

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

SUPPLEMENTAL SHEET FOR REGULAR MEETING OF January 30, 2014

Prepared January 21, 2014

ITEM NUMBER: 13

SUBJECT: Irrigated Lands Regulatory Program Update

**STAFF CONTACT: Angela Schroeter 805/542-4644 or
Angela.Schroeter@waterboards.ca.gov**

SUMMARY

This Supplemental Sheet is to provide additional information regarding the status of the Irrigated Lands Regulatory Program, including status of enrollment terminations, Annual Compliance Form - Nitrate Loading Risk Determination, and revisions to Agricultural Order R3-2012-0011 and associated Monitoring and Reporting Programs, and map of farms/ranches in each Tier.

Enrollment and Tiers

The staff report stated that Attachments 1 and 2 will be provided in a supplemental.

Attachment 1 was planned to provide documentation that the Executive Officer terminated the enrollment of 69 individual farming operations that have failed to submit an electronic-Notice of Intent (eNOI), effective January 16, 2014. As this is an administrative action by the Executive Officer, there is no specific documentation besides the list of operations which were provided at the December 2013 Board Meeting (Item 17). Consequently, there is no Attachment 2 for this staff report.

Attachment 2- Map of Farms/Ranches in Each Tier, is Figure 1 and shows a regional map identifying the locations of farms/ranches in Tier 1, Tier 2, and Tier 3.

Annual Compliance Form – Section C. Nitrate Loading Risk Determination

Per discussions with State Water Resources Control Board staff regarding the intent of Order WQ 2013-0101 (State Order), staff modified the Annual Compliance Form Section C. Nitrate Loading Risk Determination to only require reporting of one nitrate loading risk determination method. Growers can choose the method(s) of determining nitrate loading risk. The result(s) of the nitrate loading risk determination method(s) reported by the grower will be used to determine if they are subject to additional required reporting. In other words, if the result is "HIGH" for the method that the grower chooses to report, then the grower must provide additional required information (e.g. total nitrogen applied for Tier 2 and Tier 3, Irrigation and Nutrient Management Plan effectiveness report for Tier 3).

This modification was clearly marked on the Annual Compliance Form and associated instructions. In addition, all growers who had already submitted this information were notified of the modification to give them the opportunity to revise their submittal. The requirement to only submit the results of one nitrate load risk determination method makes it easier for growers to comply, especially in cases where they have insufficient information to complete a particular method. The Annual Compliance Form Section C information was due by January 15, 2014 for Tier 2 and Tier 3 Farms.

On January 6, staff reported that approximately 272 Tier 2/Tier 3 farms/ranches had complied with the requirement to report the nitrate loading risk determination (15% compliance). As of January 16, more than one thousand Tier 2/Tier 3 farms/ranches have reported the nitrate loading risk determination (~60% compliance). While growers continue to come into compliance, this reflects a significant effort by growers in response to a new reporting requirement.

Status of Agricultural Order R3-2012-0011 and Associated Monitoring and Reporting Programs

On January 16, 2014, the Executive Officer certified a copy of Agricultural Order R3-2012-0011 as adopted by the Central Coast Water Board on March 15, 2012 and as modified by the State Order WQ 2013-0101 on September 24, 2013. At this time, staff is revising the associated Monitoring and Reporting Programs (MRP) to also reflect modifications required by the State Order.

In addition, the Executive Officer has approved additional revisions to the Tier 2 and Tier 3 MRPs to clarify implementation of the Nitrate Loading Risk Determination results reporting. After Order adoption, agricultural industry consultants alerted staff that the MRPs description of the results of the Nitrate Groundwater Pollution Hazard Index (NHI) results was inconsistent with the actual NHI tool provided by the University of California, Agriculture and Natural Resources (UCANR), California Institute of Water. Specifically, the NHI tool indicated that a result of **greater than** 20 is a high risk, and the MRP indicated that an NHI result of **equal or greater than** 20 is a high risk.

As a result, staff evaluated the impact of changing the MRP for consistency with the NHI tool on the implementation of the Agricultural Order. Staff determined that for conditions in the Central Coast Region, in many cases, an NHI result equal to 20 also presents a relatively high risk for nitrate loading to groundwater. As a result, staff proposed MRP changes to the Executive Officer to clarify that the Central Coast Water Board will consider an NHI result **equal to or greater than** 20 as a high nitrate loading risk, although the NHI tool considers only **greater than** 20 a high nitrate loading risk.

The Executive Officer is implementing this determination for high nitrate loading risk for the following reasons:

- For the Central Coast Region, farms/ranches that have an NHI result equal to 20 often have factors known to be associated with higher nitrate loading risk (e.g. crop types with high nitrogen demand and shallow rooting depths, sandy soil types).
- Farms/ranches that have an NHI result equal to 20 are often associated with geographic areas where there is known nitrate impacts to groundwater.
- Staff evaluated data submitted in response to the nitrate loading risk determination and found that approximately 44 of the 1088 submittals had an NHI result of equal to 20. In nearly all cases, these farms/ranches have factors associated with higher nitrate loading risk and are located in areas where there are known nitrate impacts to groundwater.

These specific farms produce higher risk crop types, are located in areas where there are extremely sandy soils or soils have been deep ripped, and often have irrigation water nitrate concentrations above 100 mg/l as of NO₃.

- Individuals who object to the NHI result determination, may choose the alternative method to determine nitrate loading risk.

Thus, staff recommended to the Executive Officer to clarify in the MRP that these farms/ranches with an NHI result equal to 20 are determined to be high risk for nitrate loading to groundwater. As always, staff will work with growers regarding questions about how the NHI result addresses specific situations.

The Executive Officer revised Tier 2 MRP No. R3-2012-0011-02 and Tier 3 MRP No. R3-2012-0011-03, Section C.4 of Part 2. Nitrate Loading Risk Factor Determination and Total Nitrogen Reporting as follows:

4. Tier 3 Dischargers who choose to evaluate nitrate loading risk using the Nitrate Groundwater Pollution Hazard Index must characterize the soil type for the individual farm(s), including any variability in soil type, and utilize the index tool at the Internet link below. Soil types may vary across individual fields, and this variability must be accounted for when using the Nitrate Groundwater Pollution Hazard Index. If the soil type is unknown or if the soil type is not included in the UCANR Nitrate Groundwater Pollution Hazard Index tool, Dischargers must use the Table 4 criteria and methodology described above. Dischargers must provide documentation of input to the index for crop type, soil type, irrigation type, and deep rip. The Central Coast Water Board has determined that a Nitrate Groundwater Pollution Hazard Index number equal to or greater than 20 indicates a High Nitrate Loading Risk due to conditions in the Central Coast Region, even though a resulting Nitrate Groundwater Pollution Hazard Index number greater than or equal to 20 indicates a High Nitrate Loading Risk, using the UCANR Nitrate Groundwater Pollution Hazard Index tool.

The Executive Officer also made consistent revisions to Tier 2 MRP No. R3-2012-0011-02, and to Tier 3 MRP No. R3-2012-0011-03, Table 4. Nitrate Loading Risk Factor Criteria and Risk Level Calculation as follows:

5. *Note: Dischargers must determine the nitrate loading risk factor for each ranch/farm, based on the criteria associated with the highest risk activity existing at each ranch/farm. For example, the ranch/farm is assigned the highest risk factor, based on the single highest risk crop in the rotation, on one block under furrow irrigation, or on one well with high nitrate concentration. As an alternative to the nitrate loading risk level calculation described in Table 4, Dischargers may use the Groundwater Pollution Nitrate Hazard Index developed by UCANR, where a resulting Nitrate Hazard Index score equal or greater than or equal to 20 indicates a HIGH nitrate loading risk to groundwater. However, the Central Coast Water Board has determined that a Nitrate Groundwater Pollution Hazard Index number equal to or greater than 20 indicates a high Nitrate Loading Risk due to conditions in the Central Coast Region, even though a resulting Nitrate Groundwater Pollution Hazard Index number greater than 20 indicates a High Nitrate Loading Risk using the UCANR Nitrate Groundwater Pollution Hazard Index tool.*

Attachment 1

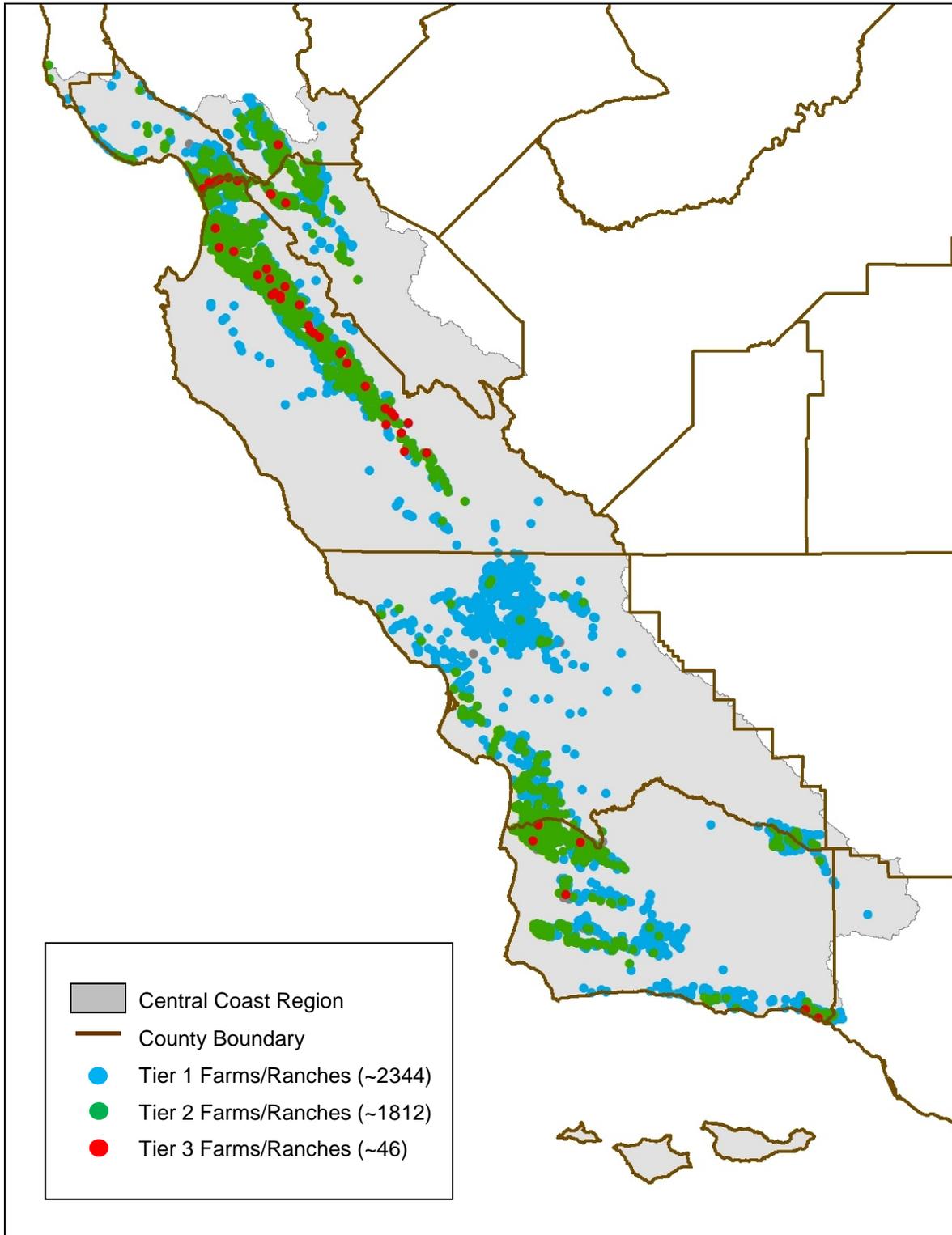


Figure 1. Map of farms/ranches enrolled in Agricultural Order R3-2012-0011 identified by Tier, as of January 6, 2014. Data source: GeoTracker