CEQA Scoping Meeting

Loma Alta Slough

Bacteria & Nutrient TMDL CEQA Scoping Meeting

October 25, 2010

Agenda

- Introductory Presentation of Loma Alta Slough Bacteria & Nutrient TMDLs
- Overview Presentation of Bacteria & the RSAA
- CEQA Presentation & CEQA Checklist
- Public Input & Comment on Physical Impact on the Environment from TMDL Implementation
- Comments on DRAFT Problem Statement

Loma Alta Slough Background

- **Loma Alta Slough listed for bacteria & eutrophication**
- **SDRWQCB Monitoring Order R9-2006-0076: Collect data to support watershed loading & Slough water quality models for TMDL development**
  - **Field work & reporting completed**

A Total Maximum Daily Load (TMDL)

- **The Purpose of a TMDL is to ...**
  Attain Water Quality Objectives & Restore Beneficial Uses

- **A TMDL is defined as …**
  The amount of a pollutant that a waterbody can receive & still meet water quality standards

- **TMDL = ∑WLAs + ∑LAs + MOS**

Components of a TMDL

- Problem Statement
- Numeric Targets
- Source Analysis
- Linkage Analysis
- TMDL Load
- Margin of Safety
- Load & Wasteload Allocation
- Implementation Plan

Problem Statement

- **Loma Alta Slough was placed on the Clean Water Act section 303(d) List for eutrophic conditions & indicator bacteria in 1996. Beneficial uses, such as Estuarine Habitat & Contact Water Recreation, are not being met.**

- **Excessive loading of nutrients entering Loma Alta Slough increase algal biomass in the slough to levels that are detrimental to the waterbody.**

Numeric Target Options for Bacteria & Eutrophication:

- **Existing basin plan objectives**
- **Eutrophication: Nutrient numeric endpoint (NNE), & compare algal biomass in "minimally disturbed" estuaries**

  Bacteria: Allowable exceedence frequency based on a bacteria reference condition

Comparison to a Minimally Disturbed Intermittently Tidal Estuary

- **Loma Alta Slough has > 300 times more Dry Macroalgae Biomass (g/m^2) than Topanga Lagoon**

Basin Plan Objectives for Biostimulatory Substances

- "Concentrations of nitrogen and phosphorus, by themselves or in combination with other nutrients, shall be maintained at levels below those which stimulate algae and emergent plant growth. Threshold total phosphorus (P) concentrations shall not exceed 0.05 mg/l in any stream at the point where it enters any standing body of water, nor 0.025 mg/l in any standing body of water. A desired goal in order to prevent plant nuisance in streams and other flowing waters appears to be 0.1 mg/l total P." "Natural ratios of nitrogen to phosphorus are to be determined by surveillance and monitoring and upheld. If data are lacking, a ratio of N:P = 10:1, on a weight to weight basis shall be used."

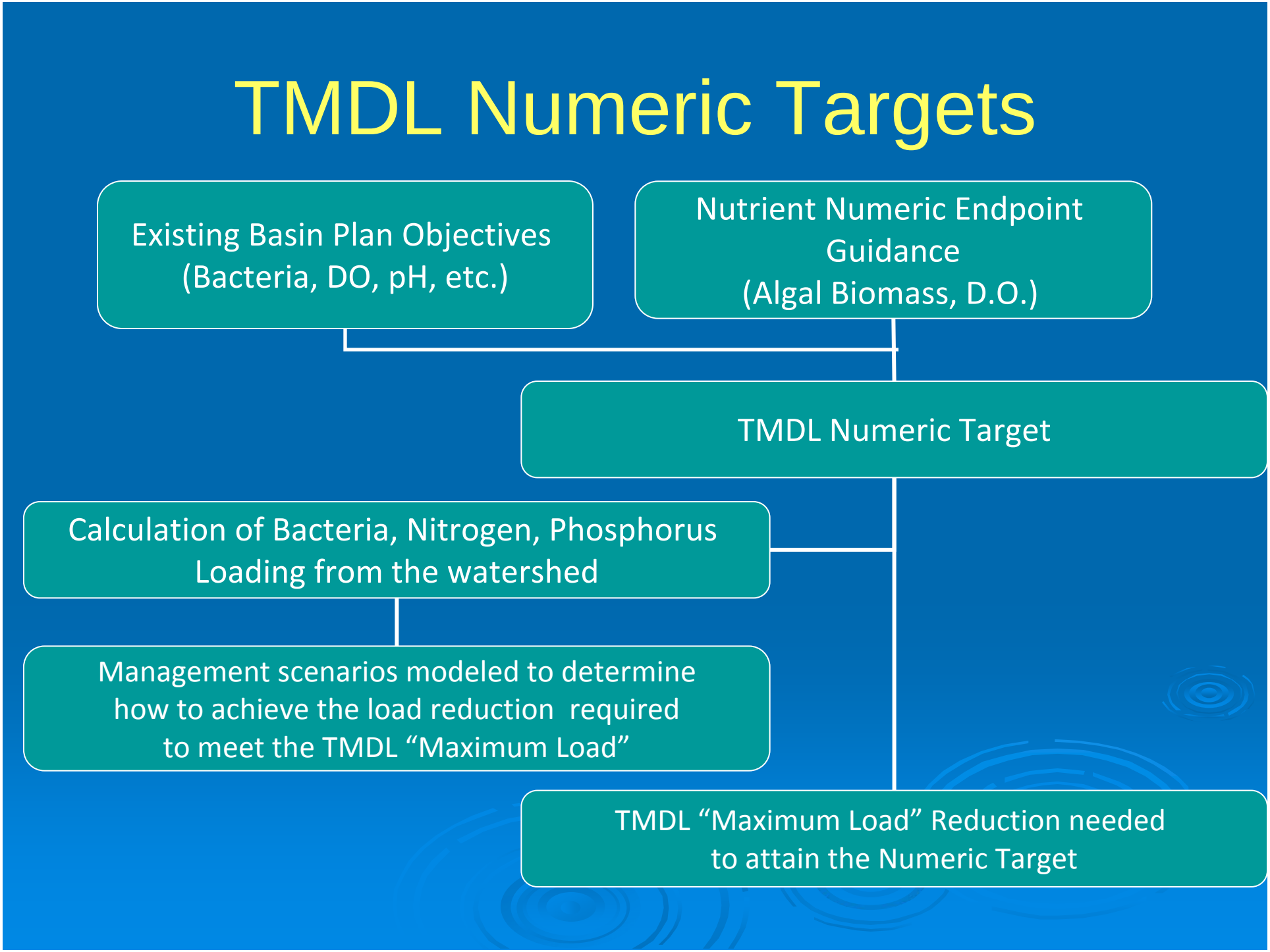
Basin Plan Objectives for Dissolved Oxygen

- **Dissolved Oxygen**
  - **MAR & WARM – 5.0 mg/l**
  - **COLD – 6.0 mg/l**

Information Used to Select Numeric Endpoint

Indicator	Approach for Establishing Numeric Targets
Dissolved Oxygen	Existing Basin Plan Objectives
Macroalgal biomass	Modeling the relationship to dissolved oxygen, Modeling effects of shading on (benthic microalgae), Looking at algal biomass in other "minimally disturbed" estuaries

TMDL Numeric Targets



Indicator Bacteria for Loma Alta Slough

- High densities (MPN/100 mL) of fecal indicator bacteria
  - Fecal coliform
  - Total coliform
  - Enterococci

High Bacteria Levels are Costly to Beachgoers

- Epidemiology models showed that Enterococci densities from year 2000 caused 1 million gastrointestinal illnesses in LA & Orange County beaches

- Expenditures = $36 Million
  - Lost time at work, doctor visits, medicine
  - Does not include other illnesses, lost recreational value, loss to coastal market economies

Contact Water Recreation Use Fecal Coliform WQ Objectives

- **not to exceed 200/100 ml (MPN)**

  based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200/100 ml

- **not to exceed 400/100 ml (MPN)**

  nor shall more than 10 percent of total samples during any 30-day period exceed 400/100 ml.

Total Coliform Water Quality Objectives

- **less than 1,000 per 100 ml (MPN)**

  provided that not more than 20 percent of the samples at any sampling station, in any 30-day period, may exceed 1,000 per 100 ml (10 per ml), &

- **not to exceed 10,000 per 100 (MPN)**

  provided that no single sample when verified by a repeat sample taken within 48 hours.

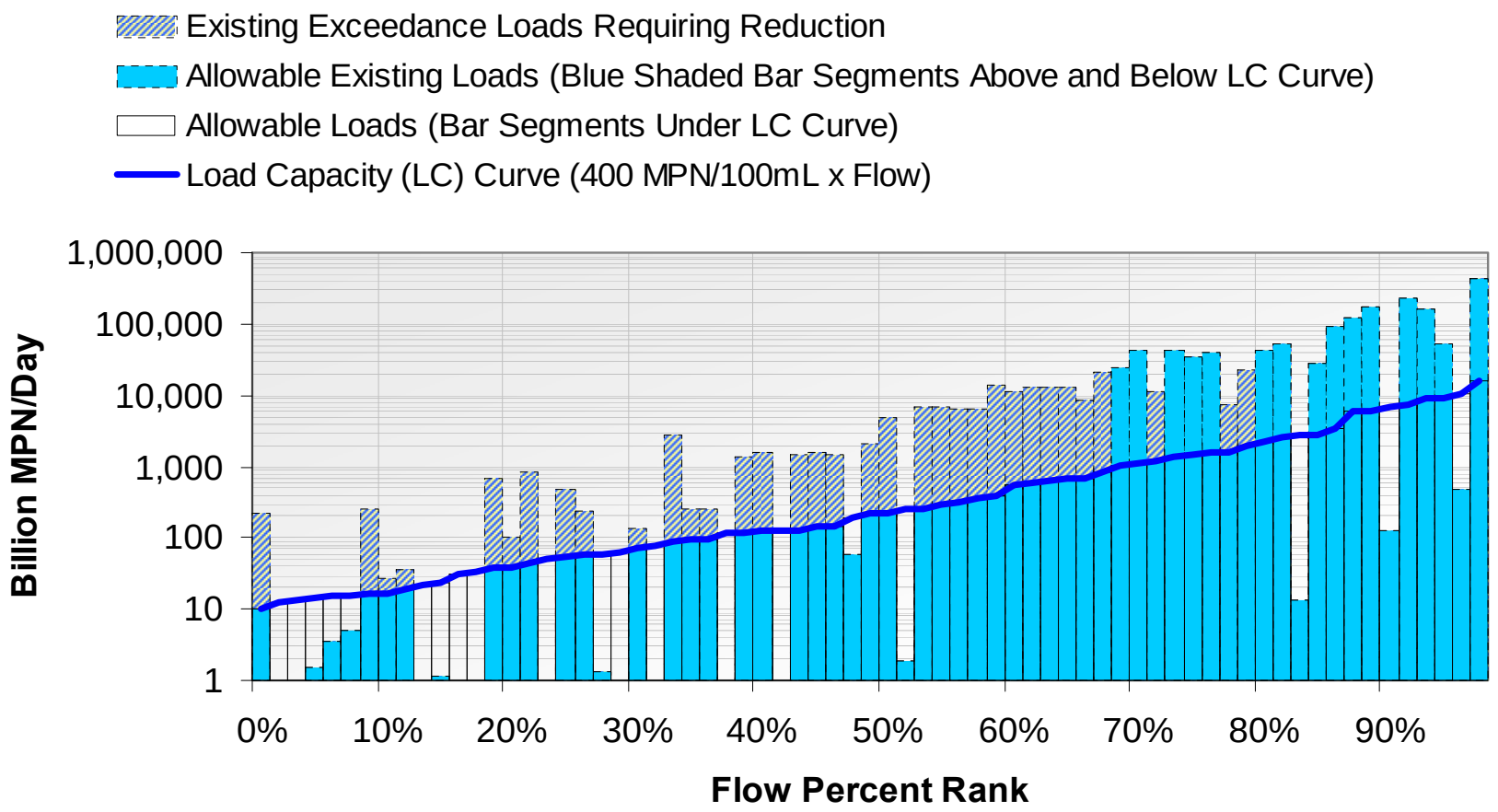
E.coli & Enterococci per 100mL WQ Objectives

	Frshwtr Entero-cocci	Frshwtr E.coli	Saltwater Enterococci
Steady State (Geometric Mean):	33	126	**35**
Maximum: **Designated beach**	61	235	**104**
Moderately or lightly used area	108	406	276
Infrequently used area	151	576	500

The Reference System & Anti-degradation Approach (RSAA)

- Characterization of target water body and Identification of the reference system
- Identification of Dry/Wet weather days
- Determination of allowable exceedance frequency for wet weather
- No exceedances allowed for dry weather
- No degradation of existing bacteriological water quality

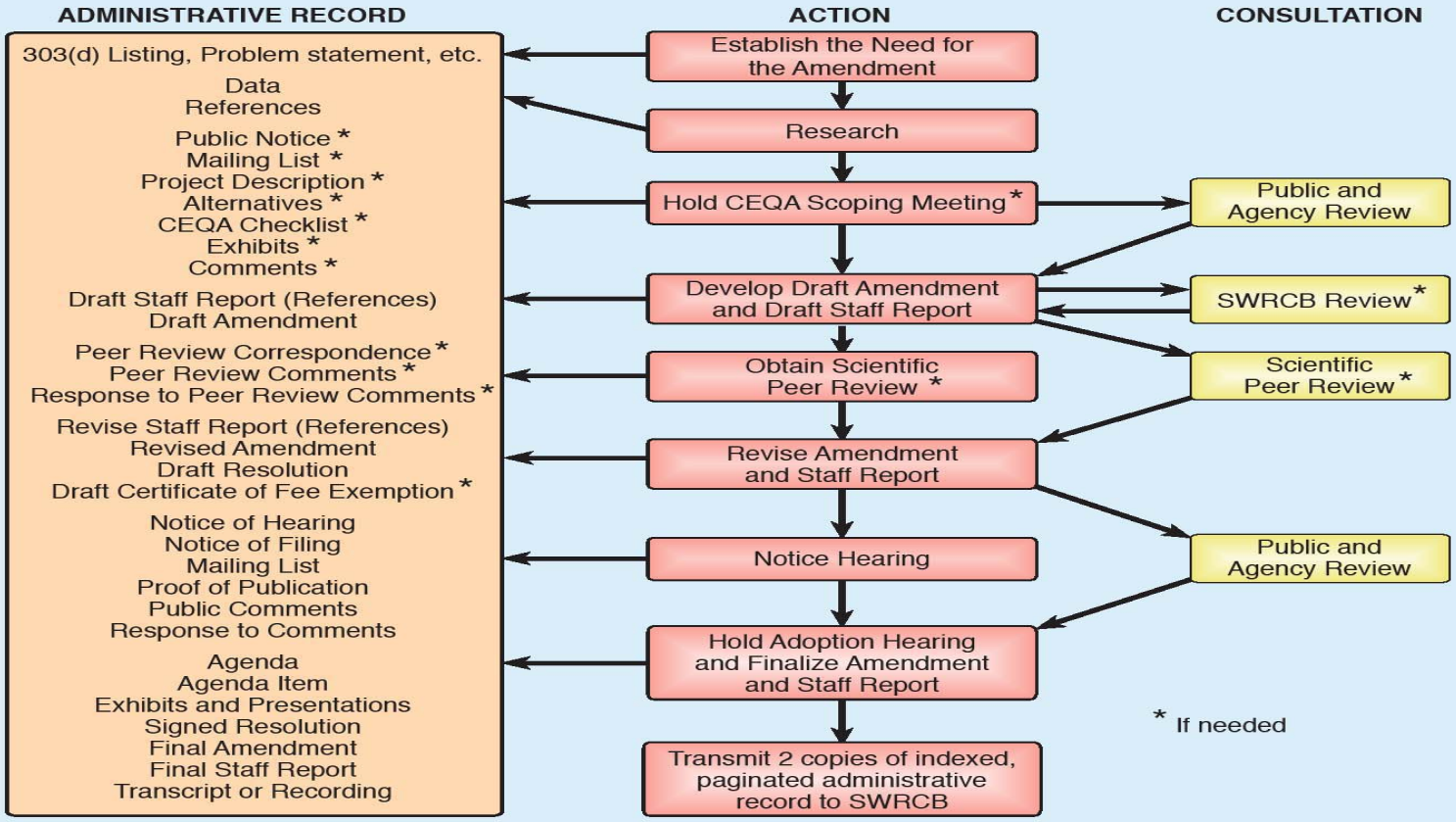
Load Duration Curve for Aliso HSA Subwatershed (#202) Using Reference System Approach

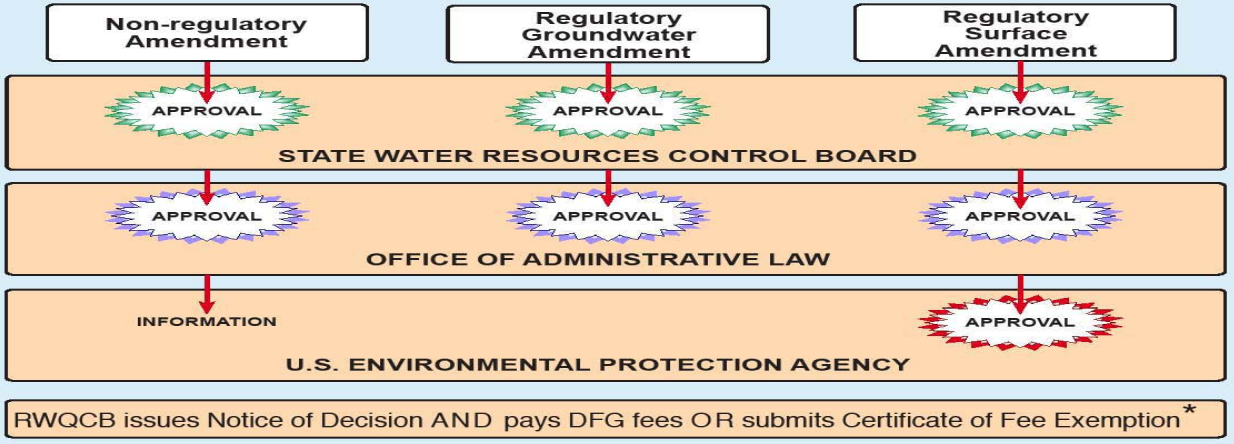


Getting Your Basin Plan Amendment Approved

BASIN PLANNING PROCESS

Regional Water Quality Control Board





Timeline for TMDL Process

Element	Timeframe
Formulate problem statement	Fall 2010
Decide on numeric targets	Fall 2010
Choose management scenarios (e.g. how to reduce loads--Best management practices)	Fall 2010
Calibrate & validate watershed loading & Slough water quality models	Jan 2011
Determine TMDL “maximum” load	Jan 2011
Calculate existing loads & model management scenarios	June 2011
Establish load & waste load allocations	July 2011
Establish implementation plan Obtain peer review Board Hearing	October 2011 Jan 2012 Mar 2012

California Environmental Quality Act (CEQA)

Purpose:

- **High-quality environment**
  - **Identify significant impacts**
  - **Avoid when possible**
  - **Mitigate when possible**

- **Ensure public disclosure/participation**

Application of CEQA

- **”Projects" undertaken or requiring approval by State & local government agencies**
- **”Projects” are activities which have the potential to have a physical impact on the environment**

Basin Planning: Exempt from CEQA Requirements, however…

- **"Functionally equivalent" to the CEQA requirements for environmental documentation [CCR Title 14, § 15251(g)]**

- **"Functionally equivalent" documents include: written technical report, initial draft of Basin Plan amendment, CEQA checklist [23 CCR 3776]**

CEQA Scoping Meeting

- **Legislation requires the lead agency to conduct a meeting**
- **Purpose: to gain public input on the scope & content of functionally equivalent documents**

Scope of Project

- **Identify environmental impacts**
- **Identify mitigation measures**
- **Identify alternatives for achieving compliance with TMDL (i.e. reducing nutrient & bacteria levels)**

Anticipated Impacts

- **Reduction in nutrient & bacteria levels**
- **REC-1 & WARM, EST, RARE, MAR**
- **Prevention of pollutants entering streams using Structural & Non Structural BMPs**
- **Input from Public…**

Loma Alta Slough TMDL Contact Information

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