

ITEM: 19

SUBJECT: East San Joaquin Water Quality Coalition's Groundwater Quality Management Plan and Nitrogen Management Plan Summary Report Analysis

BOARD ACTION: Information Item

BACKGROUND: In February 2015, the East San Joaquin Water Quality Coalition (Coalition) submitted its first Draft Comprehensive Groundwater Quality Management Plan (GQMP), which was required within 60 days of approval of the Groundwater Assessment Report. The GQMP is designed to cover all groundwater quality exceedances or degradation trends within the Coalition region that trigger the need for a management plan.

Order R5-2012-0016-R3 requires that the GQMP (A) investigate potential irrigated agricultural sources of waste discharge to groundwater, (B) review physical setting information for the plan area such as geologic factors and existing water quality data, (C) considering elements A and B, develop a strategy with schedules and milestones to implement practices to ensure discharge from irrigated lands are meeting Groundwater Receiving Water Limitation III.B, (D) develop a monitoring strategy to provide feedback on GQMP progress, (E) develop methods to evaluate data collected under the GQMP, and (F) provide reports to the Central Valley Water Board on progress. The GQMP will need to be updated when additional monitoring results trigger the need for a management plan. The Order also requires an annual Management Plan Progress Report.

Staff review of the GQMP resulted in the need for a revised plan by 29 July 2016. The more significant revisions needed relate to the specific details of how the plan will address the constituents of concern. This includes the expansion of the descriptions of management practices that will be implemented; technical justification for planned dates to complete GQMP milestones and expansion of milestone specifics and expansion of performance goal specifics.

In May 2016, the Coalition submitted the Nitrogen Management Plan Summary Report Analysis for the 2015 Crop Year (2015 Analysis) to the Central Valley Water Board. The 2015 Analysis included a statistical summary of nitrogen applied divided by removed (A/R), or yield (A/Y) when removed was not available, from 716 of 1,264 Coalition members required to report (or 57 percent). The Coalition is pursuing data from growers who did not respond to achieve greater reporting compliance and will provide additional data in an updated draft.

Box and whisker plots were developed for the data based on crop type and Township-Range location. The box and whisker plots provide one method of identifying outlying A/R ratios. Coalition-wide scatterplots were also generated to identify outliers when the number of growers of a crop within a Township-Range is small (e.g., with 2 members, one will always be classified as an outlier). The Coalition plans to include scatterplots in outreach packages. Grower-specific data point(s) will be identified on the plots as a visual marker of how the targeted grower compares to other growers of the same crop within the Coalition.

ISSUES

1. Development of the Nitrogen Management Plan (NMP) summary report template and submittal of the NMP summary data occurred after the Coalition prepared the February 2015 draft GQMP. The GQMP needs to be updated to include management practice information related to the NMP summary report analysis.
2. The Management Practices Evaluation Program (MPEP) will provide crop- and soil-specific information on management practices to be implemented to address groundwater constituents of concern. These practices will be included in the GQMP as information is developed.
3. In the meantime, the Coalition must provide milestones for growers to implement practices to comply with the Order's requirement to minimize excess nutrient application relative to crop need.
4. A significant number of Coalition members are out of compliance with the Order by not submitting their NMP Summary Reports for the 2015 growing season. This in turn affected the statistical analyses of the data. Staff will be aggressively pursuing actions to address compliance with this requirement.

Mgmt. Review SYM
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