

manner;

- c. Participate in intra-agency coordination (e.g. Public Works, Planning, Building, Fire Department, Code Enforcement, Public Health, etc.) necessary to successfully implement the provisions of this Order and the SWMP.
- d. Prepare an annual fiscal analysis identifying the expenditures for the storm water management program. This summary shall identify the storm water budget for the following year, using estimated percentages and written explanations where necessary, for the specific categories noted below:
 - i. Program management (administrative costs)
 - ii. SWMP Development
 - a) Construction Element
 - b) Commercial/Industrial Element
 - c) Municipal Operations and Facilities Element
- Maintenance of Structural BMPs and Treatment Control BMPs
 - d) Illicit Discharge and Detection Elimination Element
 - e) Public Outreach Element
 - f) Performance and Effectiveness Evaluations
 - iii. Planning and Land Development
 - iv. Monitoring Program
 - v. Water Quality Based Programs
 - vi. Training
 - vii. Other Services and Expenses

STORM WATER MANAGEMENT PROGRAM

2. The SWMP is required as part of the application pursuant to 40 CFR 122.26(2)(d)(iv); therefore it is an integral and enforceable component of the MS4 permit. In addition, the California Superior Court ruled, *"Because the Stormwater Management Plan is incorporated and is deemed an integral part of the Permits...any changes to the Plan are actually changes to the Permits. Because these are changes to the Permits, the notice and comment requirements must be complied with."* (*San Francisco Baykeeper vs. Regional Water Quality Control Board, San Francisco Bay Region*, Consolidated Case No. 500527, California Superior Court, 14 November 2003).
3. Upon adoption of this Order, each Permittee shall modify its SWMP to address the requirements of this Order and submit the SWMP by **6 June 2008** (or within six months after the Order is adopted, whichever is later), for public review and comment, and Regional Water Board approval.

New or revised BMPs may be based upon special studies or other activities conducted by the Permittees, literature review, or special studies conducted by other programs or dischargers. The SWMP shall contain the rationale for any new or revised BMPs and may include a discussion of baseline conditions, expected reductions in mass loading, and methods to be used to verify that BMPs have been successfully implemented. The SWMP shall include an implementation schedule containing identifiable milestones, detailed performance standards, and a compliance monitoring and reporting program. The performance standards shall be used as assessment tools to gauge the success of the program in achieving measurable benefits and improving water quality. The Permittees shall incorporate newly developed or updated BMPs and assessment tools/performance standards into applicable annual revisions to the SWMP and adhere to implementation of the new/revised BMPs. The approved SWMP shall serve as the framework for identification, assignment, and implementation of BMPs. Each Permittee shall implement or require implementation of BMPs in the approved SWMP to ensure that pollutant discharges from its MS4s are prevented or reduced to the MEP. Each Permittee shall implement a SWMP that contains the following components:

- a. Program Management
 - i. Legal Authority
 - ii. Fiscal Analysis

- b. Program Elements
 - i. Construction
 - ii. Industrial and Commercial
 - iii. Municipal Operations
 - iv. Illicit Connections/Illicit Discharges
 - v. Public Outreach
 - vi. Planning and Land Development (Development Standards)
 - vii. Monitoring Program
 - viii. Water Quality Based Program
 - ix. Program Effectiveness Assessment and Reporting

PROGRAM MANAGEMENT

4. **Program Management:** Program management involves ensuring that all elements of the SWMP are implemented on schedule and all requirements of this Order are complied with.
 - a. **Annual Work Plan:** The Permittees shall submit an Annual Work Plan by **1 April** of each year. The Annual Work Plan shall provide the SWMP's and the Permittees' proposed activities for the upcoming year beginning 1 July of current year and ending 30 June the following year.

- b. **Annual Report:** The Permittees shall submit an Annual Report by **1 September** of each year beginning with the 2007-2008 reporting period. The Annual Report shall document the status of the SWMP's and the Permittees' activities during the previous fiscal year, including the results of a qualitative and quantitative field level assessment of activities implemented by the Dischargers, and the performance of tasks contained in the SWMP. The Annual Report shall include a compilation of deliverables and milestones completed during the previous 12-month period, as described in the SWMP and Annual Work Plan. **The Annual Report shall include a program effectiveness assessment and recommended modifications to for each Program Element/Control Measure.** Each Annual Report shall build upon the previous year's efforts. In each Annual Report, the Permittees may propose pertinent updates, improvements, or revisions to the SWMP, which shall be complied with under this Order.
- c. **SWMP Implementation:** Each Permittee shall continue implementation of their current SWMP until such time that the SWMP has been modified to be consistent with this Order and approved by the Regional Water Board. Once approved, the Permittees shall implement the modified SWMP consistent with the schedule specified within this Order. The SWMP, with modifications, revisions, or amendments as may be approved by the Executive Officer or Regional Water Board, is an enforceable component of this Order.
- d. **SWMP Modification:** The Permittees' SWMP may need to be modified, revised, or amended from time to time to respond to a change in conditions and to incorporate more effective approaches to pollutant control. Provisions of this Order require review and/or revision of the certain components of the Permittees' SWMP. Proposed SWMP revisions will be part of the annual review process and incorporated in the Annual Report. In addition, the Permittees shall revise their SWMP to comply with regional or watershed-specific requirements, and/or waste load allocations developed and approved pursuant to the process for the designation and implementation of TMDLs for impaired water bodies, and/or amendments to the Basin Plan when the amendments become effective. A thirty-day public notice and comment period shall apply to all proposed significant revisions to the SWMP. Significant SWMP revisions shall be brought before the Regional Water Board for review and approval. Minor SWMP revisions may be approved by the Executive Officer.
- e. **Memorandum of Understanding:** The Permittees shall collaborate with each other to address common issues, promote consistency between SWMP and Monitoring Programs, and to plan and coordinate activities

- d. Description of how these ordinances are implemented and how enforcement actions under these ordinances may be appealed; and
 - e. Description of whether the municipality can issue administrative orders and injunctions or if it must go through the court system for enforcement actions.
8. **Fiscal Analysis:** Each Permittee shall **secure the resources** necessary to meet the requirements of this Order and shall prepare an annual fiscal summary as part of the SWMP Annual Report. This summary shall, for each fiscal year covered by this Order, identify the expenditures necessary to accomplish the activities of the SWMP. Such summary shall include a description of the source(s) of funds that are proposed to meet the necessary expenditures, including legal restrictions on the use of such funds.

Program Elements

9. Construction Program

- a. The objectives of the Construction Program are to:
 - i. Provide adequate legal authority to control pollutants to the MS4 from construction sites with land disturbance greater than or equal to one acre in size;
 - ii. Review construction plans and issue grading permits consistent with Permittee requirements;
 - iii. Require BMPs to control sediment and pollutants from construction sites to the MS4;
 - iv. Maintain a tracking systems (inventory) of active construction sites;
 - v. Inspect construction sites to ensure proper BMP implementation and compliance with local requirements [and applicable Provisions of this Order];
 - vi. Bring forth enforcement actions for sites in violation of Permittee requirements and advise the Regional Water Board of potential violations of Construction General Permit requirements;
 - vii. Provide regular internal and external training on applicable components of the SWMP and related Permits; and
 - viii. Conduct an assessment as a part of the annual reporting process, determine the effectiveness of the Program Element and identify

any necessary modifications.

- b. Each Permittee shall update and continue to implement the Construction Component of its SWMP to reduce pollutants in runoff from construction sites during all construction phases to the MEP. At a minimum the Construction Program shall address the objectives listed above, as well as the following control measures:
 - Source Identification
 - Threat to Water Quality Prioritization
 - Reporting of Non-compliant Sites
- c. Each Permittee shall continue to implement and enforce a program to control runoff from all construction sites subject to the NPDES General Construction Permit. The program shall ensure the following minimum requirements are effectively implemented at these construction sites:
 - i. Sediments generated on the project site shall be retained using adequate Source Control BMPs;
 - ii. Construction-related materials, wastes, spills, or residues shall be retained at the project site to avoid discharge to streets, drainage facilities, receiving waters, or adjacent properties by wind or runoff;
 - iii. Non-storm water runoff from equipment and vehicle washing and any other activity shall be contained at the project site;
 - iv. Erosion from slopes and channels shall be controlled by implementing an effective combination of BMPs such as limiting grading during the wet season; inspecting graded areas during rain events; planting and maintenance of vegetation on slopes; and covering erosion susceptible slopes.
 - v. Prior to issuing a grading permit for a construction site, require submittal of an erosion and sediment control plan to the permitting agency that contains, at a minimum, the following:
 - a) If applicable to the site, a certification that a Notice of Intent has been submitted to the State Water Board.
 - b) A vicinity map showing nearby roadways, the construction site perimeter, and the geographic features and general topography surrounding the site;
 - c) A site map showing the construction project in detail, including the existing and planned paved areas and buildings; general topography both before and after construction; drainage

patterns across the project area; and anticipated storm water discharge locations (i.e., the receiving water, a conduit to receiving water, and/or drain inlets);

- d) A description of BMPs to address contractor activities that generates pollutants including, at a minimum, vehicle washing, equipment maintenance, and waste handling.
- e) A description of the type and location of erosion and sediment control BMPs, including, but not limited to, limited grading during the wet season, and planting and maintenance of vegetation on slopes, to be employed at the site; and
- f) The name and telephone number of the qualified person responsible for implementing the Storm Water Pollution Prevention Plan (SWPPP).

d. Inspections

The Permittees shall include the inspection frequency for each construction site for compliance with local ordinances in the SWMP and shall continue to inspect each site until a notice of termination for coverage under the General Construction Permit is issued by the Regional Water Board. The inspections shall occur at a frequency determined to be effective by the Permittees and shall include a higher inspection frequency during the winter months (wet season) than during the summer months (dry season).

The Permittees shall inspect these sites for compliance with the local ordinances and the SWPPP components described above and as prescribed in the SWMP. In addition, if the Permittees observe chronic violations of their respective storm water ordinances at a given construction site, they shall notify the Regional Water Board as described in the SWMP. Each Permittee shall use its legal authority to promptly and effectively enforce its storm water ordinance to correct any violations observed during inspections.

10. Industrial/Commercial Program:

- a. The objectives of the Industrial/Commercial Program are to:
 - i. Provide adequate legal authority to control pollutants from industrial and commercial facilities to the MS4;

- ii. Develop and maintain an inventory of industrial and commercial facilities located within the Permittee's jurisdiction;
 - iii. Prioritize the industrial and commercial facilities within the inventory based on their threat to water quality;
 - iv. Conduct inspections of the industrial and commercial facilities that pose a significant threat to water quality with an inspection frequency based on the prioritization of the facility. Conduct follow-up inspections to bring the facility into compliance;
 - v. Implement a progressive enforcement policy to ensure that adequate enforcement is conducted and coordinated with the Regional Water Board regarding referrals of potential non-filers and inspection;
 - vi. Provide regular internal and external training on components of the SWMP and related Permits; and
 - vii. Conduct an assessment as a part of the annual reporting process, determine the effectiveness of the Program Element and identify any necessary modifications.
- b. Each Permittee shall update and continue to implement the Industrial/Commercial Component of its SWMP to reduce pollutants in runoff from industrial/commercial sites to the MEP. At a minimum, the Industrial/Commercial Program shall address the objectives listed above, as well as the following control measures:
- i. Facility Inventory
 - ii. Prioritization and Inspection
 - iii. Industrial/Commercial Outreach
 - iv. Enforcement
 - v. Training
 - vi. Effectiveness Assessment
- c. Each Permittee shall require implementation of pollutant reduction and control measures at industrial and commercial facilities, with the objective of effectively prohibiting non-storm water runoff and reducing pollutants in storm water runoff. Except as specified in other sections of this Order, pollutant reduction and control measures can be used alone or in combination, and can include Source and Treatment Control BMPs, which can be applied before, during, and/or after pollution generating activities.

11. **Municipal Program**

- a. The objectives of the Municipal Program are to:
 - i. Prevent sanitary sewer overflows (SSO) or spills from entering the storm drain system and respond quickly and appropriately if an SSO or spill does enter the storm drain system;
 - ii. Implement development standards that require source and treatment control BMPs to reduce pollutants from Permittee owned construction projects;
 - iii. Implement pollution prevention BMPs for public facilities (e.g., corporation yards and Facility Pollution Prevention Plans (FPPPs) for public facilities to minimize or eliminate pollutant discharges to the storm drain system;
 - iv. Implement a standard protocol for storage, usage, and disposal of pesticides, herbicides (including pre-emergents), and fertilizers on Permittee-owned property such as park sites, landscaped medians, and golf courses;
 - v. Promote the use of IPM methods and less toxic alternatives;
 - vi. Clean and maintain catch basin inlets to prevent debris accumulation and flooding;
 - vii. Ensure that catch basin inlets are properly stenciled, are permanently imprinted, or have legible curb markers to discourage illicit discharges into the storm drain system and promote the 24 hour hotline number;
 - viii. Maintain and inspect detention basins and pump stations;
 - ix. Conduct street sweeping activities;
 - x. Clean and inspect Permittee-owned parking facilities to minimize the build-up and discharge of pollutants to the storm drain system;
 - xi. Provide regular internal training on applicable components of the SWMP; and
 - xii. Conduct an assessment as a part of the annual reporting process, determine the effectiveness of the Program Element and identify any necessary modifications.
- b. Each Permittee shall update and continue to implement a Municipal Program in its SWMP to effectively prohibit non-storm water

discharges and prevent or reduce pollutants in runoff from all municipal land use areas, facilities, and activities to the MEP. At a minimum, the Municipal Program shall address the objectives listed above, as well as the following control measures:

- i. Sanitary Sewer Overflow and Spill Response;
- ii. New Development and Construction Requirements for Municipal Capital Improvement Projects;
- iii. Pollution Prevention at Permittee Facilities;
- iv. Landscape and Pest Management;
- v. Storm Drain System Maintenance;
- vi. Street Cleaning and Maintenance;
- vii. Parking Facilities Maintenance;
- viii. Detention Basin Construction and Maintenance;
- ix. Public Industrial Activities Management;
- x. Emergency Procedures;
- xi. Treatment Feasibility Study;
- xii. Non-emergency Fire Fighting Flows;
- xiii. Training; and
- xiv. Effectiveness Assessment.

12. Illicit Discharge Detection and Elimination Program

- a. The objectives of the Illicit Discharge Detection and Elimination Program are to:
 - i. Provide adequate legal authority to control and/or prohibit pollutants from being discharged to the municipal storm drain system;
 - ii. Proactively detect illicit discharges and illegal connections through a variety of mechanisms including, but not limited to, public reporting, dry weather monitoring, and field crew inspections;
 - iii. Upon identification of an illegal connection, investigate and eliminate the connection through a variety of mechanisms including, but not limited to, permitting or plugging the connection;
 - iv. Upon identification of an illicit discharge, investigate the discharge and conduct any necessary follow up actions to mitigate the impacts of the discharge; and
 - v. Conduct an assessment as a part of the annual reporting process; determine the effectiveness of the Program Element and identify any necessary modifications.
- b. Each Permittee shall update and continue to implement an Illicit Discharge Detection and Elimination Program component of the

SWMP to actively seek and eliminate illicit discharges and connections. At a minimum, the Illicit Discharge Detection and Elimination Component shall address the objectives listed above and include the following control measures:

- i. Detection of Illicit Discharges and Illegal Connections;
- ii. Illegal Connection Identification and Elimination;
- iii. Investigation/Inspection and Follow-up Procedures;
- iv. Enforcement of Local Codes and Ordinances;
- v. Training; and
- vi. Effectiveness Assessment.

13. Public Outreach and Public Education (Collectively Public Outreach Program):

- a. Each Permittee shall implement a Public Outreach Program using all media as appropriate to (1) measurably increase the knowledge of target communities regarding MS4s, impacts of urban runoff on receiving waters, and potential BMP solutions for the target audience; and (2) to change the behavior of target communities and thereby reduce pollutant releases to MS4s and the environment. To accomplish these goals, the following objectives are addressed:
 - i. Encourage the public to actively participate in the implementation of the storm water program as well as the various outreach events;
 - ii. Promote the use of the 24-hour public reporting hotline;
 - iii. Implement a public education strategy for the overall program that includes developing and distributing materials, conducting a mixed media campaign, participating in community outreach events, and conducting public opinion surveys to gauge the level of awareness and behavior change within a community and/or target audience;
 - iv. Evaluate the ability to interface and coordinate with school education programs on a state, regional or local level;
 - v. Implement a business outreach program; and
 - vi. Conduct an assessment as a part of the annual reporting process, determine the effectiveness of the Program Element and identify any necessary modifications.

- b. Each Permittee shall update and continue to implement the Public Outreach Component of its SWMP to educate the public and encourage their participation in the implementation of the SWMP. At a minimum, the Public Outreach Program shall address the objectives listed above and include the following control measures:
 - i. Public Participation;
 - ii. Hotline;
 - iii. Public Outreach Implementation;
 - iv. Public School Education;
 - v. Business Outreach; and
 - vi. Effectiveness Assessment.
- c. Each Permittee shall incorporate a mechanism for **public participation** in the implementation of the SWMP (i.e., programs that engage the public in cleaning up creeks, removal of litter in river embankments, stenciling of storm drains, etc.).

PLANNING AND LAND DEVELOPMENT PROGRAM

14. The objectives of the Planning and Land Development Program are as follows:
 - a. Incorporate water quality and watershed protection principles into the Permittee's policies and planning procedures;
 - b. Ensure that selected post-construction storm water controls will remain effective upon project completion by requiring a maintenance agreement and transfer or establishing a maintenance district zone for all priority development projects;
 - c. Provide a comprehensive review of development plans to ensure that storm water quality controls are properly selected to minimize storm water quality impacts;
 - d. Provide regular internal training on applicable components of the SWMP; and
 - e. As a part of the annual reporting process, conduct an assessment (at least annually) to determine the effectiveness of the Program Element and identify any necessary modifications.
15. Each Permittee shall update and continue to implement the Planning and Land Development Component of its SWMP to minimize the short and long-term impacts on receiving water quality from new development and redevelopment. At a minimum, the Planning and Land Development Program shall address the objectives listed above and include the following

control measures:

- a. Incorporation of Water Quality Protection Principles into Permittee Procedures and Policies;
- b. New/Revised Development Standards;
- c. Plan Review Sign-Off;
- d. Maintenance Agreement and Transfer;
- e. Training; and
- f. **Effectiveness Assessment.**

16. **Water Quality Planning and Design Principles** - In order to reduce pollutants and runoff flows from new development and redevelopment each Permittee shall address the following concepts:

- a. Each Permittee shall incorporate water quality and watershed protection principles into planning procedures and policies such as the Development Standards and requirements to direct land-use decisions and require implementation of consistent water quality protection measures for all development projects. These principles and policies shall be designed to protect natural water bodies, reduce impervious land coverage (such as through low impact development design), slow runoff to prevent hydromodification of waterways, and where feasible, maximize opportunities for infiltration of rainwater into soil. Such water quality and watershed protection principles and policies shall consider, at a minimum, the following:
 - i. Minimize the amount of impervious surfaces and directly connected impervious surfaces in areas of new development and redevelopment and where feasible to maximize on-site infiltration of runoff (low impact development concepts).
 - ii. Implement pollution prevention methods supplemented by pollutant source controls and treatment. Where practical, use strategies that control the sources of pollutants or constituents (i.e., the point where water initially meets the ground) to minimize the transport of urban runoff and pollutants offsite and into MS4s.
 - iii. Preserve, and where possible, create or restore areas that provide important water quality benefits, such as riparian corridors, wetlands, and buffer zones.
 - iv. Limit disturbances of natural water bodies and natural drainage systems caused by development including roads, highways, and bridges.

cooperative plans and programs.

29. In support of the Water Quality Based Programs, the Permittees shall develop and/or implement the storm water monitoring program as defined in the Monitoring and Reporting Program.

The storm water monitoring program consists of the following elements:

- Baseline Monitoring
 - Urban Discharge Monitoring
 - Receiving Water Monitoring
 - Water Column Toxicity Monitoring
 - Dry Weather Field screening
- Sediment Toxicity and Bioassessment
- Water Quality Based Programs
 - Pesticide Plan
 - Low Dissolved Oxygen Plan
 - Pathogen Plan
 - Mercury Plan
- Special Studies
 - Detention Basin Monitoring
 - BMP Effectiveness Studies

The Permittees shall implement the Water Quality Monitoring program pursuant to the MRP and SWMP. Ultimately, the results of the MRP will be used to identify necessary BMPs, refine the SWMP to reduce pollutant loads, and protect and enhance the beneficial uses of the receiving waters in the Stockton Urbanized Area.

30. **Program Effectiveness Assessment**

- a. The Permittees shall assess the effectiveness of their SWMP in their Annual Reports. The assessment shall identify the direct and indirect measurements that the Permittees used to track the effectiveness of their programs as well as the outcome levels at which the assessment is occurring consistent with this Order. Direct and indirect measurements shall include, but not limited to, conformance with established Performance Standards, quantitative monitoring to assess the effectiveness of Control Measures, measurements or estimates of pollutant load reductions or increases from identified sources, raising awareness of the public, and/or detailed accounting/documentation of SWMP accomplishments.

- b. The Permittees shall track the long-term progress of their SWMP towards achieving improvements in receiving water quality.
- c. The Permittees shall use the information gained from the program effectiveness assessment to improve their SWMPs and identify new BMPs, or modification of existing BMPs. This information shall be reported within the Annual Reports consistent with this Order.
- d. Long Term Effectiveness Assessment (LTEA) Strategy: Each Permittee shall collaborate with the other Permittees to develop a LTEA strategy, which shall build on the results of the Permittees' Annual Reports and the initial program effectiveness assessments. The LTEA shall be submitted to the Regional Water Board no later than 180 days prior to the permit expiration date (by June 2010) and shall identify how the Permittees will conduct a more comprehensive effectiveness assessment of the storm water program as part of the SWMP. The strategy will address the storm water program in terms of achieving both programmatic goals (raising awareness, changing behavior) and environmental goals (reducing pollutant discharges, improving environmental conditions).

ADDITIONAL REQUIREMENTS

- 31. **Monitoring and Reporting Program:** The Permittees shall comply with Monitoring and Reporting Program No. R5-2007-0173, which is part of this Order, and any revisions thereto approved by the Board. Because the Permittees operate facilities which discharge waste subject to this Order, this Monitoring and Reporting Program is necessary to ensure compliance with these waste discharge requirements.
- 32. This Order may be modified, or alternatively, revoked or reissued, prior to the expiration date as follows: a) to address significant changed conditions identified in the technical reports required by the Regional Water Board which were unknown at the time of the issuance of this Order; b) to incorporate applicable requirements of statewide water quality control plans adopted by the State Water Board or amendments to the Basin Plan approved by the State Water Board; or c) to comply with any applicable requirements, guidelines, or regulations issued or approved under Section 402(p) of the CWA, if the requirement, guideline, or regulation so issued or approved contains different conditions or additional requirements not provided for in this Order. The Order as modified or reissued under this paragraph shall also contain any other requirement of the CWA when applicable.
- 33. Each Permittee shall comply with all applicable items of the "Standard Provisions and Monitoring Requirements for Waste Discharge Requirements (NPDES)," dated February 2004, which are part of this Order. This

attachment and its individual paragraphs are referred to as "Standard Provisions."

34. This Order expires on **6 December 2012**. The Permittees must file a Report of Waste Discharge (RWD) in accordance with Title 23, California Code of Regulations, not later than 180 days in advance of such date as application for re-issuance of waste discharge requirements. U.S. EPA 40 CFR Part 122 *Interpretive Policy Memorandum on Reapplication Requirements for Municipal Separate Storm Sewer Systems* states the fourth year annual report may be used as the RWD reapplication package. The reapplication package must identify any proposed changes or improvement to the SWMP, an assessment of the effectiveness of the program, and monitoring activities for the upcoming five year term of the permit, if those proposed changes have not already been submitted pursuant to 40 CFR 122.42 (c).

I, PAMELA C. CREEDON, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Central Valley Region, on **6 December 2007**.

PAMELA C. CREEDON, Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. R5-2007-0173
NPDES NO. CAS083470

MONITORING AND REPORTING PROGRAM

CITY OF STOCKTON
AND
COUNTY OF SAN JOAQUIN
STORM WATER DISCHARGES FROM
MUNICIPAL SEPARATE STORM SEWER SYSTEM
SAN JOAQUIN COUNTY

I. **MONITORING AND REPORTING PROGRAM REQUIREMENTS**

This Monitoring and Reporting Program (MRP) is issued pursuant to Water Code Section 13267. MRP No. R5-2007-0173 is necessary to determine compliance with Order No. R5-2007-0173, and to determine the effectiveness of the storm water program.

The Permittees shall not implement any changes to this MRP unless and until the Regional Water Board or Executive Officer issues a revised MRP. Attachment A shows the City of Stockton limits and the San Joaquin County urbanized areas (collectively called Stockton Urbanized Area) which are covered under this Order. To save time and money, and avoid duplication of efforts, the Permittees shall coordinate their monitoring program with local, state, and federal agencies whenever possible.

- A. **Annual Work Plan:** By **1 April 2008**, each Permittee shall submit an Annual Work Plan that supports the development, implementation, and effectiveness of the approved Storm Water Management Plan (SWMP) and Order No. R5-2007-0173.
- B. **Annual Report:** The Permittees shall submit, in both electronic and paper formats and no later than **1 September** of each year, an Annual Report documenting the progress of the Permittees' implementation of the SWMP and the requirements of Order No. R5-2007-0173. The Annual Report shall cover each fiscal year from **1 July through 30 June**. The status of compliance with permit requirements including implementation dates for all time-specific deadlines should be included for each program area. If permit deadlines are not met, the Permittees shall report the reasons why the requirement was not met and how the requirements will be met in the future, including projected implementation dates. A comparison of program implementation results to performance standards established in the SWMP

and Order No. R5-2007-0173 shall be included for each program area. Specific requirements that must be addressed in the Annual Reports are listed below.

1. An Executive Summary discussing the effectiveness of the SWMP to reduce storm water pollution to the MEP.
2. Summary of activities conducted by the Permittees;
3. Identification of BMPs and a discussion of their effectiveness at reducing urban runoff pollutants; and
4. Summary of the monitoring data and an assessment of each component of the MRP. To comply with Provisions D.1 and D.2 of the Order No. R5-2007-0173 the Permittees shall compare receiving water and discharge data with applicable water quality standards. The lowest applicable standard from the Basin Plan, California Toxics Rule (CTR), and California Title 22 (Title 22), and constituent specific concentrations limits (e.g., mercury) shall be used for comparison. When the data indicate that discharges are causing or contributing to exceedances of applicable water quality standards or constituent specific concentrations limits, the Permittees shall prepare a Report of Water Quality Exceedance and identify potential sources of the problems, and recommend future monitoring and BMP implementation measures to identify and address the sources.

Raw data are required to be submitted in electronic format.

5. For each water quality program plan requirement (e.g., Pathogen Plan) the Annual Reports shall include the following results and information:
 - a. all physical, chemical and biological data collected in the assessment;
 - b. all graphs, charts, statistical analysis, modeling, and any other analytical analyses in support of the Permittees' evaluation of the data and conclusions derived from that analysis; and
 - c. documentation of quality assurance and control procedures (QA/QC).
6. Effectiveness assessment for each program element, as defined in the SWMP, shall be conducted annually, shall be built upon each consecutive year, and shall identify any necessary modifications. The SWMP shall describe, in detail, the performance standards or goals to

use to gauge the effectiveness of the storm water management program. The primary questions that must be assessed for each program element include the following:

- a. Level 1 Outcome: Was the Program Element implemented in accordance with the Permit Provisions, SWMP Control Measures and Performance Standards?
 - b. Level 2 Outcome: Did the Program Element raise the target audience's awareness of an issue?
 - c. Level 3 Outcome: Did the Program Element change a target audience's behavior, resulting in the implementation of recommended BMPs?
 - d. Level 4 Outcome: Did the Program Element reduce the load of pollutants from the sources to the storm drain system?
 - e. Level 5 Outcome: Did the Program Element enhance or change the urban runoff and discharge quality?
 - f. Level 6 Outcome: Did the Program Element enhance or change receiving water quality?
7. A summary of any Reports of Water Quality Exceedance (RWQEs) that have been completed during the year, and a status update for those in progress. The summary shall include the conclusions and recommendations of completed RWQEs and the status of any additional BMP implementation pursuant to RWQEs;
 8. Pursuant to 40 CFR 122.42(c)(7), the Permittees shall identify water quality improvements in, or degradation of, urban storm water;
 9. An estimation of total annual pollutant loads due to storm water/urban runoff for each baseline monitoring sampling station.
 10. For each monitoring component, photographs and maps of all monitoring station locations and descriptions of each location; and
 11. Recommendations to improve the monitoring program, BMPs, Performance Standards, and the SWMP to address potential receiving water quality exceedances and potential pollutant sources, and to meet the MEP standard.

basins stimulate methylmercury production. The Permittees may propose a joint study with other Central Valley MS4 permittees if they can demonstrate that data collected in other jurisdictions is applicable to detention basins in the Permittees' jurisdictions.

B. **BMP Effectiveness Study**

The Permittees shall conduct or participate with Modesto and Sacramento-area Permittees in two studies (e.g., low impact development) to evaluate the effectiveness of source or treatment control BMPs. The Permittees may choose to conduct one BMP study each or may choose to contribute to studies by one of the Permittees. The objective of this study shall include the following:

1. Monitor the reduction of pollutants of concern in storm water including, but not limited to, pathogen indicators, nutrients, heavy metals, and pesticides from a minimum of one BMP that has been properly installed within the year preceding monitoring. Monitoring shall be continued until the effectiveness of the BMP can be determined;
2. Evaluate the requirements for and installation and maintenance cost of each BMP; and
3. Develop recommendations for appropriate BMPs for the reduction of pollutants of concern in storm water in the Stockton Urbanized Area.

IV. **STANDARD MONITORING PROVISIONS**

All monitoring activities shall meet the following requirements:

A. Monitoring and Records [40 CFR 122.41(j)(1)]

Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.