

C.3.h. Operation and Maintenance of Stormwater Treatment Systems

- Type of inspection (e.g., initial, annual, follow-up, spot).
  - Type(s) of stormwater treatment systems inspected (e.g., swale, bioretention unit, tree well, etc.) and an indication of whether the treatment system is an onsite, joint, or offsite system.
  - Type of HM controls inspected.
  - Inspection findings or results (e.g., proper installation, proper operation and maintenance, system not operating properly because of plugging, bypass of stormwater because of improper installation, maintenance required immediately, etc.).
  - Enforcement action(s) taken, if any (e.g., verbal warning, notice of violation, administrative citation, administrative order).
- (2) On an annual basis, before the wet season, provide a list of newly installed (installed within the reporting period) stormwater treatment systems and HM controls to the local mosquito and vector control agency and the Central Valley Water Board. This list shall include the facility locations and a description of the stormwater treatment measures and HM controls installed.
- (3) Each Permittee shall report the following information in the Annual Report each year:
- (a) A discussion of the inspection findings for the year and any common problems encountered with various types of treatment systems and/or HM controls. This discussion should include a general comparison to the inspection findings from the previous year.
  - (b) A discussion of the effectiveness of the Permittee's O&M Program and any proposed changes to improve the O&M Program (e.g., changes in prioritization plan or frequency of O&M inspections, other changes to improve effectiveness of program).

**C.3.i. Required Site Design Measures for Small Projects and Detached Single-Family Home Projects**

- i. Task Description** – The Permittees shall require all development projects, which create and/or replace  $\geq 2500$  ft<sup>2</sup> to  $< 10,000$  ft<sup>2</sup> of impervious surface, and detached single-family home projects,<sup>12</sup> which create and/or replace 2,500 square feet or more of impervious surface, to install one or more of the following site design measures:
- Direct roof runoff into cisterns or rain barrels for reuse.
  - Direct roof runoff onto vegetated areas.
  - Direct runoff from sidewalks, walkways, and/or patios onto vegetated areas.

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<sup>12</sup> **Detached single-family home project** – The building of one single new house or the addition and/or replacement of impervious surface to one single existing house, which is not part of a larger plan of development.

## C.6. Construction Site Control

Each Permittee shall implement a construction site inspection and control program at all construction sites, with follow-up and enforcement consistent with each Permittee's respective Enforcement Response Plan (ERP), to prevent construction site discharges of pollutants and impacts on beneficial uses of receiving waters. Inspections shall confirm implementation of appropriate and effective erosion and other construction pollutant controls by construction site operators/developers; and reporting shall demonstrate the effectiveness of this inspection and problem solution activity by the Permittees.

### C.6.a. Legal Authority for Effective Site Management

- i. Task Description – Permittees shall have the ability to require effective stormwater pollutant controls, and escalate progressively stricter enforcement to achieve expedient compliance and clean up at all public and private construction sites.
- ii. **Implementation Level**
  - (1) Permittees shall have the legal authority to require at all construction sites year round effective erosion control, run-on and runoff control, sediment control, active treatment systems (as appropriate), good site management, and non storm water management through all phases of construction (including but not limited to site grading, building, and finishing of lots) until the site is fully stabilized by landscaping or the installation of permanent erosion control measures.
  - (2) Permittees shall have the legal authority to oversee, inspect, and require expedient compliance and clean up at all construction sites year round.
- iii. Reporting – Permittees shall certify adequacy of their respective legal authority in the 2011 Annual Report.

### C.6.b. Enforcement Response Plan (ERP)

- i. Task Description – Permittees shall develop and implement an ERP that will serve as a reference document for inspection staff to take consistent actions to achieve timely and effective compliance from all public and private construction site owners/operators.
- ii. **Implementation Level**
  - (1) The ERP shall include required enforcement actions – including timeframes for corrections of problems – for various field violation scenarios. All violations must be corrected in a timely manner with the goal of correcting them before the next rain event but no longer than 10 business days after the violations are discovered. If more than 10 business days are required for compliance, a rationale shall be recorded in the electronic database or equivalent tabular system.

- (2) If site owners/operators do not implement appropriate corrective actions in a timely manner, or if violations repeat, Permittees shall take progressively stricter responses to achieve compliance. The ERP shall include the structure for progressively stricter responses and various violation scenarios that evoke progressively stricter responses.
- (3) The ERP shall be developed and implemented by April 1, 2011.

**C.6.c. Best Management Practices Categories**

- i. Task Description – Permittees shall require all construction sites to have site specific, and seasonally- and phase-appropriate, effective Best Management Practices (BMPs) in the following six categories:
  - Erosion Control
  - Run-on and Run-off Control
  - Sediment Control
  - Active Treatment Systems (as necessary)
  - Good Site Management
  - Non Stormwater Management.

These BMP categories are listed in State General NPDES Permit for Stormwater Discharges Associated with Construction Activities (hereinafter the Construction General Permit).

**ii. Implementation Level**

The BMPs targeting specific pollutants within the six categories listed in C.6.c.i. shall be site specific. Site specific BMPs targeting specific pollutants from the six categories listed in C.6.c.i. can be a combination of BMPs from:

- California BMP Handbook, Construction, January 2003.
- Caltrans Stormwater Quality Handbooks, Construction Site Best Management Practices Manual, March 2003, and addenda.
- California Regional Water Quality Control Board, San Francisco Bay Region, Erosion and Sediment Control Field Manual, 2002.
- New BMPs available since the release of these Handbooks.

**C.6.d. Plan Approval Process**

- i. Task Description – Permittees shall review erosion control plans for consistency with local requirements, appropriateness and adequacy of proposed BMPs for each site before issuance of grading permits for projects. Permittees shall also verify that sites disturbing one acre or more of land have filed a Notice of Intent for coverage under the Construction General Permit.
- ii. Implementation Level – Before approval and issuance of local grading permits, each Permittee shall perform the following:

- (1) Review the site operator's/developer's erosion/pollution control plan or Stormwater Pollution Prevention Plan (SWPPP) to verify compliance with the Permittee's grading ordinance and other local requirements. Also review the site operator's/developer's erosion/pollution control plan or SWPPP to verify that seasonally appropriate and effective BMPs for the six categories listed in C.6.c.i. are planned;
- (2) For sites disturbing one acre or more of soil, verify that the site operators/developers have filed a Notice of Intent for permit coverage under the Construction General Permit; and
- (3) Provide construction stormwater management educational materials to site operators/developers, as appropriate.

#### C.6.e. Inspections

i. Task Description – Permittees shall conduct inspections to determine compliance with local ordinances (grading and stormwater) and determine the effectiveness of the BMPs in the six categories listed in C.6.c.i.; and Permittees shall require timely corrections of all actual and threatened violations of local ordinances observed.

#### ii. Implementation Level

##### (1) Wet Season Notification

By September 1st of each year, each Permittee shall remind all site developers and/or owners disturbing one acre or more of soil to prepare for the upcoming wet season.

##### (2) Frequency of Inspections

Inspections shall be conducted monthly during the wet season<sup>13</sup> at the following sites:

- (a) All construction sites disturbing one or more acre of land; and
- (b) **High Priority Sites** – Other sites determined by the Permittee or the Central Valley Water Board as significant threats to water quality. In evaluating threat to water quality, the following factors shall be considered:
  - (i) Soil erosion potential or soil type;
  - (ii) Site slope;
  - (iii) Project size and type;
  - (iv) Sensitivity or receiving waterbodies;
  - (v) Proximity to receiving waterbodies;
  - (vi) Non-stormwater discharges; and
  - (vii) Any other relevant factors as determined by the local agency or the Central Valley Water Board.

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<sup>13</sup> For the purpose of inspections, the wet season is defined as October through April, but sites need to implement seasonally appropriate BMPs in the six categories listed in C.6.c.i throughout the year.

(3) **Contents of Inspections**

Inspections shall focus on the adequacy and effectiveness of the site specific BMPs implemented for the six categories listed in C.6.c.i. Permittees shall require timely corrections of all actual and potential problems observed. Inspections of construction sites shall include, but are not limited to, the following:

- (a) Assessment of compliance with Permittee's ordinances and permits related to urban runoff, including the implementation and maintenance of the verified erosion/pollution control plan or SWPPP (from C.6.d.ii.(1));
- (b) Assessment of the adequacy and effectiveness of the site specific BMPs implemented for the six categories listed in C.6.c.i.;
- (c) Visual observations for:
  - actual discharges of sediment and/or construction related materials into stormdrains and/or waterbodies.
  - evidence of sediment and/or construction related materials discharges into stormdrains and/or waterbodies.
  - illicit connections.
  - potential illicit connections.
- (d) Education on stormwater pollution prevention, as needed.

(4) **Tracking**

All inspections must be recorded on a written or electronic inspection form. Inspectors shall follow the ERP if a violation is noted and shall require timely corrections of all actual and threatened violations of local ordinances observed. All violations must be corrected in a timely manner with the goal of correcting them before the next rain event but no longer than 10 business days after the violations are discovered. If more than 10 business days are required for compliance, a rationale shall be recorded on the inspection form.

Permittees shall track in an electronic database or tabular format all inspections. This electronic database or tabular format shall be made readily available to the Executive Officer and during inspections and audits by the Central Valley Water Board staff or its representatives. This electronic database or tabular format shall record the following information for each site inspection:

- (a) Site name;
- (b) Inspection date;
- (c) Weather during inspection;
- (d) Has there been rainfall with runoff since the last inspection?;
- (e) Enforcement Response Level (Use ERP);

- (f) Problem(s) observed using Illicit Discharge and the six BMP categories listed in C.6.c.i.;
- (g) Specific Problem(s) (List the specific problem(s) within the BMP categories);
- (h) Resolution of Problems noted using the following three standardized categories: Problems Fixed, Need More Time, and Escalate Enforcement; and
- (i) Comments, which shall include all Rationales for Longer Compliance Time, all escalation in enforcement discussions, and any other information that may be relevant to that site inspection.

### iii. Reporting

- (1) In each Annual Report, each Permittee shall summarize the following information:
  - (a) Total number of active sites disturbing less than one acre of soil requiring inspection;
  - (b) Total number of active sites disturbing 1 acre or more of soil;
  - (c) Total number of inspections conducted;
  - (d) Number and percentage<sup>14</sup> of violations in each of the six categories listed in C.6.c.i.;
  - (e) Number and percentage<sup>15</sup> of each type of enforcement action taken as listed in each Permittee's ERP;
  - (f) Number of discharges, actual and those inferred through evidence, of sediment or other construction related materials;
  - (g) Number of sites with discharges, actual and those inferred through evidence, of sediment or other construction related materials;
  - (h) Number and percentage<sup>16</sup> of violations fully corrected prior to the next rain event but no longer than 10 business days after the violations are discovered or otherwise considered corrected in a timely, though longer period; and
  - (i) Number and percentage<sup>17</sup> of violations not fully corrected 30 days after the violations are discovered.
- (2) In each Annual Report, each Permittee shall evaluate its respective electronic database or tabular format and the summaries produced in

<sup>14</sup> Percentage shall be calculated as number of violations in each category divided by total number of violations in all six categories.

<sup>15</sup> Percentage shall be calculated as number of each type of enforcement action divided by the total number of enforcement actions.

<sup>16</sup> Percentage shall be calculated as follows: number of violations fully corrected prior to the goal of the next rain event but no later than 10 business days after the violations are discovered divided by the total number of violations for the reporting year.

<sup>17</sup> Percentage shall be calculated as follows: number of violations not fully corrected 30 days after the violations are discovered divided by the total number of violations for the reporting year.

C.6.e.ii.(4) above. This evaluation shall include findings on the program's strength, comparison to previous years' results, as well as areas that need more focused education for site owners, operators, and developers the following year.

- (3) The Executive Officer may require that the information recorded and tracked by C.6.e.ii.(4) be submitted electronically or in a tabular format. Permittees shall submit the information within 10-working days of the Executive Officer's requirement. Submittal of the information in tabular form for the reporting year is not required in each Annual Report but encouraged.

**C.6.f. Staff Training**

- i. Task Description – Permittees shall provide training or access to training for staff conducting construction stormwater inspections.
- ii. Implementation Level – Permittees shall provide training at least every other year to municipal staff responsible for conducting construction site stormwater inspections. Training topics will include information on correct uses of specific BMPs, proper installation and maintenance of BMPs, Permit requirements, local requirements, and ERP.
- iii. Reporting – Permittees shall include in each Annual Report the following information: training topics covered, dates of training, and the percentage of Permittees' inspectors attending each training. If no training in that year, so state.

C.7. Public Information and Outreach

**C.7.d. Stormwater Point of Contact**

- i. Task Description – Permittees shall individually or collectively create and maintain a point of contact, e.g., phone number or website, to provide the public with information on watershed characteristics and stormwater pollution prevention alternatives.
- ii. Implementation Level – Maintain and publicize one point of contact for information on stormwater issues. Permittees may combine this function with the complaint/spill contact required in C.5.
- iii. Reporting – In the 2011 Annual Report, each Permittee shall discuss how this point of contact is publicized and maintained. If any change occurs in this contact, report in subsequent annual report.

**C.7.e. Public Outreach Events**

- i. Task Description – Participate in and/or host events such as fairs, shows, workshops, (e.g., community events, street fairs, and farmers’ markets), to reach a broad spectrum of the community with both general and specific stormwater runoff pollution prevention messages. Pollution prevention messages shall include encouraging residents to (1) wash cars at commercial car washing facilities, (2) use minimal detergent when washing cars, and (3) divert the car washing runoff to landscaped area.
- ii. Implementation Level – Each Permittee shall annually participate and/or host the number of events according to its population, as shown in the table below:

**Table 7.1 Public Outreach Events<sup>18</sup>**

Permittee Population	Number of Outreach Events
< 10,000	2
10,001– 40,000	3
40,001 – 100,000	4
100,001 – 175,000	5
175,001 – 250,000	6
> 250,000	8
Non-population-based Permittees <sup>19</sup>	6

Should a public outreach event contain significant citizen involvement elements, the Permittee may claim credit for both Public Outreach Events (C.7.e.) and Citizen Involvement Events (C.7.g.).

- iii. Reporting – In each Annual Report, each Permittee shall list the events (name of event, event location, and event date) participated in and assess the effectiveness of efforts with appropriate measures (e.g., success at reaching a broad spectrum of the community, number of participants compared to previous years, post-

<sup>18</sup> Permittees may claim individual credits for all events in which their Countywide Program or BASMAA participates, supports, and/or hosts, which are publicized to reach the Permittees jurisdiction.

<sup>19</sup> Contra Costa Flood Control and Water Conservation District



event survey results, quantity/volume materials cleaned up and comparisons to previous efforts).

**C.7.f. Watershed Stewardship Collaborative Efforts**

- i. Task Description – Permittees shall individually or collectively encourage and support watershed stewardship collaborative efforts of community groups such as the Contra Costa Watershed Forum, “friends of creek” groups (e.g., Friends of Marsh Creek Watershed), and other organizations that benefit the health of the watershed such as the Bay-Friendly Landscaping and Gardening Coalition. If no such organizations exist, encourage and support development of grassroots watershed groups or engagement of an existing group, such as a neighborhood association, in watershed stewardship activities. Coordinate with existing groups to further stewardship efforts.
- ii. Implementation Level – Annually demonstrate effort.
- iii. Reporting – In each Annual Report, each Permittee shall state the level of effort, describe the support given, state what efforts were undertaken and the results of these efforts, and provide an evaluation of the effectiveness of these efforts.

**C.7.g. Citizen Involvement Events**

- i. Task Description – Permittees shall individually or collectively, support citizen involvement events, which provide the opportunity for citizens to directly participate in water quality and aquatic habitat improvement, such as creek/shore clean-ups, adopt-an-inlet/creek/beach programs, volunteer monitoring, service learning activities such as storm drain inlet marking, community riparian restoration activities, community grants, other participation and/or host volunteer activities.
- ii. Implementation Level – Each Permittee shall annually sponsor and/or host the number of citizen involvement events according to its population, as shown in the table below:

**Table 7.2 Community Involvement Events<sup>20</sup>**

Permittee Population	Number of Involvement Events
< 10,000	1
10,001 – 40,000	1
40,001 – 100,000	2
100,001 – 175,000	3
175,001 – 250,000	4
> 250,000	5
Non-population-based Permittees	2

<sup>20</sup> Permittees can claim individual credit for all events sponsored or hosted by their Countywide Program or BASMAA, which are publicized to reach the Permittee’s jurisdiction.

Should a citizen involvement event contain significant public outreach elements, the Permittee may claim credit for both Citizen Involvement Events (C.7.g.) and Public Outreach Events (C.7.e.).

- iii. Reporting – In each Annual Report, each Permittee shall list the events (name of event, event location, and event date) participated in and assess the effectiveness of efforts with appropriate measures (e.g., success at reaching a broad spectrum of the community, number of participants compared to previous years, post-event survey results, number of inlets/creeks/shores/parks/and such adopted, quantity/volume materials cleaned up, data trends, and comparisons to previous efforts).

#### **C.7.h. School-Age Children Outreach**

- i. Task Description – Permittees shall individually or collectively implement outreach activities designed to increase awareness of stormwater and/or watershed message(s) in school-age children (K through 12).
- ii. Implementation Level – Implement annually and demonstrate effectiveness of efforts through assessment.
- iii. Reporting – In each Annual Report, each Permittee shall state the level of effort, spectrum of children reached, and methods used, and provide an evaluation of the effectiveness of these efforts.

#### **C.7.i. Outreach to Municipal Officials**

- i. Task Description – Permittees shall conduct outreach to municipal officials. One alternative means of accomplishing this is through the use of the Nonpoint Education for Municipal Officials program (NEMO) to significantly increase overall awareness of stormwater and/or watershed message(s) among regional municipal officials.
- ii. Implementation Level – At least once per permit cycle, or more often.
- iii. Reporting – Permittees shall summarize efforts in the 2013 Annual Report.

C.8. Water Quality Monitoring

- iv. Status Monitoring Location – One location in Marsh Creek (Marsh Creek Reservoir to San Joaquin River, partly in Delta Waterways, western portion)
- v. Status Monitoring Results – When Status Monitoring produces results such as those described in the final column of Table 8.1, Permittees shall conduct Monitoring Project(s) as described in C.8.c.i.

**C.8.d. Monitoring Projects** – Permittees shall conduct the Monitoring Projects listed below.

- i. **Stressor/Source Identification** – When Status results trigger a follow-up action as indicated in Table 8.1, Permittees shall take the following actions, as also required by Provision C.1. If the trigger stressor or source is already known, proceed directly to step 2. The first follow-up action shall be initiated as soon as possible, and no later than the second fiscal year after the sampling event that triggered the Monitoring Project.
  - (1) Conduct a site specific study (or non-site specific if the problem is widespread) in a stepwise process to identify and isolate the cause(s) of the trigger stressor/source. This study should follow guidance for Toxicity Reduction Evaluations (TRE)<sup>39</sup> or Toxicity Identification Evaluations (TIE).<sup>40</sup> A TRE, as adapted for urban stormwater data, allows Permittees to use other sources of information (such as industrial facility stormwater monitoring reports) in attempting to determine the trigger cause, potentially eliminating the need for a TIE. If a TRE does not result in identification of the stressor/source, Permittees shall conduct a TIE.
  - (2) Identify and evaluate the effectiveness of options for controlling the cause(s) of the trigger stressor/source.
  - (3) Implement one or more controls.
  - (4) Confirm the reduction of the cause(s) of trigger stressor/source.
  - (5) Stressor/Source Identification Project Cap: Permittees who conduct this monitoring through a regional collaborative shall be required to initiate no

<sup>39</sup> USEPA. August 1999. *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants*. EPA/833B-99/002. Office of Wastewater Management, Washington, D.C.

<sup>40</sup> Select TIE methods from the following references after conferring with SWAMP personnel: For sediment:  
(1) Ho KT, Burgess R., Mount D, Norberg-King T, Hockett, RS. 2007. *Sediment toxicity identification evaluation: interstitial and whole methods for freshwater and marine sediments*. USEPA, Atlantic Ecology Division/Mid-Continental Ecology Division, Office of Research and Development, Narragansett, RI, or  
(2) Anderson, BS, Hunt, JW, Phillips, BM, Tjeerdema, RS. 2007. *Navigating the TMDL Process: Sediment Toxicity*. Final Report- 02-WSM-2. Water Environment Research Federation. 181 pp. For water column:  
(1) USEPA. 1991. *Methods for aquatic toxicity identification evaluations. Phase I Toxicity Characterization Procedures*. EPA 600/6-91/003. Office of Research and Development, Washington, DC., (2) USEPA. 1993. *Methods for aquatic toxicity identification evaluations. Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity*. EPA 600/R-92/080. Office of Research and Development, Washington, DC., or (3) USEPA. 1996. *Marine Toxicity Identification Evaluation (TIE), Phase I Guidance Document*. EPA/600/R-95/054. Office of Research and Development, Washington, DC.

more than one Stressor/Source Identification project during the Permit term.

- (6) As long as Permittees have complied with the procedures set forth above, they do not have to repeat the same procedure for continuing or recurring exceedances of the same receiving water limitations unless directed to do so by the Central Valley Water Board.

ii. **BMP Effectiveness Investigation** – Investigate the effectiveness of one BMP for stormwater treatment or hydrograph modification control. Permittees who do this project through a regional collaborative are required to initiate no more than one BMP Effectiveness Investigation during the Permit term. If conducted through a stormwater countywide program, the East Contra Costa Permittees in the Central Valley Water Board Region shall be required to participate in one BMP Effectiveness Investigation. The BMP(s) used to fulfill requirements of C.3.b.iii. (Green Street Pilot Project) may be used to fulfill this requirement, provided the BMP Effectiveness Investigation includes the range of pollutants generally found in urban runoff. The BMP Effectiveness Investigation will not trigger a Stressor/Source Identification Project. Data from this Monitoring Project need not be SWAMP-comparable.

iii. **Geomorphic Project** – This monitoring is intended to answer the questions: How and where can our creeks be restored or protected to cost-effectively reduce the impacts of pollutants, increased flow rates, and increased flow durations of urban runoff?

Permittees shall select a waterbody/reach, preferably one that contains significant fish and wildlife resources, and conduct one of the following projects within the county:

- (1) Gather geomorphic data to support the efforts of a local watershed partnership<sup>41</sup> to improve creek conditions; or
- (2) Inventory locations for potential retrofit projects in which decentralized, landscape-based stormwater retention units can be installed; or
- (3) Conduct a geomorphic study which will help in development of regional curves which help estimate equilibrium channel conditions for different-sized drainages. Select a waterbody/reach that is not undergoing changing land use. Collect and report the following data:
  - Formally surveyed channel dimensions (profile), planform, and cross-sections. Cross-sections shall include the topmost floodplain terrace and be marked by a permanent, protruding (not flush with ground) monument.
  - Contributing drainage area.
  - Best available information on bankfull discharges and width and depth of channel formed by bankfull discharges.

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<sup>41</sup> A list of local watershed partnerships may be obtained from Central Valley Water Board staff.

C.8.g. Water Quality Monitoring: Reporting

the initial report due March 15, 2012. Each Urban Creeks Monitoring Report shall contain summaries of Status, Long-Term, Monitoring Projects, and Pollutants of Concern Monitoring including, as appropriate, the following:

- (1) Maps and descriptions of all monitoring locations;
- (2) Data tables and graphical data summaries; Constituents that exceed applicable water quality standards shall be highlighted;
- (3) For all data, a statement of the data quality;
- (4) An analysis of the data, which shall include the following:
  - Calculations of biological metrics and physical habitat endpoints.
  - Comparison of biological metrics to:
    - Each other
    - Any applicable, available reference site(s)
    - Any applicable, available index of biotic integrity
    - Physical habitat endpoints.
    - Identification and analysis of any long-term trends in stormwater or receiving water quality.
- (5) A discussion of the data for each monitoring program component, which shall:
  - Discuss monitoring data relative to prior conditions, beneficial uses and applicable water quality standards as described in the Basin Plan, or the California Toxics Rule or other applicable water quality control plans.
  - Where appropriate, develop hypotheses to investigate regarding pollutant sources, trends, and BMP effectiveness.
  - Identify and prioritize water quality problems.
  - Identify potential sources of water quality problems.
  - Describe follow-up actions.
  - Evaluate the effectiveness of existing control measures.
  - Identify management actions needed to address water quality problems.

**iv. Monitoring Project Reports** – Permittees shall report on the status of each ongoing Monitoring Project in each annual Urban Creeks Monitoring Report. In addition, Permittees shall submit stand-alone summary reports within six months of completing BMP Effectiveness and Geomorphic Projects; these reports shall include: a description of the project; map(s) of project locations; data tables and summaries; and discussion of results.

**v. Integrated Monitoring Report** – No later than March 15, 2014, Permittees shall prepare and submit an Integrated Monitoring Report on a countywide basis on behalf of participating Permittees, so that all monitoring conducted during the

C.9. Pesticides Toxicity Control

quality, and when necessary, encourage DPR to coordinate implementation of the California Food and Agriculture Code with California Water Code and to accommodate water quality concerns within its pesticide evaluation process;

- (3) Permittees shall assemble and submit information (such as monitoring data) as needed to assist the California DPR and County Agricultural Commissioners in ensuring that pesticide applications comply with water quality standards; and
- (4) As appropriate, Permittees shall submit comment letters on USEPA and California DPR re-registration, re-evaluation, and other actions relating to pesticides of concern for water quality.

- ii. **Reporting** – In the Annual Report, Permittees who participate in a regional effort to comply with C.9.e. may reference a regional report that summarizes regional participation efforts, information submitted, and how regulatory actions were affected. All other Permittees shall list their specific participation efforts, information submitted, and how regulatory actions were affected.

**C.9.f. Interface with County Agricultural Commissioners**

- i. **Task Description** – Permittees shall maintain regular communications with county agricultural commissioners (or other appropriate State and/or local agencies) to (1) get input and assistance on urban pest management practices and use of pesticides, (2) inform them of water quality issues related to pesticides, and (3) report violations of pesticide regulations (e.g., illegal handling) associated with stormwater management.
- ii. **Reporting** – In the Annual Report, Permittees shall summarize improper pesticide usage reported to county agricultural commissioners and report follow-up actions to correct violations.

**C.9.g. Evaluate Implementation of Source Control Actions Relating to Pesticides**

- i. **Task Description** – Permittees shall evaluate the effectiveness of the control measures implemented, evaluate attainment of pesticide concentration and toxicity targets for water and sediment from monitoring data (Provision C.8.), and identify improvements to existing control measures and/or additional control measures, if needed, to attain targets with an implementation time schedule.
- ii. **Reporting** – In the 2013 Annual Report, Permittees shall report the evaluation results, and if needed, submit a plan to implement improved and/or new control measures.

**C.9.h. Public Outreach** (may be done jointly with other Permittees, such as through CASQA or BASMAA and/or the Urban Pesticide Pollution Prevention Project or the Bay-Friendly Landscaping & Gardening Coalition).

- i. **Point of Purchase Outreach:** Permittees shall:
  - (1) Conduct outreach to consumers at the point of purchase;

- (2) Provide targeted information on proper pesticide use and disposal, potential adverse impacts on water quality, and less toxic methods of pest prevention and control; and
  - (3) Participate in and provide resources for the “Our Water, Our World” program or a functionally equivalent pesticide use reduction outreach program.
- ii. Reporting** – In the Annual Report, Permittees who participate in a regional effort to comply with C.9.h.i. may reference a report that summarizes these actions. All other Permittees shall summarize activities completed and document any measurable awareness and behavior changes resulting from outreach.
- iii. Pest Control Contracting Outreach:** Permittees shall conduct outreach to residents who use or contract for structural or landscape pest control and shall:
- (1) Provide targeted information on proper pesticide use and disposal, potential adverse impacts on water quality, and less toxic methods of pest prevention and control, including IPM;
  - (2) Incorporate IPM messages into general outreach;
  - (3) Provide information to residents about “Our Water, Our World” or functionally equivalent program;
  - (4) Provide information to residents about EcoWise Certified IPM certification in Structural Pest Management, or functionally equivalent certification program; and
  - (5) Coordinate with household hazardous-waste programs to facilitate appropriate pesticide waste disposal, conduct education and outreach, and promote appropriate disposal.
- iv. Reporting** – In the 2013 Annual Report, Permittees who participate in a regional effort to comply with C.9.h.iii. may reference a report that summarizes these actions. All other Permittees shall document the effectiveness of their actions in the 2013 Annual Report. This documentation may include percentages of residents hiring certified IPM providers and the change in this percentage.
- v. Outreach to Pest Control Operators:** Permittees shall conduct outreach to pest control operators (PCOs) and landscapers; Permittees are encouraged to work with DPR, county agricultural commissioners, UC-IPM, BASMAA, the Urban Pesticide Committee, the EcoWise Certified Program (or functionally equivalent certification program), the Bio-integral Resource Center and others to promote IPM to PCOs and landscapers.
- vi. Reporting** – In each Annual Report, Permittees who participate in a regional effort to comply with C.9.h.v. may reference a report that summarizes these actions. All other Permittees shall summarize how they reached PCOs and landscapers and reduced pesticide use.

C.11. Total Mercury and Methylmercury Control Program,

- iii. **Reporting** – The Permittees shall report monitoring results or program status annually beginning with their 2013 Annual Report.

**C.11.c. This section left intentionally blank**

**C.11.d. Pilot Project to Evaluate and Enhance Municipal Sediment Removal and Management Practices**

- i. **Task Description** – The Permittees shall participate in a project to evaluate ways to enhance mercury load reduction benefits of operation and maintenance activities that remove or manage sediment. The purpose of this task is to implement these management practices at the pilot scale in five drainages inter-region-wide during this permit term. The knowledge and experience gained through pilot implementation will be used to determine the feasibility and efficacy of enhanced sediment removal and management practices in subsequent permit terms. The Permittees shall document the knowledge and experience gained through pilot implementation, and this documentation will provide a basis for determining the implementation scope of enhanced sediment removal management practices in subsequent permit terms. The Permittees shall also quantify and report the amount of mercury loads removed or avoided resulting from implementation of these measures.

Sediment control/removal BMPs include:

- (1) Operational BMPs implemented under the Municipal Operations Element (Provision C.2.) – cleaning streets, detention basins, and storm-drainage pipelines, sumps and channels;
  - (2) Regional storm water treatment facilities implemented under the New Development and Redevelopment Element (Provision C.3.) (e.g., detention basins);
  - (3) Sediment control BMPs implemented under the Commercial/ Industrial Element (Provision C.4); and
  - (4) Erosion and sediment control BMPs implemented under the Construction Element (Provision C.6).
- ii. **Implementation Level** –The Permittees shall evaluate ways to enhance existing sediment removal and management practices such as municipal street sweeping, curb clearing parking restrictions, inlet cleaning, catch basin cleaning, stream and stormwater conveyance system maintenance, and pump station cleaning via increased effort and/or retrofits for the control of mercury. This evaluation shall also include consideration of street flushing and capture, collection, or routing to the sanitary sewer (in coordination and consultation with local sanitary sewer agencies) as a potential enhanced management practice in coordination and consultation with local sanitary sewer agencies.



**iii. Reporting**

- (1) The Permittees shall present a progress report on the results of the evaluation in their 2011 Annual Report and the final evaluation results in their 2012 Annual Report.
- (2) In their March 15, 2014 Integrated Monitoring Report, the Permittees shall report the effectiveness of enhanced practices pilot implementation, report estimates of loads reduced, and present a plan and schedule for possible expanded implementation for subsequent permit terms.

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**C.11.i Methylmercury Exposure Reduction Program**

**i. Task Description** – After US EPA approves the Delta methylmercury TMDL, the Permittees shall complete an Exposure Reduction Strategy as part of the Exposure Reduction Program (ERP). The ERP is not intended to replace timely reduction of mercury and methylmercury loads to Delta waters. Activities will require collaboration with public health agencies to develop an ERP strategy; submission of an Exposure Reduction Workplan; implementation of the workplan and reporting. If the Permittees do not participate in the collaborative effort to develop the ERP, the Central Valley Water Board will evaluate and implement strategies, consistent with the Central Valley Water Board’s authority, to assure participation from all Permittees or their representatives.

**(1)** By [one year after US EPA Delta methylmercury TMDL approval date], the Permittees shall work with Central Valley Water Board staff, State and local public health agencies and other stakeholders, including community-based organizations, tribes, and Delta fish consumers, to complete an Exposure Reduction Strategy. The purposes of the Strategy will be to recommend to the Executive Officer how Permittees will be responsible for participating in an ERP, to set performance measures, and to propose a collaborative process for developing, funding and implementing the program. The Strategy shall take into account the proportional share of methylmercury contributed by individual Permittees.

**ii. Implementation Level** – The exposure reduction activities may be performed by a third party if the Permittees wish to provide funding for this purpose. This requirement may be satisfied by a combination of related efforts through the Regional Monitoring Program or other similar collaborative efforts, as long as the efforts are consistent with the Exposure Reduction Strategy and fulfill the Exposure Reduction Workplan. The Permittees shall develop, submit, and implement an Exposure Reduction Workplan in accordance with the following:

- (1) The Permittees shall, either individually or collectively, or based on the Exposure Reduction Strategy, submit an Exposure Reduction Workplan for Executive Officer approval by [two years after US EPA Delta methylmercury TMDL approval date]. The ERP Workplan must include elements directed toward:
  - (a) Developing and implementing community-driven activities to reduce mercury exposure;
  - (b) Raising awareness of fish contamination issues among people and communities most likely affected by mercury in Delta-caught fish such as subsistence fishers and their families;
  - (c) Integrating community-based organizations that serve Delta fish consumers, Delta fish consumers, tribes, and public health agencies in the design and implementation of an exposure reduction program;
  - (d) Identifying resources, as needed, for community-based organizations and tribes to participate in the Program;
  - (e) Utilizing and expanding upon existing programs and materials or activities in place to reduce mercury, and as needed, create new materials or activities; and
  - (f) **Developing measures for program effectiveness.**
- (2) The Workplan shall address the Exposure Reduction Program objective, elements, and Permittees' coordination with other stakeholders. Permittees shall integrate or, at a minimum, provide good-faith opportunities for integration of community-based organizations, tribes, and consumers of Delta fish into planning, decision making, and implementation of exposure reduction activities. The Permittees shall implement the Workplan by [six months after Executive Officer approval of Workplan].
- iii. **Reporting** – Within three years after Workplan implementation begins, and every three years thereafter, the Permittees, individually or collectively, shall submit a progress report to the Executive Officer. Permittees shall participate in the Exposure Reduction Program until they comply with all requirements related to their individual or subarea methylmercury allocation.

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**C.11.k Public Education, Outreach and Participation Program**

- i. **Task Description** – The Permittees shall add mercury pollution prevention messages to the Public Outreach and Information Element (C.7) designed to reach residential, commercial and industrial users or sources of mercury-containing products or emissions. The Permittees shall include messages about mercury contamination in fish and Department of Public Health (DPH) fish consumption advisories.
- ii. **Implementation Level** – For public outreach (e.g., auto dismantlers) and municipal operations, the Permittees' mercury control programs (e.g., enhance

household hazardous waste collection program) shall coordinate with the countywide universal waste (U-Waste) management strategy in compliance with the Department of Toxic Substances Control (DTSC) Universal Waste Rule (Reference Number: R-97-08, Effective Date: 02/08/02). Participate with other organizations to develop programs to reduce or eliminate sources or mercury within the Permittees' urbanized area. Permittees may coordinate with publicly owned treatment works and other agencies to develop cooperative plans and programs.

- ii. **Reporting** – Describe in the Annual Reports specific coordination efforts related to mercury pollution prevention control (e.g., fluorescent lamp collections, public outreach, sustainable funding mechanisms, and U-waste tonnage tracking). Permittees shall summarize activities completed and document any measureable awareness and behavior changes resulting from outreach. Evaluate the effectiveness of the mercury control programs; provide recommendations for amending Permittees' mercury source control programs; and amend the mercury control programs in accordance with those recommendations.

#### C.11.1 Methylmercury Control Studies

- i. **Task Description** – After US EPA approves the Delta Mercury Control Program (methylmercury TMDL), the Permittees shall conduct methylmercury control studies to monitor and evaluate the effectiveness of existing BMPs on the control of methylmercury, and shall develop and evaluate additional BMPs as needed to reduce mercury and methylmercury discharges to the Delta and meet methylmercury waste load allocations. The studies shall quantify methylmercury loads and loads reduced through source control, treatment and other management measures as required in Provision C.8.g.
- ii. **Implementation Level** – The Permittees shall demonstrate progress toward completing the methylmercury control studies by submitting a Control Study Workplan by [nine months after the US EPA Delta methylmercury TMDL approval date]. The control study workplan shall include details for:
  - (1) Control Studies can be developed through a stakeholder group approach or other collaborative mechanism, or by the Permittees. The Permittees are not required to do individual studies if the Permittees join a collaborative study group(s).
  - (2) Control Studies shall be implemented through Control Study Workplan(s). The Control Study Workplan(s) shall provide detailed descriptions of how methylmercury control methods will be identified, developed, and monitored, and how effectiveness, costs, potential environmental effects, and overall feasibility will be evaluated for the control methods.
  - (3) The Control Study Work Plan(s) shall include details for organizing, planning, developing, prioritizing, and implementing the Control Studies.
  - (4) The Control Studies shall evaluate existing control methods and, as needed, additional control methods that could be implemented to achieve methylmercury load and waste load allocations. The Control Studies shall

evaluate the feasibility of reducing sources more than the minimum amount needed to achieve allocations.

- (5) The Control Studies also may include an evaluation of innovative actions, watershed approaches, offsets projects, and other short and long-term actions that result in reducing inorganic (total) mercury and methylmercury to address the accumulation of methylmercury in fish tissue and to reduce methylmercury exposure.
- (6) Permittees may evaluate the effectiveness of using inorganic (total) mercury controls to control methylmercury discharges.
- (7) Permittees may conduct characterization studies to inform and prioritize the Control Studies. Characterization studies may include, but not be limited to, evaluations of methylmercury and total mercury concentrations and loads in source waters, receiving waters, and discharges, to determine which discharges act as net sources of methylmercury, and which land uses result in the greatest net methylmercury production and loss.

**iii. Reporting** – The Permittees shall submit reports in compliance with the following schedule to the Central Valley Water Board:

- (1) By [four years after the US EPA Delta methylmercury TMDL approval date] the Permittees shall submit a Control Studies progress report.
- (2) By [seven years after US EPA Delta methylmercury TMDL approval date], the Permittees shall complete the Control Studies and submit a Final Report that present the results and descriptions of methylmercury control options, their preferred methylmercury controls, and proposed methylmercury management plan(s) (including implementation schedules), for achieving methylmercury allocations. Final reports for Control Studies shall include a description of methylmercury and/or inorganic (total) mercury management practices identified in during the studies; an evaluation of the effectiveness, and costs, potential environmental effects, and overall feasibility of the control actions. Final reports shall also include proposed implementation plans and schedules to comply with methylmercury allocations as soon as possible.
- (3) If the Control Study results indicate that achieving a given methylmercury allocation is infeasible, then the Permittees shall provide detailed information in the Final Report on why full compliance is not achievable, what methylmercury load reduction is achievable, and an implementation plan and schedule to achieve partial compliance.

C.12. Exempted and Conditionally Exempted Discharges

iii. **Discharge Types** – Planned,<sup>50</sup> Unplanned,<sup>51</sup> and Emergency Discharges of the Potable Water System

(1) **Planned Discharges** – Planned discharges are routine operation and maintenance activities in the potable water distribution system that can be scheduled in advance, such as disinfecting water mains, testing fire hydrants, storage tank maintenance, cleaning and lining pipe sections, routine distribution system flushing, reservoir dewatering, and water main dewatering activities. The following requirements only apply to those Permittees that are water purveyors and pertain to their planned discharges of potable water to their storm drain systems.

(a) **Required BMPs**<sup>52</sup> – The Permittees shall implement appropriate BMPs for dechlorination, and erosion and sediment controls for all planned potable water discharges.

(b) **Notification Requirements**

(i) The Permittees shall notify the Central Valley Water Board staff at least one week in advance for planned discharges with a flow rate of 250,000 gallons per day or more, or a total volume of 500,000 gallons or more. The Permittees shall also notify other interested parties who may be impacted by planned discharges, such as flood control agencies, downstream jurisdictions, and non-governmental organizations such as creek groups, before discharge. The notification shall include the following information, but is not limited to: (1) project name; (2) type of discharges; (3) receiving waterbody(ies); (4) date of discharge; (5) time of discharge (in military time); (6) estimated volume (gallons); and (7) estimated flow rate (gallons per day); and (8) monitoring plan of the discharges and receiving water. If receiving water monitoring is infeasible or is not practicable, justification shall be provided.

(c) **Monitoring and Reporting Requirements**

(i) The Permittees shall monitor planned discharges for pH, chlorine residual, and turbidity.

(ii) The following discharge benchmarks shall be used to evaluate the effectiveness of BMPs for all planned discharges:

- Chlorine residual 0.05 mg/L using the field test (Standard Methods 4500-Cl F and F) or equivalent
- pH ranges between 6.5 and 8.5

<sup>50</sup> Planned discharges typically result from required routine operation and maintenance activities that can be scheduled in advance. Planned discharges are easier to control than unplanned discharges, and the BMPs are significantly easier to plan and implement.

<sup>51</sup> Unplanned discharges are non-routine, the result of accidents or incidents that cannot be scheduled or planned for in advance.

<sup>52</sup> Reference for BMPs, monitoring methods: *Guidelines for the Development of Your BMP Manual for Drinking Water System Releases*. Developed by the California-Nevada Sections of the American Water Works Association (CA-NV AWWA), Environmental Compliance Committee (ECC) 2005.

- Turbidity of 50 NTU post-BMPs or limit increase in turbidity above background level as follows:

<u>Receiving Water Background</u>	<u>Incremental Increase</u>
Dry Creek	50 NTU
< 50 NTU	20% of background
50–100 NTU	10 NTU
> 100 NTU	10% of background

- (iii) The Permittees shall submit the following information with the Annual Report in tabular form for all planned discharges. Reporting content shall include, but is not limited to the following parameters: (1) project name; (2) type of discharge; (3) receiving waterbody(ies); (4) date of discharge; (5) duration of discharge (in military time); (6) estimated volume (gallons); (7) estimated flow rate (gallons per day); (8) chlorine residual (mg/L); (9) pH; (10) turbidity (NTU) for receiving water where feasible and point of discharge, and (11) description of implemented BMPs or corrective actions.
- (2) **Unplanned Discharges** – Unplanned discharges are non-routine activities such as water line breaks, leaks, overflows, fire hydrant shearing, and emergency flushing. The following requirements only apply to those Permittees that are water purveyors and pertain to their unplanned discharges of potable water to their storm drain systems.
- (a) **Required BMPs** – The Permittees shall implement appropriate BMPs for dechlorination and erosion and sediment control for all unplanned discharges upon containing the discharge and attaining safety of the discharge site.
- (b) **Administrative BMPs** – In some instances, the Permittees shall implement Administrative BMPs, such as source control measures, managerial practices, operations and maintenance procedures, or other measures to reduce or prevent potential pollutants from being discharged during unplanned discharges upon containing the discharge and attaining safety of the discharge site.
- (c) **Notification Requirements**
- (i) The Permittees shall report to the State Office of Emergency Services as soon as possible, but no later than two hours after becoming aware of (1) any aquatic impacts (e.g., fish kill) as a result of the unplanned discharges, or (2) when the discharge might endanger or compromise public health and safety.
- (ii) The Permittees shall report to Central Valley Water Board staff, by telephone or email as soon as possible, but no later than 24 hours after becoming aware of any unplanned discharges, where the total chlorine residual is greater than 0.05 mg/L and the total volume is approximately 50,000 gallons or more.
- Within five working days after the 24-hour telephone or email report, the Permittees shall submit a report

documenting the discharge and corrective actions taken to Central Valley Water Board staff and other interested parties.

**(d) Monitoring and Reporting Requirements**

- (i) The Permittees shall monitor at least 10% of their unplanned discharges for pH and chlorine residual, and visually assess each discharge for turbidity immediately downstream of implemented BMPs to demonstrate their effectiveness. After the implementation of appropriate BMPs, the discharge pH levels outside the discharge ranges (below 6.5 and above 8.5), chlorine residual above 0.05 mg/l, or moderate and high turbidity shall trigger BMP improvement. If the Permittees monitor more than 10% of the unplanned discharges, all monitoring results shall be included in the Annual Report.
  - (ii) The Permittees shall submit the following information with the Annual Report in tabular form for all unplanned discharges. The reporting format and content shall be as described in Provision C.12.b.ii.(1)(c)(iii) of the Planned Discharges above. In addition, these reports shall also state the time of discharge discovery, notification time, inspector arrival time, and responding crew arrival time.
  - (iii) After 18 months of consecutive data gathering, a Permittee may propose, to the Executive Officer, a reduced monitoring plan targeting specific “high-risk” or “environmentally sensitive” areas (i.e., areas that are prone to erosion and excess sedimentation at high flows, support rare or endangered species, or provide aquatic habitat with proven effective BMPs). Until the Executive Officer approves the reduced monitoring plan, the Permittee shall continue the monitoring plan prescribed in C.12.b.iii.(2)(d)(i).
- (3) **Emergency Discharges** – Emergency discharges are the result of firefighting, unauthorized hydrant openings, natural or man-made disasters (e.g., earthquakes, floods, wildfires, accidents, terrorist actions).

**Required BMPs**

- (a) The Permittees shall implement or require fire fighting personnel to implement BMPs for emergency discharges. However, the BMPs should not interfere with immediate emergency response operations or impact public health and safety. BMPs may include, but are not limited to, the plugging of the storm drain collection system for temporary storage, the proper disposal of water according to jurisdictional requirements, and the use of foam where there may be toxic substances on the property the fire is located.
- (b) During emergency situations, priority of efforts shall be directed toward life, property, and the environment (in descending order). The Permittees or fire fighting personnel shall control the pollution threat from their activities to the extent that time and resources allow.