

Chapter 1

Introduction

1.1 Submittal

This submittal is the 2015/2016 Annual Report for the Sacramento Stormwater Quality Partnership (Partnership) pursuant to the National Pollutant Discharge Elimination System (NPDES) Permit NPDES No. CAS082597; Order No. R5-2015-0023 (Permit) adopted April 17, 2015 by the Central Valley Regional Water Quality Control Board (Regional Water Board) as specified in the Sacramento Stormwater Quality Partnership Stormwater Quality Improvement Plan dated November 2009 and adopted by the Regional Water Board on January 29, 2010 (SQIP). Specific Permit requirements related to the Annual Report are provided in Section 1.3.

1.2 Organization

This Sacramento Stormwater Quality Partnership 2015/2016 Annual Report is organized as follows, consistent with the presentation of the SQIP and associated Work Plans:

- Chapter 1 – Introduction
- Chapter 2 – Partnership Activities
- Chapter 3 – Sacramento County
- Chapter 4 – City of Sacramento
- Chapter 5 – Citrus Heights
- Chapter 6 – Elk Grove
- Chapter 7 – Folsom
- Chapter 8 – Galt
- Chapter 9 – Rancho Cordova

The executive summary discussing the effectiveness of the SQIP as required by the Permit (MRP.I.B.1, see Section 1.3) is addressed by Chapter 2, Section 2.3 of this Annual Report.

1.3 Requirements

Permit Requirements

This 2015/2016 Annual Report is submitted for the Partnership in order to satisfy the following main Permit requirements:

Provision D.3.b

*The Permittees shall submit an Annual Report by **1 October** of each year. The Annual Report shall document the status of the SQIPs and the Permittees' activities during the previous fiscal year, including the results of a qualitative and quantitative assessment of activities implemented by the Dischargers, and the performance of tasks contained in the SQIP. The Annual Report shall include a compilation of deliverables and milestones completed during the previous 12-month period, as described in the SQIP and Annual Work Plan. The Annual Report shall include an Outcome Level 1 program effectiveness assessment and recommended modifications for each Program Element. Each Annual Report shall build upon the previous year's efforts. In each Annual Report, the Permittees may propose pertinent updates, improvements, or revisions to the SQIP, which shall be complied with under this Order.*

Monitoring and Reporting Program (MRP).I.B

Annual Report: *The Permittees shall submit, in both electronic and paper formats and no later than 1 October of each year, an Annual Report documenting the progress of the Permittees' implementation of the Storm Water Quality Improvement Plan (SQIP) and the requirements of this Order. The Annual Report shall discuss each Permittee's status of compliance with this Order and the SQIPs, including implementation dates for all time-specific deadlines should be included for each program area. If permit deadlines are not met, the Permittees shall report the reasons why the requirement was not met and how the requirements will be met in the future, including projected implementation dates. It shall include a compilation of deliverables and milestones completed during the previous fiscal year, and a discussion of Outcome Level 1 program effectiveness relative to performance standards defined in the SQIPs. In each Annual Report, the Permittees may propose pertinent updates, improvements, or revisions to the SQIPs, which shall be complied with under this Order unless disapproved by the Executive Officer or acted upon in accordance with this Order. A comparison of program implementation results to performance standards established in the SQIP and Order No. R5-2015-0023 shall be included for each program area. Specific requirements that must be addressed in the Annual Reports are listed below.*

1. *An Executive Summary discussing the effectiveness of the SQIP to reduce storm water pollution to the maximum extent practicable (MEP) and to achieve compliance with water quality standards in receiving waters;*
2. *Summary of activities conducted by the Permittees;*
3. *Identification of best management practices (BMPs) and a discussion of their effectiveness at reducing urban runoff pollutants and flow, where applicable; and*
4. *Summary of the monitoring data and an assessment of each component of the MRP. To comply with Provisions C.1 and C.2 (Receiving Water Limitations) of this Order the Permittees shall compare receiving water data with applicable water quality standards. The lowest applicable standard from the Basin Plan, California Toxics Rule (CTR), and California Title 22 (Title 22), and constituent specific concentrations limits (e.g., mercury) shall be used for comparison. The Permittees shall provide a summary of monitoring data for the MS4 discharges to assess the effectiveness of BMPs in reducing pollutants in the MS4 discharge and in assessing whether an MS4 discharge may have caused or contributed to an exceedance of water quality standards*

When the data indicate that MS4 discharges are causing or contributing to exceedances of applicable water quality standards or constituent specific concentrations limits, the Permittees shall prepare a Report of Water Quality Exceedance (RWQE), prepared pursuant to Receiving Water Limitations C.3 of this Order, and identify potential sources of the problems, and recommend future monitoring and BMP implementation measures to identify and address the sources. Monitoring data collected as part of the MRP shall be submitted in electronic format.

5. *Level 1 effectiveness assessment for each program element, as defined in the SQIP, shall be conducted annually, shall be built upon each consecutive year, and shall identify any necessary modifications. The SQIP 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 or BMP implemented in accordance with the Permit Provisions, SQIP Control Measures and Performance Standards?*
 - b. *Level 2 Outcome: Did the Program Element or BMP raise the target audience's awareness of an issue?*
 - c. *Level 3 Outcome: Did the Program Element or BMP change a target audience's behavior, resulting in the implementation of recommended BMPs?*

- d. *Level 4 Outcome: Did the Program Element or BMP reduce the load of pollutants from the sources to the storm drain system?*
- e. *Level 5 Outcome: Did the Program Element or BMP enhance or change the urban runoff and discharge quality?*
- f. *Level 6 Outcome: Did the Program Element or BMP enhance or change receiving water quality?*

Annually, the Permittees shall evaluate Water Quality Based Programs and shall include consideration of applicable physical, chemical and biological water quality data. Such evaluation may include graphs, charts, statistics, modeling, and any other analyses in support of the Permittees' evaluation of the data and conclusions derived from that analysis. Documentation shall include quality assurance and control procedures (QA/QC).

6. *Pursuant to 40 CFR 122.42(c)(7), the Permittees shall identify water quality improvements in, or degradation of, urban storm water;*
7. *For each monitoring component, photographs and maps of all monitoring station locations and descriptions of each location; and*
8. *Recommendations to improve the monitoring program, BMPs, Performance Standards, and the SQIP to address potential receiving water quality exceedances and potential pollutant sources, and to meet the MEP standard.*
9. *Provide operating data from all pump stations as an appendix in electronic format as necessary and estimate discharge volumes unless other technically defensible means to estimate urban runoff discharge volumes can be substituted. Historically, the Permittees have estimated runoff volumes based on rainfall-runoff volume empirical relationships.*
10. *In addition to the requirements listed above, the final Annual Report of this Order's permit term shall include:*
 - a. *An estimate of total pollutant loads attributable to urban runoff for target pollutants at each discharge monitoring station;*
 - b. *An evaluation of the long-term trends in MS4 discharges and receiving water quality. Several factors need to be considered when evaluating trends, such as changes in sample collection methods, data quality differences, and changes in analytical methods.*
 - c. *An evaluation of significant correlations of target pollutants with other constituents, such as total suspended solids (TSS).*
11. *The SQIP included separate sections for specific program elements, as well as separate sections for Plans required by the Order (i.e., Sediment Monitoring, Mercury Plan).*

The Partnership developed the Annual Report format to comply with Provision D.3.e.ii. of the Permit:

The Permittees shall jointly implement standardized format(s) for all reports required under this Order (e.g., annual reports, monitoring reports, fiscal analysis reports, and program effectiveness reports, etc.). The standardized reporting format(s) shall be used by all Permittees and shall include protocols for electronic reporting, specifically data reporting.

Various additional specifications related to the Annual Report are made throughout the Permit; the Partnership has taken care to address all of the requirements in preparing this submittal.

SQIP Requirements

In order to satisfy the Permit requirements, the Permittees specified the following in Sections 2.2.3 and 2.3.3 of the SQIP:

Annual Report – October 1

An annual report will be submitted by October 1 each year to describe accomplishments for the preceding fiscal year (July 1 – June 30). The report will document the status of the SQIP and the activities completed by the Permittees during the previous year, including a compilation of deliverables and milestones completed. The annual report will also include the results of the effectiveness assessments (described in Section 2.3) and recommended modifications or improvements to the SQIP based on those results. Each annual report will build upon the previous years' efforts.

A single annual report will be prepared and submitted each year to describe regional activities such as the monitoring and target pollutant programs. As with the work plan, each permittee will submit its own annual report to describe its individual activities and accomplishments, using a standardized reporting form for consistency.

Annual Permittee-Specific Program Effectiveness Assessment

Each permittee will conduct an effectiveness assessment of its permittee-specific program, for submittal with its annual report each year. The permittee-specific assessments will describe progress towards producing outcomes categorized by levels 1 through 4 and will include recommendations for modifying or adding activities and improving the programs.

Each permittee-specific SQIP in this document identifies a few key indicators for each program element that will be used in the assessment for the element. As described previously, the key indicators are the measurable and achievable metrics for representative activities that will be used to evaluate the effectiveness of a particular program element in producing outcomes and demonstrate progress towards meeting the program element goals. Because they are tailored to an individual permittee's goals and situation, key indicators may differ between the agencies.

These individual indicator results will also be utilized by the Partnership in conducting annual assessments of the overall Partnership Program, as described in the next section.

Annual Partnership Program Effectiveness Assessment

An annual assessment of Partnership Program effectiveness will be completed that includes documentation of Stormwater Permit compliance as described by outcome levels 1 through 3, reduction of pollutants from sources and in discharges (where possible) as described by outcome levels 4 and 5, and protection of receiving water quality (where possible) as described by outcome level 6. The assessment will be submitted each year with the annual report, will build upon the results of the preceding years (...)

(...) the Partnership will take selected key indicator results for the various program elements (representing both regional and permittee-specific activities), summarize the results, and use the information to assess the effectiveness of the overall Partnership Program in producing outcomes categorized by levels 1 through 4.

Data and other information from the Monitoring (Section 2.4) and Target Pollutant (Section 2.5) Programs will be used to assess the effectiveness of the Partnership Program in producing outcomes categorized by levels 4 through 6. Monitoring and target pollutant data analysis will include load removal calculations based on a watershed inventory, BMP effectiveness assessments and where possible, trend analysis. These annual snapshots will provide the building blocks for the future analyses as well as guidance for the direction of future Partnership Program activities.