



*Update on the Conditional Waiver for
Irrigated Lands*

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Central Coast Water Board



In the Central Coast we have:

- ★ 438,000 acres of irrigated agriculture
- ★ Impaired waters associated with ag
- ★ A 2-year-old conditional waiver program
 - 1600 individually enrolled operations (and growing)
 - Industry-led regionwide monitoring



**TMDL Listings with Irrigated Agriculture
as one of the Possible Pollutant Sources**

— TMDL Listings

Central Coast Waterboard

**Agricultural Activity
and
TMDL Listings
(e.g Sediment, Nutrients, Pesticides, Pathogens)**



Miles
0 4.5 9 18 27 36

Santa Barbara



Waiver Conditions

(Adopted July 4, 2004)

Farm Plan



Education



Implementation of Management Practices



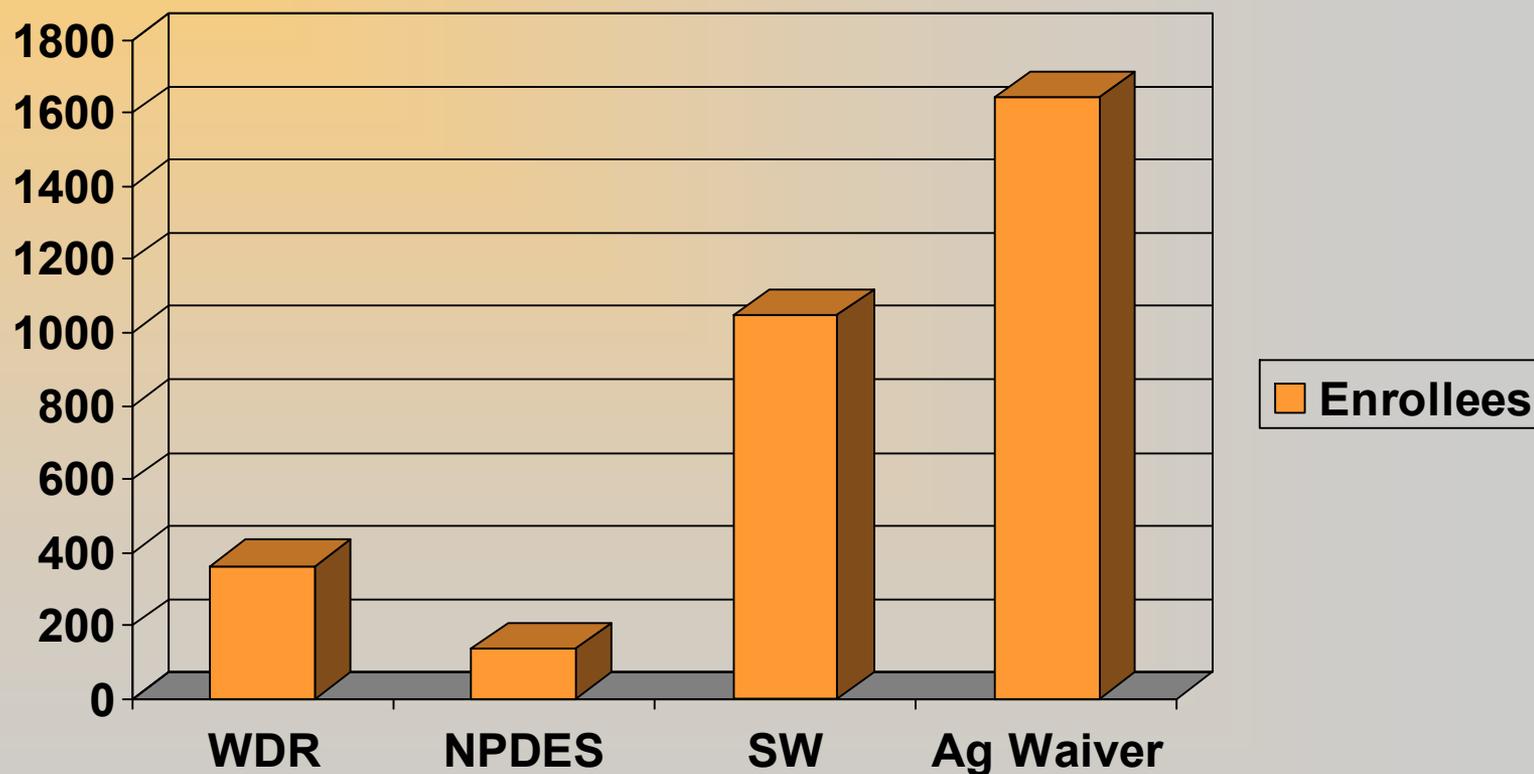
Monitoring



Other key components:
individual enrollment,
management practice reporting

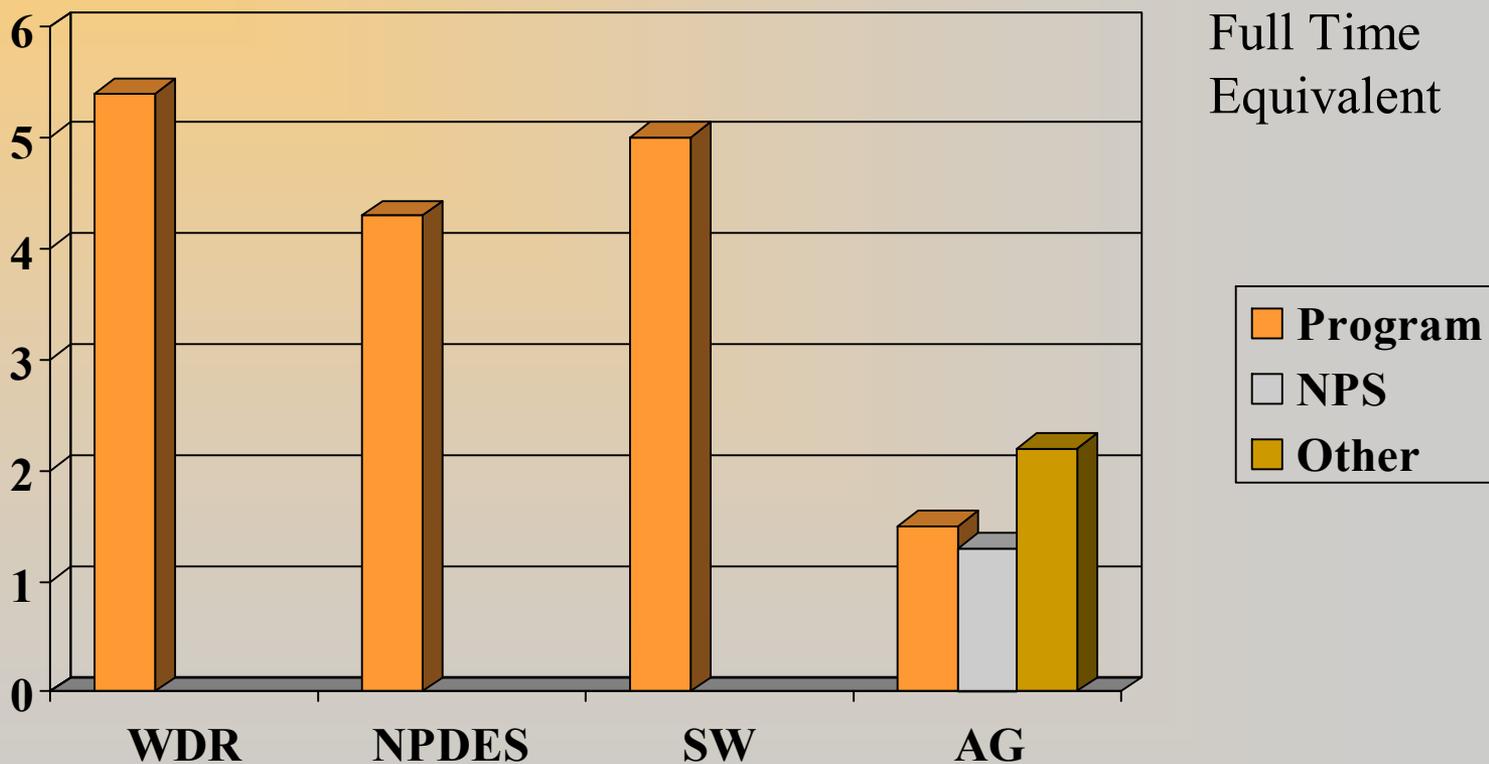


CC Water Board Programs





Program Staffing (PYs)





Board Ag Staff

Staff Person	Lead Assignment
Alison Jones	Program Management
Peter Meertens	Data Management
Jill Wilson	Inspections and Enforcement
Amanda Bern	Monitoring Program
Corinne Huckaby	Education and Outreach
Elaine Sahl	Grant Management
Bethany Crews	Enrollment, filing
Jeremy Farr	Enrollment, filing



Enrollment Totals

Region	Irrigated Acres	Enrolled Acres	Percent Enrolled
Central Coast	438,320	380,338	87%



Tier 1 Waiver

- Good for 5 years
- 15 Hours Education
- Complete Farm Plan
- 1 checklist update
- Monitoring

Tier 2 Waiver

- Good for 1 year
- 5 hrs education / yr
- Incomplete Farm Plan
- Report every year
- Monitoring



As soon as growers meet conditions for Tier 1 they may update their information



Tiers

TIER	NUMBER	PERCENT OF ENROLLEES	ACRES	PERCENT OF ACRES
Tier 1 (ed and plan)	728	46%	300,520	79%
Tier 2	846	54%	79,817	21%



Priority Activities

- ★ Non-filers/enforcement actions
- ★ Inspections (late summer)
- ★ Monitoring data analysis, follow-up
- ★ Database modifications
- ★ January 1, 2007 management practice updates



Some Challenges

- ★ Collecting and managing information
 - Asking the right questions
 - Coordinating with Ag Comm, CCWQP
- ★ Integrating water quality data and management practices
 - Research
 - Outreach



Monitoring:



The Big Artichoke



Industry-led Cooperative Monitoring

- ★ 50 sites in waterbodies with:
 - Ag related TMDLs
 - Elevated groundwater nitrate levels
- ★ 25% of monitoring budget for follow-up to solve problems
- ★ Electronic reporting



Structured for Compatibility

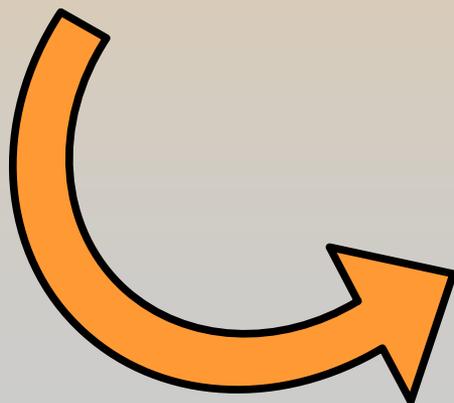
- ★ With CCAMP
- ★ With municipal stormwater permits
- ★ With SWAMP





Electronic Reporting

- ★ Web-based data checker
- ★ Format will port into SWAMP
- ★ Format will port into CCAMP web site generator



www.ccamp.org



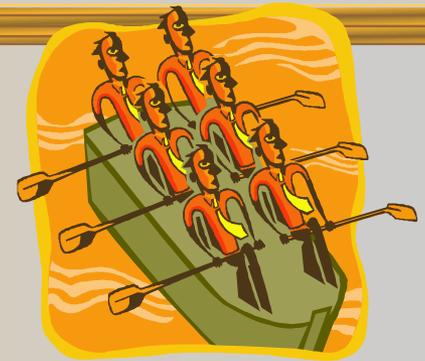
Cooperative Monitoring Program

★ Phase I – 25 sites in 2005

- Monthly conventional
- Water toxicity (4 times)
- Sediment toxicity (1 time)
- Benthic invertebrate assessment (1 time)

★ Phase II – 50 sites in 2006

★ Phase I follow-up in 2006

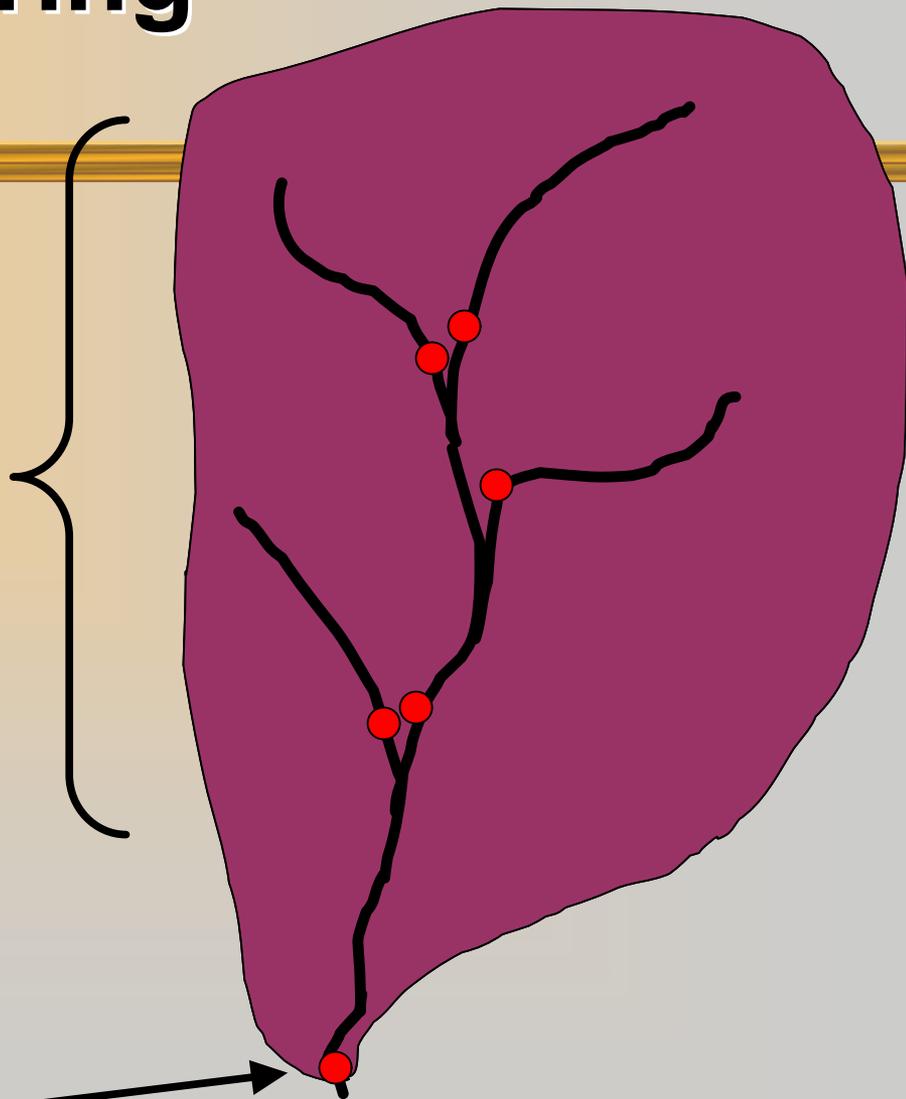




Basic Monitoring Approach

Follow-up to detect source areas

Long term site





CMP Objectives

- ★ Assess water quality in ag areas
- ★ ID problems associated with ag activities
- ★ Conduct focused monitoring as needed (Follow-up)
- ★ Provide feedback to growers
- ★ Track change over time

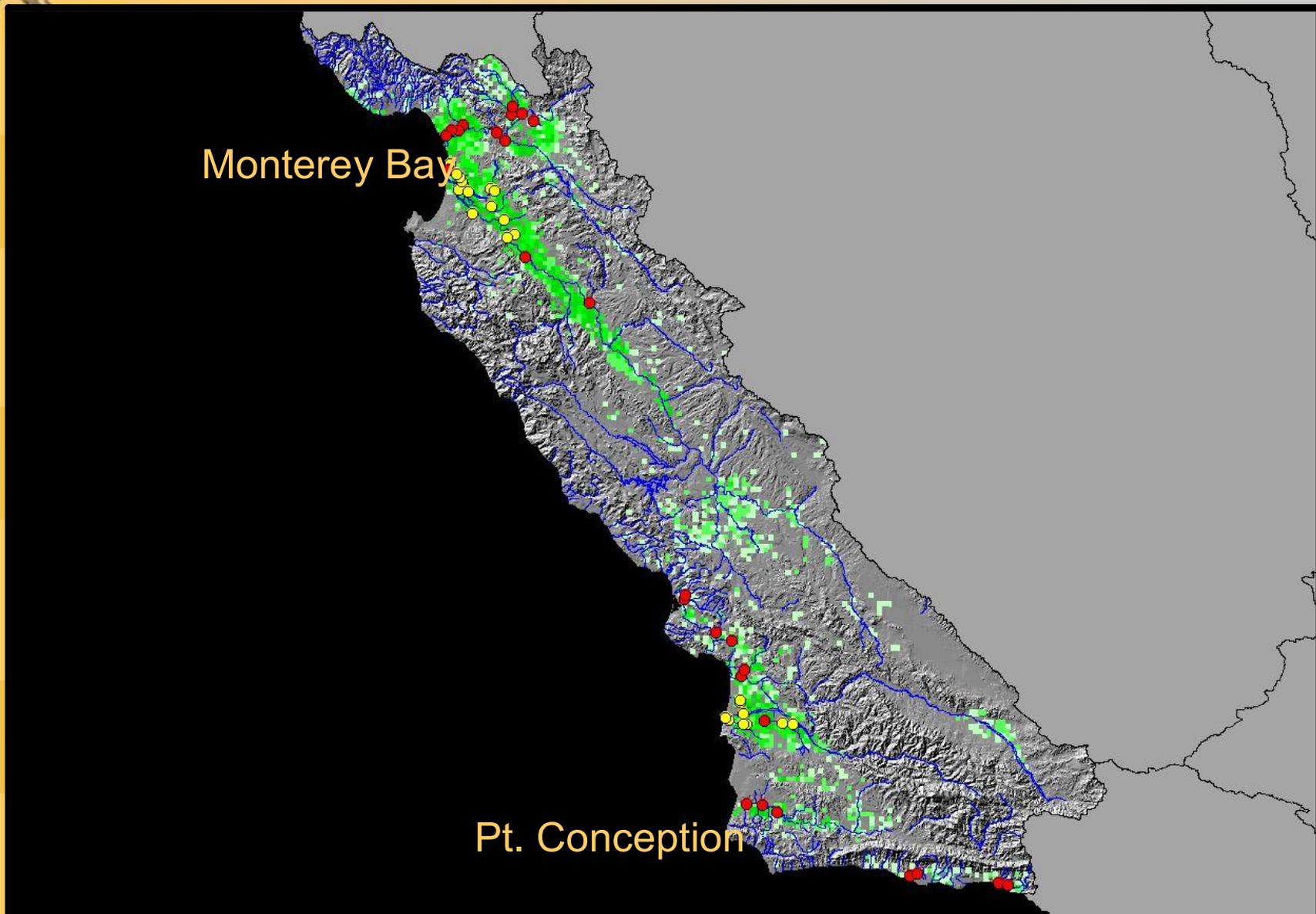


CCWQP Accomplishments

- ★ Formed non-profit
- ★ Applied for and received Prop 40 and Prop 50 grants
- ★ Completed first billing
- ★ Completed first year monitoring
- ★ Submitted Phase I electronic data to Regional Board
- ★ Submitted draft Phase I follow-up plan

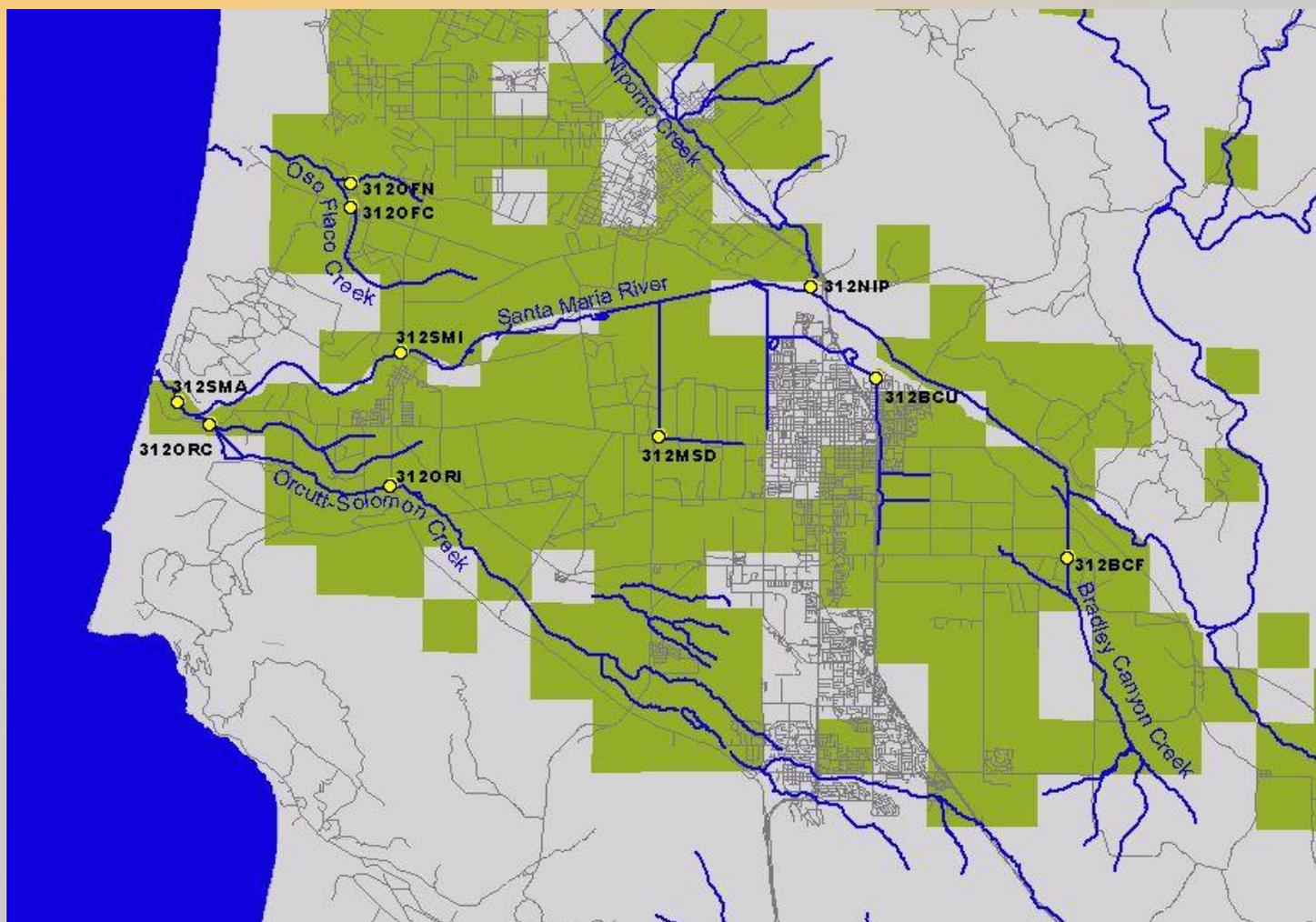


Phase 1 (yellow) and Phase 2 (red) Monitoring Sites





Phase I Santa Maria Sites





Phase I Lower Salinas Sites





Phase I Findings

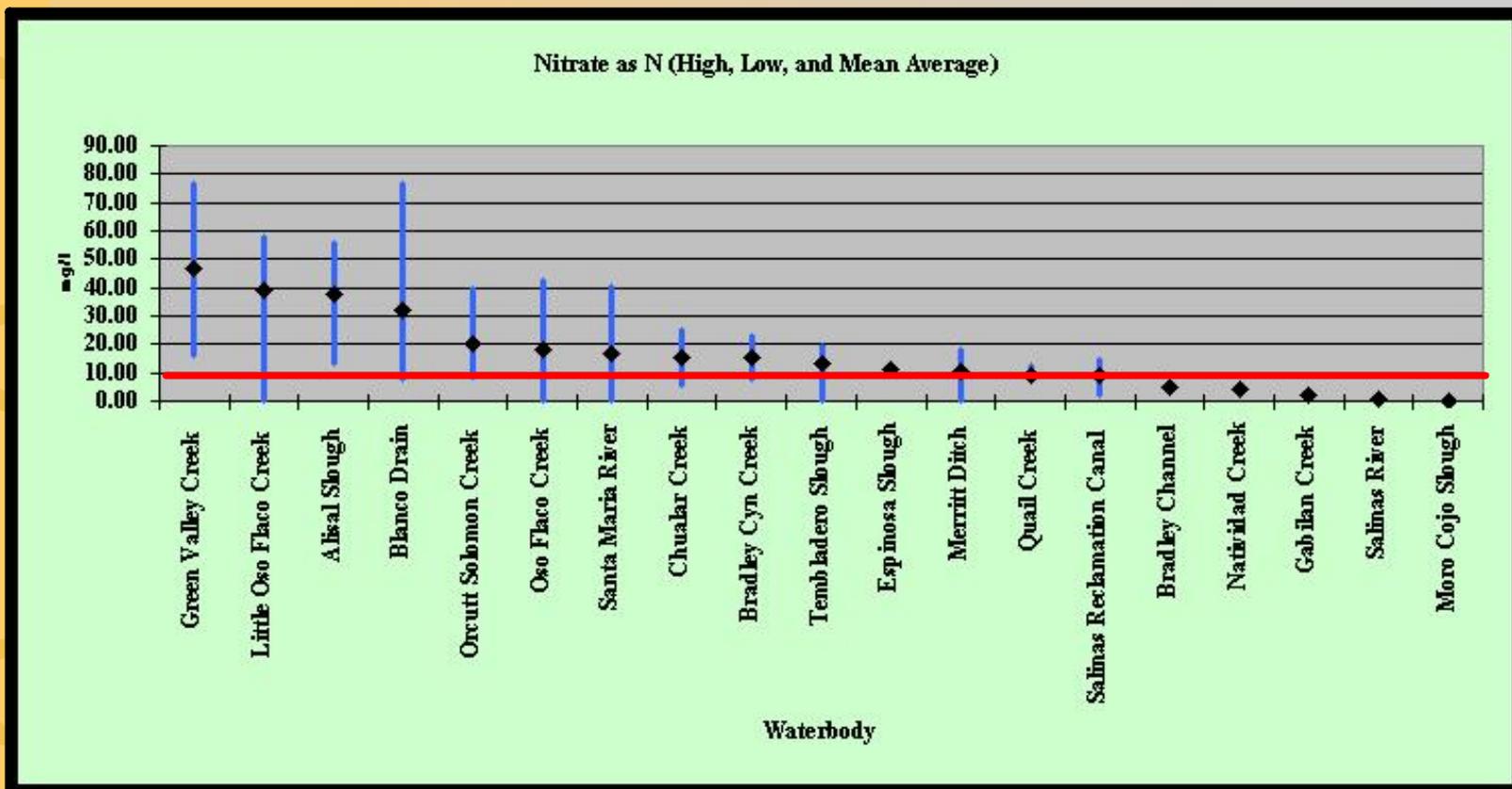
- ★ About half of Phase I sites exceeded nitrate standard
- ★ Many samples showed toxicity to test organisms





Nitrate (mg/L as N)

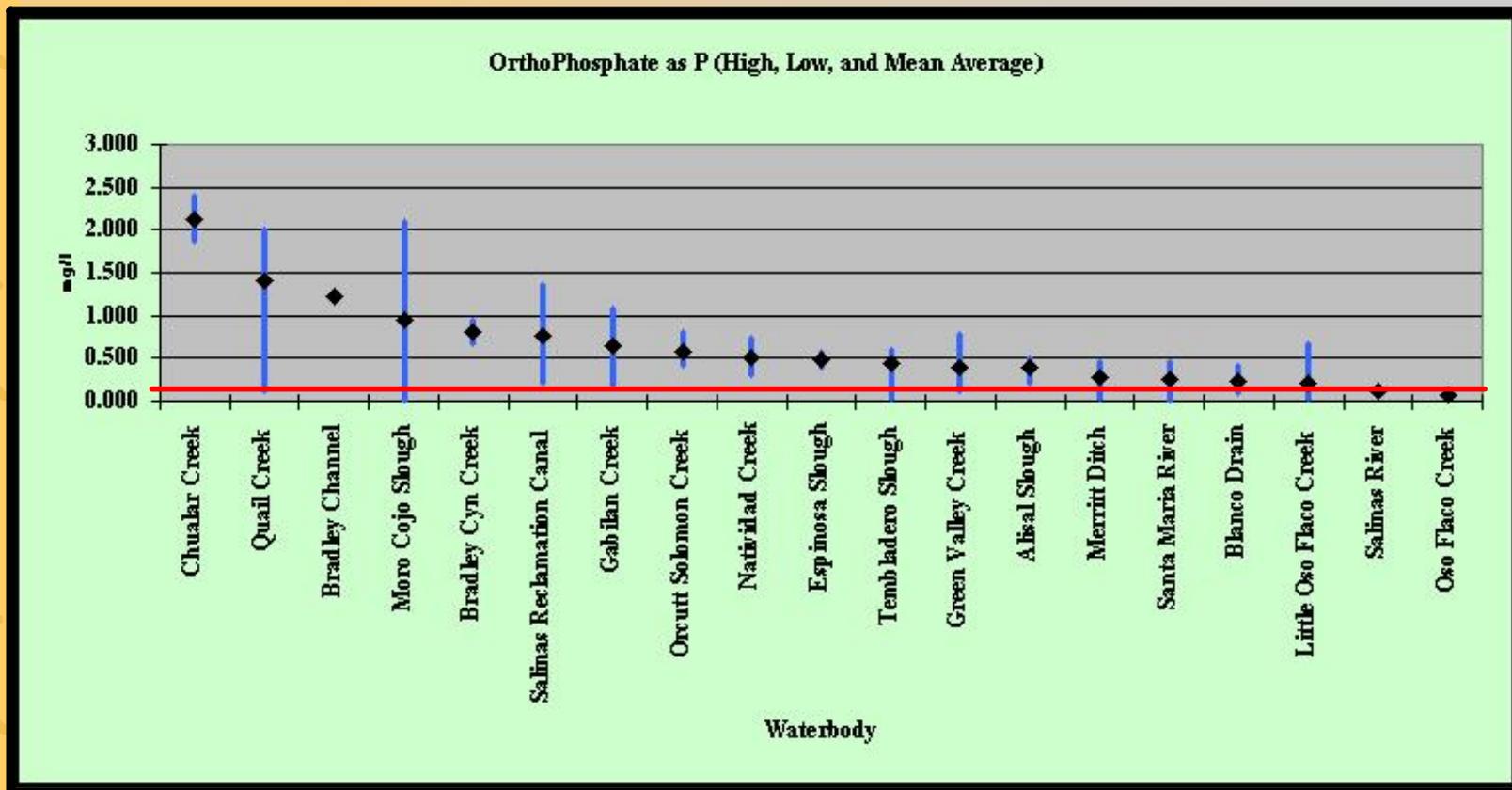
Mean and range by waterbody





Orthophosphate (mg/L as P)

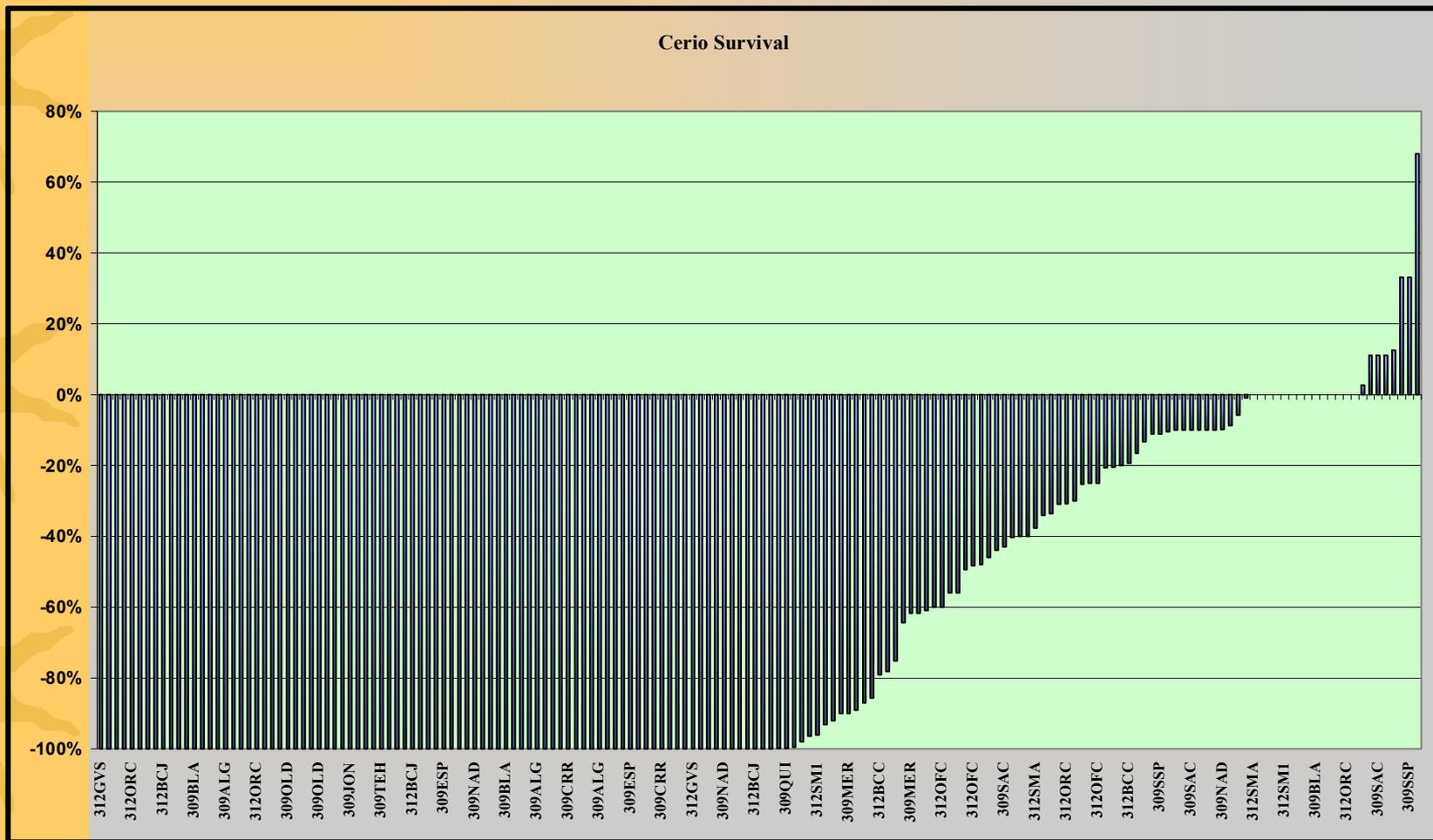
Mean and range by waterbody





Water Flea Survival

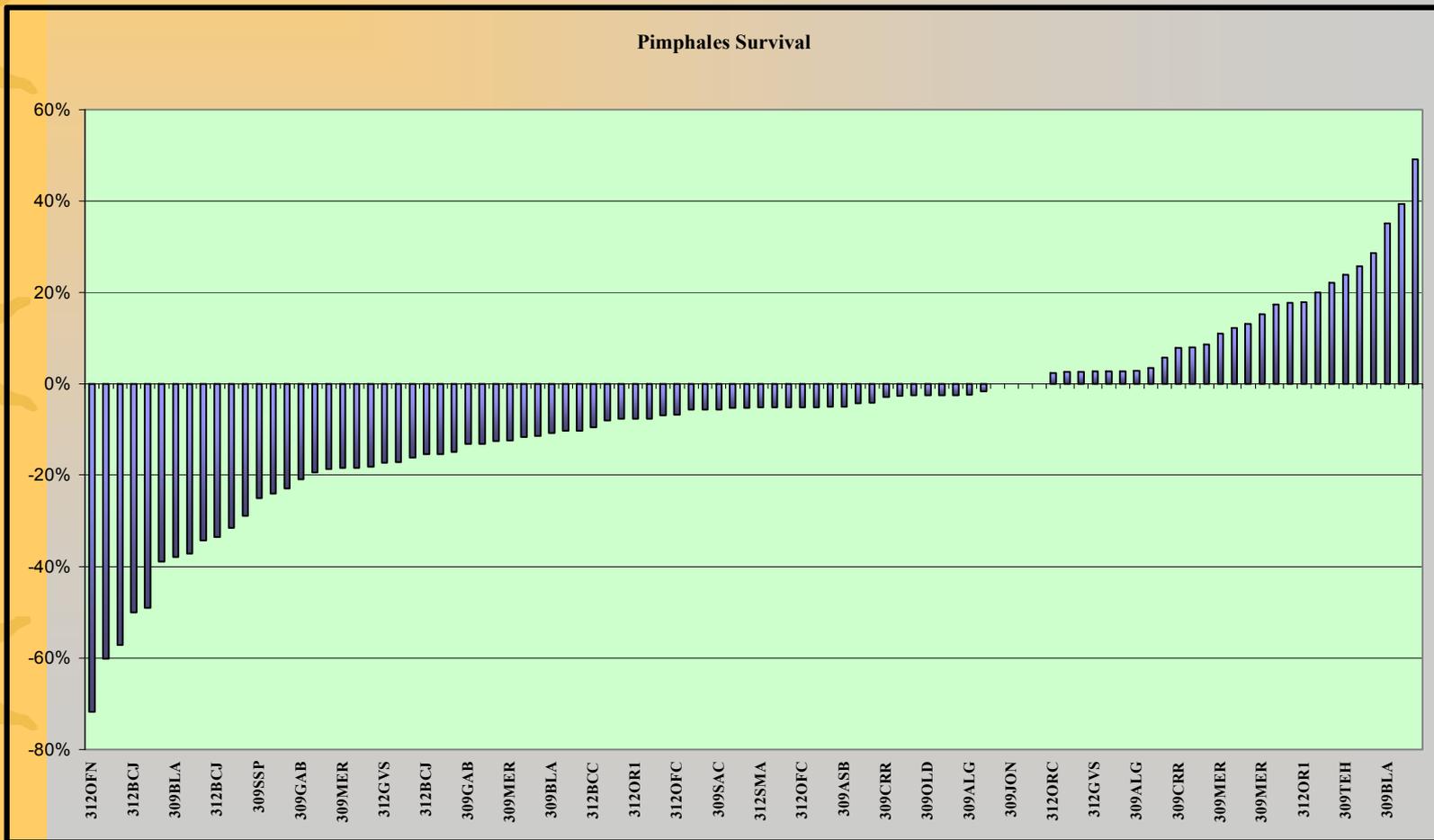
(relative percent difference from control)





Fathead Minnow Survival

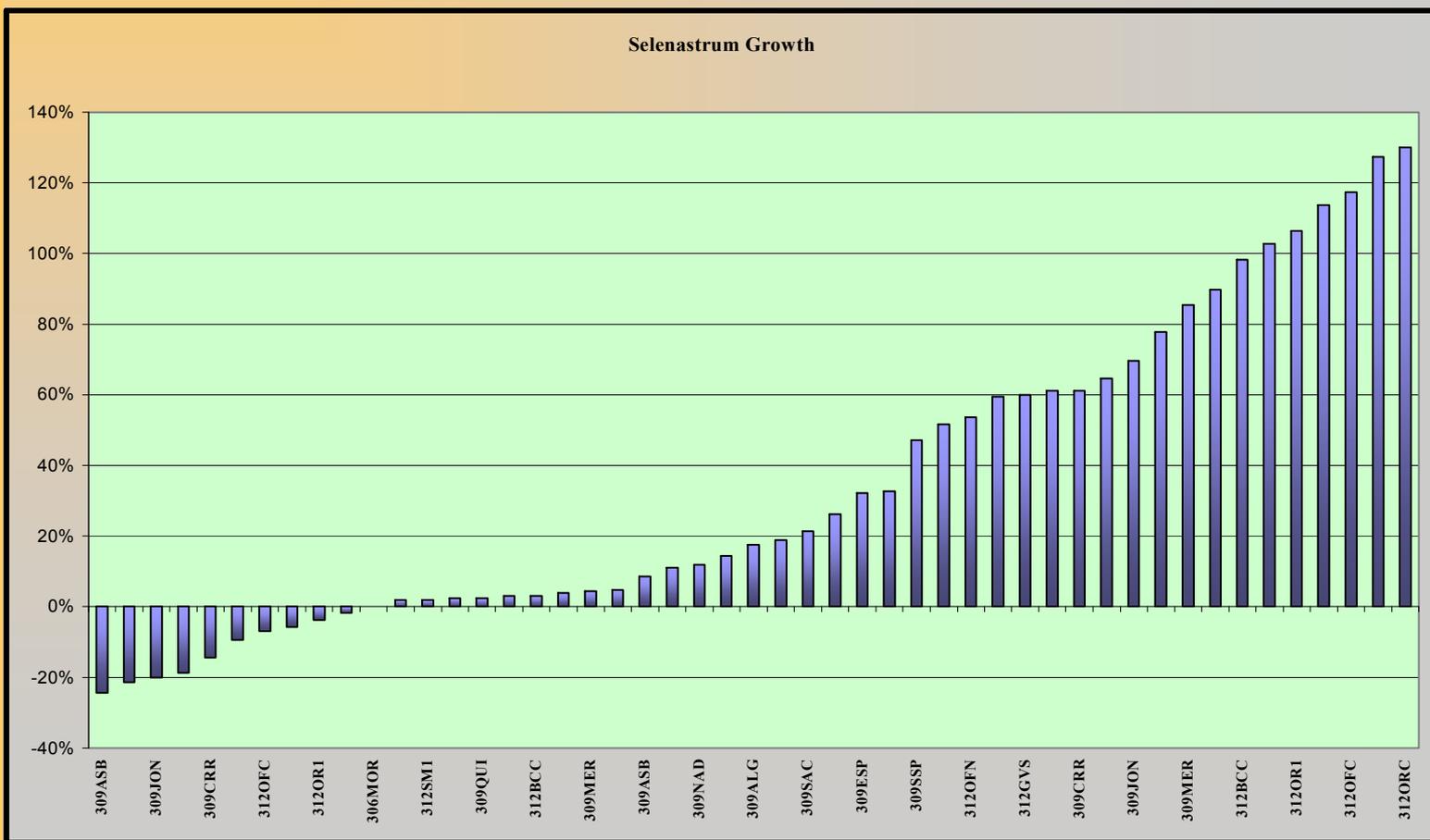
(relative percent difference from control)





Algae Growth

(relative percent difference from control)





Phase I Follow Up

- ★ Test all Phase I sites for organophosphate pesticides
- ★ Work with technical assistance agencies to set up education and training
- ★ Review management practices
- ★ Conduct outreach
- ★ Revise practices based on recommendations



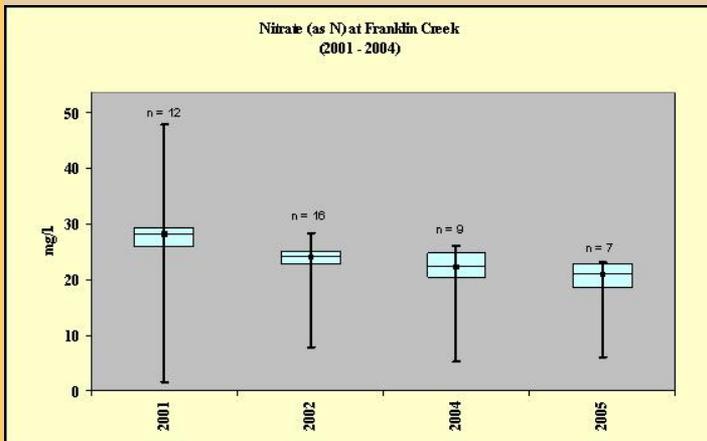
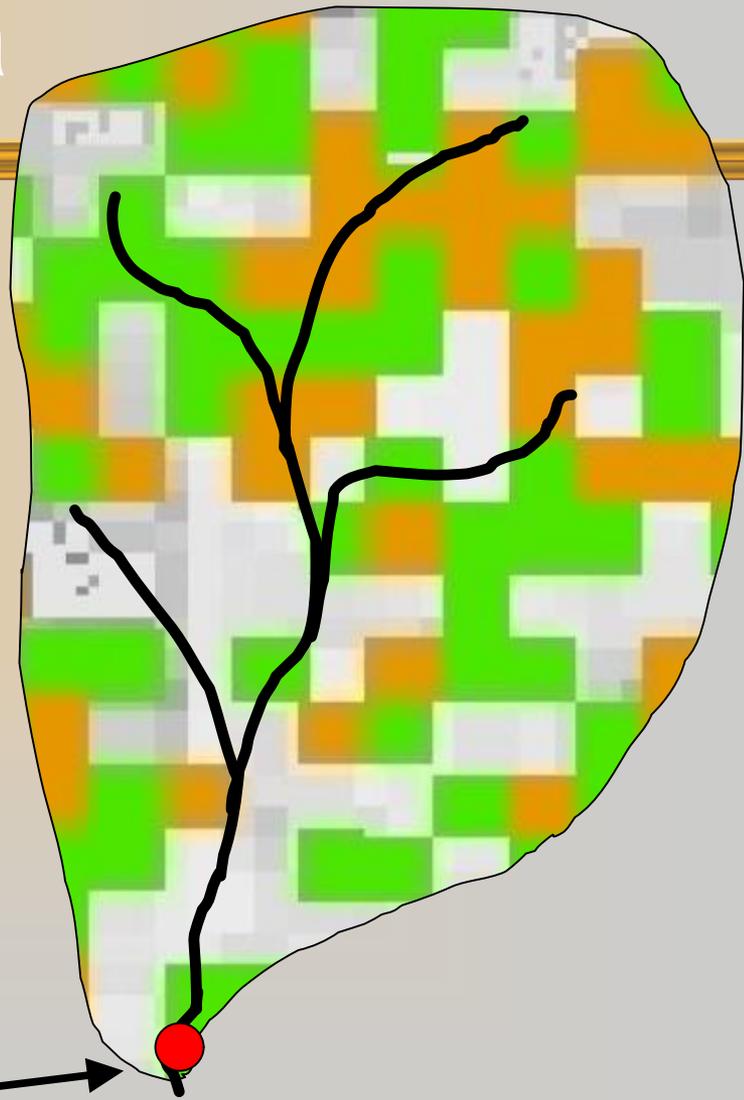
Where will we go next?

★ Geographic linkage of sub-watersheds and monitoring sites

- Water quality trends
- Practice implementation
- Pesticide use data
- Outreach



Linking land use to monitoring data

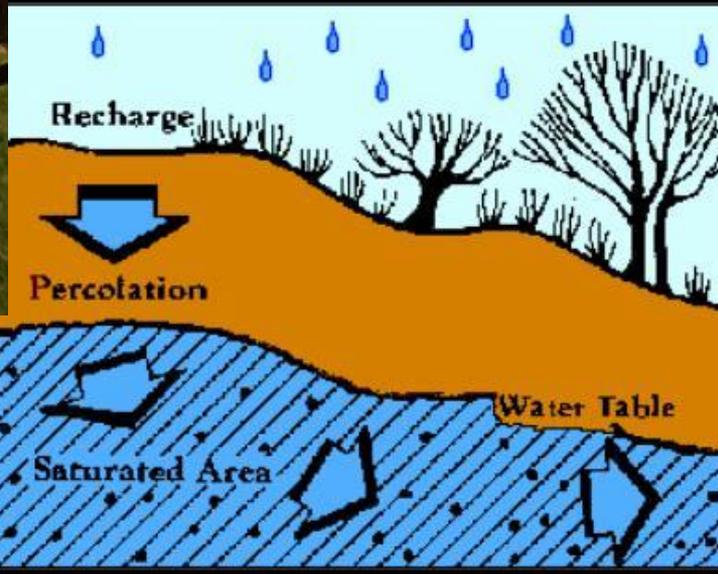


Long term site





Clean Water





Enrollment by County

County	Irrigated Acres	Enrolled Acres	Percent Enrolled
San Mateo	600	2,656	(100%+)
Santa Cruz	18,300	11,843	65%
Santa Clara	13,200	11,180	85%
San Benito	32,400	20,275	63%
Monterey	212,000	182,031	86%
San Luis Obispo	67,730	64,217	95%
Santa Barbara	93,490 (73,000?)	64,859	70% (89%?)
Ventura	600	591	99%