

Biological Objectives for California Streams

CWQMC
29 May 2012



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Research Project



Biological Objectives for California



Overview

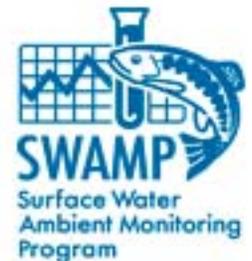
- Biological Objectives Policy Development (Karen Larsen)
- Standard Indicators and Thresholds (Ken Schiff)



Relevance to Council

- Coordinate monitoring for decision making
 - Public
 - Resource managers
 - Policy development

- Standardize when appropriate
 - Indicators
 - Thresholds for assessment



What are biological objectives?

Water Quality Standards

Beneficial Uses
Aquatic Life

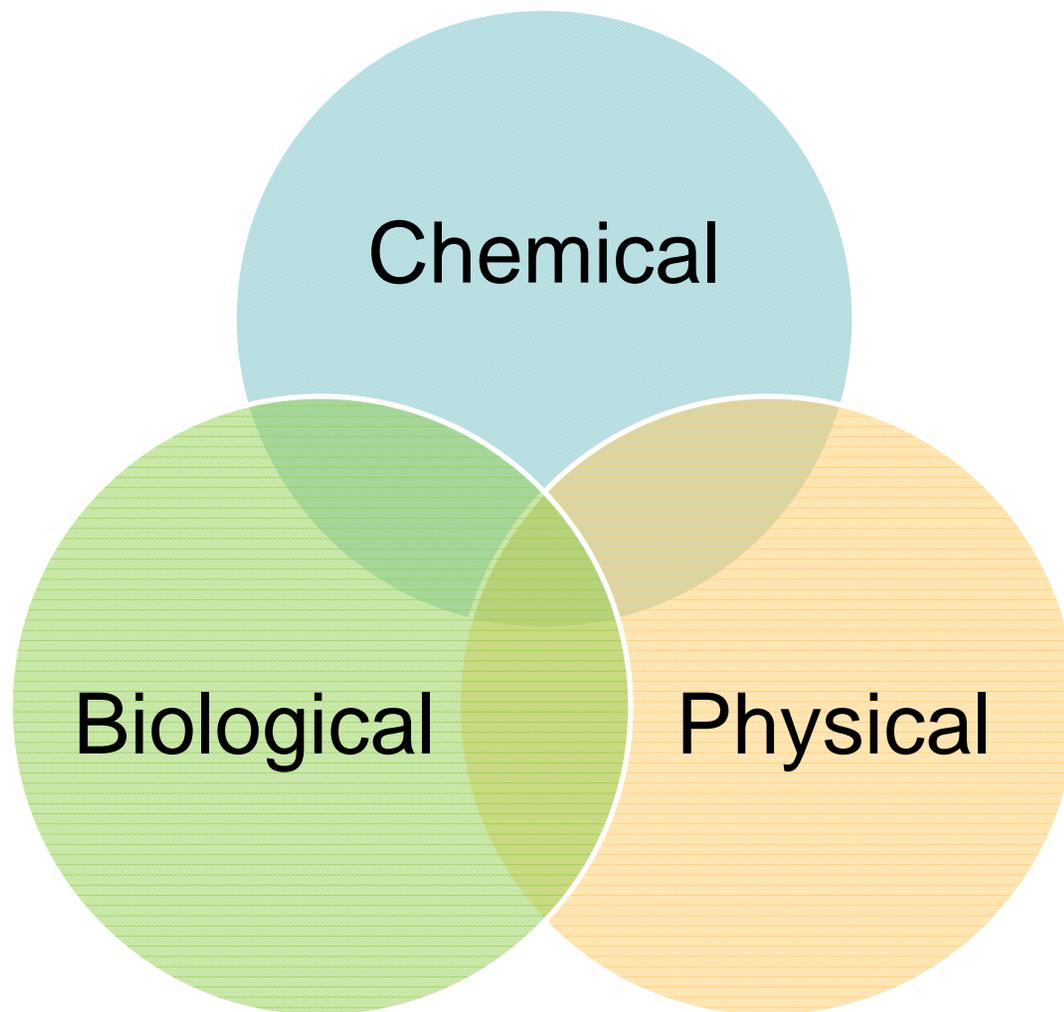
Water Quality Objectives
Biological Objectives

Anti-degradation

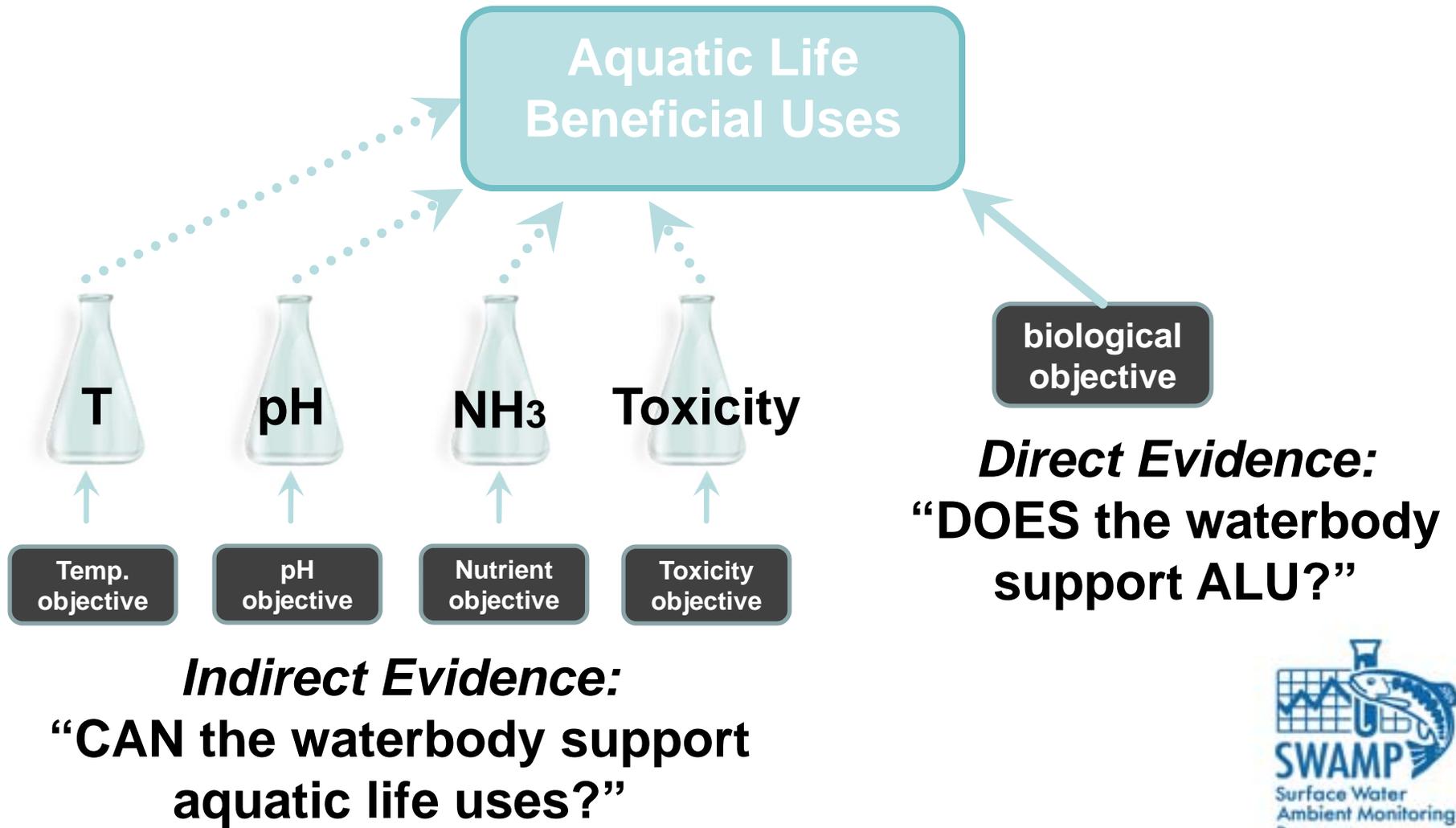
Implementation
305(b), 303(d), Permitting



Why biological objectives?

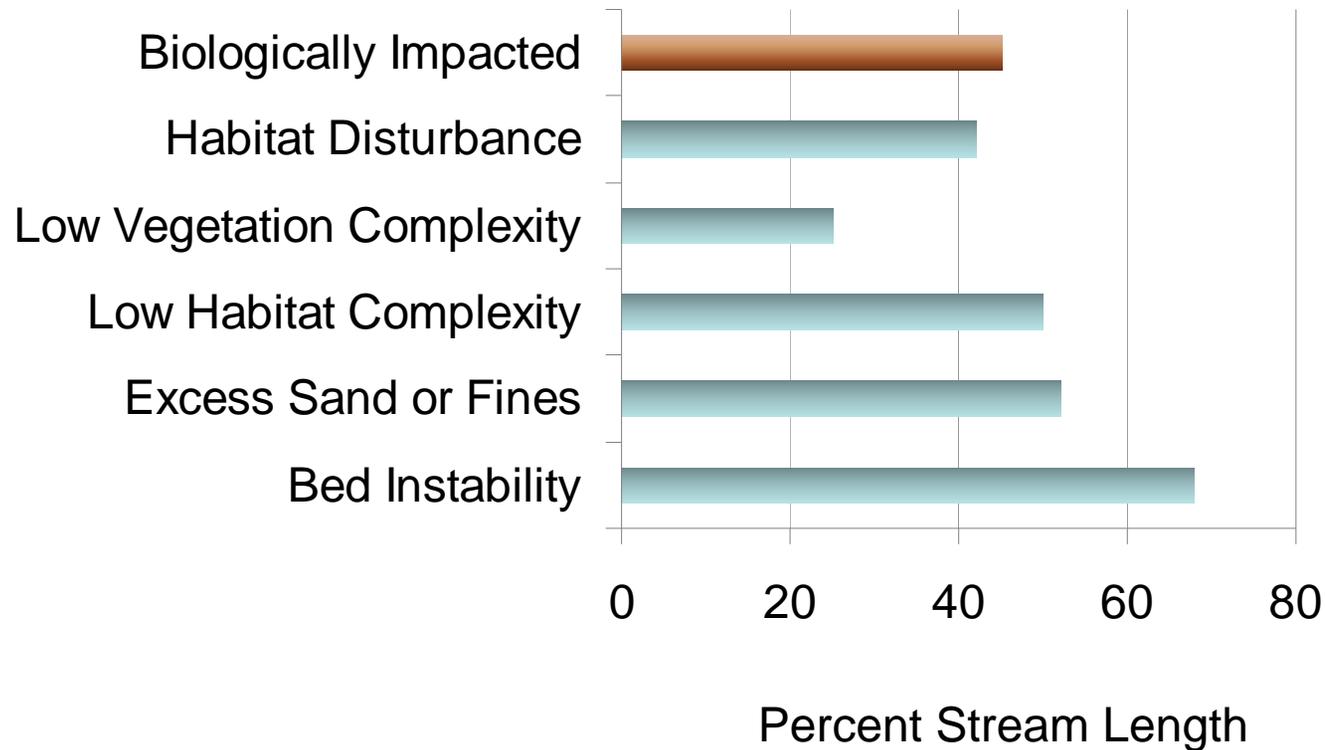


Why biological objectives?



Why biological objectives?

Stressor Extent from Perennial Stream Survey



Why biological objectives?

- Streams are degraded
- Mechanisms for protecting streams are limited
- Mechanisms for restoring streams are limited
- Biological monitoring data are not assessed consistently statewide
- Regional Water Boards need measurable and enforceable biological thresholds



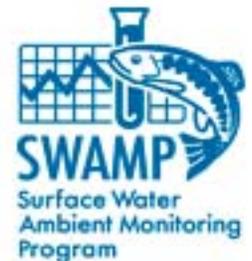
Biological Objectives – Future Vision

- Develop biological endpoints for multiple indicators
- Apply biological objectives to all water body types
- Statewide consistency with regional context and flexibility



Policy Goals

- Develop statewide narrative water quality objective to protect aquatic life uses
- Establish policy for identifying and protecting high quality streams (anti-degradation)
- Define how compliance with narrative objectives will be measured – numeric thresholds
- Establish realistic expectations for modified streams
- Ensure statewide consistency AND regional flexibility



Progress to Date

Date	Milestone
Mar 2010	<ul style="list-style-type: none">• Project kick-off meeting.• Solicited nominees for Stakeholder Advisory Group.
May-Oct 2010	<ul style="list-style-type: none">• Technical work plan approved
April 2011	<ul style="list-style-type: none">• Presented approach for establishing reference condition
Sep-Oct 2011	<ul style="list-style-type: none">• Draft final report establishing reference condition• Approach for developing scoring tools• Pilot study results• Draft assessment and implementation framework
Jan 2012	<ul style="list-style-type: none">• Initiated causal assessment pilot studies.

Next Steps

Major Milestones	Estimated Date
Finalize reference condition definition	May 2012
Scoring tool complete	Sep 2012
CEQA scoping meetings	Jun-Jul 2012
Causal assessment guidance complete	Dec 2012
Board meeting information item on technical work	Jan 2013
Complete draft policy	Feb 2013
Scientific peer review	Jun-Jul 2013
Release public review draft policy	Sep 2013
Public workshops	Oct 2013
60-day comment period closes	Jan 2014
Board Meeting/Adoption	Apr 2014

Indicators and Thresholds

- Standardized Indicators
 - Field & lab methods
 - Data management
 - Quality assurance
 - Reference definition
 - Scoring tools
- Thresholds
 - Numeric definitions for identifying healthy and impaired streams

