
Central Valley Regional Water Quality Control Board

12 January 2015

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Sacramento Valley Water Quality Coalition
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SACRAMENTO VALLEY WATER QUALITY COALITION – CONDITIONAL APPROVAL OF THE 2015 MONITORING PLAN UPDATE

Thank you for submittal of the 2015 Assessment Year Monitoring Plan Update (MPU) for the Sacramento Valley Water Quality Coalition that was last revised and submitted on 6 November 2014. This schedule provides detailed plans for monitoring water quality constituents in all of the representative water bodies in the subwatersheds covered by the Coalition, as required under Monitoring and Reporting Order R5-2014-0030 (Order). This plan also presents the monitoring schedule for all of the required Total Maximum Daily Loads (TMDLs) and Management Plans in the Coalition area.

Central Valley Water Board staff has reviewed the plan and supporting documentation, including the analysis of pesticide use report (PUR) data, relevant pesticide characteristics and analysis of past monitoring for trace metals. The Coalition's MPU is approved, provided the following conditions are met:

1. The 2015 monitoring plan must include a monitoring schedule for the Goose Lake Subwatershed. Please provide the schedule as an MPU amendment by **27 February 2015**.
2. Based on the Coalition's relatively high risk level assigned to beta-cyfluthrin in the PUR data evaluation, I am requesting a re-evaluation of whether beta-cyfluthrin monitoring is needed for Representative site Pit River at Pitville. However, the re-evaluation should not be conducted until the current technical workgroup effort to develop the pesticides monitoring selection process is complete. Therefore, the re-evaluation of the need for beta-cyfluthrin monitoring must be submitted **within 60 days** of my issuance of a pesticides monitoring selection process.

Additional information on the above conditions is included in the attached staff memo. Staff determined that the plan is otherwise consistent with the Surface Water Quality Monitoring Requirements (Section III) of the Order.

Should the Coalition wish to revise or update this Monitoring Plan, Executive Officer approval will be required prior to the implementation of any such changes. If you have any questions or comments, you may contact Lynn Coster at (530) 224-2437, or by email at lcoster@waterboards.ca.gov.

Original signed by Adam Laputz, for

Pamela C. Creedon
Executive Officer

Enclosure: Staff Review of Monitoring Plan Update for 2015 Water Year

cc: Bruce Houdesheldt, NCWA
Claus Suverkropp, LWA

Central Valley Regional Water Quality Control Board

TO: Susan Fregien
Senior Environmental Scientist
Irrigated Lands Regulatory Program

FROM: Lynn Coster
Environmental Scientist
Irrigated Lands Regulatory Program

DATE: 17 November 2014

SUBJECT: MONITORING PLAN UPDATE FOR 2015 WATER YEAR – SACRAMENTO VALLEY WATER QUALITY COALITION

The California Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) received a Monitoring Plan Update from the Sacramento Valley Water Quality Coalition (Coalition) on 4 August 2014, as required by the Monitoring and Reporting Program (MRP) R5-2014-0030. Staff and the Coalition held a conference call on 13 October to discuss and clarify details presented in the monitoring plan. On 6 November, the Coalition submitted a revised Monitoring Plan Update (MPU) with additional information and corrections. The Monitoring Plan Update report provides the proposed surface water monitoring schedule for the period 1 October 2014 through 30 September 2015 (2015 water year). The MPU consists of an Excel workbook, including a series of worksheets providing site-specific monitoring details, a monitoring summary table, and documentation to support the Coalition's evaluation process.

Staff reviewed the 2015 water year MPU to determine compliance with requirements pursuant to the Monitoring and Reporting Program. An overview of the main elements of the proposed monitoring plan is presented below, followed by staff recommendations.

Surface Water Monitoring Sites

The monitoring plan for the 2015 water year includes the required Representative monitoring sites, Integration sites, and Special Project sites. All sites are identified in the 2015 Monitoring Year (MY) Summary Table, as well as in the Site-specific Monitoring Table, with the exception of the Goose Lake Subwatershed (see discussion below).

Representative Sites (REP): Assessment monitoring is scheduled at 16 Representative sites for 2015, the second year of the required two-year assessment period. Together, these monitoring sites are selected to be representative of all types of irrigated agriculture within the entire third-party area. The only significant change from previous monitoring plans is a focus on utilizing pesticide use information from all *represented drainages* associated with a representative site, instead of entire subwatersheds or individual drainages, to identify pesticides to monitor.

Integration Sites (INT): Three integration sites are included in the 2015 Monitoring Plan and are used to identify cumulative effects and long-term trends of drainages in the Sacramento River

Watershed. Assessment monitoring is scheduled twice during the rainy season and twice during irrigation season.

Special Project Sites (SP): Special project sites are selected to evaluate management practice-specific effects on identified water quality problems, to identify the source of a problem, and to monitor the status of an identified water quality problem. The 2015 Monitoring Plan includes the required monitoring for 20 Special Project sites. Special Project sites include those sites monitored for compliance with Total Maximum Daily Load (TMDL) requirements, as well as sites monitored in association with a management plan (MP).

Goose Lake Subwatershed: Monitoring for the Goose Lake Subwatershed (GLSWS) is not included in the 2015 Monitoring Plan Update submitted by the Coalition. Due to the transition of the GLSWS from its own coalition to a subwatershed of the Sacramento Valley Coalition, Staff determined that discussion of new monitoring requirements and options was needed. The 2015 monitoring approach for Goose Lake was discussed with the Coalition and GLSWS representatives on 20 November 2014. The Coalition has agreed to develop and submit a proposed approach to staff for monitoring beginning in 2015.

Monitoring Requirements and Schedule

Assessment monitoring is scheduled at Representative sites for general water quality parameters, nutrients, pathogen indicators, water column and sediment toxicity, pesticides, and metals. Monitoring parameters are listed in the Coalition's MPU Summary Table and Site-specific Monitoring Table. Staff reviewed all elements of the MPU and generally concurs with the Coalition's monitoring parameters and schedule. Staff identified one site, the Pit River at Pitville, which should be evaluated further (see Staff Recommendation #2 below).

The Coalition is required to identify a specific set of monitoring parameters for each Representative and Integration site and include a discussion of the rationale to support the proposed parameters and schedule. Pesticides proposed for monitoring are based on the Coalition's analysis of 2010-2012 PUR data. Pesticide monitoring is based on a combination of total pounds applied, toxicity to sensitive test species, chemical characteristics, known toxicity issues, and SVWQC monitoring results.

The pesticide monitoring schedule and frequency for the 2015 water year relies mostly on pesticide and toxicity monitoring requirements, previous monitoring results, pesticide use trends, or reports of when the pollutant is most likely to be present. The monitoring schedule for pesticides is designed to cover $\geq 85\%$ of the applications and by default generally includes all months with at least 5% of the total applications (based on acreage). Rationales for selections, inclusions, exclusions, exceptions, and other minor schedule adjustments are summarized in the Coalition's PUR Data Evaluation worksheet.

The monitoring schedule for metals is determined through the evaluation of several factors including documented use of the metal applied to irrigated lands for agricultural purposes in the last three years; prior monitoring results; geological or hydrological conditions; and mobilization or concentration by irrigated agricultural operations. Documentation of the evaluations is included in the Site-specific Monitoring Table as part of the Monitoring Plan Update.

Storm Runoff Monitoring

Per section III.C.1.c of the MRP, sampling events must be scheduled to capture at least two storm runoff events per year. As part of the Monitoring Plan Update, the Coalition shall identify storm runoff monitoring criteria. The storm season is identified as approximately October through March.

Special Project Monitoring

Special project monitoring includes, but is not limited to, specific targeted monitoring for implementation of a Total Maximum Daily Load (TMDL) requirement or implementation of a Management Plan (MP) due to exceedances. The Coalition's MPU meets the Special Project monitoring requirements. The monitoring is designed to evaluate the effectiveness of changes in management practices on water quality for the constituents of concern. TMDLs for chlorpyrifos, diazinon, legacy organochlorine (OC) pesticides, and Group A OC pesticides are addressed in the Coalition's 2015 MPU and are designated as such in the Site-specific Monitoring table.

Management Plan monitoring is generally conducted to support source identification or to assess the effects of management practice changes, and may include surveys of agricultural practices as well as water column or sediment sampling. The 2015 MPU includes the recommended monitoring schedule for locations where Management Plans are currently required, designated as MP in the Site-specific Monitoring table.

STAFF RECOMMENDATIONS

1. Monitoring for Goose Lake Subwatershed

The Staff recommends conditionally approving the Monitoring Plan Update as submitted, with an amendment to the plan to be submitted upon approval of a 2015 monitoring approach for the Goose Lake Subwatershed.

2. Monitoring Requirements for Representative Site Pit River at Pitville (PRPIT)

Based on the analysis of 2010-2012 PUR data, the Coalition concluded there is no significant pesticide use for representative site Pit River at Pitville. However, PUR Data Evaluation shows the use of beta-cyfluthrin with a relative risk of 3, counter to the Coalition's determination that pesticide use is insignificant. Staff is recommending conditionally approving the proposed monitoring schedule. The monitoring plan for the Pit River subwatershed, representative site Pit River at Pitville, should be reevaluated for beta-cyfluthrin monitoring, pending the Pesticide Evaluation Advisory Workgroup's completion of the process for identifying pesticides that require monitoring.

3. Storm Runoff Monitoring

Staff noted that storm runoff criteria were not included in the Monitoring Plan Update (MPU). The MRP stipulates, "As part of the Monitoring Plan Update, the third-party shall identify storm runoff monitoring criteria that are based on, but not limited to, precipitation levels and knowledge of soils or other factors affecting when storm runoff is expected to occur at monitoring sites" (Section III.C.1.c). However, staff considered the storm monitoring criteria included in the Coalition's approved QAPP to meet this requirement for the 2015 monitoring year. Staff recommends that storm runoff monitoring criteria be included in the next MPU, as per the specific requirement in the Order. The next MPU should also expand on the criteria to address regional differences in precipitation, soils, or other factors affecting storm runoff monitoring decisions.