June 1, 2011

For the Water Resources Advisory Committee of San Luis Obispo County

On May 4, 2011 the Central Coast Farmer's for Water Quality presented to the Central Coast Regional Water Quality Control Board a proposal for groundwater monitoring as an option for growers. Their approach to groundwater monitoring is to have it be a cooperative monitoring program, similar to the cooperative monitoring program for surface water which is already in place.

Regional Water Quality Board directed staff to evaluate and compare this proposal, along with a Coalition proposal, and present their review at their September 1, 2011 Board meeting.

I am sharing this with you as we discuss Agenda Item #8

Jackie Crabb

Part 2. Groundwater Assessment, Monitoring and Reporting Requirements

Assessment, monitoring and reporting requirements for groundwater identified in Part 2.A. and Part 2.B. apply to Tier 1, Tier 2 and Tier 3 Dischargers, as well as Dischargers that have elected to participate in a third party group. Groundwater assessment, monitoring and reporting requirements may be conducted through a cooperative monitoring program¹. For Dischargers that choose to meet this requirement through a cooperative monitoring program, the requirements are identified in Part 2.A. below.

A. Groundwater Assessment, Monitoring and Reporting Through a Cooperative Monitoring Program

- 1. Dischargers must elect to participate in a cooperative monitoring program to comply with groundwater assessment, monitoring and reporting requirements. The selection of this option must be identified on the Notice of Intent, or, if not required to submit a Notice of Intent, the Discharger must convey its selection to the Central Coast Water Board within 90-days of adoption of the Order. To convey its selection, the Discharger may submit an updated electronic Notice of Intent, or send a letter to the Executive Officer of the Central Coast Water Board. If sending a letter, the letter must clearly identify the Discharger and its operation in a manner that is consistent with information already on file with the Central Coast Water Board.
- 2. The Central Coast Water Board intends that cooperative monitoring programs be coordinated with the Department of Pesticide Regulation's (DPR) groundwater monitoring, local groundwater management plans, and other existing programs. The primary goal of this coordination is to prevent duplicative monitoring programs. For example, existing water quality data (e.g., DPR groundwater data, GAMA data, IRWMP data) should be used where available, and the monitoring parameters would be tailored to the farm inputs and water quality issues in the groundwater basin. Further, the Central Coast Water Board does not intend to require monitoring or data from every aquifer or groundwater basin in the Central Coast as part of a cooperative monitoring program requirement for groundwater. Therefore, "representative" monitoring and other information will be considered.
- 3. The primary objectives of the groundwater assessment, monitoring and reporting requirements contained in this Order are to assess the status of groundwater quality and associated beneficial uses in agricultural groundwater basins, and to provide feedback to growers in areas of concern.

¹ The selection of the cooperative monitoring program option may be fulfilled by participating in the cooperative monitoring program established for the surface receiving water monitoring program if that program so chooses to expand itself to include groundwater, or may be fulfilled by agreeing to participate in a groundwater assessment, reporting and monitoring program developed by an eligible third party. The term cooperative monitoring program as used throughout Part 2 is intended to mean either option.

Areas of concern are those areas identified as not currently meeting relevant water quality objectives (i.e., water quality objectives associated with inputs from agriculture such as nitrate) that are applicable to the associated beneficial uses.

- 4. **Within one (1) year**, a cooperative monitoring program must submit a workplan for groundwater assessment, monitoring and reporting to the Central Coast Water Board that identifies the following:²
 - a. The location of existing public wells located in agricultural groundwater basins that the cooperative monitoring program has identified as being an appropriate well for conducting the groundwater assessment;
 - b. The identification of areas where there is a lack of publicly available groundwater data from existing public wells;
 - The identification of additional monitoring sites in agricultural groundwater basins that the cooperative monitoring program has identified as being appropriate;³
 - d. A monitoring plan and associated Quality Assurance Project Plan (QAPP) to collect groundwater samples from the additional monitoring sites identified that includes the collection of groundwater samples twice per year for years 2 through 5 of the Order (i.e., four years of samples must be collected);
 - e. The identification of groundwater parameters to be sampled that are consistent with those identified in Table 3;
 - f. The identification of the analytical laboratory that will conduct sample analysis, as applicable; and,
 - g. A proposed timeline for data collection, assessment and submittal of a Final Report to the Central Coast Water Board. The Final Report must be submitted no later than five years from adoption of the Order.
- 5. Groundwater samples collected to fulfill additional data collection needs must be collected by a qualified, trained individual using proper sampling methods, chain-of-custody, and quality assurance/quality control protocols. Groundwater samples must be collected at or near the well head before the pressure tank and prior to any well head treatment. In cases where this is not possible, the water sample must be collected from a sampling point as close

² In developing the workplan, the cooperative monitoring program shall identify appropriate monitoring locations that are distributed throughout the agricultural areas, and are representative of locations and depths of groundwater basins of interest. The exact location and number shall be determined as part of the workplan considering the need to meet the monitoring objectives as well as balancing the economic cost of the groundwater assessment program.

³ The additional monitoring sites may consist of existing agricultural and/or residential wells. Before identifying agricultural and/or private residential wells as an appropriate monitoring site, the cooperative monitoring program shall first determine if a well with publicly available information is nearby and appropriate for use as part of the groundwater assessment.

- to the pressure tank as possible, or from a cold-water spigot located before any filters or water treatment systems.
- 6. Laboratory analyses for groundwater samples must be conducted by a State certified laboratory according to U.S. EPA approved methods; unless otherwise noted, all sampling, sample preservation, and analyses must be performed in accordance with the latest edition of *Test Methods for Evaluating Solid Waste*, SW-846, United States Environmental Protection Agency, and analyzed as specified herein by the above analytical methods and reporting limits indicated. Certified laboratories can be found at the web link below: http://www.cdph.ca.gov/certlic/labs/Documents/ELAPLablist.xls
- 7. Within five (5) years of adoption of the Order, a cooperative monitoring program must submit a final report to the Central Coast Water Board that includes a reasonable characterization/assessment of the groundwater for the area covered by the cooperative monitoring program in question. The final report shall include copies of all laboratory data collected by the cooperative monitoring program. Laboratory data submitted with the final report must be compatible with the Water Board's Groundwater Ambient Monitoring and Assessment (GAMA) Program, and GeoTracker electronic deliverable format (EDF). However, the final report shall not provide the specific property location of a data well sampled, but shall generally identify location of wells sampled by indicating its location within the section, township, and range of the wells location.

Table 3. Groundwater Sampling Parameters

Parameter	RL	Analytical Method	Units
Well Log, or other relevant information (if available)			
рН	0.1	Field or Laboratory Measurement EPA General Methods	pH Units
Specific Conductance	2.5		μS/cm mg/L
Total Dissolved Solids	10		
Alkalinity as CaCO3	1		
Calcium	0.05	General Cations ² EPA 200.7, 200.8, 200.9	
Magnesium	0.02		
Sodium	0.1		
Potassium	0.1		
Sulfate (SO4)	1.0	General Anions EPA Method 300	
Chloride	0.1		
Nitrate + Nitrite (as N) ³	0.1		