STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION

STAFF REPORT FOR REGULAR MEETING OF JULY 7, 2006
Prepared on June 16, 2006

ITEM NUMBER: **10**

SUBJECT: **Agricultural Discharge Regulation Update: Annual Report to the Board on Implementing the New Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands (Order No. R3-2004-0117)**

KEY INFORMATION

Conditional Waiver Requirements	Due Date	Current Status
Individual enrollment with Regional Water Board	January 1, 2005	87% of irrigated acreage enrolled
15 hours of farm water quality training	January 1, 2008	46% of enrollees have completed training
Farm water quality management plans	January 1, 2008	46% of enrollees have completed plans
Management practice checklists	January 1, 2005 (all) January 1, 2006 (Tier 2) January 1, 2007 (all)	All enrollees reporting some implementation
Water quality monitoring	Phase I (25 sites) –2005 Phase II (50 sites) –2006	Cooperative Monitoring Program established; all Phase I data submitted; follow-up plan developed

This Action: Information

SUMMARY

The Water Board adopted the Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands, or "Conditional Waiver," (Order No. R3-2004-0117) on July 9, 2004. Staff provides annual reports to the Board on progress in implementing the Conditional Waiver program.

Highlights of the program to date include:

- 1577 farming operations have enrolled in the Conditional Waiver program, representing approximately 380,000 irrigated acres (87% of the estimated irrigated acres in the region)
- 728 (46%) of enrolled farming operations have completed 15 hours of water quality education and a farm plan, representing approximately 300,000 irrigated acres (69% of the estimated irrigated acres in the region, and 79% of the enrolled acres)
- The Cooperative Monitoring Program has completed the first year of water

quality monitoring (Phase I), developed a follow-up plan for identified problems, and begun Phase II monitoring

- Staff has begun the enforcement process for non-filers

DISCUSSION

Background

On July 9, 2004, the Central Coast Water Board adopted a new conditional waiver of waste discharge requirements for all commercial irrigated farming operations throughout the Central Coast Region ("Conditional Waiver"). Many of the requirements of the Conditional Waiver were developed through a unique negotiation process during which agricultural and environmental interests worked together.

Enrollment began January 1, 2005 and has continued through the present, as additional growers become aware of the new requirements. The agricultural community and Water Board staff did a tremendous amount of outreach; as a result, we were able to exceed our target milestone of 80% enrollment the first year.

The Conditional Waiver program addresses one of our most widespread and challenging water quality issues: irrigated agricultural practices and discharges. This is now the Water Board's largest program, with a current discharger enrollment of 1577, and a potential ultimate enrollment of possibly twice that based on our initial assessment of likely non-filers, discussed later in compliance and enforcement.

Unlike agricultural waiver programs in other regions, our program requires individual enrollment and fairly extensive reporting, and is therefore very staff and data intensive. The state provides only 1.5 staff positions for this program; therefore, we use most of our nonpoint source program staff to help implement the agricultural waiver. This is appropriate because agriculture is our biggest nonpoint source water quality issue.

We also use watershed management, grant funding, and TMDL implementation resources to address agricultural water quality issues, in support of this program. The overall nonpoint source program effort (agricultural waiver plus non-point source and watershed management initiative resources) in the Region comprises approximately six staff positions (Personnel Years or PYs). We commit roughly 95 percent of these resources toward implementing TMDLs in watersheds where they have been adopted, or toward implementing management measures in impaired watersheds that do not as yet have established TMDLs. (The Central Coast Region currently has approximately 181 impaired surface water listings per the 2002 303d list, approved by USEPA in 2003. This list can be found at: http://www.waterboards.ca.gov/tmdl/docs/2002reg3303dlist.pdf].)

Discharges associated with irrigated agriculture cause or contribute to more than one-third of these impairment listings. We currently focus nearly all (>90%) of our TMDL implementation effort at correcting water quality pollution associated with irrigated agriculture through implementing the Conditional Waiver.

Program Development and Management

During the first six months of the program (July 2004 to January 2005), we focused primarily on program development and outreach: developing enrollment forms, giving presentations to growers and partner organizations, designing a data management system, redirecting existing staff resources and hiring an additional staff person and two student assistants. The remainder of the first year was devoted to entering the large amount of information collected through the enrollment process into an electronic data management system, creating a filing system, continuing education and outreach activities, conducting grant solicitation and development, and assisting the agricultural industry in setting up the Cooperative Monitoring Program.

During the second year (July 2005 to July 2006), we have continued to make presentations on the waiver program at a variety of venues, including the Farm Water Quality Planning short courses, with the goal of increasing awareness of water quality concerns and the new requirements for agriculture. A key staff person left early in the year and for nine months we were unable to find a qualified replacement that could meet our unique data management needs, resulting in a significant set-back in our efforts to find non-filers and clean up our data management system. However, we recently hired a staff person, Peter Meertens, to fill the data management position and we are back on track toward finding the remaining non-filing operations.

Recently, staff took advantage of project management training offered to TMDL staff, and used the training to implement a detailed program planning effort.. As a result, we now have a more comprehensive picture of the tasks necessary to continue moving forward with the waiver program. We refined the major program components and assigned lead roles for each component to various team members. This planning effort is making us more efficient and is already showing results in all aspects of the program.

The remainder of the staff report is devoted to describing the components of the program, current status, and some of the tasks being undertaken over the next year. Alison Jones will retain lead staff responsibility for overall program management.

Data Management

To accomplish our long-term goal of water quality improvement on agricultural lands, we will ensure compliance with the waiver program and integrate program enrollment information, water quality data, and management practice implementation information being provided by enrollees. We have to efficiently manage a large amount of unique data. No other State or Regional Water Board is currently doing this.

Handling the large amount of information contained in the enrollment submittals has proven very challenging. In addition, the integrated nature of this program with the Cooperative Monitoring Program requires that we supply information on membership and acreage to Central Coast Water Quality Preservation, Inc. (CCWQP), the entity conducting the monitoring program, to facilitate membership tracking and billing for monitoring costs. This has added complexity to our data management, but will improve our information and compliance with the waiver program in the long-term.

As noted above, new staff member Peter Meertens has taken over the task of managing all of our program data. Peter is working to move data into a more workable format, develop effective analytical tools, acquire and analyze GIS land use layers and pesticide use information, and identify non-filers. He is helping us increase our analytical capability, which will be critical in linking water quality data with management practice implementation information reported through the waiver program. He also coordinates with CCWQP in sharing data. A summary of program information is included as Attachment 1, Tables 1, 2 and 3.

Education and Outreach

Education and outreach are key aspects of the Conditional Waiver program. We need to communicate effectively with a large audience of growers, coordinators, technical assistance providers, and interested parties, to ensure that growers are aware of, and are complying with, the new requirements. Over the past year, waiver program team members have made presentations at 13 UC Cooperative Extension Farm Water Quality Planning short courses, and at least 15 other conferences, workshops and meetings. We also rely on outreach coordinators and technical assistance organizations to work directly with growers on management practice implementation.

Corinne Huckaby is now lead staff person for the education and outreach component of the Conditional Waiver program. Tasks of this component include reviewing and approving education credits for courses being offered by our partner technical assistance providers,

maintaining our web page, and scheduling outreach activities about the waiver program. Corinne will be working to develop additional outreach strategies and tools to improve our communication with growers, partners and the public. Attachment 1, Table 4 gives the number and types of education courses we approved to date.

Water Quality Monitoring Data Management

Amanda Bern is now our lead staff person on the water quality monitoring component of the Conditional Waiver program. Amanda is working closely with our Central Coast Ambient Monitoring Program (CCAMP) staff and using tools developed by CCAMP to analyze monitoring data submitted by the Cooperative Monitoring Program. Amanda is also working closely with the industry organization, Central Coast Water Quality Preservation, Inc. (CCWQP), which is conducting the monitoring program. Amanda is overseeing all electronic data submittals to ensure submittals are timely and in the correct format, and will review and approve follow up plans developed by CCWQP to prioritize and solve identified problems.

The Cooperative Monitoring Program consists of monthly monitoring for conventional water quality constituents, such as nutrients, dissolved oxygen, total dissolved solids, pH, and flow, quarterly monitoring (four times per year) for water column toxicity , and once yearly sediment toxicity test and evaluation of in-stream benthic invertebrate populations.

CCWQP has completed the first year of water quality monitoring at 25 sites in the Salinas and Santa Maria watersheds as part of the Phase I monitoring effort. CCWQP monitored 15 sites in the lower Salinas watershed and 10 sites in the lower Santa Maria watershed, in accordance with Monitoring and Reporting Program R3-2004-0117, which was adopted by the Board as part of the Conditional Waiver on July 9, 2004. CCWQP also began Phase II monitoring at an additional 25 sites, as required by the Conditional Waiver, and developed a follow-up plan for Phase I.

The Cooperative Monitoring Program is designed to allow further definition of problems areas, through a follow-up component. Each year, 25% of the monitoring budget is set aside to further delineate problems and identify solutions. Once monitoring data are analyzed, CCWQP develops follow-up plans, which are submitted to staff for review and approval. For Phase I, $90,000 has been set aside for follow-up toxicity monitoring (discussed below).

The results of the Phase I monitoring show widespread, acute and persistent toxicity to the water flea, *Ceriodaphnia*, which is a standard test organism used because of its sensitivity to organophosphate pesticides. Previous studies in both the lower Salinas watershed and in the Santa Maria watershed have identified two organophosphate pesticides, chlorpyrifos and diazinon, as sources of toxicity.

Given the widespread and acute nature of the toxicity, staff recommended that the follow-up component of the monitoring program focus on toxicity in both the Santa Maria and lower Salinas areas. CCWQP has developed their Phase I follow-up plan and submitted it to staff for review and approval. They propose to test all 25 Phase I sites for a suite of organophosphate pesticides, concurrent with the scheduled Phase II toxicity testing, beginning this irrigation season and continuing through the next rainy season (four tests). They will also review existing research on toxicity in the Central Coast, perform broad outreach to farmers to review the Phase I results and explain the water quality problems, and coordinate with partner technical assistance organizations for general management practice training.

A more detailed discussion of water quality results from Phase I, and the final approved follow-up plan, will be provided in a Supplemental Sheet to the Board and at the Board meeting.

Compliance and Enforcement

The effectiveness of the Conditional Waiver program depends on full compliance by

agriculture and on our consistent and fair enforcement of waiver requirements. Our preliminary data suggest that most non-filers are small operations; however, the current waiver does not establish a lower size limit, and all commercial irrigated operations are required to obtain permit coverage. While we believe the current acreage enrolled is very good, there are still a large number of farming operations that are not yet complying with the regulations. We are committed to ensuring that the waiver is fully implemented. After a delay due to the aforementioned staffing vacancy, we are rapidly moving forward with our effort to find non-filers and initiate an effective compliance inspection program.

Jill Wilson is our lead staff person on the compliance and enforcement component, and has been working closely with data management lead staff to identify and contact non-filers. The first enforcement letters to non-filers went out in June 2006. In addition, Jill is taking the lead on developing our inspection strategy.

The primary goal of the inspection program will be to ensure that farmers understand and comply with the new requirements. We recognize that there is a wide range of management practice implementation, with some farming operations already fully implementing water quality protection practices and others far behind. Inspections will allow us to better assess the information provided in the Notice of Intent forms and management practice checklists and confirm their accuracy. We will also be able to assess the need for additional practice implementation and possible enforcement actions. Our goal is to begin inspections by late summer 2006.

Grant Management to Support Agricultural Water Quality Protection

Ultimately, water quality protection comes down to effective, on the ground management practices. One of our highest priorities has been, and will continue to be, ensuring that farmers implement management practices to protect water quality, evaluate them for effectiveness, and revise them as necessary. To that end, we continue to support projects by our partner organizations that provide technical assistance to farmers and support best management practice implementation.

Staff currently manage approximately 50 different agricultural grants, aimed at providing education and technical assistance to assist farmers in implementing on-farm management practices, and monitoring water quality (both at a watershed level and on-site for practice effectiveness evaluation). This is a significant increase over the number of agricultural grants we managed prior to adoption of the waiver program, and is a result of both increased state funding and our own efforts to prioritize and target our grant funds. (See Attachment 1, Table 5.)

CONCLUSION

The Conditional Waiver program continues to make progress. The water quality data confirm the need for the Conditional Waiver program and the need for regulators, technical assistance providers and agriculturalists to work diligently together to address the existing problems and prevent additional problems from emerging. We must ensure that all farming operations are complying with the waiver and implementing effective practices. We must continue improving and refining management practices through supporting research. Finally, we must continue monitoring water quality to ensure the effectiveness of our efforts.

RECOMMENDATION

Information only.

ATTACHMENT

Summary of Conditional Waiver Program Information

T:\\NPS\Ag Waiver\Program Management\Board Meetings\2006\July2006Ag Waiver Update FINAL