The discharger shall incorporate newly developed or updated BMPs and assessment tools/Performance Standards acceptable to the Executive Officer, into 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. The Discharger shall develop and implement a SWMP that contains the following elements:

a. Program Management
   i. Legal Authority
   ii. Fiscal Resources

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

PROGRAM MANAGEMENT

3. **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 Discharger shall submit an Annual Work Plan by **1 April** of each year starting April 2009. The Annual Work Plan shall provide the Discharger's proposed activities and any proposed modifications to the SWMP for the upcoming year beginning 1 July of current year and ending 30 June the following year. The work plan must specifically identify any recommended changes to the program from the previous year's work plan.

   b. **Annual Report:** The Discharger shall submit an Annual Report by **1 September** of each year. The Annual Report shall document the status of the SWMP and the activities during the previous fiscal year, including the results of a qualitative and quantitative field level assessment of activities implemented by the Discharger, 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 Work Plan. The Annual Report shall include a program effectiveness assessment and recommended modifications for each Program Element/Control Measure. Each Annual

6. The Discharger shall provide to the Regional Water Board a statement certified by its chief legal counsel that the discharger has adequate legal authority to implement and enforce each of the requirements contained in 40 CFR 122.26(d)(2)(i)(A-F) and this Order, including any modifications thereto in effect when the certified statement is provided. This statement shall be included in the revised SWMP, which shall describe the following:

   a. Citation of urban-runoff-related ordinances and the reasons they are enforceable;

   b. Progressive Enforcement Policy and how it will be effectively implemented;

   c. Identification of the local administrative and legal procedures available to mandate compliance with urban runoff related ordinances and therefore with the conditions of this Order;

   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.

7. **Fiscal Analysis:** The Discharger 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, evaluate the expenditures (such as capital, operation and maintenance, education, and administrative expenditures) necessary to accomplish the activities outlined in SWMP. Such analysis 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

8. **Construction Program**

   a. The objectives of the Construction Program are to:

      i. Provide adequate legal authority to control pollutants 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 Discharger requirements;

iii. Require BMPs to control sediment and pollutants from construction sites;

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. Pursue 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.

ix. Implement SWPPPs that requires an effective combination of erosion and sediment control BMPs to reduce pollutants from City-owned construction projects.

b. The Discharger 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 and include the following control measures:

i. Construction Program Legal Authority
ii. Plan Review and Approval Process
iii. Construction Projects Database
iv. Pollution Prevention at Capital Improvement Projects
v. Construction Site BMP Implementation and Inspections
vi. Enforcement Action for Construction Sites
vii. Training Focused on Construction Activities
viii. New Development and Construction Requirements for Municipal Capital Improvement Projects
ix. Effectiveness Assessment Strategy

c. The Discharger 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 all of these construction sites:

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 source and/or treatment control BMPs to be employed at the site; and

f) The name and telephone number of the qualified person responsible for implementing the SWPPP.

d. Inspections

The Discharger 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 the Regional Water Board issues a notice of termination for coverage under the General Construction Permit. The inspections shall occur at a frequency determined to be effective by the Discharger and shall include a higher inspection frequency during the winter months (wet season) than during the summer months (dry season).

The Discharger 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 Discharger observes chronic violations of their respective storm water ordinances at a given construction site, the Discharger shall notify the Regional Water Board. The Discharger shall use its legal authority to promptly and effectively enforce its storm water ordinance to correct any violations observed during inspections.

9. **Industrial/Commercial Business Program:**

a. The objectives of the Industrial/Commercial Business Program are to:

i. Provide adequate legal authority to control pollutants from industrial and commercial facilities;

ii. Develop and maintain an inventory of industrial and commercial facilities within the Discharger'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 with local ordinances;

v. Implement a progressive enforcement policy to ensure that adequate enforcement is conducted and coordinate with the Regional Water Board regarding referrals of potential non-filers and inspections;

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. The Discharger 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. The Discharger 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.

10. **Municipal Operations 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 City-owned construction sites;

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 Discharger-owned property such as park sites, landscaped medians, and golf courses;

v. Promote the use of Integrated Pest Management (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;

viii. Promote the use of the 24-hour public reporting hotline number;

ix. Maintain and inspect retention/detention basins and pump stations;

x. Conduct street sweeping activities;

xi. Clean and inspect Discharger-owned parking facilities to minimize the build-up and discharge of pollutants to the storm drain system;

xii. Provide regular internal training on applicable components of the SWMP; and

xiii. Conduct an assessment as a part of the annual reporting process, determine the effectiveness of the Program Element and identify any necessary modifications.

xiv. Implement plan to minimize environmental damage during emergency situations.

b. The Discharger 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 and include the following control measures:

i. Sanitary Sewer Overflow and Spill Response
ii. Pollution Prevention at Discharger Facilities
iii. Landscape and Pest Management
iv. Storm Drain System Maintenance (including rock wells)
v. Street Cleaning and Maintenance
vi. Parking Facilities Maintenance
vii. Detention Basin Maintenance
viii. Emergency Procedures
ix. Non-emergency Fire Fighting Flows
x. Training
xi. Effectiveness Assessment

11. **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 exceedance of action levels identified in the SWMP 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;

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. The Discharger 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
iv. Enforcement of Local Codes and Ordinances
v. Training
vi. Effectiveness Assessment

12. **Public Outreach and Public Education Program (Collectively Public Outreach Program):**

a. The Discharger 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 to be 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. The Discharger 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. 24-Hour Hotline
iii. Public Outreach Implementation
iv. Public School Education

v. Business Outreach
vi. Construction Outreach
vii. Effectiveness Assessment

c. The Discharger 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

13. The objectives of the Planning and Land Development Program are as follows:

a. Incorporate water quality and watershed protection principles into the Discharger'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.

14. The Discharger 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 City Procedures and Policies
b. New/Revised Development Standards
c. Plan Review Sign-Off
d. Maintenance Agreement and Transfer
e. Training
f. Effectiveness Assessment

iv. The Discharger shall work with the pesticide control stakeholders and other municipal storm water management agencies to assess which pesticide products and uses pose less risk to surface water quality. When applicable, such products will be incorporated into the Pesticide Plan. The Discharger shall also work with the Regional Water Board and other agencies in implementing the control program for pesticides in the Tuolumne River and Dry Creek.

SPECIAL STUDIES

27. **Targeted Pollutant Reduction Program**

During the previous permit term, the Discharger identified aluminum (total), copper (total), lead (total), iron (total),diazinon, Escherichia coli, fecal coliform, pH, total dissolved solids and turbidity that exceeded water quality objectives or that the City identified as a pollutant of concern (POC) in receiving water and urban water discharges. The Discharger shall:

a. POC Identification Report

Continue to evaluate and prioritize the pollutants in its discharge and determine any new POC. This report shall consider and expand on the previous effort by the Discharger to develop a list of POCs and pollutant of interest (POI). Pollutants shall be prioritized by considering the following: Pollutants listed as causing impairment in the San Joaquin River and Lower Tuolumne River and present in the storm water discharge; Pollutants causing toxicity in urban runoff or local receiving waters; Pollutants identified in urban runoff that may cause or contribute to exceedances of water quality standards in the Central Valley Region Water Quality Control Plan (Basin Plan) and California Toxics Rule (CTR); Issues of significant public or regulatory concern; and controllability of urban runoff pollutants through implementation of available control practices.

b. POC Reduction Report

By the **4th year** of this permit term, submit a report identifying POCs and a plan to reduce or eliminate the pollutants from entering surface waters to the MEP. The report shall incorporate work plan(s) for pollutants identified above for the controllable sources of the POCs and evaluate the effectiveness of BMPs currently implemented and/or propose additional BMPs that may be implemented to prevent or reduce the pollutants to the MEP. The evaluation shall consider capital and operational costs, technical feasibility, regulatory limitations, and other considerations

identified by the City. The report shall also identify institutional needs, including policies, procedures and/or ordinances, for addressing the POC.

28. **Rock Well and Groundwater Monitoring**

The Discharger shall update and submit the Rock Well Assessment Plan (RWAP) in the revised SWMP. The purpose of the RWAP is to evaluate pollutant removal effectiveness and potential impacts on groundwater. In the prior permit term, the Discharger monitored two rock well installations at residential sites. The results of the investigation were inconclusive and additional study of the issue is necessary. The amended RWAP shall include a comprehensive plan with an implementation schedule and include, at a minimum, the following:

a. A monitoring plan, which shall include a sampling and analysis plan. The Monitoring plan shall state the objective of the monitoring effort, site selection process, and proposed sampling plan and schedule. The sampling and analysis plan shall include the following:

i. List of constituents to be analyzed based on the City's pollutant of concern analysis.
ii. Sampling frequency of at least **two storm events** and **two monitoring events during the dry season**.
iii. Representative rock wells based on land use areas for residential, industrial, and commercial (minimum of two for each land use), runoff characteristics, rock well installation, soil conditions, and potential for groundwater impact.

b. All data shall be provided electronically and be included in the Annual Reports as required in this MRP Order.

c. Coordination with USGS ongoing National Water Quality Assessment Program and Modesto Irrigation District efforts to characterize sources of pollutants and track groundwater contamination. The Discharger shall coordinate with USGS to combine or complement monitoring efforts to optimize the rock well assessment.

d. Schedule for completing the assessment and preparing a final report by year five of the permit term. The final report shall include summary of monitoring data, analysis of vadose zone and groundwater quality, compared to storm water runoff samples (wet and dry weather), and recommendations regarding rock well installation and maintenance for the protection of groundwater quality. Groundwater quality results shall be summarized in the Annual Report in a table format showing the comparison of data to the applicable water quality standards.

Water quality standards are provided by the Regional Water Board at: http://www.waterboards.ca.gov/centralvalley/water_issues/water_quality_standards_limits/.

29. **Peak Discharge Impact Study**

The Discharger shall continue to conduct a study to determine the extent of erosion of natural stream channels and banks caused by urbanization. If appropriate, the Discharger shall evaluate peak flow control and determine numeric criteria to prevent or minimize erosion of natural stream channels and banks cause by urbanization.[13]

30. **Treatment Feasibility Study**

The Discharger shall submit a report describing the feasibility of diverting dry weather flows to the sanitary sewer system or treatment control BMPs from the positive drainage system, which may impact public health and safety and/or the environment. The Report shall include a watershed based priority list of outfalls for potential diversion or treatment and the feasibility of diverting dry weather flows. The Report shall be submitted as follows:

a. Within **6 months** after adoption of this permit, submit a work plan to complete this study including details of tasks and a time schedule for completion.

b. By **year 2** of this permit, submit a list of prioritized outfalls based on flow, concentration of POCs and feasibility of connecting to the sanitary sewer system or directing the dry weather flow to a treatment control facility.

c. By **year 3** of this permit, submit a feasibility study to connect or treat any or all flows to the sanitary sewer system or treatment control facility.

d. By **year 4**, submit recommendations and an implementation time schedule.

31. **BMP Effectiveness Study**

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

[13] Development Standards require the development of numerical criteria for peak flow control in natural drainage systems.

a. 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;

b. Evaluate the requirements for and installation and maintenance cost of each BMP; and

c. Develop recommendations for appropriate BMPs for the reduction of pollutants of concern in storm water in the Modesto Urbanized Area.

32. **Program Effectiveness Assessment**

a. The Discharger shall assess the effectiveness of their SWMP in their Annual Reports. The assessment shall identify the direct and indirect measurements that the Discharger 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 Discharger shall track the long-term progress of their SWMP towards achieving improvements in receiving water quality.

c. The Discharger 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: The Discharger shall develop a LTEA strategy, which shall build on the results of the Discharger's 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 December 2012) and shall identify how the Discharger 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).

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 Discharger 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 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.

12. Provide operating data from all city pump stations as an appendix in electronic format on an annual basis only to assist in calculating flow volumes, as applicable.

C. **Certification:** All work plans and reports submitted to the Regional Board shall be signed and certified pursuant to Federal regulations at 40 CFR 122.41 (k). Each report shall contain the following completed declaration:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility, of a fine and imprisonment for knowing violations.

Executed on the ___ day of _____ , 20__, at _____.

(Signature)_____(Title)_____";

The Discharger shall mail the original of each annual report to:

CALIFORNIA REGIONAL WATER QUALITY
CONTROL BOARD – CENTRAL VALLEY REGION
11020 Sun Center Drive, #200
Rancho Cordova, CA 95670

A copy of the annual report shall also be mailed to:

REGIONAL ADMINISTRATOR
ENVIRONMENTAL PROTECTION AGENCY
REGION 9
75 Hawthorne Street
San Francisco, CA 94105

E. **Urban and Water Column Toxicity Monitoring**

The Discharger shall conduct short-term chronic toxicity testing at Scenic Drive and Bodem Street urban discharge monitoring locations with their corresponding downstream receiving water monitoring station. Toxicity data collection allows for characterizing a range of hydrologic conditions that vary from year to year and more fully characterizes potential sources of contaminants and toxicity that may be contributing to the decline of fish populations in the Delta. Short-term chronic toxicity testing shall include (1) the analysis of samples from **two storm events, and one dry weather monitoring event** from each monitoring station every other year; and (2) analysis of at least the following two freshwater test species for each storm event: Fathead minnow [*Pimephales promelas* (larval survival and growth test) and water flea [*Ceriodaphnia dubia* (survival and reproduction test)]. The testing shall be conducted in accordance with U.S. EPA's method (U.S. EPA 2002, 4th Edition). A minimum sample volume of 5 gallons for each test species shall be provided with a sample storage (holding time) not to exceed 36 hours.

If 100% mortality to *Pimephales promelas* or *Ceriodaphnia dubia* is detected within 24 hours of test initiation, then a dilution series shall be initiated (0.5x steps) ranging from the undiluted sample (or the highest concentration that can be tested within the limitations of the test methods or sample type) to less than or equal to 6.25 percent of the sample. Further, if statistically significant toxicity is detected and a greater than or equal to 50% increase in *Pimephales promelas* or *Ceriodaphnia dubia* mortality, or reduction in *Ceriodaphnia dubia* reproduction compared to the laboratory control is observed, then TIEs shall be conducted on the initial sample that caused toxicity.

1. Toxicity Identification Evaluations (TIE)

The Discharger shall begin a Phase I TIE immediately on all samples that are substantially toxic to either test species. If mortality of both test species exceeds the 50% trigger, then TIEs shall be conducted using both species. TIEs are required until the cause of toxicity is determined. The Discharger shall indicate the person who will conduct the TIE (in-house expert or outside contractor), which shall be identified in the SWMP and Annual Reports.

2. Toxicity Reduction Evaluations (TRE)

a. BMPs shall be identified and implemented whenever a toxicant is successfully identified through the TIE process. The TRE shall include all reasonable steps to identify the source(s) of toxicity and discuss appropriate BMPs to

eliminate the causes of toxicity. Once the source of toxicity and appropriate BMPs are identified, the Discharger shall submit the TRE Corrective Action Plan as part of the Annual Report to the Executive Officer for approval. At a minimum, the TRE shall include a discussion of the following items:

i. A description of the investigation and evaluation techniques that would be used to identify potential causes and sources of toxicity;

ii. The potential sources of pollutant(s) causing toxicity;

iii. A list of dischargers having jurisdiction over sources of pollutant(s) causing toxicity;

iv. Recommended BMPs to reduce the pollutant(s) causing toxicity;

v. Proposed changes to the SWMP to reduce the pollutant(s) causing toxicity; and

vi. Suggested follow-up monitoring to demonstrate that toxicity has been removed.

b. If TRE implementation for a specific pollutant coincides with Total Maximum Daily Load (TMDL) implementation for that pollutant, the efforts may be coordinated.

c. Upon approval by the Executive Officer, the Discharger having jurisdiction over sources causing or contributing to toxicity shall implement the recommended BMPs and take all reasonable steps necessary to eliminate toxicity.

d. The Discharger shall develop a maximum of two TREs per year. If applicable, the Discharger may use the same TRE for the same toxic pollutant or pollutant class in different watersheds or basins. The TRE process shall be coordinated with TMDL development and implementation to avoid overlap.

The Discharger shall include a monitoring plan, which shall include a sampling and analysis plan, all data (electronic format), assessment of the data, conclusions, proposed BMPs to be implemented, program effectiveness, and an implementation schedule in the SWMP for approval by the Executive Officer. Subsequent information shall be included in the Annual Reports as required in this MRP Order.