

Elkhorn Slough nutrient modeling contract to assist in developing the TMDL for biostimulatory substances

Kick off meeting

JULY 9, 2019



SOUTHERN CALIFORNIA
COASTAL WATER
RESEARCH PROJECT



The background of the slide is a light blue gradient. It is decorated with numerous realistic water droplets of various sizes. Some droplets are large and prominent, while others are small and subtle. They are scattered across the slide, with a higher concentration in the top-left and bottom-right corners. Each droplet has a highlight and a shadow, giving it a three-dimensional appearance.

Introductions

Today's Goal

Discuss water quality concerns and the future development of the TMDL for biostimulatory substances in the Elkhorn Slough watershed.

Today's Objectives

- **Present information on TMDL efforts thus far.**
- **Discuss nutrient modeling and the upcoming contract.**
- **Discuss opportunities for stakeholder participation in the TMDL development.**

BRIEF BACKGROUND: TMDL for Biostimulatory Substances in the Elkhorn Slough Watershed

***Steven Saiz, Central Coast Regional Water Quality
Control Board***



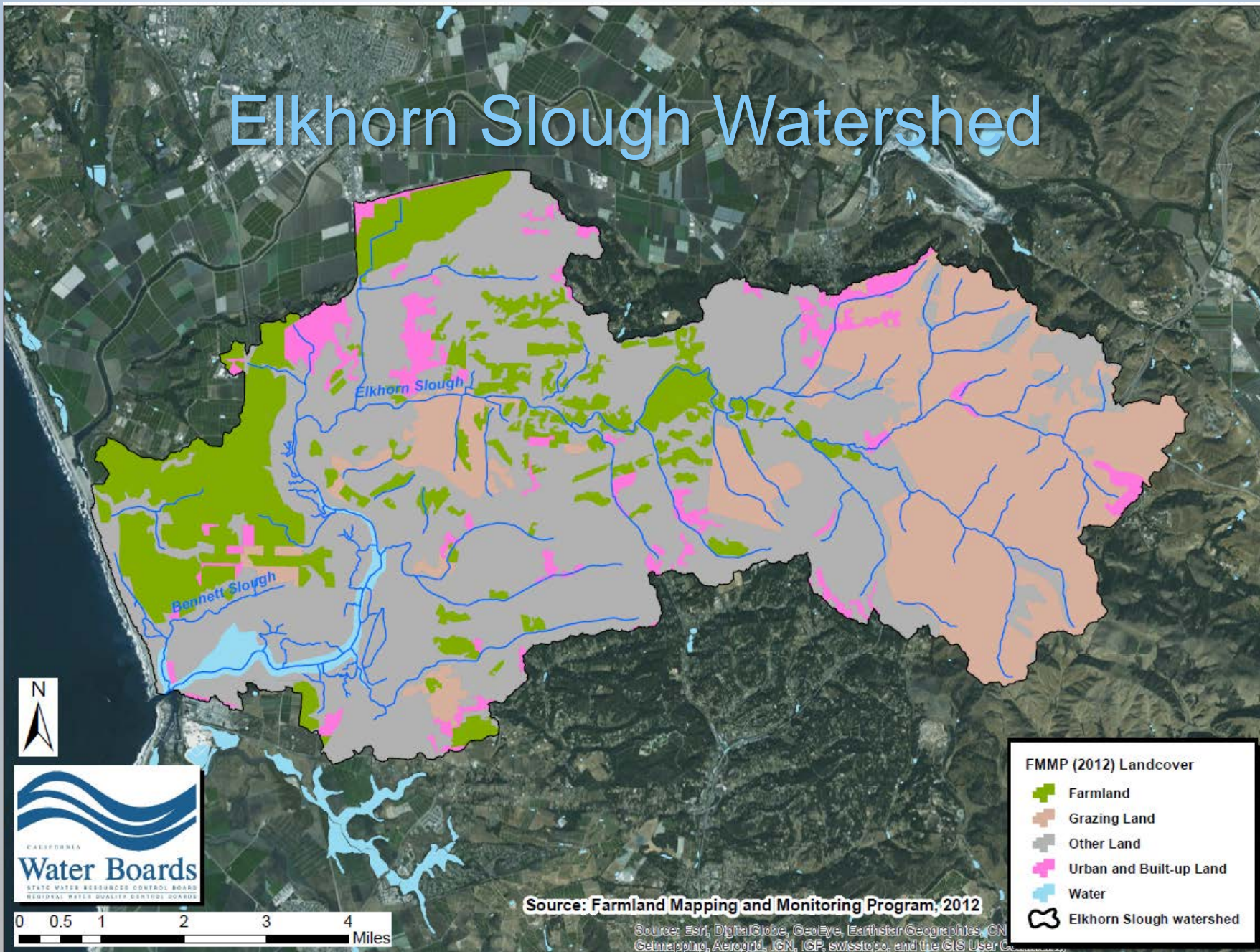
Why are We Here?...

CWA 303(d) list of water quality impairments at Elkhorn Slough, Bennett Slough, Moss Landing Harbor, Los Carneros Creek (2014 & 2016):

- ✓ **dissolved oxygen**
- ✓ **pH**
- ✓ **un-ionized ammonia**
- ✓ **chlorophyll-a**
- ✓ **Nitrate**
- ✓ **Turbidity**

These are indicators of biostimulation that may promote aquatic growth and adversely affect beneficial uses.

Elkhorn Slough Watershed



What the Water Board Does

Mission Statement:

**To preserve, enhance, and restore the
quality of CA's water resources...
surface and ground waters**

Laws to Protect Water Quality

- **CA Water Code (State)**
- **Clean Water Act (Federal)**



What is a Total Maximum Daily Load (TMDL)?

“The maximum amount of a pollutant that a surface waterbody can assimilate while still meeting water quality standards.”

- State Water Board Guidance (2005)

Steps in the TMDL Process

TMDL projects are strategies to restore water quality

**Identify
Probable
Sources**

**Identify
Waterbody
Loading
Capacity**

**Identify Pollution
Reductions Needed**

**Develop Plan to
Achieve
Reductions**

Why Do a TMDL?...

Clean Water Act 303(d)

States must create a “list” of impaired waters that do not meet WQ standards

Clean Water Act 303(d)(1)(C)

For impaired waters, states must establish the **total maximum daily load for pollutants to implement the applicable WQ standards with **seasonal variations** and a **margin of safety** which takes into account any lack of knowledge.**

CA State TMDL Policy

What TMDLs DO and DO NOT Do....

TMDLs Do...

- Often rely on existing permits to implement TMDL objectives
- Create a “plan” for monitoring and implementation
- Require feedback mechanisms to evaluate progress
- Generally have long-term timeframes to achieve goals
- Create an expectation and responsibility to achieve goals

What TMDLs DO and DO NOT Do....

TMDLs Do Not...

- Require immediate compliance with water quality objectives
- Imply enforcement actions are imminent
- Mandate specific management practices
- Presume every landowner is contributing to pollution
- Presume all pollution is from human activities (natural sources too)
- TMDL itself not directly enforceable (existing permits are)

Elkhorn TMDL Past Milestones

Year	Month	Event
2015	Feb	Release of Document: <i>TMDL Fact sheet</i> , CCRWQCB
	Feb	TMDL kick-off Stakeholder Meeting
2016	Sep	Release of Document: <i>Draft Data Analysis Report</i> , CCRWQCB
	Nov	TMDL Stakeholder Meeting
2018	Feb	Scientific Workshop Stakeholder Meeting
	Sep	Release of Document: <i>Technical Support for Elkhorn Slough Nutrient (TMDL) Development</i> , Tetra Tech and the Elkhorn Slough Foundation.
2019	Mar	Workshop on Nutrient Transport in the Elkhorn Slough Estuary

TMDL email subscription

CA.GOV CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
CENTRAL COAST REGIONAL WATER QUALITY CONTROL BOARD

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www.waterboards.ca.gov/centralcoast

Subscribe to our “*Elkhorn Slough Biostim TMDL*” email subscription list to be notified of TMDL progress and meetings

ANNOUNCEMENTS

- » Central Coast Regional Water Board Adopts Information Regulations
- » State Water Board Approves The 2012 Accounting
- » New! Ex Parte Communications
- » Water Board contracts with U.S. Geological Survey to test domestic wells in Salinas and Pajaro Valleys
- » Water Board launches Groundwater Assessment and Protection (GAP) program webpage
- » “Sampling My Private Well”

Water Board Website and Contacts

http://www.waterboards.ca.gov/centralcoast/water_issues/programs/tmdl/docs/elkhorn_slough/do/index.shtml

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