

Section F—Provisions for Non-Traditional Small MS4 Permittees

F. NON-TRADITIONAL SMALL MS4 PERMITTEE PROVISIONS

F.1. Non-Traditional Small MS4 Categories

The Non-Traditional Small MS4s identified in Attachment B or by a Regional Water Board Executive Officer shall comply with the specific provisions in this Section. For military installations, this permit applies to areas, where the activities and population density resemble that of a traditional small MS4, as defined in the permit boundary map in Section A.2.b.(3). For Department of Corrections and Rehabilitation Permittees, this permit

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applies to facilities that are in active operation (i.e., does not apply to closed facilities lacking management oversight).

F.2. Security Concerns

Department of Defense, Department of Corrections and Rehabilitation Permittees, ports and transportation agencies are exempt from Annual Reporting of any provision in this section that could pose a security risk and/or compromise facility security.

F.3. Maximize Efficiency

Permittees may incorporate the required storm water provisions into already existing programs and leverage existing staff to implement BMPs during its day to day business and operations.

F.4. Equivalent or Existing Document

A Permittee may utilize an equivalent or existing document such as a Standard Operations and Procedures manual, Operation and Maintenance Plan, or Spill Response Plan if that document includes the necessary information required to comply with the provisions of this section.

F.5. PROVISIONS

F.5.a. PROGRAM MANAGEMENT ELEMENT

F.5.a.1. Legal Authority

- (i) **Task Description** - Permittee shall have adequate legal authority to meet the requirements of this Order
- (ii) **Implementation Level** – Within the second year of the effective date of the permit, the Permittee shall review, revise or adopt new relevant policies, contractual provisions, base orders, resolutions or other regulatory mechanisms, to the extent allowable under state or local law, to ensure it has at a minimum the legal authority to:
 - (a) Effectively prohibit non-storm water discharges through the MS4. Exceptions to this prohibition are NPDES-permitted discharges of non-storm water and non-storm water discharges from B.3 that are considered non-significant contributors of pollutants. Where the non-storm water discharge is to a segment of an MS4 that discharges directly to an ASBS, exceptions to the non-storm water prohibition are specified in Attachment C.
 - (b) Detect and eliminate illicit discharges and illegal connections to the MS4. Illicit connections include pipes, drains, open channels, or other conveyances that have the potential to allow an illicit discharge to enter the MS4. Illicit discharges include all non-storm water discharges not otherwise authorized in this Order, including, but not limited to discharges from mobile cleaning and pressure washing operations.
 - (c) Respond to spills, and prohibit dumping or disposal of materials other than storm water into the MS4.
 - (d) Require vendors, contractors and operators of commercial facilities to minimize the discharge of pollutants to the MS4 through the installation, implementation, and maintenance of BMPs consistent with the CASQA Best Management Practice Handbooks or equivalent.

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- (e) Ensure construction site or industrial facility operators provide a Waste Discharge Identification Number for coverage under the CGP and IGP and comply with the appropriate permit.
 - (f) Review designs and proposals for new development and redevelopment to determine whether adequate BMPs will be installed, implemented, and maintained during construction and after final stabilization (post-construction).
 - (g) Promptly cease and desist discharges and/or cleanup and abate a discharge, including the ability to:
 - 1) Effectively require the discharger to abate and clean up their discharge, spill, or pollutant release within 72 hours of notification;
 - 2) Require abatement, within 30 days of notification, for uncontrolled sources of pollutants that could pose an environmental threat;
 - 3) Perform the cleanup and abatement work and bill the responsible party, if necessary;
 - 4) Provide the option to order the cessation of activities until such problems are adequately addressed if a situation persists where pollutant-causing sources or activities are not abated;
 - 5) Require a new timeframe and notify the appropriate Regional Water Board when all parties agree that clean-up activities cannot be completed within the original timeframe and notify the appropriate Regional Water Board in writing within five business days of the determination that the timeframe requires revision.
- (iii) **Reporting** – All Permittees shall submit by the second year online Annual Report, a statement signed by both the Permittee’s legal counsel and an authorized signatory certifying the Permittee has adequate legal authority to comply with all Order requirements.

F.5.b. EDUCATION AND OUTREACH PROGRAM

F.5.b.1. Compliance Participation Options

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

- (a) Contributing to a countywide storm water program, as determined appropriate by the Permittee members, so that the countywide storm water program conducts education and outreach on behalf of its members; or
- (b) Contributing to a regional education and outreach collaborative effort (a regional education and outreach collaborative effort occurs when all or a majority of the Permittees collaborate to conduct regional education and outreach. Regional education and outreach collaboration includes Permittees defining a uniform and consistent message, deciding how best to communicate the message, and how to facilitate behavioral changes. Then collaboratively apply what is learned through local jurisdiction groups, pooling resources and skills.); or
- (c) Fulfilling education and outreach requirements within their jurisdictional boundaries on their own. Some level of coordination of education and outreach efforts with an adjacent Phase I MS4 Permittee is recommended/anticipated for watershed/region-wide consistency.; or
- (d) A combination of the previous options, so that all requirements are fulfilled.

Reporting – By the first year online Annual Report, the Permittee shall submit information indicating which compliance participation option it will use to comply with the public education and outreach requirements in this Section. For each public education and outreach requirement in this Section that the Permittee will comply with through contribution to a countywide storm water program or regional education and outreach collaborative effort, the Permittee shall include in the first year online Annual Report documentation, such as a written agreement, letter or similar document, which confirms the collaboration with other MS4s.

F.5.b.2. Public Education and Outreach

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

- Faculty
 - Inmates
 - Military personnel
 - Residents
 - Students
 - Staff
 - Visitors
- (i) **Task Description** – Within the second year of the effective date of the permit, the Permittee shall develop and implement a comprehensive storm water public education and outreach program. The public education and outreach program shall be designed to inform the public about storm water pollution and steps that can be taken to reduce storm water pollution. The Public Education and Outreach Program shall measurably increase the public’s knowledge regarding the storm drain system, impacts of urban runoff and illicit discharges on receiving waters, and potential BMP solutions for the target audiences.
- (ii) **Implementation Level** –The Permittee shall, at a minimum:
- (a) Develop and implement a public education strategy that establishes education tasks based on water quality problems, target audiences, and anticipated task effectiveness. The strategy must include identification of who is responsible for implementing specific tasks and a schedule for task implementation. The strategy must demonstrate how specific high priority storm water quality issues in their jurisdiction or local pollutants of concern are addressed.
 - (b) Implement BMPs that gauge level of awareness in target audiences and effectiveness of education tasks.
 - (c) Develop and convey a specific storm water message that focuses on the following:
 - 1) Local pollutants of concern
 - 2) Target audience
 - 3) Regional water quality issues
 - (d) Develop and disseminate appropriate educational materials to target audiences and translate into applicable languages when appropriate (e.g. the materials can utilize various media such as printed materials, billboard and mass transit advertisements, signage at select locations, stenciling at storm drain inlets, radio advertisements, television advertisements, and websites);

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- (e) Distribute educational materials, using whichever methods and procedures determined appropriate during development of the public education strategy;
 - (f) Develop and convey messages to explain the benefits of water-efficient landscaping (if appropriate);
 - (g) Utilize information from storm water-friendly landscaping³¹ programs (if appropriate);
 - (h) Develop and convey messages specific to reducing illicit discharges with information about how the public can report incidents to the appropriate authorities;
 - (i) Develop and convey of messages specific to proper application of pesticides, herbicides, and fertilizers;
 - (j) Within the Permittee's jurisdiction, provide independent, parochial and public schools with materials to effectively educate school-age children, if applicable, about storm water and how they can help to protect water quality habitat in their local watersheds. The Permittee is encouraged to use environmental and place-based, experiential learning materials that are integrated into school curricula and school facility management³². In the case that a local program does not exist, the Permittee may use [California's Education and Environment Initiative Curriculum](#)³³ or equivalent;
 - (k) Develop (or coordinate with existing effective programs) and convey messages specific to reducing discharges from pressure washing operations and landscape irrigation;
 - (l) If applicable, utilize storm water-friendly education for organized car wash participants and provide information pertaining to car wash discharge reduction. The Permittee may use the [Sacramento Stormwater Quality Partnership's River Friendly Carwash Program](#)³⁴, or equivalent, for guidance;
 - (m) The Permittee shall conduct focused education in identified illicit discharge flow areas based on identified illicit discharge(s).
- (iii) **Reporting** – The Permittee shall use State Water Board SMARTS to submit a summary of the past year activities and certify compliance with all requirements of this program element. The summary shall also address the relationship between the program element activities and the Permittee's Program Effectiveness Assessment and Improvement Plan that tracks annual and long-term effectiveness of the storm water program. If a Permittee is unable to certify compliance with a requirement in this program element see Section F.5.j.2. for compliance directions.

³¹ For example, [Surfrider's Ocean Friendly Garden Program](http://www.surfrider.org/programs/ocean-friendly-gardens) (www.surfrider.org/programs/ocean-friendly-gardens)

³² For example, [Sacramento Splash Organization](http://www.sacsplash.org/) (www.sacsplash.org/), [Effie Yeaw Nature Center](http://www.sacnaturecenter.net/) (www.sacnaturecenter.net) or [Yolo Basin Organization](http://yolobasin.org/) (yolobasin.org)

³³ <http://www.californiaeei.org/>

³⁴ <http://www.beriverfriendly.net/riverfriendlycarwashing/>

F.5.b.3. Staff and Site Operator Training and Education: Illicit Discharge Detection and Elimination Training

- (i) **Task Description** – Permittees shall develop and implement a training program for all Permittee staff, who, as part of their normal job responsibilities, may be notified of, come into contact with, or otherwise observe an illicit discharge or illegal connection to the storm drain system.
- (ii) **Implementation Level** – Within the third year of the effective date of the permit, the Permittee shall develop the training program. The training program shall include at a minimum:
 - (a) Identification of an illicit discharge or illegal connection;
 - (b) Proper procedures for reporting and responding to the illicit discharge or illegal connection;
 - (c) Follow-up training provided as needed to address changes in procedures, techniques, or staffing;
 - (d) Annual assessment of their trained staff’s knowledge of illicit discharge response and shall provide refresher training as needed;
 - (e) Training of new staff who, as part of their normal job responsibilities may be notified of, come into contact with, or otherwise observe an illicit discharge or illegal connection;
 - (f) Contact information, including the procedure for reporting an illicit discharge, shall be included in each of the Permittee’s fleet vehicles that are used by field staff.
- (iii) **Reporting** – The Permittee shall use State Water Board SMARTS to submit a summary of the past year activities and certify compliance with all requirements of this program element. The summary shall also address the relationship between the program element activities and the Permittee's Program Effectiveness Assessment and Improvement Plan that tracks annual and long-term effectiveness of the storm water program. If a Permittee is unable to certify compliance with a requirement in this program element see Section F.5.j.2.for compliance directions.

F.5.b.4. Staff Pollution Prevention and Good Housekeeping

The Permittee shall train employees on how to incorporate pollution prevention/good housekeeping techniques into Permittee operations.

- (i) **Task Description** – The Permittee shall provide a biennial training program for appropriate employees involved in implementing pollution prevention and good housekeeping practices in the Pollution Prevention/Good Housekeeping for Permittee Operations sections of this permit. The Permittee shall determine the need for interim training during alternate years when training is not conducted, through an evaluation of employee Pollution Prevention/Good Housekeeping knowledge.
- (ii) **Implementation Level** – The biennial training program shall include the following:
 - (a) General storm water education component, any new technologies, operations, or responsibilities that arise during the year and the permit requirements which apply to the staff being trained. Clear guidance on appropriate storm water BMPs to use at Permittee owned facilities and during typical Operation and Maintenance activities.

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- (b) An assessment of trained staff's knowledge of pollution prevention and good housekeeping and shall revise the training as needed.
 - (c) A requirement that any contractors hired by the Permittee to perform Operation and Maintenance activities shall be contractually required to comply with all of the storm water BMPs, good housekeeping practices, and standard operating procedures described above.
 - (d) The Permittee shall provide oversight of contractor activities to ensure that contractors are using appropriate BMPs, good housekeeping practices and following standard operating procedures.
- (iii) **Reporting** – The Permittee shall use State Water Board SMARTS to submit a summary of the past year activities and certify compliance with all requirements of this program element. The summary shall also address the relationship between the program element activities and the Permittee's Program Effectiveness Assessment and Improvement Plan that tracks annual and long-term effectiveness of the storm water program. If a Permittee is unable to certify compliance with a requirement in this program element see Section F.5.j.2.for compliance directions.

F.5.c. PUBLIC INVOLVEMENT AND PARTICIPATION PROGRAM

- (i) **Task Description** - Within the third year of the effective date of the permit, the Permittee shall involve its public in the development and implementation of activities related to the program. The public participation and involvement program shall encourage volunteerism, public comment and input on policy, and activism in the community.
- (ii) **Implementation Level** – The Permittee shall, at a minimum:
 - (a) Ensure that high priority storm drain inlets include a labeled, stenciled or other effective method (e.g., clearly visible sign strategically placed in area of high pedestrian activity) of communicating a storm water awareness message such as “drains to creek” or “only rain in the drain”.
 - (b) Integrate storm water awareness messages and information on a publicly accessible website
- (iii) **Reporting** – The Permittee shall use State Water Board SMARTS to submit a summary of the past year activities and certify compliance with all requirements of this program element. The summary shall also address the relationship between the program element activities and the Permittee's Program Effectiveness Assessment and Improvement Plan that tracks annual and long-term effectiveness of the storm water program. If a Permittee is unable to certify compliance with a requirement in this program element see Section F.5.j.2.for compliance

F.5.d. ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM

The Permittee shall develop an Illicit Discharge Detection and Elimination program to detect, investigate, and eliminate illicit discharges, including illegal dumping, into its system or coordinate with an adjacent Phase I MS4 Permittees existing program. The existing program, at a minimum, must include the provisions in this section.

F.5.d.1. Outfall Mapping

- (i) **Task Description** – Within the second year of the effective date of the permit, the Permittee shall 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. It is recommended the Permittee coordinate with an adjacent Phase I MS4 Permittee to collect outfall data for which they may discharge to. Renewal Permittees that have an existing and up-to-date outfall map that includes the minimum requirements specified in Section F.5.d.1.(ii)(a-b) are not required to re-create the outfall map. This does not exempt renewal Permittees with an existing outfall map from conducting the field sampling specified in Section F.5.d.2.
- (ii) **Implementation Level** - The outfall map shall at a minimum show:
 - (a) The location of all outfalls and drainage areas within the urbanized area, contributing to those outfalls that are operated by the Permittee, and that directly discharge within the Permittee's jurisdiction to a receiving water. Each mapped outfall shall be given an individual alphanumeric identifier, which shall be noted on the map. Photographs shall be taken or an electronic database shall be utilized to provide baseline information and track operation and maintenance needs over time.
 - (b) The location (and name, where known to the Permittee) of all waterbodies receiving direct discharges from those outfall pipes.

Submerged outfalls or other outfalls that may pose a threat to public safety are not required to be inventoried.
- (iii) **Reporting** – The Permittee shall use State Water Board SMARTS to submit a summary of the past year activities and certify compliance with all requirements of this program element. The summary shall also address the relationship between the program element activities and the Permittee's Program Effectiveness Assessment and Improvement Plan that tracks annual and long-term effectiveness of the storm water program. If a Permittee is unable to certify compliance with a requirement in this program element see Section F.5.j.2. for compliance.

F.5.d.2. Field Sampling to Detect Illicit Discharges

- (i) **Task Description** – Within the second year of the effective date of the permit, the Permittee shall conduct field sampling to detect potential illicit discharges while conducting the outfall inventory specified in Section F.5.d. Outfall Inventory. If while conducting the outfall inventory specified in Section F.5.d., an outfall is flowing or ponding and it has been more than 72 hours since the last rain event, then the Permittee shall sample the discharge.
- (ii) **Implementation Level** – If an outfall is flowing or ponding and it has been more than 72 hours since the last rain event, the Permittee shall:
 - (a) Conduct monitoring for the following indicator parameters identified in Table 1. Field Sampling Indicator Parameters (following page) to help determine the source and identification of the discharge. Alternatively, the Permittee may select parameters based on local knowledge of pollutants of concern in lieu of sampling for the parameters listed in Table 1. Modifications and associated justifications

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shall be identified within SMARTS prior to conducting field sampling as specified in Section F.5.d.2.

Table 1. Field Sampling Indicator Parameters

Note: > = greater than
 > 80% — Can almost always (>80% of samples) distinguish this discharge from clean flow types (e.g., tap water or natural water). For tap water, can distinguish from natural water.
 > 50% — Can sometimes (>50% of samples) distinguish this discharge from clean flow types depending on regional characteristics, or can be helpful in combination with another parameter.
 Poor — Poor indicator. Cannot reliably detect illicit discharges, or cannot detect tap water
 Data sources: Pitt (this study)
 * Fluoride is a poor indicator when used as a single parameter, but when combined with additional parameters (such as detergents, ammonia and potassium), it can almost always distinguish between sewage and wash water.

Parameter	Discharge Types It Can Detect				Laboratory/Analytical Challenges
	Sewage	Washwater	Tap Water	Industrial or Commercial Liquid Wastes	
Ammonia	> 80%	> 50%	Poor	> 50%	Can change into other nitrogen forms as the flow travels to the outfall
Color	> 50%	> 50%	Poor	> 50%	
Conductivity	> 50%	> 50%	Poor	> 50%	Ineffective in saline waters
Detergents – Surfactants	> 80%	> 80%	Poor	> 50%	Reagent is a hazardous waste
Fluoride*	Poor	Poor	>80%	> 50%	Reagent is a hazardous waste Exception for communities that do not fluoridate their tap water
Hardness	> 50%	> 50%	>50%	> 50%	
pH	Poor	> 50%	Poor	> 50%	
Potassium	> 50%	Poor	Poor	> 80%	May need to use two separate analytical techniques, depending on the concentration
Turbidity	> 50%	>50%	Poor	> 50%	

(c) Verify that indicator parameters with the following action level concentrations specified in Table 2. Action Level Concentrations for Indicator Parameters are not exceeded. Alternatively, the Permittee may tailor Table 2 to align with parameters based on local knowledge of pollutants of concern. Modifications and associated

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justifications shall be identified within SMARTS prior to conducting field sampling as specified in Section F.5.d.2.

Table 2. Action Level Concentrations for Indicator Parameters

Indicator Parameter	Action Level Concentration
Ammonia	> = 50 milligram per liter
Color	>= 500 units
Conductivity	> = 2,000 microsiemens per centimeter
Hardness	< = 10 milligram per liter as CaCO ₃ or > = 2,000 milligram per liter as CaCO ₃
pH	< = 5 or > = 9
Potassium	> = 20 milligram per liter
Turbidity	> = 1,000 Nephelometric Turbidity Units

(d) Conduct follow up investigations per Section F.5.d.3. if the action level concentrations are exceeded.

(iii) **Reporting** – The Permittee shall use State Water Board SMARTS to submit a summary of the past year activities and certify compliance with all requirements of this program element. The summary shall also address the relationship between the program element activities and the Permittee's Program Effectiveness Assessment and Improvement Plan that tracks annual and long-term effectiveness of the storm water program. If a Permittee is unable to certify compliance with a requirement in this program element see Section F.5.j.2.for compliance

F.5.d.3. Illicit Discharge Detection and Elimination Source Investigations and Corrective Actions

- (i) **Task Description** – Within the second year of the effective date of the permit, the Permittee shall develop written procedures for conducting investigations into the source of all non-storm water discharges suspected to be illicit discharges, including approaches to requiring such discharges to be eliminated, and procedures to implement corrective actions (e.g., BMPs). These procedures shall be included as part of the Illicit Discharge Detection and Elimination program.
- (ii) **Implementation Level** - At a minimum, the Permittee shall conduct an investigation(s) to identify and locate the source of any suspected illicit discharge within 72 hours of becoming aware of the suspected illicit discharge. For investigations that require more than 72 hours, the Permittee shall identify the actions being taken to identify and locate the source of the suspected illicit discharge. The Permittee shall prioritize investigations of suspected sanitary sewage and/or significant contributors over investigations of non-storm water discharges suspected of being cooling water, wash water, or natural flows.

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- (a) Report immediately the occurrence of any dry weather flows believed to be an immediate threat to human health or the environment to local Health Department.
 - (b) Determine and document through its investigations the source of all non-storm water discharges. If the source of the non-storm water discharge is found to be a discharge authorized under this permit, or authorized under another NPDES permit, no further action is required.
 - (c) Corrective Action to Eliminate Illicit Discharge – Once the source of the illicit discharge has been determined, the Permittee shall immediately notify the responsible party of the problem.
 - (d) Report immediately to the owners/operators of the downstream MS4 a non-storm water discharge suspected of being sanitary sewage and/or significantly contaminated.
- (iii) **Reporting** – The Permittee shall use State Water Board SMARTS to submit a summary of the past year activities and certify compliance with all requirements of this program element. The summary shall also address the relationship between the program element activities and the Permittee's Program Effectiveness Assessment and Improvement Plan that tracks annual and long-term effectiveness of the storm water program. If a Permittee is unable to certify compliance with a requirement in this program element see Section F.5.j.2.for compliance

F.5.e. CONSTRUCTION SITE RUNOFF CONTROL 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 shall include the development of contract language ensuring the Permittee's in-house construction operators or outside contractors comply with the CGP.

- (i) **Task Description** – Within the first year of the effective date of the permit, each Permittee shall develop and implement contract language ensuring all outside contractors comply with the CGP and implement appropriate BMPs. Contract language shall apply to all projects that result in a total land disturbance of either one acre or more or that result in a total land disturbance of less than one acre if part of a larger common plan or development or sale.
- (ii) **Implementation Level** – The Permittee shall include CGP compliance requirements in construction contract language for all projects one acre or more or that result in a total land disturbance of less than one acre if part of a larger common plan or development or sale.
- (iii) **Reporting** – The Permittee shall use State Water Board SMARTS to submit a summary of the past year activities and certify compliance with all requirements of this program element. The summary shall also address the relationship between the program element activities and the Permittee's Program Effectiveness Assessment and Improvement Plan that tracks annual and long-term effectiveness of the storm water program. If a Permittee is unable to certify compliance with a requirement in this program element see Section F.5.j.2.for compliance.

F.5.f. POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR PERMITTEE OPERATIONS PROGRAM

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

F.5.f.1. Inventory of Permittee-Owned or Operated Facilities

- (i) **Task Description** - Prepare an inventory of Permittee-owned or operated facilities within their jurisdiction that are a threat to water quality, and are not covered by another storm water General Permit.
- (i) **Implementation Level** - Within the second year of the effective date of the permit, the Permittee shall develop and maintain an inventory that shall include facilities that may impact storm water.
- (iii) **Reporting** – The Permittee shall use State Water Board SMARTS to submit a summary of the past year activities and certify compliance with all requirements of this program element. The summary shall also address the relationship between the program element activities and the Permittee's Program Effectiveness Assessment and Improvement Plan that tracks annual and long-term effectiveness of the storm water program. If a Permittee is unable to certify compliance with a requirement in this program element see Section F.5.j.2.for compliance.

F.5.f.2. Map of Permittee-Owned or Operated Facilities

- (i) **Task Description** – Within the second year of the effective date of the permit, prepare and submit a map of the urban area covered by the MS4 permit and identify where the Permittee-owned or operated facilities are located.
- (ii) **Implementation Level** - The Permittee shall complete and have available a map that identifies the storm water drainage system corresponding to each of the facilities as well as the receiving waters to which these facilities discharge. The map shall also show the facility and the manager of each facility, including contact information. Historic storm water collection facilities, conveyances and drainages located at historic places that are being operated for public interpretation and education shall be noted on this map so that the Regional Water Board can differentiate between modern and historic during site reviews or audits.
- (iii) **Reporting** - The Permittee shall use State Water Board SMARTS to submit a summary of the past year activities and certify compliance with all requirements of this program element. The summary shall also address the relationship between the program element activities and the Permittee's Program Effectiveness Assessment and Improvement Plan that tracks annual and long-term effectiveness of the storm water program. If a Permittee is unable to certify compliance with a requirement in this program element see Section F.5.j.2.for compliance.

F.5.f.3. Facility Assessment

- (i) **Task Description** – Within the third year of the effective date of the permit, conduct an inspection and assessment of pollutant discharge potential and pollutant hotspots.

- (ii) **Implementation Levels** - The Permittee shall conduct an annual review and assessment of all Permittee-owned or operated facilities to determine their potential to impact surface waters. The assessment shall include the following:
 - (a) Identification of pollutant hotspots based on the assessment, the Permittee shall identify as pollutant hotspots those facilities that have a high potential to generate storm water and non-storm water pollutants. Among the factors to be considered are the type and volume of pollutants stored at the site, the presence of improperly stored materials, activities that should not be performed outside (e.g., changing automotive fluids, vehicle washing), proximity to water bodies, poor housekeeping practices, and the discharge of pollutant(s) of concern to receiving water(s). Pollutant hotspots shall include, at a minimum, the Permittee's maintenance yards, hazardous waste facilities, fuel storage locations, and any other facilities at which chemicals or other materials have a high potential to be discharged in storm water.
 - (b) Documentation of the assessment procedures and results. The Permittee shall document the procedures it uses for conducting the assessment along with a copy of any site evaluation checklists used to conduct the assessment.
- (iii) **Reporting** – The Permittee shall use State Water Board SMARTS to submit a summary of the past year activities and certify compliance with all requirements of this program element. The summary shall also address the relationship between the program element activities and the Permittee's Program Effectiveness Assessment and Improvement Plan that tracks annual and long-term effectiveness of the storm water program. If a Permittee is unable to certify compliance with a requirement in this program element see Section F.5.j.2. for compliance.

F.5.f.4. Storm Water Pollution Prevention Plans

- (i) **Task Description** – the Permittee shall develop and implement SWPPPs for pollutant hotspots at high priority sites. If a Permittee has an existing or equivalent document such as Hazardous Materials Business Plan or Spill Prevention Plan, the Permittee is not required to develop a SWPPP if that document includes the necessary information required within a SWPPP.
- (ii) **Implementation Level** – Within the fourth year of the effective date of this permit, the Permittee shall implement the following:
 - (a) The Permittee shall develop and implement a site-specific SWPPP that identifies a set of storm water BMPs to be installed, implemented, and maintained to minimize the discharge of pollutants in storm water.
 - (b) The SWPPP(s) shall be kept on-site at each of the Permittee-owned or operated facilities' offices for which it was completed. The SWPPP shall be updated as necessary.
 - (c) At a minimum the SWPPP will address the following:
 - 1) Facility specific information (location, owner, address, etc.)
 - 2) Purpose of the document
 - 3) Key staff/contacts at the facility
 - 4) Site map with drainage identified
 - 5) Identification of significant materials that are handled and stored at the facility that may be exposed to storm water
 - 6) Description of potential pollutant sources

- 7) BMPs employed at facility
- 8) Spill control and cleanup – response to spills

(iii) **Reporting** – The Permittee shall use State Water Board SMARTS to submit a summary of the past year activities and certify compliance with all requirements of this program element. The summary shall also address the relationship between the program element activities and the Permittee's Program Effectiveness Assessment and Improvement Plan that tracks annual and long-term effectiveness of the storm water program. If a Permittee is unable to certify compliance with a requirement in this program element see Section F.5.j.2. for compliance.

F.5.f.5. Inspections, Visual Monitoring and Remedial Action

(i) **Task Description** – Within the fifth year of the effective date of the permit, the Permittee shall conduct regular inspections of Permittee-owned and operated facilities not covered by another storm water General Permit. The Permittee may incorporate storm water inspections into existing, routine facility inspections.

(ii) **Implementation Level** – The Permittee shall conduct inspections as follows:

- (a) Quarterly hotspot visual inspections – Perform quarterly visual inspections in accordance with the developed standing operating procedures of all hotspot Permittee-owned or operated facilities to ensure materials and equipment are clean and orderly, to minimize the potential for pollutant discharge, and to ensure implementation of BMPs. The Permittee shall look for evidence of spills and immediately clean them up to prevent contact with precipitation or runoff. The quarterly inspections shall be tracked in a log for every facility, and records kept with the SWPPP. The inspection report shall also include any identified deficiencies and the corrective actions taken to correct the deficiencies.
- (b) Quarterly Hotspot comprehensive inspections – At least once per quarter, a comprehensive inspection of hotspot facilities, including all storm water BMPs, shall be performed, with specific attention paid to the following, but not limited to waste storage areas, dumpsters, vehicle and equipment maintenance/fueling areas, material handling areas, and similar potential pollutant-generating areas. The quarterly inspection results shall be documented and records kept with the SWPPP. This inspection shall be performed in accordance with the developed standard operating procedures. The inspection report shall also include any identified deficiencies and the corrective actions taken to correct deficiencies.
- (c) Quarterly Hotspot visual observation of storm water and non-storm water discharges – At least once per quarter, visually observe discharge location from hotspot facilities. Where discharges are observed identify any observed problems (e.g., color, foam, sheen, turbidity) associated with pollutant sources or BMPs shall be remedied within seven days or before the next storm event, whichever is sooner. Visual observations shall be documented, and records kept with the SWPPP. This inspection shall be done in accordance with the developed standard operating procedures. The inspection report shall also include any identified deficiencies and the corrective actions taken to correct the deficiencies.
- (d) Non-Hotspot Inspection – At a minimum, inspect each inventoried facility that is not a hotspot, once per permit term. The inspection shall investigate and assess each of the items identified above.

- (iii) **Reporting** – The Permittee shall use State Water Board SMARTS to submit a summary of the past year activities and certify compliance with all requirements of this program element. The summary shall also address the relationship between the program element activities and the Permittee's Program Effectiveness Assessment and Improvement Plan that tracks annual and long-term effectiveness of the storm water program. If a Permittee is unable to certify compliance with a requirement in this program element see Section F.5.j.2.for compliance.

F.5.f.6. Storm Drain System Assessment and Prioritization

- (i) **Task Description** – Within the second year of the effective date of the permit, the Permittee shall develop and implement procedures to assess and prioritize the MS4 storm drain system, including but not limited to catch basins, pipe and pump infrastructure, above-ground conveyances, including receiving waterbodies within the Permittee's urbanized area and detention basins.
- (ii) **Implementation Level** – The Permittee shall:
 - Assess/prioritize storm drain system facilities for cleanout– Assign a priority to all storm drain system facilities within the Permittee's urbanized areas based on accumulation of sediment, trash and/or debris. In particular, assign high priority to catch basins meeting the following criteria:
 - 1) Catch basins known to accumulate a significant amount of sediment, trash, and/or debris;
 - 2) Catch basins collecting large volumes of runoff;
 - 3) Catch basin collecting runoff from area that do not receive regular street sweeping;
 - 4) Catch basins collecting runoff from drainage areas with exposed or disturbed soil; and
 - 5) Catch basins that receive citizen complaints/reports.
- (iii) **Reporting** – The Permittee shall use State Water Board SMARTS to submit a summary of the past year activities and certify compliance with all requirements of this program element. The summary shall also address the relationship between the program element activities and the Permittee's Program Effectiveness Assessment and Improvement Plan that tracks annual and long-term effectiveness of the storm water program. If a Permittee is unable to certify compliance with a requirement in this program element see Section F.5.j.2.for compliance.

F.5.f.7. Maintenance of Storm Drain System

- (i) **Task Description** –The Permittee shall begin maintenance of all high priority storm drain systems at least annually prior to the rainy season.
- (ii) **Implementation Level** – Within the third year of the effective date of the permit, the Permittee shall begin a maintenance program of high priority storm drain systems that, at a minimum includes:
 - (a) Storm drain systems inspection – Based on the priorities assigned above, in Section F.5.f.6, develop a strategy to inspect storm drain systems within the Permittee's jurisdiction. At a minimum, inspect all catch basins of high priority systems annually, prior to the rainy season.

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- (b) Storm drain cleaning – Develop and implement a schedule to clean high priority catch basins and other systems. Cleaning frequencies shall be based on priority areas, with higher priority areas receiving more frequent maintenance.
 - (c) 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.
 - (d) Disposal of waste materials - Develop a procedure to dewater and dispose of materials extracted from catch basins. This procedure shall ensure that water removed during the catch basin cleaning process and waste material will not reenter the MS4.
- (iii) **Reporting** – The Permittee shall use State Water Board SMARTS to submit a summary of the past year activities and certify compliance with all requirements of this program element. The summary shall also address the relationship between the program element activities and the Permittee's Program Effectiveness Assessment and Improvement Plan that tracks annual and long-term effectiveness of the storm water program. If a Permittee is unable to certify compliance with a requirement in this program element see Section F.5.j.2.for compliance.

F.5.f.8. Permittee Operations and Maintenance Activities (O&M)

- (i) **Task Description** –The Permittee shall assess their O&M activities for potential to discharge pollutants in storm water and inspect all BMPs on a quarterly basis.
- (ii) **Implementation Level** - Within the third year of the effective date of the permit, the Permittee shall:
 - (a) Develop and implement O&M activity assessment. The O&Mactivities assessment shall include, but not be limited to, the potential to discharge pollutants in storm water.
 - (b) Identify all materials that could be discharged from each of these O&M activities.
 - (c) Develop and implement a set of BMPs that, when applied during Permittee O&M activities, will reduce the discharge of pollutants in storm water. The Permittee shall use the CASQA Municipal Handbook or equivalent.
 - (d) Evaluate annually all BMPs implemented during O&M activities.
- (iii) **Reporting** – The Permittee shall use State Water Board SMARTS to submit a summary of the past year activities and certify compliance with all requirements of this program element. The summary shall also address the relationship between the program element activities and the Permittee's Program Effectiveness Assessment and Improvement Plan that tracks annual and long-term effectiveness of the stormwater program. If a Permittee is unable to certify compliance with a requirement in this program element see Section F.5.j.2.for compliance.

F.5.f.9. Pesticide, Herbicide, and Fertilizer Application and New Landscape Design and Maintenance Management

- (i) **Task Description** –The Permittee shall implement a program which focuses on pollution prevention, source control BMPs, and landscape design and maintenance to reduce the amount of pesticides, herbicides and fertilizers used during their Permittee

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operations and activities. The Permittee shall implement the landscape design and maintenance on new or decorative landscapes.

- (ii) **Implementation Tasks** – Within the second year of the effective date of the permit, the Permittee shall implement the following:
- (a) Evaluate pesticides, herbicides and fertilizers used and application activities performed to identify pollution prevention and source control opportunities.
 - (b) Implement practices that reduce the discharge of pesticides, herbicides and fertilizers. At a minimum the Permittee shall do the following, but not limited to:
 - 1) Educate applicators and distributors of storm water issues.
 - 2) Implement integrated pest management measures that rely on non- chemical solutions, including:
 - a) Use of native and climate appropriate plants (reduces water usage and fertilization) for decorative landscape applications
 - b) Keeping clippings and leaves away from waterways and out of the street using mulching, composting, or landfilling
 - c) Preventing application of pesticides and fertilizers when two or more [consecutive days with greater than 50% chance of rainfall are predicted by NOAA](#)³⁵
 - d) Limiting or replacing herbicide and pesticide use (e.g., conducting manual weed and insect removal)
 - e) Limiting or eliminating the use of fertilizers, including prohibiting application within five feet of pavement, 25 feet of a storm drain inlet, or 50 feet of a water body
 - f) Reducing mowing of grass to allow for greater pollutant removal, but not jeopardizing public safety
 - 3) Collect and properly dispose of unused pesticides, herbicides, and fertilizers.
 - 4) Minimize irrigation run-off.
- (iii) **Reporting** - The Permittee shall use State Water Board SMARTS to submit a summary of the past year activities and certify compliance with all requirements of this program element. The summary shall also address the relationship between the program element activities and the Permittee's Program Effectiveness Assessment and Improvement Plan that tracks annual and long-term effectiveness of the storm water program. If a Permittee is unable to certify compliance with a requirement in this program element see Section F.5.j.2. for compliance.

F.5.g. POST CONSTRUCTION STORM WATER MANAGEMENT PROGRAM

Permittees shall regulate development to comply with the following Sections:

- Site Design Measures
- Low Impact Development Design Standards
- Alternative Post-Construction Storm Water Management Program
- Operation and Maintenance of Post Construction Storm Water Management Measures

³⁵ www.srh.noaa.gov/forecast

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Non-traditional Permittees with Regional Water Board approved post-construction storm water management requirements based on a watershed process approach, as described in Section E.12.j. Post-Construction Storm Water Management Requirements Based on Assessment and Maintenance of Watershed Processes, shall implement those post-construction requirements in lieu of Section F.5.g. Post Construction Storm Water Management Program.

F.5.g.1. Site Design Measures

- (i) **Task Description** – Within the second year of the effective date of the permit, the Permittee shall require implementation of site design measures for all projects that create and/or replace (including projects with no net increase in impervious footprint) between 2,500 square feet and 5,000 square feet of impervious surface, including detached single family homes that are not part of a larger plan of development.
- (ii) **Implementation Level** - Projects shall implement one or more of the following site design measures to reduce project site runoff:
 - (a) Stream Setbacks and Buffers – a vegetated area including trees, shrubs, and herbaceous vegetation, that exists or is established to protect a stream system, lake reservoir, or coastal estuarine area;
 - (b) Soil Quality Improvement and Maintenance - improvement and maintenance soil through soil amendments and creation of microbial community;
 - (c) Tree planting and preservation – planting and preservation of healthy, established trees that include both evergreens and deciduous, as applicable;
 - (d) Rooftop and Impervious Area Disconnection - rerouting of rooftop drainage pipes to drain rainwater to rain barrels, cisterns, or permeable areas instead of the storm sewer;
 - (e) Porous Pavement - pavement that allows runoff to pass through it, thereby reducing the runoff from a site and surrounding areas and filtering pollutants;
 - (f) Green Roofs – a vegetative layer grown on a roof (rooftop garden);
 - (g) Vegetated Swales - a vegetated, open-channel management practice designed specifically to treat and attenuate storm water runoff;
 - (h) Rain Barrels and Cisterns - system that collects and stores storm water runoff from a roof or other impervious surface.

Project proponents shall use the State Water Board SMARTS Post-Construction Calculator³⁶, or equivalent to quantify the runoff reduction resulting from implementation of site design measures.

- (iii) **Reporting** - The Permittee shall use State Water Board SMARTS to submit a summary of the past year activities and certify compliance with all requirements of this program element. The summary shall also address the relationship between the program element activities and the Permittee's Program Effectiveness Assessment and Improvement Plan that tracks annual and long-term effectiveness of the storm

³⁶ The [State Water Board SMARTS Post-Construction Calculator](https://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin.jsp) can be found at:
<https://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin.jsp>

water program. If a Permittee is unable to certify compliance with a requirement in this program element see Section F.5.j.2.for compliance.

F.5.g.2. Low Impact Development (LID) Design Standards

- (i) **Task Description** – Within the second year of the effective date of the permit, the Permittee shall implement standards to effectively reduce runoff and pollutants associated with runoff from development projects.
- (ii) **Implementation Level** - The Permittee shall regulate all development projects that create and/or replace 5,000 square feet or more of impervious surface (Regulated Projects). The Permittee shall require these Regulated Projects to implement measures for site design, source control, runoff reduction, storm water treatment and baseline hydromodification management as defined in this Order.

Regulated Projects do not include:

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

Regulated Projects include development projects. Development includes new and redevelopment projects on public or private land that fall under the planning and permitting authority of a Permittee. Redevelopment is any land-disturbing activity that results in the creation, addition, or replacement of exterior impervious surface area on a site on which some past development has occurred. The following (a-c) describe specific Regulated Project requirements for redevelopment and road projects:

- (a) Where a redevelopment project results in an increase of more than 50 percent of the impervious surface of a previously existing development, runoff from the entire project, consisting of all existing, new, and/or replaced impervious surfaces, must be included to the extent feasible.
- (b) Where a redevelopment project results in an increase of less than 50 percent of the impervious surface of a previously existing development, only runoff from the new and/or replaced impervious surface of the project must be included.
- (c) Road Projects - Any of the following types of road projects that create 5,000 square feet or more of newly constructed contiguous impervious surface and that are public road projects and/or fall under the building and planning authority of a Permittee shall comply with Low Impact Development Standards except that treatment of runoff of the 85th percentile 24-hour storm runoff event) that cannot be infiltrated onsite shall follow U.S. EPA guidance regarding green infrastructure to the extent feasible. Types of projects include:
 - 1) Construction of new streets or roads, including sidewalks and bicycle lanes built as part of the new streets or roads which create 5,000 square feet or more of impervious surface.
 - 2) Widening of existing streets or roads with additional traffic lanes.
 - a) Where the addition of traffic lanes results in an alteration of more than 50 percent of the impervious surface (5,000 square feet or more) of an existing street or road, runoff from the entire project, consisting of all

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existing, new, and/or replaced impervious surfaces, must be included in the treatment system design.

- b) Where the addition of traffic lanes results in an alteration of less than 50 percent (but 5,000 square feet or more) of the impervious surface of an existing street or road, only the runoff equivalent from new and/or replaced impervious surface of the project must be included in the treatment system design.
- 3) Specific exclusions are:
 - a) Sidewalks built as part of new streets or roads and built to direct storm water runoff to adjacent vegetated areas.
 - b) Bicycle lanes that are built as part of new streets or roads that direct storm water runoff to adjacent vegetated areas.
 - c) Impervious trails built to direct storm water runoff to adjacent vegetated areas, or other non-erodible permeable areas, preferably away from creeks or towards the outboard side of levees.
 - d) Sidewalks, bicycle lanes, or trails constructed with permeable surfaces.

Effective Date for Applicability of Low Impact Development Runoff Standards to Regulated Projects: By the second year of the effective date of the permit, the Permittee shall require these Post-Construction Standards be applied on applicable new and redevelopment Regulated Projects. These include Regulated Projects that have not been deemed complete for processing, Regulated Projects without vesting tentative maps that have not requested and received an extension of previously granted approvals, and Regulated Projects that have received Project Planning Guide funding. Discretionary projects that have been deemed complete prior to the second year of the effective date of this permit are not subject to the Post-Construction Standards herein. For the Permittee's Regulated Projects, the effective date shall be the date their governing body or designee approves initiation of the project design.

Permittee's Development Projects - The Permittee shall develop and implement an equivalent approach, to the approach used for private development projects, to apply the most current version of the low impact development runoff standards to applicable public development projects.

Where Project Planning Guide funding is applicable, Permittees shall ensure that adequate funding is available to implement post-construction treatment measures for Regulated Projects approved after the effective date of this permit.

Where State of California project approvals are applicable, Permittees shall implement post-construction treatment measures for Regulated Projects approved after the effective date of this permit.

F.5.g.2.a. Source Control Measures

- (i) **Task Description** – Regulated Projects with pollutant-generating activities and sources shall be required to implement standard permanent and/or operational source control measures as applicable.
- (ii) **Implementation Level** - Measures for the following pollutant-generating activities and sources shall be designed consistent with recommendations from the CASQA

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Stormwater BMP Handbook for New Development and Redevelopment or equivalent manual, and include:

- (a) Accidental spills or leaks
- (b) Interior floor drains
- (c) Parking/Storage area maintenance
- (d) Indoor and structural pest control
- (e) Landscape/outdoor pesticide use
- (f) Pools, spas, ponds, decorative fountains, and other water features
- (g) Restaurants, grocery stores, and other food service operations
- (h) Storage and handling of solid waste
- (i) Outdoor storage of equipment or materials
- (j) Vehicle and equipment cleaning
- (k) Vehicle and equipment repair and maintenance
- (l) Fuel dispensing areas
- (m) Loading docks
- (n) Fire sprinkler test water
- (o) Drain or wash water from boiler drain lines, condensate drain lines, rooftop equipment, drainage sumps, and other sources
- (p) Unauthorized non-storm water discharges
- (q) Building and grounds maintenance

F.5.g.2.b. Numeric Sizing Criteria for Storm Water Retention and Treatment

The Permittees shall require facilities designed to evapotranspire, infiltrate, harvest/use, and biotreat storm water to meet at least one of the following hydraulic sizing design criteria:

- (1) Volumetric Criteria:
 - a) The maximized capture storm water 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
 - b) The volume of annual runoff required to achieve 80 percent or more capture, determined in accordance with the methodology in Section 5 of CASQA's Stormwater Best Management Practice Handbook, New Development and Redevelopment (2003), using local rainfall data.
- (2) Flow-based Criteria
 - a) The flow of runoff produced from a rain event equal to at least 0.2 inches per hour intensity; or
 - b) The flow of runoff produced from a rain event equal to at least 2 times the 85th percentile hourly rainfall intensity as determined from local rainfall records.

F.5.g.2.c. Site Design Measures as defined in Section F.5.g.1. shall be based on the objective of achieving infiltration, evapotranspiration and/or harvesting/reuse of the 85th percentile rainfall event, to the extent feasible, to meet Section F.5.g.2.b. Numeric

Sizing Criteria for Storm Water Retention and Treatment. Site design measures shall be used to reduce the amount of runoff, to the extent technically feasible, for which retention and runoff is required. Any remaining runoff from impervious DMAs may then be directed to one or bioretention facility as specified in Section F.5.g.2.d. Storm Water Treatment Measures and Baseline Hydromodification Management Measures, described below.

F.5.g.2.d. Storm Water Treatment Measures and Baseline Hydromodification Management Measures After implementation of Site Design Measures in F.5.g.2.c., 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 F.5.g.2.b. Numeric Sizing Criteria for Storm Water Retention and Treatment. The facilities must be demonstrated to be at least as effective as a bioretention system with the following design parameters.

- (1) 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.
 - (2) Minimum surface reservoir volume equal to surface area times a depth of 6 inches.
 - (3) 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.
 - (4) Subsurface drainage/storage (gravel) layer with an area equal to the surface area and having a minimum depth of 12 inches.
 - (5) Underdrain with discharge elevation at top of gravel layer.
 - (6) No compaction of soils beneath the facility, or ripping/loosening of soils if compacted.
 - (7) No liners or other barriers interfering with infiltration.
 - (8) Appropriate plant palette for the specified soil mix and maximum available water use.
- a) **Alternative Designs for Bioretention Facilities** — Facilities, or a combination of facilities, of a different design than in Section F.5.g.2.d. may be permitted if the following measures of equivalent effectiveness are demonstrated:
- (1) Equal or greater amount of runoff infiltrated or evapotranspired
 - (2) Equal or lower pollutant concentrations in runoff that is discharged after bioretention
 - (3) Equal or greater protection against shock loadings and spills
 - (4) Equal or greater accessibility and ease of inspection and maintenance
- b) **Allowed Adjustments for Bioretention Facilities for Special Site Conditions** - The bioretention design parameters as specified in Section F.5.g.2.d. may be adjusted for the following special site conditions:
- (1) Facilities located within 10 feet of structures or other potential geotechnical hazards established by the geotechnical expert for the project may incorporate

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an impervious cutoff wall between the bioretention facility and the structure or other geotechnical hazard.

- (2) Facilities in areas with documented high concentrations of pollutants in underlying soil or groundwater, facilities located where infiltration could contribute to a geotechnical hazard, and facilities located on elevated plazas or other structures may incorporate an impervious liner and may locate the underdrain discharge at the bottom of the subsurface drainage/storage layer (this configuration is commonly known as a “flow-through planter”).
 - (3) Facilities located in areas of highly infiltrative soils or high groundwater, or where connection of underdrain to a surface drain or to a subsurface storm drain are infeasible, may omit the underdrain.
- c) **Exceptions to Requirements for Bioretention Facilities** - Contingent on a demonstration that use of bioretention or a facility 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:
- (1) 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;
 - (2) Facilities receiving runoff solely from existing (pre-project) impervious areas;
 - (3) Historic sites, structures, or landscapes that cannot alter their original configuration in order to maintain their historic integrity.
- (iii) **Reporting** – The Permittee shall use State Water Board SMARTS to submit a summary of the past year activities and certify compliance with all requirements of this program element. The summary shall also address the relationship between the program element activities and the Permittee's Program Effectiveness Assessment and Improvement Plan that tracks annual and long-term effectiveness of the storm water program. If a Permittee is unable to certify compliance with a requirement in this program element see Section F.5.j.2. for compliance.

F.5.g.3. Alternative Post-Construction Storm Water Management Program

A Permittee may propose alternative post-construction measures in lieu of some or all of Section F.5.g. requirements for multiple benefit projects. Multiple-benefit projects include projects that may address any of the following, in addition to water quality: water supply, flood control, habitat enhancement, open space preservation, recreation, climate change. Multiple-benefit projects may be applied at various scales including project site, municipal or sub-watershed level. Multiple-benefit projects may include, but are not limited to, projects developed under Watershed Improvement Plans (Water Code §16100 et seq.), IRWMP implementation and green infrastructure projects. Multiple benefit projects must be equally or more protective of water quality than Section E.12. requirements.

The Regional Water Board or the Executive Officer may approve alternative post-construction measures for multiple-benefit projects, as described above, after an opportunity for public comment, if the Regional Water Board or Executive Officer finds that the alternative measures are consistent with the MEP standard.

F.5.g.4. Operation and Maintenance (O&M) of Post-Construction Storm Water Management Measures

- (i) **Task Description** –Within the third year of the effective date of the permit, the Permittee shall implement an O&M Verification Program for new development projects regulated under this Order.
- (ii) **Implementation Level** – At a minimum, the O&M Verification Program shall include the following elements:
 - (a) Projects shall at a minimum, require at least one of the following from all project proponents and their successors in control of the Project or successors in fee title:
 - (1) Written conditions in the sales or lease agreements or deed for the project that requires the buyer or lessee to assume responsibility for the O&M of the installed treatment system(s) and hydromodification control(s) (if any) until such responsibility is legally transferred to another entity;
 - (2) Any other legally enforceable agreement or mechanism, such as recordation in the property deed, that assigns the O&M responsibility for the installed treatment system(s) and hydromodification control(s) (if any) to the project owner(s) or the Permittee.
 - (b) Coordination with the appropriate mosquito³⁷ and vector control agency with jurisdiction to establish a protocol for notification of installed treatment systems and hydromodification management controls. On an annual basis, before the wet season, prepare a list of newly installed (installed within the reporting period) storm water treatment systems and hydromodification management controls to the local mosquito and vector control agency and the appropriate Regional Water Board. This list shall include the facility locations and a description of the storm water treatment measures and hydromodification management controls installed.
 - (c) A database or equivalent tabular format of all projects that have installed treatment systems. This database or equivalent tabular format shall include the following information for each project:
 - (1) Name and address of the project;
 - (2) Specific description of the location (or a map showing the location) of the installed treatment system(s) and hydromodification control(s) (if any);
 - (3) Date(s) that the treatment system(s) and hydromodification controls (if any) is/are installed;
 - (4) Description of the type and size of the treatment system(s) and hydromodification control(s) (if any) installed;
 - (5) Responsible operator(s) of each treatment system and hydromodification control (if any);

³⁷ “Best Management Practices for Mosquito Control on California State Properties” are available from the [California West Nile virus website](http://www.westnile.ca.gov/resources.php) at <http://www.westnile.ca.gov/resources.php>. Please see Table 1, page 22, for a list of California mosquito control agencies or visit [the Mosquito and Vector Control Association of California](http://mvacac.org) at: <http://mvacac.org>

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- (6) Dates and findings of inspections (routine and follow-up) of the treatment system(s) and hydromodification control(s) (if any) by the Permittee; and
 - (7) Any problems and corrective or enforcement actions taken.
- (d) **Maintenance Approvals:** The Permittee shall ensure that systems and hydromodification controls installed at projects are properly operated and maintained for the life of the projects. In cases where the responsible party for a treatment system or hydromodification control has worked diligently and in good faith with the appropriate State and federal agencies and the Permittee to obtain approvals necessary to complete maintenance activities for the treatment system or hydromodification management control, but these approvals are not granted, the Permittee shall be deemed to be in compliance with this Provision.
- (iii) **Reporting** - The Permittee shall use State Water Board SMARTS to submit a summary of the past year activities and certify compliance with all requirements of this program element. The summary shall also address the relationship between the program element activities and the Permittee's Program Effectiveness Assessment and Improvement Plan that tracks annual and long-term effectiveness of the storm water program. If a Permittee is unable to certify compliance with a requirement in this program element see Section F.5.j.2. for compliance.

F.5.h. PROGRAM EFFECTIVENESS ASSESSMENT AND IMPROVEMENT

F.5.h.1. Program Effectiveness Assessment and Improvement Plan

- (i) **Task Description** - The Permittee shall develop and implement a Program Effectiveness Assessment and Improvement Plan that tracks short and long-term progress of the storm water program. The Program Effectiveness Assessment and Improvement Plan will assist the Permittee to adaptively manage its storm water program and make necessary modifications to the program to improve program effectiveness, reduce pollutants of concern, achieve the MEP standard, and protect water quality, and to document the Permittee's compliance with permit conditions. The Program Effectiveness Assessment and Improvement Plan shall identify the strategy used to gauge the effectiveness of 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). The effectiveness assessments will build upon each other from one year to the next and shall identify modifications to the program the Permittee must undertake to improve effectiveness.
- (ii) **Implementation Level** - The Program Effectiveness Assessment and Improvement Plan may be modeled upon the most recent version (if applicable) Municipal Storm Water Program Effectiveness Assessment Guidance (CASQA, May 2007) or equivalent.
- (a) The Program Effectiveness Assessment and Improvement Plan shall include the following minimum elements:
- (1) Implementation of storm water program elements
 - (2) Identification and targeting of Target Audience(s)

- (iii) **Reporting** - By the second year Annual Report complete and submit the Program Effectiveness Assessment and Improvement Plan. At a minimum, the Plan shall include implementation of storm water program elements and identification of the Targeted Audience(s).

F.5.h.2. Storm Water Program Modifications

- (i) **Task Description** – Within the fifth year of the effective date of the permit, based on the information gained from the effectiveness assessment, the Permittee shall identify modifications to control measures/significant activities, including new BMPs or modification to existing BMPs. The Permittee shall consult with the Regional Water Board in setting expectations for the scope, timing, and frequency of BMP modifications for the next permit cycle.
- (ii) **Implementation Level** –The Permittee shall identify program modifications to include:
 - (a) Improving upon BMPs that did not accomplish goals;
 - (b) Continuing and expanding upon BMPs that proved to be effective, including identifying new BMPs or modifications to existing BMPs designed to increase pollutant load reductions;
 - (c) Discontinuing BMPs that may no longer be productive and replacing with more effective BMPs; and
 - (d) Shifting priorities to make more effective use of resources
- (ii) **Reporting** – By the fifth year Annual Report complete and have available a list of maintenance activities of highest priority BMPs. By the fifth year Annual Report, complete and have available a summary of proposed modifications to the storm water program to improve program effectiveness, to achieve the MEP standard, and to protect water quality.

F.5.i. TOTAL MAXIMUM DAILY LOADS COMPLIANCE REQUIREMENTS

F.5.i.1. Attachment G contains a list of TMDL-specific, BMP-based water quality based effluent limitations (WQBELs) and other permit requirements, applicable to identified permittees, consistent with the assumptions and requirements of the applicable wasteload allocations of the TMDLs.

Permittees shall comply with the requirement in Section C.1. to reduce the discharge of pollutants to achieve applicable TMDL wasteload allocations as follows:

- (i) Prior to the deadline to attain the final wasteload allocation, a permittee is deemed in compliance with the requirement in Section C.1 *to reduce the discharge of pollutants to achieve applicable TMDL wasteload allocations* if the permittee is timely implementing all BMP-based WQBELs and other requirements specified in Attachment G for that TMDL. The permittee may alternatively make a demonstration in accordance with section F.5.i.1.(ii) below.
- (ii) On or after the deadline to attain the final wasteload allocation, a permittee is deemed in compliance with the requirement in Section C.1 *to reduce the discharge of pollutants to achieve applicable TMDL wasteload allocations* if the permittee meets one or more of the criteria in subsections (a)-(g) below. For purposes of this section only, the wasteload allocations specified in the applicable TMDLs (as identified in the Fact Sheet) are incorporated by reference.

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- (a) 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) 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) Where the wasteload allocation is expressed as a concentration, sampling of the permittee's discharge, as approved by the Regional Water Board or its designee, indicates that the discharge has attained the applicable wasteload; or
 - (d) Where a mass-based wasteload has been allocated to an individual or jointly to a group or is expressed as a percent reduction in load, the permittee demonstrates, through an approach approved by the Regional Water Board or its designee, that the permittee's discharge is attaining the individual or joint allocation or the percent reduction; or
 - (e) 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) 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) The permittee demonstrates the attainment of the wasteload allocation through other factors as described by the specific TMDL(s)³⁸ and as approved by the Regional Water Board or its designee.
- (iii) Pursuant to Section D, a permittee deemed in compliance with Section C.1 in accordance with subsections i) and ii) of this section is also deemed in compliance with the Section D requirement to *not cause or contribute to an exceedance of water quality standards* for the specific pollutants and water bodies addressed.

F.5.i.2. In some cases, Attachment G includes dates that fall outside the term of this Order. Attainment dates for BMP-based WQBELs and other permit requirements that

³⁸ As an example, the TMDL for Sacramento and San Joaquin Delta – Diazinon and Chlorpyrifos states "In determining compliance with the wasteload allocations, the Regional Water Board will consider any data or information submitted by the discharger regarding diazinon and chlorpyrifos inputs from sources outside of the jurisdiction of the permitted discharger, including any diazinon and chlorpyrifos present in precipitation and other available relevant information, and any applicable provisions In the discharger's NPDES permit requiring the discharger to reduce the discharge of pollutants to the maximum extent possible.", Resolution No. R5-2006-0061, Attachment 1, #11, Page 4.

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exceed the term of this Order are included for reference, and become enforceable in the event that this Order is administratively extended.

Wasteload allocation attainment dates that have already passed are enforceable on the effective date of this Order and have been assigned a due date of January 1, 2019.

- (i) If the Regional Water Board Executive Officer makes a determination, on a case by case basis, that the language of a particular TMDL allows flexibility to extend a final deadline to attain a wasteload allocation, the State Water Board Executive Director may amend Attachment G to provide an extended deadline following public notice and comment.

Where a final deadline to attain a wasteload allocation is past and the permittee has not demonstrated compliance as specified in Section F.5.i.1.(ii) above, the permittee may seek a time schedule order pursuant to Water Code section 13300 from the Regional Water Board. Permittees may either individually request a time schedule order or may jointly request a time schedule order with all Permittees subject to the TMDL in Attachment G. Permittees may also request time schedule orders where the permittee has not timely complied with a BMP-based WQBEL or other permit requirement in Attachment G.

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

- (a) Any available data demonstrating the current quality of the MS4 discharge(s) in terms of concentration and/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.
- (ii) It is not the intention of the State Water Board or the Regional Water Boards to bring an enforcement action for non-attainment of the wasteload allocation where:
 - (a) A permittee is in compliance with a time schedule order's implementation requirements and compliance schedule;
 - (b) A permittee has in good faith requested a time schedule order from the Regional Water Board and is in compliance with all BMP-based WQBELs and other permit requirements of Attachment G, except the requirement to attain the applicable wasteload allocation by the final attainment deadline;
 - (c) A Regional Water Board has initiated proceedings to revise the TMDL to provide additional time for attainment or to modify TMDL wasteload allocations and the

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permittee is in compliance with all BMP-based WQBELs and other permit requirements in Attachment G, except the requirement to attain the applicable wasteload allocation by the final attainment deadline.

F.5.i.3. The State Water Board may revise this Order through a reopener to incorporate any modifications or revisions to the TMDLs in Attachment G, or to incorporate any new TMDLs adopted during the term of this Order that assign a wasteload allocation to the Permittee or that identify the Permittee as a responsible party. In revising Attachment G, the State Water Board will allow adequate notice and public review.

F.5.i.4. The Permittee shall complete and have available a report that includes the status of their implementation of the specific TMDL implementation requirements that have been incorporated into the Order with each Annual Report. The TMDL implementation report shall include the following information:

- (i) A description of BMPs implemented, including types, number, and locations;
- (ii) All supplemental information and reports required under the specific TMDL implementation requirements in Attachment G;
- (iii) An assessment of the effectiveness of implemented BMPs in progressing towards attainment of wasteload allocations within the TMDLs' specified timeframes;
- (iv) All monitoring data, including a statistical analysis of the data to assess progress towards attainment of wasteload allocations within the TMDLs' specified timeframes;
- (v) Based on results of the effectiveness assessment and monitoring, a description of the additional BMPs that will be implemented to attain wasteload allocations within the TMDLs' specified timeframes.

F.5.i.5. The Permittee shall comply with implementation requirements specified in Category 4b demonstrations associated with Clean Water Act Sections 303d, 306b, and 314 Integrated Reporting and Listing Decisions. Implementation requirements described in Category 4b demonstrations are effective upon Regional Water Board approval of that region's Integrated Reporting and Listing Decisions and associated Category 4b demonstrations.

F.5.j. ONLINE ANNUAL REPORTING

F.5.j.1. Department of Defense and Department of Corrections, ports, transportation agencies and Rehabilitation Permittees are exempt from Annual Reporting of any provision that could pose a security risk and compromise facility security. Any requested information to determine compliance with this Order [40 C.F.R. 122.41(h)] by the Water Boards or U.S. EPA shall be furnished during normal business hours.

F.5.j.2. **By October 15 of each year**, the Permittee shall use State Water Board's SMARTS to submit a summary of the past year activities for each program element and certify compliance with all requirements of this permit. If a Permittee is unable to certify compliance with a requirement, it must 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.

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- F.5.j.3.** Permittees shall complete and retain all Annual Report information on the previous fiscal year beginning July 1 and ending June 30. The Annual Reporting requirements are set forth in Provisions E. 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 agreed to by the Regional Water Board's Executive Officer.
- F.5.j.4.** 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 Provision F. The detailed Annual Report must clearly refer to the permit requirements and describe in quantifiable terms, the status of activities undertaken to comply with each requirement.
- F.5.j.5.** Permittees involved in regional programs may coordinate with the members to identify reporting responsibility. The one report submitted on behalf of Permittees involved in a regional program must include a summary of the past year activities implemented for each program element and certification of compliance for each of the Permittees in the regional program.