

Biological Objectives Policy Regulatory Options

Stakeholder & Regulatory Advisory Group Meetings
September 2013

Presentation Overview

- Policy Goals
- Policy Options
- Next Steps

Policy Goals (revised)

1. Establish Consistent:
 - Biological assessment methods
 - Methods for interpreting biological assessment data
 - Endpoints for reasonable protection of beneficial uses
2. Identify streams in good biological condition and protect them from degradation
3. Identify streams not in good biological condition and restore them to good or “best attainable” condition

Option 1. Statewide Narrative Objective

- Amend Inland Surface Water and Enclosed Bays and Estuaries Plan to include a statewide narrative objective to protect biological communities
- Establish biological condition endpoints to protect beneficial uses
- Provide direction for reasonable protection of beneficial uses in “modified” streams

Option 1. Approaches for Modified Streams

- State Plan-level Approach
 - Establish alternative biological endpoints statewide
 - Assumes alternative biological endpoints support beneficial uses
 - Evaluate whether TMDLs can serve as alternative approach for compliance with narrative objective
- Regional Board Watershed-level Approach
 - Provide direction to Regional Water Boards to conduct a Use Attainability Analysis or Site-specific Objective
 - Not appropriate if use existed since 1975
- Regional Board Project-level Approach
 - Provide direction to Regional Water Boards to conduct anti-degradation analysis

Option 2. Amend Listing Policy

- Amend Section 3.9 to allow listing based on biological data alone
- Amend Section 6.1.5.8 to specify methods for biological data collection, interpretation, and scoring
- Evaluate whether numbers of samples necessary for listing is appropriate for protecting biological communities
- Does not meet Policy Goal 2 for protecting streams from degradation.

Option 3. Statewide Policy for Water Quality Control

- Provides overarching framework for Water Boards to utilize biological assessment methods and data on a case-by-case basis
- May require Regional Water Boards to amend Basin Plans to incorporate new policy
- Regional Water Boards may not be able to use for enforcement

Implementation Issues:

Anti-degradation

Option 1	Option 2	Option 3
<p>Water Board would define desirable biological condition and Regional Boards would be required to consider this information in anti-degradation analyses.</p>	<p>This option would not by itself trigger an anti-degradation analysis/finding.</p>	<p>Water Board would define desirable biological condition and provide direction to the Regional Boards on how to use this information in anti-degradation analyses.</p>

Implementation Issues:

Monitoring Requirements

Option 1	Option 2	Option 3
Monitoring requirements must be included in WDRs and CWA § 401 water quality certifications to determine compliance with the narrative water quality objectives.	Monitoring requirements could either be set forth in the listing policy or left to the discretion of the Regional Water Boards or some combination of these.	Same as Option 2.

Implementation Issues:

Thresholds/Biological Endpoints

Option 1	Option 2	Option 3
<p>Biological endpoints would be set to determine compliance with the narrative water quality objective.</p>	<p>Evaluation guidelines would be established to be used as an independent basis for impairment listing.</p>	<p>Biological endpoints would be used as additional evidence for impairment listing as well as other regulatory responses (e.g., CWC § 13267 investigative order to determine cause of biological degradation).</p>

Implementation Issues:

Independent Applicability

Option 1	Option 2	Option 3
<p>Narrative objective for biological condition could apply independently of other objectives or the plan could describe how the narrative objective would be used in concert with other information to determine compliance.</p>	<p>Revise the Listing Policy to provide that, although not a water quality objective, biological assessment and evaluation guidelines may be used to determine impairment without associated pollutant data.</p>	<p>Biological assessment data and endpoints would be used in concert with other water quality information for impairment listing (as currently stated in the listing policy).</p>

Implementation Issues: *Modified Streams*

Option 1	Option 2	Option 3
<p>Exceptions to compliance with the narrative water quality objective could be granted based on findings from use attainability analyses or the plan could specifically exclude water bodies.</p>	<p>Unless specifically excluded from consideration of biological condition, for modified streams an investigation to determine the cause of biological impairment would be necessary to determine whether a TMDL is required.</p>	<p>For modified streams that would not reasonably be expected to achieve "good" biological condition targets, the Water Boards may establish biological endpoints to achieve "best attainable".</p>

Implementation Issues:

Causal Assessment

Option 1	Option 2	Option 3
<p>WDRs and CWA § 401 water quality certifications would include requirements to conduct a causal assessment or similar investigation to determine the cause of a violation of the narrative water quality objective.</p>	<p>On a case-by-case basis, the Water Board may require causal assessment or similar investigation to determine the cause of the biological impairment.</p>	<p>The Water Board may require causal assessment or similar investigation to determine the cause of the biological impairment.</p>

Implementation Issues:

Impairment Listing

Option 1	Option 2	Option 3
<p>The narrative objective for biological condition could apply independently of other objectives or the plan could describe how the narrative objective would be used in concert with other information for impairment listing.</p>	<p>Evaluation guidelines for biological condition would be assessed independent of other pollutant data for impairment listing. Could require causal assessment to determine whether a TMDL is needed.</p>	<p>Biological assessment data and endpoints would be used in concert with other water quality information for impairment listing (as currently stated in the listing policy).</p>

Implementation Issues:

Flow

Option 1	Option 2	Option 3
<p>CWC § 1258 states: "In acting upon applications to appropriate water, the board shall consider water quality control plans ... and may subject such appropriations to such terms and conditions as it finds are necessary to carry out such plans."</p>	<p>Same as option 1</p>	<p>Same as option 1</p>

Implementation Issues: *Habitat Restoration*

Option 1	Option 2	Option 3
<p>If a causal assessment identifies habitat degradation, channel modification, or other pollution as the cause of violation of the narrative objective, then the stream segment would be placed in category 4c of the 303(d) list.</p>	<p>If a causal assessment identifies habitat degradation, channel modification, or other pollution as the cause of biological impairment, then the stream segment would be placed in category 4c of the 303(d) list.</p>	<p>Same as option 2</p>

Items Applicable to all 3 Options

- Applicability
 - Perennial streams
 - Wadeable streams
 - Benthic macroinvertebrate indicators
- Monitoring and Assessment Methods
 - SWAMP protocols for field and laboratory methods
 - California Stream Condition Index for interpreting data
 - Definition of what a site score represents spatially
- Biological Condition Endpoints
- Process for defining current condition for anti-degradation analyses.

Biological Condition Endpoints

- Standard Biological Endpoints Compared to Reference
 - Good condition: 4-sample average ≥ 0.85 CSCI score
 - Not good condition: 4-sample average < 0.85 CSCI score
- Alternative Biological Endpoints for Modified Streams
 - Define population of streams
 - Assemble data and evaluate variability
 - Calculate CSCI scores
 - Set biological endpoint at fixed quantile within each category that is reasonably protective of beneficial uses

Next Steps

- Select preferred option
- Draft plan/policy language for further review
- Prepare final draft plan/policy language and write staff report
- Prepare economic analysis per State Board Cost of Compliance Resolution
- Prepare documents and questions for external peer review