Humboldt BAYKEEPER
Klamath RIVERKEEPER
Yuba River WATERKEEPER
Russian RIVERKEEPER
Monterey COASTKEEPER
Santa Barbara CHANNELKEEPER
Los Angeles WATERKEEPER
Orange County COASTKEEPER
Inland Empire WATERKEEPER
San Diego COASTKEEPER

NGO Surface Water Monitoring Recommendations

East San Joaquin Surface Water Monitoring Expert Panel

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Major Themes

- Sampling Density
- Upstream Monitoring
- Exceedance-Based Monitoring
- Pesticide Switching
- Data Available to the Public

Agricultural Impacts in the Central Valley

- 7 million irrigated acres and approximately 35,000 individual farms, in the Central Valley.
- Statewide, approximately 9,493 miles of rivers/streams and some 513,130 acres of lakes/reservoirs are listed on the 303(d) list as being impaired by irrigated agriculture.
- 25 water bodies and 450 miles of surface water in the ESJ Watershed failed to meet federal Clean Water Act water quality standards.

Goals of a Surface Water Monitoring Program

(1) COMPLIANCE – We need to identify if water quality objectives are being achieved.

(2) SOURCE IDENTIFICATION – If there are adverse impacts, we must identify the source(s).

(3) MANAGEMENT PRACTICE EFFECTIVENESS EVALUATION.

(4) LONG TERM TRENDS – We need to know if we are getting where we need to go and when we get there. Meet water quality objective and time schedule.

What Does the Nonpoint Source Policy Require?

The Nonpoint Source regulations require that an order

1. Address nonpoint source pollution in a manner that ***achieves water quality objectives***;
2. Describe management practices and program elements to be implemented;
3. Set quantifiable milestones and corresponding specific deadlines that measure progress towards achieving water quality objectives;
4. ***Provide sufficient feedback mechanisms to ensure that an order is achieving its stated purpose;*** and
5. State potential consequences for failure to achieve an order's objectives.

Non-Point Source Policy

The ESJ Order must comply with the Nonpoint Source Policy - It has the force of law and is incorporated into the Basin Plan.

"An NPS control implementation program shall include sufficient feedback mechanisms so that the RWQCB, dischargers, and the public can determine whether the program is achieving its stated purpose(s), or whether additional or different MPs or other actions are required."

"all monitoring programs should be reproducible, provide a permanent/documented record and be available to the public."

Data should be open to the public

Gov. Code section 11120 (Preamble):

"It is the public policy of this state that…the ***public may remain informed***…***The people insist on remaining informed*** so that they may retain control over the instruments they have created."

State Constitution (Cal. Const., Art. 1, § 3(b)(1):

"The **people have the right of access to information** concerning the conduct of the people's business..."

ESJ Permit

- 6 Sites for 835,000 acres of irrigated land.
  - Central Coast monitors 40 sites for half the acreage.
- Third Party Coalitions are responsible for all monitoring.
- Monitoring occurs at 1 site in 6 different zones – chosen by the Third-Party Coalition.
- If an exceedance is detected at 1 of the 6 sites, then additional "representative" monitoring is done within the same zone – BUT NOT NECESSARILY UPSTREAM OF THE EXCEEDANCE.
- Data is aggregated and anonymized by Third Party Coalitions.

Why Are We Here???

- **State Water Board** "Our review of the data found monitoring at represented sites can reveal exceedances for a different set of constituents than those found at the core sampling sites, even where the physical characteristics are similar."
- **State Water Board** "the problem is that a [management plan] may not be triggered until an exceedance is detected at a core or represented site, and water quality exceedances upstream or in an adjacent portion of the watershed to that of the core and represented sites may go undetected in the interim."
- After expressing concerns with the spatial and temporal density of monitoring, the State Board directed Regional Board staff to begin this expert panel process.

Regional Board Concerns

- **Central Coast Regional Board's comments on the ESJ Order** criticized its reliance on third-party coalitions and its use of "aggregated and anonymized reporting," which "would *make it impossible to realistically assess and resolve waste discharge problems*."
- **Central Coast Board on ESJ Monitoring** "[t]his approach is especially inappropriate given such wide-spread water quality problems, including the severe degradation of drinking water sources".

Sampling Density

- Representative water sampling once a month represents approximately 0.1 percent of streamflow.
- Compliance with water quality standards cannot be determined by collecting samples, perhaps 20 to 40 miles from a discharge point and analyzing 0.1 percent of streamflow draining 15,218 to 83,767 irrigated acres.
- Core site monitoring cannot measure or detect degradation that may have occurred upstream and dissipated by the time the effected waters commingle with other waters and flow past the downstream monitoring location.
- Discharger specific or, at a minimum, a **statistically significant sampling of individual discharges is fundamental** to providing the information necessary to adequately regulate specific sources of pollution.

Upstream Monitoring Recommendations

- **Previous Expert Panel Recommendation** – "Single measurement point at the downstream discharge of a very large watershed would be insufficient. When/if problems are identified, sampling should move upstream to ***locate the source of the problem***."
- **State Water Board** "The better approach may be to rely on receiving water monitoring data and to require the third-party monitoring groups administering receiving water monitoring to pursue exceedances with ***increasingly focused monitoring in upstream channels designed to narrow down and identify the sources of the exceedances".***

Upstream Monitoring - Central Coast

- **The Central Coast Surface Monitoring is stronger than the ESJ and yet the Order was still overturned by the courts.** The Central Coast Waiver required the largest polluting growers to conduct individual farm monitoring and all other growers participated in regional, representative monitoring.
- State Water Board on Central Coast surface water monitoring program:
  - "We are skeptical that the Central Coast Water Board has adopted the monitoring program best suited to meet the purpose of identifying and following up on high risk discharges."
  - "[E]ven though the surface water discharge monitoring requirements are targeted to the highest risk dischargers, problem discharges and areas are likely to be found outside of the influence of farms operated by Tier 3 dischargers."

Upstream Monitoring - Ventura Region

- The Los Angeles Regional Board acknowledged that representative surface water monitoring was not adequate to detect on its own sources of pollution.
- **New Ventura Region Surface Water Monitoring Program**: When a receiving water violation has been detected by representative monitoring, the LA Regional Board requires all growers upstream of the watershed exceedence to begin conducting individual field monitoring until the responsible parties are identified and the exceedence is corrected.

Exceedance-Based Monitoring was already struck down by the courts

- To satisfy state regulations, agricultural discharge permits must be targeted at identifying water quality degradation, not merely exceedances of standards. *San Joaquin Resource Conservation District v. Cal. Regional Water Quality Control Board*
- In *CSPA*, the Court found that the 2011 waiver provided an inadequate feedback mechanism because it was premised on exceedance monitoring, and thus failed to satisfy Element 4.
- ESJ relies on the very same exceedance-based feedback mechanism.

Pesticide Switching

- Switching from one pesticide to another is a common occurrence that is not considered in the current ESJ Monitoring Program.
- Growers have shifted away from organophosphate pesticides and turned instead to equally dangerous neonicotinoid and pyrethroid pesticides.
- ESJ Coalitions do not have pesticide endpoints that are protective of downstream drinking water beneficial uses.
- Effective monitoring of pesticide contamination must be comprehensive and flexible enough to capture pesticide switching.

What should be in the ESJ Monitoring Program

- Increased density and frequency of monitoring sites. 6 sites for 435,000 irrigated acres is unacceptable.
- Once an exceedance is detected, monitoring should move upstream to subregions, and then to individual farms in real time.
- Long Term Trends Monitoring needs to be included to determine whether the ESJ is improving or worsening water quality, overall.
- Pesticide monitoring needs to be flexible enough to capture pesticide switching.
- Monitoring should assess protection of all beneficial uses.
- Data should not be aggregated and anonymized.