

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

RESOLUTION NO. R5-2007-0034

AMENDMENT TO THE WATER QUALITY CONTROL PLAN  
FOR  
THE SACRAMENTO RIVER AND SAN JOAQUIN RIVER BASINS

FOR  
THE CONTROL OF DIAZINON AND CHLORPYRIFOS RUNOFF INTO THE  
SACRAMENTO AND FEATHER RIVERS

WHEREAS, the California Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) finds that:

1. In 1975 the Central Valley Water Board adopted the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (Basin Plan), which has been amended occasionally.
2. The Basin Plan may be amended in accordance with the California Water Code (Water Code) section 13240, et seq.
3. Water Code section 13241 authorizes the Central Valley Water Board to establish water quality objectives and Water Code section 13242 sets forth the requirements for a program for implementation for achieving water quality objectives.
4. Water Code section 13243 authorizes the Central Valley Water Board to specify certain conditions or areas where the discharges of certain types of waste will not be permitted.
5. The Sacramento River has been identified under the federal Clean Water Act section 303(d) as impaired due to elevated concentrations of diazinon.
6. The Feather River has been identified under the federal Clean Water Act section 303(d) as impaired due to elevated concentrations of diazinon and chlorpyrifos.
7. The Central Valley Water Board recognizes that new information has been submitted which calls into question the scientific basis for the existing diazinon objectives; therefore, a Basin Plan Amendment is appropriate.
8. The Central Valley Water Board recognizes that the Basin Plan does not include numeric water quality objectives for chlorpyrifos, nor a plan to

- address combined diazinon and chlorpyrifos concentrations in the Sacramento and Feather Rivers; therefore, a Basin Plan Amendment is appropriate.
9. The Basin Plan currently requires the Central Valley Water Board to review the allocations and implementation provisions for diazinon discharges to the Sacramento and Feather Rivers by 30 June 2007.
  10. In a judgment denying a writ, the Sacramento County Superior Court required the Central Valley Water Board to reconsider the diazinon objectives no later than 30 June 2007 (*Makhteshim Agan of North America v. State Water Resources Control Board; Regional Water Quality Control Board-Central Valley Region, Sac. Cty. Sup. Ct. - Case No. 04CS00871*).
  11. The proposed amendment modifies Basin Plan Chapter III (Water Quality Objectives) to revise the site-specific numeric objective for diazinon and establish site-specific numeric objectives for chlorpyrifos in the Sacramento and Feather Rivers.
  12. The proposed amendment identifies the requirement to meet the additive formula already in Basin Plan Chapter IV (Implementation), for the additive toxicity of diazinon and chlorpyrifos.
  13. The proposed amendment modifies the existing implementation program contained in Basin Plan Chapter IV (Implementation) to reduce pesticide runoff and diazinon and chlorpyrifos discharges into the Sacramento and Feather Rivers. The proposed amendment establishes the loading capacity and allocations for diazinon and chlorpyrifos. The loading capacity and allocations are needed to provide a clear basis to determine compliance with and implement applicable water quality objectives. The loading capacity and allocations also satisfy the requirements of a Total Maximum Daily Load (TMDL).
  14. The proposed amendment modifies Basin Plan Chapter V (Surveillance and Monitoring) to include monitoring requirements to allow the Central Valley Water Board to assess progress in reducing diazinon and chlorpyrifos discharges and preventing toxicity from pesticide runoff.
  15. The proposed amendment requires dischargers of diazinon and chlorpyrifos to develop and implement a plan to ensure the loading capacity of diazinon and chlorpyrifos in the Sacramento and Feather Rivers is not exceeded.
  16. The Central Valley Water Board has considered the factors set forth in Water Code section 13241, including economic considerations, in

- developing this proposed amendment. The costs of implementing the proposed amendment are reasonable relative to the water quality benefits to be derived from implementing the proposed amendment, considering the size of the geographic area affected by the amendment, and that the estimated costs of compliance with this amendment duplicate to some extent the costs of complying with existing Basin Plan water quality objectives, the Irrigated Lands Conditional Waiver, and pesticide use regulations from the Department of Pesticide Regulation.
17. The proposed amendment includes an estimate of the cost of the proposed implementation program to agriculture and identifies potential sources of financing, as required by Water Code section 13141.
  18. The scientific portions and scientific basis of the proposed amendment are based on source material that has already been peer reviewed in accordance with Health and Safety Code section 57004. The proposed amendment is itself just a new application of earlier adequately peer reviewed work products. The proposed amendment does not depart from the scientific approach of the other Basin Plan amendments from which it is derived (R5-2005-0138 and R5-2006-0061).
  19. The Central Valley Water Board finds that the scientific portions of the Basin Plan Amendment are based on sound scientific knowledge, methods, and practices in accordance with Health and Safety Code section 57004.
  20. The Central Valley Water Board finds that the proposed amendment is consistent with the State Water Resources Control Board (State Water Board) Resolution No. 68-16, in that the changes to water quality objectives (i) consider maximum benefit to the people of the state, (ii) will not unreasonably affect present and anticipated beneficial use of waters, and (iii) will not result in water quality less than that prescribed in policies, and the proposed amendment is consistent with the federal Antidegradation Policy (40 CFR part 131.12). The proposed amendment requires actions to be taken to implement management practices to ensure compliance with water quality objectives. Such actions are of maximum benefit to the people of the state. Control of discharges of diazinon and chlorpyrifos to the Sacramento and Feather Rivers is necessary to protect beneficial uses of the Sacramento and Feather Rivers. The proposed amendment will not unreasonably affect present and anticipated beneficial uses nor result in water quality less than described in applicable policies because the amendment is intended to result in compliance with water quality objectives. The actions to be taken are not expected to cause other impacts on water quality.

21. The regulatory action proposed meets the "Necessity" standard of the Administrative Procedures Act, Government Code, section 11353, subdivision (b).
22. The basin planning process has been certified by the Resources Agency as an exempt regulatory program because its process adequately fulfills the purposes of the California Environmental Quality Act (CEQA). The Central Valley Water Board is therefore exempt from CEQA's requirement to prepare an environmental impact report, negative declaration, or initial study (Public Resources Code, section 21000 et seq.) for the proposed amendment. Central Valley Water Board staff has prepared the required documentation for adoption of a Basin Plan Amendment, including a completed environmental checklist and written report (staff report) prepared for the Board (23 CCR section 3777).
23. The Central Valley Water Board staff held CEQA scoping meetings on 23 May 2006 and 15 February 2007 and a public workshop on 2 April 2006 to receive comments on the draft amendment and to identify any significant issues that must be considered.
24. Central Valley Water Board staff has prepared a draft amendment and a staff report dated April 2007. The staff report included a description of the proposed amendment and analysis of reasonable alternatives to the proposed amendment. The staff report included an analysis of the reasonably foreseeable environmental impacts of the methods of compliance and an analysis of the reasonably foreseeable alternative methods of compliance with the proposed amendment. No environmental impacts were identified based on the analysis of the reasonably foreseeable methods of compliance.
25. Central Valley Water Board staff completed an environmental checklist that concluded that the proposed amendment results in no potential for adverse effect, either individually or cumulatively, on fish, wildlife, or the environment.
26. Central Valley Water Board staff has circulated a Notice of Public Hearing, Notice of Filing, a written staff report, response to public comments documents, and environmental checklist, and a draft proposed amendment to interested individuals and public agencies, including persons having special expertise with regard to the environmental effects involved with the proposed amendment, for review and comment in accordance with state and federal environmental regulations (23 CCR section 3775, 40 CFR 25, and 40 CFR 131).
27. The Central Valley Water Board held a public hearing on 3 May 2007, for the purpose of receiving testimony on the draft Basin Plan amendment.

Notice of the public hearing was sent to all interested persons and published in accordance with Water Code section 13244.

28. Based on the record as a whole, including draft Basin Plan amendments, the environmental document, accompanying written documentation, and public comments received, the Central Valley Water Board concurs with staff's conclusion that the amendments will not result in adverse effects on fish, wildlife, or the environment, and therefore no mitigation measures are proposed. The Central Valley Water Board finds that the record as a whole and the procedures followed by staff comply with applicable CEQA requirements (23 CCR section 3775 et seq, Public Resources Code sections 21080.5, 21083.9, and 21159, 14 CCR section 15187).
29. A Basin Plan amendment must be approved by the State Water Board, Office of Administrative Law (OAL), and the United States Environmental Protection Agency (USEPA). The proposed amendment becomes effective under State law after OAL approval and becomes effective under the federal Clean Water Act after USEPA approval.
30. The Central Valley Water Board finds that the amendment to the Basin Plan was developed in accordance with Water Code section 13240, et seq.

**THEREFORE BE IT RESOLVED:**

1. Pursuant to section 13240, et seq. of the Water Code, the Central Valley Water Board, after considering the entire record, including oral testimony at the hearing, hereby approves the staff report and adopts the amendment to the Basin Plan as set forth in Attachment 1.
2. The Executive Officer is directed to forward copies of the Basin Plan amendment to the State Water Board in accordance with the requirements of section 13245 of the Water Code.
3. The Central Valley Water Board requests that the State Water Board approve the Basin Plan amendment in accordance with the requirements of sections 13245 and 13246 of the Water Code and forward it to OAL and the USEPA for approval. The Central Valley Water Board specifically requests USEPA approval of all Basin Plan amendment provisions that require US EPA approval.
4. If during its approval process the Central Valley Water Board staff, State Water Board or OAL determines that minor, non-substantive corrections to the language of the amendment are needed for clarity or consistency, the Executive Officer may make such changes, and shall inform the Central Valley Water Board of any such changes.

5. Following approval of the Basin Plan amendment by the OAL, the Executive Officer shall file a Notice of Decision with the State Clearinghouse.

I, PAMELA C. CREEDON, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of a Resolution adopted by the California Regional Water Quality Control Board, Central Valley Region, on 3 May 2007.

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/s/  
PAMELA C. CREEDON, Executive Officer

Attachments: Attachment 1: Amendment to Basin Plan for the Control of Diazinon and Chlorpyrifos Runoff into the Sacramento and Feather Rivers

RESOLUTION NO. R5-2007-0034  
ATTACHMENT 1

AMENDMENTS TO THE WATER QUALITY CONTROL PLAN FOR THE SACRAMENTO RIVER AND SAN JOAQUIN RIVER BASINS FOR THE CONTROL OF DIAZINON AND CHLORPYRIFOS RUNOFF INTO THE SACRAMENTO AND FEATHER RIVERS

Additions to the Basin Plan are shown as underlined text, and text removals are shown in strikeout below.

**CHANGES TO CHAPTER III, WATER QUALITY OBJECTIVES**

Modify Table III-2A as follows:

TABLE III-2A

SPECIFIC PESTICIDE OBJECTIVES

<u>PESTICIDE</u>	<u>MAXIMUM CONCENTRATION AND AVERAGING PERIOD</u>	<u>APPLICABLE WATER BODIES</u>
Chlorpyrifos	0.025 µg/L ; 1-hour average (acute) 0.015 µg/L ; 4-day average (chronic) Not to be exceeded more than once in a three year period.	San Joaquin River from Mendota Dam to Vernalis (Reaches include Mendota Dam to Sack Dam (70), Sack Dam to Mouth of Merced River (71), Mouth of Merced River to Vernalis (83)), <u>Sacramento River from Shasta Dam to Colusa Basin Drain (13) and the Sacramento River from the Colusa Basin Drain to I Street Bridge (30).</u> Feather River from Fish Barrier Dam to <u>Sacramento River (40).</u>
Diazinon	0.16 µg/L ; 1-hour average (acute) 0.10 µg/L ; 4-day average (chronic) Not to be exceeded more than once in a three year period.	San Joaquin River from Mendota Dam to Vernalis (Reaches include Mendota Dam to Sack Dam (70), Sack Dam to Mouth of Merced River (71), Mouth of Merced River to Vernalis (83)), <u>Sacramento River from</u>

		<u>Shasta Dam to Colusa Basin Drain (13) and the Sacramento River from the Colusa Basin Drain to I Street Bridge (30). Feather River from Fish Barrier Dam to Sacramento River (40).</u>
Diazinon	0.080 µg/L ; 1-hour average 0.050 µg/L ; 4-day average Not to be exceeded more than once every three years on average.	Sacramento River from Shasta Dam to Colusa Basin Drain (13) and the Sacramento River from the Colusa Basin Drain to I Street Bridge (30). Feather River from Fish Barrier Dam to Sacramento River (40).

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## CHANGES TO CHAPTER IV, IMPLEMENTATION

### Changes to the “Regional Water Board Prohibitions” Section

To the “Regional Water Board Prohibitions” Section, modify section 7. Diazinon Discharges into the Sacramento and Feather Rivers as follows:

#### *7. Diazinon and Chlorpyrifos Discharges into the Sacramento and Feather Rivers*

Beginning ~~July 1, 2008~~ [U.S. EPA Approval Date], ~~(i) the direct or indirect discharge of diazinon or chlorpyrifos into the Sacramento and Feather Rivers is prohibited if, in the previous year (July-June), any exceedance of the diazinon or chlorpyrifos water quality objectives, or diazinon and chlorpyrifos loading capacity occurred,; and (ii) the direct or indirect discharge of diazinon into any sub-watershed (identified in Table IV-7) is prohibited if, in the previous year (July-June), the load allocation was not met in that subwatershed. Prohibition (i) applies only to diazinon discharges that are tributary to or upstream from the location where the water quality objective was exceeded.~~

These prohibitions do not apply if the discharge of diazinon or chlorpyrifos is subject to a waiver of waste discharge requirements implementing the diazinon and chlorpyrifos water quality objectives and load allocations for diazinon and chlorpyrifos for the Sacramento and Feather Rivers, or governed by individual or general waste discharge requirements.

These prohibitions apply only to dischargers causing or contributing to the exceedance of the water quality objective or loading capacity.



## Changes to the “Pesticide Discharges from Nonpoint Sources” Section

Modify the Pesticide Discharges from Nonpoint Sources, as follows:

### ~~Orchard Pesticide Runoff and Diazinon Runoff into the Sacramento and Feather Rivers~~ Diazinon and Chlorpyrifos Runoff into the Sacramento and Feather Rivers

1. ~~The orchard Sacramento and Feather River pesticide runoff and diazinon runoff control program shall:~~
  - a. ~~ensure compliance with water quality objectives applicable to the diazinon and chlorpyrifos water quality objectives in the Sacramento and Feather Rivers through the implementation of necessary management practices;~~
  - b. ~~ensure that measures that are implemented to reduce discharges of diazinon and chlorpyrifos discharges do not lead to an increase in the discharge of other pesticides to levels that violate cause or contribute to violations of applicable water quality objectives and Regional and State Water Board policies; and~~
  - c. ~~ensure that pesticide discharges from orchards of pesticides to surface waters are controlled so that the pesticide discharges concentrations are at the lowest levels that is are technically and economically achievable.~~
2. ~~Orchard dischargers~~ Dischargers must consider whether a proposed alternative to diazinon or chlorpyrifos has the potential to degrade ground or surface water. If the alternative to diazinon or chlorpyrifos has the potential to degrade ground water, alternative pest control methods must be considered. If the alternative to diazinon or chlorpyrifos has the potential to degrade surface water, control measures must be implemented to ensure that applicable water quality objectives and Regional and State Water Board policies are not violated, including State Water Resources Control Board Resolution 68-16.
3. Compliance with water quality objectives, waste load allocations, and load allocations for diazinon and chlorpyrifos in the Sacramento and Feather Rivers is required by ~~June 30, 2008~~ [U.S. EPA Approval Date].

The water quality objectives and allocations will be implemented through ~~one or a combination of the following:~~ the adoption or modification of ~~one or more~~ waivers of waste discharge requirements, and general or individual waste discharge requirements where provisions necessary for implementation are not already in place. ~~To the extent not already in place, the Regional Water Board expects to adopt or revise the appropriate waiver(s) or waste discharge requirements by December 31, 2007.~~

~~4. The waste load allocations for all NPDES permitted discharges are the diazinon water quality objectives.~~

~~5.4. The Regional Water Board will review the diazinon and chlorpyrifos allocations and the implementation provisions in the Basin Plan at least once every five years, beginning no later than June 30, 2007 30 June 2013.~~

~~6.5. Regional Water Board staff will meet at least annually with staff from the Department of Pesticide Regulation and representatives from the California Agricultural Commissioners and Sealers Association to review pesticide use and instream pesticide concentrations during the dormant spray and irrigation application seasons and to consider the effectiveness of management measures in meeting water quality objectives and load allocations.~~

~~7. The Loading Capacity (LC) for diazinon is determined by:~~

~~LC=C x Q x a Unit Conversion Factor; where C= the maximum concentration established by the diazinon water quality objectives and Q= the flow (the daily average flow is used in conjunction with the 0.080 µg/L diazinon objective and the four day average flow is used in conjunction with the 0.050 µg/L diazinon objective). The LC will be calculated for the Sacramento River at I Street; the Sacramento River at Verona; the Sacramento River at Colusa; and the Feather River near its mouth. The value for Q (flow) in the Loading Capacity calculations for the Sacramento River sites will be increased to account for any flood control diversions into the Yolo Bypass or Butte Sink. The best available estimates of such diversions will be used.~~

~~8. The Load Allocation for discharges into the Sacramento River between Verona and I Street is determined by the following: [LC(Sacramento River at I Street) minus LC(Sacramento River at Verona)] multiplied by 0.70.~~

~~The Load Allocations required to meet the Loading Capacity in the Sacramento River at Verona are determined by multiplying the LC calculated for the Sacramento River at Verona by the Load Allocation factors in Table IV-7. If the calculated Load Allocation for the Feather River or Sacramento River at Colusa is greater than the Loading Capacity for that site, then the Loading Capacity for that site applies.~~

~~The Load Allocations establish the allowable diazinon load from nonpoint source dischargers.~~

~~Note: If the Sacramento River at Verona mean daily flow were 15,000 cubic feet per second or cfs, the loading capacity would equal approximately 2,900 grams/day for the 0.080 µg/L diazinon water quality objective. The Unit Conversion Factor would be 2.446.~~

~~The load allocations would be approximately 493 grams/day for the Colusa Basin Drain; 348 grams/day for the Feather River; 783 grams/day for the Sacramento River at Colusa; and 957 grams/day for Sutter/Butte.~~

~~If the mean daily flow in the Feather River were 5,000 cubic feet per second or cfs, the loading capacity would be approximately 978 grams/day for the 0.080 µg/L diazinon water quality objective. The Unit Conversion Factor would be 2.446.~~

~~If the load allocation for the Feather River for that day were 348 grams/day, the load allocation would apply.~~

6. The Waste Load Allocations (WLA) for all NPDES-permitted dischargers, Load Allocations (LA) for nonpoint source discharges, and the Loading Capacity of the Sacramento and Feather Rivers shall not exceed the sum (S) of one (1) as defined below.

$$S = \frac{C_D}{WQO_D} + \frac{C_C}{WQO_C} \leq 1.0$$

where

C<sub>D</sub> = diazinon concentration in µg/L of point source discharge for the WLA; nonpoint source discharge for the LA; or the Sacramento or Feather Rivers for the LC.

C<sub>C</sub> = chlorpyrifos concentration in µg/L of point source discharge for the WLA; nonpoint source discharge for the LA; or the Sacramento or Feather Rivers for the LC.

WQO<sub>D</sub> = acute or chronic diazinon water quality objective in µg/L.

WQO<sub>C</sub> = acute or chronic chlorpyrifos water quality objective in µg/L.

Available samples collected within the applicable averaging period for the water quality objective will be used to determine compliance with the allocations and loading capacity. Prior to performing any averaging calculations, only chlorpyrifos and diazinon results from the same sample will be used in calculating the sum (S). For purposes of calculating the sum (S) above, analytical results that are reported as "nondetectable" concentrations are considered to be zero.

Compliance with the load allocations will be determined where the nonpoint source discharges into the Sacramento or Feather Rivers.

- 9.7. The established waste load and load allocations for diazinon and chlorpyrifos, and the water quality objectives for diazinon and chlorpyrifos water quality objectives in the Sacramento and Feather Rivers represent a maximum allowable level. The Regional Water Board shall require any additional reductions in diazinon or chlorpyrifos levels necessary to account for additive or synergistic toxicity effects or to protect beneficial uses in tributary waters.

~~10.8.~~ Pursuant to CWC §13267, the Executive Officer will require dischargers of ~~diazinon must to~~ submit a management plan that describes the actions that the discharger will take to reduce diazinon and chlorpyrifos discharges and meet the applicable allocations ~~by the required compliance date.~~

The management plan may include actions required by State and federal pesticide regulations. The Executive Officer will require the discharger must to document the relationship between the actions to be taken and the expected reductions in diazinon and chlorpyrifos discharge(s). The Executive Officer will allow individual individual dischargers or a discharger group or coalition ~~may to~~ submit management plans.

The management plan must comply with the provisions of any applicable waiver of waste discharge requirements or waste discharge requirements ~~and must be submitted no later than June 30, 2005.~~ The Regional Water Board Executive Officer may require revisions to the management plan if compliance with applicable allocations is not attained or the management plan is not reasonably likely to attain compliance. When requiring any revisions to the management plan, the Executive Officer may consider the relative contributions of diazinon and chlorpyrifos to the lack of compliance with the allocations.

~~11.9.~~ Any waiver of waste discharge requirements or waste discharge requirements that govern the control of ~~orchard~~ pesticide runoff ~~or diazinon runoff~~ that is discharged directly or indirectly into the Sacramento or Feather Rivers must be consistent with the policies and actions described in paragraphs 1-~~10~~ 8.

~~12.10.~~ In determining compliance with the waste load allocations, the Regional Water Board will consider any data or information submitted by the discharger regarding diazinon and chlorpyrifos inputs from sources outside of the jurisdiction of the permitted discharge, including any diazinon and chlorpyrifos present in precipitation; and any applicable provisions in the discharger's NPDES permit requiring the discharger to reduce the discharge of pollutants to the maximum extent practicable.

11. The above provisions for control of diazinon and chlorpyrifos discharges apply to the Sacramento and Feather Rivers as described in Table III-2A.

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**Table IV-7**  
**Load Allocation Factors for**  
**Diazinon in the Sacramento**  
**River Watershed**

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Sub- Watershed	Load Allocation Factor
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Colusa Basin Drain	17%
Feather River	12%
Sacramento River at Colusa	27%
Sutter/Butte	33%

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*Location Descriptions*

~~Colusa Basin Drain – is the Colusa Basin Drain at the confluence with the Sacramento River. The Colusa Basin Drain sub-watershed includes all land that drains into the Colusa Basin Drain.~~

~~Feather River – is the Feather River near the confluence with the Sacramento River. The Feather River sub-watershed includes all land that drains into the Feather River below the Oroville Dam, but does not include flow from the Sutter Bypass.~~

~~Sacramento River at Colusa – is the Sacramento River at the River Road bridge in the town of Colusa. (United States Geological Survey gauging Station 11389500) The Sacramento River at Colusa subwatershed includes all land below Shasta Dam that drains to the Sacramento River at Colusa.~~

~~Sutter/Butte – is Sacramento Slough near the confluence with the Sacramento River or the sum of the Sutter Bypass near the confluence with the Feather River and Reclamation Slough near the confluence with the Sutter Bypass depending on flow conditions (minus diazinon loading resulting from Sacramento River water being bypassed into tributaries of Sacramento Slough or the Sutter Bypass). The Sutter/Butte sub-watershed includes all land that drains to Sacramento Slough, the Sutter Bypass, and Reclamation Slough.~~

~~Sacramento River at I Street – is the Sacramento River at the I Street Bridge in the city of Sacramento.~~

~~Sacramento River at Verona – is the Sacramento River at the United States Geological Survey gauging station at Verona (Station Number 11425500).~~

## **Changes to the “Estimated Costs of Agricultural Water Quality Control Programs and Potential Sources of Financing” section**

### **Sacramento and Feather Rivers ~~Orchard~~ Diazinon and Chlorpyrifos-Runoff Control Program**

The total estimated costs for management practices to meet the diazinon and chlorpyrifos objectives for the Sacramento and Feather Rivers ~~are range from a \$0.3 million/ year cost savings to a \$3.8~~ \$0 to \$6.2 million/year cost (2004 2007 dollars). The estimated costs for discharger monitoring, planning, and evaluation ~~are range from \$0.5 to \$9.3~~ \$0.3 to \$1.5 million/year (2003 2007 dollars).

Potential funding sources include:

1. Those identified in the San Joaquin River Subsurface Agricultural Drainage Control Program and the Pesticide Control Program.

## **CHANGES TO CHAPTER 5, SURVEILLANCE AND MONITORING**

### **~~Orchard Pesticide Runoff and~~ Diazinon and Chlorpyrifos Runoff into the Sacramento and Feather Rivers**

The Regional Water Board requires a focused monitoring effort of agricultural pesticide runoff from orchards in the Sacramento Valley into the Sacramento and Feather Rivers.

The monitoring and reporting program for any waste discharge requirements or waiver of waste discharge requirements that addresses agricultural pesticide runoff from orchards in the Sacramento Valley into the Sacramento or Feather Rivers must be designed to collect the information necessary to:

1. determine compliance with established water quality objectives and the loading capacity applicable to ~~for~~ diazinon and chlorpyrifos in the Sacramento and Feather Rivers;
2. determine compliance with ~~established waste load allocations and~~ load allocations for diazinon and chlorpyrifos;
3. determine the degree of implementation of management practices to reduce off-site migration of diazinon and chlorpyrifos;
4. determine the effectiveness of management practices and strategies to reduce off-site migration of diazinon and chlorpyrifos;
5. determine whether alternatives to diazinon or chlorpyrifos are causing surface water quality impacts;

6. determine whether the discharge causes or contributes to a toxicity impairment due to additive or synergistic effects of multiple pollutants; and
7. demonstrate that management practices are achieving the lowest pesticide levels technically and economically achievable.

Dischargers are responsible for providing the necessary information. The information may come from the dischargers' monitoring efforts; monitoring programs conducted by State or federal agencies or collaborative watershed efforts; or from special studies that evaluate the effectiveness of management practices.