



# **2016 LESJWA Water Summit**

## **Nutrient TMDLs and Revisions Task Force Benefits Quail Valley Prohibition**

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Water Boards

# Presentation Outline

- Overview of Regional Water Board
- Canyon Lake/Lake Elsinore Water Quality Issues
- Lake Elsinore and Canyon Lake Nutrient TMDLs
- LE/CL TMDL Task Force
- Quail Valley Septic System Prohibition

# Who is the Regional Water Board?



Regional Water Quality Boards were established by the Porter Cologne Act in 1969

Comprised of up to 7 appointees and staff

Santa Ana Regional Board jurisdiction:

- Northern Riverside County
- Southwestern San Bernardino County
- Northern Orange County



# Water Boards are leaders in the Protection of Water Quality

- **Regulatory Authority**
  - Federal Clean Water Act
  - CA Water Code
- **Activities:**
  - Water Quality Control Planning
    - Identify uses of waters
    - Establish WQ Objectives to protect uses
    - Establish TMDLs = pollution control plans
    - Establish waste discharge prohibitions
  - Regulatory Programs
    - Permitting (e.g. POTWs, stormwater discharges)
  - Environmental Monitoring
  - Enforcement



Water Boards

# Designated Beneficial Uses

<u>Canyon Lake</u>	<u>Lake Elsinore</u>
WARM	WARM
REC-1 & REC-2	REC-1 & REC-2
MUN	



## Lake Elsinore and Canyon Lake WQ Problems

- Algal blooms
- Fish kills

## Cause of WQ Problems

- Excessive phosphorus and nitrogen = **nutrients**
- Depletion of oxygen

## Sources of Nutrients

- Urban, agriculture, erosion, septic systems
- Nutrient loading occurs during very large storm events

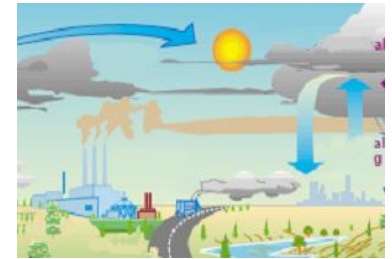
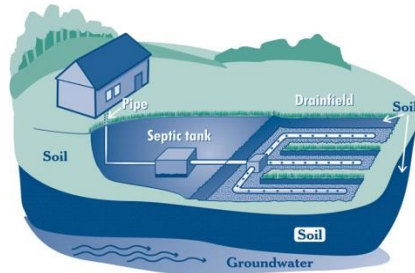




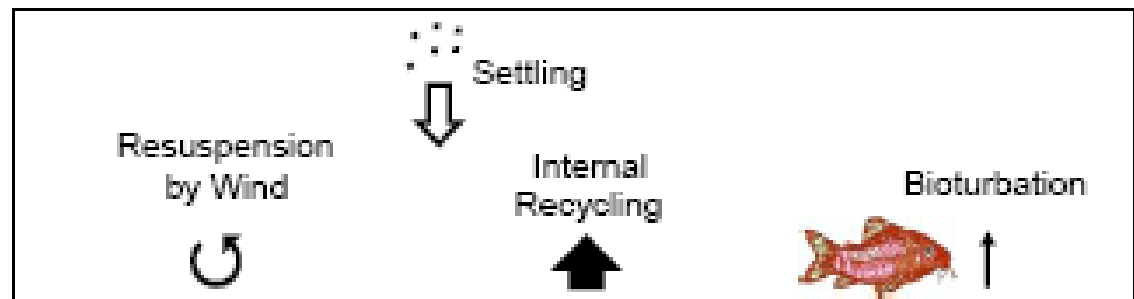


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## External Sources:



## Internal Lake Sediment Sources:





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**Designated Beneficial Uses**



**Water Quality Objectives**



**TMDL Targets**



**TMDL**



**Waste Load Allocations**



**NPDES Permits**



**Load Allocations**



**WDRs or Waivers**



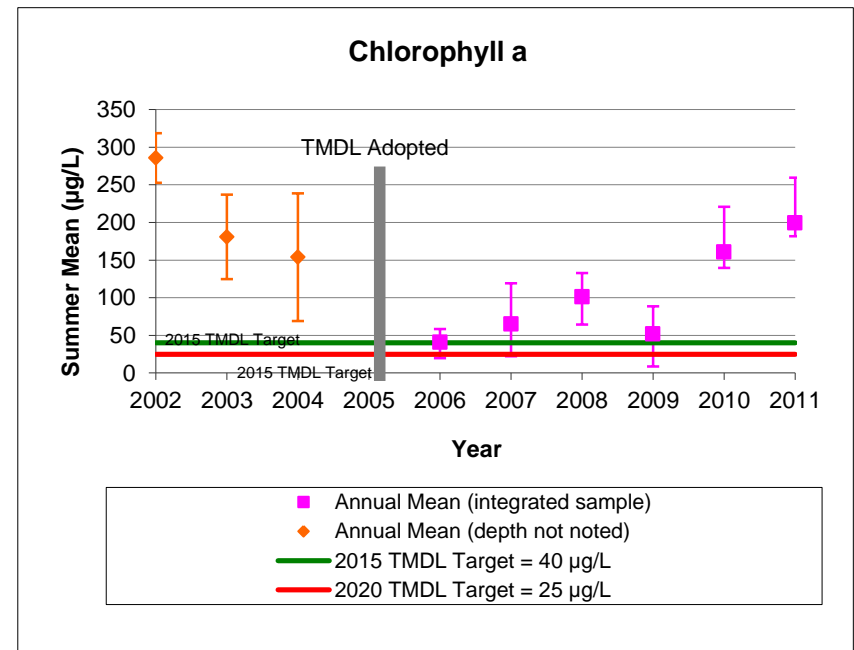
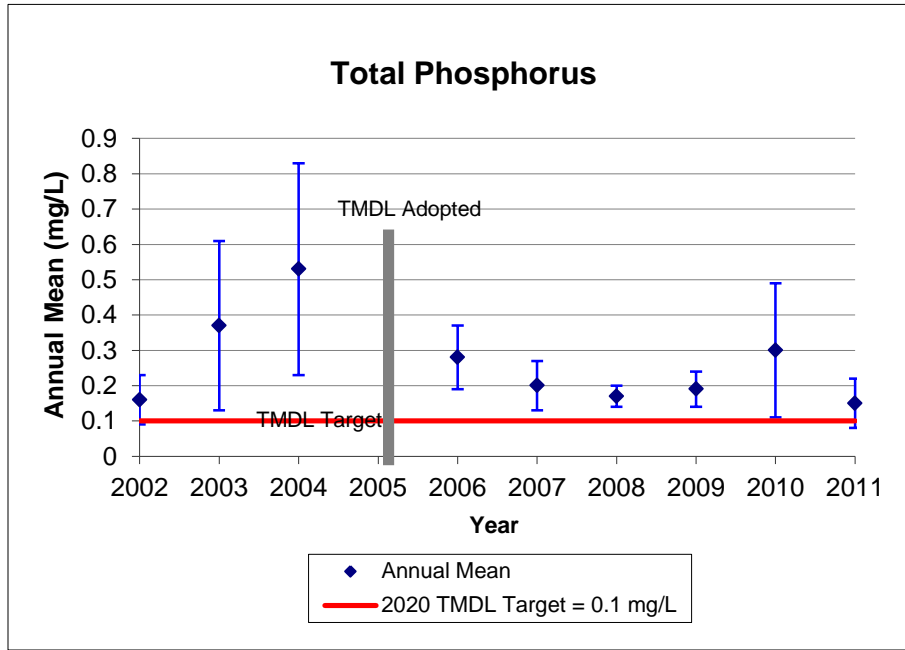


# Responsible Stakeholders and Permits

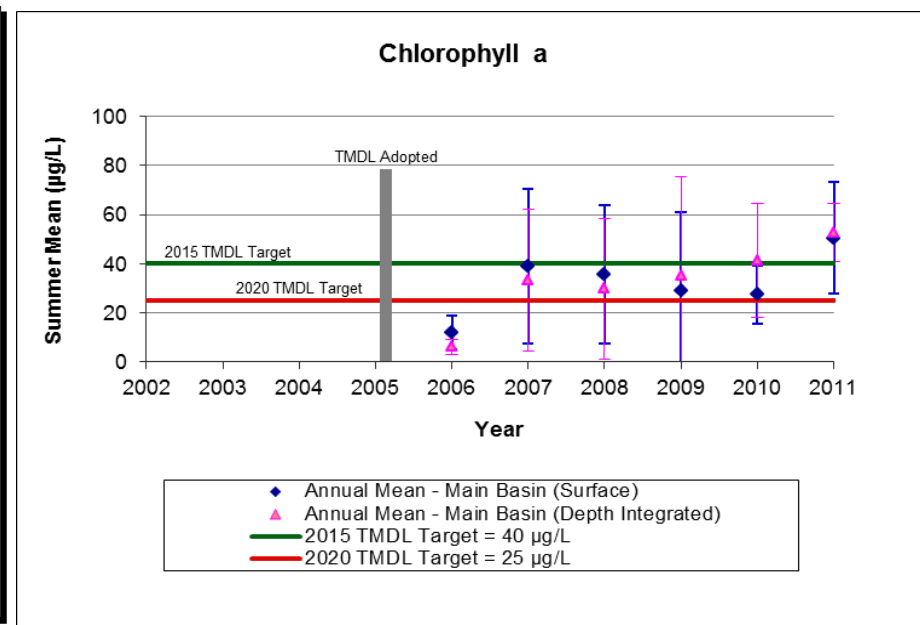
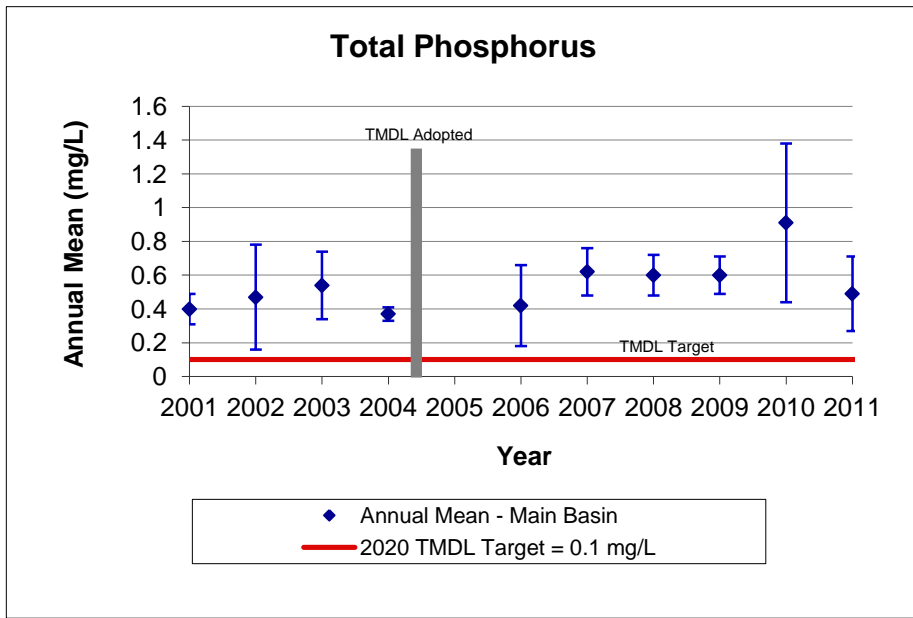
- **US Forest Service:**
  - San Bernardino and Cleveland National Forest Management Zones
- **March Air Reserve Base and March JPA**
- **State of California**
  - Department of Fish and Game
  - Department of Transportation
- **County of Riverside**
  - Flood Control and Water Conservation District
  - Co-permittees including:

City of Beaumont	City of Lake Elsinore
City of Perris	City of Canyon Lake
City of Moreno Valley	City of Riverside
City of Hemet	City of Murrieta
City of San Jacinto	City of Menifee
City of Wildomar	
- **Water Agencies:**
  - Eastern Municipal Water District
  - Elsinore Valley Municipal Water District
- **Agriculture:**
  - Concentrated Animal Feeding Operators
  - Agricultural Operators

# How close is Lake Elsinore to meeting TMDL Targets?



# How close is Canyon Lake (Main Basin) to meeting TMDL Targets?





# TMDL Update Issues

- Dynamics of Lake Elsinore
  - Maintain recreational use through recycled water
  - Level maintenance means no reset of biota populations. No lakebed removal by wind. TDS mean increase but extremes reduced. Effects of TDS levels
- Bioavailability of Nutrients in Lake Sediments
  - Change from 10 years (2004) to 15-year half life (2015)
- Changes in the Watershed
  - Reduction in Ag and CAFOs, increase in Urban
  - Mystic Lake subsidence
- Target Expression
  - Account for loading extremes in drought and wet cycles
  - Averaging of depth and areal extent, split CL - main & east bay
  - Currently “Not to Exceed”, a different approach would be to set max. exceedance frequency
  - Incorporation of true reference conditions (no levee, no recycled water, massive sediment load due to El Ninos which is not due to development)



# **Benefits of LE/CL Task Force From Regional Board Staff Perspective**

- Allows Regional Board staff to work with all stakeholders at the same time.
- Reduces duplication of effort for Regional Board staff and stakeholders.
- Allows for Regional Board staff participation in many of the decision making discussions.
- Gives Regional Board staff more timely knowledge of the efforts and setbacks associated with TMDL implementation.



# Quail Valley



Image Landsat

Google earth





**SHALLOW SOILS OVER  
FRACTURED SHALE**







03 15 2005 13:33





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# Quail Valley Prohibition

- Became effective in August 2007
- Amended the Basin Plan to prohibit discharge of waste from new septic systems;
- When a sewer is available to serve existing septic systems, prohibit discharge from existing septic systems; and
- Requires connection of existing systems to a sewer within one year



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# Quail Valley Prohibition

Prohibition includes a provision to allow new septic systems if:

- Sewer design for subareas 4 & 9 is complete and Board finds that adequate progress is being made
- No other provisions for an exemption



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## Quail Valley Prohibition

- Progress on sewer system for a portion of subarea 9
- No progress on subarea 4
- Property owner concerns about inability to develop properties



# Quail Valley Prohibition Options

- No Action - Prohibition stays in place until sewer design is completed.
- No Action/Conditional - Prohibition on new septs, but alternate systems considered.
- Amend Prohibition - Exemption process
- Amend Prohibition - Incorporate exemption process and require increased maintenance
- Amend Prohibition - No new septs and existing septs must be converted to no discharge if sewer design is not completed
- Remove Prohibition - Reliance on the statewide On-site Waste Treatment System (OWTS) Policy