

ATTACHMENT 7



PAJARO VALLEY WATER MANAGEMENT AGENCY

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October 27, 2008

Mr. Roger Briggs, Executive Officer
Central Coast Regional Water Quality Control Board
895 Aerovista Place – Suite 101
San Luis Obispo, CA 93401

Dear Mr. Briggs:

NITRATE MANAGEMENT PLAN, MASTER RECLAMATION PERMIT NO. R3-2008-0039, PAJARO VALLEY WATER MANAGEMENT AGENCY (PVWMA)

On Wednesday, October 22, 2008, Pajaro Valley Water Management Agency (PVWMA) staff met with Mr. Mike Higgins of the Regional Water Quality Control Board (RWQCB) to discuss the Nitrate Management Plan being developed pursuant to the Draft Master Reclamation Permit. The Master Reclamation Permit (Permit) is being issued to PVWMA and our partner, the City of Watsonville, to establish the water recycling treatment and distribution requirements for the Watsonville Recycled Water Treatment Facility and the PVWMA Coastal Distribution System. The primary objective of the meeting was to better define the Nitrate Management Plan requirements as described in the draft permit.

The draft permit includes the following requirements regarding the preparation of the Nitrate Management Plan:

1. The Nitrate Plan's goal shall be to ensure the recycled water applied to farmlands does not further degrade the quality of underlying groundwaters.
2. The Nitrate Plan shall be prepared by professionals with expertise in nitrate management.
3. The Nitrate Plan shall account for nitrate discharges to application areas in both recycled water and fertilizers, and shall limit the amount of applied nitrogen to ensure it does not exceed that required by the crops for their optimum growth.

This letter summarizes our meeting and describes how PVWMA will use Nutrient and Irrigation Management Resources to meet these permit requirements. Our plan to protect the groundwater in the basin and meet the permit requirements will be comprised of several programs, including an education / conservation program, a water and soil sampling program, and a field verification program.

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It is important to note that during the meeting, we discussed the delicate balance that must be maintained between the Growers, who will be using recycled water; the Central Coast Regional Water Quality Control Board, who is authoring and will be issuing the Master Reclamation Permit; and the PVWMA, who will be delivering the recycled water via the Coastal Distribution System. We believe this balance can be maintained while respecting the goals and objectives of each group. We appreciate the attitude your staff has exhibited in sharing this overall objective and participating as a partner with us in the implementation of this critical water recycling project.

1. The Nitrate Plan's goal shall be to ensure the recycled water applied to farmlands does not further degrade the quality of underlying groundwaters.

The PVWMA shares this ultimate goal of ensuring recycled water applied to farmlands does not further degrade the groundwater. Groundwater supplies over 95% of the Pajaro Valley water use. The PVWMA is responsible for managing and protecting this groundwater basin and any PVWMA water supply project must be operated in a manner that is protective of this groundwater resource. We believe the plan will establish a program that will help us achieve this goal. The plan and programs are described in greater detail in the following sections.

2. The Nitrate Plan shall be prepared by professionals with expertise in nitrate management.

The PVWMA intends to contract with a professional with expertise in nitrate management. Unfortunately, PVWMA has faced critical financial conditions that have led to a reduction of agency staff; therefore, the preparation of the plan will have to be completed by a consultant. The current budget includes funds earmarked for the preparation of the plan and PVWMA has initiated the process of identifying a consultant to prepare the plan.

3. The Nitrate Plan shall account for nitrate discharges to application areas in both recycled water and fertilizers, and shall limit the amount of applied nitrogen to ensure it does not exceed that required by the crops for their optimum growth.

Although the plan is not due until March 1, 2009, and the plan will be prepared by a consultant, PVWMA staff has given the nitrate management program significant thought and have begun developing the programs that will be implemented as part of the plan. The following programs will be included and further developed in the plan.

Education Program

Using pamphlets created by the Agency, educate on-site irrigators during regular training sessions. Promote the use of the California Irrigation Management Information System (CIMIS) program in determining evapotranspiration, and speak to the benefits of irrigating at the agronomic rate. If grant funding becomes available through the Central Coast Irrigation and Nutrient Management Program, or otherwise, then mobile labs and site specific studies will be completed on ranches that volunteer.

4. Soil Sampling

Current Program

Established three years ago, PVWMA's current soil monitoring program samples are collected from three depths within a single vertical profile on three separate ranches, semi-annually. The three monitored locations are classified as similar soil types: two locations are within the zone mapped as the seawater intrusion front (one site that receives delivered water and another that does not) and the third site is the control (located in an area that will not receive delivered water and is not located in the area intruded by seawater). The soil is analyzed for agronomic suitability constituents, including nitrates and total available nitrogen.

Potential Program (to be addressed in the Nitrate Management Plan after being reviewed by an agronomic specialist)

The program could be modified to collect a larger population of samples from the same field. Questions about this type of program would include:

- Number of Samples
 - o How many samples per ranch?
 - o How many ranches within the distribution system would need to be sampled?
 - o How many samples to collect to achieve statistically valid results?
- What depths to sample?
- Can results from samples collected be compared where
 - o Soil types vary
 - o Crop types vary (what about rotating crops)
- Cost
 - o How much could the Agency cover without grant funding?
 - o Could grant money pay for this, or a portion thereof?
 - o How could this work be tied in with the Central Coast Irrigation and Nutrient Management Program (CCINMP)?
 - o What about other grants – Prop 50

Verification of Nutrient(Nitrate) Management of on field practice and Accountability

- Work with growers to educate them on applying nutrients at the optimum rate
- Develop a program similar to what is already established in the Water Users Handbook that will provide a protocol for escalating disciplinary actions that could be taken to ensure growers apply nutrients at the optimum rate. If nitrate levels in the soils dramatically increase year after year, these steps would be implemented at the discretion of the General Manager to ensure the protection of the underlying groundwater.

These programs, along with others identified and evaluated by the nitrate management expert, will be considered in the Nitrate Management Plan. We look forward to continuing our work with your staff and other nutrient management experts to develop a program that meets our shared goal while respecting the needs of all our partners.

We'd like to thank the Regional Board staff for the effort they have put into preparing this permit and for working with our staff to develop a recycled water program that helps meet the critical water demands of the region while protecting our valuable groundwater resources.

Sincerely,

Mary Bannister
General Manager

cc:

Bob Geyer, City of Watsonville
John Ricker, Santa Cruz County