

**STATE WATER RESOURCES CONTROL BOARD  
BOARD MEETING SESSION – DIVISION OF WATER QUALITY  
OCTOBER 17, 2023**

**ITEM 4**

**SUBJECT**

REPORT ON QUALITY ASSURANCE RECOMMENDATIONS FOR THE CERIODAPHNIA DUBIA TOXICITY TEST AND AN UPDATE ON THE STATUS OF IMPLEMENTATION OF THE TOXICITY PROVISIONS.

**DISCUSSION**

On December 1, 2020, the State Water Resources Control Board (State Water Board) adopted the Toxicity Provisions (Provisions) in [Resolution No. 2020-0044](#). The Provisions established statewide numeric water quality objectives for acute and chronic aquatic toxicity, a statewide statistical approach to analyze test results known as the Test of Significant Toxicity (TST) statistical approach, a program of implementation to control toxicity, and a consistent yet flexible framework for monitoring toxicity. The Provisions aim to provide consistent protection of aquatic life beneficial uses in inland surface waters, enclosed bays, estuaries, and coastal lagoons throughout the state and protect aquatic life from the effects of known and unknown toxicants.

On October 5, 2021, the State Water Board confirmed the authority under which the Provisions were adopted in [Resolution No. 2021-0044](#). The Provisions were approved by the California Office of Administrative Law on April 25, 2022, and approved by U.S. Environmental Protection Agency (U.S. EPA) on May 1, 2023.

During the public review process for the Provisions, commenters expressed concerns regarding the reliability and variability of the chronic Ceriodaphnia dubia (C. dubia) reproduction test method and its use in assessing compliance with numeric effluent limitations for toxicity. The Provisions include a delay to the implementation of the monthly median effluent limitation (MMEL) for the chronic C. dubia test until January 1, 2024, in certain circumstances, to provide an opportunity for improvements in laboratory performance, as needed. It would also provide an opportunity for stakeholders to engage in a study on whether optimizing the test method could reduce within-test variability and improve laboratory performance, so as to improve stakeholder and public confidence. The study is not a necessary component of the Toxicity Provisions and is being conducted independently of the Toxicity Provisions. The Toxicity Provisions will be implemented in full starting January 1, 2024, and the study will not impact implementation of the Provisions.

The State Water Board contracted with the Southern California Coastal Water Research Project (SCCWRP) to conduct the C. dubia study. A wide variety of participants collaborated to develop and execute the study, including a Stakeholder Advisory Committee comprised of regulatory agencies, regulated parties, and non-governmental organizations; an Expert Science Panel comprised of international experts in freshwater

toxicity testing; California Environmental Laboratory Accreditation Program (ELAP)-accredited laboratories; and the general public.

The C. dubia study involved four key components: 1) an analysis of historical data from ELAP-accredited laboratories, 2) a baseline intercalibration study based on laboratories conducting the test with their own standard operating procedures, 3) laboratory visits and a roundtable workshop to develop a list of recommended standardized test parameters, and 4) a second intercalibration study based on laboratories testing the recommended standardized test parameters. The findings of this study resulted in recommendations that are associated with accreditation, method best practices, training, and future studies.

Staff and SCCWRP will provide an overview of the C. dubia study and will present the final recommendations and guidance for reducing within-test variability and improving laboratory performance when conducting the chronic C. dubia reproduction toxicity test.

Additionally, staff will provide a summary of the implementation of the Provisions thus far.

#### **POLICY ISSUE**

This is an information item that does not require a policy decision.

#### **FISCAL IMPACT**

This is an information item with no fiscal impact.

#### **REGIONAL BOARD IMPACT**

This is an information item with no impact to the Regional Boards.

#### **STAFF RECOMMENDATION**

This is an information item. No staff recommendation will be presented.