

**STATE WATER RESOURCES CONTROL BOARD  
RESOLUTION NO. 2018-0038**

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 AND AN AMENDMENT TO THE WATER  
QUALITY CONTROL PLAN FOR OCEAN WATERS OF CALIFORNIA—BACTERIA  
PROVISIONS AND A WATER QUALITY STANDARDS VARIANCE POLICY

WHEREAS:

1. The Clean Water Act requires the United States Environmental Protection Agency (U.S. EPA) to develop and publish water quality criteria that accurately reflect the latest scientific knowledge on all identifiable effects on health and welfare that could be expected from pollutants existing in any body of water. (Clean Water Act, § 304(a)(1).) The Clean Water Act also directs U.S. EPA to publish new or revised water quality criteria for pathogens and pathogen indicators for the purpose of protecting human health in coastal recreation waters. (*Id.*, § 304(a)(9).)
2. In 2012, U.S. EPA established new recreational water quality criteria recommendations ([U.S. EPA 2012 Recreational Criteria](#)) based on updated national epidemiological studies and a broader definition of illness designed to protect the public from exposure to harmful levels of pathogens while participating in water-contact recreational activities.
3. The U.S. EPA 2012 Recreational Criteria recommends the use of either enterococci or *Escherichia coli* (*E. coli*) as indicators of fecal or pathogen contamination in fresh waters, and recommends the use of only enterococci as an indicator in marine waters. Additionally, the recommendations include two estimated illness rates (36 illnesses per 1,000 recreators or 32 illnesses per 1,000 recreators), stating that either rate is protective of the primary contact recreation (REC-1) beneficial use. The U.S. EPA 2012 Recreational Criteria is intended as guidance to states and tribes in developing criteria to protect swimmers from exposure to water that contains organisms indicating the presence of fecal contamination and includes beach action values that can be used by local health officials, regional water boards, and authorized tribes as a tool for beach management actions in freshwaters, estuarine waters, and ocean waters.
4. The Clean Water Act's implementing regulations provide that when states establish water quality criteria (referred to as water quality objectives in California), states should establish numerical values based on the Clean Water Act section 304(a) guidance, that guidance modified to reflect site-specific conditions, or other scientifically defensible methods. (40 C.F.R. § 131.11(b)(1).)
5. 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.

6. The Water Boards are authorized 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 water quality standards and programs of implementation to achieve the standards.
7. Bacteria water quality objectives established by the Regional Water Boards in water quality control plans (basin plans) vary by region. Although several of the basin plans contain updated bacteria indicators, none contain updated water quality objectives for bacteria based on the U.S. EPA 2012 Recreational Criteria.
8. Federal and state laws mandate the periodic review of water quality standards—a process known as a triennial review—and the adoption of updated standards as appropriate. (Clean Water Act § 303(c)(1); Wat. Code, § 13240.) A primary purpose of conducting a triennial review is to ensure water quality standards are based on current science, methodologies, and U.S. EPA mandates, recommendations, and guidance.
9. Existing regulations require local health officers to test waters adjacent to public beaches and ocean water-contact sports areas for three organisms that indicate the presence of fecal contamination: total coliform, fecal coliform, and enterococci (bacteriological standards). (Cal. Code Regs., tit. 17, §§ 7958 & 7959, subd. (b).) If the waterbodies subject to the bacteriological standards are not met, a local health officer or the California Department of Public Health (Department) may close, post with warning signs, or otherwise restrict use of the area until the bacteriological standards are met. (*Id.*, § 7960.) The regulations impose more frequent monitoring and more stringent posting and closure requirements on certain high-use public beaches located adjacent to a storm drain that flows during the summer. (*Id.*, § 7961.)
10. In 2005, the State Water Board's Water Quality Control Plan for Ocean Waters in California (the California Ocean Plan) identified the Department's bacteriological standards and the related corrective action measures. The California Ocean Plan also established bacteria water quality objectives for waters designated with the REC-1 beneficial use consistent with the Department's bacteriological standards. The bacteria water quality objectives are not consistent with U.S. EPA's 2012 Recreational Criteria.
11. The primary goal of "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" (Part 3 of the ISWEBE) and the "Amendment to the Water Quality Control Plan for Ocean Waters of California—Bacteria Provisions and a Water Quality Standards Variance Policy" (Ocean Plan Amendment) (Part 3 of the ISWEBE and the Ocean Plan Amendment are collectively referred to as the Bacteria Provisions) is to protect REC-1 waters through the establishment of statewide numeric water quality objectives for bacteria (Bacteria Water Quality Objective(s)) based on the U.S. EPA 2012 Recreational Criteria.
12. The Bacteria Water Quality Objectives correspond with the risk protection level of 32 illnesses per 1,000 recreators and use *E. coli* as the indicator of pathogens in freshwaters and enterococci as the indicator of pathogens in estuarine waters and ocean waters.

13. For ocean waters, the U.S. EPA 2012 Recreational Criteria recommends using solely enterococci as an indicator of pathogens and does not recommend the use of total and fecal coliform. The efficacy of using total and fecal coliform bacteria as indicators of human illness-causing organisms has been examined for many years. Several epidemiological studies conducted at southern California beaches between 2012 and 2017 provide data that suggest fecal coliform may be a better indicator of gastrointestinal illness than enterococci during certain types of exposures and environmental conditions.
14. The Ocean Plan Amendment (1) removes the previously established total coliform objectives, (2) revises the enterococci objective based on the EPA 2012 Recreational Criteria for marine waters, and (3) retains the previously established fecal coliform objective (due to the aforementioned epidemiological studies conducted at southern California beaches). As a result, upon the adoption of the Ocean Plan Amendment, the California Ocean Plan would contain two water quality objectives for ocean waters: enterococci (based on U.S. EPA's 2012 Recreational Criteria) and fecal coliform (established in 2005).
15. The Bacteria Water Quality Objective established for ocean waters contained in the Ocean Plan Amendment does not supersede the Department's bacteriological standards and the associated monitoring and corrective action requirements. The Ocean Plan Amendment refers to the Department's bacteriological standards and the associated corrective action requirements as "beach notification levels."
16. The Bacteria Provisions provide direction on evaluating the bacteria water quality objectives when making assessment decisions pursuant to the Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List (Listing Policy). The provisions also instruct that when applying the situation-specific weight of evidence factors (sections 3.11 and 4.11 of the Listing Policy), evidence such as compliance with the Department's bacteriological standards, beach use, and beach closures may be evaluated.
17. The Bacteria Provisions' Bacteria Water Quality Objectives supersede any numeric water quality objective (and not any narrative water quality objective) for bacteria for the REC-1 beneficial use contained in a water quality control plan before the effective date of the Bacteria Provisions. Narrative water quality objectives and numeric site-specific objectives for bacteria established before or after the effective date of the Bacteria Provisions would remain in effect.
18. The Lahontan Regional Water Board's water quality control plan contains a numeric fecal coliform bacteria water quality objective expressed as not to exceed a log mean of 20 colony forming units per 100 milliliters during any 30-day period nor exceed 40 colony forming units per 100 milliliters more than 10 percent of all samples collected during any 30 days. The fecal coliform objective is generally applicable to all surface waters within the region and was not expressly established for the protection of the REC-1 beneficial use. Part 3 of the ISWEBE would establish numeric Bacteria Water Quality Objectives for REC-1 waters and would not supersede the fecal coliform objective established generally for all surface waters in the region. Therefore, the existing fecal coliform objective and the applicable Bacteria Water Quality Objective would apply to all REC-1 surface waters within the Lahontan region. The Lahontan Regional Water Board has the opportunity to prioritize evaluating the fecal coliform objective during the upcoming triennial review process, which the region anticipates will occur during the fall of 2018.

19. The Bacteria Provisions provide that where a permit, waste discharge requirement (WDR), or waiver of WDR includes an effluent limitation or discharge requirement that is derived from a water quality objective or other guidance to control bacteria (for any beneficial use) that is more stringent than an applicable Bacteria Water Quality Objective, the Bacteria Water Quality Objective would not be implemented in the permit, WDR, or waiver of WDR.
20. The Bacteria Provisions do not contain a specific program of implementation to achieve the Bacteria Water Quality Objectives because total maximum daily loads (TMDLs) for bacteria have been established for many waterbodies throughout the state prior to the effective date of the Bacteria Provisions. While the Bacteria Water Quality Objectives supersede applicable numeric water quality objectives contained in a basin plan prior to the effective date of the Bacteria Provisions, any TMDL associated with a superseded bacteria water quality objective would remain in effect.
21. The Bacteria Provisions also include several approaches the Water Boards may utilize to implement the Bacteria Water Quality Objectives (and the California Ocean Plan's existing fecal coliform objective) or to reflect whether the REC-1 beneficial use is appropriately designated:
  - a. The Bacteria Provisions provide that when the Water Boards develop a TMDL or a basin plan amendment to achieve the Bacteria Water Quality Objectives (and the California Ocean Plan's fecal coliform objective) a reference system/antidegradation approach or a natural source exclusion approach may be utilized to account for natural sources of bacteria that may contribute to the exceedances of the objective.
  - b. Part 3 of the ISWEBE (and not Ocean Plan Amendment) contains the following approaches the Water Boards may utilize to remove a REC-1 beneficial use designation where the use is not an existing use as defined by 40 Code of Federal Regulations section 131.3(e): a temporary high-flow suspension, a seasonal suspension, and a limited water contact recreation (LREC-1) designation. The Water Boards are required to conduct a use attainability analysis to remove a designated REC-1 beneficial use or to adopt subcategories of the REC-1 use that require less stringent water quality objectives. For the efficient management of time and resources, a use attainability analysis may be performed for multiple waterbodies that satisfy the same factor or factors under 40 Code of Federal Regulations section 131.10(g). Additionally, one or more use attainability analyses, and the corresponding designation or de-designation actions, may be performed for multiple waterbodies during a single basin planning process.
  - c. Part 3 of the ISWEBE (and not the Ocean Plan Amendment) contains a definition for LREC-1 beneficial use. Part 3 of the ISWEBE does not designate any waterbodies with the LREC-1 beneficial use. Waterbodies may be designated with the LREC-1 use where the recreational activities are limited due to physical conditions unrelated to water quality. When conducting a use attainability analysis, a Water Board must demonstrate that the REC-1 use is not feasible due to at least one of the six factors contained in 40 Code of Federal Regulations section 131.10(g)(1)-(6). Restricted access is not one of those six factors. Therefore, restricted access alone is not sufficient to remove a designated use or to establish a subcategory of a use under section 131.10(g). Generally, the Regional Water Boards designate specific waterbodies within their respective region through the basin planning process.

22. The Bacteria Provisions identify and describe the water quality standards variance regulatory framework established by U.S. EPA (40 C.F.R. § 131.14) which may be utilized for any pollutant and explain the manner in which the Water Boards may establish a variance consistent with state law and federal rule.
23. The Bacteria Provisions' corresponding staff report, titled, "Staff Report, Including Substitute Environmental Documentation, for 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; and Amendment to the Water Quality Control Plan for Ocean Waters of California—Bacteria Provisions and a Water Quality Standards Variance Policy" (hereafter Staff Report), is a technical document that describes the necessity and scope of the Bacteria Provisions and 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 and accepted by the State Water Board before taking action on the Bacteria Provisions.
24. In developing, considering, and adopting the Bacteria Provisions, the State Water Board complied with the applicable procedural requirements and provided additional public participation opportunities to afford the public with a reasonable opportunity to participate in the consideration of the Bacteria Provisions:
  - a. In 2014, staff held six focused group meetings with interested stakeholders to receive early input on the project.
  - b. Staff held two CEQA scoping meetings in 2015 and one scoping meeting in 2017 to solicit input from public agencies and members of the public.
  - c. On May 31, 2017, a public notice was distributed to identify the dates for the staff workshop, board hearing, and the applicable written comment period. On June 15, 2017, a revised notice was distributed to identify the date the draft Bacteria Provisions and draft Staff Report would be available on the board's website, the extended written comment period, and the changed hearing date.
  - d. The written comment period was from June 30, 2017 to August 16, 2017.
  - e. A public workshop was held on July 10, 2017.
  - f. A board hearing was held on August 1, 2017, after notice was given of such hearing by email list distribution and by publication in newspapers within the affected counties pursuant to Water Code section 13244 and Government Code section 6061.
  - g. The State Water Board received 33 timely written comment letters and oral comments were made at the hearing. The State Water Board has carefully considered those comments received on the Bacteria Provisions and [responded to the comments](#).

- h. Based on the oral and written comments, the State Water Board revised the draft Bacteria Provisions and the draft Staff Report. On January 18, 2018, the State Water Board distributed and posted the proposed final Bacteria Provisions, the proposed final Staff Report, and written responses to comments. On January 26, 2018, the State Water Board distributed and posted the revised proposed final Bacteria Provisions. On July 6, 2018, the State Water Board distributed and posted a second proposed final Staff Report, second proposed Bacteria Provisions, and [first revised written responses to comments](#).
25. In establishing the Bacteria Water Quality Objectives contained in the Bacteria Provisions, the State Water Board considered the factors contained in Water Code section 13241. The Staff Report (at chapters 5, 6, and 10) addresses those factors, which includes a summary and a reference to a report titled, [“Economic Analysis of Proposed Water Quality Objective for Pathogens in the State of California.”](#) prepared in June 2017, to inform the board’s consideration of the economic factors.
26. The Staff Report contains 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, subds. (a)-(c).)
27. The State Water Board is the lead agency with respect to the adoption of the Bacteria 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).) The Bacteria Provisions do not contain any specific requirements to implement the bacteria water quality objectives; generally TMDLs to achieve bacteria objectives existing prior to the effective date of the Bacteria Provisions will remain in effect and may operate to achieve the Bacteria Water Quality Objectives, where applicable, and the Bacteria Water Quality Objectives are not anticipated to require a significant change in implementation methods required by existing bacteria objectives. Additionally, dischargers that have the Bacteria Water Quality Objectives incorporated into their respective permits select the specific method or methods to employ to achieve compliance. Project-level analysis is expected to be conducted by the appropriate public agency prior to implementation of project-specific methods if any additional methods are required to comply with the Bacteria Provisions. The environmental analysis assumes that the project-specific methods of compliance, if any, would be designed, installed, and maintained following all applicable state and local laws, regulations, and ordinances.
28. The Final Substitute Environmental Documentation consists of the Staff Report (including documents referenced therein), the comments and responses to comments on the Staff Report and the Bacteria Provisions, the environmental checklist, and this resolution.

29. 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.
30. The scientific portions of the Bacteria Provisions underwent external scientific peer review as required by Health and Safety Code section 57004, as discussed in Chapter 11 of the Staff Report.
31. The adoption of the Bacteria 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 Bacteria Provisions are not anticipated to authorize degradation of water quality. However, the Staff Report (at section 10.8) provides that, although it is not anticipated that the Bacteria Provisions would authorize a lowering of water quality, it is conceivable that certain limited circumstances may exist which could effectuate a lowering of existing water quality in some waterbodies. Such limited circumstances could occur as the result of the replacement of (1) the North Coast Regional Board's basin plan numeric bacteria water quality objective for REC-1 waters and (2) the single sample maximum values of the bacteria water quality objectives, as discussed in the Staff Report (at sections 5.2.4 and 10.8). Insofar as the adoption of the Bacteria Provisions could result in any lowering of water quality, any such lowering is consistent with the maximum benefit to the people of the State, is reasonably protective of the REC-1 beneficial use of such waters, and would establish consistent REC-1 bacteria objectives for REC-1 waters throughout the nine regions of the State, as discussed more fully in the Staff Report (at section 10.8).
32. The Bacteria Provisions would become effective state law upon approval by the Office of Administrative Law (OAL). The Bacteria Provisions' water quality standards and policies that generally affect the application and implementation of water quality standards would not become effective for Clean Water Act purposes until approved by U.S. EPA.

THEREFORE, BE IT RESOLVED THAT:

The State Water Board:

1. Approves and adopts the [Substitute Environmental Documentation](#), which was prepared in accordance with the provisions applicable to the State Water Board's certified exempt regulatory programs, California Code of Regulations, title 23, sections 3777 through 3779.
2. After considering the entire administrative record, including all oral testimony and written comments received, adopts the Bacteria Provisions, which are specifically titled "[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](#)" and "[Amendment to the Water Quality Control Plan for Ocean Waters of California—Bacteria Provisions and a Water Quality Standards Variance Policy](#)."




3. Directs State Water Board staff to identify as future projects (a) the review of the fecal coliform objective (established in the California Ocean Plan in 2005) during the upcoming California Ocean Plan Triennial Review, and (b) the continued assessment of pathogen indicators and their implementation, accounting for risk, salinity, and California-specific studies. The scope of the future fecal coliform project should include the evaluation of the magnitude and duration of the fecal coliform objective and propose a revised objective, if warranted.
4. Encourages the Lahontan Regional Water Board to evaluate with input from relevant stakeholders the region's fecal coliform water quality objective (described in recital 18), and to prioritize that effort during the region's upcoming triennial review process, which the region anticipates will occur during the fall of 2018.
5. Authorizes the Executive Director or designee to submit the Bacteria Provisions and the administrative record to OAL and the U.S. EPA for review and approval.
6. Authorizes the Executive Director or designee to make minor, non-substantive modifications to the language of the Bacteria Provisions and the supporting documentation if State Water Board staff or OAL determines that such changes are needed for clarity or consistency, and inform the State Water Board of any such changes.
7. Directs staff, upon approval by 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.

### 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 August 7, 2018.

AYE:           Vice Chair Steven Moore  
                   Board Member Tam M. Doduc  
                   Board Member Dorene D'Adamo  
                   Board Member E. Joaquin Esquivel  
  
 NAY:           None  
 ABSENT:       Chair Felicia Marcus  
 ABSTAIN:      None


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 Jeanine Townsend  
 Clerk to the Board