1 November 2016

David Guy, President
Northern California Water Association
Sacramento Valley Water Quality Coalition
455 Capitol Mall, Suite 335
Sacramento, CA 95814-4496

SACRAMENTO VALLEY WATER QUALITY COALITION – APPROVAL OF THE 2017 MONITORING PLAN UPDATE

Thank you for submitting the 2017 Monitoring Plan Update (MPU) for the Sacramento Valley Water Quality Coalition (SVWQC, Coalition) that was last revised and submitted on 17 October 2016. 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-R1 (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.

Staff reviewed the plan and supporting documentation, including SVWQC's evaluation of Pesticide Use Report (PUR) data, relevant pesticide characteristics, and analysis of past monitoring data. The proposed monitoring schedule complies with the requirements of the Order.

Based on the submitted documents and staff review (attached), I approve SVWQC's 2017 Monitoring Update. 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 Lynn.Coster@waterboards.ca.gov.

Original signed by

Pamela C. Creedon
Executive Officer

Enclosure: Staff Review of Monitoring Plan Update for 2017 Water Year

cc: Bruce Houdesheldt, NCWA
Steve Maricle, LWA

TO: Susan Fregien
Senior Environmental Scientist
Irrigated Lands Regulatory Program

FROM: Lynn Coster
Environmental Scientist
Irrigated Lands Regulatory Program

DATE: 27 October 2016

SUBJECT: MONITORING PLAN UPDATE FOR 2017 WATER YEAR – SACRAMENTO VALLEY WATER QUALITY COALITION

The Central Valley Regional Water Quality Control Board received a Monitoring Plan Update (MPU) from the Sacramento Valley Water Quality Coalition (SVWQC, Coalition) on 2 August 2016 (updated on 17 October 2016), as required by the Monitoring and Reporting Program (MRP) R5-2014-0030-R1. The update provides the proposed surface water monitoring schedule for the period 1 October 2016 through 30 September 2017 (2017 water year). The MPU consists of an Excel workbook, including a series of worksheets providing site-specific monitoring details, a monitoring summary table, single assessment exceedances, and documentation to support the Coalition's evaluation process.

Staff reviewed the 2017 water year MPU to determine compliance with requirements pursuant to the Monitoring and Reporting Program. The monitoring plan for the 2017 water year includes the required Representative monitoring sites, Integration sites, and Special Project sites. All sites are identified in the 2017 Monitoring Year (MY) Summary Table, as well as in the Site-specific Monitoring Table. An overview of the main elements of the proposed monitoring plan is presented below, followed by staff recommendations.

MONITORING REQUIREMENTS AND SCHEDULE

Representative Sites (REP)

Monitoring is scheduled at 15 Representative sites for 2017, the second year of the required two-year non-assessment period (MRP, section III.A.1). Non-assessment monitoring is scheduled for any parameter associated with an active management plan; for any parameter that exceeded a water quality objective or Trigger Limit once during the two-year assessment period (only required for a third-consecutive year following the two-year assessment period); and for Total Maximum Daily Load (TMDL) compliance monitoring. Monitoring parameters are listed in the Coalition's MPU Summary Table and Site-specific Monitoring Table. Monitoring associated with a management plan is designated as "MP" in the Site-specific Monitoring Table; monitoring for a parameter with a single exceedance during the two-year Assessment period is designated as "SX"; and monitoring for TMDL compliance is designated as "TMDL."

The site-specific monitoring table shows that Representative Site Ulatis Creek will be monitored by the Delta RMP as per the Fiscal Year 16/17 Delta RMP Workplan. Monitoring will include field parameters (pH, conductivity, dissolved oxygen, temperature, and flow), TOC, TSS, turbidity, dissolved copper, pesticides, and water column toxicity. Constituents that are not captured by Delta RMP monitoring will continue to be monitored by the SVWQC during Assessment years. Nutrient monitoring (i.e., Nitrate + Nitrite, as Nitrogen) will be conducted by the Coalition in 2017, as well as in Assessment years. A single Nitrate + Nitrite (as Nitrogen) exceedance of 12 mg/L was observed at Ulatis Creek on 14 January 2014 during Assessment monitoring. Monitoring for nutrients was not conducted in 2015 or 2016. Historically, a management plan for nitrate was approved for completion at this site in 2012; the source of the nitrate was attributed to treated effluent from the City of Vacaville's Easterly Wastewater Treatment Plant (WWTP). Staff analyzed the 14 January 2014 flow and nitrogen data available for Easterly WWTP, New Alamo Creek, and Ulatis Creek and determined that the nitrogen exceedance at Ulatis Creek cannot be entirely attributed to discharge from the WWTP. This suggests that additional unidentified sources contributed to the exceedance. Monitoring will be conducted in 2017 to determine if the elevated nitrogen concentrations are persisting and, if so, if irrigated agriculture is a source.

Monitoring for sediment toxicity is scheduled in 2017 at Representative Site Pope Creek in the Napa subwatershed. As per the Executive Officer's conditional approval of the Reduced Monitoring/Management Practices Verification Option for the Napa subwatershed on 28 June 2016, sediment toxicity monitoring is needed to determine potential synergistic or additive effects of multiple contaminants and to confirm that agricultural practices are a low threat to surface water quality. Sediment toxicity monitoring was conducted at Pope Creek in August 2016 with no toxicity observed; an additional monitoring event is scheduled for April 2017.

Integration Sites (INT)

Integration site monitoring is scheduled at two sites that represent large and diverse drainages in order to identify cumulative effects and long-term trends in water quality in the Sacramento River Watershed: Sacramento Slough in the Butte/Yuba/Sutter subwatershed and Colusa Basin Drain in the Colusa/Glenn subwatershed. As per the MRP, monitoring should be conducted four times annually, twice following separate storm events in the rainy season (approximately October through March) and twice during irrigation season at times targeted to early and late in the irrigation season. Monitoring at all sites meets the criteria recommended in the MRP, with monitoring at Sacramento Slough and Colusa Basin Drain scheduled during November, March, May, and August.

The parameters to be monitored at Integration sites include field parameters, total organic carbon (TOC), total suspended solids (TSS), turbidity*, E. coli*, nutrients, water column and sediment toxicity, pesticides, and metals. Monitoring for any parameter associated with a management plan is also scheduled at the Integration sites. Monitoring at Sacramento Slough and Colusa Basin Drain is coordinated with the California Rice Commission during the months of May and August.

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/or to monitor the status of an identified water quality problem. The 2017 Monitoring Plan includes the required monitoring for seven Special Project sites. Monitoring at Special Project sites is scheduled for TMDL compliance, parameters associated with an active management plan, and parameters with a single exceedance of a water quality objective or Trigger Limit during the two-year Assessment monitoring period. However, TMDL monitoring for chlorpyrifos, diazinon, and legacy

organochlorine pesticides was not included in the 2017 MPU, with the reasoning outlined below. Management Plan monitoring for *E. coli* at all Special Project sites is not scheduled because *E. coli* management plan deliverables were temporarily suspended by the Executive Officer in 2011, pending the development of a regional approach.

Management Plan monitoring for dissolved oxygen (DO), pH, and salinity (designated as low-priority Management Plan constituents by the Coalition) at Special Project (non-representative) sites has been eliminated in the 2017 MPU. Instead, monitoring will take place at Representative locations that will address the regional issues associated with these parameters. Management at the non-representative locations will abide by the management actions determined for Representative sites. An exception is that monitoring for these parameters will continue at non-representative sites where concurrent Management Plan monitoring for higher priority constituents is scheduled.

TMDL Monitoring
A reduced TMDL compliance monitoring schedule for chlorpyrifos and diazinon was approved during 2016. Monitoring is discontinued during the two-year non-assessment period at all Integration or Special Project sites without ongoing management plans or exceedance-based monitoring (monitoring will continue during the two-year assessment monitoring period). The four affected sites are Sacramento Slough in the Butte/Yuba/Sutter subwatershed; Colusa Basin Drain and Rough and Ready Pumping Plant in the Colusa/Glenn subwatershed; and Coon Creek at Striplin Road in the PNSSNS subwatershed. TMDL monitoring for chlorpyrifos and diazinon will continue at these sites during Assessment years.

Pesticide Monitoring
A modified Management Plan and TMDL monitoring schedule for legacy organochlorine (OCL) pesticides was approved during 2016 and will occur in the first year of each Assessment monitoring period. The Coalition provided the following rationale to support this schedule. There are no current agricultural uses of OCL pesticides, and the half-life of these pesticides and their degradates is relatively long. Monitoring every four years is effective in tracking degradation and changes in concentrations in the water column. Trend analyses of organochlorine pesticide data will continue to be conducted following the first year of each Assessment period to identify potential trends and patterns in surface water quality that may be associated with discharges from irrigated lands. Sediment and Erosion Control Plans required by the Irrigated Lands Regulatory Program will adequately track management practices for sediment and erosion control, the only feasible practices to minimize legacy OCL impacts.

At both Representative and Non-Representative sites, the schedules for required pesticide monitoring are based on previous monitoring results and pesticide use reporting information, if applicable. The 2017 schedule relied mostly on 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 ≥85% of the applications and by default generally includes all months with at least 5% of the total applications (based on acreage).

STAFF RECOMMENDATIONS

Staff reviewed all elements of the revised MPU and agrees with the Coalition's monitoring parameters and schedule. The proposed plan meets the requirements of the MRP, and the Coalition provided the necessary rationale to support reduced monitoring that was incorporated into the plan.