

Advisory Committee Meeting

Program to Develop Sediment Quality Objectives

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Status Report - Schedule

- By June 30 2003 adopt Workplan - Adopted
- By August 5, 2005 circulate draft objectives and policy*
- By February 28, 2007 submit SQO policy to Office of Administrative Law*

Schedule Update

- Did not meet the August Deadline
 - SSC recommended schedule extension to allow for completion of tool development and input from stakeholders.
- Currently we believe tools and thresholds will be available by March '06 for review by SSC and Advisory Committee Members.
- Could have a draft FED ready to circulate by August 2006.
- Planning process for a unique plan such as this would require 12-14 months....workshops, hearings responding to comments and making revisions.
- Asking for 12 month extension, because the current schedule is out of reach.

Litigants Concerns

- Protect bays and estuaries with SQOs now.
- Narrative adopted for all water bodies *“All sediments shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life or that bioaccumulates as to cause these effects. This objectives applies regardless of whether the toxicity is caused by a single substance or the interactive effects of multiple substances. Compliance with this objectives would be determined by analysis of indicator organisms species, diversity, population density, growth anomalies, and biotoxicity tests of appropriate duration or other methods as specified by the Regional Water Board. This standard would be in addition to and not in place of the more detailed numeric standards applying the MLOE test which would be adopted subsequently”.*
- Fund Phase II Efforts*
- Bright Line

Waterboard

- In September, Waterboard met in closed session to discuss legal issues
- September Board Meeting, Waterboard approved additional funding for Phase II effort
 - \$2.5 million CAA Funds
 - Time Frame 2010/2011
 - Focus on Direct and Indirect Effects in Estuaries
 - Includes data collection (100 stations assumed for Delta)
- Commitment to develop tools for use within estuaries in Phase I
 - Anticipate a lower ability to discriminate effects
- Formal negotiations initiated between Attorney General Office/OCC and Litigants

My Plans

Issues and Alternatives to Support Policy Development

- What is included in an FED
 - Description of important policy issues
 - Description of alternatives associated with each key issue
 - Staff Recommendation
 - Draft Policy
 - CEQA requirements
 - Water Code; present, and probable future beneficial uses, water quality conditions that could reasonably be achieved through the coordinated control of all factors, economic considerations, the need for developing housing within the region and use recycled water.
- Describes current practices (baseline)

Issues and Alternatives to Support Policy Development

- Identify important issues that need to be addressed in the FED
 - These issues would be used to guide policy development
- Identify appropriate alternatives for consideration
- Develop example policy language...
- Encourage feedback
 - Subcommittees
 - Individuals

Scope of Policy - Applicability

- Waters
 - Alternative 1 All waters
 - Alternative 2 Bays and estuaries
 - Alternative 3 Bays
- Dredged Materials
 - Alternative 1 Applicable to dredged materials
 - Alternative 2 Not applicable to dredged materials
- Other or Misc.
 - Triennial Review

What receptors should be targeted for protection?

- Baseline: Site or region specific
- Alternative 1. All potential receptors including aquatic plants, plankton, bacteria
- Alternative 2. Variety of important and ecologically relevant receptors
- Alternative 3. Important, relevant and understood receptors (benthic Invertebrates, human health, and select wildlife)

What beneficial uses should the Board consider?

- Baseline
- Alternative 1. All beneficial Uses: Municipal, Industrial Rec1&2, spawn/repro/development
- Alternative 2. Beneficial Uses linked to specific receptors, (Examples: Mar, Est, Comm/Sport Fishing, Rare and Endangered)

How should the protected condition be defined ?

- Baseline
- Alt 1. Do not define the protected condition
- Alt 2. Describe in general terms the protected condition
- Alt 3. Define the protected condition specifically for each receptor
Baseline

Benthic Community Protection

- Baseline
- Alt 1 Condition expected under ideal or pristine conditions.
- Alt 2 Condition that represents the highest level attainable within a specific region or water body.

Human Health

- Cancer Risk

Baseline: variable 1 in 100,000, to 1,000,000

Alt 1 Cancer Risk 1 in 10,000

Alt 2 Cancer Risk 1 in 100,000

Alt 3 Cancer Risk 1 in 1,000,000

Alt 4 Cancer Risk Factor 1 in 100,000 with guidance for the selection of site specific risk factors (See Alternative 4 below)

- Consumption Rate

Baseline: Sport Fishers used in Water Quality Control Plans, Basin Plans and TMDLs. Consumption rates 6.5 grams per day (CTR) to 32 grams per day (SF Bay)

Alt 1 General population (Examples 6.5, 17.5 grams per day)

Alt 2 Sport fishers (Examples; 6.5, 16, 22, 32 grams per day)

Alt 3 Sensitive Populations (Example; 160 grams per day)

Alt 4 Sport fishers with guidance for site specific risk assessment for sensitive populations (could include multimedia human health risk assessments if there is potential for exposure to multiple sources)

Baseline

Fish and Wildlife

- Baseline protect local wildlife using risk-based approach. Uses established methodologies (NOEL, LOEL, literature body mass, calculated consumption rates) and reference doses (USEPA ECO-SSLs, BTAG – TRVs)
- Alt 1 Use established reference doses but require data collection on local risk-parameters (body mass, consumption rate)
- Alt 2 Require data collection on local exposure (tissue residues, egg residues)
- Alt 3 Require data collection on local effects (e.g., eggshell thinning, histopathology)

Type of Objectives

- Baseline
- Alt 1. None
- Alt 2 Numeric
- Alt 3 Narrative

What indicators and tools should be used to assess sediment quality?

- What lines of evidence are needed to assess sediment quality
 - Baseline
 - Alt 1 Do not specify lines of evidence
 - Alt 2 Use Specific Single Line of Evidence
 - Alt 3 Use Specific Multiple Lines of Evidence

Direct Effects LOE

- Sediment Toxicity
 - Baseline
 - Alt 1 Do not Specify Toxicity Methods
 - Alt 2 Acute Toxicity as Indicator of benthic Condition
 - Alt 3 Chronic Toxicity as an Indicator of Benthic Condition
 - Alt 4 Specify Combination of Acute and Chronic Methods
- Assessment of Sediment Toxicity
 - Base Line
 - Alt 1 Establish narrative guidance
 - Alt 2 Establish numeric thresholds

Direct Effects LOE

- Sediment Chemistry (Pollutant Loading)
 - Alt 1 Establish narrative guidance
 - Alt 2 Suggest numeric guidelines
 - Alt 3 Establish numeric thresholds

Direct Effects LOE

- Benthic Community
 - Alt 1 Establish narrative guidance
 - Alt 2 Suggest tools and benchmarks
 - Alt 3 Establish metrics and corresponding thresholds

Indirect Effects LOE

- Fish and Shellfish Tissue
 - Alt 1. Establish narrative guidance
 - Alt 2. Recommend methodology for calculating water-body specific numeric thresholds
 - Alt 3. Establish State-wide numeric thresholds

Indirect Effects LOE

- Sediment Pollutant Concentrations
 - Alt 1 Establish narrative guidance
 - Alt 2 Suggest methodology for calculating water-body specific numeric thresholds
 - Alt 3 Establish State-wide numeric thresholds
- Calculation of Bioaccumulation Factor For Sediment Thresholds
 - Baseline Use local data and models to calculate average BAF for representative fish species
 - Alt 1 Use local data and models to calculate average and 95% BAF
 - Alt 2 Use State-wide BAF Fish and Shellfish Tissue

Indirect Effects LOE

- Bioaccumulation Tests
 - Alt 1 Not include
 - Alt 2 Recommend for evaluation at water-body scale (regression analysis)
 - Alt 3 Require for evaluation at water-body scale
 - Alt 4 Require for evaluation at station scale (vs. reference conditions)
- Selection of Receptors
 - Alt 1 Generic representative fish and wildlife species
 - Alt 2 Local species for each water body

Monitoring Programs

- Alt 1. Permit by Permit (Individual Facility Monitoring). The targeted approach would be easiest to administer as each Permittee would be fully responsible for ensuring compliance with policy. However this model would be least effective at answering the crucial questions regarding extent, magnitude, and sources areas and would not be the most efficient use of resources.
- Alt 2. Integrated Monitoring Programs: Administered by Board Staff., a regional monitoring approach would provide more robust station distribution, enable the collection of higher quality data and allow for the sharing of resources and expertise.

Phased Approach to Follow-up Actions

- Alt 1. Do not provide language or guidance on responses to exceedances
- Alt 2. Provide general guidance
- Alt 3. Specify specific approach.
- Alt 4. Develop and adaptive process supported by limited guidance.

Spatial Issues

- Alt 1. Implement direct and indirect SQOs at same scale (example: station, multi-station or waterbody)
- Alt 2. Develop separate guidance for indirect and direct effects due to the different scale factors associated with the indicators spatial and temporal

Short Term Goals

- Send out List of Issues and Alternatives...next week
- Committee to provide feedback on contents....have we captured all issues and alternatives?.....respond by mid January '06
- Revise list of Issues and Alternatives.....mid February
- Receive feedback supporting or opposing alternatives....end of April (after SSC Meeting)
- Discuss topics at Committee Meetings