

Central Valley Regional Water Quality Control Board

19 December 2023

Kori Peterson
Westlands Water Quality Coalition
P.O. Box 6056
Fresno, CA 93703

APPROVAL OF COMPLETION REQUEST FOR CHLORPYRIFOS AND *C. DUBIA* WATER COLUMN TOXICITY MANAGEMENT PLANS IN THE CANTUA CREEK WATERSHED – WESTLANDS WATER QUALITY COALITION

Thank you for your 1 August 2023 Surface Water Quality Management Plan (SQMP) Completion Requests for chlorpyrifos and *Ceriodaphnia dubia* (*C. dubia*) water column toxicity in the Cantua Creek watershed within the Westlands Water Quality Coalition area. Based on staff's review, I am approving the completion of the management plans.

Please continue monitoring in accordance with the Coalition's approved Surface Water Monitoring Plan and the Monitoring and Reporting Program for Waste Discharge Requirements General Order R5-2014-0001-08. Should future sample results for the above constituents document the exceedance of an applicable water quality objective or trigger limit twice in a three-year period, the requirement to develop a SQMP shall apply.

The enclosed memorandum provides additional details regarding staff's review of the SQMP Completion Request. If you have any further questions regarding this letter, please contact Mathew Jian at (559) 445-5567 or by email at Mathew.Jian@waterboards.ca.gov.



Patrick Pulupa
Executive Officer

Enclosure: Staff Review of the Westlands Water Quality Coalition Surface Water
Quality Management Plan Completion Request

Central Valley Regional Water Quality Control Board

TO: Eric Warren, PE
Senior Water Resource Control Engineer
IRRIGATED LANDS REGULATORY PROGRAM

FROM: Mathew Jian
Water Resource Control Engineer
IRRIGATED LANDS REGULATORY PROGRAM

DATE: 19 December 2023

SUBJECT: REVIEW OF COMPLETION REQUEST FOR CHLORPYRIFOS AND *C. DUBIA* WATER COLUMN TOXICITY MANAGEMENT PLANS IN THE CANTUA CREEK WATERSHED – WESTLANDS WATER QUALITY COALITION

On 1 August 2023, the Westlands Water Quality Coalition (Coalition) submitted a Surface Water Quality Management Plan (SQMP) Completion Request for chlorpyrifos and *Ceriodaphnia dubia* (*C. dubia*) water column toxicity within the Cantua Creek watershed. SQMPs are required under Waste Discharge Requirements General Order R5-2014-0001-08 (Order) to address potential irrigated agricultural impacts to surface water bodies and are triggered for constituents that exceed water quality objectives or triggers at the same monitoring site more than once in a three-year period.

The Executive Officer can determine that management plans are complete once the following Order requirements are met:

- 1) at least three years of compliance with receiving water limitations during the times of year¹ when previous exceedances occurred, including consideration of peak use periods when the parameter is likely to be present
- 2) documentation of third-party education and outreach to applicable Members in the watershed where water quality impairment occurred
- 3) documentation of management practice implementation by applicable Members that address the exceedances, and
- 4) demonstration of management practice effectiveness at addressing the water quality problem

Staff have evaluated available information for the two management plans to assess whether the requirements for management plan completion have been met.

¹ For this review, staff has evaluated water quality data collected the month prior to or after the month(s) the original exceedances occurred.

SURFACE WATER QUALITY MANAGEMENT PLAN COMPLETION REQUEST SUMMARY

Chlorpyrifos

Exceedances for chlorpyrifos at the Cantua Creek at San Luis Canal monitoring site occurred in January 2008, February 2008, and May 2010, triggering the requirement for a management plan. The Coalition submitted a comprehensive SQMP in 2016 and the chlorpyrifos management plan was initiated in 2016. Monthly monitoring for chlorpyrifos was scheduled from the 2016 water year (WY) through the 2017 WY. Starting in 2018 WY, monitoring for chlorpyrifos was scheduled during months determined by the Pesticide Evaluation Protocol. There have been three documented exceedances (May 2016, February 2017, and March 2019) since the chlorpyrifos management plan was initiated. Table 2 and Attachment A in the management plan completion request documents the monitoring history from 2008 through April 2023.

Pesticide Use Report (PUR) data referenced in the management plan completion request indicate that there has been no application of chlorpyrifos in the Cantua Creek watershed from 2019 through 2021. Moreover, the California Department of Pesticide Regulation (DPR) banned the sale of chlorpyrifos-containing products effective 1 January 2020, and the application of chlorpyrifos effective 1 January 2021.

***C. dubia* water column toxicity**

Exceedances for *C. dubia* water column toxicity at the Cantua Creek at Highway 33 monitoring site which occurred in February 2010, April 2010, and September 2011 triggered the requirement for a management plan. The Coalition submitted a comprehensive SQMP in 2016 and the *C. dubia* water column toxicity management plan was initiated in 2016. Monthly monitoring for *C. dubia* water column toxicity has continued to date. There has been one documented exceedance (May 2017) since the *C. dubia* water column toxicity management plan initiated. Table 3 and Appendix I in the management plan completion request documents the monitoring history from 2008 through April 2023.

Education and Outreach

The Coalition conducts general outreach activities to all Coalition members through the annual meetings and newsletters. Focused outreach with six targeted members in the Cantua Creek watershed began in 2021, and the Coalition received Management Practice Implementation Report (MPIR) surveys from all six members. Four of the targeted members required follow-up contacts in 2022, and the Coalition received MPIR follow-up surveys from three of the members since April 2023. Table 4 in the management plan completion request documents the focused outreach to applicable Members.

Management Practices Implementation

Table 5 and 6 of the management plan completion request document the management practices implemented by the six targeted members in 2021 and the three reporting

members in 2022, respectively. Implemented management practices include using new spray management practices, using new irrigation management practices, and using new information for scheduling irrigation.

Demonstration of Management Practice Effectiveness at Addressing the Water Quality Problem

The Coalition asserts that the focused outreach to educate growers and implement management practices, and the ban of chlorpyrifos application in California are successful demonstration of management practices implemented and can be used to justify Order requirement (4) above.

STAFF FINDINGS AND RECOMMENDATIONS

Chlorpyrifos

The Coalition was able to address 3 of 4 requirements to complete the management plan for chlorpyrifos. The Coalition was not able to demonstrate that there was at least three years of compliance with receiving water limitations due to chlorpyrifos not being sampled in 2020. However, the Coalition was able to demonstrate that there was no chlorpyrifos application in the Cantua Creek watershed from 2019 through 2021, and staff independently verified the PUR data obtained from the DPR PUR database. Monitoring for chlorpyrifos in January 2021, December 2022, and January – April 2023 showed no exceedances. Additionally, a ban on the sale of chlorpyrifos went into effect on 6 February 2020, followed by a cessation of its possession and use on 31 December 2020. Based on these unique considerations, staff recommends the management completion request for chlorpyrifos be approved.

***C. dubia* Water Column Toxicity**

The Coalition was able to adequately address all 4 requirements to complete the management plan for *C. dubia* toxicity. Therefore, staff recommends the management completion request for *C. dubia* toxicity be approved. Regular monitoring should continue in accordance with the Coalition's approved Surface Water Monitoring Plan.