspections, Visual Monitoring and Remedial Action; and

j. Inspection procedures and checklist for inspections conducted to ensure proper selection, implementation, and maintenance of all best management practices.

4. The Hotspot Stormwater Pollution Prevention Plan requirement is satisfied by an Industrial General Permit Stormwater Pollution Prevention Plan. Industrial General Permit facilities with No Exposure Certifications in good standing with the State Water Board do not need to prepare a Hotspot Stormwater Pollution Prevention Plan.

5. The Stormwater Pollution Prevention Plan requirements may be satisfied by existing documents such as the Hazardous Materials Business Plan, or other equivalent document if all minimum requirements are included.

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

Within 4 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. Facilities with Industrial General Permit No Exposure Certifications in good standing do not need to conduct Hotspot facility inspections.

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 a 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.

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 its storm drain system. This procedure shall ensure that water and waste materials removed during the cleaning process 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 to reduce the discharge of pesticides, herbicides and fertilizers including the following:
    a. Follow drought-tolerant landscape management practices;
    b. Use native or climate appropriate plants;
    c. Practice grass cycling on decorative turf landscapes;
    d. Keep grass clippings and leaves away from waterways and out of the street using mulching or composting;
    e. 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); and
    f. Limit or replace herbicide and pesticide use (e.g., conducting manual weed and insect removal); and
3. The Permittee shall collect and properly dispose of unused pesticides, herbicides, and fertilizers.
4. The Permittee shall minimize irrigation run-off such as by using an evapotranspiration-based irrigation schedule and rain sensors.
5. 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 Routine Storm Drain System Inspection 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 ensure their maintenance program includes the following at a minimum:

1. Storm drain systems inspections – A strategy to inspect storm drains within the Permittee's jurisdiction. At a minimum, Permittees shall inspect all high priority catch basins annually, prior to the rainy season. High priority catch basins include the following:
    a. Catch basins known to accumulate a significant amount of sediment, trash, and/or debris;

b. Catch basins collecting large volumes of runoff;

c. Catch basins collecting runoff from areas that do not receive regular street sweeping;

d. Catch basins collecting runoff from drainage areas with exposed or disturbed soil; and

e. Catch basins that receive citizen complaints/reports.

2. Storm drain cleaning – A strategy to clean catch basins and other system components. If the entire system is not cleaned annually, cleaning frequencies shall be based on priority areas, with higher priority areas receiving more frequent maintenance.

3. Maintenance of surface drainage structures –Visually monitor all Permittee-owned open channels, detention basins, and other drainage structures for debris at least once per year and identify and prioritize problem areas. At a minimum, removal of trash and debris from open channels and other drainage structures shall occur annually.

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

E4.10 Long-Term Asset Maintenance, Rehabilitation, and Replacement

1. Condition Assessments

a. Within 3 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall incorporate Condition Assessments into all inspections of Permittee-owned hard assets within the Permittee's storm drain system.

b. Hard assets include the following:

- Outfalls as defined and inventoried per Section E3.2;
- Catch basins and other elements of the storm drain system inspected per Section E4.9;
- Post-construction structural controls installed per Section E6;
- Any structural control devices installed to comply with ASBS requirements per Attachment F;
- Any structural controls installed to comply with TMDLs per Attachment G;

- Trash control devices installed per Attachment H; and
- Any other permanent structural controls installed to serve a water quality function to comply with this Order.

c. Condition Assessments shall be used to proactively identify maintenance needs beyond routine maintenance and cleaning for the hard assets to maintain their intended function and effectively implement the requirements of this Order. This may include enhanced maintenance, rehabilitation, and replacement as necessary.

d. Condition Assessments may be tracked in a single master inventory or database, or be incorporated into existing inventories or maintenance plans and shall be updated as inspections and maintenance are conducted. Condition Assessments records shall be made available upon request by the State or Regional Water Boards.

2. Long-Term Asset Operation and Improvement Plan

a. 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 of a Long-term Asset Operation and Improvement Plan. The Plan shall be developed using data obtained through Condition Assessments performed per Section E4.10.1 and shall include the following:

1. List of known infrastructure repairs or improvements needed (e.g., deteriorated infrastructure, routinely flooded areas),
2. Deferred maintenance needs (e.g., structural controls with deferred maintenance);
3. List of any hard assets in need of replacement in the following five years; and
4. Estimates of costs for the repairs and maintenance.

b. The initial Long-Term Asset Operation and Improvement Plan shall include data available based on inspections that have been completed with the Condition Assessment element at that time. The plan shall be updated every two years.

c. The Long-Term Asset Operation and Improvement Plan shall account for liabilities, risks, and stressors to the MS4 resulting from climate change that may impact the desired function of its hard assets including impacts of shifting precipitation patterns, sea level rise, and warming temperatures.

E4.11 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.

E4.12 Pollution Prevention and Good Housekeeping Staff Training

The Permittee shall train 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. 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 six months after the start of employment.

E4.13 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.

E4.14 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 (e.g., signage, waste bag dispensers, trash bins) 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 site visit(s).
        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.

E4.15 Snow Removal and Traction Application Operations Pollution Prevention and Control

1. This section is not applicable to Permittees with the majority of permitted area below 3,000 feet in elevation or infrequent snow management needs. Upon including a statement as such in their annual report, compliance with section E4.15 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 develop and implement a street sweeping and snow removal operation BMP and maintenance program or review, update, and implement existing programs to reduce the amount of traction sand applied during Permittee operations, fugitive dust, roadway sediment, and trash accumulation and discharges to receiving waters. The program shall address the following requirements:

a. The Permittee shall evaluate volumes and locations of traction sand application and identify application reduction, pollution prevention and source control opportunities. The Permittee shall record road abrasive and deicer applications, including location, date, time, and application rate. This evaluation shall prioritize street sweeping activities for roadways and paved surfaces with greater pollutant load and proximity to or discharging to waterbodies or other environmentally sensitive areas.

b. The Permittee shall evaluate effective street sweeping schedules and develop a maintenance plan to sweep deposited traction sand to roadways within 72 hours of dry roadways, periods of dry weather, and prior to rain events.

c. The Permittee shall implement effective street sweeping, roadway sediment, and traction sand discharge mitigation BMPs, including the following:

    1) Select traction sand that contains no fine sediment particles and resists pulverization to fines.

    2) Street sweeping of tracked sediment on paved public roads and associated stormwater conveyance infrastructure (e.g. curb and gutter) shall be implemented to prevent sediment from entering a stormwater conveyance system and/or receiving waters.

    3) Street sweeping activities shall utilize one of the following sweeper types:

        i. Mechanical sweeper followed by a vacuum-assisted sweeper.

        ii. Vacuum-assisted, dry, waterless sweeper.

        iii. Regenerative sweeper.

    4) To mitigate the potential of excessive dust generation, kick brooms and/or sweeper attachments shall not be used for street sweeping.

    5) The generation of dust during street sweeping operations shall be kept to a minimum. The application of water for dust control or a vacuum shall be implemented to mitigate the potential of excessive dust generation.

    6) If freezing conditions are anticipated, and the application of dust control water during the sweeping process is considered hazardous, street sweeping shall be implemented in an appropriate manner to mitigate the potential of excessive dust generation including:

i. Utilizing a vacuum-assisted, dry, waterless sweeper (or functional equivalent).

ii. Utilizing a regenerative sweeper (or functional equivalent).

iii. Conducting street sweeping operations during periods of the day when temperatures are above freezing, and dust control water can be applied safely.

7) Remove collected material, including sediment, trash and debris, from paved shoulders, drainage inlets, curbs, dikes, and other drainage areas.

8) Adjust street sweeper brooms frequently to maximize sweeping operations efficiency.

9) Sweeper material shall be disposed of in compliance with all applicable local, state, and federal requirements.

10) Implement traction sand traps or other similar permanent stormwater BMPs to reduce sediment and traction sand discharges in areas where traction sand must be repeatedly applied for public safety, where other BMPs are not sufficient to control discharges, and in areas close to waterbodies or other sensitive environments.

d. The Permittee shall evaluate volumes and location of high pollutant loaded snow and identify pollution prevention and source control opportunities. This evaluation shall prioritize snow removal and storage activities for roadways and paved surfaces with greater pollutant load and proximity to or directly discharging to waterbodies or other environmentally sensitive areas.

e. The Permittee shall implement effective snow removal and storage BMPs, including:

1) Prevent discharges of excess pollutants to waterbodies from snow removal and storage practices.

2) Do not store snow near or within drainage ways, including surface waters, ephemeral drainages, permanent stormwater BMPs, and stormwater infrastructure, unless a berm or other BMP has been constructed to protect sensitive areas.

3) Snow storage areas must be paved, sited and sized to accommodate the expected volume of snow, visibly delineated, and with appropriate BMPs installed to minimize pollutant and runoff impacts. If a storage

area cannot be paved, BMPs must be implemented to prevent soil disturbance and compaction.

4) Inspect and maintain designated snow storage areas to ensure effective infiltration rates and remove accumulated traction sand, trash, and debris.

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. The program must include the following elements:

E5.1 Construction Site Stormwater Runoff Control Legal Authority

1. Applicability – Regulated Construction Projects are defined as follows:
   a. All land disturbances required to be enrolled in the Construction General Permit including those with erosivity waivers;
   b. All land disturbances less than 1 acre that aren't activities covered by best management practices in E4 or elsewhere in this Order (e.g. maintenance activities that already have sediment and erosion control best management practices identified and implemented through E4.6);
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 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. Prevention of unauthorized non-stormwater discharges;
   g. Good housekeeping practices; and
   h. Other pollution prevention measures as appropriate.

E6 POST-CONSTRUCTION STORMWATER MANAGEMENT PROGRAM

E6.1 Post-Construction Program Adoption and Initiation Timeline

Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall adopt, update, or reference Low Impact Development performance criteria required by this Order and require the Post Construction Stormwater Management Program be applied on applicable Regulated Projects and Small Projects.

E6.2 Effective Date for Applicability

1. All public and private projects under the Permittee's jurisdiction, to the extent allowable by law, that meet any of the below approval milestones shall comply with the post-construction requirements of this Order.
    a. Discretionary projects that have not yet been deemed complete for processing.
    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, where changes are allowed by law.
    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 yet received approval of their governing body or designee for the initiation of the project.

E6.3 Enforceable Mechanisms

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 or review and update as necessary, enforceable mechanisms that will implement the requirements in the Post-Construction Stormwater Management Program (Section E6) of this Order 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 resolve regulatory conflicts and implement the Post-Construction Stormwater Management Program (Section E6) requirements if necessary.
3. Apply new or modified enforceable mechanisms to Regulated Projects and Small Projects.

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 or road projects.
3. The Permittee shall require Small Projects to implement applicable Source Control Measures and at least one Site Design Measure listed in section E6.8.4. Opportunities to implement Site Assessment Methods shall also be considered.
4. Small Projects shall submit a checklist or otherwise indicate as part of their permit application which Source Control Measures, Site Assessment Methods, and Site Design Measures will be used in the project.

E6.5 Regulated Projects

1. Regulated Projects are projects on public or private land that create 5,000 square feet or more of impervious surface (collectively over the entire project site) and that are subject to the planning authority or building authority of the Permittee.
2. The Permittee shall require Regulated Projects to implement low impact development design standards per the Low Impact Development Design Standards section.
3. The Permittee shall develop and implement an equivalent process for reviewing and implementing these requirements for both public and private development projects.

E6.6 Regulated Project Categories

1. Development Projects
    a. Development Projects include both new development and redevelopment. New development projects involve no alteration of existing impervious surface. Redevelopment projects may either entirely

involve alteration of existing impervious surface or some alteration of existing impervious surface alongside addition of new impervious surface.

b. Associated Public Infrastructure Improvements

1) Regulated Projects that include public infrastructure improvements associated with private development projects shall include the public infrastructure improvement in the overall LID design of the associated project (i.e. include the new or replaced impervious area of the infrastructure when sizing Permanent Structural Controls).

2) Due to the difficulty in segregating the drainage from right of way improvements from the remainder of the existing street, runoff from associated public infrastructure improvements may:

a) Be treated within a different Drainage Management Area (DMA) at the Regulated Project (i.e. runoff from the public infrastructure may be rerouted to another DMA); or

b) Follow USEPA Green Street guidance for public infrastructure improvements where the runoff cannot be treated within a DMA at the existing project.

c. Site Redevelopment

1) Where a redevelopment project results in either:
a) Alteration of 50 percent or more of the impervious surface of a previously existing development, or

b) An increase of 50 percent or more of the impervious surface of a previously existing development,

the project's stormwater controls (i.e., Permanent Stormwater Control Measures) shall be designed and sized to treat stormwater runoff from the entire redevelopment project consisting of all existing, new, and replaced impervious surfaces.

Otherwise, the project's stormwater controls may be designed and sized to treat only the new and/or replaced impervious surface of the project .

2) Where a redevelopment project is redeveloping impervious areas that are being treated by Permanent Stormwater Control Measures installed pursuant to Order WQ 2013-001-DWQ (the previous Small MS4 Order), that area may be counted as treated in the stormwater control design as long as the previous control is maintained.

d. Specific exclusions to this category are:

1) Interior remodels; and
2) Routine maintenance or repair such as:
   a) Roof or exterior wall surface replacement;
   b) Pavement resurfacing within the existing footprint that does not expose the underlying soil or pervious subgrade; and
   c) Full-depth reclamation that does not change the pre-project drainage patterns and is not associated with non-excluded new or redevelopment projects.

2. 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 of streets or roads.
   b. Redevelopment of streets or roads.
      1) Where a redevelopment project results in either:
         a) Alteration of 50 percent or more of the impervious surface of an existing street or road, or
         b) An increase of 50 percent or more of the impervious surface of a previously existing street or road,

         The project's stormwater controls (i.e., Permanent Stormwater Control Measures) shall be designed and sized to treat stormwater runoff from the entire redevelopment project consisting of all existing, new, and replaced impervious surfaces.

         Otherwise, the project's stormwater controls may be designed and sized to treat only the new and/or replaced impervious surface of the project.
   c. Linear utility projects that create and/or replace more than 5,000 square feet of contiguous impervious surface.
   d. 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;

e. 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

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

2. 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. At a minimum, Regulated Projects and Small Projects shall include the following source controls as applicable:

   a. Minimization of stormwater pollutants of concern in urban runoff through measures that may include plumbing of the following discharges to the sanitary sewer, subject to the local sanitary sewer agency's regulations and standards:

      1) Discharges from indoor floor mat, equipment, or hood filter wash racks or covered outdoor wash racks for restaurants;

      2) Dumpster drips from covered trash, food waste, and compactor enclosures;

      3) Discharges from covered outdoor wash areas for vehicles, equipment, and accessories;

      4) Swimming pool water, if discharge to onsite vegetated areas is not a feasible option; and

      5) Fire sprinkler test water, if discharge to onsite vegetated areas is not a feasible option;

   b. Properly designed covers, drains, and storage precautions for outdoor material storage areas, loading docks, repair/maintenance bays, and fueling areas;

   c. Properly designed trash storage areas;

   d. Landscaping that minimizes irrigation and runoff, promotes surface infiltration, minimizes the use of pesticides and fertilizers, and

incorporates other appropriate sustainable landscaping practices and programs such as Bay-Friendly Landscaping;

e. Efficient irrigation systems; and

f. Storm drain system stenciling or signage.

E6.8 Low Impact Development Design Standards

E6.8.1 Low Impact Development for Stormwater

1. 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 requirements of this section.

2. Stormwater Control Measure Design Process

   During the planning and development of Regulated Projects, implementation opportunities for each of the Low Impact Development measures listed below and described in detail in subsequent sections shall be considered. These are listed in order of generally increasing complexity of both design and maintenance needs and each step may need to be considered iteratively until a final design is reached:

   a. Site Assessment Methods to minimize the creation of impervious area;

   b. Site Design Measures to maximize the infiltration, capture, and use of stormwater; and

   c. Permanent Stormwater Control Measures to treat and infiltrate stormwater not managed through Site Assessment or Site Design Measures.

      Permanent Stormwater Control Measures are engineered technologies designed to remove pollutants from site runoff. Permanent Stormwater Control Measures may include, but are not limited to: bioretention planters, vegetated filter strips and swales, infiltration trenches and basins, sand filters, detention basins and select proprietary devices.

3. 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 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.

E6.8.2 Site Assessment Methods

1. 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 reducing runoff, infiltrating runoff, capturing and using runoff, or 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.
2. The Permittee shall require Regulated Projects to consider optimizing the site layout using the following Site Assessment 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 healthy, vigorous, and mature trees when feasible;
    f. Conform the site layout along natural landforms;
    g. Avoid excessive grading and disturbance of vegetation and soils; and
    h. Replicate the site's natural drainage patterns.

E6.8.3 Drainage Management Areas

1. A Drainage Management Area is the area draining to a single discharge location or Permanent Stormwater Control Measure.
2. The Permittee shall require each Regulated Project to provide a map or diagram delineating the 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.
3. If the Regulated Project is changing the configuration or number of drainage points (and thus the configuration or number of Drainage Management

Areas) at the site as part of the project, the project proponent shall provide both pre-project and post-project maps of Drainage Management Areas.

4. 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.

E6.8.4 Site Design Measures

Site Design Measures are less complex measures that reduce the amount of stormwater runoff from a site and reduce the area required for control by more complex, engineered treatment controls such as bioretention or flow-through treatment devices.

Site Design 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

Impervious Connection to Vegetated Areas 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.

E6.8.4.2 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. Interceptor trees may be either planted or preserved trees.

E6.8.4.3 Pervious Pavement Systems

Pervious Pavement Systems include systems consisting of permeable interlocking concrete pavement; 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. Pervious Pavement Systems require regular maintenance to maintain their infiltration capacity.

E6.8.4.4 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.

E6.8.4.5 Rainwater Capture and Use

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

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

1. Stormwater Treatment Measures and Baseline Hydromodification Management Measures

The Permittee shall require all Regulated Projects be designed to treat, retain, infiltrate, and/or capture and use stormwater to meet at least one of the following hydraulic sizing design criteria:

a. Volumetric Criteria:

1) The maximized storm water capture volume for the tributary area, on the basis of historical rainfall records, determined using the formula and volume capture coefficients in Urban Runoff Quality Management, WEF Manual of Practice No. 23/ASCE Manual of Practice No. 87 (1998) pages 175-178 (that is, approximately the 85th percentile 24- hour storm runoff event); or

2) The volume of annual runoff required to achieve 80 percent or more capture, determined in accordance with the methodology in the most recent version of CASQA's Development Best Management Practice Handbook, using local rainfall data; or

b. Flow-based Criteria:

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

2) The flow of runoff produced from a rain event equal to at least 2times the 85th percentile hourly rainfall intensity as determined from local rainfall records.

2. Peak Flow (Hydromodification) Control Measures

   a. Regulated Projects that create and/or replace greater than one acre or more of impervious surface shall implement peak flow controls based on their geomorphic province per Figure E.1 as follows:

      1) Post-project peak flows discharged from the site shall not exceed estimated pre-project peak flows for the 2-year, 24-hour storm in the following geomorphic provinces (Figure E.1):

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

      2) Post-project peak flows discharged from the site shall not exceed estimated pre-project peak flows for the 10- year, 24-hour storm in the following geomorphic provinces (Figure E.1):

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

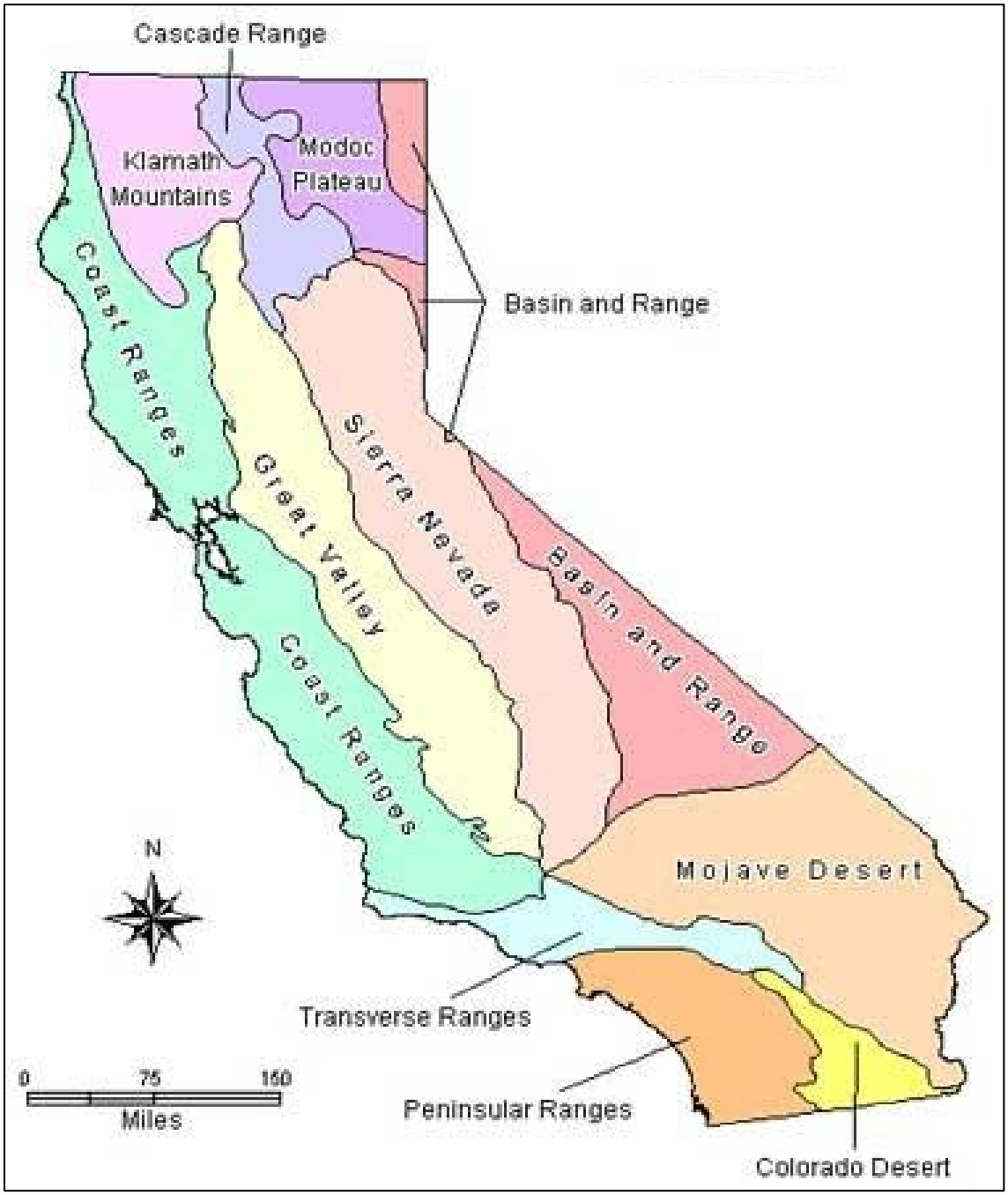

Figure E.1. California Geomorphic Provinces

b. Peak flow controls may be designed such that they meet the requirements of both the sections Stormwater Treatment Measures and Baseline Hydromodification Management Measures and the Peak Flow Control Measures, thus not requiring two separate control measures.

c. Alternatively, the Permittee may use a geomorphically based hydromodification standard or set of standards and analysis procedures designed to ensure that Regulated Projects do not cause a decrease in lateral (bank) and vertical (channel bed) stability in receiving stream channels. The alternative hydromodification standard or set of standards and analysis procedures must be reviewed and approved by the Regional Board Executive Officer.

d. The following projects are not subject to the Peak Flow (Hydromodification) Requirements:

1) Regulated Projects that do not increase impervious area over the pre-project condition; or

2) Regulated Projects located in a catchment that drains to a hardened (e.g., continuously lined with concrete) engineered channel or channels or enclosed pipes, which extend continuously to a bay, delta, ocean, or flow-controlled reservoir.

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

1. Baseline Bioretention Stormwater Control Measure Parameters

After implementation of Site Design Measures per Section E6.8.4, runoff from remaining impervious DMAs must be directed to one or more facilities designed to infiltrate, evapotranspire, and/or biotreat the amount of runoff specified in Section E6.8.5. The facilities must be demonstrated to be at least as effective as a bioretention system with the following design parameters.

a. Maximum surface loading rate of 5 inches per hour, based on the flow rates calculated. A sizing factor of 4% of tributary impervious area may be used.

b. Minimum surface reservoir volume equal to surface area times a depth of 6 inches.

c. Minimum planting medium depth of 18 inches. The planting medium must sustain a minimum infiltration rate of 5 inches per hour throughout the life of the project and must maximize runoff retention and pollutant removal. A mixture of sand (60%-70%) meeting the specifications of American Society for Testing and Materials (ASTM) C33 and compost (30%-40%) may be used.

d. Subsurface drainage/storage (gravel) layer with an area equal to the surface area and having a minimum depth of 12 inches.

e. Underdrain with discharge elevation at top of gravel layer. Facilities located in areas of high groundwater, highly infiltrative soils or where connection of underdrain to a surface drain or to a subsurface storm drain are infeasible, may omit the underdrain.

f. No compaction of soils beneath the facility, or ripping/loosening of soils if compacted.

g. No liners or other barriers interfering with infiltration.

h. Appropriate plant palette for the specified soil mix and maximum available water use.

2. Alternative Design Effectiveness Equivalency

Facilities, or a combination of facilities, of a different design than in Section E6.8.6.1 may be permitted if all of the following measures of equivalent effectiveness are demonstrated:

a. Equal or greater amount of runoff infiltrated or evapotranspired;

b. Equal or lower pollutant concentrations in runoff that is discharged after biotreatment;

c. Equal or greater protection against shock loadings and spills;

d. Equal or greater accessibility and ease of inspection and maintenance.

3. Exceptions for Special Site Conditions

Contingent on a demonstration that use of bioretention or a Permanent Stormwater Control Measure of equivalent effectiveness is infeasible, other types of biotreatment or media filters (such as tree-box type biofilters or in-vault media filters) may be used for the following categories of Regulated Projects:

a. Projects creating or replacing an acre or less of impervious area, and located in a designated pedestrian-oriented commercial district (i.e., smart growth projects), and having at least 85% of the entire project site covered by permanent structures;

b. Permanent Stormwater Control Measures receiving runoff solely from existing (pre-project) impervious areas; and

c. Historic sites, structures or landscapes that cannot alter theiroriginal configuration in order to maintain their historic integrity.

4. Alternatives to Onsite Retention and Peak Flow Control Requirements

Permittees may allow Regulated Projects to fulfill all or a portion of its retention or peak flow requirements at an offsite location on a site-for-site

basis or through an approved watershed or regional plan in accordance with the following:

a. Site-for-Site Substitution

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

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

2) Untreated stormwater is not being conveyed through a water body.

3) The offsite offset project provides hydraulically sized retention and peak flow control (per Section D6.8.5.2 Peak Flow (Hydromidification) Control Measures) 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, or the Offsite offset project site(s) 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 completion unless a longer period is otherwise authorized by the Regional Water Board Executive Officer.

b. Approved Watershed or Regional Plan

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:

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

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

3) 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.

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

5) The location of the proposed offset project(s), which shall 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.

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

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

E6.9.1 Operation and Maintenance Plan

The Permittee shall ensure that operation and maintenance plans exist for all Permanent Stormwater Control Measures in its MS4 boundary as Regulated Projects are approved. The Permittee shall:

1. Require Regulated Project proponents and their successors to 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. By October 15th 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. 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 and Inspection

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 are maintained at a level to meet the requirements of this Order. 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;
    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 conditions shall be determined using the following process:
    a. Permittee Maintenance and 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 Field Verification

1. 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.

2. Prior to temporary and final occupancy of each Regulated Project, the Permittee shall field verify that any Source Control, Site Design Measures, and Permanent Stormwater Control Measures 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 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 Methods;
    h. Map of Drainage Management Areas, including both pre-and post-development maps if modifications are being made to the discharge locations for any Drainage Management Areas;
    i. Summary of proposed stormwater controls for each Drainage Management Area for each of the following categories:
        1) Source Controls;
        2) Site Design Measures; and
        3) Permanent Stormwater Control Measures.
    j. Justification wherever 1) exceptions for special site conditions are used 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; and
    k. Supporting calculations that document proper design and sizing of Site Design Measures and Permanent Stormwater Control Measures used to comply with the applicable requirements.
4. The Permittee shall not begin 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.

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

1. In areas where the Regional Water Board has adopted alternative post-construction stormwater management requirements per this section, the Permittee shall comply with those alternative standards in lieu of Sections E6.1 through E6.9 and E10.7 (Post-Construction Program Reporting).
2. The Regional Water Board may adopt alternative post-construction stormwater management requirements to replace those set forth in Sections E6.1 through E6.9 and E10.7 (Post-Construction Program Reporting) of this Order. The alternative standards shall be based on a watershed-process approach that includes the following:
    a. Completion of a comprehensive assessment of dominant watershed processes affected by urban stormwater.
    b. Low impact development Site Design 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.
3. The regional watershed-process based approach shall be approved by the Regional Water Board following a public process. Alternative post-construction stormwater management requirements implemented through this process under the previous Order (Order WQ 2013-0001-DWQ) can continue implementation without an additional board approval and 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.

E6.13 Statewide Infiltration Policy

All stormwater best management practices must comply with any requirements that may apply if the State Water Board adopts a Statewide Infiltration Policy.

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 the Report 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 by reporting and substantiating 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 shall demonstrate compliance with the applicable TMDL wasteload allocations by meeting 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, or alternative indicator as described in Attachment G, is expressed as a concentration (e.g., micrograms per liter, parts per billion, milligrams per liter, colony forming units per 100 milliliters, and similar), 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 (i.e., total mass of a pollutant over a specific time period, for example, pounds per day or kilograms per year) 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. 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 for which it is being substituted.

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 with the Water Quality Monitoring section, the Permittee may request the Executive Officer of the applicable Regional Water 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 Attachment F.

E8.3 TMDL Monitoring

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

E8.4 303(d) Monitoring

Within 1 year of the effective date of this Order or the Permittee's effective date of designation, whichever is later, Permittees that discharge to waterbodies listed as impaired on the 2026 303(d) list (see the State Water Board's Surface Water Quality Assessment web page (https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/#impaired) shall consult with the Regional Water Board 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 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. The Permittee does not need to consult with the Regional Water Board or conduct additional monitoring for pollutant/waterbody combinations already covered by a TMDL.

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 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 this section.
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. ANNUAL 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 as well as a summary of activities to be undertaken during the next reporting period 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. Each Permittee must submit an annual report and respond to all applicable questions in SMARTS. Permittees involved in regional programs may coordinate with the members to develop reports. One report may be developed on behalf of Permittees involved in a regional program and 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. Then each Permittee may use the co-developed report to fill out their individual annual report in SMARTS.

E10.2. Program Management Reporting

In addition to annually reporting on compliance with each individual permit element, below are additional specific reporting items to be included in the Permittee's annual reports:

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 E1.4.

E10.3 Public Education and Outreach Reporting

E10.3.1 One-Time per Permit Term Reporting Items

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

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.

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 2, submit an outfall map per the Outfall Mapping section.
3. In Year 2, submit procedures for Illicit Discharge Priority Area Inspections per the Illicit Discharge Priority Area Inspections section, item 1.
4. In Year 2, submit Illicit Discharge Source Area map per the Illicit Discharge Priority Area Inspections section, item 2.

E10.4.2 Annual Reporting Items

1. Beginning in Year 1, and annually thereafter, report the date of the most recent mapping of MS4 outfalls.
2. Beginning in Year 1, and annually thereafter, identify the Status of the Ordinance or Other Regulatory Mechanism to Prohibit Non-Stormwater Discharges into the Permittee's MS4 choosing from the following options:
    - In effect;
    - In effect, but needs to be updated to comply with the Reissuance (please provide explanation); or
    - Under Development (no existing ordinance from this or previous permit, please provide more explanation).
3. Beginning in Year 1, and annually thereafter, report number of complaints and notifications of illicit discharges and spills.
4. Beginning in Year 2, and annually thereafter, report findings of any dry weather flow investigations.

5. Beginning in Year 3, and annually thereafter, submit a summary of findings of inspections conducted per the Illicit Discharge Priority Area Inspection section.
6. Beginning in Year 3, 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 2, 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 3, submit the documentation of Permittee Operation and Maintenance Activities and their corresponding best management practices as identified in the Permittee Operations and Maintenance Activities section.
4. In Year 2, describe actions taken to comply with Provision E4.15 – Snow Removal and Traction Application Operations Pollution Prevention and Control. Reporting shall either include a statement on non-applicability or identify the BMPs implemented per Section E4.15.

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, describe your storm drain system inspection, cleaning, and maintenance strategy per Section E4.9 Routine Storm Drain System Inspection and Maintenance.
4. In Year 5, and every two years thereafter, submit the Long-Term Asset Operation and Improvement Plan per Section E4.10 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 Section E4.14 – Pet Waste Pollution Prevention and Control. 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, policy, or other mechanism that complies with this Order and errata sheet as necessary citing changes or added language.

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).

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 Site Design Measures used;
j. Are peak flow controls required per section E6.8.5 item 2? (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); and
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.

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.