

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401-7906

ATTACHMENT 5
MONITORING AND REPORTING PROGRAM REQUIREMENTS
ORDER NO. R3-2004-0135

FOR

THE CITY OF SALINAS
MUNICIPAL STORM WATER DISCHARGES
[Waste Discharge Identification No. 3 279906001]

Monterey County

A. GENERAL

1. This Monitoring and Reporting Program (MRP) is intended to ensure the Permittee (the City of Salinas, or “the City”) is in compliance with requirements and provisions contained in Order R3-2004-0135 (hereafter “Order”). Revisions may be made under the authority of the Executive Officer at any time during the permit term, and may include a reduction or increase in the number of parameters to be monitored, the frequency of monitoring, or the number and size of samples collected. Refer to Table 1 for Receiving Water site alternative list.
2. This MRP is issued pursuant to the California Water Code Section 13267 and 13383. Because the Permittee operates facilities that discharge waste subject to storm water regulations, this MRP is necessary to ensure compliance with the Permittee’s Order.
3. The Permittee shall not cease or reduce any monitoring required by this MRP unless and until the Regional Water Quality Control Board (Regional Board) or the Regional Board’s Executive Officer issues a revised MRP.
4. The permittee shall implement the requirements of this MRP within ten days of the adoption of the Order. Requests for changes to this MRP may be initiated by the Executive Officer or the permittee. Any modifications, revisions, or amendments to the Monitoring Program shall be submitted to the Executive Officer no later than August 1 of each year for review and comment by Regional Board staff, and to

ensure Executive Officer approval of the modified, revised, or amended plan by September 1 of each year for implementation by October 1 of each year.

B. MONITORING PROGRAM

B.1. Purpose

- a. The primary objectives of the Monitoring Program include:
 - Providing data necessary to assess compliance with this Order;
 - Measuring and providing feedback to improve the effectiveness of the Storm Water Management Program (SWMP) and implemented Best Management Practices (BMPs);
 - Assessing the physical, chemical, and biological impacts of urban runoff on receiving waters;
 - Characterizing urban runoff discharges;
 - Identifying sources of pollutants; and
 - Assessing the overall health and evaluating long-term trends in receiving water quality.
- b. Ultimately, the results of the monitoring requirements outlined below should be used to refine the SWMP to reduce pollutant loadings and protect and enhance the beneficial uses of the receiving waters in the urbanized areas of the City of Salinas.
- c. The Salinas monitoring program is designed to be complementary with the following: 1) The Monitoring and Reporting Program requirements for all dischargers enrolled under Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands, Order No. R3-2004-0117 (Agriculture Waiver Program); 2) the Monterey Bay Marine Sanctuary's "Urban Watch", "First Flush", and "Snapshot Day" sampling programs; and 3) Sampling for EPA Storm Water Phase II pollutants of concern.
- d. The permittee is authorized to supplement their monitoring data with other monitoring sources outside the permit boundary, provided the monitoring conditions and sources are similar to those in the permit boundary. The permittee may not use supplemental data in lieu of performing monitoring required by this Monitoring and Reporting Program, but may use supplemental data to explain, confirm or otherwise augment the permittee's own monitoring.
- e. To meet a monitoring requirement, the Permittee may support (financially or otherwise) another agency or monitoring program that will conduct the monitoring.

B.2. Monitoring Site Network

- a. This MRP includes water quality, water toxicity, and sediment toxicity sampling of background water, receiving water, and urban discharge. Several criteria have been used to identify required monitoring locations. These include 1) Areas that collect runoff from large segments of the City; 2) Sampling sites that are representative of the City's land use types; 3) Storm drains that were identified as "high priority" in Part III of the City's Application for initial Storm Water Permit coverage; 4) Sites that characterize the primary receiving water bodies; 5) Sites that historically have water sampling data (per Central Coast Ambient Monitoring Program (CCAMP)); 6) Sites that complement the Agriculture Waiver sampling program. Sites may be modified or eliminated with Executive Officer approval.
- b. Background (upstream) Water Quality site:
 - i. Salinas River upstream of the City. Sampling site may be located near the Davis Road crossing, upstream of the outfall (CCAMP site 309DAV). Purpose: To characterize background waters of Salinas River (upstream of City of Salinas discharge);

Note: The Agriculture Waiver Program monitoring will provide additional background data on Gabilan and Natividad Creeks, and the Reclamation Ditch (Alisal Creek), therefore sampling these incoming waters need not be duplicated in this monitoring program. However, in order for the Agriculture Waiver Program data to be of greatest use for comparison with City data, water quality samples should be collected on the same day for both programs. Regional Board staff are willing to help with coordination between the two groups.

- c. Receiving (downstream) Water Monitoring sites

The purpose of the downstream sites is to characterize the impacts of the Permittee's discharge on each of the receiving water bodies. Receiving Water Monitoring sites include:

- i. Salinas River immediately downstream of the City's discharge pipe to the Salinas River, near Davis Road storm drain discharge pipe;
- ii. Reclamation Canal (Alisal Creek) CCAMP site 309ALD; and
- iii. Alisal Slough at North Davis Road.

d. Urban Discharge Sites

Urban discharge sites include storm drain outfalls numbered 7, 19, 32, and 52 on Figure 1.

B.3. Monitoring Plan

The Permittee shall implement the Monitoring Program as follows:

a. Conventional Monitoring

i. Tables 1, 2, and 3, and the Sampling Requirements Flow Chart of this Monitoring and Reporting Program contain summaries of information to be collected and reported. The City shall collect and use conventional water quality monitoring data to assess the concentrations, instantaneous loads, and tributary inputs of urban pollutants, to evaluate the pollutants' impact on beneficial uses, to identify pollutant sources, and to assess and improve BMPs. Monitoring data shall be compared to existing numeric and narrative water quality objectives, when applicable. The information required by this paragraph shall be included in the Annual Report.

ii. Background Site, Receiving Water Sites and Urban Discharge Sites

a. Each year, Background, Receiving Water and Urban Discharge sites shall be sampled as described on Tables 1,2, and 3, and the Sampling Requirements Flow Chart. The Monitoring and Sampling Plan is staged, with the intention being to identify overall impacts to receiving waters (if any), to compare urban discharge to background (incoming) water quality, and to provide a method for identifying and eliminating pollutant sources. The ultimate goal of this monitoring program is to result in source elimination.

b. **Wet season storm sampling** should target the **rising limb of the storm's hydrograph**. Whenever possible, monitoring events shall be conducted on the same day for all sites, starting with upstream sites first, and moving down the watershed. Because of the variable nature of storm water runoff, the Permittee is strongly encouraged to collect and analyze a time-series sample from each background and receiving water site. Ideally the time-series would include three (3) samples gathered from the same location at half hour increments. The three (3) samples may then be combined (composite sample) or analyzed separately. The Permittee may use trained volunteers to assist with sample collecting.

- c. Samples shall be analyzed for the constituents listed in Tables 1, 2, and 3. Table 1 includes a “Background Site Alternative list” of sampling parameters, and criteria for implementation of the alternative sampling plan.
 - d. Because of the inherent difficulty in fully capturing an entire storm event, the Permittee shall report the portion of the storm event “captured” or during which samples were collected. Samples may be collected manually or automatically. Conventional water quality data will be evaluated on a regular basis to determine whether sites have problems, or if improvements are being detected.
 - e. The Permittee shall collect flow data at the time of sampling for all monitoring stations sampled during a given year. Flow may be estimated using U.S. Environmental Protection Agency (USEPA) methods¹ at sites where flow measurement devices are not in place. The Permittee shall use flow data, combined with cross sectional area of sample site, and pollutant concentrations to calculate pollutant loads (refer to Attachment 4, Section VIII. Program Effectiveness, and Section E.1.7 of this report).
 - f. Urban Discharge sites shall be visually inspected four times per year during the dry season (typically, but not prescriptively, April 15 through October 15) in order to monitor for non-storm water discharge. If non-storm water discharge is discovered, then all reasonable attempts should be made by field crew to immediately determine the source of the non-storm water discharge. If the source is not one of the exempt non-storm water discharges (refer to Discharge Prohibition A.5 of the Order), then proper protocol should be followed to eliminate the source as soon as possible. Protocol shall include an option of sampling the non-storm water discharge for laboratory analysis, if formal enforcement appears to be a required follow-up measure.
- iii. If the Conventional Monitoring program reveals that Receiving Water site or Urban Discharge site discharges exceed: a) water quality objectives; b) CCAMP attention levels; c) Background site water quality measurements; or d) if sampling results exceed sampling ranges typical for the site, then the Permittee shall follow the investigative steps equivalent to those described in the Toxicity Reduction Evaluations, Section B.3.b.iii, below. Should receive water quality values exceed “Background Site Alternative list” (see Table 1, and B.3.a.ii.c, above) sample values, then the Permittee is also

¹ NPDES Storm Water Sampling Guidance Document, USEPA 833-B-92-001, July 1992

required to do additional sampling as described in the "Salinas Permit Sampling Requirements Flow Chart", included with this document.

b. Toxicity Testing and Assessment of Benthic Invertebrates

Toxicity testing and benthic invertebrate assessments shall be used to determine if urban pollutants are impacting beneficial uses. Because of the diversity of potential urban pollutants and the unknown synergistic or additive effects between various chemicals, and because laboratory methods to detect these chemicals are in some cases not readily available, impacts of toxic chemicals will be initially assessed using toxicity testing and bioassessment of benthic invertebrate communities. More detailed characterization, involving additional toxicity testing, chemical analysis, analysis of pesticide application data, and/or toxicity identification evaluations, will be required as necessary in areas where toxicity problems are documented.

i. Toxicity Testing

a. Background and Receiving Water sites shall be sampled for water toxicity once during the first runoff of the wet season (to correspond with rising limb of the runoff hydrograph), one more runoff event, and twice during the dry weather. Toxicity test requirements are listed on Table 3.

b. Background and Receiving Water sites shall be sampled for sediment toxicity as described in Table 3.

ii. Bioassessment

Rapid bioassessment for benthic invertebrate assemblages shall be conducted concurrently with spring sediment sampling at the Receiving water sites. All sampling methodologies shall be consistent with the CCAMP monitoring approach and the Surface Water Ambient Monitoring Program Quality Assurance Program Plan.

iii. Toxicity Reduction Evaluations (TRE)

The Permittee shall analyze samples to evaluate the extent and likely causes of toxicity in Receiving Water site (if found), and to provide information to support identification of practices that eliminate sources of toxicity or remove them to the MEP. Background site toxicity sampling shall be used for comparison to Receiving Water sites. If Receiving Water site sediment or water samples are found to be toxic during the Toxicity testing described above, the Permittee shall conduct a Toxicity Reduction Evaluation (TRE) described as follows:

a. The Permittee 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 Permittee

shall submit the TRE to the Executive Officer for approval.

- b. At a minimum, the TRE shall include a discussion of the following items:
1. Geographical description of the problem area;
 2. The potential sources of pollutant(s) causing toxicity;
 3. Permittee's jurisdiction over the pollutant sources;
 4. Recommended BMPs to reduce the pollutant(s) causing toxicity;
 5. Proposed changes to the SWMP to reduce the pollutant(s) causing toxicity; and
 6. Suggested follow-up monitoring to demonstrate that toxicity has been removed.

The Permittee does not need to prepare a TRE if the identified pollutant is already being addressed in the Permittee's SWMP. If this is the case, the toxicity found shall be noted and addressed through on-going implementation of the related pollutant control strategy.

The Permittee shall implement the recommended BMPs and take all reasonable steps necessary to eliminate toxicity.

The Permittee shall report on the development, implementation, and results of any TRE in the Annual Reports, beginning the year following the identification of each pollutant or pollutant class causing toxicity.

In cases of persistent toxicity problems, the Regional Board or its Executive Officer may require a Phase I Toxicity Identification Evaluations (TIE).

C. STANDARD MONITORING PROVISIONS

- a. Representative Sampling [40 CFR 122.41(j)(1)]

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

- b. Monitoring information [40 CFR 122.41(j)(3)]. Records of monitoring information shall include:
1. Date, location, and time of sampling or measurements;
 2. Individual(s) who performed the sampling or measurements;
 3. Date analyses were performed;
 4. Individual(s) who performed the analyses;
 5. The analytical techniques or methods used; and
 6. Results of such analyses.

- c. Test Procedures

All sampling, sample preservation, and analyses must be conducted according to test procedures under 40 CFR Part 136, unless other test procedures have been specified in this Order [40 CFR 122.41(j)(4)]. Chain of custody protocol shall be followed.

All chemical, bacteriological, and toxicity analyses performed in order to monitor compliance with this permit shall be by a laboratory certified by the State Department of Health Services for the constituent(s) being analyzed. Bioassay(s) performed in order to monitor compliance with this permit shall be in accord with guidelines approved by the State Water Resources Control Board and the State Department of Fish and Game. If the laboratory used or proposed for use by the discharger is not certified by the California Department of Health Services or, where appropriate, the Department of Fish and Game due to restrictions in the State's laboratory certification program, the discharger shall be considered in compliance with this provision provided: a) A quality assurance program is used at the laboratory, including a manual containing steps followed in this program that is available for inspections by the staff of the Regional Board; and b) Certification is pursued in good faith and obtained as soon as possible after the program is reinstated.

The Monitoring Report shall specify the analytical method used and the method detection limit for each pollutant.

All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy.

d. Monitoring and Records

The Permittee 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 Regional Board or USEPA at any time and shall be extended during the course of any unresolved litigation regarding this discharge. [40 CFR 122.41(j)(2)] [California Water Code §13383(a)]

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 both. [40 CFR 122.41(j)(5)]

e. Monitoring Frequency [40 CFR 122.41(1)(4)(ii)]

If the Permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR part 136, unless otherwise specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Annual Report.

f. Averaging Measurements [40 CFR 122.41(1)(4)(iii)]

Calculations for all limitations that require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this Order.

g. The Executive Officer or the Regional Board, consistent with 40 CFR 122.41, may approve changes to the Monitoring Program, after providing the opportunity for public comment.

D. QUALITY ASSURANCE PROGRAM PLAN (QAPP)

The Permittee shall prepare a Quality Assurance Program Plan within their Storm Water Management Plan, that describes how data will be collected and analyzed to ensure that data is consistent with State and Regional Board monitoring programs and is of high quality. Dischargers shall develop a Quality Assurance Program Plan (QAPP), consistent with the State's Surface Water Ambient Monitoring Program (SWAMP) QAPP and approved by the Regional Board's Quality Assurance Officer. A QAPP template is available through the State Water Resources Control Board's SWAMP website or upon request. All data collection shall be conducted utilizing field techniques consistent with SWAMP. All laboratory analysis shall be conducted by a laboratory certified by the Department of Health Services. The QAPP will include location of sample site(s), description of analytical and analysis techniques, data quality objectives, and other standard quality assurance information.

E. REPORTING REQUIREMENTS

E.1. Annual Report

The Permittee shall submit, in both electronic and paper formats and no later than **October 1 of each year**, an Annual Report documenting the progress of the Permittee's implementation of the Storm Water Management Program (SWMP) and the requirements of Order R3-2004-0135. The Annual Report shall discuss each Permittee's status of compliance with the Order and the SWMP, including a compilation of deliverables and milestones completed during the previous fiscal year, and a discussion of program effectiveness relative to performance standards defined in the SWMP. In each Annual Report, the Permittee may propose pertinent updates, improvements, or revisions to the SWMP, which shall be complied with under this Order unless disapproved by the Executive Officer or acted upon in accordance with this Order.

The Annual Reports shall include:

1. An executive summary discussing the effectiveness of the SWMP to reduce storm water pollution to the maximum extent practicable (MEP) and to achieve compliance with water quality standards in receiving waters;
2. A summary of activities conducted by the Permittee (required by 40 CFR 122.42(c));
3. Identification of BMPs and a discussion of their effectiveness at reducing urban runoff pollutants and flow, where applicable;
4. A map or maps showing all monitoring station locations and descriptions of each location;
5. A summary and analysis of monitoring results from the reporting year (required by 40 CFR 122.42(c)(4)). Monitoring data shall be submitted to the Regional Board electronically and in hard copy. Electronic data shall be reported according to Regional Board electronic submittal guidelines, which will be available on the Regional Board website by March 1, 2005. Hard copy data reports shall be submitted with the Annual Report on October 1 of each year. Electronic data shall also be reported by October 1 of each year;
6. Estimates of total pollutant loads attributable to urban runoff, and pollutant load reductions as a result of implementation of the storm water management program, based upon quantitative and/or qualitative data. Identification of water quality improvements or degradation (required by 40 CFR 122.42(c)(7));
7. Any Reports of Water Quality Exceedance prepared pursuant to Receiving Water Limitations described in Order R3-2004-0135 Section C.3.a, or Toxicity Reduction Evaluations prepared pursuant to Section B.3.b.iii of this MRP;
8. An assessment of the effectiveness of storm water controls including BMPs, and management programs and techniques;
9. A report of proposed modifications to the SWMP and/or Monitoring Program. This report shall include reasons for modifications, expected water quality benefits, and a time schedule for implementing modifications (required by 40 CFR 122.42(c)(2,3 and 5));
10. A summary (required by 40 CFR 122.42(c)(6)) describing:
 - i. The number and nature of enforcement actions;
 - ii. Inspections; and
 - iii. Public education programs; and
11. A fiscal and staffing analysis progress report (required by 40 CFR 122.42(c)(3)), to include, at a minimum, the following information:
 - i. The Permittee's storm water expenditures for the previous fiscal year;
 - ii. The Permittee's storm water budget for the current fiscal year, including sources and any limitations on use of funds;

- iii. An evaluation of the implementation and adequacy of the storm sewer user fee;
- iv. A staffing analysis detailing future additional staff requirements needed to accomplish SWMP activities, along with a timeframe and plan to obtain adequate staffing, if necessary; and
- v. An estimation of the Permittee's budget for the next fiscal year, including sources and any limitations on use of funds.

E.2. Annual Work Plan

a. The Permittee shall submit a proposed Annual Work Plan with the Annual Report each year. The Annual Work Plan will include clearly defined tasks, responsibilities, and schedules for implementation of monitoring activities for the next fiscal year.

b. The Permittee shall include the following in its Annual Work Plan:

- i. An annual budget summary applied toward implementing of the Permittee's SWMP. This summary shall identify the storm water budget for the applicable fiscal year using estimated percentages and written explanations, where necessary, for program management, including administrative costs and program Implementation. Where information is available and especially for those tasks required by this Order, the Permittee shall provide an estimated percent breakdown of expenditures for the various program elements and tasks within these elements.
- ii. A description of the source(s) of funds for the above budget, including any legal restrictions on the use of such funds.

F. Certification

The permittee shall be responsible for the submittal of all required information/materials needed to comply with this order in a timely manner. All such submittals shall be signed by a duly authorized representative under penalty of perjury, 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 Permittee shall mail the original of each annual report to:

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION
895 AEROVISTA PLACE, SUITE 101
SAN LUIS OBISPO, CA 93401
Attention: Storm Water Program

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

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

Attachments to Monitoring and Reporting Program:

Figure 1 – Urban Discharge Sites
Monitoring Tables 1, 2, 3, and 4
Sampling Requirements Flow Chart