

## EASTERN SAN JOAQUIN AGRICULTURAL ORDER PRECEDENTIAL REQUIREMENTS

The Central Valley Water Board adopted waste discharge requirements (WDRs) for agricultural discharges in the eastern San Joaquin River watershed in 2012. The State Water Board reviewed the Central Valley Water Board's order and subsequently adopted an order modifying the Central Valley Water Board's order in February 2018. This State Board order is referred to as the Eastern San Joaquin Order, or ESJ order (State Board Order WQ 2018-0002).<sup>1</sup> The State Water Board designated portions of the ESJ order as "precedential" and "direct[ed]" the regional water boards to revise their irrigated lands regulatory programs within the next five years to be consistent with [the] precedential direction in [the ESJ order]" (p. 9).

Some portions of the ESJ order apply only to the ESJ watershed. In contrast, the aspects of the ESJ order that are designated as "precedential" are requirements for all regional water boards implementing an ILRP. The specific portions that are defined as precedential statewide are described as such in the order. The precedential elements, as described in the ESJ order, are listed below.

It should be noted that three legal challenges have been filed in the Sacramento Superior Court related to several aspects of the ESJ order. Nevertheless, order is in full effect, and the statewide precedential portions of the ESJ order remain in effect on regional boards until the order or portions are invalidated by a court judgment or are stayed by a court or the State Water Board.

### Outreach

*"The requirement for participation by all growers in outreach events shall be precedential for irrigated lands regulatory programs statewide. The regional boards have the discretion over the precise form and frequency of the outreach events, as long as they are designed to reach all growers in the irrigated lands regulatory program" (p. 28).*

The requirement partly stems from the direction of the Agricultural Expert Panel, which suggested that a very strong, comprehensive, and sustained educational and outreach program was necessary.

Staff recommends requiring participation in outreach efforts. For example, the order may include a requirement for growers in a prioritized watershed to attend water quality information meetings. Disseminating information, such as the state of water quality conditions in subwatersheds, is a step that may help in resolving water quality degradation.

Additional education and outreach could be a required consequence for growers whose ranches are not achieving the numeric limits and/or targets identified in the time schedule.

### Management Practice Reporting

*"The requirement for submission by all growers of management practice implementation information shall be precedential for irrigated lands regulatory programs statewide, however, the regional water boards shall continue to have discretion as to the form and frequency of such submissions" (p. 29)*

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<sup>1</sup> The Eastern San Joaquin Order can be found online at:

[https://www.waterboards.ca.gov/public\\_notices/petitions/water\\_quality/a2239\\_sanjoaquin\\_ag.shtml](https://www.waterboards.ca.gov/public_notices/petitions/water_quality/a2239_sanjoaquin_ag.shtml)

Staff recommends the reporting of management practices continue in Ag Order 4.0. Staff recommends improving the reporting of management practices, with a focus on ranches located in priority watershed areas. In areas where a third-party implementation program forms, the program may help to create reporting forms.

#### Field Level Management Practice Implementation Data

*“The requirement to submit grower-specific field-level management practice implementation data to the regional water board shall be precedential statewide. For third-party programs only, the data shall be submitted with Anonymous Member IDs.” (p. 32).*

The order also states that the individual field-level data will support analyses to identify “effective and ineffective management practices” (p. 32).

The concept is that field-level data can be used to assess the efficacy of management practices implemented, i.e., whether they are working as intended.

Staff recommends requiring field-level, grower-specific management practice implementation data reporting.

#### Sediment and Erosion Control Practices

*“The requirement for implementation of sediment and erosion control practices by growers with the potential to cause erosion and discharge sediment that may degrade surface waters shall be precedential for irrigated lands regulatory programs statewide; however, the regional water boards shall continue to have discretion as to how these practices are documented and reported” (p. 32).*

Staff’s recommended framework includes requirements related to sediment and erosion control for sites with characteristics that increase the potential for sediment and erosion discharge events, and the reporting of sediment and erosion control-related management practice implementation. Third-party implementation programs may present an effective way to help growers assess their management practices and, where needed, implement improved sediment and erosion control practices. Additionally, staff recommends incorporating design and implementation requirements for growers using impermeable surfaces on slopes during the rainy season, such as plastic mulch used on strawberry fields.

#### Irrigation Management

*“The requirement for incorporation of irrigation management elements into nitrogen management planning shall be precedential for irrigated lands regulatory programs statewide” (p. 35).*

This precedential requirement is a result of the Agricultural Expert Panel’s conclusion that nutrient management and irrigation management must go hand-in-hand.

Staff recommends irrigation management practice reporting be included as part of the Irrigation and Nutrient Management Plan (INMP), which is phased in geographically by prioritized groundwater areas.

*“The requirement for all growers to submit summary data from the plans shall be precedential statewide. The regional water boards have discretion as to whether to require certification of all growers or just a subset of growers based on a risk categorization. At a minimum, the certification requirement for all low-vulnerability growers that are determined to be*

*outliers consistent with the additional certification requirements stated in section II.A.5.f [discussing AR Outlier Follow Up] is precedential statewide” “For those INMPs that the regional water boards require to be certified, the certification language [that the ESJ Order specifies] shall be precedential statewide” (p. 36).*

Staff’s recommendation includes reporting of INMP data, with the reporting phased-in over time, but does not currently include a certification requirement. If the staff recommendation changes, or the Board directs staff, to include an INMP certification requirement in Ag Order 4.0, the precedential certification language will be incorporated.

#### Nitrogen Applied and Nitrogen Removed Reporting

*“The requirement for field-level AR data submission to the regional water board consistent with the data sets and analysis of those data sets described in this section shall be precedential for irrigated lands regulatory programs statewide. The regional water boards have the discretion to require additional data related to irrigation and nitrogen management. For third-party programs only, the AR data shall be submitted with anonymous identifiers.” (p. 51).*

*“The requirement for calculation of annual and multi-year A/R ratio and A-R difference parameters for each grower **by field** shall be precedential for irrigated lands regulatory programs statewide, except as described below. The regional water boards shall retain discretion as to the division of responsibilities among the growers, third parties, and regional water boards for determination of the values, provided that the values are known to both the growers and the third parties” (p. 40, emphasis added).*

Nitrogen applied (A) and removed (R) reporting at the field-level is precedential. Staff recommends reporting of this data directly to the regional board.

#### Removal Coefficients

*“The requirement for use of coefficients for conversion of yield to nitrogen removed values shall be precedential for irrigated lands regulatory programs statewide. The regional water boards will have discretion to determine the number of crops to be analyzed and the timeline for development of the coefficients” (p. 42)*

Nitrogen removal coefficients are used to estimate the mass of nitrogen removed from the field through harvest and other means. The coefficients, along with mass-removal data, generate the nitrogen removed mass.

The ESJ order directed implementing parties in the eastern San Joaquin coalition to develop removal coefficients for crops covering 95% of the acreage by March 2021. The State Water Board adopted the modified order in February 2018, thereby giving implementing parties three years to develop the bulk of the coefficients.

Staff currently has removal coefficients for some crops that have been obtained through literature review. Staff proposes to establish 95% of the coefficients developed by 2023, and the remaining by 2024. Staff are interested in coordinating with third-party programs to develop the needed coefficients.

#### AR Outlier Follow Up

*“The requirement for the third party to follow up with and provide training for AR data outliers and for identification of repeated outliers as set out above shall be precedential for irrigated*

*lands regulatory programs statewide, except that the regional water boards will be responsible for the follow up and training for irrigated lands regulatory programs that directly regulate growers without a third-party intermediary.” (p. 53).*

Staff recommends that the role of a third-party implementation program in the Central Coast Region, with respect to AR data compilation, assessment, and reporting, be different than that in the Central Valley. Staff recommends that the third-party program not be an intermediary that collects field level AR data and reports that data to the regional board in aggregated form. This does not preclude, however, the possibility of an effective third-party implementation program in the Central Coast Region providing education and outreach to growers whose AR reporting demonstrates values in excess of the numeric targets and limits established in the time schedule

#### Exemption from Nitrogen Management Requirements

*“We recognize that there may be categories of uniquely-situated growers for whom the specific nitrogen management requirements made precedential in the following sections of this order are unnecessary because applied nitrogen is not expected to seep below the root zone in amounts that could impact groundwater and is further not expected to discharge to surface water. Any category of Members (such as growers of a particular crop or growers in a particular area) seeking to be exempted from the precedential nitrogen management requirements in the following sections of this order shall make a demonstration, for approval by the relevant regional water board, that nitrogen applied to the fields does not percolate below the root zone in an amount that could impact groundwater and does not migrate to surface water through discharges, including drainage, runoff, or sediment erosion. These criteria for determining categories of growers that may be exempted from the nitrogen management requirements shall also be precedential statewide” (pp. 34-35).*

Staff will review any proposals that individual or groups of growers submit that can demonstrate achieving the exemption criteria laid out in the ESJ order, specifically that nitrogen is not expected to seep below the root zone in amounts that could impact groundwater and is also not expected to discharge to surface water.

#### Recordkeeping

*“This recordkeeping requirement [for third-party programs to maintain required reports and records for ten years and to back up certain information in a secure offsite location managed by an independent entity] shall be precedential statewide for all third-party irrigated lands regulatory programs” (p. 53).*

This precedential requirement pertains to “field-specific data” and is an important precaution to allow regional boards to assess nitrogen applied and removed outlier data to the individual grower level, but applies specifically to third-party programs that are collecting data. The Central Coast Water Board has a separate records retention policy that goes beyond what the ESJ order established for third-party programs. If the Central Coast Water Board continues to receive grower information directly, as staff recommends, then this precedential element is not directly applicable.

#### Drinking Water Well Sampling

*“The requirement for on-farm drinking water supply well monitoring, in accordance with the provisions described above, shall be precedential for irrigated lands regulatory programs statewide. The regional water boards have the discretion to require sampling at a frequency that is similar, but not identical, to the frequency specified above” (p. 62).*

As in current and previous ag orders, staff recommends requiring sampling of drinking water wells located on enrolled parcels.

#### Groundwater Trend Monitoring

*"The requirement for groundwater quality trend monitoring shall be precedential for irrigated lands regulatory programs statewide; however, the specific requirements and the monitored constituents specified in the [Central Valley Water Board's Eastern San Joaquin Agricultural] General WDRs shall not be precedential" (p. 64).*

The ESJ order states that if a third party conducts the trend monitoring, it must collect sufficient data to describe agricultural discharge impacts on groundwater quality and to assess whether existing or newly implemented management practices comply with groundwater receiving water limitations. (Appendix A, page 16).

Staff recommends incorporating groundwater monitoring necessary for trend analysis. Staff will also investigate the potential for a dedicated regional groundwater monitoring program. Staff will seek to leverage existing efforts, such as those required by the Sustainable Groundwater Management Act, to develop a regional approach.

#### Groundwater Protection Formula, Values and Targets

*"The development of the Groundwater Protection Formula, Values, and Targets shall be precedential for the third parties that proposed the methodology. Even if the programs do not require [groundwater quality monitoring plans], all of the regional water boards shall apply this methodology or a similar methodology, designed to determine targets for nitrogen loading within high priority townships or other geographic areas, for the remaining irrigated lands regulatory programs in the state" (p. 66).*

*"The Groundwater Protection Formula, Values, and Targets are subject to Executive Officer approval following public review and comment" (p. 66).*

Staff recommends incorporating numeric targets and limits based on a groundwater protection formula, values and targets as identified in the Irrigation and Nutrient Management for Groundwater Protection table.