San Diego Regional Water Quality Control Board

Frequently Asked Questions regarding the Regional Board's intended application of the Biological Water Quality Objective in modified stream channels.

Introduction

The State Water Resources Control Board (State Water Board) will hold a public workshop on May 6, 2025 on a Basin Plan Amendment (Amendment) adopted in 2020 by the San Diego Regional Water Quality Control Board (Regional Board) to establish a biological water quality objective for freshwater streams (biological objective). The workshop agenda will provide for discussion of recent data in modified streams and how the Regional Board intends to implement the biological objective in modified streams. The purpose of this FAQ is to summarize how the Regional Board intends to apply the biological objective in situations related to public agency flood control operations and storm water pollution management in modified streams.

Water Board Responsibilities

The functions of the Regional Board broadly include designating beneficial uses and setting water quality objectives, establishing programs of implementation, monitoring and assessing conditions of waters, issuing permits to discharge waste that are protective of standards, ensuring compliance with and /or enforcement of permits and standards, and public engagement. The Amendment would establish a water quality objective and a program of implementation to protect water quality conditions supporting aquatic life.

How the Regional Board intends to implement the Amendment to carry out its functions is described at length in the Staff Report and more succinctly in the Amendment's implementation plan. Below are responses to common questions regarding potential implementation scenarios.

How will the Biological Objective Amendment affect how the Regional Board carries out its responsibilities?

The Amendment establishes a measurable water quality objective (biological objective) for certain categories of streams with applicable flow regimes and channel substrate. The biological objective uses measurements of the California Stream Condition Index (CSCI), where a CSCI score of 0.79 or higher represents WARM and COLD beneficial uses are being attained. The Regional Board will therefore use CSCI measurements to assess conditions of surface waters and performance of management measures intended to protect beneficial uses of applicable waters.

Flood Control System Operations and Maintenance

How does the Regional Board regulate flood control system operations and maintenance (O&M)?
Certain flood control O&M activities that take place within waters of the State are subject to Regional or State Water Board permitting, typically through Clean Water Act section 401 Certifications and/or Waste Discharge Requirements for discharges of dredge and fill within waters of the United States and/or State. These activities sometimes require NPDES dewatering groundwater or construction stormwater management permits. For flood control system operations and maintenance activities subject to Regional Board permitting, the Regional Board will continue to rely on existing State Board Policies and applicable statewide waste discharge requirements.

How will the biological objective affect emergency flood control activities?
The biological objective does not prohibit any maintenance activities within flood control channels. The Regional Board will continue to issue permits for emergency flood control activities that require dredge and fill within in waters of the State. The Regional Board will continue to use either Water Quality Order WQ 2023-0095-DWQ or WQ 2023-0058-DWQ for emergency repair projects, depending on if emergency activities are within waters of the United States and/or State. Both Orders provide an expedited approval process via the submittal of a Notice of Intent by the entity 48 hours prior to conducting emergency work.

How will the biological objective affect routine flood control maintenance activities?
The Regional Board will continue to issue permits for routine flood control maintenance activities that provide avoidance, minimization, and compensatory mitigation consistent with the State Water Board's "Procedures for Discharges of Dredged or Fill Material to Waters of the State" (Dredge/Fill Procedures). In general, the Dredge/Fill Procedures rely on habitat mitigation size and resource type as performance standards that are developed based on site-specific situations.

The Regional Board intends to use the biological objective to evaluate potential and/or actual impacts of a non-emergency flood control maintenance project and the success of mitigation activities See Implementation Plan section VI.C and Staff Report section 5.6 for a discussion of the biological objective in the context of Clean Water Act Section 401 Water Quality Certifications. The Staff Report (p. 99) notes that the Regional Board does not expect to require pre-project stream bioassessment monitoring or to set a biological objective performance standard for dredge and fill projects that are small in scale having temporary-only impacts to aquatic resources (e.g., removal of invasive species vegetation, such as *Arundo donax*) because existing Basin Plan prohibitions and standard best management practices are expected to ensure aquatic life beneficial uses are protected.

The CSCI score may be assessed before an individual routine flood control maintenance activity or as part of jurisdiction-wide maintenance activities, to estimate the potential for harm to existing aquatic life and establish mitigation expectations for projects with permanent impacts. The CSCI may be used to identify potential mitigation sites and assess the performance of habitat mitigation activities such as enhancement, rehabilitation and reestablishment of aquatic resources. As described in the Staff Report (see section 5), the CSCI represents a more accurate assessment of aquatic life beneficial use conditions than chemical or physical parameters alone.

For other Regional Board permits, such as NPDES groundwater dewatering or construction stormwater, the CSCI would be used much less frequently because generally the threats to aquatic life beneficial uses are less dramatic given the BMP performance standards and water-quality based effluent limits for chemical pollutants within those general permits.

Municipal Stormwater Discharges

The Regional Board primarily regulates discharges to surface waters from municipal separate storm sewer systems (MS4s) with a regionwide NPDES permit (Order No. R9-2013-0001, as amended (MS4 permit)). Rather than establishing numeric effluent limits for such discharges, the MS4 permit relies generally on permittees to use best management practices to ensure their stormwater discharges protect the beneficial uses of streams. The MS4 permit also requires monitoring and assessment to evaluate conditions in representative receiving waters and the cumulative effectiveness of BMPs used by the permittees. And, the MS4 permit establishes permittee expectations, consistent with precedential State Water Board orders, for instances when stream monitoring identifies conditions that do not meet water quality objectives. The MS4 permit offers several “pathways” to demonstrate compliance with its limitations and discharge prohibitions.

The biological objective does not prohibit discharges of storm water into streams. For streams subject to the Basin Plan Amendment the Regional Board expects that the biological objective can be attained through the control of discharges as currently required by the MS4 permit because the permit was written to protect aquatic life beneficial uses from potentially adverse effects of permittees’ stormwater discharges.

The Regional Board intends to require MS4 permittees use the CSCI within its receiving water monitoring program as a metric to screen for potential effects of discharges because it informs both the cumulative effectiveness of BMPs in the drainage area and potential concerns in BMP implementation that effluent chemistry monitoring may miss. As stated in the Implementation Plan (section II), the Regional Board will not consider incorporating the biological objective until at least five years from the effective date of the Basin Plan Amendment.

What happens if a stream that receives discharges from municipal storm water systems does not meet the biological objective?

If MS4 permit monitoring finds that the biological objective is not met in waters receiving MS4 discharges, then the MS4 permittee will need to determine whether its discharges are a likely cause of the low CSCI score. (See Implementation Plan section VI.a and the discussion in Staff Report section 5.3.4.) The Regional Board may also conduct an investigation. Typically, the determination would be made by evaluating the concentration of chemicals, nutrients, and other pollutants in the MS4 discharges and implementation of management practices along with other information such as findings from the MS4's illicit discharge detection and elimination (IDDE) program.

Where the evidence indicates that discharges from its MS4 may be responsible for the low CSCI score, then the permittee would be expected to review its BMP implementation, make improvements if necessary, and use monitoring to assess the result (see section II.A.4 of Order No. R9-2013-0001). Typically, this would be when pollutants that affect the benthic invertebrate community are being discharged at levels exceeding the pollutant-specific water quality objectives and may also be determined by information suggesting inadequate BMP implementation or violations of waste discharge prohibitions.

If actions taken consistent with the MS4 permit and a permittee's jurisdictional runoff plan do not result in attainment of the biological objective, then the MS4 permittee would need to prioritize the pollutant that is contributing to poor biological scores within its annual water quality improvement plan updates until evidence suggests that the MS4 discharges are not causing a low CSCI score or actions taken result in attainment.

Will MS4 Permittees be subject to Numeric Effluent Limitations?

As specified in the implementation provisions of the Basin Plan Amendment (see Implementation Plan section V.B.1 and Staff Report section 5.3.5), the biological objective shall apply as a receiving water limit and not be translated into or applied as an effluent limitation unless the following conditions are met:

1. A clear causal relationship has been established linking the discharge and nonattainment of the stream biological objective,
2. The pollutants or physical factors causing or contributing to nonattainment of the stream biological objective have been identified, and
3. Loading studies have been completed to estimate the reductions in pollutant loading for the discharge that will restore the beneficial use(s).

If reductions in pollutant loading from an MS4 are required for the CSCI score to be attained and the beneficial use restored, then the Regional Board may develop effluent limitations for the causative pollutant in a subsequent update to the MS4 permit.

Will MS4 Permittees be subject to Mandatory Minimum Penalties if Stream CSCI Scores are Low?

Mandatory penalty provisions are required by California Water Code section 13385, subdivisions (h) and (i), for specified violations of NPDES permits as described in the State Water Board Enforcement Policy. They could apply in the context of the biological objective only after a series of findings and public Regional Board actions where the Board establishes a numeric effluent limit in an MS4 permit for a pollutant that is the cause of a low CSCI score and then the MS4 discharges enough of that pollutant to trigger the mandatory penalty.

If a numeric effluent limit is added to the MS4 Permit, then mandatory penalties would not apply when the CSCI score is low (i.e., below 0.79) and an MS4 permittee is meeting the pollutant-specific effluent limit that was established to restore the biological condition.

What if a single MS4 permittee is not the only potential cause of a low CSCI score?

If pollutants in discharges from multiple parties and/or permittees are identified by the Regional Board (or by the MS4 permittee and confirmed by the Board) to be the cause of low CSCI scores causing a condition of impaired waters, then it is the responsibility of the Regional Board to take actions to ensure each responsible discharger takes corrective actions for their own discharge.

What if discharges from the MS4 are not a cause of the low CSCI score?

No further action would be required by MS4 permittees since the evidence indicates that they are not responsible for the waterbody condition.

What if a stream is put on the Clean Water Act list of impaired waters because of low CSCI scores?

If CSCI scores demonstrate an impairment persists consistent with the State Water Board Listing Policy and the waterbody is listed, the Regional Board would then consider prioritizing the water body for restoration and take actions consistent with options in the State Water Board Impaired Waters Policy. The Impaired Waters Policy provides several scenarios, each dependent on case-specific information, that would inform the Regional Board's response. For a summary of the potential responses, see the flow chart in Attachment 1 to the Policy. Broadly, options include revising the standard, identifying third-party non-point source pollution control actions planned to correct the action, taking enforcement actions to correct the impairment, providing financial assistance to correct the impairment, and adopting water quality restoration plans (e.g., TMDLs) for point or non-point source pollution.

What if Impaired Biological Conditions are not Caused by Regulated Discharges?
The Regional Board intends to use results from causal assessment and source identification to guide Regional Board implementation actions. If the Regional Board determines that pollutants from regulated dischargers are not the cause of the biological objective impairment in an applicable stream, then the Regional Board would look to the State Water Board Impaired Waters Policy for guidance for addressing the impairment. Finally, if the impairment is not caused by a pollutant(s), the waterbody would be placed in Category 4c of the CWA sections 303(d) and 305(b) Integrated Report, which is a category that does not require a TMDL.

What if Impaired Biological Conditions are Caused by Regulated Discharges?
When the Regional Board finds that the biological objective impairment is caused by discharges subject to its regulatory authority, then it would look to the State Water Board Impaired Waters Policy for guidance for addressing the impairment. Generally, the options are to:

1. Revise the standard for that water body if it is no longer considered appropriate,
2. Enforce existing discharge requirements where permittees are found to be in violation and the existing effluent limits are protective of water quality,
3. Amend discharge permits where existing requirements are found to be insufficient to protect water quality,
4. Require restoration of background assimilative capacity where such capacity is determined to have been reduced due to violations of discharge permits or prohibitions.

The Regional Board intends to consider options based on case-specific factors and may require actions that require additional source control or mitigation actions by a responsible permittee.