

INTRODUCTION

Surface water and groundwater quality is regulated in California through many laws, regulations, and ordinances administered by local, state, and federal agencies. Water quality regulation and permitting processes are designed to limit the discharge of pollutants to the environment in an effort to achieve the highest surface water and groundwater quality, protect fish and wildlife and their habitats, and protect other beneficial uses (e.g., domestic and agricultural water supply and recreational resources). This section describes the regulations relevant to irrigated lands where water is applied to produce crops. These crops include, but are not limited to, land planted to vineyard, row, pasture, field, and tree crops; commercial nurseries; nursery stock production; managed wetlands; rice production; greenhouse operations with permeable floors; and other irrigated lands in California that do not currently discharge under waste discharge requirements (WDRs), National Pollutant Discharge Elimination System (NPDES) permits, Municipal Separate Storm Sewer System, or other NPDES permits.

Federal Programs Affecting Irrigated Lands Discharges

Clean Water Act

The federal Clean Water Act (CWA) was established to regulate discharges of pollutants into waters of the United States. Waters of the United States include all types of surface waters as defined in 40 CFR, Part 122.2; whereas waters of the state include any surface water or ground water, including saline waters, within the boundaries of the state, as defined in Water Code Section 13050. The CWA requires permits for all point source discharges, construction-related discharges, and direct discharges of fill into or excavations from waters of the United States, including wetlands.

Water runoff from irrigated cropland may contain pollutants that ultimately reach waters of the United States. Starting in the late 1980s, the U.S. Environmental Protection Agency (EPA) has led efforts to address polluted runoff (i.e., nonpoint sources), which is responsible for the majority of water quality impairments in the nation. These sources are not subject to CWA permits or other regulatory requirements under federal law. Under Section 319 of the CWA, assessment and management of NPS pollution, including agricultural runoff, is the responsibility of the states.

Clean Water Act Section 319

Section 319 requires that each state produce an NPS assessment report identifying the waters in that state impaired or threatened by NPS pollution and the sources contributing to the impairment. Under

Section 319, the state must also identify the best management practices (BMPs) or measures to be used to control each pollution source identified (NPS management program) and specific criteria that define successful pollution control practices and measures. EPA reviews and provides final approval for each state's NPS management program.

Coastal Zone Act Reauthorization Amendment of 1990

The Coastal Nonpoint Source Pollution Control Program (Section 6217) addresses NPS pollution problems in coastal waters. Significant portions of the threats to coastal waters are caused by NPS pollution. Major sources of NPS pollution in coastal waters include agriculture and urban runoff. Section 6217 requires the 29 states and territories with approved Coastal Zone Management Programs to develop coastal NPS control programs. In its program, a state or territory must describe how it will implement NPS pollution controls, known as management measures, that conform to those described in *Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters* (EPA 1993). If the initial management measures fail to produce the necessary coastal water quality improvements, a state or territory then must implement additional management measures to address the remaining water quality problems.

The coastal NPS program strengthens the links between federal and state/territory coastal zone management and water quality programs to protect coastal waters and habitats from certain land management activities. EPA and the National Oceanic and Atmospheric Administration (NOAA) jointly administer this program. (EPA 2008.)

California has met the intent of both Section 319 of the CWA and CZARA by incorporating these requirements into a single NPS program rather than attempting to administer two separate programs.

National Toxics Rule (40 CFR Part 131.36)

The National Toxics Rule is EPA's rule promulgating the numeric water quality criteria necessary to bring all states into compliance with the CWA. The Toxics Rule applies to the 14 states and territories that were without EPA-approved criteria when the final rule was published (Alaska, Arkansas, California, Florida, Idaho, Kansas, Michigan, Nevada, New Jersey, Rhode Island, Vermont, Washington, District of Columbia, and Puerto Rico). For these states and territories, the criteria in the Toxics Rule are the legally enforceable standards for all purposes and programs under the CWA.

California Toxics Rule (40 CFR Part 131.38)

EPA's "California Toxics Rule" promulgates numeric water quality criteria for more than 126 priority pollutants. The numeric criteria in the California Toxics Rule must be achieved in the surface waters of the state with relevant beneficial uses (e.g., municipal supply, aquatic life). If these objectives are not met within a water of the state with a designated beneficial use, that water body would be listed as impaired.

Federal Insecticide, Fungicide, and Rodenticide Act

The Federal Insecticide, Fungicide, and Rodenticide Act, as amended (FIFRA), requires EPA to regulate the sale and use of pesticides in the United States through registration and labeling of the pesticide products currently in use (EPA 2004). FIFRA directs EPA to restrict the use of pesticides as necessary to prevent unreasonable adverse effects on people and the environment, taking into account the costs and benefits of various pesticide uses. FIFRA prohibits sale of any pesticide in the United States unless it is registered and labeled indicating approved uses and restrictions. Use of a pesticide in a manner that is inconsistent with the label instructions violates the law. In addition, FIFRA requires EPA to re-register older pesticides based on new data that meet current regulatory and scientific standards. EPA must ensure that the use of pesticides it registers under FIFRA will not result in harm to species listed as endangered or threatened under the federal Endangered Species Act of 1973, as amended (ESA). The U.S. Fish and Wildlife Service (USFWS) provides technical assistance and consults with EPA during the registration and re-registration of pesticides to prevent and minimize the impacts of pesticides on fish, wildlife, and plants. In addition, the EPA's Endangered Species Protection Program (ESPP) was initiated in 1988. This program relies on cooperation between USFWS, EPA regions, states, and pesticide users. As part of this program, EPA has created bulletins for individual counties within the United States that can be accessed from the ESPP website. The bulletins provide information on pesticide use limitations intended to minimize impacts on threatened and endangered species. For more information, visit EPA's ESPP website at <http://www.epa.gov/espp/>.

Food Quality Protection Act of 1996

The Food Quality Protection Act (FQPA) of 1996 amended the FIFRA and the Federal Food, Drug, and Cosmetic Act (FFDCA). These amendments fundamentally changed the way EPA regulates pesticides. The requirements included a new safety standard (reasonable certainty of no harm) that must be applied to all pesticides used on foods. EPA's FQPA website provides background information on FQPA's provisions, discusses some of the specific issues raised by the Act, and describes the status of implementation of this important law. For information, visit EPA's FQPA website at <http://www.epa.gov/oppfead1/fqpa/>.

Concentrated Animal Feeding Operations (40 CFR Parts 122, 123, and 412)

EPA first issued NPDES regulations for concentrated animal feeding operations (CAFOs) in 1976 and then revised these regulations in February 2003. The new regulations require all CAFOs to apply for an NPDES permit, submit an annual report, and develop and implement a Nutrient Management Plan (NMP) for croplands where manure or wastewater from the CAFO is applied.

Under the new CAFO regulations, land application discharges from a CAFO are subject to NPDES permitting requirements except where the discharge is an agricultural storm water discharge.

Section 122.23(e) of Title 40 CFR defines agricultural storm water discharge as

...a precipitation related discharge of manure, litter or process wastewater from land areas under control of a CAFO...where the manure, litter or process wastewater has been applied in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure, litter or process wastewater, as specified in Section 122.42(e)(1)(vi)-(ix)....

On February 28, 2005, in response to a petition on the new CAFO regulations, the United States Court of Appeals for the Second Circuit (2nd Circuit Court) vacated several requirements of the new CAFO regulations. These include (1) the requirements that all CAFOs apply for an NPDES permit; and (2) the issuance of NPDES permits without public notice and opportunity to comment on NMPs without permitting authority review and approval of NMPs, and without incorporation of NMP terms into the permit as enforceable permit terms.

In response to the 2nd Circuit Court's decision, EPA has revised deadlines for newly defined CAFOs to apply for an NPDES permit and for permitted CAFOs to develop and implement an NMP. Both of these deadlines are now February 27, 2009. On March 7, 2008, EPA published a Proposed Rulemaking to revise the new CAFO regulations to address all of the 2nd Circuit Court's decision. This started a 30-day public review period. It is uncertain when EPA will finalize all revisions to the CAFO regulations.

Federal Endangered Species Act

The ESA was established in 1973 to conserve ecosystems and the species that depend on them. Section 4 of the ESA describes the listing process for determinations of endangered or threatened species. Section 7 requires that all federal agencies consult with USFWS (with jurisdiction over plants, wildlife, and resident fish) and NOAA's National Marine Fisheries Service (NOAA Fisheries) (with jurisdiction over anadromous fish and marine fish and mammals) prior to approving or initiating a project that may result in "take" of a listed species. Section 9 of the ESA prohibits the take of any fish or wildlife species listed as endangered, including the destruction of habitat that prevents the species' recovery. Take is defined as the action of or attempt to hunt, harm, harass, pursue, shoot, wound, capture, kill, trap, or collect a species. Section 9 prohibitions also apply to threatened species unless a special rule has been defined with regard to take at the time of listing. Candidate species and species that are proposed or under petition for listing receive no protection from the ESA.

Section 10 of the ESA requires all non-federal actions that are likely to adversely affect an ESA-listed species to obtain an incidental take permit (Section 10 Permit) from USFWS or NOAA Fisheries. Applications for Section 10 permits must include a Habitat Conservation Plan (HCP) and proof of compliance with the National Environmental Policy Act (NEPA).

The use of pesticides on irrigated land could negatively affect threatened and endangered species, and their habitats, which could be considered "take" under Section 9 and unlawful without a Section 10 permit.

Natural Resources Conservation Service Programs

Since 1935, the Natural Resources Conservation Service (NRCS, originally called the Soil Conservation Service) has provided leadership in a partnership effort to help America's private landowners and managers conserve their soil, water, and other natural resources. NRCS provides financial assistance for many conservation activities. Participation in NRCS programs is voluntary.

Some NRCS programs—such as the Farm Bill—help farmers and ranchers meet environmental challenges on their land, and enhance the long-term quality of the environment and conservation of natural resources. This includes aiding farmers in reducing NPS discharges and increasing wildlife habitats on their lands through Agricultural Management Assistance (AMA) and similar programs. For

more information, visit the NRCS website at <<http://www.nrcs.usda.gov/Programs/ama>>. AMA provides cost-share and incentive payments to agricultural producers to voluntarily address such issues as water management, water quality, and erosion control by incorporating conservation practices into their farming operations. Producers may construct or improve water management structures or irrigation structures; plant trees for windbreaks or to improve water quality; and mitigate risk through production diversification or resource conservation practices, including soil erosion control, integrated pest management, and transition to organic farming.

State Programs Affecting Irrigated Lands Discharges

Porter-Cologne Water Quality Control Act (Division 7 of California Water Code)

The Porter-Cologne Act establishes the State Water Board and divides the state into nine regional basins, each with a Regional Board. The State Water Board and nine Regional Boards are the primary state agencies responsible for protecting the quality of the state's surface water and groundwater resources.

The Porter-Cologne Act authorizes the State Water Board to draft state policies regarding water quality. In addition, Section 13263 of the Act authorizes the State Water Board and Regional Boards to issue WDRs for projects or activities that would discharge waste to waters of the state. The Porter-Cologne Act requires that the State Water Board or the Regional Board adopt water quality control plans (Basin Plans) for the protection of water quality. A Basin Plan must identify beneficial uses of water to be protected, establish water quality objectives for the reasonable protection of the beneficial uses, and establish a program of implementation for achieving the water quality objectives.

The Porter-Cologne Act, Section 13260, requires

...any person discharging waste, or proposing to discharge waste that could affect the quality of the waters of the State, [to] file a report of discharge (an application for waste discharge requirements) along with a filing fee, in anticipation that the Regional Water Board will provide Waste Discharge Requirements (WDRs).

The Regional Board is obligated to prescribe WDRs except where the Regional Board finds that a waiver of WDRs for a specific type of discharge is in the public interest. Section 13269 also provides that any such waiver of WDRs is for a period not to exceed 5 years, is conditional, and may be terminated at any time by the Regional Board.

Regulatory Tools and Options

Waste Discharge Requirements (WDRs)

Individual permits, or WDRs, can be issued by a Regional Board to allow discharge of specified quantities and qualities of waste to land or surface waters. The limitations placed on the discharge are designed to ensure compliance with water quality objectives in the Basin Plans. To obtain WDRs, the discharger must submit a Report of Waste Discharge (ROWD), and the requirements of CEQA must be met. All dischargers must submit monitoring reports, and most dischargers pay an annual fee. The Regional Board can use this approach to regulate any discharge to State waters. The discharger would be

responsible for providing enough information to characterize the discharge and receiving waters to allow preparation of WDRs. (Central Valley Water Board 2001a.)

Conditional Waivers

The Regional Board is able to waive the requirement for an ROWD if the discharge is consistent with Basin Plan requirements and in the public interest. The waivers must be conditional and may be terminated at any time by the Regional Board. Waiver conditions can require actions by the discharger such as compliance with specified management practices and submittal of monitoring reports. If the ROWD is not waived, the discharger must provide sufficient information to verify that waiver conditions will be met.

Prohibitions of Discharge

The Regional Board may specify that a discharge of waste is not allowed in certain areas or that certain types of waste will not be permitted.

California Regional Water Quality Control Boards— Water Quality Control Plans

Regional Boards develop Basin Plans for their regions, issue WDRs, take enforcement action against violators, and monitor water quality within California. State policy for water quality control is directed at achieving the highest water quality consistent with the maximum benefit to the people of the state. To develop water quality standards consistent with the uses of a water body, the Regional Boards identify the beneficial uses (past, present, and probable future) for waters within its jurisdiction.

Preparation and adoption of Basin Plans are required by the California Water Code (Section 13240) and supported by the CWA. Section 303 of the CWA requires states to adopt water quality standards, which “consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based upon such uses.” According to Section 13050 of the California Water Code, Basin Plans consist of a designation or establishment for the waters within a specified area of beneficial uses to be protected, water quality objectives to protect those uses, and a program of implementation needed for achieving the objectives. State law also requires that Basin Plans conform to the policies set forth in the Water Code, beginning with Section 13000, and any state policy for water quality control. Because beneficial uses, together with their corresponding water quality objectives, can be defined per federal regulations as water quality standards, the Basin Plans are regulatory references for meeting the state and federal requirements for water quality control (40 Code of Federal Regulations [CFR] 131.20). One significant difference between the state and federal programs is that California’s Basin Plans establish standards for groundwater in addition to surface water. Another significant difference is that the state Basin Plans include programs of implementation, which can allow for time schedules.

Total Maximum Daily Loads

Section 303(d) of the CWA requires the states to list waters that are not attaining standards after the technology-based limits are put into place. For waters on this list (and where the EPA administrator deems they are appropriate), the states are to develop total maximum daily loads (TMDLs).

A TMDL is a calculation of the maximum amount of a pollutant that a water body can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources. The Regional Board sets water quality standards in its Basin Plan. The Basin Plan identifies the uses for each water body (e.g., drinking water supply, contact recreation, and aquatic life support) and the water quality objectives to support that use. A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and nonpoint sources. The calculation must include a margin of safety to ensure that the water body can be used for the purposes the State has designated. The calculation also must account for seasonal variation in water quality.

Central Valley Regional Water Quality Control Board— Interim Conditional Waiver Program

On March 26, 1982, the Central Valley Water Board adopted Resolution No. 82-036, "Waiving Waste Discharge Requirements for Specific Types of Discharge." The resolution listed 23 categories of waste discharges, including irrigation return flows and storm water runoff from agricultural lands, and the conditions required to comply with the waiver. Although the waiver had conditions, verification that dischargers were complying with conditions was not conducted because of insufficient resources. Thus, the 1982 waiver was largely a passive program.

In 1999, SB 390 was adopted and changed the section of the California Water Code authorizing waivers of WDRs. As a result of the changes, all waivers in place on January 1, 2000, would sunset on January 1, 2003, if the Regional Board had not readopted them. This change in the law meant that the 1982 waiver, which included irrigation return flows and stormwater runoff from agricultural lands in the Central Valley, would sunset. Additionally, waivers could no longer exceed 5 years in duration.

In response, in November 2000, Deltakeeper, San Francisco Baykeeper, and the California Public Interest Research Group submitted a petition asking the Central Valley Water Board to rescind the waiver and use WDRs to control discharges of pesticides from irrigated lands. The Central Valley Water Board held a workshop in July 2001 to receive information related to this issue. In September 2001, the Regional Board adopted a resolution denying the petition but directed staff to prepare recommendations on how to regulate this category of discharges by the end of 2002.

On December 5, 2002, the Central Valley Water Board adopted Resolution No. R5-2002-0201 and the associated conditional waiver of WDRs for discharges from irrigated lands. The conditional waiver was slated to terminate in 2 years. Public comment on the December conditional waiver was significant and came from a broad spectrum of interests. Additionally, Central Valley Water Board members had questions on certain aspects of the newly adopted waiver. The Regional Board directed staff to consider comments and questions, synthesize this input into key issues, analyze these issues, and provide options and recommendations to address them. Modifications to the waiver were proposed in April 2003; based on further public comment and Central Valley Water Board direction, further modifications were proposed in June 2003.

On July 10, 2003, Resolution No. R5-2002-0201 was rescinded. On July 11, 2003, Resolution No. R5-2003-0105 was adopted by the Regional Board. Resolution No. R5-2003-0105 adopted two conditional waivers that were intended to remedy perceived procedural concerns and to clarify conditions in the December 2002 waiver. Under Resolution No. R5-2003-0105, one conditional waiver is for coalition groups or other entities that form on behalf of individual dischargers to comply with the California Water Code and the Regional Board plans and policies. The second conditional waiver was for individual dischargers. These conditional waivers were set to expire in January 2006.

On February 26, 2004, Deltakeeper, Waterkeepers Northern California, Environment California, the Natural Resources Defense Council, Inc., and California Sportfishing Protection Alliance (collectively “Deltakeeper”) filed a petition for peremptory writ of mandate in Sacramento County Superior Court (Court). Deltakeeper alleged that, in approving the conditional waivers, the Water Board violated the Porter-Cologne Act—including California Water Code Section 13269—and CEQA by relying on a negative declaration instead of preparing an environmental impact report (EIR).

On March 3, 2004, the California Farm Bureau Federation (Farm Bureau) also filed a petition for peremptory writ of mandate in Court. The Farm Bureau alleged that the scope of the required reports violated the California Water Code, that the Central Valley Water Board cannot require compliance with water quality objectives, that reports are subject to trade secret protection, and that access provisions of the waiver were improper.

On May 9, 2005, the Court substantially upheld the conditional waivers, including upholding the conditional waivers with respect to CEQA and California Water Code Section 13269. The Court granted, in part, the Farm Bureau’s petition with respect to staff access to private property for inspections and confidentiality of monitoring reports. The Court also remanded the matter of the “tributary rule” to agricultural-dominated water bodies and constructed agricultural drains to the Central Valley Water Board to clarify:

...the extent to which the Waiver is intended to apply to agricultural dominated waterways and constructed agricultural drains and other non-stream tributaries; the extent to which the Waiver purports to impose receiving water limitations upon such water bodies; and, in light of the foregoing, the extent to which the Waiver may rely on application of the Tributary Rule for these purposes. [Ruling, at page 77].

In response to this ruling, the Central Valley Water Board adopted two resolutions. Resolution No. R5-2005-0107 was adopted on August 5, 2005, amending Attachments B and C of the conditional waivers to address the issue of access to private property for inspections and confidentiality of monitoring reports. Resolution No. R5-2005-0137 was adopted on October 20, 2005; an information sheet was added to Resolution No. R5-2003-0105 in order to clarify application of the conditional waivers to agricultural-dominated waterways and constructed agricultural drains consistent with the tributary rule.

The conditional waivers were set to expire in January 2006; however, on November 28, 2005, the Central Valley Water Board voted to extend these conditional waivers for 6 months. The purpose of the extension was primarily to clarify rules pertaining to coalition group’s membership lists and to clarify the monitoring and reporting program. In 2006, the Regional Water Board adopted a new conditional waiver for discharges from irrigated agricultural lands that continued the 2003 interim program until 2011. In the 2006 conditional waiver, the Regional Water Board reaffirmed the goal to develop a long-term program and EIR.

California State Water Resources Control Board— Nonpoint Source Pollution Control Program

California Water Code Section 13369 requires the State Water Board, in consultation with the California Coastal Commission and other appropriate agencies, to prepare a detailed program for the purpose of implementing and enforcing the state’s NPS management plan.

In January 2000, the State Water Board made public and submitted to the Legislature the NPS Program Plan, pursuant to Section 13369 of the Water Code. The NPS Program Plan upgraded the 1988 Plan. Upgrading the 1988 Plan with the NPS Program Plan brought the state into compliance with the requirements of Section 319 of the CWA and Section 6217 of CZARA. On May 20, 2004, the State Water Board adopted the NPS Implementation and Enforcement Policy. The NPS Implementation and Enforcement Policy provides guidance to the Regional Boards on how to develop, structure, and enforce an NPS pollution control implementation program, which fulfills the requirements of Water Code Section 13369(a)(2)(B).

An NPS pollution control implementation program is a program developed to comply with State Water Board or Regional Board WDRs, conditional waivers of WDRs, or Basin Plan prohibitions. Such programs may be developed by a Regional Board; the State Water Board; an individual discharger; or by or for a coalition of dischargers in cooperation with a third-party representative, organization, or government agency.

The Regional Boards have primary responsibility for ensuring that the appropriate NPS pollution control implementation programs are in place throughout the state. Given the extent and diversity of NPS pollution discharges, the Regional Boards need to be as creative and efficient as possible in devising approaches to prevent or control NPS pollution, including developing third-party NPS pollution control implementation programs. Third-party programs allow Regional Boards to reach multiple dischargers that individually may be unknown.

Regional Boards are not required to endorse or approve any specific NPS pollution control implementation program. Each program brought before a Regional Board or the State Water Board is individually judged on its merits.

Key Elements of a Nonpoint Source Pollution Control Implementation Program

Before approving or endorsing a specific NPS pollution control implementation program, the Regional Board must determine that there is a high likelihood the implementation program will attain the Regional Board's stated water quality objectives. To be approved or endorsed, the NPS pollution control implementation program must meet the requirements of the five key structural elements described below. Development of Elements 1 and 2 are the primary responsibility of those who are developing the implementation program. Elements 3 and 4 may require consultation with the appropriate Regional Board. Element 5 is developed by the Regional Board.

For implementation programs developed by non-regulatory parties, the Regional Board must consider critical factors such as availability of funding, a demonstrated track record or commitment to NPS pollution control implementation, and a level of organization and group cohesion that facilitates NPS pollution control implementation. For regulatory programs, the availability of staff resources to administer the implementation may be a major concern.

Key Element 1. An NPS pollution control implementation program's ultimate purpose must be explicitly stated. Implementation programs must, at a minimum, address NPS pollution in a manner that achieves and maintains water quality objectives and beneficial uses, including any applicable antidegradation requirements.

Key Element 2. An NPS pollution control implementation program must describe the management practices and other program elements that are expected to be implemented to ensure attainment of the

implementation program's stated purpose(s), the process to be used to select or develop management practices, and the process to be used to ensure and verify proper management practice implementation.

A Regional Board must be able to determine that there is a high likelihood that the program will attain water quality objectives. This includes consideration of the management practices to be used and the process for ensuring their proper implementation. It also includes factors such as the level of discharger participation and the effectiveness of the management practices implemented.

Key Element 3. Where a Regional Board determines it is necessary to allow time to achieve water quality objectives, the NPS pollution control implementation program must include a specific time schedule and corresponding quantifiable milestones designed to measure progress toward reaching the specified requirements.

Key Element 4. An NPS pollution control implementation program must include sufficient feedback mechanisms so that the Regional Board, dischargers, and the public can determine whether the program is achieving its stated purpose(s), or whether additional or different management practices or other actions are required.

In all cases, the NPS pollution control implementation program should describe the measures, protocols, and associated frequencies that will be used to verify the degree to which the management practices are being properly implemented and are achieving the program's objectives, and/or to provide feedback for use in adaptive management. These efforts are necessary to determine whether the program is on time and on track in achieving its goals.

Key Element 5. Each Regional Board must make clear, in advance, the potential consequences for failure to achieve an NPS pollution control implementation program's stated purposes.

As part of the fifth element, the Regional Boards need to explain how significant non-compliance can be addressed in third-party programs. This explanation should include information concerning the criteria for measuring program success, what constitutes failure, and the actions that may be taken in response to failure. Individual dischargers need to be informed regarding what individual discharger actions or inactions will lead to individual enforcement. This explanation is necessary so that participating dischargers understand the ramifications of noncompliance, even if that noncompliance is by a third party they have selected as their representative. Options short of individual enforcement actions could include Regional Board actions such as changing a program to remove some autonomy or developing sequential enforcement phases related to triggering events built into the program. Ultimately, the ineffectiveness of a group through which a discharger participates in NPS control efforts cannot be used as an excuse for lack of individual discharger compliance.

A Regional Board implements enforcement through an

...escalating series of actions that allows for the efficient and effective use of enforcement resources to: (1) assist cooperative dischargers in achieving compliance; (2) compel compliance for repeat violations and recalcitrant violators; and (3) provide a disincentive for noncompliance.

In cases of individual noncompliance, selective enforcement actions may be taken. In cases of third-party noncompliance, an effort to revise the third-party program is an alternative. Generally, prior to initiating major revisions to a program, informal contact with dischargers, group representatives, or other third parties, if any, will be attempted in order to redirect unsuccessful efforts. Although the direction and efforts of a particular third-party program are being undertaken as a group effort—with group-designated

or accepted leadership, if the group or third party fails to follow through on their commitments, any Regional Board enforcement action taken will be against individual dischargers—not the third party.

Antidegradation Policy

A key policy of California’s water quality program is the State’s Antidegradation Policy. This policy, formally known as the *Statement of Policy with Respect to Maintaining High Quality Waters in California* (SWRCB Resolution No. 68-16), restricts degradation of surface and ground waters. In particular, this policy protects water bodies where existing quality is higher than necessary for the protection of beneficial uses. Under the Antidegradation Policy, any actions that can adversely affect water quality in all surface and ground waters must (1) be consistent with maximum benefit to the people of the State, (2) not unreasonably affect present and anticipated beneficial use of the water, and (3) not result in water quality less than that prescribed in water quality plans and policies.

Central Valley Water Board Confined Animal Facility Program

California regulations governing discharges from confined animal facilities are contained in Title 27 of the California Code of Regulations (CCR), Division 2, Subdivision 1, Chapter 7, Subchapter 2, Article 1 (Title 27). Section 22562(e) of Title 27 requires that “The Regional Board shall allow the discharge of facility wastewater and of collected precipitation and drainage waters to use or disposal fields only if such discharge is in accordance with Section 22563. Absent an NPDES permit for discharge to surface waters, the only other allowable discharge is to wastewater treatment facilities approved by the Regional Board.” Section 22563(a) of Title 27 requires that “Application of manure and wastewater to disposal fields or crop lands shall be at rates which are reasonable for the crop, soil, climate, special local situations, management system, and type of manure.” Section 22563(b) of Title 27 requires that “Discharges of facility wastewater to disposal fields shall not result in surface runoff from disposal fields and shall be managed to minimize percolation to ground water.”

On May 3, 2007, the Central Valley Water Board adopted Waste Discharge Requirements General Order No. R5-2007-0035 for Existing Milk Cow Dairies (Dairy General Order). The Dairy General Order implements the requirements of Title 27 for confined animal facilities. Although it is not an NPDES permit and does not authorize discharge of pollutants that are subject to NPDES permit requirements, the order is compatible with EPA’s CAFO regulations.

The Dairy General Order prohibits the discharge of:

- waste or storm water from the production area to surface water,
- wastewater to surface water from cropland, and
- storm water to surface water from a land application area where manure or wastewater has been applied unless the land application area has been managed consistent with a certified NMP.

The Dairy General Order requires that the owners and/or operators of existing milk cow dairies (dischargers):

- develop and implement a Waste Management Plan for the production area,
- develop and implement an NMP for all land application areas that are under the discharger’s control,

- monitor all discharges from the production area and land application areas, and
- monitor the nutrient content of all solid manure and wastewater applied to land application areas that are under the discharger's control.

The Dairy General Order does not regulate third parties that receive wastes from an existing milk cow dairy but does require the discharger to complete manure/wastewater tracking manifests for all wastes (both solid manure and wastewater) exported from the dairy facility and to have a written agreement with each third party that receives wastewater from the discharger for the third party's use.

State Implementation Policy for Toxics Standards

The State Implementation Policy for Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (Policy)—adopted by the State Water Board on March 2, 2000, and effective by May 22, 2000—applies to discharges of toxic pollutants into the inland surface waters, enclosed bays, and estuaries of California subject to regulation under the Porter-Cologne Act and the CWA. The goal of the Policy is to establish a standardized approach for permitting discharges of toxic pollutants to non-ocean surface waters in a manner that promotes statewide consistency. The Policy is a tool to be used in conjunction with watershed management approaches and, where appropriate, the development of TMDLs to ensure achievement of water quality standards (i.e., water quality criteria or objectives and the beneficial uses they are intended to protect, as well as the state and federal anti-degradation policies).

The Policy establishes:

- implementation provisions for priority pollutant criteria promulgated by EPA through the National Toxics Rule and through the California Toxics Rule, and for priority pollutant objectives established by Regional Boards in their Basin Plans;
- monitoring requirements for 2,3,7,8-Tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD) equivalents; and
- chronic toxicity control provisions.

Food and Agricultural Code

The California Department of Pesticide Regulation (DPR) within the California Environmental Protection Agency (CalEPA) is responsible for administering state regulations for the safe permitting, use, and storage of pesticides. The state's regulations are in addition to the federal regulations for pesticide use set down in FIFRA (described earlier). In general, the regulations establish a system of tracking and reporting pesticide use; permit requirements for the storage, use, and application of pesticides; rules for the application of pesticides, including restrictions on the time and place of use; and rules for licensing and training applicators. The regulations aim to avoid the overuse of pesticides, keep the pesticides out of surface water and groundwater supplies, minimize worker exposure, and ensure that pesticides do not leave the site to which they are being applied. These requirements are embodied in Title 3 of the CCR, commencing with Section 6000. DPR relies on County Agricultural Commissioners (CACs) to carry out permitting and inspection functions under these regulations.

In addition, DPR is charged to collaborate with CACs and manufacturers to:

- provide for the proper, safe, and efficient use of pesticides essential for production of food and fiber and for protection of the public health and safety;

- protect the environment by prohibiting, regulating, or ensuring proper use of pesticides;
- assure agricultural and pest control workers of safe working conditions where pesticides are present;
- permit agricultural pest control by competent and responsible licensees and permittees under strict control of the director and commissioners;
- assure consumers and users that pesticides are properly labeled and are appropriate for the use designated by the label, and that state or local governmental dissemination of information on pesticidal uses of any registered pesticide product is consistent with the uses for which the product is registered; and
- encourage development and implementation of pest management systems, stressing application of biological and cultural pest control techniques with selective pesticides when necessary to achieve acceptable levels of control with the least possible harm to nontarget organisms and the environment.

California Drinking Water Standards

The California Department of Public Health (CDPH) (i.e., maximum contaminant levels or MCLs) are found in Title 22 of the CCR. The regulations require sampling and testing of drinking water before and after treatment. The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. To ensure that tap water is safe to drink, drinking water must be tested and certified before it can be distributed to the consumer. All drinking water must not exceed the maximum contaminant levels (MCLs) for all listed pollutants, such as pesticides and herbicides, known to occur in drinking water sources. Water suppliers are required to meet MCL levels by treating the source water using ion exchange, reverse osmosis, lime softening, coagulation/filtration, or disinfection, as necessary.

California Food and Agriculture Regulations

The California Department of Food and Agriculture (CDFA) is responsible for ensuring the delivery of safe food and fiber through responsible environmental stewardship in a fair marketplace for all Californians. The policies of CDFA are carried out and enforced by the CACs or their respective representatives.

CDFA works to protect California's agricultural and natural resources against damage caused by exotic plant pests and diseases through the Division of Plant Health and Pest Prevention Services. The Division programs use pesticides in the initial exclusion, detection, and eradication of exotic pests. DPR is responsible for environmental monitoring of these projects. In addition, the Division works closely with other state and federal agencies to minimize environmental and human health impacts.

CDFA supports fertilizer programs that help prevent toxins and contaminants from entering the food chain. One of these programs is the Fertilizer Research and Education Program (FREP) that was created to advance the environmentally safe and agronomically sound use and handling of fertilizer materials. Most of FREP's original work was concerned specifically with nitrate contamination of groundwater. FREP facilitates and coordinates research and demonstration projects by providing funding, developing and disseminating information, and serving as a clearinghouse for information on this topic. FREP serves growers, agricultural supply and service professionals, University of California Extension personnel, public agencies, consultants, and other interested parties. (CDFA 2005.)

The CDFA's Center for Analytical Chemistry, Environmental Monitoring Section (EMS), provides analytical support and services to the Center for Analytical Chemistry and programs in the DPR. DPR also relies on analytical support and service from other providers, such as the California Department of Fish and Game's (DFG's) Water Pollution Laboratory, to monitor the environmental fate of pesticides, as well as provide groundwater and surface water ambient monitoring. EMS does not analyze pesticides in food; however, the Pesticide Residue and Food Safety Laboratories carry out these duties.

California Environmental Quality Act

CEQA is the fundamental environmental law in California. CEQA encourages protection of all aspects of the environment by requiring state and local agencies to prepare multidisciplinary environmental impact analyses and to make decisions based on those studies' findings regarding the environmental effects of a proposed action.

CEQA's main objectives are to disclose to decision makers and the public the significant environmental effects of proposed activities and to require agencies to avoid or reduce the environmental effects by implementing feasible alternatives or mitigation measures. Disclosure is given in an EIR, negative declaration, or mitigated negative declaration—depending on whether effects caused by the project are significant, less than significant, or can be reduced to less than significant by incorporating mitigation into the project.

California Endangered Species Act

The California Endangered Species Act (CESA) was adopted in 1984 (California Fish and Game Code Section 2050 et seq.) to help protect threatened and endangered plant and animal species. Under CESA, the term "endangered species" is defined as a species of plant, fish, or wildlife that is "in serious danger of becoming extinct throughout all, or a significant portion of its range" and is limited to species or subspecies native to California. The term "threatened species" is defined as a plant or animal species that, "although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future." Administered by DFG, CESA establishes a petitioning process for listing a threatened or endangered species. The California Fish and Game Commission is required to adopt regulations for this process and establish criteria for determining whether a species is endangered or threatened. Title 14 (CCR Section 670.1[a]) sets forth the required contents for such a petition.

Pursuant to CESA, a permit from DFG is required for projects that could result in take of a state-listed threatened or endangered plant or animal species. Under CESA, "take" is defined as an activity that would directly or indirectly kill an individual of a species but does not include "harming" or "harassing," as does the ESA. As a result, the threshold for take is higher under CESA than under the ESA (i.e., habitat modification is not necessarily considered take under CESA).

Under Section 2086 of the Fish and Game Code, incidental take is authorized for agricultural activities under approved management plans. Under Section 2087, accidental take during agricultural activities qualifies as an exception to the take prohibition.

County/Regional Programs Affecting Irrigated Lands Discharges

Agricultural Commissioners Programs

In California, CACs administer the DPR pesticide regulatory program and FIFRA by prohibiting, regulating, or ensuring proper stewardship of pesticides. CACs enforce regulations to protect groundwater and surface water from pesticide contamination, sometimes working with Regional Boards or the State Water Board. CACs are also responsible for reporting pesticide use, investigating accidents or incidents involving pesticide use, promoting BMPs, and monitoring applications in the field.

For additional information, see <<http://www.cdpr.ca.gov/docs/comenu.htm>>, <<http://www.cdpr.ca.gov/docs/legbills/regshome.htm>>, and <<http://www.epa.gov/region5/defs/html/fifra.htm>>. CACs have broad authority under Division 6 of the California Food and Agricultural Code (CFAC) to access private property for CFAC enforcement activities such as audits, inspections, investigations, sampling, and testing. The CFAC also authorizes the DPR and the CACs to discipline pesticide use violators through various types of sanctions and to protect the public by prohibiting or stopping hazardous activities.

CACs monitor the working conditions of agricultural and pest control workers, including the equipment, training, and safety measures in place to protect employees who work with or around pesticides.

CACs issue site-specific permits to purchase and use regulated agricultural chemicals. CACs evaluate proposed permit applications to determine whether the pesticide can be used safely, particularly in sensitive areas—such as near wetlands, residential neighborhoods, schools, or organic fields—and to ensure that applicators take precautions to protect people and the environment. Based on that evaluation, the CAC may issue or deny a permit, or require specific use practices for the pesticide.

Prior to issuing a permit, the CAC also considers the need for the pesticide application and whether a safer pesticide or better method of application could be effectively used to prevent misapplication or drift and possible harm to people or the environment.

Management Agency Agreement between the State Water Resources Control Board and the Department of Pesticide Regulation

The State Water Board and DPR, with CalEPA's concurrence have entered into a Management Agency Agreement (MAA). The purpose of the MAA is to promote technical and policy consultations concerning pesticide water quality issues; to implement a pesticide detection notifications system; to collect, exchange, and disseminate information on pesticides and impacts on the quality of the state's waters; and to ensure that compliance is achieved with the State Water Board and Regional Boards' established numerical and narrative water quality objectives. For more information on the MAA, please see <<http://www.cdpr.ca.gov/docs/emon/surfwtr/maa.htm>>.

