

# CEQA Scoping Meeting

Central Valley Diuron

Total Maximum Daily Load and  
Basin Plan Amendment



30 October 2012

# Outline

- **Regulatory Background**
- **Project Schedule**
- **Diuron Background**
- **Project Proposal**
- **Project Alternatives**
- **CEQA Scoping Comments**

# California Water Boards

- Nine Regional Water Boards under State Water Board
- Duty to protect water quality
  - Porter Cologne
  - Federal Clean Water Act
- Water Quality Control Plans (Basin Plans)
  - Water quality standards

# Legal Requirements

- **Porter-Cologne** requires the Water Boards
  - to develop **water quality objectives** for the protection of surface water
  - program of **implementation** to achieve objectives
- **Clean Water Act** requires states
  - to develop water quality standards
  - §303(d) requires that **impaired segments** are identified and addressed by the development of **total maximum daily loads (TMDLs)**

# 303(d) List

- Clean Water Act requirement
- California Listing Policy
- Impaired water bodies
  - Do not meet water quality standards
  - Requires Regional, State Board, and US EPA approval
  - TMDL required

# TMDLs

- Determine loading capacities
- Assign allocations among sources
- Program of Implementation
  - Monitoring and Reporting requirements

# Basin Plans

- Required by Porter-Cologne & CWA
- Chapters
  1. Basin Description
  2. Existing and Potential Beneficial Uses
  3. Water Quality Objectives
  4. Implementation
  5. Surveillance and Monitoring

# Basin Plans

- Basin Plan Amendments
  - Regulations
  - Approval by Regional Board, State Board, Office of Administrative Law, and USEPA required
- Public Process
  - Meetings, workshops, Board hearings
  - Response to comments received

# Project Schedule

<b>Milestone</b>	<b>Estimated Date</b>
CEQA Scoping Meeting	October 2012
Draft Staff Report for Peer Review	Late 2013
Draft Staff Report for Public Comment	Mid 2014
Stakeholder Workshop(s)	Late 2014
Regional Board Hearing	Early 2015
State Board Approval	Mid 2015
Office of Administrative Law Approval	Late 2015
US EPA Approval	Early 2016

# Diuron Background

- Herbicide – broad leaf & grassy weeds
- Agricultural and non-agricultural uses
- Moderately soluble in water
- Relatively long half-lives
  - Water & soil (weeks - months)
- Surface water detections >30% of the time
- Toxic to algae

# Diuron Background

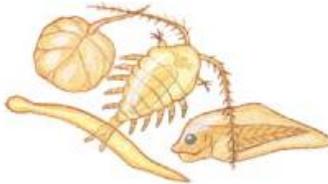
**Secondary consumers**



**Forage Fish**



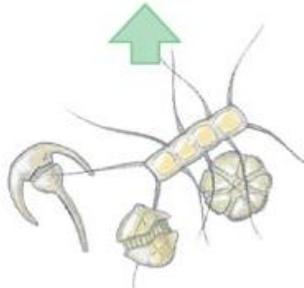
**Primary consumers**



**Zooplankton**

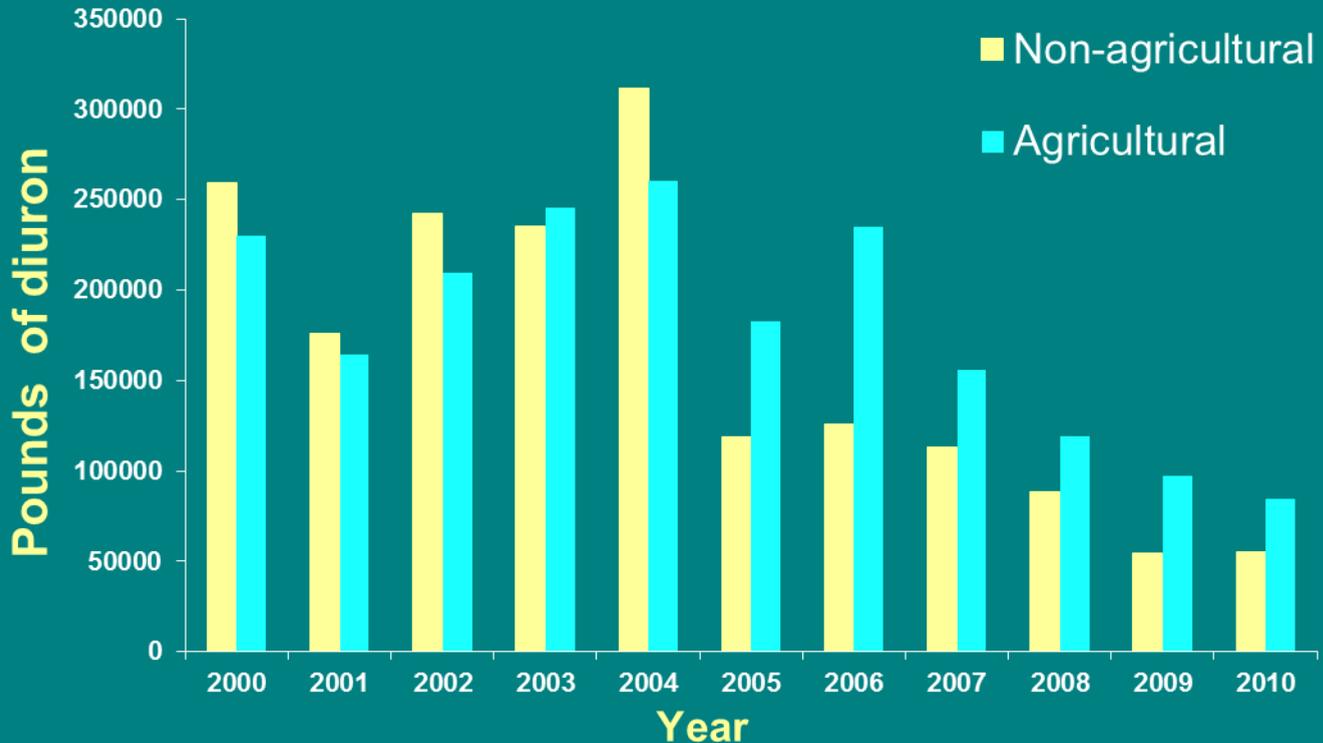


**Producers**

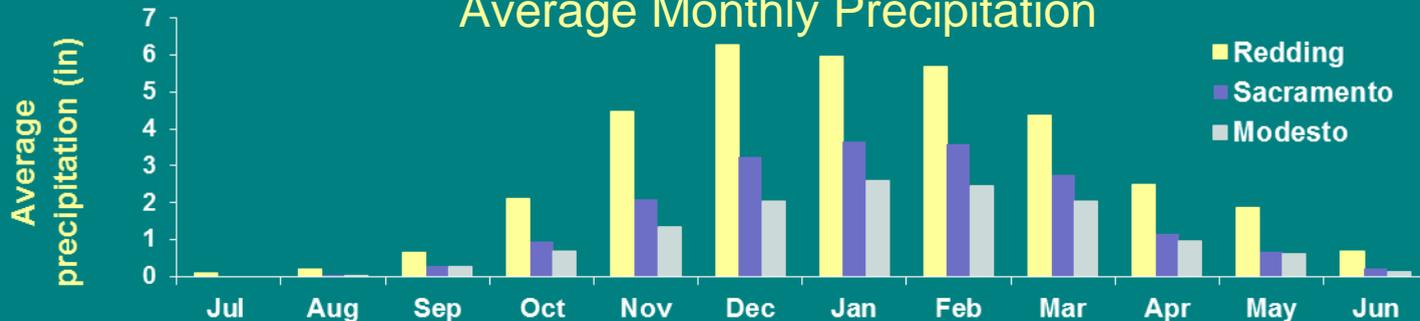


**Phytoplankton**

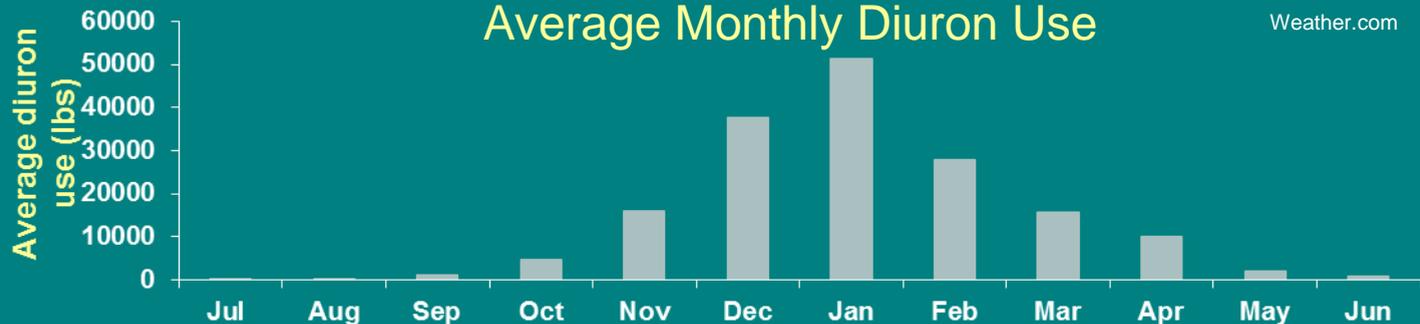
# Diuron Background



## Average Monthly Precipitation

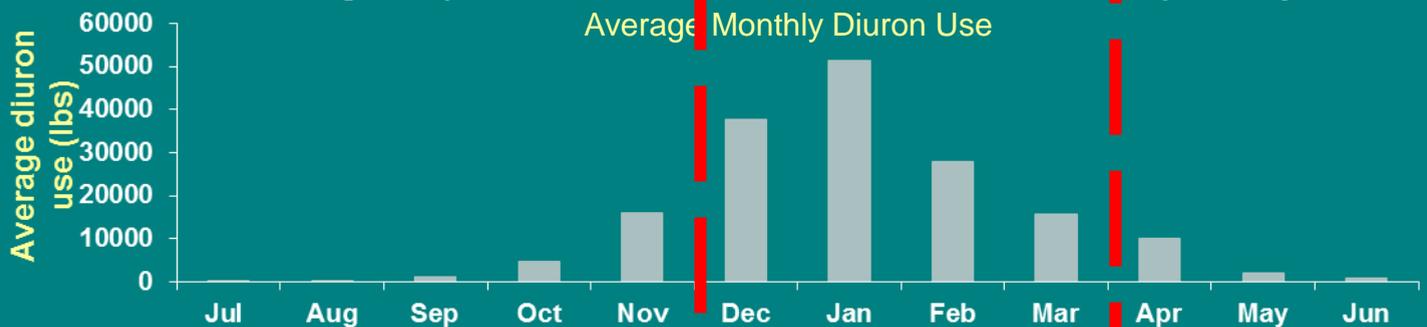
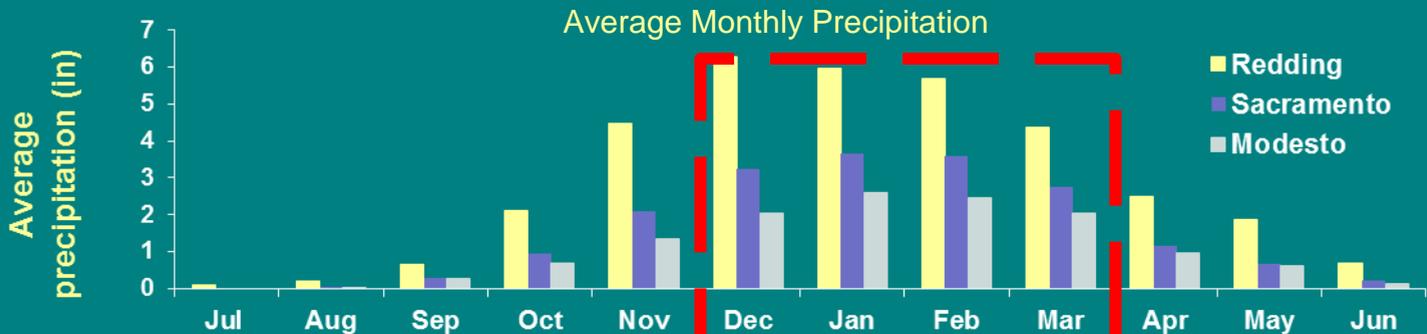


## Average Monthly Diuron Use



## Average Surface Water Concentration





# Project Proposal

Develop a Basin Plan Amendment for diuron to establish

1. Water quality objectives
2. TMDLs for 303(d)-listed water bodies
3. Implementation program to control diuron discharges

# Project Alternatives

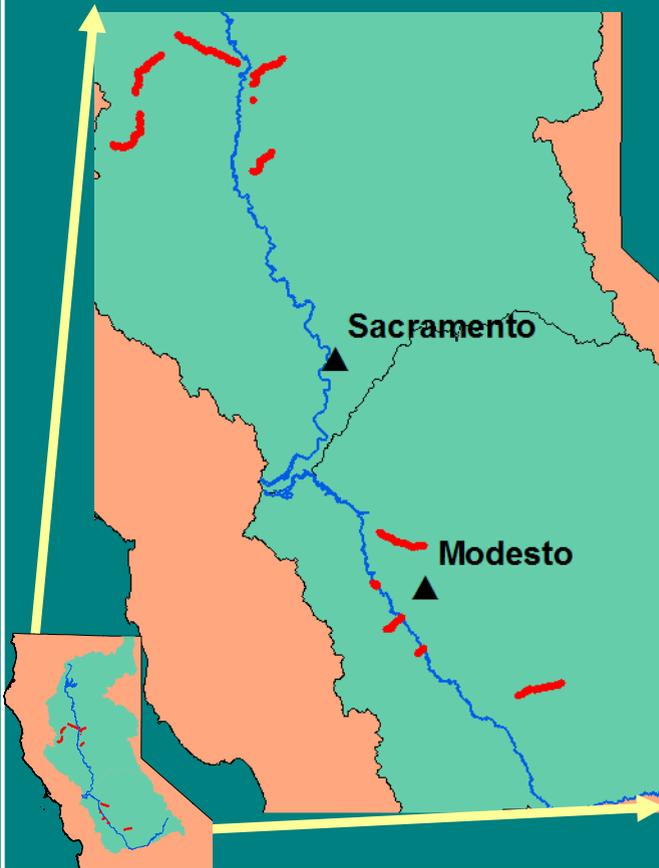
1. Geographic Scope
2. Beneficial Uses
3. Water Quality Objectives
4. Implementation

# Geographic Scope



- Sacramento River & San Joaquin River Basins
  - Or a subset of these water bodies based on the beneficial use or other factors

# Geographic Scope



## TMDLs

required for

- Water bodies not meeting standards
- 303(d)-listings

# Geographic Scope

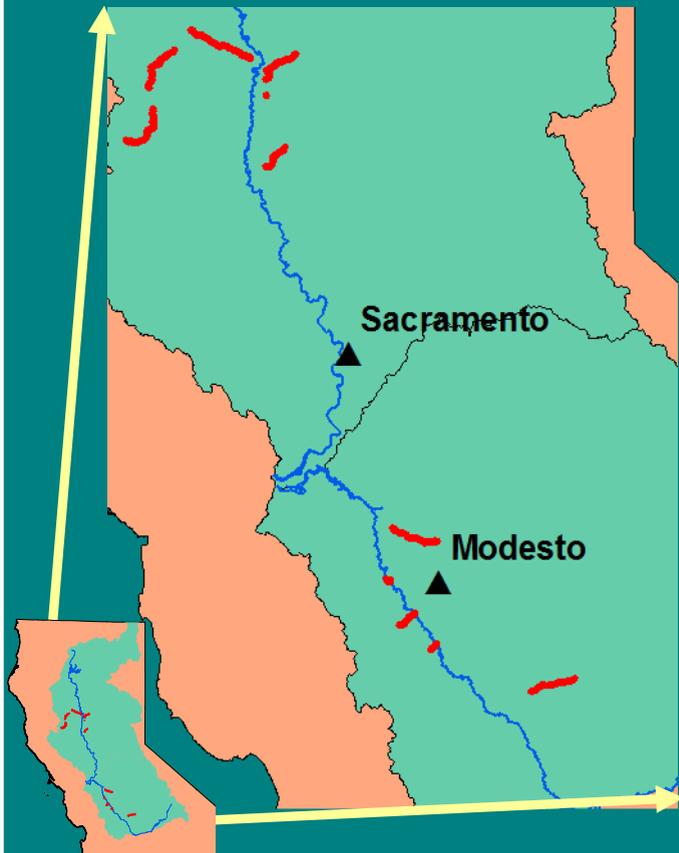
## 303(d) Listings

### Sacramento River Basin

- **Stony Creek**
- **Comanche Creek** (from Little Chico Creek to Angel Slough, Butte and Glenn Counties)
- **Main Drainage Canal** (Sutter Co.)

### San Joaquin River Basin

- **Lone Tree Creek**
- **San Joaquin River** (Stanislaus River to Delta Boundary)
- **Del Puerto Creek**
- **Orestimba Creek** (below Kilburn Road)
- **Miles Creek** (Merced County)



# Beneficial Use

- WARM/COLD uses appear to be most sensitive to diuron
  - MUN use has similar sensitivity
- WARM/COLD & MUN are widely designated in project area
- Intend to link WQOs to BUs

# Water Quality Objectives

- Limit or level of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water or the prevention of nuisance within a specific area
- Narrative or numeric

# Water Quality Objectives

- **Narrative Objectives in Basin Plan**

- No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses.
- Discharges shall not result in pesticide concentrations in bottom sediments or aquatic life that adversely affect beneficial uses.
- Pesticide concentrations shall not exceed those allowable by applicable anti-degradation policies.
- Pesticide concentrations shall not exceed the lowest levels technically and economically achievable.
- All waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life.

# Water Quality Objectives

## Alternatives

1. **No change to narrative objectives**
2. **No diuron**
3. **UC Davis criteria**
4. **US EPA aquatic life benchmark**
5. **Human health value**

# Water Quality Objectives

## 1. No change to narrative objectives

- Numeric evaluation guidelines used to interpret narrative objectives
  - May change as new info becomes available

# Water Quality Objectives

## 2. No diuron

- Detectable concentrations of diuron would not be allowed

# Water Quality Objectives

## 3. UC Davis criteria

- Peer reviewed
- Derived to protect aquatic life
- **Chronic = 1.3 $\mu$ g/L** (NOEC for a freshwater green alga)
- **Acute = 170 $\mu$ g/L**

# Water Quality Objectives

## 4. US EPA aquatic life benchmark

- Benchmark = **2.4 $\mu$ g/L** (EC<sub>50</sub> for a freshwater green alga)

# Water Quality Objectives

## 5. Human health value

- **One-in-a-million** incremental **cancer risk** estimate for drinking water = **2 $\mu$ g/L**
- Current “trigger limit” used by **ILRP**

# Water Quality Objectives & TMDLs

- TMDL allocations will be consistent with the proposed numeric water quality objective

# Implementation

- Porter-Cologne requires an implementation program for achieving water quality standards
  - Actions necessary to achieve objectives
  - Time schedule for actions
  - Surveillance to be undertaken to determine compliance

# Implementation

- Control of discharges for **WQOs** and **TMDLs**
  - Programs
    - ILRP, waste water, storm water
  - Regulatory controls
    - NPDES, WDRs, waivers, prohibitions
  - Coordination with DPR, EPA, & CACs

# CEQA Scoping

## Environmental Impacts to Consider

- Aesthetics
- Agriculture & forest resources
- Air quality
- Biological resources
- Cultural resources
- Geology & soils
- Greenhouse gas emissions
- Hazards & hazardous materials
- Hydrology & water quality
- Land use & planning
- Mineral resources
- Noise
- Population & housing
- Public services
- Recreation
- Transportation / traffic
- Utilities & service systems

# Current Status & Next Steps

- Draft staff report is under development
- **E-mail Updates**

[www.waterboards.ca.gov/resources/  
email\\_subscriptions/reg5\\_subscribe.shtml](http://www.waterboards.ca.gov/resources/email_subscriptions/reg5_subscribe.shtml)

- **Project Website**

**Central Valley Diuron TMDL and  
Basin Plan Amendment**

**Comments Due  
November 13, 2012**

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