STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION

SUPPLEMENTAL SHEET FOR REGULAR MEETING OF MARCH 14-15, 2013
Prepared March 14, 2013

ITEM NUMBER: **20**

SUBJECT: **Agricultural Regulatory Program Update - Cooperative Groundwater Monitoring**

The Water Board received a letter on March 13, 2013 from a group of environmental justice stakeholders related to this item. The letter is included as Attachment 1 to this supplemental sheet.

This supplemental sheet also includes additional edits proposed by the Executive Officer to Monitoring and Reporting Program (MRP) No. R3-2012-0011-01, -02, -03 related to cooperative groundwater monitoring programs. As discussed in the staff report for this item, the Executive Officer plans to add some language to the MRP regarding cooperative groundwater monitoring program requirements. Staff has proposed additional revisions that were not included in the draft language changes distributed in Attachment 3 to the original staff report for this item. The additional revisions are shown in underline-strikeout on Attachment 2 to this supplemental sheet.

Additionally, this supplement sheet includes comments and responses to issues raised on recent farm tours. As discussed at the February 1, 2013 Board Meeting, the Executive Officer and a few individual Board Members, in coordination with the California Department of Food and Agriculture (CDFA), toured farming operations in the Castroville, Salinas, and Santa Maria areas in December 2012 and January 2013. The purpose of the tours was to provide the opportunity for CDFA and Water Board representatives to become more familiar with day to day farming operations and interact with growers. During the tours, growers provided specific comments related to the Agricultural Order, including groundwater monitoring. The comments regarding groundwater monitoring are summarized below. As suggested by the Board, staff plans to compile the questions and responses from the farm tours into a Frequently Asked Questions document posted on the Water Board's website.

Farm Tour Comments Related to Groundwater and Groundwater Monitoring

1. ***Comment:*** What is the definition of groundwater? Does it include water in the vadose zone?

   Response: The California Department of Water Resources defines groundwater as water that occurs beneath the land surface and fills the pore spaces of the alluvium, soil, or rock formation in which it is situated. It is in the zone of saturation. Groundwater excludes soil moisture or water in the vadose zone, which refers to water held by capillary action in the upper unsaturated zones of soil or rock, between the land surface and the water table. Groundwater can be found as shallow as less than one foot, to as deep as hundreds of feet below the surface of the ground, depending on local conditions.

2. ***Comment:*** What is the Water Board going to do with data from wells?

   Response: The purpose of the groundwater monitoring requirements in the Agricultural Order is to 1) evaluate groundwater conditions in agricultural areas, 2) protect drinking water by identifying areas at greatest risk for exceedance of drinking water standards, and 3) prioritize areas for nutrient management by identifying areas at greatest risk for nitrogen loading. The hydrogeology and water quality of an area is dependent on the site-specific conditions. This first iteration of groundwater monitoring requirements in the Agricultural Order is to conduct an initial screening of groundwater quality and prioritize areas for follow-up.

   Water Board staff will review and evaluate the data from wells to do the identification and prioritization described above. Based on the results of the evaluations, the Water Board may require growers to do one or more of the following:
   - submit additional information about groundwater conditions or implementation of management practices to reduce nitrate loading to groundwater;
   - notify drinking water users of the water quality conditions to protect public health;
   - notify the owners of wells with levels of nitrate that approach or exceed drinking water standards that they must provide safe drinking water; and
   - prepare and disseminate status reports that explain the water quality conditions.

The data will be maintained in the State Water Resources Control Board's GeoTracker database.

3. ***Comment:*** Individual well monitoring requirements may not reflect complex hydrogeology.

   Response: It is true that the data gathered from individual well monitoring requirements may not reflect the complex hydrogeology of a specific area. Data from individual well monitoring requirements is not intended to provide a detailed representation of water quality and hydrogeology. The data is intended to provide screening level information. See #2 above.

4. ***Comment:*** Will individual wells have to be monitored if there is a cooperative groundwater monitoring program?

   Response: Yes, it is very likely that individual wells will be monitored as part of a cooperative program. However, the total number of wells monitored in a cooperative program may be fewer than if all growers monitored their own wells. For example, for a group of wells that are close together and screened in the same interval, it may not be necessary to sample all the wells in order to adequately characterize the groundwater in that aquifer in that specific area. There are many scenarios that will have to be considered. The number of wells sampled, well locations, well construction details (especially screening level), underlying hydrogeology, and threat to human health, must be considered in determining which wells to monitor to adequately assess groundwater quality.

5. ***Comment:*** Why does the Water Board need well construction information and groundwater gradient?

   Response: The Water Board uses well construction and water level information to determine the depth or aquifer zone the well water is coming from and the site-specific

hydrogeologic conditions. Growers only need to report this information to the Water Board, if it is available. By law, well construction information is considered confidential and is not disclosed to the public.

The Water Board does not require growers complying with individual groundwater monitoring requirements to submit information on groundwater gradient. Groundwater gradient provides information on the direction and rate of groundwater flow. This information may be used to provide technical justification for the design of a cooperative groundwater monitoring program design (e.g. monitoring locations).

6. **Comment:** For the Salinas Valley area, you need to characterize the six county wide groundwater basin to really understand what is going on with nitrate. The Water Board should use the cooperative groundwater monitoring program.

   Response: The purpose of the groundwater monitoring requirements is not intended to provide a detailed understanding of nitrate in groundwater. Such a characterization is potentially very complex and costly, as the hydrogeology and water quality of an area is dependent on the site-specific conditions. This first iteration of groundwater monitoring requirements in the Agricultural Order is to conduct an initial screening of groundwater quality and prioritize areas for follow-up (see comment #2 and #3 above). Cooperative groundwater monitoring programs may provide a more detailed understanding of nitrate in groundwater, depending on what is proposed and approved by the Executive Officer.

Attachments:

1. March 13, 2013 Letter from Clean Water Action California, Community Water Center, California Rural Legal Assistance Inc., Environmental Justice Coalition for Water, and San Jerardo Cooperative Inc.

2. Proposed Draft Revisions to the Monitoring and Reporting Program No. R3-2012-0011-01, -02, -03.