CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION
TENTATIVE
MONITORING AND REPORTING PROGRAM No. R9-2004-001
NPDES PERMIT No. CAS0108766
FOR THE DISCHARGES OF URBAN RUNOFF FROM THE MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4s) DRAINING THE COUNTY OF RIVERSIDE, THE CITY OF MURRIETA, THE CITY OF TEMECULA AND THE RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT WITHIN THE SANTA MARGARITA WATERSHED IN THE SAN DIEGO REGION

I. PURPOSE 2
II. MONITORING PROGRAM 2
- **A. Receiving Waters Monitoring** 2
- **B. Illicit Discharge Monitoring** 9
- **C. Monitoring Provisions** 10

III. REPORTING PROGRAM 12
- **A. SWMP Reporting Requirements** 12
- **B. Receiving Waters Monitoring Reporting Requirements** 15
- **C. Certified Perjury Statement** 17

I. PURPOSE

This Monitoring and Reporting Program (MRP) is intended to meet the following goals:

1. Assess compliance with Order No. R9-2004-001;
2. Measure and improve the effectiveness of the SWMPs;
3. Assess the chemical, physical, and biological impacts of receiving waters resulting from urban runoff;
4. Characterize urban runoff discharges;
5. Identify sources of specific pollutants;
6. Prioritize drainage and sub-drainage areas that need management actions;
7. Detect and eliminate illicit discharges and illicit connections to the MS4; and
8. Assess the overall health of receiving waters.

II. MONITORING PROGRAM

The Monitoring Program consists of the Receiving Waters Monitoring, Illicit Discharge Monitoring, Monitoring Provisions, and the program assessments required under Section III.B of this MRP. All monitoring program components shall be implemented no later than October 2004, unless otherwise specified herein.

A. Receiving Waters Monitoring

The Receiving Waters Monitoring consists of: 1) **Core Monitoring** requirements to address on-going, site-specific needs, such as estimating pollutant loads and assessing trends; 2) **Regional Monitoring** to address watershed-wide issues; and 3) **Special Studies** to address specific research or management issues.

A.I Core Monitoring

In order to achieve the above goals, the triad[1] and tributary Core Monitoring requirements are intended to generate water quality data that will build upon existing data to begin answering the following management questions:

- Are conditions in receiving waters protective, or likely to be protective, of beneficial uses?
- What is the extent and magnitude of the current or potential receiving water problems?
- What is the relative urban runoff contribution to the receiving water problem(s)?
- What are the sources of urban runoff that contribute to receiving water problem(s)?
- Are conditions in receiving waters getting better or worse?

1. Mass Loadings

   a) The Permittees shall monitor mass loadings from the following three triad stations. Alternative locations representative of urban/urbanizing drainage areas may be selected.

      (1) Lower Temecula Creek;

      (2) Lower Murrieta Creek @ USGS Weir; and

      (3) A reference station representative of natural, undeveloped conditions. Permittees shall evaluate the reference station annually for suitability and select new reference stations as needed.

[1] Triad means a station where chemical, toxicity, and bioassessment monitoring occur.

b) At each triad station, the Permittees shall monitor the first storm event of each monitoring year[2] that produces sufficient flow to collect a composite sample, and a minimum of two additional storm events during each monitoring year.

c) In the event that the required number of storm events are not sampled during one monitoring year at any given station, the Permitees shall submit, with the subsequent Annual Report, a written explanation for a lack of sampling data, including streamflow data from the nearest USGS gauging station.

d) In addition to the storm events, the Permittees shall analyze a minimum of two dry weather samples from each triad station per monitoring year. If flow is insufficient to collect a sample, this shall be documented in the subsequent annual report.

e) Sampling at triad stations shall begin no later than the first storm after October 2004 that produces sufficient flow to collect a composite sample.

f) Mass loading sampling and analysis protocols shall be consistent with 40 CFR 122.21(g)(7)(ii) and with the EPA Storm Water Sampling Guidance Document (EPA 833-B-92-001). Storm water samples shall be flow-weighted composites[3], collected during the first 3 hours of flow, or for the duration of the storm if it is less than 3 hours. A minimum of 3 sample aliquots, separated by a minimum of 15 minutes, shall be taken within each hour of discharge, unless the SDRWQCB Executive Officer approves an alternate protocol. Automatic samplers are recommended, but manual samples may be collected from mass loading stations where it is not feasible to install an automatic sampler. Grab samples[4] shall be taken for pathogen indicators and oil and grease. Grab samples are acceptable for dry weather sample collection.

g) Permittees shall measure or estimate flow rates and volumes for each triad sampling event in order to determine mass loadings of pollutants. Data from nearby USGS gauging stations may be utilized, or flow rates may be estimated in accordance with the EPA Storm Water Sampling Guidance Document (EPA-833-B-92-001), Section 3.2.1.

h) At triad stations, the first storm of every sampling year shall be analyzed for the full EPA priority pollutant list (40 CFR 122, Appendix D). For the remaining sampling events, analysis may be reduced to the constituents listed in Table below, unless data from the first storm indicate the need for additional constituents.

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[2] A monitoring year is from July 1 through June 30.
[3] A flow-weighted composite sample is a mixed or combined sample that is formed by combining a series of individual and discrete samples of specific volume in proportion to flow.
[4] A grab sample is a discrete, individual sample taken within a short period of time (usually less than 15 minutes).

Table 1. Short List of Constituents	
Trace Metals	**Pesticides**
Total Cadmium	Diazinon
Total Chromium	chlorpyrifos
Total Copper	Other OP pesticides
Total Nickel	
Total Lead	**Conventionals**
Total Zinc	Temperature
Nutrients	pH
Ammonia (NH_3)	Hardness
Total Kjeldahl Nitrogen (TKN)	Specific conductance
Nitrate (NO_3)	Dissolved oxygen
Total phosphorus	MBAS
Bacteria	**PAHs**
Total coliform	
Fecal coliform	**Volatiles** (dry weather only)
E. coli	
	Total suspended solids

2. Water Column Toxicity Testing

The Permittees shall conduct toxicity testing at triad stations to evaluate the extent and causes of toxicity in receiving waters.

a) The Permittees shall analyze all storm samples (at least three annually) collected at the three triad stations for toxicity. The Permittees shall conduct toxicity testing using the following three species and EPA protocol for each sample:

- *Ceriodaphnia dubia* (water flea) – EPA-821-R-02-012 or EPA-821-R-02-013;
- *Hyalella azteca* (freshwater amphipod) – EPA-821-R-02-012; and
- *Pseudokirchneriella subcapitata*, formally known as *Selenastrum capricornutum*, (unicellular algae) – EPA-821-R-02-013.

b) The presence of acute toxicity shall be determined in accordance with EPA protocol (EPA-821-R-02-012). The presence of chronic toxicity shall be determined in accordance with EPA protocol (EPA-821-R-02-013).

3. Bioassessment

The Permittees shall conduct bioassessment monitoring at the three triad stations to evaluate the biological integrity of receiving waters, to detect biological responses to pollutants in urban runoff, and to identify probable causes of impairment not detected by chemical and toxicity monitoring. The program required in this section replaces the program currently being conducted by the Permittees under CWC section 13225 Directive for Assessing Water Quality Impacts of Urban Runoff in the Santa Margarita Watershed, issued by the SDRWQCB on March 6, 2003. Bioassessment monitoring shall include the following:

a) Each bioassessment station shall be monitored twice annually, in May and October of each year. A minimum of three replicate samples shall be collected at each station during each sampling event.

b) Sampling, laboratory, quality assurance, and analysis procedures shall follow the standardized procedures set forth in the California Department of Fish and Game's California Stream Bioassessment Procedure (CSBP)[5]. Analysis procedures shall include comparison between station mean values for various biological metrics and the Preliminary San Diego Index of Biotic Integrity (IBI)[6], or any subsequently developed applicable IBI. Sampling, laboratory, quality assurance, and analytical procedures shall follow the standardized "Non-Point Source Bioassessment Sampling Procedures" for professional bioassessment set forth in the CSBP. In the event that the CSBP "Point-Source Professional Bioassessment Procedure" is performed in place of the "Non Point Source Bioassessment Sampling Procedure," justification and documentation of the procedure shall be submitted with the annual monitoring report.

c) A professional environmental laboratory shall perform all sampling, laboratory, quality assurance, and analytical procedures. Permittee staff trained in CSBP methods may collect samples, but data collected by volunteer monitoring organizations shall not be submitted in place of professional assessments.

4. Follow-up Analysis and Actions Based on Triad Approach

When results from the chemistry, toxicity, and bioassessment monitoring described above indicate urban runoff-induced degradation, Permittees shall evaluate the extent and causes of urban runoff pollution in receiving waters and prioritize management actions to eliminate or reduce sources. Toxicity Identification Evaluations (TIEs) shall be used to determine the cause of toxicity, and Toxicity Reduction Evaluations (TRE) shall be used to identify sources and implement management actions to reduce pollutants in urban runoff causing toxicity. Permittees shall conduct TIE(s) and TRE(s) based on Table 2 below.

[5] California Stream Bioassessment Procedure (Protocol Brief for Biological and Physical/Habitat Assessment in Wadeable Streams), California Department of Fish and Game – Aquatic Bioassessment Laboratory, May 1999.
[6] This document can be downloaded from http://www.swrcb.ca.gov/rwqcb9/programs/bioassessment.html

Table 2. Triad Approach to Determining Follow-Up Actions

	Chemistry	Toxicity	Bioassessment	Action
1.	Persistent[7] exceedance of water quality objectives	Evidence of toxicity[8]	Indications of benthic alteration[9]	Conduct TIE to identify contaminants of concern, based on TIE metric, initiate TRE
2.	No persistent exceedances of water quality objectives	No evidence of toxicity	No indications of benthic alteration	No action necessary
3.	Persistent exceedance of water quality objectives	No evidence of toxicity	No indications of benthic alteration	Assess possible upstream sources causing exceedances
4.	No persistent exceedances of water quality objectives	Evidence of toxicity	No indications of benthic alteration	Conduct TIE to identify contaminants of concern, based on TIE metric, initiate TRE
5.	No persistent exceedances of water quality objectives	No evidence of toxicity	Indications of benthic alteration	No action necessary due to toxic chemicals Initiate TRE for physical sources of benthic alteration
6.	Persistent exceedance of water quality objective	Evidence of toxicity	No indications of benthic alteration	If chemical and toxicity tests indicate persistent degradation, conduct TIE to identify contaminants of concern, based on TIE metric, initiate TRE
7.	No persistent exceedances of water quality objectives	Evidence of toxicity	Indications of benthic alteration	Conduct TIE to identify contaminants of concern, based on TIE metric, initiate TRE
8.	Persistent exceedance of water quality objectives	No evidence of toxicity	Indications of benthic alteration	Initiate upstream source identification

[7] Persistent exceedance shall mean the exceedance of relevant Basin Plan or California Toxics Rule objectives by 20% for 3 sampling events.
[8] Evidence of toxicity shall mean a high score, in relation to other stations, on metric that combines magnitude and persistence of toxicity over an entire year.
[9] Indications of benthic alteration shall mean an IBI score of Fair, Poor, or Very Poor.

a) Toxicity Identification Evaluations (TIE)

The goal of a TIE is to identify the pollutant(s) causing toxicity in the receiving waters.

(1) Permittees shall conduct Phase I TIEs in accordance with Table 2 above. Permittees shall use EPA protocol described in *Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures* (EPA/600/6-91/003) or subsequent editions.

(2) If the Phase I TIE is not sufficient to identify the toxicant(s), a Phase II TIE may be required in order to identify or confirm the identity of the pollutants causing toxicity. Phase II TIEs shall be conducted in accordance with Methods for Aquatic Toxicity Identification Evaluations: Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity (EPA/600/R-92/080), or subsequent editions.

(3) In the event that the pollutant causing toxicity has been sufficiently identified through previous TIEs or corresponding chemical monitoring data, a TIE may not need to be conducted.

b) Toxicity Reduction Evaluations (TRE)

The purpose of a TRE is to investigate the cause of and to identify corrective actions to eliminate toxicity from urban runoff in receiving waters.

When a TIE identifies a pollutant(s) associated with urban runoff as a cause of toxicity, Permittees shall initiate a TRE immediately. The TRE shall include all reasonable steps to identify the source(s) of toxicity and propose appropriate BMPs to eliminate the causes of toxicity. Once the source of toxicity and appropriate BMPs are identified, the Permittees shall submit the TRE to the SDRWQCB for review. Within 30 days following the approval by the SDRWQCB, Permittees shall revise their SWMPs to incorporate the modified BMPs that will be implemented. At a minimum, a TRE shall include a discussion of the following items:

(1) The potential sources of pollutant(s) causing toxicity;

(2) A list of municipalities and other entities that may have jurisdiction over sources of pollutant(s) causing toxicity; and

(3) Proposed actions that will be taken to reduce the pollutants causing toxicity and methods to measure the effectives of those actions.

5. Tributary Monitoring

a) The Permittees shall collect a grab sample from the first storm event of each monitoring year, a minimum of one additional storm event, and two dry weather events during each monitoring year at the following four tributary stations to help identify sources of pollutants. Alternative locations representative of urban/urbanizing drainage areas may be selected.

(1) Warm Springs Creek, near the confluence with Murrieta Creek;

(2) Santa Gertudis Creek, near the confluence with Murrieta Creek;

(3) Long Canyon Creek near the confluence with Murrieta Creek; and

(4) Redhawk Channel, near the confluence with Temecula Creek

b) If flow is insufficient to collect a sample, this shall be documented in the subsequent annual report.

c) Tributary samples shall be analyzed for constituents of concern. Constituents of concern shall be determined based on exceedances of water quality objectives at respective triad and dry weather monitoring stations, as well as land uses in the area.

d) Sampling at tributary stations shall begin no later than the first storm after October 2004.

A.II Regional Monitoring

The Permittees shall participate and coordinate with federal, state, and local agencies and other dischargers in the Santa Margarita Watershed in development and implementation of a regional watershed monitoring program as directed by the Executive Officer. The intent of a regional monitoring program is to maximize the efforts of all monitoring partners using a more cost-effective monitoring design and to best utilize the pooled resources of the watershed. During a coordinated watershed sampling effort, the Permittees' sampling and analytical effort may be reallocated to provide a regional assessment of the impact of discharges to the watershed.

A.III Special Studies

Special studies are intended to address specific research or management issues that are not addressed by the routine core monitoring program. The Permittees' shall conduct special studies as directed by the Executive Officer, including the study described below.

Numeric Criteria to Control Runoff from New Developments

The Permittees shall develop and implement a study to determine numeric criteria for controlling the volume, velocity, duration, and peak discharge rate of runoff from new developments (required in section F.2.b(9) of tentative Order No. 2004-001) to minimize erosion of natural stream channels and impacts to instream habitat. The Permittees shall propose numeric criteria and a time-schedule for implementation of the criteria on Priority Development Projects within 365 days of the identification of the criteria and no later than the fourth-year Annual Report, or the application for permit renewal. In each Annual Report, the Permittees shall describe the status of this special study, details of implementation, and progress towards the development of numeric criteria. Permittees may satisfy this requirement if they can demonstrate to the SDRWQCB that criteria developed in other areas of Southern California are applicable to and protective of the conditions in the Upper Santa Margarita Watershed. This should be accomplished through demonstrating similarities in areas monitored as part of studies outside of the Santa Margarita Watershed.

B. Illicit Discharge Monitoring

Each Permittee shall develop and implement an Illicit Discharge Monitoring program that meets or exceeds the requirements of this section within 365 days of the adoption of Order No. R9-2004-001. Each Permittees' program shall be designed to emphasize frequent, geographically widespread inspections, monitoring, and follow-up investigations to detect illicit discharges and connections. Each Permittees' Illicit Discharge Monitoring Program shall be described in the Individual SWMP.

1. Station Location

   a) Each Permittee shall select Illicit Discharge Monitoring stations within its jurisdiction. The number of stations shall be sufficient to represent the MS4 and detect illicit discharges that may occur throughout the system. Stations shall be accessible points in the MS4 (i.e., outfalls, manholes or open channels) located downstream of potential sources of illicit discharges (i.e., commercial, industrial, and residential areas). Permittees shall use the MS4 map, developed pursuant to section J.2 of tentative Order No. R9-2004-001, to help locate dry weather monitoring stations and to determine the number necessary to adequately represent the entire MS4. Each identified station shall be inspected at least twice between May 1st and September 30th of each year, and more frequently if the Permittee determines necessary to comply with section J of tentative Order No. R9-2004-001.

   b) In addition to the stations required in section B.1.a. above, each Permittee shall inspect all other dry weather flows that are observed or reported.

2. Illicit Discharge Monitoring Methods

   a) At each inspected site, Permittees shall record the following general information:
      - Time since last rain;
      - Quantity of last rain;
      - Site descriptions (i.e., conveyance type, dominant land uses in drainage area);
      - Flow estimation (i.e., width of surface, approximate depth of water, approximate flow velocity, flow rate); and
      - Visual observations (e.g., odor, color, clarity, floatables, deposits/stains, oil sheen, surface scum, vegetation condition, structural condition, and biology).

   b) If flow or ponded water is observed at a station and there has been at least seventy-two hours of dry weather, a field screening analysis using suitable methods to estimate the following constituents shall be conducted:

      (1) Specific conductance (or calculate estimated Total Dissolved Solids);
      (2) Turbidity;
      (3) PH;
      (4) Temperature; and
      (5) Dissolved Oxygen.

   c) If field screening analysis or visual observations at a site indicate a potential illicit discharge, a sample shall be collected for laboratory analysis. At a minimum, samples shall be analyzed at a laboratory for the following constituents:

      (1) Total hardness;

(2) Oil and grease;
(3) Ammonia Nitrogen;
(4) Total phosphorus;
(5) Copper (total and dissolved);
(6) Surfactants (MBAS);
(7) Diazinon and Chlorpyrifos;
(8) Lead (dissolved);
(9) Nitrate Nitrogen;
(10) E. coli;
(11) Total coliform; and
(12) Fecal coliform.

3. As part of the Illicit Discharge Monitoring Program, the Permittees shall develop numeric criteria for field screening and analytical monitoring results that will trigger follow-up investigations to identify the source causing the exceedance of the criteria. In the event of an exceedance of the criteria, Permittees shall implement the follow-up investigation procedures developed pursuant to section J.4 of tentative Order No. R9-2004-001.

C. Monitoring Provisions

All monitoring activities shall meet the following requirements:

a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity [40 CFR 122.41(j)(1)].

b) The Permittees shall retain records of all monitoring information, including all calibration and maintenance of monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the Report of Waste Discharge and application for this Order, for a period of at least five (5) years from the date of the sample, measurement, report, or application. This period may be extended by request of the SDRWQCB or EPA at any time and shall be extended during the course of any unresolved litigation regarding this discharge. [40 CFR 122.41(j)(2), CWC section 13383(a)]

c) Records of monitoring information shall include [40 CFR 122.41(j)(3)]:

(1) The date, exact place, and time of sampling or measurements;
(2) The individual(s) who performed the sampling or measurements;
(3) The date(s) analyses were performed;
(4) The individual(s) who performed the analyses;
(5) The analytical techniques or methods used; and,
(6) The results of such analyses.

d) All sampling, sample preservation, and analyses must be conducted according to test procedures approved under 40 CFR part 136, unless other test procedures have been specified in this MRP or approved by the Executive Officer [40 CFR 122.41(j)(4)].

e) Where procedures are not otherwise specified in this MRP, sampling, analysis and quality assurance/quality control must be conducted in accordance with the Quality Assurance Program Plan (QAPP) for the State of California's Surface Water Ambient Monitoring Program, adopted

by the State Water Resources Control Board (SWRCB). The QAPP can be downloaded from the SWRCB web page at: http://www.swrcb.ca.gov/swamp/docs/swamp_qapp.pdf.

f) The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this Order shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than two years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than four years, or both. [40 CFR 122.41(j)(5)]

g) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this MRP [40 CFR 122.41(l)(4)(iii)].

h) All chemical, bacteriological, and toxicity analyses shall be conducted at a laboratory certified for such analyses by the California Department of Health Services or a laboratory approved by the Executive Officer.

i) For priority toxic pollutants that are identified in the California Toxics Rule (CTR) (65 *Fed. Reg.* 31682), the Permittees shall instruct its laboratories to establish calibration standards that are equivalent to or lower than the Minimum Levels (MLs) published in Appendix 4 of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP). If a Permittee can demonstrate that a particular ML is not attainable, in accordance with procedures set forth in 40 CFR 136, the lowest quantifiable concentration of the lowest calibration standard analyzed by a specific analytical procedure (assuming that all the method specified sample weights, volumes, and processing steps have been followed) may be used instead of the ML listed in Appendix 4 of the SIP. The Permittee must submit documentation from the laboratory to the SDRWQCB for approval prior to raising the ML for any priority toxic pollutant.

j) The SDRWQCB Executive Officer or the SDRWQCB may make revisions to this MRP at any time during the term of Order No R9-2004-001, and may include a reduction or increase in the number of parameters to be monitored, locations monitored, the frequency of monitoring, or the number and size of samples collected.

III. REPORTING PROGRAM

A. SWMP Reporting Requirements

The Principal Permittee shall submit a SWMP Annual Report to the SDRWQCB on or before October 31 annually. The reporting period for these annual reports shall be the previous fiscal year. For example, the report submitted on or before October 31, 2005 shall cover the reporting period July 1, 2004 to June 30, 2005. The SWMP Annual Report shall contain the Watershed Annual Report, and the four Individual Annual Reports.

1. **Individual Annual Report** - Each Individual Annual Report shall be a documentation of the activities conducted by each Permittee during the previous annual reporting period. Each Permittee shall submit their Individual Annual Report to the Principal Permittee by a date determined by the Principal Permittee for inclusion in the SWMP Annual Report. Each Individual Annual Report shall, at a minimum, contain the following:

   a) Comprehensive description of all activities conducted by the Permittee to meet all requirements of Tentative Order No. R9-2004-001, including, but not limited to, the following information:

      (1) Development Planning (Section F):
         - (i) Description of any amendments to the General Plan or the development project approval process;
         - (ii) Number of grading permits issued;
         - (iii) Number of developments conditioned to meet SUSMP requirements*;
         - (iv) Attach one example of a development project that was conditioned to meet SUSMP requirements and a description of the required BMPs;
         - (v) Description of any updates to the environmental review process;
         - (vi) Description and number of training efforts conducted during the reporting period (for staff, developers, contractors, etc.), including the number of staff trained; and
         - (vii) An assessment of program effectiveness based on the measurable goals established in the Permittee's Individual SWMP.*

      (2) Construction (Section G):
         - (i) Number of inspections conducted;
         - (ii) Number and type of enforcement actions related to construction sites;
         - (iii) Description of modifications made to the construction and grading approval process;
         - (iv) Description and number of training efforts conducted during the reporting period (for staff inspectors, contractors, and construction site operators); and
         - (v) An assessment of program effectiveness based on the measurable goals established in the Permittee's Individual SWMP.*

      (3) Municipal (Section H.1):
         - (i) Number of municipal inspections conducted;
         - (ii) Number and types of enforcement actions taken;
         - (iii) Number of catch basins and inlets that were inspected and the number that were cleaned;

* Items with an asterisk are not applicable to the first annual report.

(iv) Assessment of the amount and type of debris removed from catch basins, streets, and open channels, including an identification of problem areas that generate the most pollutants;

(v) Assessment of effectiveness of BMPs that have been implemented for municipal facilities and activities;

(vi) Description and number of training efforts conducted over the last year (for municipal facility operators and/or inspectors); and

(vii) An assessment of program effectiveness based on the measurable goals established in each Permittee's Individual SWMP.*

(4) Industrial/Commercial (Section H.2):

(i) Number of inspections conducted;

(ii) Number and type of enforcement actions taken; and

(iii) An assessment of overall program effectiveness based on the measurable goals established in the Permittee's Individual SWMP.*

(5) Residential (Section H.3):

(i) A description of residential areas that were focused on during the past year;

(ii) Number and types of enforcement actions taken; and

(iii) Assessment of overall program effectiveness based on the measurable goals established in the Permittee's Individual SWMP.*

(6) Education (Section I):

(i) Description of education efforts conducted by the Permittee (not collectively with other Permittees) during the previous year;

(ii) Assessment of overall program effectiveness based on the measurable goals established in the Permitee's Individual SWMP.*

(7) Illicit Discharge Detection and Elimination (Section J):

(i) Number of illicit discharges, connections and spills reported and/or identified during the reporting period;

(ii) Number of illicit discharges or connections investigated during the reporting period and the outcome of the investigations;

(iii) Number and types of enforcement actions taken for illicit discharges or connections during the reporting period;

(iv) Number of times your agency's hotline was called during the reporting period, as compared to previous reporting periods;

(v) Number and location of dry weather monitoring sites that were monitored during the reporting period;

(vi) Summary of Illicit Discharge Monitoring Program results, including: 1) All inspection, field screening, and analytical monitoring results; 2) All follow-up and elimination activities; and 3) Any proposed changes to station locations and/or sampling frequencies; and

(vii) An assessment of overall program effectiveness based on the measurable goals established in the Permittee's Individual SWMP.*

(8) Public Participation – a description of efforts to include the public in urban runoff management programs during the reporting period (i.e., river clean-ups, volunteer monitoring, Permittee council meetings related to the SWMP, etc.).

b) Assessment of Program Effectiveness - each Permittee shall include an assessment of the effectiveness of its Individual SWMP using the measurable goals and direct and indirect assessment measurements developed in the SWMP, in accordance with **Attachment D** of tentative Order No. R9-2004-001.

c) Fiscal Analysis Component - each Permittee shall include an annual fiscal analysis, for each fiscal year covered by tentative Order No. R9-2004-001, in its Individual Annual Report. This analysis shall evaluate the expenditures (such as capital, operation and maintenance, education, and administrative expenditures) necessary to accomplish the activities of the Pemittee's Individual SWMP. The analysis shall include the following:

(1) A report of the previous reporting period's budget, and a budget for the upcoming reporting period. To the extent possible, the budgets should be broken down by the following programs:

(i) Program management;
(ii) Construction Inspections;
(iii) Development plan review/SUSMP implementation;
(iv) Industrial/Commercial inspections;
(v) Illicit discharge and connection response and elimination;
(vi) Municipal activities (catch basin cleaning, BMP maintenance, etc.);
(vii) Education;
(viii) Monitoring; and
(ix) Other

(2) A description of the source(s) of funds that were utilized during the previous fiscal year and the source(s) of funds proposed to meet the necessary expenditures for the subsequent year, including legal restrictions on the use of such funds.

d) Non-Storm Water Discharges – Permittees shall report on any discharge category listed in Requirement B.2 of tentative Order No. R9-2004-001 that was identified as a source of pollutants during the reporting period. For each identified category, the Permittee shall report whether it elected to prohibit the discharge or to require BMPs to reduce pollutants in the discharge to the MEP. If the discharge is not prohibited, the BMPs that will be implemented, or required to be implemented, shall be described in each Permittee's Individual SWMP Annual Report.

e) Receiving Water Limitations – the report required pursuant to Requirement C.2.a. of tentative Order No. R9-2004-001, if applicable.

f) A summary of all urban runoff related data not included in the annual monitoring report (e.g., special investigations); and

g) Proposed revisions to the Individual SWMP, including areas in need of improvement based on the assessment of effectiveness of each program component.

2. **Watershed Annual Report** – The Watershed Annual Report, to be produced by the Principal Permittee shall describe the area-wide and watershed-based programs and activities (as described in

the Watershed SWMP) conducted during the previous reporting period. At a minimum, the Watershed Annual Report shall contain the following information:

a) A description of all area-wide and watershed-based activities conducted during the reporting period;

b) A description of efforts to coordinate with other stakeholders in the Santa Margarita Watershed, such as San Diego County and the U.S. Marine Corps Base Camp Pendleton;

c) An assessment of water quality in the Santa Margarita watershed area of Riverside County, this assessment shall include data from the previous monitoring report;

d) Identification of water quality improvement or degradation;

e) A prioritization of water quality problems and potential sources;

f) A description of watershed-specific educational activities conducted during the reporting period;

g) Recommended activities to be conducted jointly by the Permittees to address the identified water quality problems;

h) An assessment of overall program effectiveness based on the measurable goals established in the Watershed SWMP; and

i) Proposed revisions to the Watershed SWMP.

B. Receiving Waters Monitoring Reporting Requirements

1. Monitoring Program Annual Report

The Principal Permittee shall submit the Monitoring Program Annual Report (Monitoring Report) to the SDRWQCB on or before October 31 of each year. The Monitoring Report shall contain tabular and graphical summaries as well as discussions and interpretations of the receiving water monitoring data obtained during the previous monitoring year. At a minimum, each Monitoring Report shall include the following:

a) Description of each receiving water monitoring station, including but not limited to:

(1) Station location (latitude and longitude, and a narrative description).
(2) Photographs of triad stations.
(3) Approximate size and land uses of the drainage area.
(4) Any other relevant information.

b) A description of monitoring methods for each type of monitoring, including but not limited to:

(1) Monitoring equipment.
(2) Sampling procedures.
(3) Quality assurance/quality control (QA/QC) procedures (laboratory QA/QC documentation shall be submitted with the report).
(4) Laboratory analytical methods including the method detection limits (MDLs). Analytical data shall be reported with one of the following methods, as appropriate:

- An actual numerical value for sample results greater than or equal to the MDL;
- "Not-detected (ND)" for sample results less than the laboratory's MDL; or

- "Detected, but Not Quantified (DNQ)" if results are greater than or equal to the laboratory's MDL but less than the ML. The estimated chemical concentration of the sample shall also be reported. This is the concentration that results from the confirmed detection of the substance by the analytical method below the ML value.

c) A description of monitoring results, including but not limited to:

(1) Data and data products, including but not limited to:

- Actual data.
- Identification of exceedances of Basin Plan and CTR objectives.
- Estimated annual mass loadings at each station.
- Toxicity testing results in Toxic Units (TUs).
- Bioassessment data (including electronic data formatted to California Department of Fish and Game Aquatic Bioassessment Laboratory specifications) and analysis using metrics in the CSBP and the San Diego IBI.
- Graphical summaries of data.

(2) Methods used to evaluate data. Methods shall be appropriate to answer the management questions listed in Section II.A of this MRP and to assess the progress towards achieving the goals listed in Section I of this MRP. Examples of methods include, but are not limited to:

- Site-by-site summaries and comparisons of results at triad and tributary stations for wet and dry weather, including graphs of concentrations and toxicity.
- Rough estimates of the relative contribution of urban runoff to total pollutant loads.
- Maps of potential sources of pollutants.
- Any other appropriate analysis.

(3) Discussion of results and analyses of each Monitoring Program Component, including but not limited to:

- Discussion of pollutants of concern and their potential sources.
- Interpretation of bioassessment metric values.
- Discussion of any TIEs that were conducted and the potential sources of toxic pollutants.
- If applicable, a discussion of the development, implementation, and results of any TREs.
- Discussion of any relevant information or conclusions from the Illicit Discharge Monitoring Program.
- Discussion of the progress towards answering the management questions listed in Section II.A of this MRP and achieving the goals listed in Section I of this MRP.
- Discussion of any other data analyses performed.

d) In addition to the information required above, the fourth-year Monitoring Report due no later than October 31, 2008, shall include:

- A discussion of any long-term trends that can be detected from existing data (from all previous permit terms).
- Recommendations for future monitoring based on the results of previous efforts and the progress towards answering the management questions listed in Section II.A of this MRP and achieving the goals listed in Section I of this MRP.
- Recommended modifications to Individual or Watershed SWMPs to address identified source of pollutants in urban runoff.

e) If the Permittees monitor any pollutant more frequently than required by this MRP using test procedures approved under 40 CFR part 136, unless otherwise specified in the Order, the results

of this monitoring shall be included in the calculation and reporting of the data submitted in the Monitoring Reports [40 CFR 122.41(l)(4)(ii)].

f) All Monitoring Reports shall be submitted in both electronic and paper formats.

C. Certified Perjury Statement

All reports submitted to the SDRWQCB shall include the following signed, certified perjury statement:

"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 fine and imprisonment for knowing violations."

I, John H. Robertus, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of a Monitoring and Reporting Program adopted by the California Regional Water Quality Control Board, San Diego Region, on July 14, 2004.

John H. Robertus
Executive Officer