

**California Regional Water Quality Control Board  
Santa Ana Region**

**Urban Runoff Monitoring and Reporting Program No. R8-2007-xxxx  
NPDES No. CAS618033**

for

**Riverside County Flood Control and Water Conservation District,  
The County of Riverside, and the Cities of Riverside County  
within the Santa Ana Region  
Area Wide Urban Runoff**

**I. GENERAL**

- A. Revisions of the Urban Runoff monitoring and reporting program are appropriate to ensure that the Permittees are in compliance with requirements and provisions contained in this Order. Revisions may be made under the direction of the Executive Officer at any time during the term of the Order, and may include redistribution of monitoring resources to address TMDL needs, a reduction or increase in the number of parameters to be monitored, the frequency of monitoring, or the number and size of samples collected.
- B. The Executive Officer is authorized to allow the Permittees to participate in statewide, national, or other monitoring programs in lieu of this Urban Runoff monitoring program.
- C. All sample collection, handling, storage, and analysis shall be in accordance with test procedures under 40 CFR Part 136 (latest edition) "*Guidelines Establishing Test Procedures for the Analysis of Pollutants*," promulgated by the USEPA, the guidance being developed by the State Board pursuant to Water Code Section 133383.5, or other methods which are more sensitive than those specified in 40 CFR 136 and approved by the Executive Officer.
- D. The Permittees are authorized to complement their Urban Runoff monitoring data with data from other monitoring sources, provided the monitoring conditions and sources are similar to those in the Santa Ana River watershed.
- E. The Principal Permittee has been monitoring Urban Runoff and Receiving Waters since the first MS4 permit term. It is recognized that some of the objectives noted in Section II, below, may not have been fully attained during the previous MS4 permit terms. Ongoing long-term Urban Runoff monitoring will help to accomplish these objectives. The Regional Board authorizes the Executive Officer to evaluate and determine adequate progress toward meeting each objective.
- F. This Order references three components of the Consolidated Monitoring Program (the "CMP"): (1) The existing CMP shall continue to be implemented until the revised CMP is approved; (2) The CMP will be reviewed and revised under this Order to identify data gaps and to attain the objectives specified in Section II, below and (3) Other regional monitoring efforts where the Permittees participate or contribute resources.
- G. The CMP will be revised to redistribute monitoring resources to address the needs of adopted TMDLs and to support the development of proposed TMDLs.

- H. Pending approval of the revised CMP, current monitoring efforts will continue to be implemented.
- I. The Permittees shall continue to revise their CMP as necessary, to maintain an integrated watershed monitoring approach and ensure its capability of attaining the objectives mentioned below. The development and implementation of the monitoring program shall be in accordance with any requirements developed by the State Board and the time schedules prescribed by the Executive Officer.
- J. It is highly recommended that the Permittees cooperate, as appropriate, with other MS4 Permittees (including Orange County and San Bernardino County), the Southern California Coastal Water Research Project (SCCWRP), POTW operators, the dairy industry, the Santa Ana Watershed Project Authority (SAWPA), and other public and private organizations in the watershed to develop coordinated surface water quality monitoring programs, databases, and special studies.

## II. OBJECTIVES

The overall goal of the Urban Runoff monitoring program is to support the development of an effective Urban Runoff management program. The following are the major objectives:

- A. To identify those Receiving Waters, which, without additional action to control pollution from Urban Runoff, cannot reasonably be expected to achieve or maintain applicable Water Quality Standards required to sustain the designated Beneficial Uses, the goals, and the objectives of the Basin Plan.
- B. To develop and support an effective MS4 management program.
- C. To identify significant water quality problems, related to discharges of Urban Runoff within the Permit Area.
- D. To define water quality status, trends, and Pollutants of Concern associated with Urban Runoff and its impact on the Beneficial Uses of the Receiving Waters.
- E. To analyze and interpret the collected data to determine the impact of Urban Runoff and/or validate relevant water quality models.
- F. To characterize Pollutants associated with Urban Runoff, and to assess the influence of urban land uses on Receiving Water quality and the Beneficial Uses of Receiving Waters.
- G. To identify other sources of Pollutants in Urban Runoff to the maximum extent possible (e.g., including, but not limited to, atmospheric deposition, contaminated sediments, other non-point sources, etc.)
- H. To identify and prohibit Illicit Connections.
- I. To identify, verify and prohibit Illegal Discharges.
- J. To verify and to identify sources of Urban Runoff Pollutants.

- K. To evaluate the effectiveness of the DAMP and WQMPs, including an estimate of Pollutant reductions achieved by the Treatment and Source Control BMPs implemented by the Permittees.
- L. To evaluate the costs and benefits of proposed Urban Runoff management programs to protect Receiving Water quality.

### III. MONITORING PROGRAM REQUIREMENTS

- A. TMDL/303(d) Listed Waterbody Monitoring: The Permittees should continue to participate in TMDL monitoring programs as required by TMDL Implementation Plan monitoring programs specified in Chapter 5 of the Basin Plan and Southern California Cooperative Storm Water Research/Monitoring programs as they relate to Urban Runoff.
- B. The Permittees shall revise their CMP, as necessary, within twelve (12) months of adoption of this Order. The revised CMP shall consider, at a minimum and include the following monitoring components or their equivalent:
  - 1. Mass Emissions Monitoring:
    - a. An estimate of flow in cubic feet per second (cfs) from the outfall/stream at the time of sampling.
    - b. Monitor mass emissions in Urban Runoff to: (a) estimate the total mass emissions from the MS4 to Receiving Waters; (b) assess trends in mass emissions associated with Urban Runoff over time; and (c) to determine if Urban Runoff is contributing to exceedances of Water Quality Objectives or Beneficial Uses in Receiving Waters by comparing results to the Basin Plan.
    - c. Representative samples from the first storm event and two more storm events shall be collected during the rainy season. A minimum of two dry-weather samples shall also be collected. Samples from the first rain event each year shall be analyzed for the entire suite of Priority Pollutants. All samples must be analyzed for metals, pH, TSS, TOC, pesticides/herbicides, and constituents that are known to have contributed to impairment of local receiving waters. Dry weather samples should also include an analysis for oil and grease.
  - 2. Water Column Toxicity Monitoring: Analyses for toxicity to aquatic species shall be performed on Receiving Water samples to determine the impacts of Urban Runoff on toxicity of Receiving Waters. The *Ceriodaphnia dubia* survival (acute), Fathead Minnow larval survival (acute), and Selenastrum Capricornutum growth (chronic) tests shall be used to evaluate toxicity on the sample from the first rain event, plus one other wet weather sample. Where applicable, two dry weather samples shall also be collected or equivalent procedures shall be proposed in the CMP. In addition, criteria shall be identified which will trigger the initiation of Toxicity Identification Evaluations (TIEs) and Toxicity Reduction Evaluations (TREs).
  - 3. Reconnaissance: The Permittees shall review and update their reconnaissance strategies to identify and prohibit Illegal Discharges. Where possible, the use of GIS to identify geographic areas with a high density of industries associated with gross Pollution (e.g. electroplating industries, auto dismantlers) and/or locations subject to maximum sediment loss (e.g. new development) may be used to determine areas for intensive monitoring efforts.

4. Land Use Correlations: The Permittees shall continue to implement strategies for determining the effects of urban land use on the quality of Receiving Waters.
  5. Sources of Data: Where possible and applicable, data shall be obtained from monitoring efforts of other public or private agencies/entities (e.g., Caltrans).
  6. Bioassessments: The Permittees will continue to support the SCCWRP studies to develop an Index of Biotic Integrity (IBI) applicable to conditions in the urban areas addressed by this MS4 permit. Pending the development of this IBI, the Permittees shall continue to implement the toxicity testing described in item B.3. When SCCWRP completes development of the IBI and implementation procedures, the Permittees shall discontinue toxicity testing. Implementation of the IBI shall include the selection and identification of appropriate bioassessment station locations, sampling scheme(s), and shall also be capable of attaining the objectives mentioned in Section II, above. The Permittees may develop bioassessments in coordination or cooperation with other parties as addressed in Section I.I., above.
- C. Within twelve (12) months of adoption of this Order, the Permittees shall revise their CMP, which should support the achievement of the above-stated goals. The implementation of the CMP shall be in accordance with the time schedules prescribed by the Executive Officer. At a minimum, the CMP shall address the following and any requirements developed by the State Board in accordance with Water Code Section 13383.5:
1. Uniform guidelines for quality control, quality assurance, data collection and data analysis.
  2. A procedure for the collection, analysis, and interpretation of existing data from local, regional or national monitoring programs. These data sources may be utilized to:
    - a. Characterize different sources of Pollutants discharged to the MS4;
    - b. Determine Pollutant generation, transport and fate;
    - c. Develop a relationship between land use, development size, storm size and the event mean concentration of Pollutants;
    - d. Determine spatial and temporal variances in Urban Runoff quality and seasonal and other bias in the collected data; and
    - e. Identify any unique features of the Permit Area.The Permittees are encouraged to use data from similar studies, if available.
  3. The CMP shall include descriptions of:
    - The number of monitoring stations;
    - Monitoring locations within MS4s, major outfalls, and Receiving Waters; environmental indicators (e.g., ecosystem, flow, biological, habitat, chemical, sediment, stream health, etc.) chosen for monitoring;
    - Total number of samples to be collected from each station, frequency of sampling during wet and dry weather, short duration or long duration storm events, type of samples (grab, 24-hour composite, etc.), justification for composite versus discrete sampling, type of sampling equipment, quality assurance/quality control procedures followed during sampling and analysis, analysis protocols to be followed (including

sample preparation and maximum reporting limits), and qualifications of laboratories performing analyses;

A procedure for analyzing the collected data and interpreting the results including an evaluation of the effectiveness of the management practices, and need for any refinement of the WQMPs or the DAMP.

Parameters selected for field screening and for laboratory work; and

A description of the responsibilities of all the participants in this program, including cost sharing.

#### **IV. REPORTING**

- A. All progress reports and proposed strategies and plans required by this Order shall be signed by the Principal Permittee, and copies shall be submitted to the Executive Officer under penalty of perjury.
- B. The Permittees shall submit an Annual Report to the Executive Officer and to the Regional Administrator of the USEPA, Region 9, no later than December 15th, of each year. This progress report may be submitted in a mutually agreeable electronic format. At a minimum, the Annual Report shall include the following:
  1. A review of the status of program implementation and compliance (or non-compliance) with the schedules contained in this Order;
  2. An assessment of the effectiveness of control measures established under the Illegal Discharge elimination program and the DAMP. The effectiveness may be measured in terms of how successful the program has been in eliminating IC/IDs and reducing Pollutant loads in Urban Runoff, including summaries of Permittee actions to investigate and eliminate or permit IC/IDs and measures to reduce and/or eliminate the discharge of Pollutants, including trash and debris
  3. An assessment of any modifications to the WQMPs, or the DAMP made to comply with CWA requirements to reduce the discharge of pollutants to the MEP;
  4. A summary, evaluation, and discussion of monitoring results from the previous year and any changes to the monitoring program to be made the following year;
  5. A fiscal analysis progress report as described in Section XVIII.B of Order No. R8-2007-xxxx including:
    - a. Each Permittee's expenditures for the previous fiscal year;
    - b. Each Permittee's budget for the current fiscal year;
    - c. A description of the source of funds
  6. A draft work plan that describes the proposed implementation of the WQMPs and the DAMP for next fiscal year. The work plan shall include clearly defined tasks, responsibilities, and schedules for implementation of the storm water program and each Permittee's actions for the next fiscal year;
  7. Major changes in any previously submitted plans/policies; and

8. An assessment of Permittees compliance with the Receiving Water Limitations, Section III of the Order, including any proposed modifications to the WQMPs or the DAMP if the Receiving Water Limitations are not fully achieved.
9. If the Implementation Agreement is revised, a copy of the signature page and revisions to the Implementation Agreement shall be included in the Annual Report.
10. In each Annual Report the Permittees shall provide a review of their Storm Water Ordinances and their enforcement practices to assess their effectiveness in prohibiting non-exempt, Non-storm Water discharges to the MS4 (The Permittees may propose appropriate control measures in lieu of prohibiting these discharges, where the Permittees are responsible for ensuring that dischargers adequately maintain those control measures). At a minimum, the following types of non-exempt, Non-storm Water discharges and Wastes shall be considered:
  - a. Sewage, where a Co-Permittee operates a POTW and associated sewage collection system
  - b. Wash water resulting from the hosing or cleaning of gas stations, and other types of automobile service stations
  - c. Discharges resulting from the cleaning, repair, or maintenance of equipment, machinery, or facilities, including motor vehicles, concrete mixing equipment, portable toilet servicing, etc.
  - d. Wash water from mobile auto detailing and washing, steam and pressure cleaning, carpet cleaning, etc.
  - e. Water from cleaning of municipal, industrial, and commercial areas including parking lots, streets, sidewalks, driveways, patios, plazas, work yards and outdoor eating or drinking areas, containing chemicals or detergents, and without prior sweeping, etc.
  - f. Runoff from material storage areas or uncovered receptacles that contain chemicals, fuels, grease, oil, or other hazardous materials
  - g. Discharges of runoff from the washing of toxic materials from paved or unpaved areas
  - h. Discharges from pool or fountain water containing chlorine, biocides, or other chemicals; pool filter backwash containing debris and chlorine
  - i. Pet waste, yard waste, debris, Sediment, etc.
  - j. Restaurant or food processing facility wastes such as grease, floor mat and trash bin wash water, food waste.
11. For the Commercial and Industrial Inspection Programs; an electronic copy or update of the facilities inspection inventory database, in a format acceptable to the Executive Officer, shall be provided with each Annual report or upon request. In addition the number of compliance surveys/inspections and actions taken shall be documented by the Co-Permitttees and an appropriate summary of said actions shall be provided to the Principal Permittee for inclusion in the Annual Report.

12. The Annual Report shall include the findings of the effectiveness analysis and a schedule for needed revisions. At a minimum, each Annual Report shall include a progress report of:
    - a. The formal training and coordination meeting needs for the Co-Permittees' staff responsible for performing compliance survey /inspections or educational programs;
    - b. Source identification and prioritization;
    - c. Grading and erosion control for construction sites;
    - d. Verification of coverage under the General Storm Water Permits;
    - e. Facility inspection and enforcement consistent with local ordinances, rules, and regulations;
    - f. Procedures for reporting to the Permittees and the Regional Board non-compliance with each Co-Permittee's Storm Water Ordinance and enhancing current planning review processes to better address issues regarding Urban Runoff.
    - g. Implementation of New Development BMPs, or identification of regional or sub-regional Urban Runoff treatment/infiltration BMPs in which New Development projects could participate.
  13. The number of construction site inspections conducted and the actions taken will be documented by the Co-Permittees and an appropriate summary of said actions will be provided to the Principal Permittee for inclusion in the Annual Report submitted to the Regional Board.
- C. The Co-Permittees shall be responsible for the submittal of all required information/materials needed to comply with this order in a timely manner to the Principal Permittee. A duly authorized representative of the Co-Permittee under penalty of perjury shall sign all such submittals.

### REPORTING SCHEDULE

All reports required by this Order shall be submitted to the Executive Officer in accordance with the following schedule:

Reference		Item	Completion Time after Permit Adoption or Frequency	Report Due Date
Permit	DAMP <sup>(a)</sup>			
I.A.1.e & I.B.1.h		Develop and maintain a LIP	12 months of adoption of Order	
I.A.2.a & I.B.2.a		Management Steering Committee meetings to discuss MS4 Permit implementation	Held at least quarterly	
I.A.2.b & I.B.2.b		Permittee Technical Committee meetings to discuss permit implementation	Held at least 10 times each year	
I.B.2.a & XV.C		Co-Permittees participate in Management Steering and Technical Committee meetings to discuss MS4 Permit implementation	Attend at least 3 out of 4 Management and 8 out of 10 Technical meetings each year	
I.B.2.f		Submit up-to-date MS4 facility maps	Annually to Principal Permittee	Dec 15 <sup>th</sup> to Regional Board
I.B.2.g		Submit reports & information for Annual Report	Annually to Principal Permittee	Dec 15 <sup>th</sup> to Regional Board
III.D.1		Notify Regional Board if Section III.E. discharges from MS4 causes exceedance of Receiving Water Quality Objectives.	---	2 working days verbal or email notice and 30 days written from time of becoming aware of the situation.
III.D.3		Submit modified report required under III.D.1		30 calendar days following receipt of written notice to modify report.
III.D.4		Modify DAMP and MRP to address Receiving Water Limit Violations and implementation schedule.	---	90 days after approval of Subsection III.D.1 report by Executive Officer

Reference		Item	Completion Time after Permit Adoption or Frequency	Report Due Date
Permit	DAMP <sup>(a)</sup>			
III.D.6		Report discovery of exceedances of Receiving Water Standards from non-jurisdictional sources.	---	Oral or email notice within 2 working days of becoming aware of situation and written documentation within 10 days from time of becoming aware of the situation.
IV		Evaluate Urban Runoff Management structure and Implementation Agreement annually to determine need for revision.	Annually on Dec. 15 <sup>th</sup>	Annually on Dec 15 <sup>th</sup> report findings and schedule for revisions to the Implementation Agreement.
VI.A		Eliminate or permit IC/IDs	60 days from receipt of notice from a third party.	
VI.B		Investigate spills, leaks, and/or IDs.	Immediately if notified by Permittee staff or within 24 hours of receipt of notice from third party.	Dec 15 <sup>th</sup> of the year received notice.
VIII.B		Each Co-Permittee include list of Ministerial Projects in LIP	12 months of Order adoption	
IX.A.1 & IX.B.3		Report Non-Emergency Situations	---	10 days written from time of notice
IX.B.1		Maintain the industrial and commercial facilities inventory	Annually	
X.C		Evaluate compliance with TMDLs and TMDL Implementation Plan tasks	180 days before permit expires (with ROWD)	Month Day, 2012
XII.B, XV.B		Evaluate need to modify DAMP	Annually on August 1 <sup>st</sup>	Dec 15 <sup>th</sup> – Submit proposed revisions to Executive Officer for review and approval.
XIV.A, IV.C		Public agency staff and contract field operations staff adequately trained to implement provisions of Order.		Report formal training annually on Dec. 15 <sup>th</sup>
XVII.A.5		Complete changes to plans or programs described in Order.	12 months after Order in effect.	
XVII.A.7.a		Report Emergency Situations	---	24 hours verbal or e-mail notice and 10 days written from time of notice

Reference		Item	Completion Time after Permit Adoption or Frequency	Report Due Date
Permit	DAMP <sup>(a)</sup>			
XVII.A.7.b		Industrial or construction activities found not to be in compliance with Storm Water Permits or where activities may be contributing Pollutants to Waters of the U.S.		
XVII.A.7.c		Activities on non-jurisdictional lands that may be contributing Pollutants to Waters of the U.S.		
		Submit Public Comments received in response to modifications to reports, plans, or schedules.	Annually	Annually on Dec 15 <sup>th</sup>
XVII.B		Fiscal analysis report		Dec 15 <sup>th</sup> .
XVIII.A		Report of Waste Discharge	180 days before permit expires	Month Day, 2012
Appendix 3, III.B & III.C		Revise CMP	12 Months	Dec 15 <sup>th</sup> of the year following adoption.
Appendix 3, IV.B		Annual Report		Dec 15 <sup>th</sup>

(a) This column to be completed.

Ordered by \_\_\_\_\_  
**Gerard J. Thibeault**  
**Executive Officer**  
**Month Day, 2007**