

**PROPOSED BIOSTIMULATORY  
SUBSTANCES AMENDMENTS  
TO THE  
WATER QUALITY CONTROL PLAN  
FOR INLAND SURFACE WATERS,  
ENCLOSED BAYS, AND ESTUARIES OF  
CALIFORNIA  
(PROPOSED AMENDMENTS)**

Focus Group Meetings

February – June 2016

# Purpose of Meeting

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- To obtain early input from Focus Group members on the scope of the Proposed Amendments.

# Staff's Preferred Emphasis for Regulatory Options

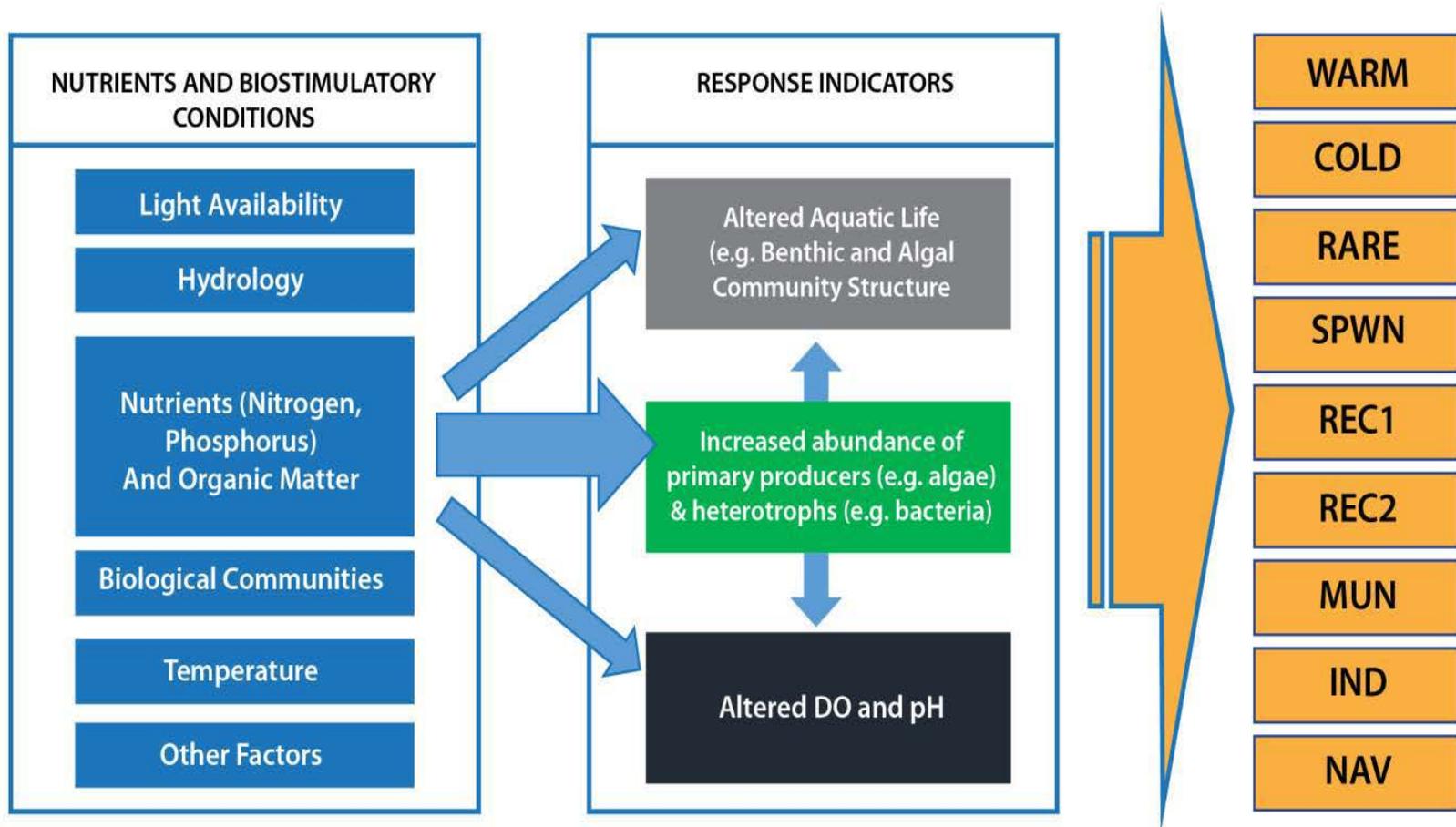
- 1) Set limits or targets with the most appropriate expectations.
- 2) Establish a flexible program of implementation.
- 3) Move forward with a coordinated management approach.

# NUTRIENT OBJECTIVES NEED A DIFFERENT APPROACH THAN THAT OF TOXIC CONTAMINANTS

- Nutrients are required to support life
  - How do we establish the correct nutrient balance?
- Direct effects (e.g. toxicity) are often less important than indirect effects
  - Indirect effects occur at much lower levels than toxic effects
- Ambient concentrations can give false positives or negatives
- Need a different approach



# Conceptual Model of Biostimulatory Substances



# SWRCB STAFF FAVOR CAUSE EFFECT APPROACH

- California's version of the Cause Effect Approach is coined as "nutrient numeric endpoint (NNE) approach"
- Consists of two major components
  - Response indicators with numeric endpoints for waterbody assessment
  - Models to link response indicator numeric endpoints to nutrient targets (e.g. permits, TMDLs, etc.)

## *Algae & Aquatic Plants*



## *Dissolved Oxygen, pH*



# History

- Clean Water Act directs States (with U.S. EPA oversight) to adopt water quality standards to protect the public health and welfare.
  - ▣ State's standards must include:
    - *Designated Uses (Beneficial Uses in CA)*
    - *Water Quality Criteria (Objectives in CA)*
    - *Program of Implementation*
    - *Antidegradation Policy*

# Current Status

- All of the Regional Water Quality Control Plans contain objectives for biostimulatory substances, nutrients and/or algae.
- While generally consistent, there are slight variations of the narrative or numeric objectives from region to region.

# Current Status

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- State Water Board staff is developing the Proposed Amendments to provide statewide consistent objectives and an efficient program of implementation for biostimulatory substances.

# Elements of Proposed Amendments

- Element 1: Biostimulatory Substances Objectives
  - *Numeric*
  - *Narrative*
    - *Without Numeric Translators*
    - *With Numeric Translators*
  - *Site Specific Objectives*
- Element 2: Program of Implementation Approach
  - *Source-by-Source Approach*
  - *Coordinated Watershed Management Approach*

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# Element 1: Biostimulatory Substances

## Objectives

- Numeric Objectives
  - *Ecoregion/Reference Approach*

# Element 1: Biostimulatory Substances

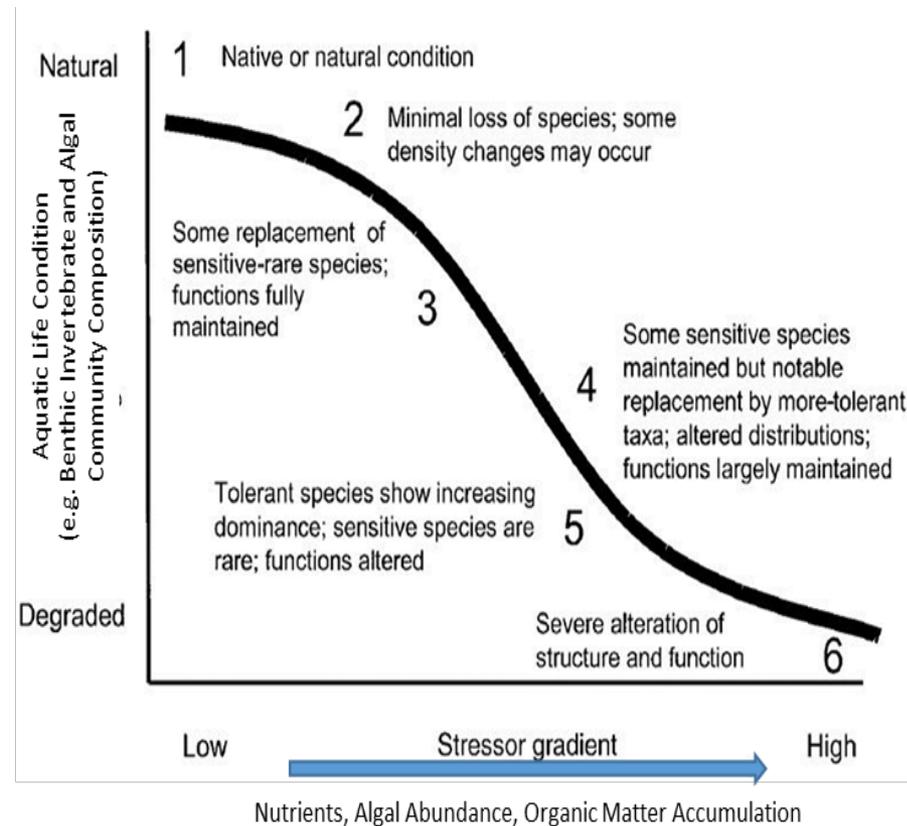
## Objectives

- Narrative Objectives
  - *Without Numeric Translators*
  - *With Numeric Translators*
    - ***Weight-of-Evidence***
    - *Ecoregion*
    - ***Biological Condition Gradient (BCG) Model***

# Element 1: Biostimulatory Substances

## Objectives

### □ Biological Condition Gradient (BCG)



# Element 1: Biostimulatory Substances

## Objectives

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- Site-Specific Objectives (SSOs)

# Element 2: Program of Implementation

- Source-by-Source Approach
- **Coordinated Watershed Management Approach**

# Element 2: Program of Implementation – Source by Source

- Point Source
  - Water Quality Based Effluent Limits (WQ BELs)
  - Technology Based Effluent Limits (TBELs)
  - Performance Based Effluent Limits (PBELs)
- Stormwater
  - Management Plan (MP) – Nutrient Management Plans
  - Prohibitions
  - Numeric Limits

# Element 2: Program of Implementation – Source by Source

- Non-Point Source
  - ▣ Agriculture – Irrigated (crops)
    - Numeric Limits
    - MPs – Nutrient Management Plans
    - Prohibitions
  - ▣ Dairy/Concentrated Animal Feeding Operations (CAFOs)
    - Numeric Limits
    - MPs – Nutrient Management Plans
    - Prohibitions

# Element 2: Program of Implementation – Source by Source

- Non-Point Source
  - ▣ Grazing
    - Numeric Limits
    - MPs – Nutrient Management Plans
    - Prohibitions
  - ▣ Other (Timber Harvest, 401 Cert, etc.)
    - Numeric Limits
    - MPs – Nutrient Management Plans
    - Prohibitions

# Element 2: Coordinated Watershed Management Approach

- Coordinated Watershed Management Approach
  - ▣ Cooperative participation
    - Point Sources (NDPES)
    - Agriculture
    - Stormwater
    - Dairies/ CAFOs/ Grazers (Livestock)
    - Others (Forestry, Wetlands)

# Element 2: Coordinated Watershed Management Approach

- Focus on overall health of a watershed
- Focus on cumulative effects of biostimulatory substances
- Considerations:
  - ▣ Additions of Nutrients into the Watershed
  - ▣ Modifications that alter the Assimilative Capacity
  - ▣ Health of Biological Conditions

# Element 2: Coordinated Watershed Management Approach

- Enhanced watershed management plan
  - ▣ Traditional control mechanism
  - ▣ Watershed restoration actions
- Assessment of upstream, downstream and potential groundwater effects
- Implementation of measures may reduce cause effect of nutrients toward eutrophication

# Timeline

- Focus Group Outreach – February 2016 – June 2016
- Project Outreach with Regulatory Group (RG) and Stakeholder Advisory Group (SAG) – June 2016
- Scoping Document & Meeting – November 2017
- Draft Staff Report – Winter 2018
- Public Comment – Spring 2018
- Public Hearing – Summer 2018
- Comment Response – Fall 2018
- Board Adoption – Winter 2019

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# Questions?

