

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

STAFF REPORT FOR REGULAR MEETING OF FEBRUARY 9, 2007

Prepared on January 9, 2007

ITEM NUMBER: 18

SUBJECT: **Guadalupe Settlement Fund: Request for Additional Funding for UCCE Farm Water Quality Short Courses and Funding for Water Quality and Food Safety Conference**

SUMMARY

Staff proposes allocating \$48,222 of Guadalupe Settlement Funds to:

- 1) provide six additional Farm Water Quality Planning Short Courses through the University of California Cooperative Extension (UCCE) (\$29,860); and
- 2) provide match funding for a proposed conference to promote coordinated management of water quality and food safety in vegetable crops (\$18,362).

Funds allocated to UCCE for Farm Water Quality Planning short courses would provide an additional six courses in San Luis Obispo and Santa Barbara Counties over a one-year period, and provide water quality education for approximately 150 to 200 additional growers in the watersheds in proximity to the Guadalupe Oil Field.

Funds allocated to UCCE for the food safety conference would provide match for \$20,000 already committed by California Department of Food and Agriculture. The funds will be used to bring together researchers, technical assistance providers, growers and regulators to share information, develop ideas to promote better coordination of practices to protect both water quality and human health, and identify areas of needed additional research.

DISCUSSION

Farm Water Quality Education

The Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands (Conditional Waiver) requires all irrigated operations to complete 15 hours of water quality education and develop farm water quality plans. One of the most effective ways for farmers to complete these requirements is by attending University of California Cooperative Extension's (UCCE) Farm Water Quality Planning short course. These classes have been offered throughout the Central Coast for the past four years under a Federal Clean Water Act Section 319(h) grant, and under grants from the Coastal Conservancy, the PG&E settlement fund, and the Guadalupe settlement fund. Altogether, 1950 growers in the Central Coast Region have received education through these grants.

UCCE has just completed 14 short courses as specified under their current Guadalupe settlement fund contract, which was approved by this Board in September 2004. All courses have been at or near capacity, with an average of 44 participants per course. The final two courses of the contract, held in Los Alamos and Oceano, were filled to capacity and 30 growers were turned away. Since that time, an additional 40 growers in San Luis Obispo and Santa Barbara Counties have requested classes. UCCE also estimates that 200 growers need make-up sessions to complete their 15 hours. The Conditional Waiver allows growers three years to complete their required 15 hours of education and their farm plan. While the number of Tier 1 growers

(those who have met the education and farm plan requirement) continues to increase, our records show that we still have approximately 300 growers in San Luis Obispo and Santa Barbara counties who have not completed their 15 hours.

UCCE has always designed the courses to be flexible and responsive to grower needs. UCCE has analyzed the growers who have requested education, and determined that most of them have small farms of less than 40 acres. This is consistent with our data showing that most of the remaining growers who have not enrolled or are just enrolling represent very small operations.

The operations are spread throughout the two counties and include orchards, vineyards, cool-season vegetables, nursery and floriculture, and strawberries. UCCE proposes to modify the course to accommodate the needs of these growers by presenting more information in a hands-on format. The course will be divided into three five-hour sessions. The first five-hour session will focus on water quality laws, watershed dynamics, land stewardship, and the results of the monitoring program. The remaining 10 hours will focus on nutrient, pesticide, and irrigation management for specific cropping systems, with six hours of field sessions (three more than the original course). The outcome of the course will still be a farm water quality management plan for each operation. At least one course will be offered in Spanish.

UCCE estimates that the individual cost of the revised course will be \$4,977. This is higher than the cost of the original course (\$3,791) for several reasons:

- more time spent on outreach to smaller, harder-to-reach growers; and
- additional preparation and coordination associated with the more intensive field sessions and revised curriculum.

We believe that there is sufficient need and demand to justify adding additional classes. We propose to amend the existing contract with UCCE (#98-2889-15). A scope of work and budget for the six additional classes are included as Attachment 1.

Food Safety and Water Quality Conference

In recent years, food borne illnesses attributed to leafy green products grown in the Central Coast have led to increased pressures on growers to eliminate risks of *E. coli* contamination of crops by removing all vegetation and potential wildlife habitat in or near the crop. Although the pathways of contamination causing the outbreaks have never been conclusively identified, many buyers and third party auditors are demanding elimination of all vegetation around fields before they will purchase crops. Increasingly, producers are caught between the requirements to safeguard water quality and efforts to ensure a safe food supply. This situation compels a venue for collaboration where entities can combine expertise and science to resolve these emerging conflicts between water quality and food safety practices. Several researchers and educators have worked together to develop a conference program aimed at answering the research question "**How can on-farm water quality management practices be co-managed with food safety initiatives in order to protect the environment and human health associated with the production and consumption of cool season vegetables?**"

The conference proposes to bring together scientists with expertise in water quality, food safety, wildlife biology, and plant and animal agriculture to improve the understanding of, advance science in, and develop innovative programs to coordinate the management of water quality goals and food safety initiatives in cool season vegetable production systems. The nation's best university, public and private scientists will be challenged to work collaboratively to accomplish the following objectives:

- 1) Identify and exchange the best available scientific information regarding on-farm vegetative (grassed waterways and filter strips) and water containment management practices (irrigation/stormwater catch basins) for the protection of drinking water quality and the quality of rivers, lakes and streams.
- 2) Identify and exchange the best available scientific information to protect human health through adequate microbial food

safety as related to on-farm water quality management practices.

- 3) Identify current research questions and funding mechanisms that support the coordinated management of water quality and food safety programs that mitigate nitrate, pesticide and sediment risks to water as well as pathogenic risks to humans.
- 4) Promote development of results-based, innovative basic research as well as practical approaches to cooperatively manage the adoption of water quality pollution prevention practices with initiatives to reduce foodborne illness.

The conference principals, Mary Bianchi from UCCE and Dr. Linda Harris of the Western Institute for Food Safety and Security (WIFSS), have brought together a broad consortium of researchers and industry representatives in support of this conference. They have obtained a commitment of \$20,000 from California Department of Food and Agriculture, on the condition that they obtain an equal amount of matching funds. Guadalupe settlement funds in support of this conference would have both local and regionwide benefit, since the issue is impacting vegetable growers throughout San Luis Obispo and Santa Barbara Counties as well as the entire Central Coast.

A conference proposal and budget are included as Attachment 2. The conference venue has already been reserved and the conference is scheduled for April 23-25, 2007 in Monterey, pending commitment of sufficient funding. The conference funds will be deposited in a UCCE account established for the conference. Additional information on the mechanism of funding will be provided in a supplemental sheet to the Board.

Guadalupe Fund Blueprint Consistency

In December 2003, the Regional Board approved the concept of targeting the Guadalupe Fund toward resolving non-point source-related discharges in the geographic area coincident with the source of the settlement funds (southern San Luis Obispo and northern Santa Barbara Counties). This was referred to as the Blueprint for expenditure of the Guadalupe Fund.

Both of the proposals in this staff report are consistent with the goals and components of the Guadalupe Fund Blueprint. The Blueprint outlines projects in the targeted watersheds that address non-point source-related discharges. The Farm Water Quality Courses provide education and guidance in selecting appropriate management practices for implementation on individual farms, which corresponds to the conceptual implementation projects identified in the Blueprint. The proposed conference will provide enormous benefit by helping to resolve apparent conflicts between recommended food safety practices and water quality protection practices. This will reduce confusion that exists for vegetable growers who are trying to protect water quality and sell a crop. This includes vegetable growers in southern San Luis Obispo and Santa Barbara Counties as well as in other parts of the region.

Guadalupe Settlement Fund Criteria:

In 1999, the Regional Board adopted a resolution identifying seven criteria to consider in evaluating project funding requests for the Guadalupe Settlement Fund. Both proposals are evaluated using each of these seven criteria, as follows:

- **Direct Water Quality Nexus:** The Farm Water Quality Short Courses provide tools for growers to identify and implement projects that lead to direct water quality improvements. The food safety conference will attempt to resolve issues between food safety and water quality protection, with resultant benefits to water quality as growers will no longer be caught between conflicting requirements.
- **Geographical Nexus:** The lower Santa Maria and Oso Flaco Watersheds are adjacent to the Guadalupe Oilfield and are the areas of focus for the portion of funding allocated through the Guadalupe Settlement Fund for the Farm Water Quality classes. The food safety conference will provide benefit for vegetable growers in the Guadalupe area and throughout the region.
- **Leveraging Value of Funds:** Guadalupe Settlement Funds will be leveraged against additional funding sources on both projects; matching funds from the growers will support

the short courses, and \$20,000 committed by CDFA will leverage the funding for the food safety conference.

- **Beneficial Use Protection:** Farm Water Quality Short Courses will assist farmers in selection of management practices, which will result in reduction of pesticides, nitrates, and sediment, providing protection of beneficial uses of the receiving waters. The conference will help to clarify the relationship between conservation practices and food safety, thus removing a barrier to the widespread implementation of vegetated practices to protect water quality and beneficial uses.
- **Petroleum Nexus:** A petroleum nexus does not exist with this project.
- **Region-wide Benefit:** Farm Water Quality Short Course funding will support the Conditional Waiver program, which benefits the entire region. The conference will improve knowledge about ways to protect both water quality and human health. This will promote the use of vegetated practices to protect water quality.
- **Institutional Stability and Capacity of the Applicant to Complete the Project:** UCCE will be the recipient of all the proposed funds. UCCE has already successfully conducted numerous short courses through a variety of grants and successfully completed the required courses for their existing Guadalupe grant. UCCE has an excellent track record in conducting research, education and outreach, important components of each project. Details of the mechanism for allocating funds for the conference will be provided to the Board in a supplemental sheet or at the Board hearing.

RECOMMENDATION

Staff recommends approval to allocate \$48,222 of Guadalupe Settlement Funds to fund the following projects:

- 1) UCCE to conduct six additional Farm Water Quality Planning short courses throughout Southern San Luis Obispo and Santa Barbara Counties (\$29,860) and;
- 2) UCCE to conduct a conference to promote coordinated management of water quality and food safety in vegetable crops (\$18,362).

ATTACHMENTS

1. UCCE scope of work and budget for six Farm Water Quality Short Courses
2. UCCE proposal and budget for food safety conference

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