ADDITIONAL PERSPECTIVE FROM ESJ COALITION

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Parry Klassen

Executive Director

ESJ has created -- along with Regional Water Board -- an iterative process that is identifying pesticide/surface water issues in a timely manner

- Have tried different approaches through the years that were unsuccessful in identifying and eliminating impaired waterbodies
  - Upstream monitoring
  - More frequent than monthly
  - Numerous sites monitored monthly
  - Monitored fixed list of constituents monthly

ITERATIVE APPROACH

Zones; core and representative site approach has shown to appropriately characterize discharges in the ESJ region

- Hundreds of miles of rivers, creeks, canals and constructed drains, sloughs
  - Beneficial uses arguably do not apply to constructed drains
- Sites selection conducted by consideration multiple variables
- Monitoring is occurring at times when use of pesticides could be contributing to a water quality impairment

ZONES: CORE AND REPRESENTATIVE SITES

ESJ is responsive to pesticide exceedances

- Fall 2019 ESJ did mailing to all members along waterways when we found pyrethroids in water through new testing technique, warning growers of drift potential.
  - Regional Board is notified of exceedances within 5 days of receiving/verifying results;
  - PUR data are obtained throughout the year to help with sourcing
  - Prescribed schedule implemented throughout the year to communicate Coalition actions (and planned actions) to the Regional Board: Exceedance Reports, Annual Report (May 1) and Monitoring Plan Update (Aug 1)

SAMPLE RESULTS PROMPT GROWER OUTREACH

Nitrate Results by ESJWQC Zone

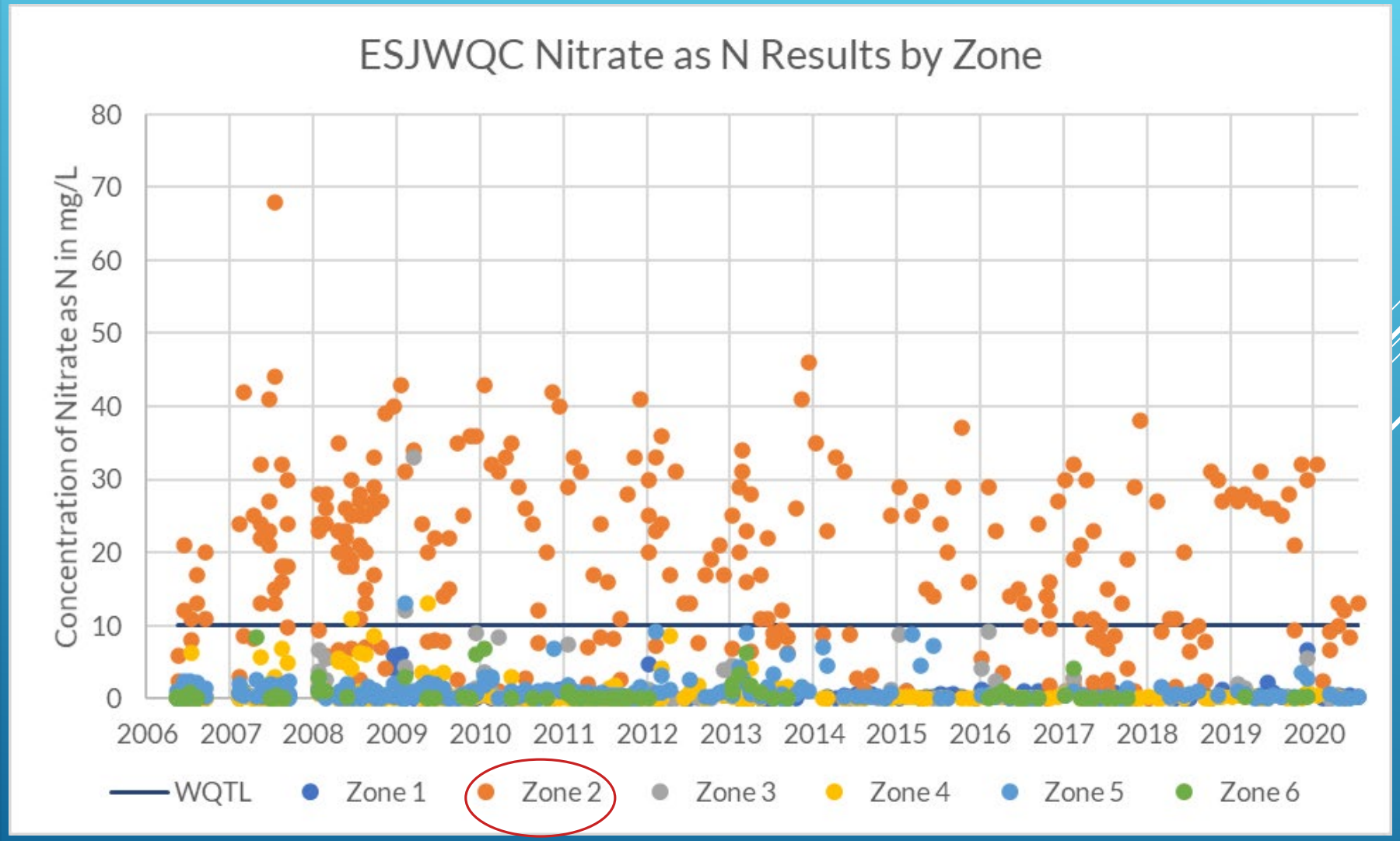

Table 1. Summary of historical exceedances of the Water Quality Trigger Limit for nitrate as N by zone within the East San Joaquin Coalition region.

Zone	Total Number of Samples	Number of Exceedances (> 10 mg/L as N)	Percent Exceedances
1	204		0%
2	290	193	66.6%
3	178	2	1.1%
4	257	2	0.8%
5	249	1	0.4%
6	130		0%
Total	**1308**	**198**	**15.1%**

Table 2. Summary of historical exceedances of the Water Quality Trigger Limit for nitrate as N for Zone 2 of the East San Joaquin Coalition region.

Zone 2 Site	Total Number of Samples	Number of Exceedances (> 10 mg/L as N)	Percent Exceedances
Hatch Drain @ Tuolumne Rd	13	13	100.0%
Hilmar Drain @ Central Ave	21	12	57.1%
Hilmar Drain @ Mitchell Rd	1	1	100.0%
Lateral 2 1/2 near Keyes Rd	22	2	9.1%
Lateral 3 along East Taylor Rd	11	1	9.1%
Lateral 5 1/2 @ South Blaker Rd	32	22	68.8%
Lateral 6 and 7 @ Central Ave	7	4	57.1%
Levee Drain @ Carpenter Rd	22	18	81.8%
Lower Stevinson @ Faith Home Rd	7	3	42.9%
Prairie Flower Drain @ Crows Landing Rd	106	87	82.1%
Prairie Flower Drain at Morgan Road	6	5	83.3%
Reclamation Drain @ Williams Ave	1		0%
Unnamed Drain @ Hogin Rd	16		0%
Westport Drain @ Vivian Rd	25	25	100.0%
Total	**290**	**193**	**66.6%**

We can learn from other areas' approaches only when we have similar conditions (soils, crops, rainfall, topography) that make comparisons practical and useful

- More monitoring does not result in compliance; implementation of management practices does
- Management Plan strategy effective at using resources to improve water quality
- Pesticide Evaluation Protocol (PEP) effective in identifying new pesticides that have not been monitoring previously

BEWARE OF OUT OF REGION COMPARISONS

ADDITIONAL TOXICITY TESTING

Importance of having a defensible monitoring program in a regulatory setting

- Methods should be reproducible and commercially available based on rigorous testing and validation procedures (EPA methods, ELAP certified, etc.)
- Adding toxicity testing for more sensitive species (e.g. *Chironomus*), should not begin until the method is EPA promulgated and demonstrate that the method is a repeatable and reliable method of identifying toxicity

17 YEARS LATER…

- ESJWQC has been working in our region for 17 years to address WQ with extensive RWB oversight
- We believe the program is solid and provides RWB and stakeholders with the understanding that water quality impairments are being identified

QUESTIONS?