

ADMINISTRATIVE DRAFT FOR PUBLIC COMMENT

Basin Plan Chapter 4 Implementation:

New Section: Framework for Program of Implementation for Biological Objectives

General Implementation Applicability

Water quality objectives are defined in the Water Code as “the limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water or the prevention of nuisance within a specific area.” Water quality objectives may be stated in either numerical or narrative form. Water quality objectives apply to all waters within a surface water or ground water resource for which beneficial uses have been designated. The numerical and narrative water quality objectives define the least stringent standards that the Regional Water Board will apply to regional waters in order to protect beneficial uses.

Water quality objectives for biology apply to all surface waters with designated aquatic life beneficial uses¹, and will be achieved through program implementation as described in the previous portions of this Basin Plan Implementation Chapter for individual programs and as outlined in this framework. Where required, biological monitoring and assessment will be conducted in surface waters in conjunction with chemical and physical measurements of receiving waters and, where applicable, of discharges. The inclusion of water quality objectives for biological condition works to insure implementation will meet aquatic life beneficial uses in receiving waters.

Antidegradation

State Water Board Resolution No. 68-16 requires the maintenance of the existing high quality of water (i.e., “background”) unless a change in water quality “will be consistent with maximum benefit to the people of the State...” This State Water Board policy explains how the Regional Water Board applies numerical and narrative water quality objectives to ensure the reasonable protection of beneficial uses of water and how the Regional Water Board applies Resolution No. 68-16 to promote the maintenance of existing high quality waters. Implementation of the General Anti-degradation Water Quality Objective shall use California Stream Condition Index (CSCI) scores to evaluate if stream segments, at a minimum, maintain existing scores, and shall evaluate the maintenance of existing high quality of waters. In addition, stream segments shall be evaluated for implementation of programs for improved CSCI scores over time at those locations where scores are not commensurate with reference, and for those sites that may score within reference but can have aquatic life beneficial uses enhanced in accordance with the narrative objective.

The implementation of biological numeric water quality objectives will include assessments for the evaluation of degradation in accordance with State and Federal anti-degradation requirements. Implementation of anti-degradation requirements in the assessment of the

¹ Aquatic life beneficial uses include those intended to protect aquatic and aquatic-dependent organisms. They include WARM, COLD, SAL, EST, MAR, WILD, BIOL, RARE, MIGR, and SPWN.

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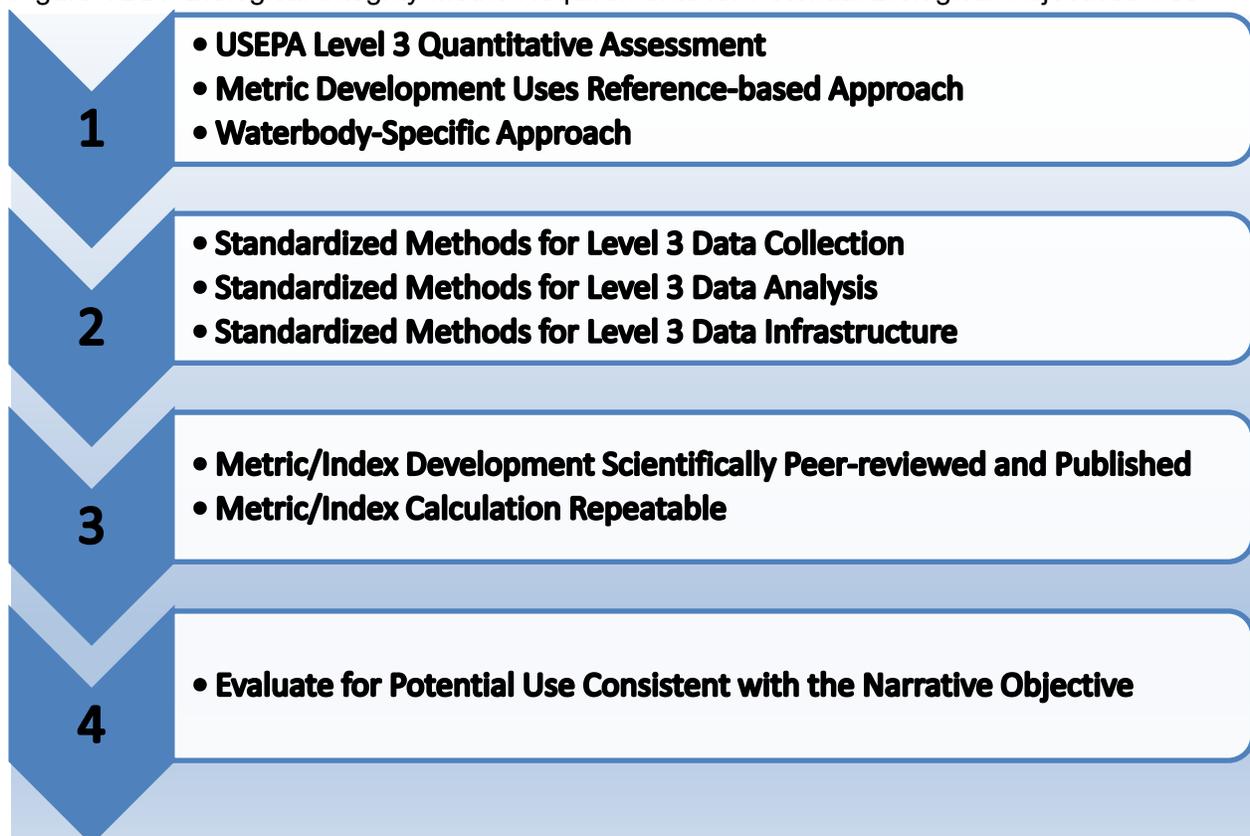
condition of wadeable streams may include data from those streams sampled prior to the incorporation of numeric objectives in the Basin Plan. Data will be included for implementation purposes if 1) sampling was conducted using State of California or USEPA standard methods and 2) taxonomic analysis was conducted at a SAFIT2 Level II or IIa equivalence suitable for calculation of numeric California Stream Condition Index scores.

Planning

Water Quality Objectives

The San Diego Water Board will use science-based biological integrity metrics or indices to implement the narrative objective for specific waterbody and organism types as such metrics or indices are developed or in response to proposals. Biological integrity metrics and/or indices shall be USEPA Level 3³ quantitative assessments published in a scientifically peer-reviewed journal. Metrics or indices shall be specific to waterbodies or waterbody types, be repeatable using standardized operating procedures approved by the State of California, and use a reference approach to define condition, consistent with the narrative objective.

Figure TBD. Biological Integrity Metric Requirements for Potential Biological Objectives Use



² Southwest Association of Freshwater Invertebrate Taxonomists

³ Level 3 is "intensive site assessment" and uses intensive research-derived, multi-metric indices such as the Hydrogeomorphic Approach or Biological Assessments.

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TMDLs and other Actions to Restore Impaired Waters

Biological Objectives shall be used for TMDLs and other Regional Board actions taken specific to the restoration of waters impaired for aquatic-life uses consistent with the Water Quality Control Policy For Addressing Impaired Waters: Regulatory Structure and Options. Numeric biological objectives will be used, where available, as a minimum restoration goal or target for the TMDL, alternative restoration strategy, or Basin Plan Amendment. Where no numeric biological objective is available, biological metrics or indices shall be considered and, where available, used as goals or targets, or developed as part of the TMDL or Basin Plan Amendment process.

Permitting

The implementation of the narrative biological objective as a receiving water limitation in NPDES and WDR permitting will occur through the use of numeric objective translators specific to the waterbody type receiving the discharge (e.g. wadeable streams, vernal pools, etc.). The Regional Board will only use numeric translators that are vetted through a scientific peer review process and will give priority to those developed using a reference approach, but may rely on other non-reference methods when duly supported in the permitting process.

The narrative biological objective will not be implemented as a receiving water limitation in the absence of a numeric objective translator. In the absence of a numeric translator, biological monitoring and assessment may be required to evaluate if aquatic life beneficial uses are protected. For example, in some instances chemical and physical parameter measurements will provide an evaluation of the narrative biological objective. In other cases, general biological assessment methods may be used.

If, for a specific discharge, the discharge is to a surface water with an applicable numeric objective, the Regional Board shall apply the Biological Objectives as receiving water limits consistent with this Chapter. New and reissued individual and regional permittees for WDRs and NPDES will be required to submit, as part of their ROWD, an assessment of receiving water condition for numeric biological objectives relative to their existing and/or proposed discharge. This assessment must also evaluate whether flow from discharge is likely to cause a condition of erosion or the need for engineered stream channel modifications because both are significant threats to aquatic life beneficial uses and the ability of water bodies to meet Biological Objectives.

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Technology and chemistry-based effluent limitations and best management practices are expected to protect water quality standards, including Biological Objectives, in many situations. Water quality monitoring of discharges and receiving waters will be required to be assessed in permits as a priority to guide the implementation of best management practices and evaluation of their effectiveness. Biological Objectives may be translated into effluent limits established to protect or restore the biological integrity of surface waters only after:

- A clear causal relationship has been established linking the discharge to the degradation,
- The pollutants or physical factors causing or contributing to the degradation have been identified, and
- Appropriate loading studies have been completed to estimate the reductions in pollutant loading for the discharge that will protect beneficial uses.

San Diego Water Board General Permits for Temporary Non-stormwater Discharges

For temporary discharges under San Diego Water Board general NPDES permits, the San Diego Water Board will, as is currently done, assess a proposed discharger's applicability for enrollment under a general order and may require additional BMPs, effluent limitations, and/or the discharger to obtain an individual NPDES permit in order to protect receiving waters. Applications for enrollment for permanent and temporary discharges to wadeable streams under general permits will require the submission of a Receiving Water Biological Assessment using bioassessment, physical habitat, and chemistry data. Receiving water data for the Receiving Water Biological Assessment may include data collected by the applicant, Surface Water Ambient Monitoring Program (SWAMP) data, data from the most recent Integrated Report, or data from other agencies and sources. General NPDES permits must include this assessment for proposed discharges to streams which:

- Have a proposed discharge duration period greater than 2 months, and
- Are proposing to discharge outside the rainy season (Oct 1st to May 30th), or
- Have a proposed discharge to a high quality waterbody⁴

General permits typically require a consideration of discharge alternatives, such as beneficial reuse, infiltration, and/or discharge to sanitary systems. The Receiving Water Biological Assessment will be included in the alternatives consideration.

⁴ As defined by the CWA, Porter-Cologne, or WQS Assessment

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Monitoring and Assessment in Permitting

The Regional Board will include Biological Objectives monitoring and assessment requirements where Biological Objectives are incorporated as receiving water limitations into individually issued permit(s), Regional Phase I stormwater permits, and regional general permits, consistent with this chapter. Biological Objectives monitoring and assessment will be conducted in surface waters subject to the discharge in conjunction with chemical and physical measurements of receiving waters and, where applicable, of discharges. Biological Objectives monitoring and assessment for receiving waters will be required to be conducted in accordance with State of California Standard Operating Procedures (SOPs). Permits with bioassessment monitoring will also require chemistry and toxicity monitoring determined on a case-by-case basis in the permitting process based upon the pollutant(s) of concern associated with the discharge.

For individual non-storm water discharge permits with a discrete discharge point, Biological Objectives receiving water monitoring will occur upstream and downstream of the proposed or current discharge location for wadeable streams, or by the use of appropriate comparator sites for other waterbody types.

If receiving water monitoring data indicates the downstream receiving water site is impacted relative to the upstream receiving site the discharger shall:

- Evaluate the monitoring data of chemical and physical characteristics of its discharge, and
- Evaluate the downstream receiving water conditions.

This evaluation must investigate if the observed impacted condition is due to the discharge and/or an external factor that caused or contributed to the observed condition.

The Regional Board may require monitoring and assessment of surface waters in the absence of permit receiving water limitations on a case-by-case basis, or in general permits, consistent with applicable Water Code requirements, to ensure a discharge(s) does not cause condition of impairment from pollutants, changes to flow regime, or sediment transport.

The Regional Board will require Biological Objectives monitoring and assessment in actions associated with the restoration of impaired aquatic-life beneficial uses, pursuant to the Water Quality Control Policy for Addressing Impaired Waters: Regulatory Structure and Options, via TMDLs and related alternative strategies.

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Clean Water Act 401 Water Quality Certification and Waste Discharge Requirements for Dredge and/or Fill

For discharges of dredge and/or fill material to waters of the United States and/or State with numeric biological objectives, the San Diego Water Board will, on a case-by-case basis, require the assessment of impact and compensatory mitigation site biological condition prior to and following permitted activities. Numeric biological objectives may be used, on a case-by-case basis, to assess degradation and as a setting a performance standard(s) for restoration of beneficial uses and/or successful compensatory mitigation for loss of beneficial uses. Projects o(small in scale and having temporary-only impacts to beneficial uses, will be evaluated for Certification with the inclusion of existing Basin Plan prohibitions and BMPs to ensure numeric objectives are protected.

Monitoring and Assessment

Surface waters in the San Diego Region will be assessed for aquatic-life Beneficial Use attainment or impairment using Biological Objectives.

General

In the San Diego Region, multiple entities conduct biological assessment monitoring. These include governmental agencies, regulated dischargers, and non-governmental organizations. Biological assessment data collected by the San Diego Water Board and by regulated parties is publically available data, which is required to be submitted to a publically accessible database (e.g. California Environmental Data Exchange Center) for public access.

Biological monitoring and assessment should be consistent with the San Diego Water Board's Practical Vision and Monitoring Assessment Framework. Biological monitoring shall be conducted SOPs in a repeatable manner, during representative conditions, by trained field personnel. For wadeable streams, this includes consistency with sampling according to State of California SOPs, and includes the sampling of benthic macroinvertebrates, algae, and chemistry.

Integrated Reporting

Biological Objectives will be used for water quality assessment Integrated Reporting purposes under section 305(b) of the Clean Water Act, including for reporting impairment under Clean Water Act section 303(d). Assessment will be conducted in accordance with the most recent State or Regional Water Board Listing Policy. Consistent with this framework, the San Diego Water Board will use science-based biological integrity metrics or indices to implement the narrative objective for specific waterbodies assessed. Impairment sources assessed shall include physical, chemical, and biological sources.

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Causal Assessment and Recovery Potential

Biological assessment monitoring requires an assessment of biological results data, which often includes the potential role of a stressor(s) relative to observed condition. Causal Assessment may be conducted for development of TMDLs or alternative restoration strategies for impaired aquatic life beneficial uses in accordance with the Water Quality Control Policy for Addressing Impaired Waters: Regulatory Structure and Options. Rapid causal assessment methods may be employed for waterbody assessment for CWA Integrated Reporting Categories, as well as for determining a waterbody's recovery potential and associated timeframe(s) for potential restoration targets, methods, and mitigation measures.

Compliance Assurance

Compliance with Biological Objectives will be based on permit-specific conditions in place to protect Biological Objectives, where applied as receiving water limits. Assessment of compliance will occur through compliance with permit conditions to protect receiving waters.

Enforcement

The San Diego Water Board will use Biological Objectives to assess the degree of harm caused by a violation(s) of Water Quality Control Plans or permits and other illicit discharges of waste, hazardous, or fill material. Biological Objectives will be used to determine the re-establishment of aquatic life beneficial uses following harm.

Education

The Regional Board will produce outreach materials to inform the public about the use of Biological Objectives and results of assessments of Biological Objectives, such as waterbody and watershed fact sheets, web pages, and social media. Biological Objectives will be used at outreach events, such as conferences, stakeholder meetings, and other public events.

Financial Assistance

Biological Objectives will be used in San Diego Water Board administered Supplemental Environmental Projects and grants that target aquatic-life beneficial uses. Biological Objective performance metrics should be included and may be required on a case-by-case basis for project evaluation.

The San Diego Water Board will use biological metrics to evaluate Cleanup and Abatement Account requests for funds in key areas for degraded habitat and ecosystem health.

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Time Schedule

- Biological Objectives shall be implemented as follows:
- As ROWDs for NPDES, WDRs, and/or 401 Certifications are submitted for renewal or approval beginning in 2018
- As part of the Triennial Basin Plan Review Process beginning in 2018
- As part of Integrated Reports beginning in 2019, and
- As part of TMDLs or alternative restoration strategies beginning in 2018.