

March 1, 2006

STATE WATER RESOURCES CONTROL BOARD
BOARD MEETING SESSION - DIVISION OF WATER QUALITY
[Date]

ITEM

SUBJECT

CONSIDERATION OF A RESOLUTION APPROVING AN AMENDMENT TO THE WATER QUALITY CONTROL PLAN FOR THE SACRAMENTO RIVER AND SAN JOAQUIN RIVER BASINS INCORPORATING A PROGRAM FOR CONTROL OF DIAZINON AND CHLORPYRIFOS RUNOFF INTO THE LOWER SAN JOAQUIN RIVER

DISCUSSION

The Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (Basin Plan) of the Central Valley Regional Water Quality Control Board (Central Valley Water Board) was approved by the U.S. Environmental Protection Agency (USEPA) in the year 2000.

On October 21, 2005, the Central Valley Water Board adopted Resolution No. 2005-0138 to incorporate a Program for Control of Diazinon and Chlorpyrifos Runoff into the lower San Joaquin River (Program). The San Joaquin River has been listed under the federal Clean Water Act Section 303(d) as not meeting standards due to elevated concentrations of the organophosphorous (OP) pesticides diazinon and chlorpyrifos. The sources are agricultural and urban runoff. The Bay Protection Program Clean-up Plan for the Delta, which has been approved by the Central Valley Water Board and the State Water Resources Control Board (State Water Board), includes requirements to develop a Basin Plan Amendment for diazinon and chlorpyrifos in the lower San Joaquin River. The beneficial use most sensitive to diazinon and chlorpyrifos is freshwater habitat. The amendment establishes site-specific numeric water quality objectives for chlorpyrifos and diazinon in the lower San Joaquin River; a specific timeframe for compliance with objectives and allocations; the necessary elements of a Total Maximum Daily Load (TMDL); and an implementation framework for ensuring compliance.

Water Quality Objectives

The amendment establishes site-specific numeric water quality objectives for chlorpyrifos and diazinon in the lower San Joaquin River. The objectives are derived using USEPA methods and are applied to data sets screened by the California Department of Fish and Game. In addition, the amendment requires additional reductions in diazinon and chlorpyrifos which are necessary to account for additive toxicity, as required by the additive toxicity formula in Basin Plan Chapter IV (Implementation).

The amendment also describes the lower San Joaquin River and its component subareas, or subwatersheds, which are identical to those in the lower San Joaquin River salt and boron Basin Plan Amendment, already approved by the State Water Board. Load allocations for diazinon and chlorpyrifos discharges will be assigned to the watersheds that discharge into different reaches of the lower San Joaquin River. The allocations apply to the subarea discharge point to the lower San Joaquin River. Dischargers of diazinon and chlorpyrifos will be required

to develop and implement a plan to reduce diazinon and chlorpyrifos levels in the lower San Joaquin River with a five-year time schedule for compliance.

TMDL

TMDLs for diazinon and chlorpyrifos were designed to eliminate the impacts of diazinon and chlorpyrifos to aquatic life in the lower San Joaquin River. The loading capacity and allocations are established at levels necessary to attain the applicable numeric and narrative water quality objectives. A combined additive toxicity formula, found in the Basin Plan, is used to account for the joint toxicity of diazinon and chlorpyrifos. Load allocations are established by subarea and apply to both the irrigation and dormant seasons. Equating the allocations to the loading capacity provides an implicit margin of safety, since no dilution credit is given.

Implementation

The implementation approach in this amendment is to establish an agricultural runoff control program that is focused on protecting the lower San Joaquin River from the impacts of diazinon and chlorpyrifos. Compliance is required by December 1, 2010. After December 1, 2010, the discharge of diazinon or chlorpyrifos is prohibited during the dormant and irrigation seasons if there was any exceedance of diazinon and/or chlorpyrifos water quality objectives in the previous season. Each discharger must submit a management plan to the Central Valley Water Board that describes the actions that the discharger will take to reduce diazinon and chlorpyrifos discharges during the irrigation and dormant seasons, and that will meet the applicable allocations by the required compliance dates. The amendment also requires dischargers to consider whether use of an alternative to diazinon or chlorpyrifos would degrade ground or surface water. Central Valley Water Board staff will review allocations and implementation provisions by December 31, 2009 and every five years thereafter.

Monitoring

Monitoring will measure (1) compliance with water quality objectives, load allocations, and loading capacity; (2) implementation and effectiveness of management practices to reduce off-site migration of diazinon and chlorpyrifos; (3) degradation of surface water quality from alternatives to diazinon and chlorpyrifos; (4) additive or synergistic effects of multiple pollutants; and (5) whether management practices achieve the lowest pesticide levels technically and economically achievable.

Costs

The estimated costs of compliance with this amendment duplicate to some extent the costs that will be incurred to comply with the Irrigated Lands Conditional Waiver and Basin Plan Amendments for salt, boron, and dissolved oxygen. Economic analysis is based on dormant season practices to reduce pesticide runoff such as pest control practices and passive runoff control, and on irrigation season practices to reduce pesticides in irrigation runoff such as pest management practices and irrigation water management practices. The estimated cost of dormant season alternative pest management practices ranges from \$56,000 to \$2.5 million. The estimated cost of irrigation season alternative pest and water management ranges from \$3.9 million to \$5.3 million. Total costs for monitoring, planning, and evaluation range from \$600,000, if conducted under a watershed group, to \$3.1 million if individual growers report directly to the Central Valley Water Board (\$3,100 per grower).

POLICY ISSUE

Should the State Water Board approve the amendment to the Basin Plan in accordance with the Staff Recommendation below?

FISCAL IMPACT

Central Valley Water Board and State Water Board staff work associated with or resulting from this action can be accomplished within budgeted resources.

REGIONAL WATER BOARD IMPACT

Yes, Central Valley Water Board.

STAFF RECOMMENDATION

That the State Water Board:

1. Approves the amendment to the Central Valley Water Board Basin Plan to incorporate a Program for Control of Diazinon and Chlorpyrifos Runoff into the lower San Joaquin River as adopted in Central Valley Water Board Resolution No. 2005-0138.
2. Authorizes the Executive Director to transmit the amendment and administrative record for this action to the Office of Administrative Law and the TMDL to USEPA for approval.

Policy review _____
Fiscal review _____
Legal review _____

STATE WATER RESOURCES CONTROL BOARD
RESOLUTION NO. 2006-APPROVING AN AMENDMENT TO THE WATER QUALITY CONTROL PLAN
FOR THE SACRAMENTO RIVER AND SAN JOAQUIN RIVER BASINS
INCORPORATING A PROGRAM FOR CONTROL OF DIAZINON AND CHLORPYRIFOS
RUNOFF INTO THE LOWER SAN JOAQUIN RIVER

WHEREAS:

1. On October 21, 2005, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) adopted Resolution No. 2005-0138 (Attachment) amending the Water Quality Control Plan (Basin Plan) for the Central Valley Region to incorporate a Program for Control of Diazinon and Chlorpyrifos Runoff into the lower San Joaquin River.
2. The Central Valley Water Board prepared documents and followed procedures satisfying environmental documentation requirements in accordance with the California Environmental Quality Act and other State laws and regulations.
3. The Central Valley Water Board found that the additions of this amendment would result in no adverse effect on wildlife, and the amendment would be consistent with the State Antidegradation Policy (State Water Board Resolution No. 68-16) and federal antidegradation requirements.
4. The San Joaquin River has been identified under the federal Clean Water Act Section 303(d) as not meeting standards due to elevated concentrations of diazinon and chlorpyrifos.
5. The Bay Protection Program Clean-up Plan for the Delta, which has been approved by the Central Valley Water Board and the State Water Resources Control Board (State Water Board), includes requirements to develop a Basin Plan Amendment for diazinon and chlorpyrifos in the San Joaquin River.
6. The proposed amendment adds technical descriptions of the lower San Joaquin River and its component subareas, which are identical to those in the San Joaquin River salt and boron Basin Plan Amendment which has been approved by the State Water Board.
7. The proposed amendment establishes site-specific numeric objectives for chlorpyrifos and diazinon in the San Joaquin River.
8. The proposed amendment identifies the requirement to meet the additive toxicity formula already in Basin Plan Chapter IV (Implementation), for the additive toxicity of diazinon and chlorpyrifos.
9. The proposed amendment establishes an implementation program to reduce pesticide runoff and diazinon and chlorpyrifos discharges into the lower San Joaquin River, including the loading capacity and allocation requirements of a Total Maximum Daily Load (TMDL).

10. The proposed amendment includes monitoring requirements to allow the Central Valley Water Board to assess progress in reducing diazinon and chlorpyrifos discharges and preventing toxicity from pesticide runoff.
11. The proposed amendment requires dischargers of diazinon and chlorpyrifos to develop and implement a plan to reduce diazinon and chlorpyrifos levels in the lower San Joaquin River.
12. The State Water Board finds that the Basin Plan amendment is in conformance with Water Code section 13240, which specifies that Regional Water Quality Control Boards may revise Basin Plan section 13241, which specifies the requirement to adopt water quality objectives and section 13242, which requires a program of implementation of water quality standards. The State Water Board also finds that the TMDL as reflected in the Basin Plan amendment is consistent with the requirements of federal Clean Water Act section 303(d).
13. A Basin Plan amendment does not become effective until approved by the State Water Board and until the regulatory provisions are approved by the Office of Administrative Law. The U.S. Environmental Protection Agency (USEPA) must also approve the TMDL.

THEREFORE BE IT RESOLVED THAT:

The State Water Board:

1. Approves the amendment to the Central Valley Water Board Basin Plan to incorporate a Program for Control of Diazinon and Chlorpyrifos Runoff into the lower San Joaquin River as adopted in Central Valley Water Board Resolution No. 2005-0138.
2. Authorizes the Executive Director to transmit the amendment and administrative record for this action to OAL and the TMDL to USEPA for approval.

CERTIFICATION

The undersigned, Clerk to the Board, does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the State Water Board held on [DATE].

Song Her
Clerk to the Board