East San Joaquin Water Quality Coalition

PRESENTATION TO

STATE WATER QUALITY RESOURCES CONTROL BOARD

IN THE MATTER OF REVIEW OF EAST SAN JOAQUIN GENERAL ORDER

Presentation by Real Party in Interest, East San Joaquin Water Quality Coalition

December 6, 2017

Panel Members

- Parry Klassen, Executive Director, ESJWQC
- Tess Dunham, Legal Counsel to ESJWQC
- Michael L. Johnson, PhD., Consultant to ESJWQC

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ESJWQC Panel Presentation

1. Overview of Comments
2. Members in Low Vulnerability Areas
3. Proposed Deadlines
4. Addressing State Board Surface Water Monitoring Concerns
5. Nitrogen Reporting

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REVISED WDR IS IMPROVEMENT FROM MARCH 2017 DRAFT

However, new version introduces questionable new requirements

Improvements in Proposed WDR

- Removes name associated with individual data reporting requirements for nitrogen applications and yield information
- Allows third party to submit data with anonymous identifier
- Extends frequency for Farm Evaluation submittals from annual to every 5 years

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Remaining Challenges

- Referral of Surface Water Program Design to Expert Panel
- Requirement for certification of Nitrogen Summary Reports for Growers in low vulnerability areas
- Implementation timeframe for ESJWQC compared to other Central Valley Third Parties
- Reference to Nitrogen Groundwater Protection Targets

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Reporting for Growers in Low Vulnerability Areas

- Growers in low vulnerability areas pose small risk to groundwater
  - Maintain WDR requirements for members in low vulnerability areas
  - Certified irrigation and nitrate management plan is overly burdensome and expensive
  - Groundwater Assessment Report Updated every 5 years

Option:

- Provide Central Valley Water Board discretion to require certification, as necessary
  - Evaluate program progress in 2022

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Implementation Timeframe

- Align deadlines for ESJWQC reports with other Central Valley WDRs
  - Add one year to compliance deadlines
- Rationale for Change
  - Allows CV Board time to revise other third-party WDRs
  - Places all Coalitions on the same implementation schedule, which assists with coordination
  - Allows sufficient time to notify growers of changes in reporting
- Minimizes confusion for growers in multiple coalitions
  - ESJWQC bordered by 3 other coalitions
  - Many growers at edges farm in two coalitions

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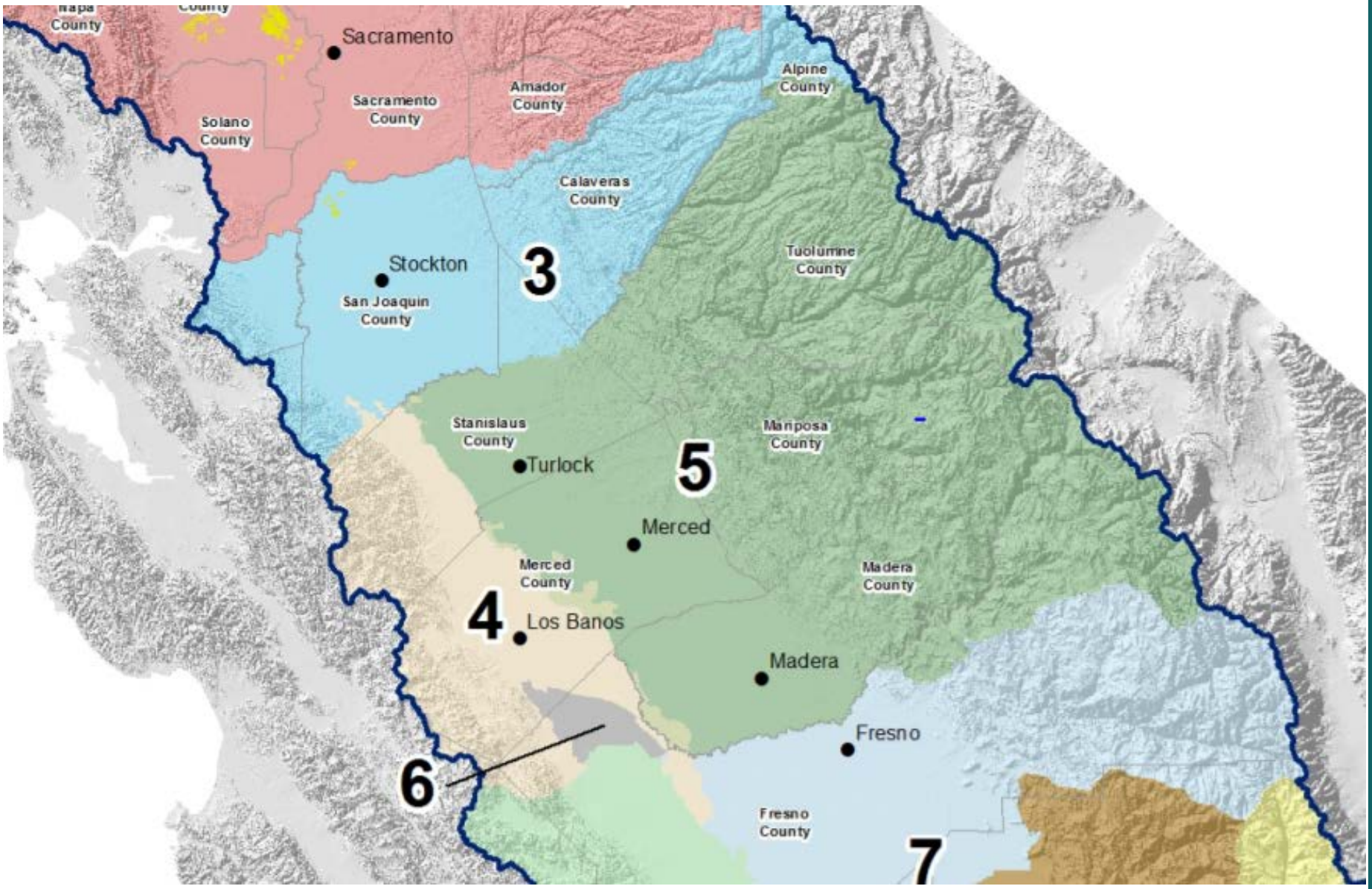
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Tuolumne County
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Mariposa County
Turlock
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Los Banos
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Fresno
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REPRESENTATIVE MONITORING

Second Draft Order
Surface Water Monitoring Concerns

Order alleges that the monitoring program is unable to detect problems because of insufficient monitoring

Allegations

- Insufficient spatial density
- Insufficient temporal density
- Core and Represented sites have different monitoring results (therefore monitoring at the Core site does not capture potential issues at the Represented site)

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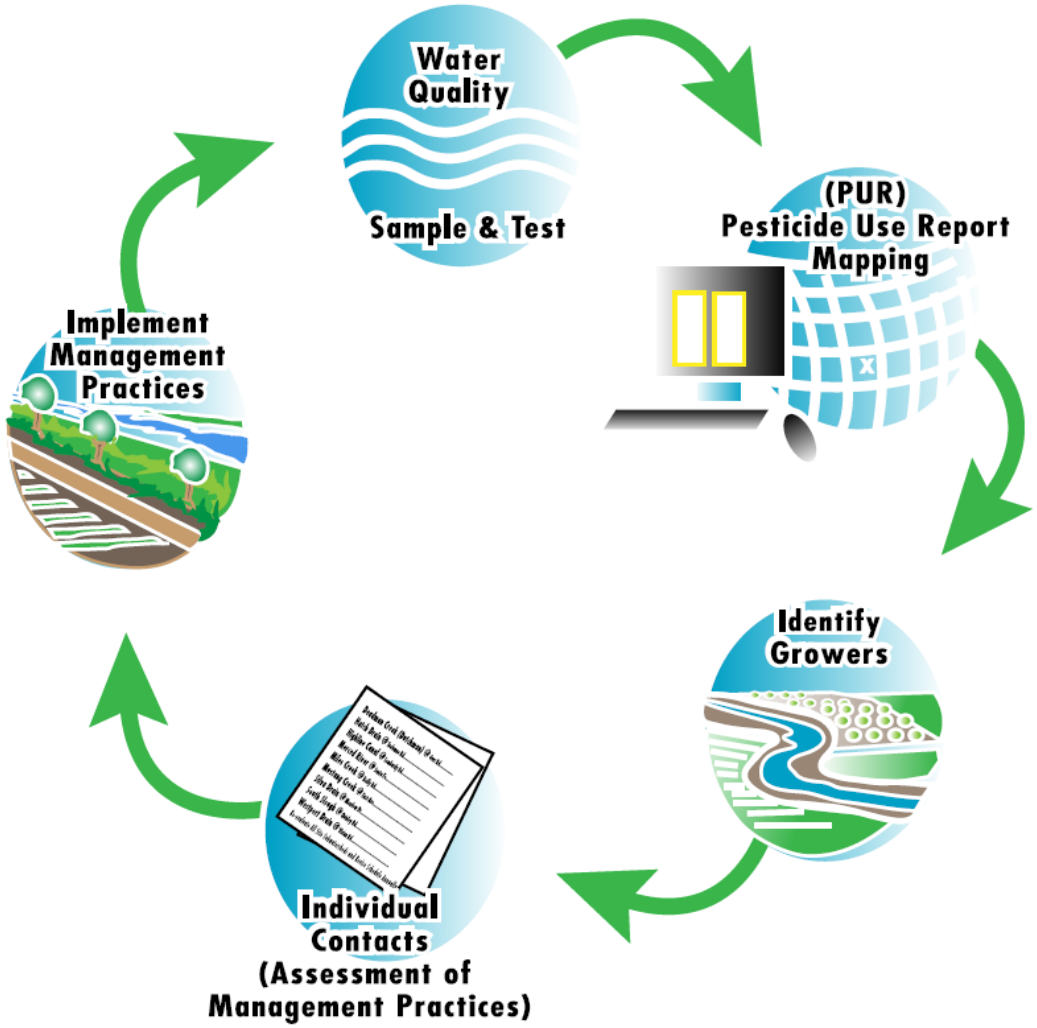
OVERVIEW OF CURRENT PROGRAM

Monitoring and Reporting Program



Core/Represented Monitoring

- *Core Site Monitoring:* monitor for all constituents monthly
  - Two Core sites for each Zone, rotates every two years to evaluate water quality in different area of Zone.

- *Represented Site Monitoring:* monitor for constituents that exceed the Water Quality Trigger at the Core site
  - Monitor for 2 years at represented sites
  - Monitoring starts the year after an exceedance at the Core site

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“Zone” Concept (Spatial Density)

- Zones are based on similarity of soils, hydrology, climate, land use (crops)
- Cropping is similar which means grower behavior is similar
  - Pest outbreaks are similar within the zone leading to similar pesticide applications, similar timing
- All growers in a zone treated equally based on monitoring results; special emphasis with growers adjacent to waterways

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Rationale for Current Monitoring Locations

- Identified every waterbody that is accessible in the zone
  - Many “blue” lines do not exist or can not be reached by a road
  - Each of those sites is either a core or represented site
- Sample discharge from agricultural areas where there is no urban signal
  - Some pesticides are used in both agricultural and urban settings (e.g., herbicides, pyrethroids)
- Accessibility (Safe parking and short walking distance with significant amount of equipment and bottles of water)

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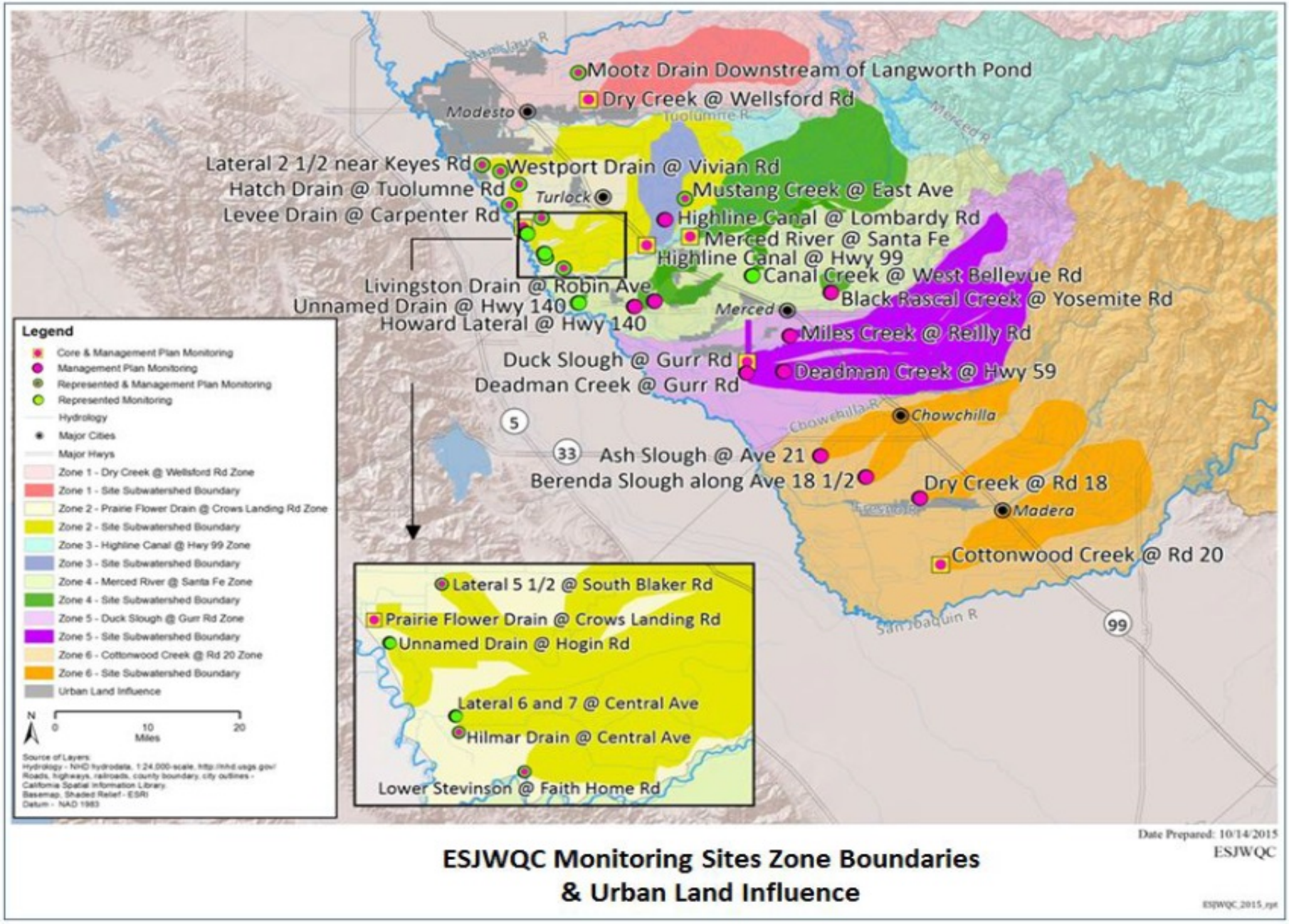

ESJWQC Monitoring Sites Zone Boundaries & Urban Land Influence

Downstream: Duck Slough @ Gurr Road
Upstream: Duck Slough @ Hwy 99

- Both sites were monitored for the same constituents from 2005 – 2008
- 99% of the results are the same for both the upstream and downstream samples (1,317 out of 1,324)
- Upstream and downstream sampling does not improve ability to locate sources

LESSONS LEARNED

- Pesticide Use Reports are effective for identifying pesticide sources
  - Every member applying constituent of concern is a potential source
- Outreach is critical component for improving water quality

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TEMPORAL DENSITY

Surface Water Monitoring Design

Monitoring program is effective in detecting problems

- Pesticide applications occur to suppress pest outbreaks
- Growers do not apply pesticides to avoid detection by monitoring
- Stormwater monitoring captures any discharge from rain events
- Monthly monitoring is effective to determine the affect of applications on water quality

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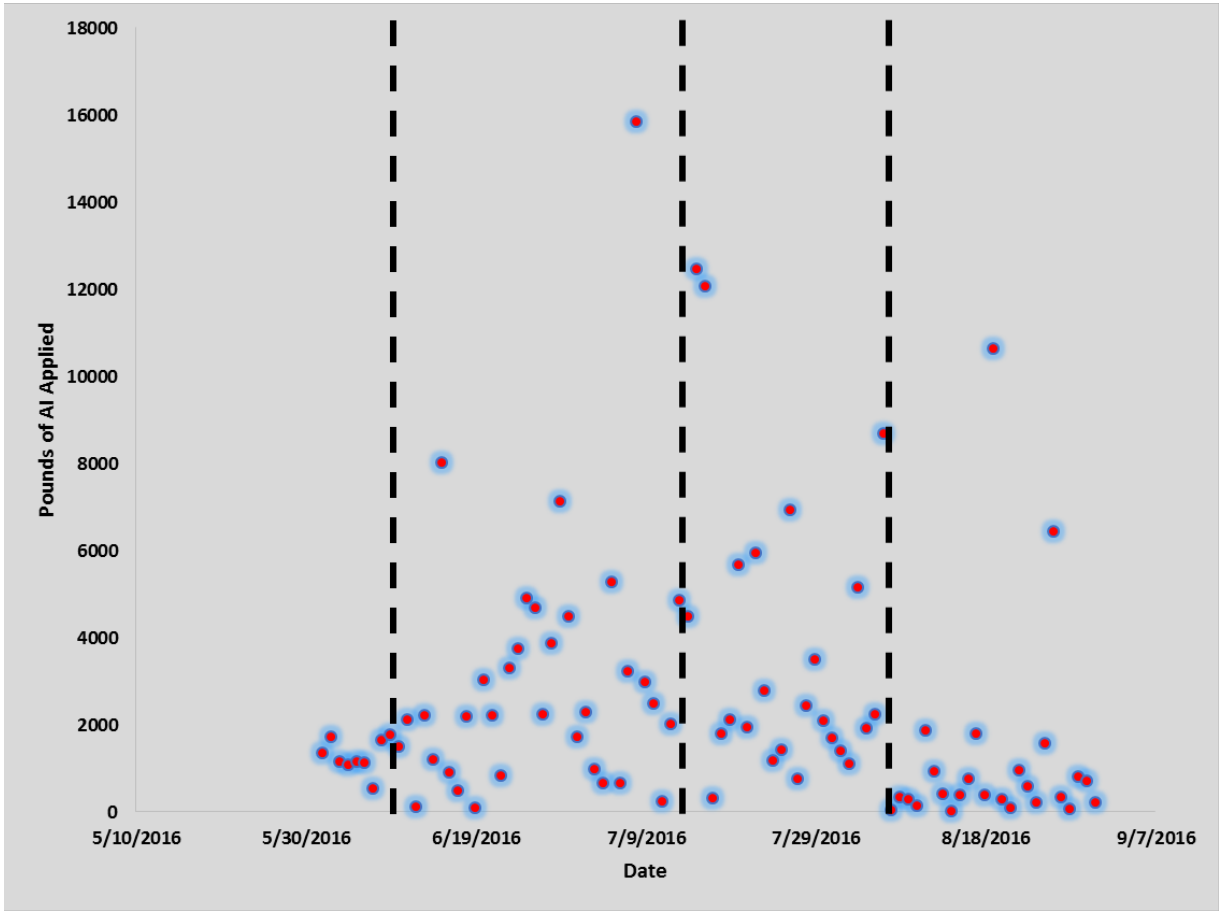
Pesticide Applications



- Pesticide applications randomly distributed in relation to sampling events
- Growers do not wait until after planned sampling events to apply pesticides

Sampling Event
Pesticide Applications

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CORE SITES VS REPRESENTED SITES

Surface Water Monitoring Design

Coalition Process for Identifying Water Quality Impairments

	Monitoring Site	Chlorpyrifos monitoring						
		2008	2009	2010	2011	2012	2013	2014
Core	**Prairie Flower Drain @ Crows Landing Rd**							
Represented	Lateral 2 1/2 near Keyes Rd							

- **Exceedances** of the WQTL for Chlorpyrifos occurred at the Core site, Prairie Flower Drain, in 2008.
- Monitoring for chlorpyrifos at Lateral 2 ½ near Keyes Rd was initiated in 2009.
- Focused Outreach occurred at both sites to address chlorpyrifos exceedances (hatched cells)
- Since Focused Outreach was initiated, **no toxicity** has occurred.

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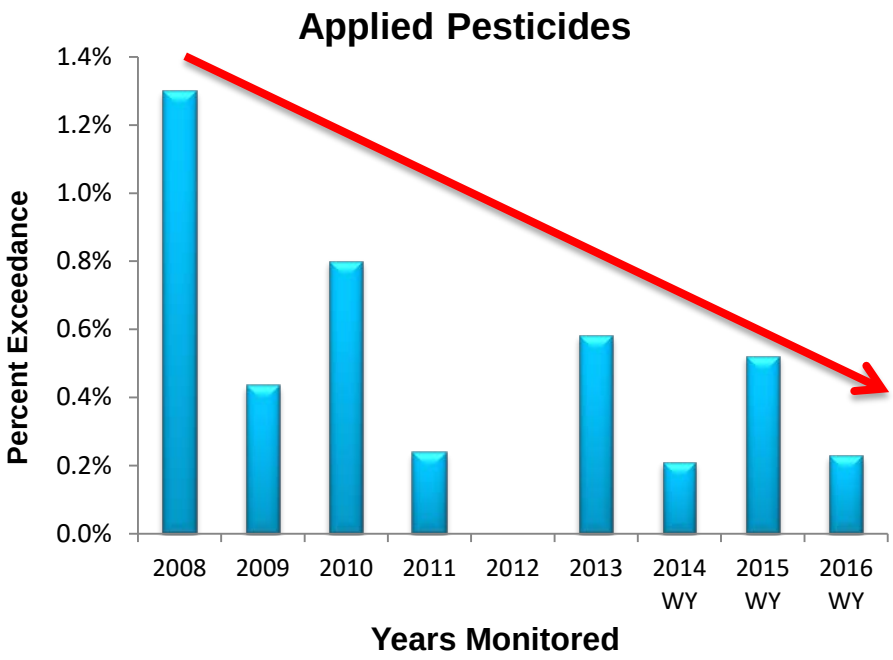
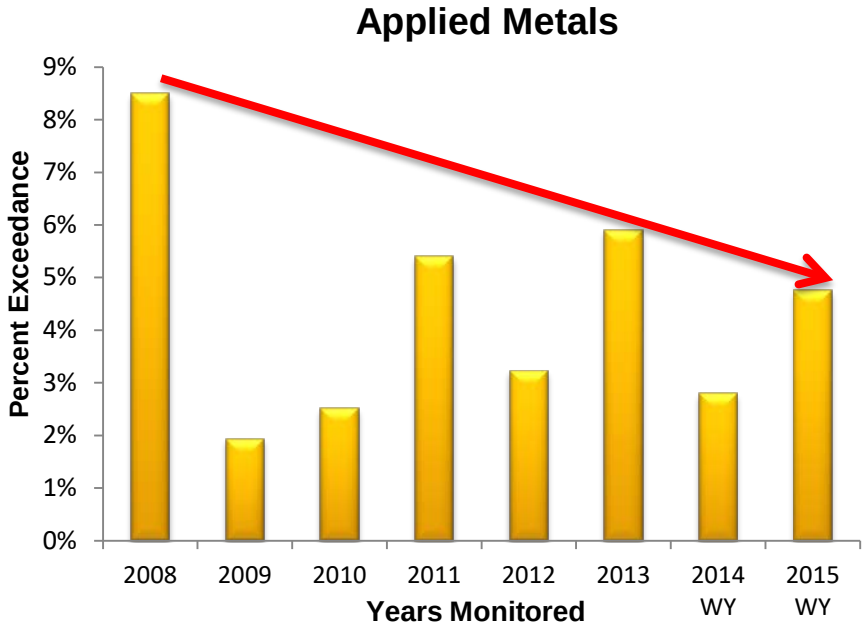
Results of Monitoring Program

- Since 2008, ESJWQC has collected **69,311** samples
- Steady decline in the percent of samples that are exceedances





Summary Regarding Surface Water Monitoring Program

- Developed based on over 12 years of data collection and evaluation
- Supported based on evidence in the record
- Water quality problems are detected and corrected
- Contrary to statements in Second Draft Order, changes to monitoring program in 2012 were based on historical information and efficacy of the program – not due to cost shifting to other activities

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Request Revision of Second Draft Order

Preferred Option:

- Find the Surface Water Monitoring Program to be supported by evidence in the record and delete all other references to the Surface Water Monitoring Program.

Second Preferred Option:

- Remove referral to Expert Panel and remand to the Central Valley Water Board to review monitoring program in light of the questions otherwise posed for the Expert Panel (with some alterations)

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NITROGEN GROUNDWATER PROTECTION TARGETS

Coalition & EJ Representatives Agreement

Did not address all issues, but was a "package deal"

Three Key Components:

1. Field level reporting by grower but anonymous
2. Location related reporting but anonymous
3. Process to develop nitrogen groundwater protection targets

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Second Draft Order Includes Two of Three Key Components

NEED TO BETTER CAPTURE PROCESS FOR DEVELOPMENT OF GROUNDWATER PROTECTION TARGETS

Proposed Alternative:

1. Third Party will develop & propose Nitrogen Impact Formula for specified geographic area
   - Includes consideration of precipitation, recharge, local conditions, local data, and local information
2. Third Party will develop Nitrogen Target Goals (based on formula) for specified geographic area
3. Formula & Target Goals subject to public review & EO approval
4. Groundwater Management Plans amended to include targets and milestones for meeting targets in high vulnerability areas

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Questions?

www.esjcoalition.org

Modesto ESJWQC Member meeting
Feb. 10, 2017
833 members in attendance