

**STATE WATER RESOURCES CONTROL BOARD  
RESOLUTION NO. 2020-0044**

**ESTABLISHING THE  
WATER QUALITY CONTROL PLAN FOR INLAND SURFACE WATERS,  
ENCLOSED BAYS, AND ESTUARIES OF CALIFORNIA  
AND ADOPTING TOXICITY PROVISIONS**

**WHEREAS:**

1. The State Water Resources Control Board (State Water Board) and the nine Regional Water Quality Control Boards (Regional Water Boards) (collectively referred to as the Water Boards) administer the Porter-Cologne Water Quality Control Act (Wat. Code, Div. 7, § 13000 et seq.) to achieve an effective water quality control program for the State of California.

**Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California**

2. The State Water Board is authorized pursuant to Water Code section 13170 to adopt water quality control plans in accordance with the provisions of Water Code sections 13240 through 13244, insofar as they are applicable, which may include beneficial uses, water quality objectives, and programs of implementation to achieve the water quality objectives. Such plans, when adopted, automatically supersede any regional water quality control plan for the same waters to the extent of any conflict.
3. This action establishes the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California (ISWEBE Plan) as a single planning document to contain all the water quality control plan provisions adopted by the State Water Board relating to inland surface waters, enclosed bays, estuaries, and coastal lagoons of the state, including waters of the United States and all other surface waters of the state. The ISWEBE Plan will also be used by the State Water Board in the future on a case-by-case basis to include state policies for water quality control. The Porter-Cologne Water Quality Control Act authorizes the State Water Board to formulate, adopt, and revise state policy for water quality control, which may include water quality objectives, principles, and guidelines. (Water Code § 13140-13143). State policies for water quality control may supersede conflicting provisions in regional water quality control plans where the State Water Board determines it is appropriate. The permissible contents of water quality control plans pursuant to Water Code section 13170 overlap with the permissible contents of policies for water quality control pursuant to Water Code section 13140. In some cases, the State Water Board acts under the authority of both Water Code sections 13170 and 13140. Including policies for water quality control in the ISWEBE Plan will facilitate public access to relevant regulatory requirements by consolidating them in one document.

4. The ISWEBE Plan will include components already adopted by the State Water Board. Subsequent to this action to establish the ISWEBE Plan, the State Water Board intends to take a separate action to amend the ISWEBE Plan to incorporate existing, statewide water quality control plan provisions and state policies for water quality control that have been adopted by the State Water Board prior to the amendment to the ISWEBE Plan. As of the date of this Resolution, the State Water Board has promulgated the following water quality control plan provisions as either stand-alone provisions, or as part of the Water Quality Control Plan for Enclosed Bays and Estuaries of California:
5. The Policy for Implementation of Toxic Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP), [Resolution No. 2000-0015](#), and amendments, [Resolutions No. 2000-0030](#), and [No. 2005-0019](#).
6. Part 1 Trash Provisions of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California, [Resolution No. 2015-0019](#).
7. Part 2 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California – Tribal and Subsistence Fishing Beneficial Uses and Mercury Provisions, [Resolution No. 2017-0027](#).
8. Part 3 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California – Bacteria Provisions and a Water Quality Standards Variance Policy, [Resolution No. 2018-0038](#).
9. Amendment to the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California – State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State, [Resolution No. 2019-0015](#).
10. Water Quality Control Plan for Enclosed Bays and Estuaries of California – Part 1 Sediment Quality, [Resolution No. 2008-0070](#), and amendments [Resolutions No. 2011-0017](#), and [No. 2018-0028](#).

#### Toxicity Provisions

11. This action also adopts the Toxicity Provisions as a component of the ISWEBE Plan. In adopting the Toxicity Provisions, the State Water Board acts under the authority of Water Code sections 13170 and 13140.
12. The primary goal of the Toxicity Provisions is to provide consistent protection of aquatic life beneficial uses in all inland surface waters, enclosed bays, estuaries, and coastal lagoons of the state from the effects of toxicity. The Toxicity Provisions include:
13. Numeric water quality objectives for both chronic and acute aquatic toxicity that are expressed as a null hypothesis and alternative hypothesis and incorporate regulatory management decisions (RMDs). The RMDs represent the allowable error rates and thresholds that would result in an unacceptable risk to aquatic life;

14. Requirements to use the Test of Significant Toxicity (TST) statistical approach for analyzing aquatic toxicity test data; and,
15. A program of implementation to control toxicity in discharges and achieve, maintain, and protect associated beneficial uses and water quality objectives.
16. The Staff Report, Including Substitute Environmental Documentation, for the Proposed Establishment of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California; and Toxicity Provisions (Staff Report), describes the necessity for and the scope of the Toxicity Provisions. It also contains the environmental documentation required by the State Water Board's certified regulatory program regulations (Cal. Code Regs., tit. 23, § 3720 et seq.) to comply with the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.). The Staff Report is an integral part of this State Water Board action and was considered by the State Water Board before taking action on the Toxicity Provisions.
17. The Toxicity Provisions require that aquatic toxicity testing be conducted following U.S. EPA-approved aquatic toxicity test methods. As further explained in the Staff Report and the response to comments, the Toxicity Provisions do not change the test methods. The test method manuals contain specific requirements or recommendations on how to conduct a test. Following the test methods can prevent laboratory interference, such as those which may result from low dissolved oxygen concentrations, suspended or dissolved solids, pathogens, and extremes of pH, alkalinity, salinity, or hardness.
18. The Toxicity Provisions require the use of the TST approach as a single, consistent statewide statistical approach for analyzing data from aquatic toxicity tests. Use of a single statistical approach statewide ensures that toxicity data generated from all programs can be considered and evaluated together for the Integrated Report and other water quality assessments. In addition to establishing consistency statewide, the TST approach provides simpler to understand results (i.e., a pass or a fail) and greater confidence in the results than other statistical approaches. The TST also provides dischargers and laboratories with an incentive to produce high quality data, with low within-test and intra-laboratory variability.
19. In 2008, an external peer review was conducted by U.S. EPA's Office of Wastewater Management (OWM) on the TST Technical Document. The scientific basis of the Toxicity Provisions underwent external scientific peer review as required by Health and Safety Code section 57004, solicited on March 26, 2012. In 2011, two peer-reviewed journal articles were written that delineate the technical underpinnings of the TST approach and demonstrate the benefits to both regulatory authorities and permitted entities. Since the peer review, changes were made from the 2011 Draft Policy for Toxicity Assessment and Control to the current Toxicity Provisions. However, the scientific basis of the Toxicity Provisions remains unchanged.

20. In State Water Board [Water Quality Order No. 2003-0012](#) (Los Coyotes Order), the State Water Board concluded that the propriety of including numeric effluent limitations for chronic toxicity is best addressed through a rule making action in order to allow full public participation and deliberation. The development and consideration of the Toxicity Provisions provides that regulatory setting. The State Water Board concludes that it is appropriate to include numeric effluent limitations for chronic toxicity in NPDES permits for non-stormwater NPDES dischargers. The State Water Board has not made such a determination at this time regarding the propriety of including numeric effluent limitations for chronic toxicity for other dischargers.
21. The chronic *C. dubia* reproduction toxicity test is a reliable test and is essential in protecting California's surface waters from toxicity. Due to the need to build stakeholder and public confidence in laboratory performance when conducting the chronic *C. dubia* test method for median monthly effluent limitation (MMEL) compliance purposes, it is appropriate to include a short-term delay in the statewide implementation of the *C. dubia* MMEL, as long as it is consistent with federal law for each permit. In the long-term, mandating a statewide maximum daily effluent limitation and MMEL using *C. dubia* is essential to restrict pollutants and provide the appropriate incentive for dischargers to address the causes of toxicity, and ultimately protect beneficial uses.
22. The aquatic toxicity water quality objectives are established to ensure the reasonable protection of beneficial uses and the prevention of nuisance. In establishing the aquatic toxicity water quality objectives contained in the Toxicity Provisions, the State Water Board considered the factors contained in Water Code section 13241. The Staff Report (at chapter 9) addresses those factors and includes a consideration of costs and a reference to a report titled, "Economic Considerations of Proposed Whole Effluent Toxicity Provisions for California," prepared in January 2020, to inform the board's consideration of the economic factors.
23. As explained in the Staff Report, the adoption of the Toxicity Provisions is consistent with the conditions established in the State Antidegradation Policy ([State Water Board Resolution 68-16](#)) and the federal Antidegradation Policy (40 C.F.R. § 131.12), in that the Toxicity Provisions are not anticipated to authorize degradation of water quality. The Toxicity Provisions do not supersede existing narrative toxicity objectives. Narrative toxicity objectives can continue to be used to derive chemical-specific effluent limitations and receiving water limitations. In addition, the requirements in the Toxicity Provisions specific to routine monitoring for aquatic toxicity, compliance with effluent limitations, and a prescribed method for determining when toxicity reduction evaluations are required will ensure that dischargers take necessary steps to identify and address aquatic toxicity in effluent. If there is a change in water quality due to the Toxicity Provisions and the short-term delay in the statewide implementation of the *C. dubia* MMEL, that change is consistent with Antidegradation Policies.

24. As indicated in the Staff Report and the response to comments, the Toxicity Provisions meet the necessity standard of the Administrative Procedures Act, Government Code section 11353, subdivision (b).
25. The Toxicity Provisions will become effective for purposes of state law upon approval by the Office of Administrative Law (OAL). Portions of the Toxicity Provisions will not become effective for Clean Water Act purposes until approved by U.S. EPA, to the extent that U.S. EPA determines that they are subject to its approval.

#### California Environmental Quality Act

26. The Staff Report contains the environmental documentation required by the State Water Board's certified regulatory program regulations (Cal. Code Regs., tit. 23, § 3720 et seq.) to comply with the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.), including a description of the project; a completed environmental checklist; an identification of any significant or potentially significant adverse impacts of the project; an analysis of reasonable alternatives to the project and mitigation measures; and an environmental analysis of the reasonably foreseeable methods of compliance, including a reasonable range of environmental, economic, and technical factors over a range of population and geographic areas. (Cal. Code Regs., tit. 23, § 3777, subs. (a)-(c).)
27. The State Water Board is the lead agency with respect to the adoption of the Toxicity Provisions. In preparing the environmental analysis pertaining to the reasonably foreseeable methods of compliance, the State Water Board is "not required to conduct a site-specific project level analysis of the methods of compliance, which CEQA may otherwise require of those agencies who are responsible for complying with the plan or policy when they determine the manner in which they will comply." (*Id.*, § 3777, subd. (c).). An increase in monitoring, testing, and laboratory analysis was identified as a method of compliance with the Toxicity Provisions. The possibility that any given discharger would choose to implement a specific toxicity control as a method of complying with the Toxicity Provisions is speculative, and therefore toxicity controls are not considered to be reasonably foreseeable methods of compliance. However, for purposes of informing decision makers and the public of any possible effects that may result from the Toxicity Provisions, however unlikely, the Staff Report includes a discussion on possible toxicity controls, and the potentially significant environmental impacts from the possible toxicity controls. To the extent that a discharger determines that additional toxicity controls are needed to comply with the Toxicity Provisions, that discharger will also determine the specific method or methods to employ to achieve compliance. Any necessary project-level analysis will be conducted by the appropriate public agency prior to implementation of any facility-specific methods of compliance. The environmental analysis in the Staff Report assumes that the project-specific methods of compliance would be designed, installed, and maintained following all applicable state and local laws, regulations, and ordinances.

28. No potentially significant impacts were identified in the Substitute Environmental Documentation related to the methods of compliance with the Toxicity Provisions. As no potentially significant effects were identified from the reasonably foreseeable methods of compliance or the project, a statement of overriding considerations is not required.
29. The Substitute Environmental Documentation consists of the Staff Report (including documents referenced therein), the comments and responses to comments on the Staff Report and the Toxicity Provisions, the environmental checklist, and this resolution.

#### Public Participation and Tribal Consultation

30. In developing, considering, and adopting the Toxicity Provisions, the State Water Board complied with the applicable public participation requirements and provided additional opportunities for public consideration of the Toxicity Provisions:
31. State Water Board staff held a CEQA scoping meeting on January 17, 2006, to solicit input from public agencies and members of the public.
32. On October 10, 2010, staff circulated the draft Policy for Toxicity Assessment and Control for public review and comment. The comment period was from October 10, 2010, to November 22, 2010, and was extended to January 21, 2011.
33. On June 27, 2012, staff circulated the draft Policy for Toxicity Assessment and Control for public review and comment. The comment period was from June 27, 2012, until August 21, 2012.
34. On August 21, 2012, the State Water Board held a public hearing on the Toxicity Policy to receive oral comments.
35. On October 19, 2018, staff released the Draft Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California; and Toxicity Provisions and Draft Staff Report. The State Water Board solicited and received public comments regarding these documents. The comment period was from October 19, 2018, to December 21, 2018.
36. On November 28, 2018, the State Water Board held a public hearing to receive oral comments.
37. On July 25, 2019, staff released the First Revised Draft Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California; and Toxicity Provisions and Draft Staff Report (First Revised Draft Toxicity Provisions and Staff Report).
38. The State Water Board held a public workshop on October 3, 2019, to provide an opportunity for an open discussion between members of the public and members of the State Water Board regarding the First Revised Draft Toxicity Provisions and Staff Report.

39. On December 24, 2019, the State Water Board made two new appendices to the Staff Report publicly available. Appendix J provides an evaluation of laboratory performance with the chronic *C. dubia* toxicity tests. Appendix K summarizes a survey of laboratory toxicity testing logistical capacities. The State Water Board solicited and received public comments regarding these appendices. The comment period was from December 24, 2019, to February 10, 2020.
40. On July 7, 2020, staff released the Second Revised Draft Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California; and Toxicity Provisions and Draft Staff Report for an additional public comment period, where the public comment period was from July 7, 2020, to August 24, 2020.
41. The State Water Board has carefully considered all public comments received on the Toxicity Provisions and responded to the comments in four documents:
  - a. [Prevailing Comments on the 2010 Draft Policy for Toxicity Assessment and Control](#), including the [Alternatives to Select Provisions of the Draft Policy for Toxicity Assessment and Control](#);
  - b. [Response to Comments on the 2012 Draft Policy for Toxicity Assessment and Control](#);
  - c. [Summary of Comments and Responses on the 2018 Draft Toxicity Provisions and 2018 Draft Staff Report](#); and
  - d. [Summary of Comments and Responses on the Appendices J and K and the Differences Between the October 19, 2018 and July 7, 2020 Draft Toxicity Provisions and Staff Report](#).
42. On October 30, 2020, the State Water Board distributed and posted the Proposed Final Toxicity Provisions and the Proposed Final Staff Report.
43. The State Water Board complied with the tribal consultation requirements established by Governor's Executive Order No. B-10-11 (September 19, 2011) and Assembly Bill 52 (Gatto) (Stats. 2014, ch. 532) which ensure tribal governments have the opportunity to provide meaningful input in the development of regulations, rules, policies, or projects that may affect Native American Tribes.
44. The State Water Board or staff hosted ten public workshops on November 16, 2010; August 22, 2011; October 29, 2018; October 31, 2018; August 13, 2019; August 16, 2019; August 28, 2019; November 15, 2019; January 9, 2020; and July 29, 2020.
45. Consistent with Water Code section 13147, public hearings were held prior to the adoption of the Toxicity Provisions. The State Water Board provided notice to the Regional Water Boards of the hearing by sharing drafts of the Toxicity Provisions and holding workshops with the Regional Water Boards. Notice of each hearing was published within the affected regions.

## *Ceriodaphnia dubia* Chronic Toxicity Testing

46. The State Water Board maintains the Environmental Laboratory Accreditation Program (ELAP) in order to ensure laboratories utilized by regulated entities generate environmental and public health data of known, consistent, and documented quality.
47. The State Water Board acknowledges that some dischargers have concerns regarding laboratory performance while executing the *Ceriodaphnia dubia* (*C. dubia*) chronic toxicity test methods and the possible effects of laboratory performance on the statistical results of this data when used for compliance purposes.
48. The U.S. EPA has demonstrated the reliability and performance of the *C. dubia* chronic toxicity test method and has promulgated the method nationally. The scientific and legal validity of the method has been upheld in court.
49. The Water Boards have used the *C. dubia* chronic toxicity test and the TST statistical approach in some National Pollutant Discharge Elimination System (NPDES) permits.
50. Studies have demonstrated that ELAP-accredited laboratories that are conducting aquatic toxicity testing utilizing the *C. dubia* chronic test and the TST statistical approach to determine compliance with existing permits can execute the test with the precision needed to meet the target false positive probability of five percent.
51. The chronic *C. dubia* test method provides flexibility in conducting the test. ELAP-accredited laboratories may conduct the *C. dubia* chronic toxicity test differently due to flexibility in the test methods which may lead to laboratories achieving differing levels of precision.
52. There is value in conducting a quality assurance study to determine whether more specific guidelines for test method execution or laboratory best practices meant to reduce within-test and intra-laboratory variability could improve laboratory performance and increase confidence in the results for the *C. dubia* chronic toxicity test.
53. The State Water Board is funding and managing a study titled "Development of Quality Assurance Recommendations for the Ceriodaphnia Toxicity Test" through Agreement 19-078-270 with the Southern California Coastal Water Research Project Authority to undertake the following tasks:
  54. Convene a stakeholder advisory committee and an independent panel of experts to develop and conduct the study.
  55. Produce a report that summarizes the study results, provides recommendations regarding improving toxicity data quality and comparability for the *C. dubia* chronic toxicity test method.



56. Produce a dataset containing raw data and associated metadata from the study in order to facilitate public review and use of the information.

#### Storm Water Permit Requirements

57. The program of implementation in the Toxicity Provisions includes detailed requirements for non-stormwater NPDES discharges. For storm water discharges, the Toxicity Provisions generally requires aquatic toxicity monitoring be analyzed using the TST without specifying if or when aquatic toxicity monitoring requirements or limitations would be required in NPDES permits. The permitting authority, often a Regional Water Board, retains the discretion to require toxicity monitoring, limitations, or other permit conditions for storm water dischargers on a case-by-case basis.
58. Surface water quality may benefit from statewide implementation requirements specific to storm water discharges, including requirements specific to the application of mixing zones, reasonable potential determinations, monitoring frequencies, effluent or receiving water limitations, and considerations for dry and wet weather flow conditions.
59. The State Water Board's Strategy to Optimize Resource Management of Stormwater (STORMS) program is the appropriate forum in which to consider aquatic toxicity implementation considerations for storm water discharges.

#### Alternative Test Procedure

60. U.S. EPA aquatic toxicity test methods require the use of five concentrations of the effluent. On February 12, 2014, California submitted an application for a statewide alternate test procedure (ATP) for use of a two-concentration test design when using the TST statistical approach that was approved by U.S. EPA. On February 11, 2015, the U.S. EPA withdrew the approval of the State Water Board's ATP. The State Water Board has submitted a new application for a limited-use ATP for one effluent concentration plus the laboratory control for permits in California requiring the TST statistical approach for permit compliance. While a new ATP application is not needed prior to approval or implementation of the Toxicity Provisions, the ATP, if approved, would provide an opportunity for laboratory cost savings.

#### Sampling and Shipping Coordination for Remote Dischargers

61. Small dischargers located in remote areas of California face unique challenges in staffing toxicity sample collection and sampling shipment to laboratories in a timely and cost-effective manner. Coordinated monitoring programs can improve efficiency and reduce costs for sample collection and shipping in other programs.

THEREFORE, BE IT RESOLVED THAT the State Water Board:

1. Approves and adopts the [Substitute Environmental Documentation](#), which was prepared in accordance with the regulations applicable to the State Water Board's certified regulatory programs, California Code of Regulations, title 23, sections 3777 through 3779.
2. Establishes the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California.
3. After considering the entire administrative record, including all oral testimony and written comments received, adopts the [Toxicity Provisions](#).
4. Authorizes the Executive Director or designee to submit the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California; the Toxicity Provisions, and the administrative record to the California Office of Administrative Law (OAL) and the U.S. EPA for review and approval.
5. Authorizes the Executive Director or designee to make minor, non-substantive modifications to the language of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California; and the Toxicity Provisions if State Water Board staff or OAL determines such changes are needed for clarity or consistency, and inform the State Water Board of any such changes.
6. Directs staff, upon approval by the OAL, to file a Notice of Decision with the Secretary for Natural Resources and transmit payment of the applicable fee as may be required to the Department of Fish and Wildlife pursuant to Fish and Game Code section 711.4.
7. Directs staff, primarily within the Strategy to Optimize Resource Management of Stormwater (STORMS) program, to prioritize an evaluation and consideration of aquatic toxicity implementation requirements specific to storm water discharges.
8. Directs staff to encourage, accommodate, and support coordinated toxicity sampling and shipping efforts in a more timely and cost-effective manner.
9. Directs staff to report on the findings and recommendations of the study titled "Development of Quality Assurance Recommendations for the *Ceriodaphnia* Toxicity Test" at a State Water Board meeting by July 2023. Possible regulatory outcomes of the study may include optional guidance to laboratories or requirements that may need to be established in regulation.
10. Directs staff to continue to pursue U.S. EPA approval of an ATP that would allow for testing one effluent concentration and the laboratory control for permits in California requiring the TST statistical approach for permit compliance.

11. Directs staff to provide the State Water Board a report by July 2023 on the implementation of the Toxicity Provisions, including reporting on coordinated toxicity sampling, laboratory logistics and costs, aquatic toxicity metrics (e.g., monitoring frequency, violations, frequency of toxicity reduction evaluations), information on aquatic toxicity monitoring efforts across Water Board programs, status of efforts to prioritize an evaluation and consideration of aquatic toxicity implementation requirements specific to storm water discharges, the dischargers' experience initiating three aquatic toxicity tests (e.g., one routine monitoring and two MMEL compliance tests) in one calendar month and conducting replacement tests, and any implementation challenges.

### **CERTIFICATION**

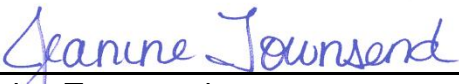
The undersigned Clerk to the Board does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the State Water Resources Control Board held on December 1, 2020.

AYE: Chair E. Joaquin Esquivel  
Vice Chair Dorene D'Adamo  
Board Member Tam M. Doduc  
Board Member Sean Maguire  
Board Member Laurel Firestone

NAY: None

ABSENT: None

ABSTAIN: None

  
\_\_\_\_\_  
Jeanine Townsend  
Clerk to the Board