

INFORMATION REPORT
CONDITIONAL WAIVERS
FOR
DISCHARGES FROM IRRIGATED LANDS
IN THE
CENTRAL VALLEY REGION

15 September 2005 - Board Meeting

INTRODUCTION

On 11 July 2003, the Central Valley Regional Water Quality Control Board (Water Board) adopted Resolution No. R5-2003-0105 approving two Conditional Waivers of Waste Discharge Requirements for Discharges from Irrigated Lands in the Central Valley Region. The Water Board also adopted Monitoring and Reporting Program (MRP) Order No. R5-2003-0826 for Coalition Groups, MRP Order No. R5-2003-0827 for Individual Dischargers, and Resolution No. R5-2003-0103 approving an Initial Study and adopting a Negative Declaration for the Conditional Waivers.

In August 2003, six agricultural interests and one environmental interest submitted petitions to the State Water Resources Control Board (State Water Board) regarding these actions. On 22 January 2004 the State Water Board adopted Order WQO 2004-0003, which upheld the Conditional Waivers and MRPs with revisions. On 8 July 2004, the Water Board and the State Water Board held a joint meeting and heard an informational item on the progress and status of the Irrigated Lands Conditional Waiver Program (Program).

The Conditional Waivers describe a specific path for owners and operators of irrigated lands, including Districts and managed wetland operators, to achieve compliance with the California Water Code (Water Code). The Conditional Waivers and MRPs set the minimum requirements for these entities to comply with the Water Code. The Water Board is in the process of developing an Environmental Impact Report (EIR) for a long-term plan to address water quality impacts from discharges of waste from irrigated agricultural lands.

The Program and the agricultural community has faced many challenges and achieved many goals in the 3 years since adoption of the initial Conditional Waivers. This information report describes the achievements, challenges, and plans for the future of the Program. This report has three main sections, which correspond to the three units of the Irrigated Lands Conditional Waiver Section at the Water Board: 1) Policy and Planning, 2) Monitoring and Assessment, and 3) Public Outreach and Compliance.

POLICY AND PLANNING UNIT

Conditional Waiver Renewal

Process

The Conditional Waivers expire on 31 December 2005, and Water Board staff has begun the process to propose Conditional Waiver renewal, starting with public outreach activities. Staff held five outreach meetings in June and August 2005 with Coalition Groups, Department of Pesticide Regulation (DPR), Delta Keeper, Department of Food and Agriculture, and the California Farm Bureau Federation. The objective of these meetings was to solicit feedback from stakeholders on the Conditional Waivers and their associated MRPs and to hear their views on how the Program has worked since its adoption

in 2003. Another key objective of the discussions was to hear any specific modifications that stakeholders would like Water Board staff to consider during the renewal process.

Comments received at these meetings were both broad ranging and very specific. Issues included, among many others, the expiration date of the new Conditional Waivers; definition of who is a Discharger; clarification of irrigated pasture; possible criteria for De Minimis Conditional Waiver; data sharing amongst state agencies; Agricultural Commissioner Memorandum of Understanding (MOU); out of sync grant cycles; roles of California Departments of Food and Agriculture and Pesticide Regulation in Conditional Waiver process; characterization of agriculture effects on water quality; appropriate Conditional Waiver approaches to water quality problems; impairment strategies; timely submission of Exceedance Reports; and specific management practices to correct water quality impairments.

Water Board staff scheduled three informal workshops to describe changes being considered and the progress on development of a proposed De Minimis Conditional Waiver. The workshops are scheduled in Modesto, Colusa, and Tulare in late August and early September.

As of the writing of this report, Conditional Waiver renewal documents are under executive and legal review and will be distributed for public comment as soon these documents have been approved for circulation.

Content – What will not change

The proposed Conditional Waivers will still include the approach of using Coalition Groups to address water quality problems on a watershed basis in the Central Valley Region. Watershed-specific requirements are still in place based upon characteristics of the watershed and the receiving water quality conditions. There will still be two proposed Conditional Waivers, one for Coalition Groups and one for Individual Dischargers. Monitoring and assessment are still essential components in both of the Conditional Waivers.

Content – What may change

Staff is considering many changes in the Conditional Waiver documents and their associated MRPs to streamline them and make them more effective and efficient, with consistent terminology, improved readability, and improved overall comprehension. The bullets below highlight the primary changes under consideration.

- ***Resolution*** The draft Resolution reflects new provisions of Water Code Section 13269 and includes updated findings to comply with the California Environmental Quality Act (CEQA). The Resolution proposes a new expiration date of 31 December 2010, which is a 5-year renewal. This will allow time for completion of the EIR for a permanent water quality regulatory program for discharges from irrigated lands and development and implementation of other identified regulatory tools.
- ***Resolution Attachment A (Applicable Water Quality Control Plans and Definitions)*** The draft Resolution Attachment A includes some revisions to a few definitions and will contain a table listing the surface water numeric limits to implement the numeric and narrative water quality objectives in the Basin Plans. This table will make it easier for Dischargers and Coalition Groups to compare

sample results to water quality objectives and determine if monitoring results show a water quality exceedance.

The Water Board will consider adopting a proposed clarification on how the “tributary rule” applies in the Conditional Waivers at its 15 September 2005 meeting. If adopted the language will be incorporated into draft Resolution Attachment A.

- *Resolution Attachments B and C (Conditional Waivers for Coalition Groups and Individual Dischargers)* In the draft Resolution Attachments B and C, Water Board staff proposes to reduce the number of report submittals by combining the Watershed Evaluation Report (or Farm Evaluation Report for Individual Dischargers) and the Implementation Plan with the MRP Plan. The elements of each report are still required, but they would be combined to produce one streamlined and clear document that describes and justifies the specific monitoring plan.

Likewise, Water Board staff propose to eliminate the General Report and include its elements in the Notice of Intent, resulting in one complete and effective document with all the information needed to enroll in one of the Conditional Waivers. The draft Attachment B also will remove the specific date in the compliance schedule to submit a Notice of Intent. This will allow flexibility for new Coalition Groups to form and participate in the Program.

- *Monitoring and Reporting Program for Coalition Groups – Changes from MRP No. R5-2003-0826 to MRP No. R5-2005-0833* Based on feedback from Coalition Groups and other interested parties, on 6 May, 2 June, and 21 July 2005, Water Board staff circulated for public comment proposed revisions to MRP No. R5-2003-0826. On 15 August 2005, the Executive Officer issued MRP No. R5-2005-0833 and a response to comments received during the comment periods. The new MRP includes the following changes:
 - clarified the amount of toxicity that would trigger a Toxicity Identification Evaluation (TIE);
 - revised language to require management practice evaluations only when water quality objectives are exceeded;
 - expanded monitoring table to include analytical methods, practical quantitation limits, and monitoring frequency;
 - revised list of constituents to monitor;
 - clarified reporting requirements when water quality objectives are exceeded at monitoring locations;
 - removed specific due dates for report submittals; and
 - required twice a year monitoring reports.
- *Monitoring and Reporting Program for Coalition Groups – Changes Proposed to MRP No. R5-2005-0833* Based on comments from Coalition Groups, interested parties, and Water Board staff, the following changes are proposed to MRP No. R5-2005-0833:
 - streamline language to follow a rational order and improve understanding;
 - add requirement to prepare a Long-Term Monitoring Strategy;
 - replace monitoring “phases” with Long-Term Monitoring Strategy;
 - require toxicity and chemical sampling concurrently;
 - clarify TIE sampling requirements;

- o modify nutrient reporting limits and constituents based on laboratory capabilities;
 - o clarify technical reports required for water quality objective exceedances;
 - o require electronic monitoring data submittals; and
 - o add example results table and field sampling form as attachments to the MRP.
- *Monitoring and Reporting Program for Individual Dischargers – Proposed Changes to MRP No. R5-2003-0827 and Proposed 3rd MRP* As with the Coalition Group MRP, Water Board staff propose changes to MRP No. R5-2003-0827 to streamline language and improve understanding. Many of the same changes from the Coalition Group MRP are included. The most significant change is the creation of two separate MRPs: one for Individual Dischargers, as before, and one for Districts that enroll as Individual Dischargers. The requirements in both MRPs are mostly the same, but the MRP for Districts includes requirements specific to their unique responsibility with respect to irrigated lands.

In April 2005, Water Board staff provided a preliminary draft MRP and met with five Districts in the San Joaquin Valley. The Districts requested that Water Board staff tour their Districts to help craft the MRP. After the tours, Water Board staff modified the draft MRP and provided the Districts an opportunity to preview it on 10 August. Districts provided comments on this draft MRP, and Water Board staff has evaluated and considered these comments in the proposed MRP for Districts.

The following is a list of the proposed changes to MRP No. R5-2003-0827:

- o streamline language to follow a rational order and improve understanding;
- o revise language to require management practice evaluations only when water quality objectives are exceeded;
- o expand monitoring table to include analytical methods, practical quantitation limits, and monitoring frequency;
- o revise list of constituents to monitor;
- o remove specific due dates for report submittals;
- o require twice a year monitoring reports;
- o add Long-Term Monitoring Strategy requirement (only in District MRP);
- o require toxicity and chemical sampling concurrently;
- o clarify the amount of toxicity that would trigger a TIE;
- o clarify TIE sampling requirements;
- o modify nutrient reporting limits and constituents based on lab capabilities;
- o clarify technical reports required for water quality objective exceedances;
- o require electronic monitoring data submittals (only in District MRP); and
- o add example results table and field sampling form as attachments to the MRPs.

Proposed De Minimis Conditional Waiver

Over the past two years, rural counties, small growers and other interested parties have expressed a number of comments and concerns to Water Board staff about their need to be involved in the Program due to their possible minimal threat to water quality. The current Program does not set a lower limit on the size or type of operation to which the requirements apply.

In 2003, staff began working on a draft of a De Minimis Conditional Waiver (formerly called Low Threat Waiver) to address operations that may have a minimal threat to water quality. However, Water Board staff did not have sufficient data or information to determine what types of operations pose a minimal threat, or what the eligibility criteria and conditions should be for such a Conditional Waiver. The information also was insufficient to support the required CEQA evaluation.

In 2005, Water Board staff resumed work on the proposed De Minimis Conditional Waiver by holding listening sessions and planning several more with the agricultural community, County representatives, and other interested parties in different parts of the Central Valley Region to discuss ideas and issues that should be considered in the proposal. Water Board staff met with representatives and interested parties from the Counties of Napa, Nevada, Plumas, Sierra, and El Dorado and the Pit River and Goose Lake areas, and plan to meet with representatives in Amador, Placer, Lake, Calaveras, and Mariposa Counties, plus the Department of Fish and Game. Water Board staff has heard some good ideas during these meetings regarding possible eligibility criteria and waiver conditions.

Following is a list of criteria and conditions that have been proposed by interested parties, along with a brief description of each. Water Board staff tentatively plans to circulate a De Minimis Conditional Waiver proposal for public comment in Winter 2005 and schedule an Information Item at a future Board Meeting.

Possible Criteria

- Crop type - For example, some vineyards have drip irrigation and cover crops that are grown between rows, as well as use management practices. There are training opportunities for vineyard owners/operators and collaborative efforts to take place amongst the vineyard operators. Similar situations might exist for other crop types.
- Irrigation practices - For example, the drip irrigation method results in very little evaporation or runoff, saving water by directing it more precisely. Other irrigation practices could result in efficient use of water and minimal runoff.
- Geographic area – Some counties or watershed areas have specific requirements that can minimize threats to water quality.
- Crop diversity - With low crop diversity in an area, specific well-established management practices are used to protect water quality and to limit chemical use.
- Chemical use - The information would come from the Agricultural Commissioners Pesticide Use Reports. With monoculture crops, chemicals may be used infrequently and not on a regular schedule, thus possibly reducing the potential threat to water quality.
- Growing season - The availability of water and the weather conditions of an area sometimes limit the growing season, thereby reducing the total volume of runoff during the irrigation season.

Possible Conditions

- Require Farms Plans to address water quality improvement and protection.
- Require implementation of management practices to protect water quality, such as vegetation strips, silt fences, hay bales, tailwater ponds and/or return systems, and others. Natural Resources Conservation Service's Conservation Plans implement conservation measures, evaluate sustainability, and make recommendations for stream restoration and farming practices, and may be

expanded to more specifically address water quality issues. These plans would be required to be public information.

- Require training workshops for growers conducted by local Resource Conservation Districts, Agricultural Commissioners, University of California Cooperative Extension, Water Board staff and others.

Environmental Impact Report

The contract has been executed between the Water Board and Jones and Stokes Associates (JSA). Water Board staff held a kickoff meeting on 29 June 2005 with JSA and its subcontractors. Data and information are being gathered for the Existing Conditions Report for surface water and groundwater. A meeting was held on 20 July 2005 to discuss the format for the Existing Conditions Report, and the contractor and its subcontractors are moving forward quickly to complete this critical report. Water Board staff anticipate that a draft report will be available in Fall 2005 for public review, and several public meetings will be scheduled in different areas of the Central Valley Region to receive public comments. Public comments will then be reviewed and considered prior to finalizing the Existing Conditions Report. Once this report is completed the draft EIR will be developed for public circulation and comment.

MOU With Agricultural Commissioners of Butte and Glenn Counties

A MOU was signed on 29 June 2005 between the Water Board, the State Water Board, the DPR, the Glenn County Agricultural Commissioner, and the Butte County Agricultural Commissioner. The MOU is an agreement between the parties for the Agricultural Commissioners to perform activities to assist and support the Water Board's Program. The MOU specifies activities to be performed by a half of a staff person per year for the two-year pilot program.

Water Board staff met with the two Agricultural Commissioners on 15 July 2005 to discuss the tasks outlined in the MOU and the contracting process. On 26 July 2005, Water Board staff met with DPR staff to discuss tasks that would be part of the contract and how to differentiate work done under this contract from DPR contracted work.

On 29 July 2005, Water Board staff sent a draft Scope of Work to both Agricultural Commissioners and to DPR for review and comment. Communications are ongoing between Water Board staff and the Agricultural Commissioners on the Scope of Work. The Butte County Agricultural Commissioner is in agreement with the draft Scope of Work. Glenn County is in the process reviewing the draft Scope of Work. Water Board staff hopes to reach agreement on the final contract Scope of Work by early September and send the contract to the State Water Board for contract execution. Once this is completed, the Agricultural Commissioners must present the contracts to their respective Boards of Supervisors for approval.

MONITORING AND ASSESSMENT UNIT

Annual Monitoring Report Review Status

Water Board staff has completed reviews of the Annual Monitoring Reports (Annual Reports) for eight Coalition Groups and five District Individual Dischargers. Water Board staff prepared comment letters

to provide feedback regarding the administrative, analytical and compliance aspects of the Annual Reports. Water Board staff has also met with two of the Coalition Groups, the Westside Water Quality Coalition and the California Rice Commission, to discuss general topics included in the Annual Report review letters. A meeting is scheduled for 9 September 2005 with the Sacramento Valley Water Quality Coalition to discuss the Annual Report review. At the time of preparation of this Information Report, Water Board staff anticipates that all of the Annual Report review letters will be mailed by 1 September 2005.

There are some general statements that can be made about deficiencies identified in most or all the Annual Reports, many of which have already been discussed with the Coalition Groups or the Individual Dischargers. In most cases, improvements in these procedures have already been noted. These general deficiencies are summarized as follows:

- Inconsistent submittal of Communication Reports for toxicity detections and when there are exceedances of water quality objectives for pesticides, metals, pH, DO, and/or other constituents.
- Insufficient secondary testing when toxicity is indicated, or other water quality objectives are exceeded. Secondary testing includes TIE and/or resampling.
- No submittal of information regarding management practice implementation, particularly where water quality objectives have been exceeded.

The Annual Report review letters being sent to Coalition Groups and Districts discuss these general deficiencies, as well as specific issues that pertain to the particular Discharger or Coalition Group. Many of the Coalition Groups have already been informed of the deficiencies, and some of them have instituted improvements and changes in monitoring and reporting practices. Continuation of this type of communication and collaboration will further ensure that the Coalition Group approach for the Program is successful.

Phase II Contract – UC Davis John Muir Institute and California Department of Fish and Game (CDFG) Laboratories

The Phase II study for the Agricultural Waiver Monitoring Program is in progress. The purpose of the study is to further characterize water quality in agriculturally-dominated water bodies throughout a wider geographic range than was monitored during Phase I, as well as to increase the body of data related to chemistry, toxicity, and TIE. The study expands the toxicity testing used in Phase I to include the green algae *Selenastrum capricornutum*, and includes sediment toxicity testing using the species *Hyalella azteca*. Additionally, TIEs and a more comprehensive suite of chemical analyses are being conducted.

Activities completed to date include 2004 and 2005 irrigation season sampling from locations throughout the Central Valley Region and 2004/05 storm season sampling. Sample locations have included sites in 15 different counties and six Coalition Group areas. A total of 54 locations have been sampled to date. Future monitoring for the 2005/06 storm season also will occur.

During the irrigation season, sites were sampled at two-week intervals, up to five times each. During the storm season, sites were sampled up to three times a day during rain events. The total number of irrigation samples was about 230 and four of these were marginally toxic to *Pimephales promelas* (fathead minnow), although the toxicity was insufficient to trigger a TIE. Twenty samples (about 9%)

were significantly toxic to *Ceriodaphnia dubia* (water flea), and 72 (about 31%) exhibited toxicity to algae. Toxicity (reduced growth) in many algae results was insufficient to trigger TIEs. During the 2004 irrigation season, all incidents of toxicity to *Ceriodaphnia* correlated with sufficient concentrations of organophosphorus pesticides to account for the observed toxicity.

Chemistry data from 2005 irrigation season is not yet complete, although TIEs were performed for the 13 samples that exhibited toxicity (more than 50% mortality) to *Ceriodaphnia*. The TIE results indicate that pesticides are a contributing factor, if not the primary cause, and 12 of the 13 TIEs suggest that organophosphorus pesticides are the primary cause. Nineteen percent (6 of 31) of the 2004/2005 storm samples, exhibited toxicity to *Ceriodaphnia*, with organophosphorus pesticides accounting for toxicity in five out of six. Forty percent (12 of 30) showed toxicity to algae.

Several pesticides were frequently detected in water samples, including chlorpyrifos (37% of irrigation samples, 40% of storm samples), diazinon (16% irrigation, 70% storm), diuron (18% irrigation), and simazine (65% storm, 3 % irrigation). The TIEs, chemistry data, and available LC50 data for *Ceriodaphnia* indicate that organophosphorous pesticides account for more than 90% of the observed toxicity to that species. TIEs for algae toxicity indicated non-polar organic compounds as the cause of toxicity in most cases, and herbicides were frequently associated with these samples. Four out of 34 sediment samples exhibited sediment toxicity (mortality endpoint) to *Hyalella*, which was accounted for almost completely by Pyrethroid pesticides.

The table below summarizes the results of samples that exhibited toxicity. Two quarterly status reports detailing the results of analysis are currently on the Irrigated Lands Conditional Waiver website. The 2005 irrigation season sampling is nearly complete, and evaluation of all the data will be forthcoming.

PHASE II TOXICITY RESULTS SUMMARY TABLE

Sample Date	Species	Toxicity Results	Location	County	Chemistry (if available)
2004 Irrigation Season Samples (No TIEs conducted)					
7/12/04	<i>Ceriodaphnia</i>	0% survival	Drain to Walker Creek on Co. Rd. 28 (CS12)	Glenn	Chlorpyrifos 0.17 ug/L Diazinon 0.059 ug/L Carbaryl 0.15 ug/L
7/21/04	<i>Ceriodaphnia</i>	65% survival	Drain on ABF Farms, east end of Grant Line Canal (D02)	San Joaquin	DDE 0.005 ug/L Dimethoate 0.40 ug/L Disulfoton 0.13 ug/L
7/22/04	<i>Ceriodaphnia</i>	0% survival	Button Ditch on Ave. 368, W. of Alta (FT05)	Tulare	Chlorpyrifos 0.28 ug/L Dimethoate 0.045 ug/L
7/26/04	<i>Ceriodaphnia</i>	0% survival	Spring Creek at Walnut Dr. (CS15)	Colusa	Chlorpyrifos 0.40 ug/L Diazinon 0.008 ug/L Carbaryl 0.24 ug/L
7/27/04	<i>Ceriodaphnia</i>	0% survival	Ditch at SW corner of Riego Rd. and Levee Rd. (SS04)	Sutter	Dichlorvos 0.20 ug/L
8/12/04	<i>Ceriodaphnia</i>	0% survival	Orestimba Creek at Kilburn Rd. (NSJ18)	Stanislaus	Chlorpyrifos 0.28 ug/L Diazinon 0.02 ug/L DDT 0.036 ug/L

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2005/05 Storm Season Samples

1/26/05	Ceriodaphnia	0% survival TIE indicated OP pesticide	Spring Creek at Walnut Dr. (CS15)	Colusa	Diazinon 0.42 ug/L Methidathion 0.045 ug/L
1/26/05	Ceriodaphnia	40% survival No TIE	Drain on ABF Farms, east end of Grant Line Canal (D02)	San Joaquin	Chlorpyrifos 0.012 ug/L Diazinon 0.072 ug/L Disulfoton 0.36 ug/L
1/27/05	Ceriodaphnia	0% survival TIE indicated OP pesticide	Berenda Creek near Rd. 17 and Ave. 17.5 (SSJ03)	Madera	Chlorpyrifos 0.035 ug/L Diazinon 0.56 ug/L Disulfoton 0.023 ug/L
1/28/05	Ceriodaphnia	45% survival No TIE	Butte Creek on Durham Dayton Hwy. (CS07)	Butte	No pesticides detected
2/16/05	Ceriodaphnia	0% survival TIE indicated OP pesticide	Spring Creek at Walnut Dr. (CS15)	Colusa	Diazinon 1.5 ug/L
2/18/05	Ceriodaphnia	0% survival No TIE	Spring Creek at Walnut Dr. (CS15)	Colusa	Diazinon 1.6 ug/L
2/16/05	Selenastrum	3.8 TU's TIE indicates non-polar organics	Spring Creek at Walnut Dr. (CS15)	Colusa	Diuron 0.2 ug/L Oxyfluorfen 0.88 ug/L Prowl 0.20 ug/L Metolachlor 0.145 ug/L
2/16/05	Selenastrum	5.4 TU's TIE: non- polar organics	Winters Canal at Road 86A (SS06)	Yolo	Diuron 8.0 ug/L Simazine 0.072 ug/L Metolachlor 0.063 ug/L Oxyfluorfen 0.2 ug/L

2005 Irrigation Season Samples

6/13/05	Ceriodaphnia	1.3 TU's TIE indicates OP pesticides	Drain to Walker Creek on Co. Rd. 28 (CS12)	Glenn	Chlorpyrifos 0.083 ug/L Carbaryl 0.33 ug/L
6/13/05	Ceriodaphnia	5.3 TU's TIE indicates OP pesticides	Spring Creek at E. Camp Rd. (CS23)	Colusa	Diazinon 2.0 ug/L
6/14/05	Ceriodaphnia	21.3 TU's TIE indicates OP pesticides	North Main Canal at Sankey Rd. (SS05)	Sutter	Malathion 46 ug/L Diazinon 0.2 ug/L Parathion-methyl 0.078 ug/L
6/15/05	Ceriodaphnia	55% survival No TIE	Calaveras River at Pezzi Rd. (NSJ31)	San Joaquin	No data yet available
7/7/05	Ceriodaphnia	2.7 TU's TIE indicates OP + other pesticides	Berenda Creek near Rd. 17 and Ave. 17.5 (SSJ03)	Merced	Chlorpyrifos 0.26 ug/L
7/7/05	Ceriodaphnia	22.7 TU's TIE indicates OP pesticides	Island Field Drain on Catrina Rd. (SSJ04)	Merced	Chlorpyrifos 2.2 ug/L Dimethoate 0.03 ug/L Malathion 0.125 ug/L
7/7/05	Ceriodaphnia	1.3 TU's TIE indicates OP pesticides	Boundary Drain at Henry Miller Ave. (SSJ07)	Merced	Chlorpyrifos 0.11 ug/L Dimethoate 0.01 ug/L Malathion 0.02 ug/L
7/13/05	Ceriodaphnia	1.3 TU's TIE indicates OP + other pesticides	Calaveras River at Pezzi Rd. (NSJ31)	San Joaquin	Azinphos-methyl 0.33 ug/L Parathion-methyl 0.19 ug/L

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7/20/05	Ceriodaphnia	1 TU TIE indicates OP + other pesticides	Island Field Drain on Catrina Rd. (SSJ04)	Merced	Chlorpyrifos 0.045 ug/L Dimethoate 0.045 ug/L Methomyl 0.64 ug/L
7/25/05	Ceriodaphnia	1.3 TU's TIE indicates pyrethroid pesticides	Drain to Walker Creek on Co. Rd. 28 (CS12)	Glenn	Chlorpyrifos 0.04 ug/l Carbaryl 0.33 ug/L
7/25/05	Ceriodaphnia	2.7 TU's TIE indicates OP + other pesticides	Drain to Walker Creek at Co. Rd. F (CS24)	Glenn	Chlorpyrifos 0.043 ug/L Diazinon 0.025 ug/L Carbaryl 3.6 ug/L
7/27/05	Ceriodaphnia	4.7 TU's TIE indicates OP + other pesticides	Bear Creek at Alpine Rd. (NSJ32)	San Joaquin	Azinphos-methyl 0.16 ug/L Chlorpyrifos 0.21 ug/L Dimethoate 0.059 ug/L Parathion-methyl 0.016 ug/L
8/1/05	Ceriodaphnia	5.3 TU's TIE indicates OP + other pesticides	Elk Bayou above Tule River channel at Road 96. (FT24)	Tulare	Chlorpyrifos 0.027 ug/l Dimethoate 0.046 ug/L Methomyl 0.05 ug/L
8/3/05	Ceriodaphnia	1.3 TU's TIE indicates OP + other pesticides	Island Field Drain on Catrina Rd. (SSJ04)	Merced	Chlorpyrifos 0.098 ug/L Dimethoate 0.044 ug/L Methomyl 1.0 ug/L
7/11/05	Selenastrum	10.8 TU's TIE indicates non-polar organics	Tributary of Home Colony Canal at Hwy 99 (CS01)	Tehama	No herbicides detected, investigation of sample extracts is continuing

Technical Issues Committee

The Technical Issues Committee (TIC) was created with the goal of ensuring that the monitoring programs use standardized procedures that field and laboratory procedures are scientifically sound and defensible, and that water quality data are defensible when characterizing agricultural discharges and their effects on water quality.

The TIC provides a public forum to a variety of stakeholders, including Coalition Groups, individual farmers, laboratories, industry, government agencies and other interested parties, to discuss issues and provide technical input to help resolve issues that arise in implementing the monitoring and reporting activities required by the Conditional Waivers. There are currently 58 members of the TIC, which is chaired by Board Member Dr. Karl Longley and facilitated by Water Board staff. New members continue to join the committee and actively participate in the discussions.

The TIC is most productive through the activities of the four Focus Groups, which include the Water Column Toxicity, Sediment Toxicity, Bioassessment, and most recently the Nutrients Focus Group. In general, the Focus Groups address matters of concern by investigating scientific information and formulating recommendations to present to the TIC. The TIC as a whole can then discuss the Focus Groups' recommendations and decide whether to forward them to the Water Board as recommended modifications to the Program.

One recommendation from the Water Column Toxicity Focus Group for a test result 'trigger' for TIE is now included in the MRP for Coalition Groups. The Sediment Toxicity Focus Group has made a recommendation to allow for a modification to the sediment toxicity analysis using *Hyaella azteca*. This modification would eliminate the necessity for growth endpoint, as described in the draft EPA method. The mortality endpoint will still be required to be performed, as described in the EPA method.

The Sediment Toxicity Focus Group has also identified that there is a deficiency in available laboratory services for the analyses of Pyrethroids in sediment. The results of various studies, including the Program's Phase II study, indicates that Pyrethroids are a major cause of sediment toxicity in various water bodies of the Central Valley, and therefore it will be necessary for Coalition Groups to monitor sediment for Pyrethroids where toxicity is indicated. However, there are only a few laboratories that are able to analyze sediment for these pesticides at the appropriate detection levels. The TIC and the Focus Group will be hosting a Laboratory Workshop at the Water Board's Rancho Cordova office on 31 August 2005 to begin a dialogue with commercial laboratories to help meet the Program's need for Pyrethroid analyses, as well as other Program-specific requirements and needs.

The Nutrient Focus Group held its first meeting on 16 August 2005, and generally discussed appropriate analyses for water quality assessments and Program compliance.

The TIC meeting dates, agendas, and other materials are posted on the Irrigated Lands Program Website. TIC meetings continue to take place on a monthly basis, with the next meeting scheduled for 27 September 2005 at the Water Board Office in Rancho Cordova.

PUBLIC OUTREACH AND COMPLIANCE UNIT

Water Board staff has been continuing extensive education and outreach efforts to maximize the amount of program information to growers and to increase member participation in Coalition Groups. Public outreach events, however, have been minimal during the past few months due to growers being occupied during the irrigation season months and Water Board staff working on Annual Report reviews and compliance and enforcement priorities.

With the exception of 100 percent rice grower participation with the California Rice Commission, the percentage of grower participation in the various Coalition Groups is estimated to be between 55 and 87 percent. This participation measure is based on information made available to Water Board staff. This information indicates that the membership level in subwatersheds is as low as 35 percent (based on acreage).

To continue increasing both education and compliance among growers, Water Board staff has spent a significant amount of effort to identify growers with irrigated lands who are not participating in the Program. Without grower or participant information from the Coalition Groups on who is or is not participating in the coalition group effort, staff has begun to obtain parcel ownership information from the Assessor's Office in each of the Counties in the Central Valley Region. This information is being converted and compared to restricted use pesticide permit holders lists, aerial maps, TMDL water body locations, identified water quality problems and other information. Obtaining this information has taken many staff days away from directly addressing non-participating growers.

However, with this information, staff continues to provide the Executive Officer lists of potential non-participating growers for issuance of Water Code Section 13267 Orders (Order). These Orders are written to serve two purposes. One is to serve as an additional educational tool to inform growers of their alternatives to comply with the Water Code and the other is to require the recipient to submit a technical report. The Executive Officer issued Orders to 126 growers in Yolo, Madera and Fresno Counties between March and July 2005. On 22 August 2005, the Executive Officer issued 196 Orders to growers in Yuba, Butte, Sutter and Colusa Counties.

Water Board staff's effort to identify non-participating Irrigated Lands Dischargers is very resource intensive. Although an immediate increase in Coalition Group membership is clearly linked to the Water Board's initial enforcement actions, Water Board staff continues to receive no detailed response to their request for assistance from the Coalition Groups in acquiring information to maximize program participation and program success.

Staff acknowledges that Coalition Group members may be among the recipients of these Orders and are required to submit a Technical Report. Although this initial enforcement effort is targeted towards growers who are not participating in the Program, issuance of Orders to Coalition Group members is unavoidable since membership information has not been shared with the Water Board. All Order recipients, including those that hold membership in a Coalition Group, are required to submit a Technical Report to the Water Board. Staff has been receiving numerous phone calls from growers in response to the issuance of these Orders.

At this time, Water Board staff continues to review the Technical Reports submitted by the Order recipients and to document the irrigation and drainage characteristics of the parcels. For parcels where Water Board staff conducts inspections, and findings clearly conclude that there is discharge to surface waters, enforcement activities will continue. These activities will enforce that coverage under a conditional waiver or filing for waste discharge requirements is the land owner/operator's immediate responsibility of growers to comply with the Water Code. Water Board staff continues to conduct enforcement activities regarding four landowners/operators that did not respond to the Orders issued on 4 March 2005.

In addition to these compliance and enforcement activities, staff has been inspecting irrigated lands that have been reported as sources of potential water quality concerns. These lands are within the designated boundaries of the Westside San Joaquin River Water Quality Coalition and the Sacramento Valley Water Quality Coalition. Staff is working with the Coalition Group representatives to identify follow up steps towards managing wastes currently discharging from the subject lands.

Additionally, staff continues to work with the Goose Lake Coalition to ensure their intent to comply with Program requirements and time schedules set forth for coverage under the Conditional Waiver for Coalition Groups. The Executive Officer received a letter dated 10 August 2005 from the Coalition restating their commitment to comply with the Program.

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