



Department of Pesticide Regulation



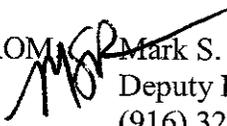
Mary-Ann Warmerdam
Director

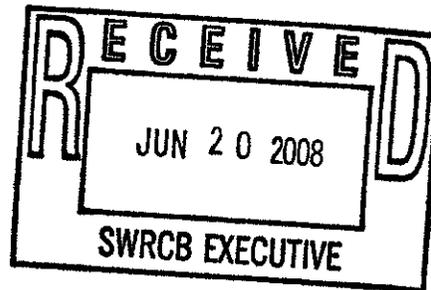
MEMORANDUM

Arnold Schwarzenegger
Governor

Public Comment
Strategic Plan Update
Deadline: 6/20/08 by 12 p.m.

TO: Tam M. Dudoc, Chair
State Water Resources Control Board
1001 I Street
Sacramento, California 95812

FROM:  Mark S. Rentz
Deputy Director
(916) 324-0614



DATE: June 20, 2008

SUBJECT: COMMENTS ON STRATEGIC PLAN UPDATE

Thank you for the opportunity to comment on the State Water Resources Control Board's (State Board's) proposed Strategic Plan Update: 2008–2012 (Strategic Plan). The Department of Pesticide Regulation (DPR) believes there are opportunities within the context of the Strategic Plan to explain how during the next five years the State Board, Regional Water Quality Control Boards (Regional Boards), and DPR plan to cooperate and coordinate activities with the goal of improving water quality. Specific comments on the Strategic Plan are presented below. Included is a brief overview of DPR's mandates, authorities, and programs to help show the basis for our activities that relate to water quality.

Priority 1. Protect and Restore Surface Water Quality

In this section, the Strategic Plan recognizes that pesticides can affect surface water quality. This section can be made more complete by explaining that DPR and the Regional Boards will work cooperatively to seek means to address pesticides and potential impairments of beneficial uses of surface and groundwater. Some specific recommendations:

Page 12, "Long-range approaches to managing the problem." Include a statement that recognizes that collaboration with other state or local agencies that have regulatory responsibilities affecting water quality may be a means to develop innovative, effective, and efficient long term approaches to meet water quality goals. Certainly, DPR has responsibilities, authorities, and programs that would be potent complements to those of the State and Regional Boards.

Page 14, "What the Water Boards can realistically do in the next five years." This would be a good section to insert a statement regarding the State and Regional Boards' attempt to harmonize its activities with DPR as they relate to irrigated lands regulatory programs, basin planning, total maximum daily load implementation, and stormwater quality programs.



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Page 16, Objective 1.4. This element of the Strategic Plan states that the State and Regional Boards will use innovative approaches to protect and restore surface waters. Action 1.4.2. seems to be a reference to a approach exemplified by a memorandum of understanding that defines roles for county agricultural commissioners (CACs) in irrigated lands regulatory programs. We suggest that another action item be added that states that the State and Regional Boards will continue to collaborate with DPR on issues related to pesticides and water quality and that they will explore ways to blend authorities and programs to effectively and efficiently meet water quality goals. Additionally, this section may be an appropriate place to state that the State and Regional Boards and DPR will review and revise as necessary the management agency agreement between the State Board and DPR.

Priority 2. Protect and Restore Groundwater Quality

In response to legislative mandate, DPR developed a regulatory program that protects groundwater from pesticides. As was the case with the Priority 1 section, there may be ways to recognize, in the context of the Strategic Plan, opportunities for DPR and the State and Regional Boards to collaborate when addressing groundwater protection.

Page 18, "Long-range approaches to managing the problem." We recommend that a statement be added, perhaps in the first paragraph, that recognizes that state and local agencies can affect site-specific management practices that may reduce the vulnerability of groundwater to contamination.

Page 20, Objective 2.1. This objective recognizes the value of innovative, integrated strategies for the protection of groundwater. In this context, we recommend that an action item state that the State and Regional Boards will collaborate with state and local agencies that have regulatory programs that may affect how potential pollutants are transported to groundwater.

Overview of Department of Pesticide Regulation Activities

As background for you and your staff, an overview of DPR's mandates, authorities, and programs, and how they may be applicable to State and Regional Board programs over the next five years, are provided below.

The Department of Pesticide Regulation's Mandates and Authorities: DPR is the lead agency for regulating the sales and use of pesticides in California and is mandated by State law to protect the environment from adverse effects of pesticide use. Specifically, DPR is mandated to:

Protect the environment (including surface water and associated habitat) from environmentally harmful pesticides by prohibiting, regulating, or ensuring proper stewardship of those pesticides (Food and Agricultural Code [FAC] section 11501).

Prohibit or regulate the use of environmentally harmful materials and to take whatever steps necessary to protect the environment (FAC section 14102).

Endeavor to eliminate from use in the state any pesticide that endangers the agricultural or nonagricultural environment (FAC section 12824).

State law also provides DPR with specific regulatory tools to fulfill its mandates. These tools include:

Restricted Materials Designations. The Director of DPR shall designate a pesticide a restricted material if the pesticide presents significant hazards to the environment, including drift onto streams and lakes and persistence in soils that leads to contamination of waterways (FAC section 14004.5).

Pesticide Use Permits. To buy or use a restricted material, a person must obtain a permit from CAC. If CAC determines that an adverse effect is likely, he or she may deny the permit or condition the permit so that site-specific practices are followed (FAC section 14006.5). In practice, DPR often provides CACs with suggested permit conditions. CACs may follow DPR's suggestions or structure their own restrictions.

Use Requirements. DPR shall adopt regulations that govern the use and possession for restricted materials that are injurious to the environment (FAC section 14005).

County Agricultural Commissioners--Authorized Permits. A CAC is authorized to require a permit for agricultural use within their county of a pesticide that is not designated a restricted material if the CAC first determines that the pesticide would present an undue hazard when used under local conditions (FAC section 14006.6).

Cancellation. DPR may cancel the registration of, or refuse to register, a pesticide that has demonstrated serious uncontrollable adverse effects either within or outside the agricultural environment (FAC section 12825).

Suspension. DPR may suspend the registration of a pesticide if the use of the pesticide poses an immediate substantial danger to persons or the environment (FAC section 12826).

The Department of Pesticide Regulation has an additional tool described in Title 3, California Code of Regulations (3 CCR):

Reevaluation. If DPR finds that a significant adverse impact has occurred or is likely to occur, the pesticide involved shall be reevaluated (3 CCR section 6220). Under a reevaluation, DPR may require pesticide registrants to submit additional data to determine the nature or extent of the potential hazard or identify appropriate mitigation measures (3 CCR section 6192).

Examples of How DPR Protects Water Quality: DPR has demonstrated that it will use its authorities to improve water quality when environmental conditions suggest that pesticide-related water quality objectives are, or may be, exceeded. In fact, DPR's regulatory triggers have been the same as those used by Regional Boards. Resulting regulations and pesticide product reevaluations should play an important role in strategies that are developed in response to repeat violations of water quality objectives. Specific actions are cited below. DPR believes that when these actions are fully implemented, some of the state's most significant pesticide-related impairments to water quality will be resolved.

Reevaluation of diazinon dormant sprays. Diazinon concentrations exceeded water quality criteria recommended by the Department of Fish and Game (DFG)—the same criteria the Central Valley Regional Board used later to set its water quality objectives for diazinon. DPR responded by placing diazinon dormant spray products into reevaluation. (Under reevaluation, pesticide registrants are required to submit to DPR additional information on registered products when it has been determined that registered use causes, or is likely to cause, a significant adverse impact). The goal of the diazinon reevaluation is to assure conformity with DFG criteria and Regional Board water quality objectives. In response, prior to the 2005–06 application season registrants amended use directions on labels of their diazinon dormant spray products in order to reduce transport from sites of application into surface waters. Users are subject to citations and fines if they do not follow these directions. Registrants have also supported studies to demonstrate the effectiveness of management practices. Monitoring results show that diazinon concentrations in high-use watersheds still exceed water quality objectives, so DPR required registrants to identify and implement additional measures that will further reduce diazinon runoff. Registrants are also required to submit monitoring data from receiving waters to demonstrate the effectiveness of the measures. Registrants' responses are pending.

Reevaluation of chlorpyrifos. The triggers and goals of the chlorpyrifos reevaluation are analogous to those of the diazinon dormant spray reevaluation: DPR responded to the same triggers that the Central Valley Regional Board uses, and the goals are attainment and maintenance of water quality objectives. Chlorpyrifos registrants amended their product labels, requiring users to take additional actions to prevent offsite transport to surface waters. DPR asked registrants to demonstrate the effectiveness of the amendments in high-use watersheds, including the Salinas Valley. If monitoring results show that upgraded labels are inadequate to

achieve conformity with water quality objectives, DPR will expect registrants to implement additional measures and demonstrate their performance.

Reevaluation of pyrethroid insecticides. Research documented that pyrethroid insecticides were present in streambed sediments at concentrations that are toxic to sensitive aquatic organisms. Essentially, the Regional Board's narrative water quality objective for toxicity was violated in water bodies in both agricultural and urban settings. In one of the most extensive and comprehensive reevaluations yet initiated, DPR put into reevaluation 608 products, involving 123 pesticide registrants and 20 pyrethroid active ingredients. It was initiated in Fall 2006, and registrants are required to submit a variety of data, including additional toxicity data on sensitive aquatic organisms, the processes by which pyrethroids are transported from the site of application, and the effectiveness of management practices aimed at reducing or eliminating offsite movement. In an unprecedented action, DPR solicited consultation with State and Regional Board representatives during this reevaluation. The Boards designated staff contacts for the pyrethroid reevaluation, and it is DPR's hope that one of their functions will be to liaison with the State and Regional Board regulatory programs.

Dormant spray regulations. In 2006, DPR adopted new regulations that help reduce movement of dormant spray insecticides, including the pyrethroid esfenvalerate and organophosphates like diazinon and chlorpyrifos, into surface waters. The regulations require dormant spray users to apply management practices that reduce aerial drift, obtain written recommendations for use from licensed pest control advisors, and, significantly, use no-spray buffer zones near surface waters.

Groundwater Protection. DPR has been working to protect groundwater from pesticide contamination for many years, and its efforts culminated recently with a set of comprehensive regulations. DPR scientists presented information on this program at meetings of the State and Regional Boards over the last few years. They explained that since 1986, DPR's groundwater protection efforts have been guided by specific mandates that require DPR to compile pesticide monitoring data from groundwater, identify pesticides that have a reasonable potential to leach to groundwater, and prohibit pesticides detected in groundwater due to legal agricultural use unless future contamination could be controlled.

DPR's comprehensive groundwater protection program relies on its compilation of results from pesticide monitoring of groundwater, which now includes more than 1,600,000 records, representing 22,000 wells (over 4,900 of them sampled by DPR staff) throughout California. This compilation, also known as the well inventory, is freely available on DPR's Web site <<http://www.cdpr.ca.gov/docs/gwp>>. Using data in the well inventory database, DPR scientists developed the California Vulnerability Model, which identifies areas vulnerable to pesticide contamination by correlating soil types and hydrologic conditions in areas where pesticides were detected in groundwater. Regulations now define these vulnerable areas (about 2.4 million acres

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statewide), as well as pesticides that are known to contaminate groundwater following legal agricultural use (i.e. the herbicides atrazine, bentazon, bromacil, diuron, norflurazon, prometon, and simazine). The regulations also specify that if one chooses to use one of these known contaminants in vulnerable areas, specific management practices must be followed to prevent contamination.

The Department of Pesticide Regulation's Pest Management Alliance Grant Program. One of DPR's commitments is to support development and implementation of reduced risk pest management practices. DPR's budget was recently augmented to reinvigorate its Pest Management Alliance Grant Program, which fosters implementation and adoption of effective pest management practices that reduce risks to human health and the environment. In its recent grant solicitation notice, DPR specifically encouraged grant proposals that promote implementation of pest management practices that reduce impacts on water quality. DPR expects that as growers become familiar with recently developed pest management strategies, use of pesticides that have historically been problems for water quality (i.e. organophosphates and pyrethroids) will decline.

Continued Interagency Coordination

DPR is impressed with the agreement between the State Board and CACs in Butte and Glenn Counties. Through this agreement, CACs and their staff, who are local agents for enforcing DPR's pesticide regulatory programs, are an important link connecting the regulatory structures of the Central Valley Regional Board's Irrigated Lands Regulatory Program and DPR.

DPR will continue to work closely with State and Regional Board staff to devise programs that efficiently makes the most of State Board, Regional Board, and DPR authorities to assure that pesticides do not impair beneficial uses of the state's waters.

Thank you for your consideration. If you have any questions or comments, please feel free to contact me, or Marshall Lee, of my staff, at (916) 324-4269 or <mlee@cdpr.ca.gov>.

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