Public Workshop and CEQA Scoping Meeting

Nutrient TMDL for Franklin Creek in the Carpinteria Salt Marsh Watershed

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Central Coast Regional Water Quality Control Board
TMDL Program
September 20, 2017

Agenda

- Introductions
- TMDL Update
- CEQA Scoping
- Adjourn

Impaired Waters

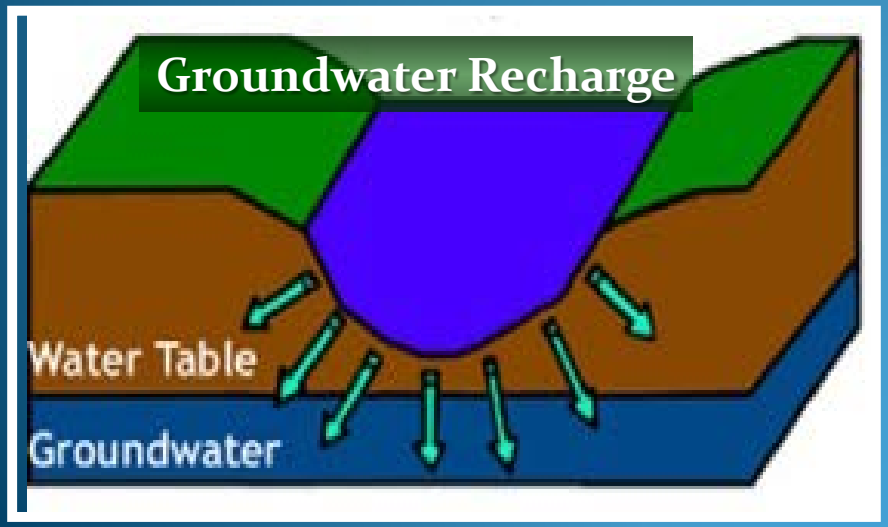
- Franklin Creek impairment due to high nitrate levels
- Marsh impairments for nutrients, organic enrichment/low dissolved oxygen

Beneficial Uses

Beneficial Use	Carpinteria Salt Marsh	Santa Monica Creek	Franklin Creek
Municipal and Domestic Supply (MUN)		X	X
Agricultural Supply (AGR)		X	X
Ground Water Recharge (GWR)		X	X
Water Contact Recreation (REC-1)	X	X	X
Non-Contact Water Recreation (REC-2)	X	X	X
Wildlife Habitat (WILD)	X	X	X
Cold Fresh Water Habitat (COLD)		X	X
Warm Fresh Water Habitat (WARM)	X	X	X
Migration of Aquatic Organisms (MIGR)	X		X
Spawning, Reproduction, and/or Early Development (SPWN)	X	X	X
Preservation of Biological Habitats of Special Significance (BIOL)	X	X	
Rare, Threatened, or Endangered Species (RARE)	X		X
Estuarine Habitat (EST)	X		
Freshwater Replenishment (FRSH)		X	X
Commercial and Sport Fishing (COMM)	X	X	X

Nutrient Pollution…

What are we trying to protect?



Water Quality Objectives

Municipal and Domestic Supply (MUN)

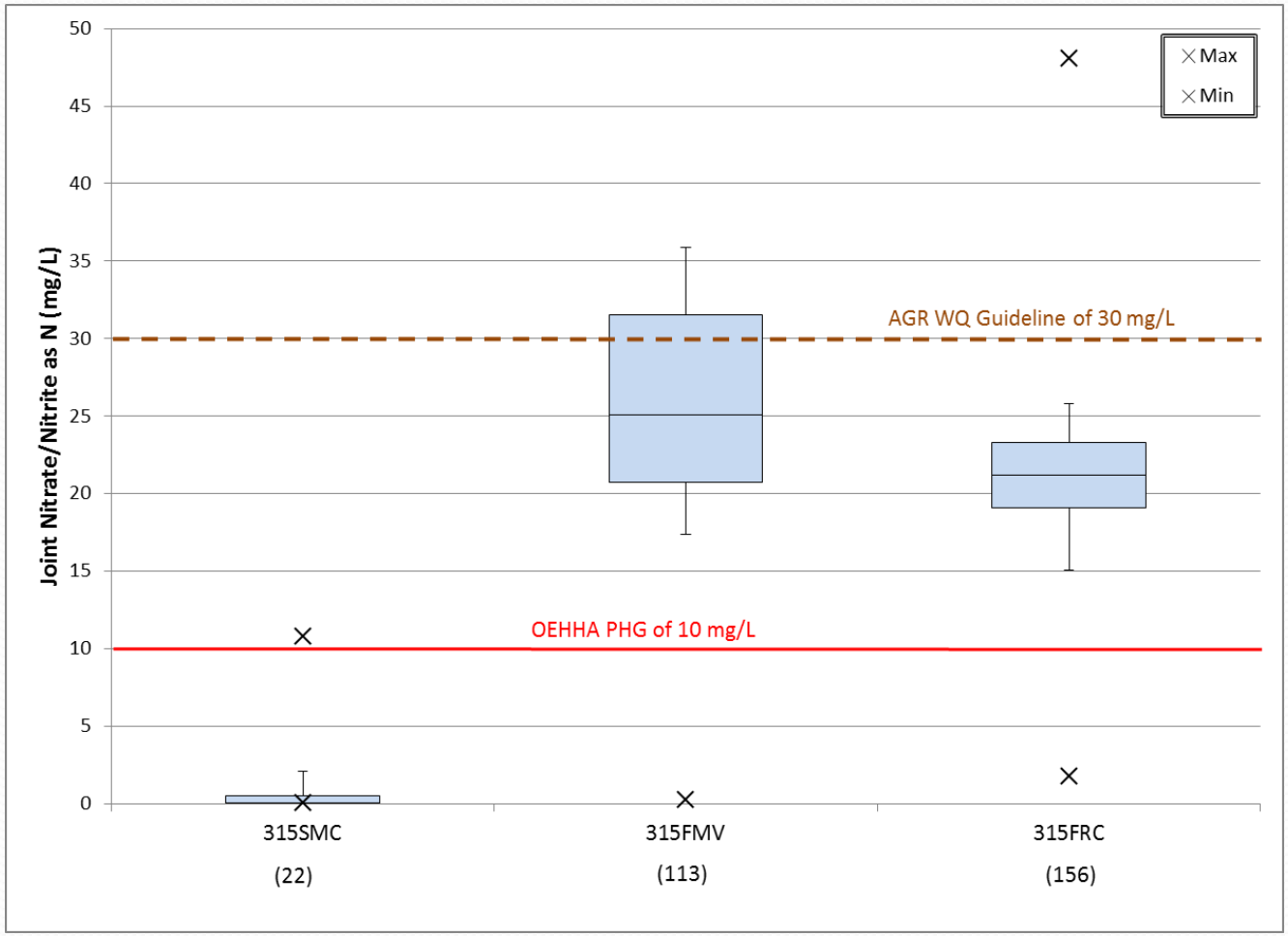
- The Basin Plan numeric water quality objective for nitrate (as nitrogen) is 10 mg/L
- OEHHA Public Public Health Goals (MCLs)
  - 10 mg/L nitrate as nitrogen
  - 10 mg/L for joint nitrate/nitrite as nitrogen
  - 1 mg/L nitrite as nitrogen

Water Quality Guideline

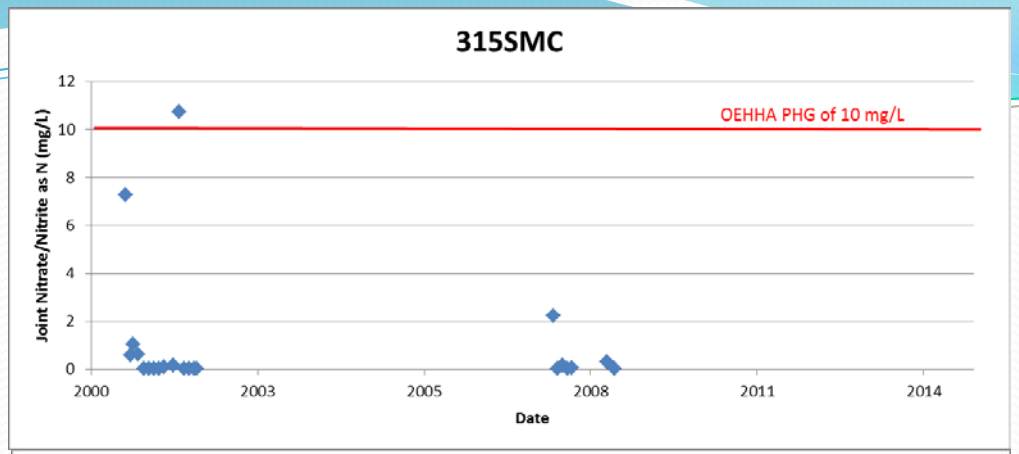
- The Basin Plan contains a nitrate concentration "guideline" of 30 mg/L nitrate as nitrogen to protect the Agricultural Supply (AGR) beneficial use,
  - Guideline developed by UC Ag Extension Services to avoid severe problems for sensitive crops (e.g., grapes, avocado, citrus, almonds, and others)

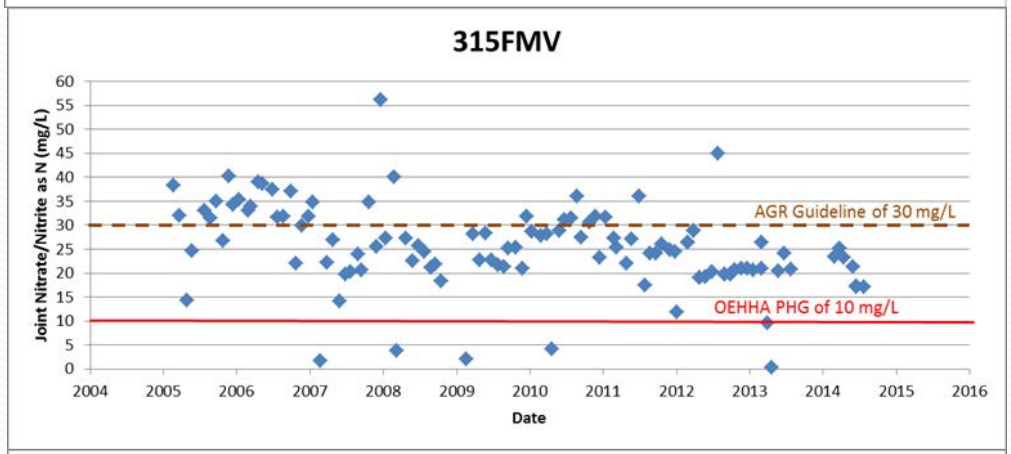

Watershed
Stream Type
Underground Conduit
Watercourse
WQ Monitoring Sites
Program
CCAMP
CMP
SAN LUIS OBISPO CO
KERN CO
SANTA BARBARA CO
Carpinteria Salt Marsh Watershed
Pacific Ocean
Toro Canyon
Oil Canyon
Santa Monica Creek
Sutton Canyon
Snowball Mountain
Loon Point
315FMV
Franklin Creek East Branch
315SMC
315FRC
Franklin Creek
224
Carpinteria Salt Marsh
Carpinteria
Shepard Mesa
192
N
Miles
1
0.5
0
1

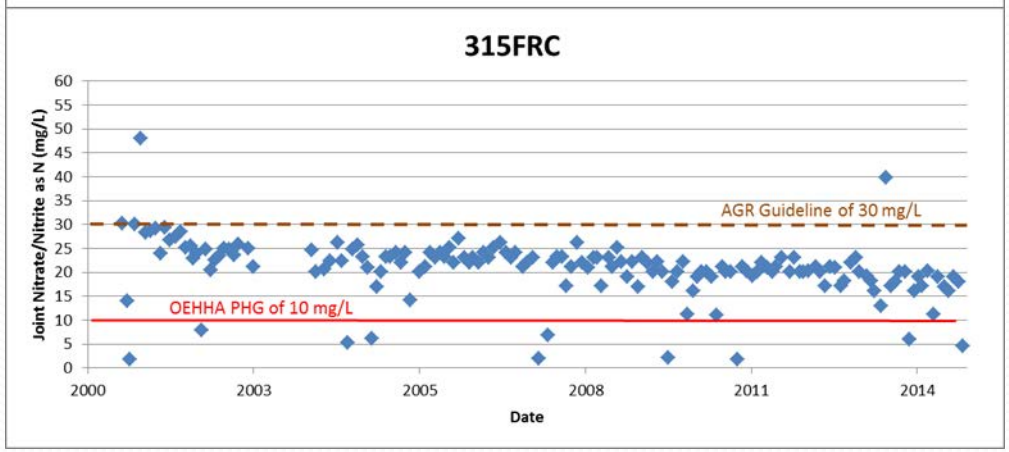
Joint Nitrate/Nitrite Concentrations



Not shown 315FMV maximum concentration of 322 mg/L on 5/14/2006







Not shown 315FMV maximum concentration of 322 mg/L on 5/14/2006

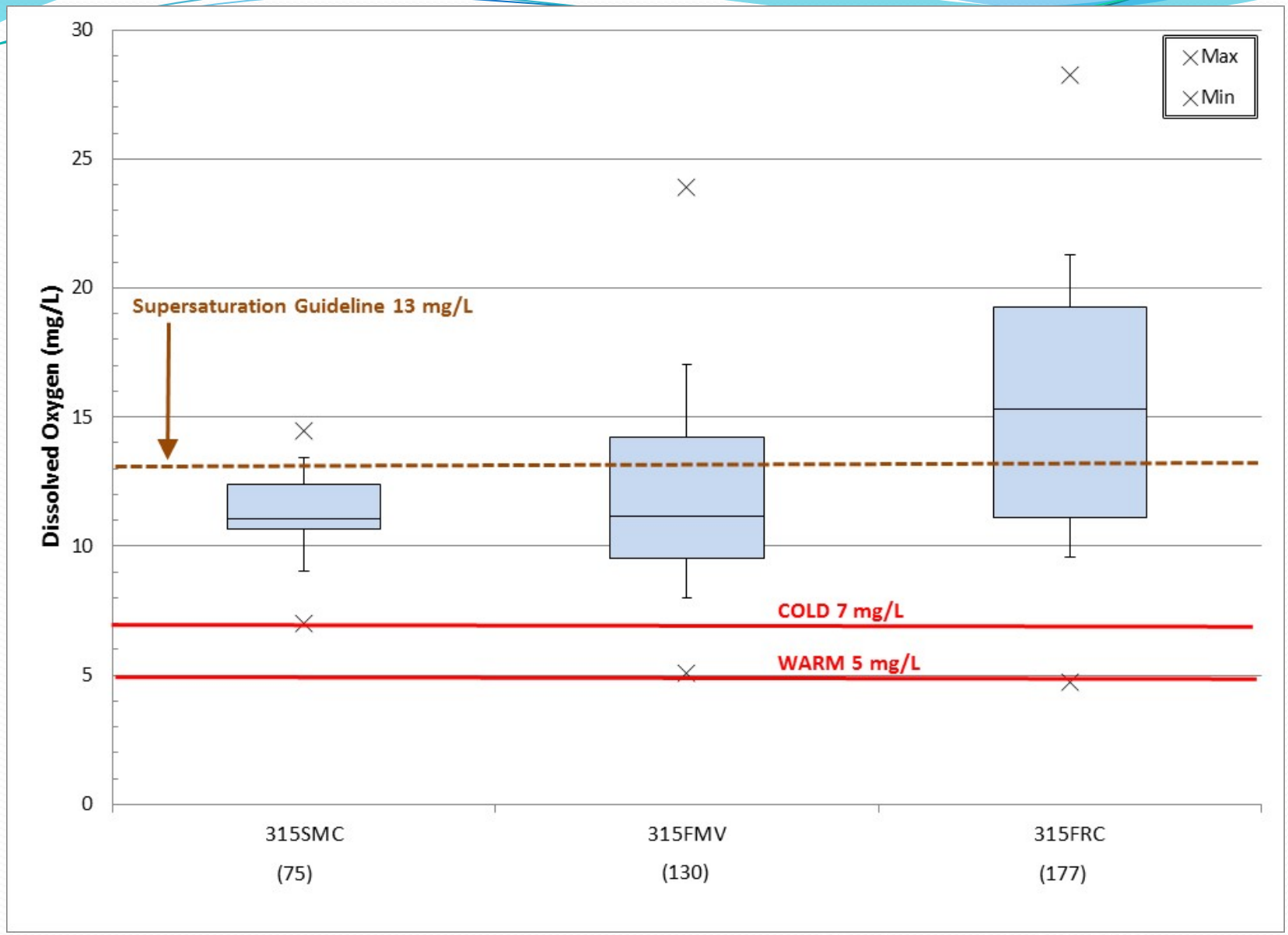
Water Quality Objectives

Biostimulatory Substances (Nutrients)

"Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses."

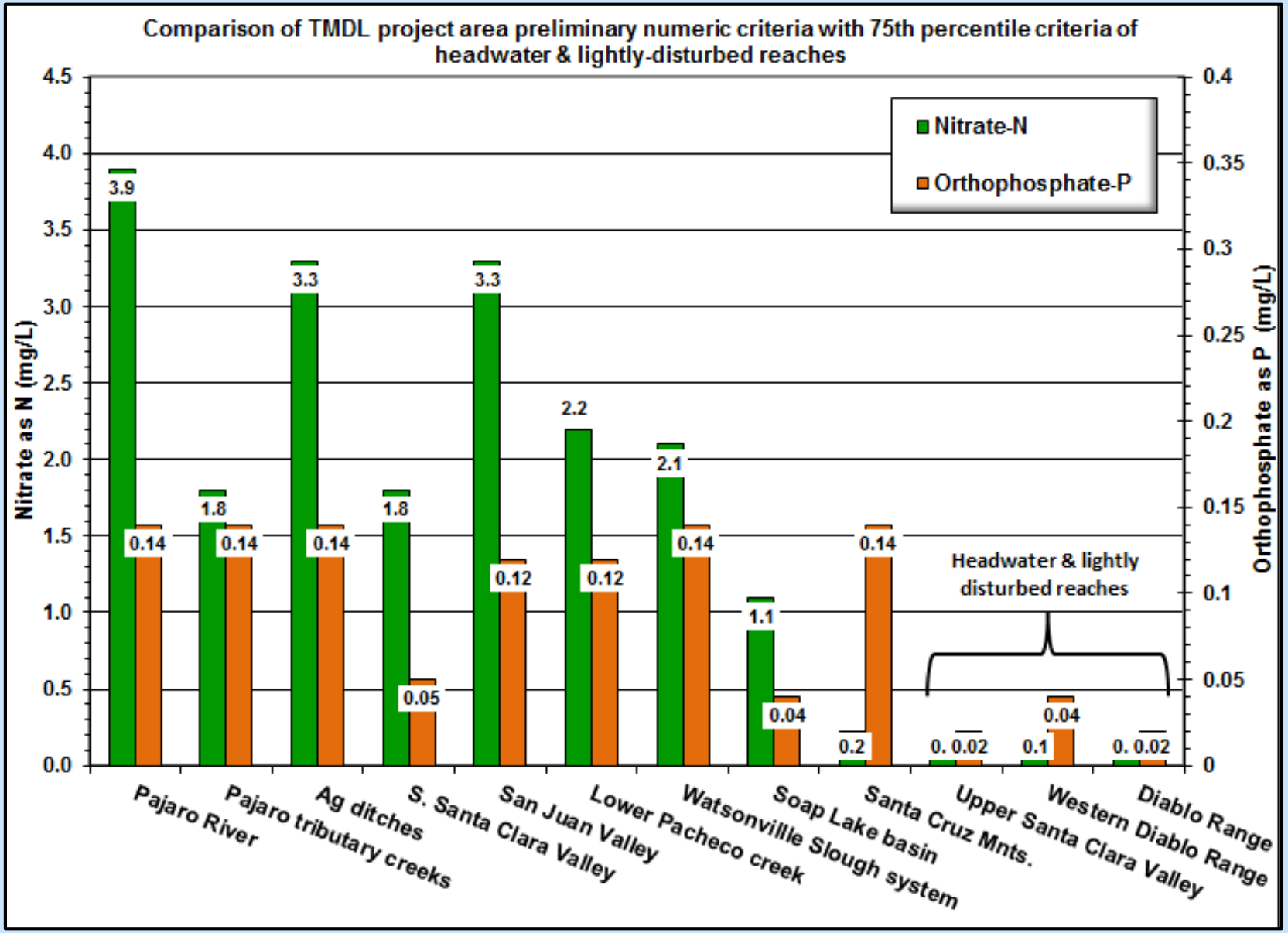
August 2014 315FMV

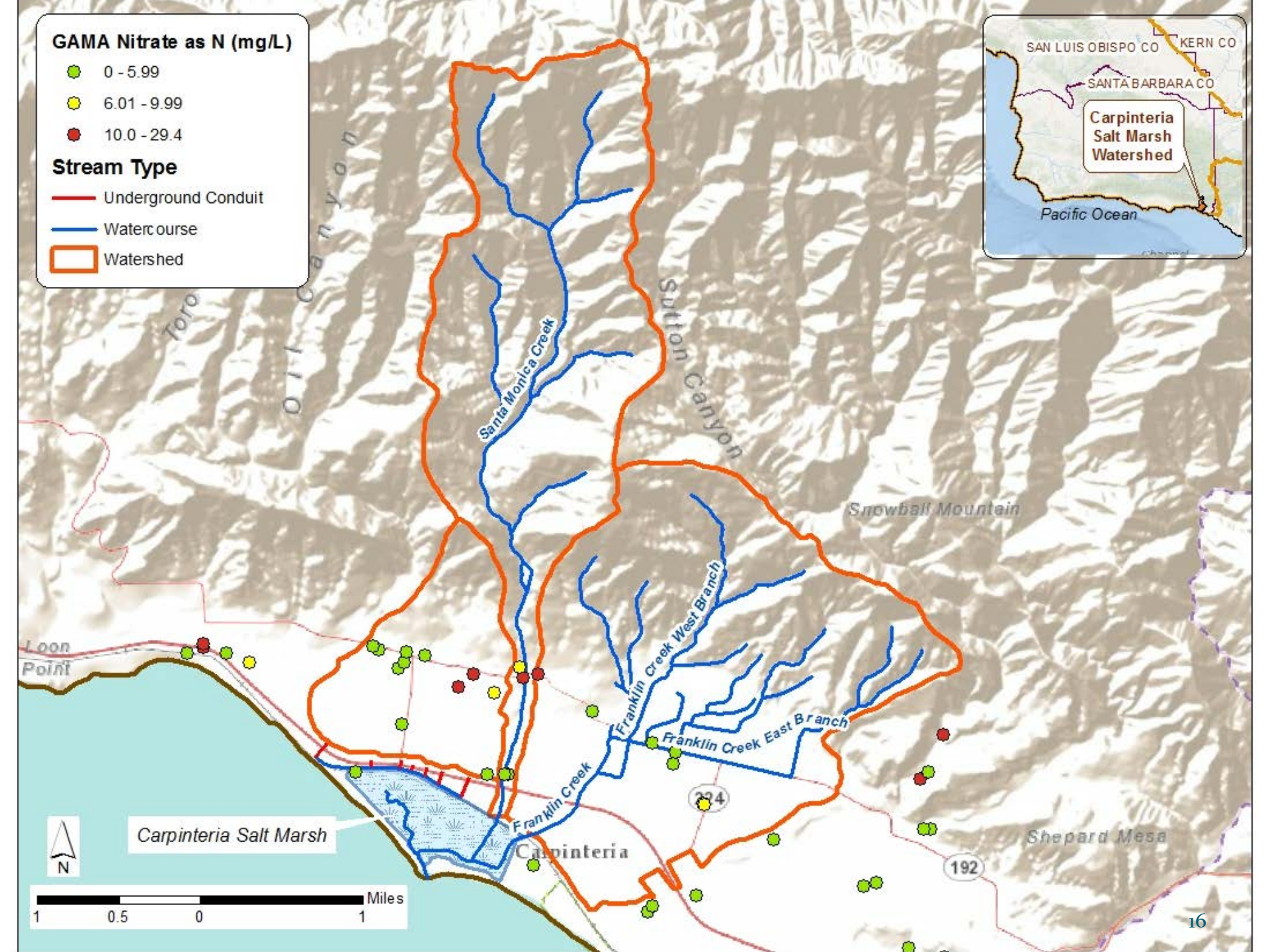
September 2010 315FRC



Box plots of dissolved oxygen concentrations (mg/L).

Example of Nutrient Targets to Prevent Biostimulation and Protect Aquatic Habitat




GAMA Nitrate as N (mg/L)
0 - 5.99
6.01 - 9.99
10.0 - 29.4
Stream Type
Underground Conduit
Watercourse
Watershed
SAN LUIS OBISPO CO
KERN CO
SANTA BARBARA CO
Carpinteria Salt Marsh Watershed
Pacific Ocean
Toro Canyon
Oil Canyon
Santa Monica Creek
Sutton Canyon
Snowball Mountain
Franklin Creek West Branch
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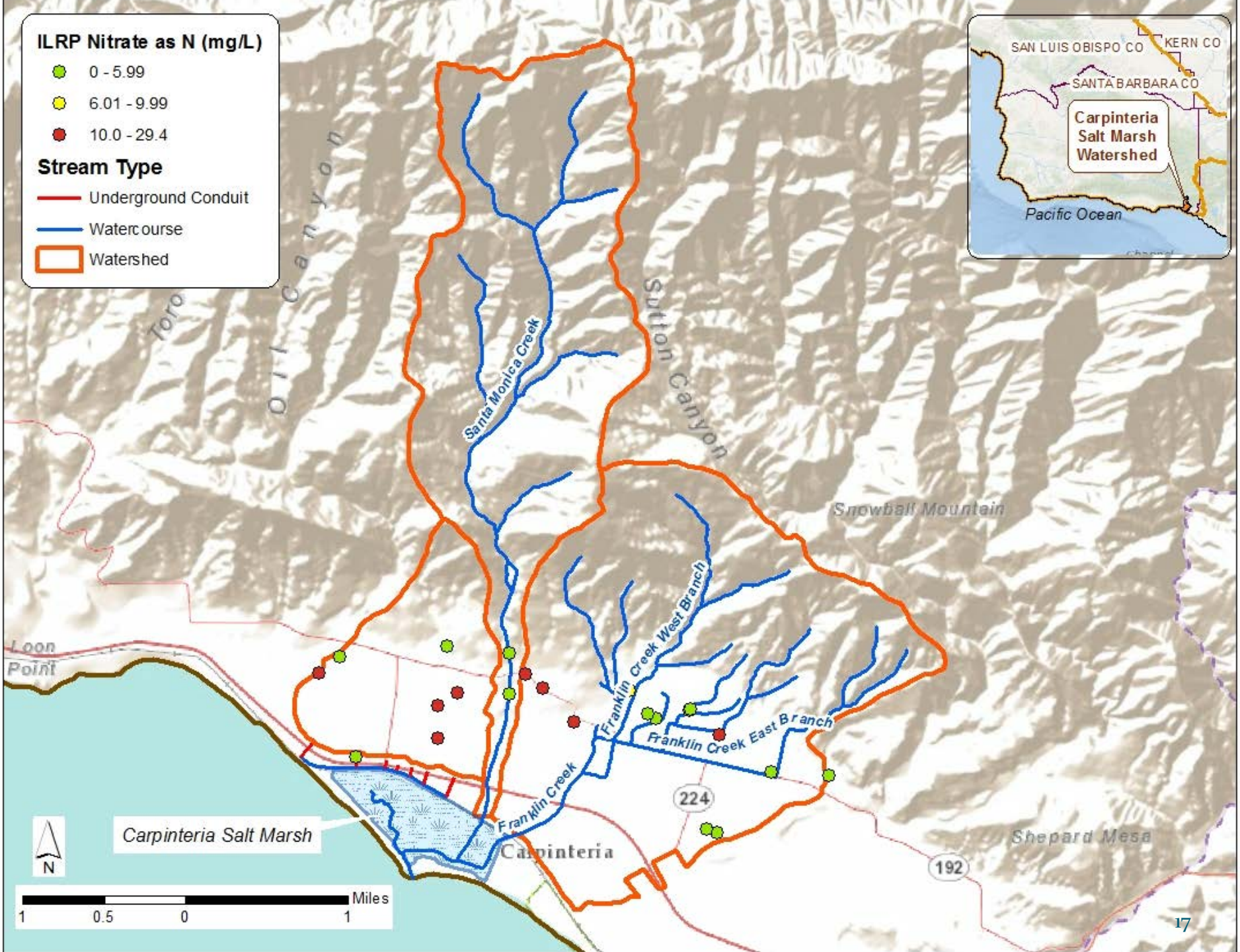
ILRP Nitrate as N (mg/L)
0 - 5.99
6.01 - 9.99
10.0 - 29.4
Stream Type
Underground Conduit
Watercourse
Watershed
SAN LUIS OBISPO CO
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Carpinteria
224
192
Shepard Mesa
N
Miles
1
0.5
0
1

Potential Nutrient Sources

- Agricultural fertilizers
- Septic systems
- Groundwater (baseflow)
- Urban runoff
- Natural sources (atmosphere, geologic)
- Other???


06.16.2014 11:14


06.16.2014 09:30


06.16.2014 12:21


06.16.2014 12:17


06.16.2014 11:30


06.16.2014 11:00


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06.16.2014 10:20

What's Next…

- TMDL documents for public review (October 2017)
- Meeting to discuss the TMDL documents (November 2017)
- Public comments due (December 2017)
- Water Board hearing for TMDL (March 2018)

Questions/Comments

Up Next - CEQA Scoping

What is CEQA Scoping?

California Environmental Quality Act (CEQA)

- A statute requiring us to anticipate significant environmental impacts (if any) associated with an action or project, and to identify ways to mitigate those impacts if feasible
- Early public CEQA scoping is required by regulation:

  23 CCR: CEQA Implementation Regulations, §3775.5

  "Prior to circulating the draft substitute environmental documentation…the board shall seek early public consultation. Early public consultation may include one or more scoping meetings"

Project Description

Adoption of a basin plan amendment to the Water Quality Control Plan for the Central Coastal Basin to incorporate TMDLs and an associated water quality improvement strategy addressing nutrients in Franklin Creek

CEQA Scoping

Early public involvement assists Water Board staff in refining the scope of the TMDL project and determining the range of potentially significant environmental impacts TMDL implementation might have (if any) on environmental resources of the Franklin Creek watershed, and identifying feasible mitigation measures to reduce or minimize those anticipated adverse environmental impacts

What are Significant Impacts?

Defined by regulation:

A “significant impact” causes a substantial or potentially substantial adverse change in physical conditions within the project area

CEQA “Checklist” Categories

The “checklist” refers to the environmental categories we need to consider. Could there be adverse environmental impact to them? If so, can we mitigate?

1. **Aesthetics**
2. **Agricultural Resources**
3. **Air Quality**
4. **Biological Resources**
5. **Cultural Resources**
6. **Geology and Soils**
7. **Greenhouse Gas Emissions**
8. **Hazards & Hazardous Materials**
9. **Hydrology and Water Quality**
10. **Land Use and Planning**
11. **Mineral Resources**
12. **Noise**
13. **Population and Housing**
14. **Public Services**
15. **Recreation**
16. **Transportation/Traffic**
17. **Utilities and Service Systems**
18. **Cumulative impacts**

Example: Denitrification Bioreactor

Example: Denitrification Bioreactor

Example: Denitrification Bioreactor

Example: Denitrification Bioreactor

- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Greenhouse gases
- Etc.

CEQA Discussion/Brainstorm Table

Means of compliance	Env. impacts due to means of compliance	Magnitude of Env. impacts	Alternative means of compliance that reduce Env. impacts	Mitigation measures to reduce Env. impact
Structural BMPs – Bio reactor	Construction type impacts - Land disturbance, removal of ag land uses, air emissions, dust	Could be significant depending on size of project, etc.		
Lined basin to collect returned irrigation h20				
Groundwater infiltration projects				
Diversion of water	Reduced flow, habitat loss			

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Photo credit: UCNRS
http://carpinteria.ucnrs.org/photos.html