

**STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION**

STAFF REPORT FOR REGULAR MEETING OF MAY 11-12, 2017

Prepared on April 14, 2017

ITEM NUMBER: 16

SUBJECT: **Agricultural Order 3.0 – Cooperative Groundwater Monitoring Program Status Update**

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KEY INFORMATION:

Location:	Region-Wide
Type of Discharge:	Irrigated Lands Runoff / Leaching to Groundwater
Existing Orders:	Order No. R3-2017-0002

THIS ACTION: **Informational**

INTRODUCTION

The Central Regional Water Quality Control Board (Central Coast Water Board) approved Agricultural Order R3-2017-0002 (Ag Order 3.0) and associated Monitoring and Reporting Programs (MRPs) on March 8, 2017. Ag Order 3.0 and the associated MRPs require groundwater monitoring and reporting, and Dischargers may choose to comply with groundwater monitoring and reporting individually, or through a cooperative groundwater monitoring program that is approved by the Executive Officer. Additionally, interested parties may seek discretionary review by the Regional Board, of the Executive Officer's approval or denial of a cooperative groundwater monitoring program. This Board item provides an update on the status of cooperative groundwater monitoring programs.

BACKGROUND

In 2012, the Central Coast Water Board included the first groundwater monitoring and reporting requirements for irrigated agriculture in Agricultural Order R3-2012-0011 (Ag Order 2.0). Since then, Dischargers have submitted results for approximately 4000 groundwater wells in the Central Coast Region (combined individual and cooperative). The groundwater monitoring results are uploaded electronically by certified laboratories and the data includes more than 6800 nitrate results and 95,000 results for all parameters, which are all available to the public via the Water Board's online GeoTracker database.

As reported to Board Members in July 2014 and March 2016, the results of the required groundwater monitoring for irrigated agriculture documented severe nitrate impacts to groundwater basins in agricultural areas, especially impacts to sources of drinking water¹. The

¹ At the March 2016 Board Meeting, staff presented a summary of groundwater results for Ag Order 2.0 and the staff report is available at http://waterboards.ca.gov/centralcoast/board_info/agendas/2016/march/item19/index.shtml. At the July 2014 Board Meeting, staff presented a summary of groundwater nitrate data from multiple datasets as part of the Groundwater Assessment and

data confirmed continued public health risk resulting from nitrate loading to groundwater from agricultural discharges. This groundwater impairment also increases costs for drinking water due to the need for interim bottled water and/or drinking water treatment, and increases costs for regulatory oversight by the Water Boards (Division of Drinking Water and Regional Water Boards) and local county environmental health.

OVERVIEW OF GROUNDWATER MONITORING AND REPORTING REQUIREMENTS

Ag Order 3.0 and MRPs continue the groundwater monitoring and reporting requirements included in Ag Order 2.0, and require Dischargers to conduct groundwater monitoring of domestic drinking water wells and the primary irrigation well to achieve the following objectives:

- 1) Characterize groundwater quality in agricultural areas;
- 2) Identify and prioritize areas and individual farms that are at increased risk for waste discharge, pollutant loading, and exceedance of drinking water standards;
- 3) Identify priority areas for nutrient management;
- 4) Inform domestic drinking water well users who may be affected by unsafe drinking water quality;

To comply with Ag Order 3.0 and MRPs, Dischargers may either 1) conduct individual groundwater monitoring and reporting, or 2) join an approved cooperative groundwater monitoring program.

Individual Groundwater Monitoring and Reporting Requirements –

Dischargers who choose to conduct individual groundwater monitoring must sample all domestic use wells and the primary irrigation well that are located within the enrolled ranch county Assessor Parcel Numbers (APNs) twice during 2017. For the purposes of the Ag Order, a domestic use well is defined as any groundwater well that is connected to a residence, workshop, or place of business that may be used for human consumption, cooking, or sanitary purposes. The first sample must be collected during spring (March – June 2017) and the second sample must be collected during fall (September – December 2017). Groundwater analyses must be conducted by a qualified laboratory and samples must be tested for nitrate, major ions, and general field parameters. The monitoring results must be reported electronically to the Water Board's GeoTracker database. If the results indicate that water in any well that is used or may be used for drinking water exceeds the maximum contaminant level for nitrate (MCL, 10 mg/L of nitrate as nitrogen), Dischargers must notify the users in writing within 10 days of learning of the exceedance and provide written confirmation to the Central Coast Water Board. The drinking water notification must state that the water poses a human health risk due to elevated nitrate concentration, and that the water should not be used for drinking or cooking. In addition, if there is a change in occupancy, Dischargers must immediately notify any new well users in writing (e.g. tenants and employees with access to the affected well).

Cooperative Groundwater Monitoring and Reporting Requirements –

In lieu of conducting individual groundwater monitoring, Dischargers may participate in an approved cooperative groundwater monitoring program. In April 2017, the Executive Officer approved two cooperative groundwater monitoring programs: the Central Coast Groundwater Coalition (CCGC, Attachment 1) and the Santa Rosa Creek Valley Groundwater Cooperative (Attachment 2). Both cooperatives also implemented an approved cooperative groundwater monitoring program previously for Ag Order 2.0. For Ag Order 3.0, both cooperative groundwater monitoring programs have similar requirements to the individual groundwater

monitoring and reporting requirements. In the case where an approved cooperative groundwater monitoring program fails to implement any part of the workplan as required, Dischargers become individually responsible for implementing the MRP and may be subject to enforcement.

A complete copy of Ag Order 3.0 and the associated MRPs, including the groundwater monitoring and reporting requirements is available online at:

http://www.waterboards.ca.gov/centralcoast/water_issues/programs/ag_waivers/index.shtml

In addition, a guidance document summarizing the groundwater monitoring and reporting requirements, including list of qualified labs is available at:

http://waterboards.ca.gov/centralcoast/water_issues/programs/ag_waivers/docs/gw_mon_guide_labs_2017.pdf

CENTRAL COAST GROUNDWATER COALITION (CCGC)

The CCGC cooperative monitoring program is available to Dischargers in Monterey, Santa Clara, Santa Cruz, San Benito, San Luis Obispo, Santa Barbara, and Ventura counties. Currently, CCGC includes approximately 550 members with 206,000 acres enrolled in Ag Order 3.0. The Executive Officer approved the CCGC workplan on April 7, 2017 and the approved workplan is included in Attachment 1.

To comply with Ag Order 3.0, CCGC members must sample all domestic wells and the primary irrigation well twice during Ag Order 3.0 – once during the spring and once during the fall. The first sample must be collected in 2017 and the second sample must be collected by December 2019. All samples must be analyzed for nitrate; samples must also be analyzed for general minerals (if the well was not analyzed for general minerals previously). Laboratory analyses must be conducted by a qualified laboratory and test results must be submitted and associated with the individual ranch in the Water Board's GeoTracker database.

CCGC will review all monitoring results and inform CCGC members of any exceedances of the nitrate MCL within two business days. CCGC will alert members of the domestic supply well exceedances and of their associated responsibilities for notification resulting from these nitrate exceedances. CCGC members must provide written notification to the users within 10 days of learning of the exceedance and provide written confirmation of the notification to CCGC. CCGC will provide a quarterly exceedance report to the Water Board, with copies of member notifications and follow up information regarding user notification and replacement water actions.

SANTA ROSA CREEK VALLEY GROUNDWATER MONITORING COOPERATIVE

The Santa Rosa Creek Valley Cooperative monitoring program is available to Dischargers in a relatively small area covering approximately six miles of the western portion of Santa Rosa Creek Valley (Cambria, CA). Currently, the Santa Rosa Creek Valley Groundwater Monitoring Cooperative includes eleven members. The Executive Officer approved the Santa Rosa Creek Valley Cooperative workplan on April 5, 2017 and the approved workplan is included in Attachment 2.

To comply with Ag Order 3.0, the Santa Rosa Creek Valley Cooperative must sample three groundwater wells which are representative of the hydrogeologic conditions of the groundwater basin. Identical to the individual groundwater monitoring and reporting requirements described above, the three groundwater wells must be sampled twice in 2017 - once during the spring and once during the fall. Groundwater analyses must be conducted by a qualified laboratory and

samples must be tested for nitrate, major ions, and general field parameters. The monitoring results must be reported electronically to the Water Board's GeoTracker database.

Existing data documents that groundwater quality in the Santa Rosa Creek Valley is of relatively high quality with no known exceedances of the drinking water standard for nitrate. However, if the results of the required 2017 groundwater monitoring indicate that water in any well that is used or may be used for drinking water exceeds the maximum contaminant level for nitrate (MCL, 10 mg/L of nitrate as nitrogen), Dischargers must notify the users in writing within 10 days of learning of the exceedance and provide written confirmation to the Central Coast Water Board, as described above.

PUBLIC AVAILABILITY OF DATA

Ag Order 3.0 and the associated MRPs prioritize safe drinking water and the protection of public health. Consistent with the Central Coast Water Board's Human Right to Water Resolution (Resolution No. R3-2017-0004), staff is committed to minimizing impediments to data accessibility, and working with stakeholders to maximize the accessibility of data and information regarding drinking water quality to support the development of solutions and inform all stakeholders, including communities that lack adequate, affordable, or safe drinking water.

Thus, Ag Order 3.0 and the associated MRPs make clear that all data and reports required are available to the public, including but not limited to groundwater data and any drinking water notification and confirmation letters submitted by individual Dischargers or an approved cooperative groundwater monitoring program. Additionally, staff is continuing efforts to provide broad online accessibility to groundwater data using the Water Board's GeoTracker database and other resources.

OPPORTUNITY FOR DISCRETIONARY REVIEW

Ag Order 3.0 identifies specific items for which interested parties may seek discretionary review by the Regional Board, including the approval or denial of a cooperative groundwater monitoring program. Interested parties seeking discretionary review must submit a written request within 30 days.

The Executive Officer approved the Santa Rosa Creek Valley and CCGC cooperative groundwater monitoring programs on April 5, 2017 and April 7, 2017, respectively. On April 11, 2017, the Central Coast Water Board issued a public notice of the Executive Officer's approvals and the opportunity for interested parties to seek discretionary review by the Regional Board. Interested parties seeking discretionary review of the Executive Officer's approvals of the cooperative groundwater monitoring programs must submit a written request to the Central Coast Water Board by May 11, 2017.

CONCLUSION

Ag Order 3.0 and the associated MRPs continue the groundwater monitoring and reporting requirements included in Ag Order 2.0, requiring Dischargers to conduct groundwater monitoring of domestic drinking water wells and primary irrigation wells. The groundwater monitoring results are critical for characterizing and documenting changes to groundwater quality in agricultural areas, identifying and prioritizing areas and individual farms that are at increased risk for waste discharge, pollutant loading, and exceedance of drinking water standards, and to ensure that domestic drinking water well users who may be affected by unsafe drinking water quality are properly informed.

To comply with Ag Order 3.0, Dischargers are already submitting groundwater data for both the individual and cooperative groundwater monitoring requirements for 2017. Staff anticipates the successful implementation of both the CCGC and Santa Rosa Creek Valley Groundwater Cooperative programs, and recognizes that these programs provide a number of short and long-term benefits that can bring participants together to maximize local efforts toward understanding and improving water quality. Water Board staff will update the Board as new data from both the individual and cooperative groundwater monitoring programs is available and has been evaluated.

ATTACHMENTS

- 1a.** Executive Officer approval of Central Coast Groundwater Coalition Ag Order 3.0 Workplan
- 1b.** Central Coast Groundwater Coalition Ag Order 3.0 Workplan
- 2a.** Executive Officer Approval Santa Rosa Creek Valley Groundwater Monitoring Cooperative Plan
- 2b.** Santa Rosa Creek Valley Groundwater Monitoring Cooperative Plan