Admin

California Pesticide Management Plan for Water Quality

An Implementation Plan
for the Management Agency Agreement between

The Department of Pesticide Regulation
and
The State Water Resources Control Board

California Environmental Protection Agency

February 1997

California Environmental Protection Agency
Department of Pesticide Regulation
and
State Water Resources Control Board

Pete Wilson
Governor

James M. Strock
Secretary for Environmental Protection

James W. Wells
Director
Department of Pesticide Regulation

Walter G. Pettit
Executive Director
State Water Resources Control Board

For additional copies of this report please contact:

Department of Pesticide Regulation
Environmental Monitoring & Pest Management Branch
1020 N Street, Room 161
Sacramento, CA 95814-5624
(916) 324-4100

A copy can also be downloaded from the publications section of DPR's internet site (www.cdpr.ca.gov)

Any portion of this report may be reproduced for any but profit-making purposes.

California Pesticide Management Plan for Water Quality

An Implementation Plan
for the Management Agency Agreement between

The Department of Pesticide Regulation
and
The State Water Resources Control Board

Prepared by an interagency workgroup from the Department of Pesticide Regulation and the State Water Resources Control Board

Workgroup members: DPR: David Duncan (Chair), Madeline Brattesani, Pat Dunn, Marshall Lee, Mark Pepple, Sandy Ratliff, Ralph Shields, Sewell Simmons; and SWRCB: Jack Hodges

C—031176

C-031176

ACKNOWLEDGMENTS

The workgroup expresses appreciation for careful review and thoughtful comments by an advisory committee composed of County Agricultural Commissioners and Regional Water Quality Control Board representatives.

DISCLAIMER

The mention of commercial products, their source or their use in this report is not to be construed as either an actual or implied endorsement of such product.

Table of Contents

I. OVERVIEW 1

II. INTRODUCTION 1

III. OUTREACH 2
- A. Education and Training Programs 3
- B. Public Information Programs 4

IV. STATE AND REGIONAL BOARDS' WATER QUALITY PROTECTION PROGRAMS 4
- A. Background 4
- B. Basin Plans 5
- C. Statewide Plans 5
- D. Beneficial Uses 5
- E. Water Quality Objectives 6
- F. Water Quality Standards 6
- G. Antidegradation Policy 7
- H. Implementation 7

V. GROUND WATER PROTECTION PROGRAM 7
- A. Pollution Prevention Program 8
- B. Monitoring of Ground Water 9
- C. Response to Detections 10

VI. SURFACE WATER PROTECTION PROGRAM 11
- A. Prevention 11
  - 1. Public Outreach 11
  - 2. Pesticide Evaluation and Registration 11
  - 3. Surveillance Monitoring 12
- B. Submission of Monitoring Data 12
- C. Evaluation of Monitoring Data 13
  - 1. Determination of Valid Data 13
  - 2. Primary Evaluation of Valid Data 13
  - 3. Secondary Evaluation of Valid Data 13
    - a. Motivation 13
    - b. Evaluation of Field Characteristics 14
- D. Response 14
  - 1. Detections Resulting from Illegal Use 14
  - 2. Detections Resulting from Legal Use 14
  - 3. Mitigation 15
    - Quantitative Response Limits (QRLs) 15
    - a. Stage 2—Self-Regulation 16

b. Stage 3—Regulatory Approach Using DPR's Authority 17
c. Stage 4—Regulatory Approach Using State and Regional Boards' Authority 17

VII. INTERAGENCY COMMUNICATION PROCEDURES 18
A. Meetings Between DPR and the State Board 18
1. Annual Review 18
2. Technical Briefing 18
B. MAA Coordinators 18
1. Early Stages of Planning 18
2. Notification of Pesticide Detections 19
C. Other Information 19
D. Procedures to Protect Proprietary Information 20

VIII. DISPUTE AND CONFLICT RESOLUTION PROCEDURES 20
A. Informal Procedures 20
B. Formal Procedures 20

APPENDIX I. Management Agency Agreement Between the Department of Pesticide Regulation and the State Water Resources Control Board. 23

APPENDIX II. Reduced-Risk Practices to Minimize the Potential for Pesticide Off-Site Movement and Transport of Residues to Ground and Surface Water. .. 37

APPENDIX III. Federal and State Authority for the Department of Pesticide Regulation, the County Agricultural Commissioners, the State Water Resources Control Board, and the Regional Water Quality Control Boards. 45

APPENDIX IV. Glossary. 55

APPENDIX V. Abbreviations. 61

APPENDIX VI. Procedures to Protect Proprietary Information. 65

C—031179

C-031179

I. OVERVIEW

The California Pesticide Management Plan for Water Quality (Plan) is a joint effort by the Department of Pesticide Regulation (DPR) and the State Water Resources Control Board (State Board) to protect water quality from the potential adverse effects of pesticides. It describes how DPR and the County Agricultural Commissioners (Commissioners) will work in cooperation with the State Board and the Regional Water Quality Control Boards (Regional Boards) to protect water quality from the use of pesticides. The Plan is part of an effort to make state programs addressing pesticides and water quality more understandable, consistent, and efficient.

The Plan contains provisions for outreach programs, compliance with water quality standards. ground and surface water protection programs, self-regulatory and regulatory compliance, interagency communication, and dispute and conflict resolution. The appendices contain a copy of the Management Agency Agreement (MAA) between DPR and the State Board, a list of reduced-risk practices for minimizing the potential for offsite pesticide movement and transport of residues to ground or surface water, information on procedures to protect proprietary information, applicable state and federal laws and regulations, a glossary of terms, and a list of abbreviations used in the Plan. The Plan recognizes both the importance of water quality in the state and the role pesticides play in maintaining a strong economy and protecting public health and safety.

II. INTRODUCTION

Pesticides are substances intended to be used for preventing or controlling pest problems, for defoliating plants, or for regulating plant growth. They are used in a variety of ways that benefit society. Agricultural production, public health and safety programs, structural pest control, ornamental landscapes, and exotic pest control programs all rely to some degree on the availability and use of pesticides.

However, pesticides can also have detrimental effects, including offsite movement to surface water at concentrations that can adversely affect aquatic organisms and human health. Responsible pesticide use maximizes the benefits of use while minimizing the adverse effects that pesticides can cause.

The Food and Agricultural Code (FAC) authorizes DPR to register pesticides for sale and use in the State. The FAC also authorizes DPR and the Commissioners to regulate the sale, storage. handling, and use of pesticides, and states that one of the purposes of the pesticide regulatory program is to protect the environment from environmentally harmful pesticides. The California Water Code (CWC) states that the State and Regional Boards are the principal state agencies with primary responsibility for the coordination and control of activities related to water quality. The result is that the FAC and the CWC provide overlapping authorities for protecting water quality from pesticides. This can lead to duplication of effort, inconsistencies, and confusion for the regulated public.

One of the reasons for the creation of the California Environmental Protection Agency (Cal/EPA) was to bring these related regulatory programs into a unified government entity. As member agencies of Cal/EPA, DPR and the State Board signed a Memorandum of Understanding (MOU) to develop a comprehensive, integrated statewide water quality pesticide management program. The principles of this MOU will be fully described and implemented by an MAA signed by DPR and the State Board, and by this Plan. An MAA is an agreement between the State Board and another agency or agencies for managing water quality. The Plan describes how DPR and the Commissioners will work cooperatively with the State and Regional Boards to prevent and respond to pesticide contamination of water. When signed, the MAA will replace the MOU as the operative agreement between the agencies.

The scope of the Plan includes water quality issues related to all pesticides uses. The goal is to provide a coordinated approach to protect water quality. However, the Plan does not specifically deal with pesticide spills and is not intended to abrogate any legal requirements on any person or agency to report such spills.

DPR and the State Board have adopted a four-stage approach to minimize the potential for pesticide movement to ground and surface waters. This is consistent with the State Board's Nonpoint Source Management Plan approach. In Stage 1, prevention of pesticide contamination of ground and surface water is promoted through educational outreach. Stage 2 is initiated following detections of pesticides that require response. This stage relies on self-regulating or cooperative efforts to identify and implement the most appropriate site-specific, reduced-risk practices. Stages 1 or 2 may include self-regulating label changes and implementation of registrant stewardship programs that address water quality issues on a statewide or regional basis. If adequate protection cannot be achieved by Stage 2, DPR and the Commissioners implement Stage 3. In this stage, reduced-risk practices will be implemented by restricted material use permit requirements, regulations, and other regulatory authority used by DPR and the Commissioners. If Stage 4 is necessary, the State and Regional Boards will use water quality control planning programs or other appropriate regulatory measures to protect water quality. These four stages will be implemented, not necessarily in sequential order, as necessary to protect water quality.

Because DPR and the State Board have responsibilities for the protection of water quality, both agencies intend that the Plan will serve as a guide to coordinate interaction, facilitate communication, promote problem-solving, and ultimately assure protection of water quality.

III. OUTREACH

This outreach section represents part of the Plan's four-stage approach to minimize the potential for pesticide movement to ground and surface waters. Stage 1 promotes prevention of pesticide contamination of ground and surface water through education and outreach efforts, some of which are described in this section. These activities will complement efforts from affected industry, researchers, and educators.

A. Education and Training Programs

The objective of the Education and Training Programs of the Plan is to increase awareness among pest control advisers, pest control businesses, growers, farm managers, homeowners, and other pesticide users in agricultural and nonagricultural situations regarding water quality issues and reduced-risk practices so that they can help prevent water quality problems. There are several options that DPR with the cooperation of the State and Regional Boards may pursue to further this objective:

1. Develop a "Train the Trainer" course and reference manual for trainers. There are several similar courses already being given. A new course may not be needed as trainers could attend existing classes that would incorporate and present material relating to water quality protection.

2. Develop a handbook to provide growers information about practices they can adopt that will prevent pollution of ground and surface water.

3. Encourage outreach training programs that would include State and Regional Boards' staff, DPR staff (Environmental Monitoring and Pest Management Branch), or others as speakers at meetings or workshops of influential agricultural organizations. To encourage participation, licensees would earn continuing education credits for license or certificate renewal purposes.

4. Develop a one-page pamphlet summarizing water quality issues, problems, and solutions for growers and land managers in English, Spanish, and other appropriate languages, which can be distributed by Commissioners when they issue restricted materials permits, operator identification numbers, register licensees, or conduct certified applicator training and grower meetings.

5. Develop a one-page fact sheet for the general public that discusses pesticide use and water protection.

6. The Commissioners can provide information and training when they issue restricted material permits, and operator identification numbers, or register structural and agricultural pest control operators, maintenance gardeners, and pest control advisers. This outreach and training would target urban, rural, and agricultural pesticide users. The Commissioners also conduct training sessions, meet with interested citizens, groups, and the regulated community.

B. Public Information Programs

The purpose of the Public Information Programs is to ensure public awareness and coordinate responses to public concerns. The objectives are to:

1. Notify the general public concerning water quality issues through news releases and public service announcements from State and Regional Boards, DPR, and Commissioners.

2. Inform interested parties about upcoming meetings and changes in regulations and policy through trade journals, newsletters, and other professional publications. This information shall be posted in all offices (including districts) which license holders, permit holders, and at other locations stakeholders are known to frequent.

3. Distribute a one-page "fact sheet" designed to inform people about water quality issues and where to get additional information concerning water quality data, watershed planning, and status of ongoing efforts.

4. Distribute information about public meetings, hearings and changes in laws, regulations and policies to interested parties when appropriate.

5. Compile water quality issues, standards, management options, responses to the public, and other information on the Internet Home Page for the State Board and DPR when appropriate.

IV. STATE AND REGIONAL BOARDS' WATER QUALITY PROTECTION PROGRAMS

A. Background

The State Board along with the nine Regional Boards is the principal State agency with regulatory responsibility for coordination and control of water quality. The Porter-Cologne Water Quality Control Act [(CWC) sections 174 and 13000 et seq.] establishes the requirements to adopt and revise State policy for water quality control (CWC sections 13000 and 13140, et seq.). Regional Water Quality Control Plans (Basin Plans) must conform to these policies.

Authority for each Regional Board to formulate and adopt Basin Plans and periodically review the plans is provided in section 13240. However, a Basin Plan, or a revision of a Basin Plan, adopted by a Regional Board does not become effective until approved by the State Board (section 13245). In addition, regulatory provisions that are adopted or revised in Basin Plans do not become effective until approved by the Office of Administrative Law. Authority for State

Board adoption of Water Quality Control Plans (Statewide Plans, in accordance with provisions outlined in sections 13240 to 13244) for waters that are required by the federal Clean Water Act (CWA) to have water quality standards is provided in section 13170. Also, Statewide Plans for waters for which standards are required under the CWA supersede regional Basin Plans to the extent of any conflict that may arise (section 13170).

Section 303 of the CWA (which covers water quality standards) requires that a state adopt water quality standards for surface waters, including designated uses of water and criteria to protect those uses. Further, the CWA requires that at least once every three years, the State hold public hearings for the purpose of reviewing applicable water quality standards and modify and adopt these standards, as appropriate. These requirements are also delineated in the Code of Federal Regulations (CFR), primarily 40 CFR 130 (which covers water quality planning and management) and 40 CFR 131 (which covers water quality standards).

B. Basin Plans

Basin Plans adopted by the Regional Boards identify existing and potential beneficial uses of marine, ground, and surface waters such as domestic water supplies; establish water quality objectives to protect the beneficial uses; describe implementation programs to achieve these objectives; and describe surveillance and monitoring activities to evaluate the effectiveness of the water quality control program (CWC section 13170).

Regional Boards also consider the specific economic, political, demographic, and weather conditions unique to the basin in adopting plans. Background information, such as population and land use projections, may be included as technical appendices to the Basin Plans.

C. Statewide Plans

The State Board adopts Statewide Plans to address water quality concerns for surface waters that overlap Regional Board boundaries, are statewide in scope, or are otherwise considered significant. Statewide Plans are to be reviewed periodically (CWC section 13240), except for the California Ocean Plan (Ocean Plan), which is to be reviewed at least every three years to guarantee that the current standards are adequate [CWC section 13170.2(b)]. Statewide Plans include the Ocean Plan and the Thermal Plan. Another State Board-adopted plan is the Bay-Delta Plan. Work is underway to develop a new Inland Surface Waters Plan and Enclosed Bays and Estuaries Plan. Statewide Plans supersede regional Basin Plans where conflicts occur (CWC section 13170).

D. Beneficial Uses

The types of beneficial uses of the waters of the State (any water, surface or underground, within the boundaries of the State) that may be protected against quality degradation include, but are not limited to, domestic, municipal, agricultural, and industrial supply; power generation; recreation;

esthetic enjoyment: navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves.

As mentioned above, the CWA (section 303) requires that the State adopt designated beneficial uses for surface waters.

E. Water Quality Objectives

A water quality objective is the limit or level of a water quality constituent or characteristic established for the reasonable protection of beneficial uses of the water or the prevention of a nuisance in a specific area [CWC section 13050(h)]. Thus, the designated beneficial uses to be made of the water result in objectives based upon sound scientific rationale to protect the designated beneficial uses.

Factors to be considered in establishing water quality objectives shall include, but not be limited to, all of the following (CWC section 13241):

1. Past, present, and probable future beneficial uses of water.

2. Environmental characteristics of the hydrographic unit under consideration, including the quality of water available.

3. Water quality conditions that could reasonably be achieved through the coordinated control of all factors that affect water quality in the area.

4. Economic considerations.

5. The need for developing housing within the region.

6. The need to develop and use recycled water.

Water quality objectives can be either numerical values based upon CWA guidance [section 304(a)] or other scientifically defensible methods or narrative objectives with which compliance is evaluated through methods such as biomonitoring or chemical analysis. Water quality objectives must support the most sensitive of the designated beneficial uses (40 CFR 131.11).

F. Water Quality Standards

The CWA requires states to develop water quality standards for all surface waters. In California, water quality standards are established through the basin planning process. Water quality standards consist of the designated beneficial uses and water quality objectives of the Statewide and Basin Plans. Water quality standards shall protect the public health or welfare, enhance the

quality of water, and serve the purposes of the CWA. Such standards must take into consideration the use and value of water for: (1) public water supplies; (2) the protection and propagation of fish, shellfish, and wildlife; (3) recreation in and on the water; and (4) agricultural, industrial, and other purposes including navigation [CWA section 303(c)].

G. Antidegradation Policy

Water quality standards must also conform to federal regulations covering antidegradation (40 CFR Section 131.12) and State Board Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California." Application of the antidegradation provisions to the standard setting process requires supporting documentation and appropriate findings whenever a standard (beneficial use and water quality objective) would allow a reduction in water quality below currently existing water quality or below higher water quality which may have existed since 1968. The federal antidegradation regulation does not absolutely bar reductions in water quality in surface waters. Rather, the regulation requires that reductions in water quality be justified to accommodate important social and economic development as long as instream beneficial uses are not impaired and the water quality of any waters constituting an outstanding national resource is maintained and protected. Under State Board Resolution No. 68-16, which applies to all waters of the State, the State and Regional Boards must adopt findings that show that the change is for the maximum benefit of the people of the State.

H. Implementation

The State and Regional Boards ensure that water quality objectives are achieved through various implementation programs including issuance of waste discharge requirements, monitoring, compliance inspections, and enforcement actions such as issuance of cleanup and abatement orders, cease and desist orders, and administrative civil liability orders.

V. GROUND WATER PROTECTION PROGRAM

In 1985, California enacted the Pesticide Contamination Prevention Act (PCPA) (Division 7, Chapter 2, Article 15, FAC). The purpose of the PCPA is to prevent further pesticide pollution of ground water from legal agricultural use of currently registered pesticides. Pollution as used in this act is defined in section 13142(j) as meaning the introduction into the ground waters of the state of an active ingredient, other specified product, or degradation product of an active ingredient of an economic poison above a level, with an adequate margin of safety, that does not cause adverse health effects. This act has been incorporated into DPR's overall ground water protection program and provides a mechanism for identifying and tracking pesticides with the potential to pollute ground water.

A. Pollution Prevention Program

The PCPA requires DPR to identify pesticidal active ingredients with the potential to pollute ground water by leaching based on their specific chemical and physical properties and specific uses. These chemicals are placed on the Ground Water Protection List in regulation and are monitored by DPR in ground water. The PCPA (FAC section 13149 and 13150) establishes procedures for reviewing and modifying the use of pesticides found in ground water or in soil under certain conditions as a result of legal agricultural use. These use modifications are designed to prevent pesticides from reaching ground water at concentrations that would be considered pollution.

As part of its pollution prevention program, DPR yearly conducts a statewide educational program that is required for those pesticide advisors who write the ground water protection advisories that are required before certain pesticides can be used in designated areas sensitive to ground water pollution by pesticides. It is intended that this program will promote reduced-risk practices in these sensitive areas for users of pesticides on the 6800(a) portion of the Ground Water Protection List. This list contains pesticides that have the potential to pollute ground water based either on their detection in ground water due to agricultural use or on their physical, chemical, and use characteristics.

DPR evaluates the effect of climate, soil type, product formulation, method and rate of application of pesticides, timing and method of irrigation, seasonal timing of application of pesticides, and other factors affecting the movement of the pesticides to ground water. From this evaluation, DPR develops reduced-risk practices to minimize movement of pesticides to ground water. To identify areas sensitive to ground water pollution by pesticides, DPR uses a model based on climate and soil type.

The County Agricultural Commissioners and Sealers Association has accepted a stewardship program for wellhead protection that may be adopted at the discretion of each Commissioner. The program consists of guidelines and management practices to prevent pesticide contamination of ground water from wells. The general guidelines for wellhead protection are:

1. No well should serve as a catchment or receiving basin for surface water runoff containing pesticide residues or be contaminated by back-siphoning during mixing, rinsing, or chemigation.

2. Storage, handling, and disposal of pesticides (including mixing, loading. and cleaning practices) should not occur in the immediate vicinity of a wellhead.

3. Pest control around a wellhead should be achieved, whenever possible. by nonchemical means.

4. Soil-applied pesticides should be avoided when chemical controls must be considered around a wellhead.

The following regulations enable DPR and the Commissioners to better regulate the handling of pesticides to prevent pollution of ground water:

1. 3 CCR section 6610 requires that each service rig and piece of application equipment that handles pesticides and draws water from an outside source shall be equipped with an air-gap separation, reduced pressure principle backflow prevention device, or double check valve assembly. Backflow protection must be acceptable to both the water purveyor and the local health department.

2. 3 CCR section 3142 specifies the proper disposal of legally rinsed pesticide containers.

3. 3 CCR section 3143 specifies the proper disposal of pesticides and unrinsed pesticide containers.

B. Monitoring of Ground Water

Monitoring is an important component of DPR's ground water protection program. DPR conducts four types of ground water monitoring:

1. Ground water protection list monitoring to determine whether pesticides identified as having the potential to pollute ground water have moved to ground water.

2. Four-section monitoring which is the monitoring of other wells in the vicinity of a well containing pesticide residues. This monitoring is conducted to help determine whether a pesticide detected in ground water is due to agricultural use. Four-section monitoring is conducted only when active ingredients, degradation products of active ingredients, and other specified ingredients that have not been reviewed by the subcommittee of the Pesticide Registration and Evaluation Committee (PREC) are detected in ground water, or when chemicals previously reviewed by the subcommittee are detected in areas that are not currently designated as sensitive areas susceptible to ground water pollution by pesticides.

3. Sensitive area monitoring is conducted to help identify areas sensitive to pollution by pesticides.

4. Investigative monitoring is conducted to help identify and understand the factors that affect the movement of pesticides to ground water.

DPR maintains a statewide database of wells sampled for pesticide active ingredients. Data for this database are submitted by other agencies, such as the Regional Boards and the Department of Health Services, as well as by DPR itself.

C. Response to Detections

Within 90 days after an economic poison is found under any of the conditions listed in 1, 2, or 3, DPR is required to determine whether the economic poison resulted from agricultural use in accordance with state and federal laws and regulations, and shall state in writing the reasons for the determination [FAC section 13149].

1. An active ingredient of a pesticide is found at or below specified soil depths.

2. An active ingredient of a pesticide is found in the ground waters of the state.

3. The degradation products or other specified ingredients of a pesticide that pose a threat to public health are found under either conditions (1) or (2).

If DPR verifies a detection and determines that it is the result of a legal agricultural use, DPR is required to immediately notify the registrant of the determination and of the registrant's opportunity to request a hearing [FAC section 13149(b)]. If the registrant requests a hearing, DPR schedules a hearing of a PREC subcommittee of consisting of one member each representing DPR, the Office of Environmental Health and Hazard Assessment, and the State Board. If the registrant does not request the hearing within 30 days after the notice is issued, DPR shall cancel the registration of the economic poison [FAC section 13149(c)]. The subcommittee is authorized to make one of the following findings:

1. That the ingredient found in the soil or ground water has not polluted and does not threaten to pollute, the ground water of the state.

2. That the agricultural use of the pesticide can be modified so that there is a high probability that the pesticide would not pollute the ground water of the state.

3. That the modification or cancellation of the agricultural use of the pesticide would cause a severe economic hardship to the agricultural industry. In this case, the subcommittee recommends a level of the

pesticide that does not significantly diminish the margin of safety recognized by the subcommittee to not cause adverse health effects.

The registration for any pesticide identified pursuant to section 13149 which fails to meet any of the conditions of section 13150 shall be canceled.

The Director, within 30 days after the subcommittee issues its findings, may concur with one of the above findings or may determine that no pollution or threat of pollution exists. If the Director concurs with the subcommittee that use can be modified, the pesticide is added to 3 CCR section 6800 (a).

Detections of pesticides resulting from illegal use or point sources are referred to the Commissioners, Regional Boards, and other appropriate agencies. All detections, regardless of source, are included in the well inventory database and will be brought to the attention of and made available to Commissioners and the State and Regional Boards.

Not withstanding the above-described DPR Ground Water Protection Program, action may be taken at any time through the State or Regional Board water quality control programs or through other appropriate regulatory measures to assure protection of beneficial uses. Such action will include compliance with the State Board's antidegradation policy.

VI. SURFACE WATER PROTECTION PROGRAM

A. Prevention

1. Public Outreach

DPR and the State and Regional Boards recognize that public outreach is important in preventing water quality problems associated with pesticides. Management practices advocated in such outreach programs are preventive; their use should be encouraged as Stage 1 activities, even when impairment of water quality from pesticides has not been demonstrated. A discussion of outreach efforts is presented in Section III.

2. Pesticide Evaluation and Registration

State law requires DPR to thoroughly evaluate and register pesticides before they are sold or used in California. During the evaluation and registration process, DPR evaluates potential water quality problems associated with specific uses of pesticides, including use on sites where pesticides are likely to move with runoff or irrigation tailwater into surface waterways. DPR gives special attention to the potential for toxicity to the aquatic biota and to factors that may interfere with attaining water quality objectives. If DPR determines that such uses will likely result in significant adverse impacts that cannot be

avoided or adequately mitigated, registration is not granted unless the Director indicates otherwise, as provided in 3 CCR section 6158.

DPR notifies the State Board and other members of the PREC of pesticides that are under review for registration.

3. *Surveillance Monitoring*

Surveillance monitoring is used to help identify potential problems before direct evidence of impairment of water quality is available. DPR and the State Board, in consultation with the Regional Boards and Commissioners, will develop sampling protocols for monitoring sites with the highest potential for the presence of pesticides. Sites will be selected based on activities and natural characteristics within the watershed including, but not limited to, pesticide use and application methods, crop production characteristics, and irrigation and rainfall patterns. Biotoxicity monitoring, toxicity identification evaluations, and chemical analyses will be performed using protocols (e.g., American Society for Testing and Materials (ASTM), U.S. EPA) and other methods approved by DPR and the State Board. DPR and the State Board will monitor these sites as resources allow. Data from surveillance monitoring activities will be evaluated as described below.

B. Submission of Monitoring Data

DPR will describe the desired format for submissions of pesticide detections. Analytical data contained in such submissions should include the following:

1. Sampling party
2. Date of sample
3. Location of sampling site (including latitude and longitude if available)
4. Method of collection
5. Chemical analyzed
6. Analytical method
7. Dates of extraction and analysis
8. Limits of quantitation
9. Individual sample concentration and
10. Quality assurance and quality control (QA/QC) statement

If biotoxicity monitoring data are included with such submissions. the data will be assessed using procedures approved by DPR and the State Board.

DPR, Commissioners, and the State and Regional Boards will exchange information on monitoring and QA/QC procedures and lists of laboratories currently used for analyzing pesticides in water. DPR will accept for consideration all data indicating the presence of

pesticides in surface water. DPR, Commissioners, and the State and Regional Boards will share such data on at least a quarterly basis. A computerized database for surface water monitoring data is being developed by DPR.

C. Evaluation of Monitoring Data

1. Determination of Valid Data

DPR will evaluate monitoring data and determine their validity based on completeness and quality. If deficiencies are noted, DPR will notify the reporting party and request upgrading if possible.

2. Primary Evaluation of Valid Data

If detections are determined to be valid, DPR may request additional available data, including negative detections of the pesticide and results of biotoxicity monitoring, from the reporting party. DPR will identify potential sources of the pesticide by reviewing DPR's Pesticide Use Database and conferring with Commissioners. DPR will compare concentrations reported with valid detections to toxicological characteristics of the pesticide and to federal water quality standards, and established numerical water quality objectives, or if none are applicable, to other appropriate values such as water quality control plan performance goals or Quantitative Response Limits (QRLs) (see section D.3.a.) or federal water quality criteria if available. DPR will then transmit findings to the State and Regional Boards and appropriate Commissioners immediately for review. The PREC will be briefed as needed.

3. Secondary Evaluation of Valid Data

(a) Motivation

DPR will evaluate conditions associated with multiple valid detections when:

(1) Concentrations are greater than federal water quality standards, established numerical water quality objectives, or if none are applicable, then other appropriate values such as water quality control plan performance goals, QRLs, or federal water quality criteria if available.

(2) Toxicity monitoring indicates that toxicity is present and associated with the detected pesticide or pesticides.

(3) Toxic concentrations of the pesticide or pesticides are regularly detected or detected at several locations. This process is the secondary evaluation of data.

(b) Evaluation of Field Characteristics

During secondary evaluations, additional information will be prepared that addresses the pesticide. its use, and monitoring. DPR and Commissioners will determine whether the presence of the pesticide in surface water was the result of legal use. If the detections were the result of legal use, DPR may request additional available data from appropriate parties including negative detections of the pesticide and results from biotoxicity monitoring. Additionally, DPR will evaluate the environmental fate and behavior of the pesticide and will further evaluate the environmental risks indicated by the monitoring data. DPR may collaborate with the pesticide's registrants and pesticide user groups to develop additional information on sources, fate and behavior, potential management options, and other relevant factors.

DPR will provide secondary evaluations to the State and Regional Boards and to Commissioners for review. DPR will periodically report to the PREC on activities relating to secondary evaluations.

D. Response

1. Detections Resulting from Illegal Use

DPR will refer detections determined to be from illegal uses to Commissioners and may provide technical and legal assistance to properly penalize responsible parties. The State and Regional Boards will be notified of these detections.

2. Detections Resulting from Legal Use

After secondary evaluations conclude that detections of pesticides are the result of legal use of the pesticide, DPR may solicit participation of local interested parties in an advisory group. Advisory groups help identify issues, goals, mitigation options, and monitoring requirements. If the pesticides are detected in more than one region, more than one advisory group may be appropriate. Membership in advisory groups will include DPR and appropriate Regional Boards and Commissioners: other members will represent industry interests and public agencies as appropriate.

3. *Mitigation*

Management strategies for protecting surface water from pesticide problems may be included in four stages (as described previously), arranged in order of regulatory severity: Stage 1—outreach and education (preventive), Stage 2—self-regulating (response), Stage 3—regulatory (DPR and Commissioners), and Stage 4—regulatory (State and Regional Boards). Stages 2, 3, and 4 are used to mitigate pesticide problems in surface water after secondary evaluations conclude that detections of pesticides are the result of legal use of the pesticide. These three stages and a procedure for developing interim water quality goals for Stage 2 and Stage 3 activities (QRLs) are described below. Stage 2 and stage 3 activities will not be delayed while QRLs are developed.

Quantitative Response Limits (QRLs) are numerical values used during Stage 2 and Stage 3 activities to help determine whether pesticide concentrations are in conformity with narrative water quality objectives in the absence of numerical objectives. QRLs are not intended of themselves to be enforceable standards but rather may be used as measures of success for mitigation efforts.

DPR will develop QRLs after repeated valid detections of pesticides for which there are no numerical objectives in surface water. The number of detections, water bodies affected, identity and concentrations of the pesticides, and recommendations of the State and Regional Boards will be considered when determining QRLs.

QRLs are developed after a review of the following:

a. U.S. EPA health advisories, federal and California Maximum Contaminant Levels, and other levels established to help protect human health.
b. Water quality criteria for protecting aquatic species.
c. Biotoxicity monitoring data.
d. Other relevant toxicological data.

QRLs will be reviewed at least once every three years and updated toxicological information will be considered. Adjustments to the QRLs will be made as necessary. If federal water quality standards or numerical water quality objectives are established, such standards or objectives will replace the QRLs as measures of success for mitigation efforts.

When developing QRLs and when QRLs are adjusted, DPR will seek concurrence from the State and Regional Boards and will consult with

other appropriate agencies. Additional information will be sought from the public at workshops. The State and Regional Boards and the PREC will be notified of changes in status of QRLs.

(a) ***Stage 2—Self-Regulation***

Sponsors will be sought to direct local self-regulating implementation of control options identified by the advisory group. Sponsors may include, but are not limited to, local commodity groups, Resource Conservation Districts, pesticide registrants, and pesticide users participating in stewardship programs. Sponsors will submit to DPR for approval a draft plan that includes the following elements:

(1) A review of the use of the pesticide in relation to current pest management practices.
(2) Consideration of reduced use of the pesticide.
(3) Other management practices to be used for mitigation.
(4) Economic consideration of management options.
(5) Selection of management practices to be used in the mitigation effort.
(6) A timetable for implementation. Timetables are not to exceed four years; two one-year extensions are possible.
(7) Measures of success. Ultimately measures of success shall be conformity with applicable federal water quality standards and water quality objectives. Interim measures such as water quality control plan performance goals, QRLs, federal water quality criteria if available or reasonable progress toward complying with federal water quality standards or water quality objectives may be used when necessary.
(8) A monitoring program.
(9) An outreach program describing how pesticide users and other interested parties will learn of issues and mitigation programs.
(10) Sources of funding, if any, for Stage 2 activities, including monitoring.

DPR will review the plan in consultation with Commissioners and the Regional Boards and notify the sponsor of the outcome. If the plan is rejected, DPR will indicate elements that were not adequately addressed and establish time lines the sponsor must meet for resubmittal to DPR for review. If DPR agrees with the plan, DPR will report to the PREC.

After a plan is approved, the sponsor must submit a progress report to DPR annually. DPR may recommend reevaluating mitigation options with the advisory group if progress is unsatisfactory in meeting timetables for

implementing management practices and improving water quality. DPR will report to the PREC the outcome of the review of the progress report.

If there are no sponsors forthcoming to implement the self-regulation stage, other measures will be taken, such as Stage 3 or Stage 4.

(b) ***Stage 3—Regulatory Approach Using DPR's Authority***

DPR may exercise its option to begin a Stage 3 program if a sponsor declines to support Stage 2 efforts or if there is unsatisfactory progress toward meeting timetables for submitting reports or implementing mitigation measures. Depending on circumstances, DPR may begin Stage 3 activities before Stage 2 options are exhausted.

DPR will consider matters relating to the elements listed in *Stage 2* above. Regulatory options will be considered, including establishing new regulations in Title 3 of the CCR. Such regulations may place the pesticide on the list of California restricted materials (if it is not yet restricted), establish use requirements, or both. For situations where a pesticide use permit is required, such as the use of restricted materials, Commissioners issuing the permit may specify conditions of use that protect water quality. DPR may also consider action on the pesticide's registration, such as cancellation.

DPR will prepare a report including elements that would be required of a Stage 2 plan and information on regulatory steps to be taken by DPR and Commissioners. The report will be submitted to the advisory group and the PREC.

DPR will implement the mitigation efforts as presented in the final report. DPR will prepare subsequent reports presenting the progress of these efforts every three years and will submit it to the advisory group. The appropriate Regional Board(s) will review the progress report and comment on the progress made toward meeting water quality objectives and other issues related to basin plan requirements. The Regional Board may recommend that the advisory group reevaluate mitigation options or the Board may consider a DPR recommendation that the Regional Board initiate regulatory action.

(c) ***Stage 4—Regulatory Approach Using State and Regional Boards' Authority***

The State or Regional Boards may. after conferring with DPR, begin regulatory-based programs if a Board finds that the effort as described in Stage 2 or Stage 3 is not reasonably protecting water quality, such as where there is an actual or threatened violation of water quality standards.

Not withstanding the above-described DPR Surface Water Protection Programs, action may be taken at any time through the State or Regional Board water quality control programs or through other appropriate regulatory measures to assure protection of beneficial uses. Such action will include compliance with the State Board's antidegradation policy and with requirements of the federal Clean Water Act including regulation of point source discharges of pesticides to surface waters.

VII. INTERAGENCY COMMUNICATION PROCEDURES

A. Meetings Between DPR and the State Board

1. Annual Review

DPR and the State Board will meet at least annually to discuss existing and proposed projects, evaluate the effectiveness of the MAA and Plan, to discuss DPR and State Board priorities, and consider changes to the MAA and Plan. The Commissioners and Regional Board staff are encouraged to attend and to submit items for the agenda. Prior to each meeting, an agenda will be mailed to every Regional Board and Commissioners. Meeting summaries which recap the issues and outcome of any evaluations will be provided in writing to each Regional Board and Commissioner.

Decisions and information from these meetings will be publicized and distributed by State Board and DPR to their respective interested parties mailing list.

2. Technical Briefing

Staff of DPR and the State Board will meet at least twice each year to discuss recent activities of each agency, technical issues that deal with pesticides and water quality, and to review overall program direction.

B. MAA Coordinators

The MAA Coordinators (Manager of the Implementation Program, Environmental Monitoring and Pest Management Branch, DPR; and Chief of the Nonpoint Source Agricultural Unit, State Board) will oversee the exchange of information among DPR, Commissioners, State and Regional Boards in the following situations.

1. Early Stages of Planning

To facilitate consultation during the early stages of planning, staff will inform the MAA Coordinators in any of the following situations related to pesticides and water quality:

a. Before issuing any public notice of regulations or of workshops, hearings, or public meetings where policies or projects of mutual interest, including basin planning, will be addressed. DPR and the State Board will provide written notice or other appropriate notification to the other organization for each of the above-mentioned items.
b. Before releasing any pertinent reports, staff will provide a draft copy when possible.
c. Before completing the study design or contract workplan for any field monitoring or other investigations of mutual interest. A brief project description and name of contact person will be provided.
d. Before proposing legislation, budget change proposals, or grant workplans that impact mutual program interests. Appropriate written legislative concepts, budget change proposal concepts, or grant workplans will be provided.
e. Before setting or revising any water quality objectives or other standards.
f. During the development of policies, guidelines, and management plans for federal and/or State projects.

2. *Notification of Pesticide Detections*

When a pesticide is detected in surface or ground waters of the State at concentrations that violate any federal water quality standard or water quality objective, other known enforceable standard, water quality control plan performance goal, QRL, or federal water quality criteria if available, the MAA coordinators will be contacted as soon as possible. If the pesticide detection does not violate any federal water quality standard or water quality objective, other known enforceable standard, water quality control plan performance goal, QRL, or federal water quality criteria if available, the results will be made available officially on a quarterly basis. It is expected that ongoing communication between staff and the assigned MAA coordinators will be maintained which will provide access to sampling results of studies in progress.

C. Other Information

DPR, Commissioners, and the State and Regional Boards will exchange other information as follows:

1. To the fullest extent possible, DPR, Commissioners, and State and Regional Boards will exchange records, reports, material, and any other information relating to water, water rights, water pollution or quality, or any areas of mutual concern to the end that unnecessary duplication of efforts may be avoided.

C—031198

C-031198

2. Written protocols or workplans on monitoring projects addressing nonpoint surface or ground water quality and pesticides prior to monitoring activities.
3. Data from pesticide use reporting as soon as they are available.
4. DPR and State Board will update information used in the Water Quality Assessment.
5. Final reports on projects of mutual interest.
6. On the local level, information can be shared between DPR, the Commissioners, and State and Regional Boards through the quarterly Commissioner's meeting required by the FAC.

As required by CWC section 13163 (c), any agency shall submit to the State Board plans for and results of all investigations that relate to or have an effect upon water quality for review and comment.

D. Procedures to Protect Proprietary Information

These procedures are described in DPR's policy document contained in Appendix VI.

VIII. DISPUTE AND CONFLICT RESOLUTION PROCEDURES

A. Informal Procedures

It is the desire of both agencies to establish a speedy, efficient, and informal method for resolving interagency conflicts. If a conflict arises at any point in implementing activities described in the Plan, the party or parties identifying the conflict will discuss it first with the MAA coordinators. The MAA coordinators will verbally or in writing discuss and resolve interagency procedure conflicts by a specified time. When appropriate, a representative of the Regional Board(s) and a representative of the Commissioners will participate.

If these attempts do not successfully resolve the conflict, then formal procedures will be followed.

B. Formal Procedures

The MAA coordinators will provide a description of the conflict simultaneously to the State Board's Chief of the Division of Water Quality and to DPR's Assistant Director for the Division of Enforcement, Environmental Monitoring, and Data Management. If the conflict cannot be resolved by a specified time, it will be referred to the State Board's Executive Director and DPR's Director. Each Director will appoint one staff member to assist in resolving conflicts. If the conflict cannot be resolved by a specified time at this level, then it

C—031199

C-031199

may be referred to the Secretary of the California Environmental Protection Agency for review. Such review shall not be a limitation on each agency's statutory authority.

APPENDIX I. **Management Agency Agreement between the Department of Pesticide Regulation and the State Water Resources Control Board.**

MANAGEMENT AGENCY AGREEMENT BETWEEN THE
STATE WATER RESOURCES CONTROL BOARD AND THE
DEPARTMENT OF PESTICIDE REGULATION

This Management Agency Agreement (MAA) is between the State Water Resources Control Board (State Board) and the Department of Pesticide Regulation (DPR). Both agencies are part of the California Environmental Protection Agency.

The State Board and DPR have responsibilities to protect water quality from the potential adverse effects of pesticides. Both agencies concur that the State will benefit from a unified and cooperative program to protect water quality related to the use of pesticides.

WHEREAS:

1. The purpose of this MAA is to:

   (a) Enter into a voluntary agreement between two agencies having discretionary and complementary authority regarding pesticides.

   (b) Ensure that all pesticides registered in California are used in a manner that protects water quality and the beneficial uses of water while providing effective, environmentally sound pest management.

   (c) Identify roles and responsibilities of the two agencies regarding both water quality protection and pesticide regulation, and to describe how the agencies will work cooperatively to protect water quality in these areas.

   (d) Coordinate respective authorities in a cohesive manner to eliminate duplication of effort and inconsistency of action.

   (e) Coordinate respective authorities to solve water quality problems related to pesticide use by promoting the development and use of preventive practices through both self-regulatory and regulatory efforts.

2. DPR is the lead agency, with local administration by County Agricultural Commissioners (Commissioners), for pesticide regulation in California. DPR has the authority and responsibility in the Food and Agricultural Code (FAC) to:

(a) Provide for the proper, safe, and efficient use of pesticides that are essential for protecting the public health and safety in the production of food, fiber, forest products, ornamental horticulture, and for other uses that include structure, home, and landscape maintenance.

(b) Protect the environment from environmentally harmful pesticides by prohibiting, regulating, or controlling uses of such pesticides.

(c) Assure the agricultural and pest control workers safe working conditions where pesticides are present.

(d) Permit pest control by competent and responsible licensees, certificate holders, permittees, and operator identification holders under strict control of the DPR Director and Commissioners.

(e) Ensure that pesticides are properly labeled and appropriate for the use designated by the label.

(f) Encourage the 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.

(g) Continuously evaluate pesticides to determine if any endanger the agricultural or nonagricultural environment, placing appropriate restrictions on use including limitations on worker reentry, quantity used, area treated, and manner of application.

(h) Establish, as necessary, criteria to evaluate environmental effects of pesticides.

(i) Coordinate with other local, state, and federal agencies responsible for environmental issues regarding pesticides and water quality.

3. The local administration of DPR's pesticide regulatory program is the responsibility of the Commissioners with coordination, supervision, and training provided by DPR. As part of enforcing pesticide laws and regulations, the Commissioners evaluate permit requests for the use of restricted use pesticides, provide information and training, monitor and inspect pesticide handling and use operations, investigate suspected pesticide misuse, and take enforcement or other appropriate action against violators. Commissioners may also be involved in preventive action such as mitigation measures development, education, and compliance. The term "mitigation" as used for the MAA and The California Pesticide Management Plan for Water Quality (Plan) means to moderate or eliminate an existing condition at a specific site using such reduced-risk practices as noted in Appendix II of the Plan. It does not include remediation, provide other water supplies, or create wetlands.

4. The State Board and the nine Regional Water Quality Control Boards (Regional Boards) are the lead agencies for coordination and control of water quality in California. The State Board and Regional Boards have the authority and responsibility, pursuant to the State Porter-Cologne Water Quality Control Act, the California Water Code, and federal Clean Water Act to:

   (a) Designate and protect appropriate beneficial uses of water for the benefit of the State.

   (b) Establish water quality objectives, both numeric and narrative, for the reasonable protection of the beneficial uses of water or the prevention of nuisance within a specific area.

   (c) Develop, implement, and enforce programs to achieve water quality objectives including, but not limited to, issuance of Waste Discharge Requirements, conducting compliance inspections, initiating enforcement actions, and controlling nonpoint sources of pollution pursuant to the Nonpoint Source Management Plan.

   (d) Develop, implement, and enforce regulations and policies consisting of principles and guidelines deemed essential for the protection of water quality.

5. DPR and the State Board entered into a Memorandum of Understanding (MOU) in December 1991. The agencies agreed to develop an implementation plan to carry out the identified principles of agreement. This MAA and Plan fulfill that agreement. Once approved, the MAA and Plan will replace the MOU as the functional agreement between DPR and the State Board relative to pesticides and water quality.

6. DPR, in cooperation with the State and Regional Board staff and Commissioners, prepared the Plan to describe a cooperative effort for protecting surface and ground water quality. This is a dynamic document that will be amended as necessary to ensure the development and use of preventive activities and practices, and responsive efforts, ranging from self-regulation to regulatory measures, as appropriate, to protect the beneficial uses of the State's waters from the potential adverse effects associated with the use of pesticides which may contribute to water pollution.

7. DPR has a Ground Water Protection Program and a Surface Water Protection Program. These programs, administered locally by Commissioners, address both agricultural and nonagricultural sources of pesticide residues in water and include pollution prevention and response elements. The Ground Water Protection Program is based on general authority in the FAC to protect the environment from environmentally harmful pesticides, and specific authority in the Pesticide Contamination Prevention Act (PCPA, FAC sections 13142 through 13152) that establishes a process to prevent further pollution of ground water by agricultural pesticides. The Ground Water Protection Program focuses on developing reduced-risk practices for pesticides identified as having moved through soil to ground water, research designed to evaluate pesticide use practices and irrigation methods that reduce movement of pesticides from application sites, outreach through training programs for pesticide users, and implementation of the PCPA. The PCPA provides mechanisms for identifying, monitoring, and tracking potential ground water pollutants; reviewing, in cooperation with the State Board and the Office of Environmental Health Hazard Assessment, pesticide chemicals found in ground water or soil as a result of agricultural use; and modifying or canceling the use of such chemicals. Chemicals found in ground water or soil due to nonagricultural use, such as uses in urban areas and that have been determined to present a hazard or potential adverse effect, will be considered for review

as part of the reevaluation process described in sections 6220-6225 of Title 3 of the California Code of Regulations.

The DPR Surface Water Protection Program has preventive and response components that reduce the presence of pesticides in both agricultural and urban surface water. The program's preventive component includes local outreach to promote management practices that reduce pesticide runoff. It also includes DPR's registration process in which potential adverse effects to surface water quality, particularly those in high risk situations, are evaluated. The response component includes mitigation to meet water quality goals. Mitigation options recognize the value of self-regulating efforts to reduce pesticides in surface water, as well as regulatory authorities of DPR and the State and Regional Boards.

8. The State and Regional Boards have several surface and ground water programs that include monitoring, such as, the Toxic Substances Monitoring Program, State Mussel Watch, and the Bay Protection and Toxic Cleanup Programs.

9. In 1988 the State Board adopted a Nonpoint Source Management Plan which describes the measures the State will take to address nonpoint sources of water pollution. Those measures include entering into MAAs with other agencies to work toward the prevention and abatement of nonpoint source pollution.

10. The State and Regional Boards have developed and are in the initial stages of implementing a watershed management strategy pursuant to their Strategic Plan. They are looking to watershed management as a means to develop partnerships among all stakeholders, including government, business, and citizens. Effective watershed management relies on stewardship and a common vision for the desired condition of the resource.

THE AGENCIES AGREE AS FOLLOWS:

1. DPR agrees:

   (a) To implement, in coordination with the Commissioners, State Board, and Regional Boards, the Plan in a manner consistent with and in conformity with State and

Regional Board plans, policies, and regulations so that water quality is protected from adverse impacts due to the use of pesticides registered in California.

(b) To have DPR and Commissioner staff provide routine updates of their ongoing and planned pesticide monitoring programs to State and Regional Board staff.

(c) To provide the State Board with an annual report on the effectiveness of the MAA and Plan and to propose revisions of the Plan as necessary to ensure protection of water quality.

(d) To have DPR and Commissioner staff confer with State and Regional Board staff when developing reduced-risk practices, quantitative response limits, and required use restrictions.

2. The State Board agrees:

(a) To accept the MAA and Plan as measures consistent with the State's Nonpoint Source Management Plan unless it is determined by the State Board that implementation is inadequate to protect beneficial uses.

(b) To accept the MAA and Plan as a coordinated effort for protecting water quality and beneficial uses of water from the potential harmful effects from the use of pesticides.

(c) To have State and Regional Board staff provide routine updates of their ongoing and planned pesticide monitoring programs to DPR and Commissioner staff.

(d) To have State and Regional Board staff and management actively participate in the annual update on the implementation of the Plan and identify concerns regarding the coordination and control of water quality due to changes in laws, regulations, policies, and water quality control plans.

(e) To have State and Regional Board staff confer with DPR and Commissioners when developing or revising water quality objectives for pesticides.

3. The State Board and DPR mutually agree:

(a) That the provisions of the MAA and Plan are not intended to be the subject of any third party actions to enforce such provisions and that decisions concerning the adequacy of compliance with the provisions of the MAA and Plan are solely within the discretion of the signatory agencies.

(b) To promote technical and policy consultations concerning pesticide water quality issues through formal channels, such as standing interagency committees and State Board workshops and meetings, as well as through informal staff exchanges of information. The State Board, Regional Boards, DPR, and Commissioners will consult during the early stages of planning any investigation relating to pesticides and water quality. The agencies will provide technical assistance to each other upon request.

(c) To implement a pesticide detection notification system to ensure mutual awareness of pesticide finds in State waters and provide results of pesticide monitoring in an expeditious manner. Reporting requirements and procedures for data referrals are described in the Plan.

(d) That nothing in the MAA or Plan is intended to abrogate any legal requirement on any person or agency to report pesticide spills, such as to the State Office of Emergency Services.

(e) To collect, exchange, and disseminate information on (1) the use of pesticides, (2) impacts on the quality of the State's waters from such uses, and (3) any efforts to mitigate those impacts.

(f) To share information on pesticide formulations, environmental fate and toxicity of active ingredients,

inert ingredients, and breakdown products. Procedures to protect proprietary information are described in the Plan.

(g) To ensure that compliance with State and Regional Boards' established numeric and narrative water quality objectives is achieved. Responsibility for interpretation of compliance with narrative water quality objectives will continue to rest with the State and Regional Boards.

(h) To convene interagency staff meetings at least every six months to discuss existing and proposed projects of mutual interest and to serve as a forum for considering changes to the MAA and Plan.

(i) To consult each other in developing or revising statutes and regulations relative to pesticides which may impact water quality.

(j) To participate in developing State policies, guidelines, water quality control plans, and management plans relative to pesticide use and water quality.

(k) To work in cooperation with regulated industries, researchers, and educators to identify issues and develop mitigation strategies.

(l) To promote the development and implementation of reduced-risk practices whenever necessary to protect the beneficial uses of the waters of the State from the potentially adverse effects of certain pesticides. Plans to implement reduced-risk practices should: (1) describe the actions necessary to achieve the objectives, including recommendations for appropriate actions by any public or private entity; (2) set a schedule for actions to be taken; and (3) describe where water quality criteria are applied and the monitoring to be undertaken to determine compliance with water quality objectives.

(m) To implement reduced-risk practices initially upon a self-regulating basis to be followed by regulatory actions if necessary. Whenever possible, self-regulating measures will be attempted before enforcement actions are taken. DPR and Commissioners have responsibility for regulating sources of pesticide pollution resulting from the use of pesticides. Regulatory-based compliance will be achieved by DPR's implementing restricted use pesticide permit requirements and/or regulations coordinated through Commissioners. However, the State and Regional Boards retain responsibility for ensuring compliance with water quality laws, regulations, policies, and plans. This responsibility may be implemented at any time through the State and Regional Boards' Water Quality Control Plan or other appropriate regulatory measures consistent with applicable authorities and the provisions of California's Nonpoint Source Management Plan. The Plan will help make the Nonpoint Source Management Plan specific for pesticides by defining how a four-stage approach will be used to protect beneficial uses of water from the potential adverse effects of pesticides. Stage 1 relies on education and outreach efforts to communicate pollution prevention strategies. Stage 2 efforts involve self-regulating or cooperative efforts to identify and implement the most appropriate site-specific reduced-risk practices. In stage 3, mandatory compliance is achieved through restricted use pesticide permit requirements, implementation of regulations, or other DPR regulatory authority, as required in the FAC. In stage 4, compliance is achieved through the State and Regional Boards' Water Quality Control Plans or other appropriate regulatory measures consistent with applicable authorities. Stages 1 through 4 are listed in a sequence that should generally apply. However, these stages need not be implemented in sequential order, but rather as necessary to assure protection of beneficial uses.

(n) To develop a feasible surface and ground water monitoring strategy which considers anticipated funding and supports the implementation of the MAA. The

monitoring strategy will be developed no later than one year from the effective date of the MAA and will be implemented to the extent that budgeted resources allow.

(o) To hold no later than three years after the effective date of the MAA and every three years thereafter public workshops to discuss the implementation of the MAA and Plan.

(p) That all references to the State Board and Regional Board(s) in the MAA and Plan include staff to the extent the action is delegable.

DISPUTE AND CONFLICT RESOLUTION

It is the desire of both agencies to establish a speedy, efficient, and informal method for resolving interagency conflicts. Conflicts among staff of the State and Regional Boards, DPR, and the Commissioners, which cannot otherwise be informally resolved, will be referred to the Executive Director of the State Board and the Director of DPR. Conflicts which cannot be resolved at this level may be referred to the Secretary for Environmental Protection.

The Executive Director of the State Board and the Director of DPR will each appoint one staff member to assist in resolving conflicts.

RESERVATION OF AUTHORITY

Nothing herein shall be construed in any way as limiting the authority of the State Board or Regional Boards in carrying out their legal responsibilities for management, regulation, coordination, and control of water quality. Action may be taken at any time through the State or Regional Board water quality programs or through other appropriate regulatory measures to assure protection of beneficial uses. Such action will include compliance with the State Board's antidegradation policy and with requirements of the federal Clean Water Act including regulation of point source discharges of pesticides to surface waters.

Nothing herein shall be construed in any way as limiting the authority of DPR in carrying out their legal responsibilities for regulating the sale and use of pesticides.

MODIFICATION/RECISION

This MAA shall become effective upon the date of final signature and shall continue in effect until modified by the mutual written consent of both parties or until terminated by either party upon a 30-day advance written notice to the other party.

DEPARTMENT OF PESTICIDE REGULATION
Approves

James W. Wells, Director — Date: 3-19-97

STATE WATER RESOURCES CONTROL BOARD
Approves

Walt Pettit, Executive Director — Date: 3-14-97

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
Concurs

James M. Strock
Secretary for Environmental Protection — Date: 3/20/97

APPENDIX II. Reduced-Risk Practices to Minimize the Potential for Pesticide Off-Site Movement and Transport of Residues to Ground and Surface Water.

C-031216

APPENDIX II. Reduced-Risk Practices to Minimize the Potential for Pesticide Off-Site Movement and Transport of Residues to Ground and Surface Water.

The practices listed below are intended to be used for reference only. No comprehensive list of practices or single prescription for the actions needed to protect water quality from pesticide residues can be developed that would be applicable to every site or operation. Flexible, site-specific decision-making is the key to effective protection. Selection of the most appropriate reduced-risk practices for each site and situation will involve local environmental and economic considerations as well as considerations of effectiveness and acceptability of practices.

A. Pest Management Decision Process

Expand the use of integrated pest management (IPM) strategies. IPM systems can significantly reduce pesticide inputs to aquatic systems by all routes. IPM is an information-based systems approach to preventing unacceptable levels of pest damage. Pest and environmental information along with available cultural, biological, physical, mechanical, genetic, and chemical pest control methods are integrated to provide environmentally sound and economically viable control of pest problems. The principles of IPM can be briefly summarized as follows:

1. Use crop rotations and planting schedules that minimize pest infestations.
2. Perform thorough in-field assessments of each pest problem.
3. Establish scouting or inspection procedures to monitor pest population levels and severity of the pest problem.
4. Use economic or other appropriate control action thresholds, if available, for each (combination of) pest problem(s) to determine when corrective action(s) must be implemented.
5. Determine corrective action(s) when a control action threshold is reached. Use the following objectives in the selection of specific reduced-risk practices: least disruptive of natural controls, least hazardous to human health, least toxic to nontarget organisms, least damaging to the environment, most likely to produce a permanent reduction in the supportive environment for the target pest(s), and most cost-effective considering both short- and long-term objectives.
6. Establish and maintain an accurate record-keeping system to catalog monitoring information and document management procedures.
7. Evaluate the effectiveness of the IPM program and make adjustments as needed.

B. Pesticide Selection

Select active ingredient, product, formulation, additives, placement, and rate that minimize persistence and biotoxicity and optimize selectivity. Sources of technical information include the California Department of Food and Agriculture, Commissioners, DPR, pest control advisers, Resource Conservation Districts, University of California Cooperative Extension farm advisors, and the U.S. Department of Agriculture Natural Resources Conservation Service.

1. Select pesticides that are not known or suspected to be ground or surface water contaminants, especially when applications are planned for the rainy season.
2. Select herbicides not listed in Title 3, California Code of Regulations (3 CCR), section 6800(a) for soil applications in areas of shallow ground water. This practice is especially important in areas of high rainfall or where the soil has low organic matter content. Indications of shallow ground water include riparian vegetation; persistently green, unirrigated grass or herbaceous vegetation; springs; evidence of seasonal flooding; or low topographic position in relation to nearby surface water, springs, and riparian vegetation.
3. Use pesticides most selective for the target pest species to enhance natural population control mechanisms and reduce pesticide need.

C. Pesticide Application and Handling

Increase the effectiveness, efficiency, and environmental safety of pesticide application (method, equipment, technique, calibration, rate, timing, and placement), and handling (mixing, loading, storage, transportation, rinsing, and disposal).

1. Use the lowest pesticide application rate and application frequency proven effective.
2. Recalibrate spray equipment frequently to insure accuracy of application rate.
3. Use strategies that avoid long-term, repeated use of a single pesticide. This reduces potential problems with pest resistance or tolerance and the corresponding need for increased application rate and/or frequency.
4. Match pesticide application timing to the most susceptible growth stage of the target pest.
5. Where appropriate, use surface or subsurface band application of pesticides (in or along a crop row rather than over the entire field) to reduce the total amount of pesticide applied.
6. Incorporate weather conditions and irrigation scheduling into the planning of pesticide application timing and placement to minimize the potential for

pesticide off-site movement by the water-driven forces of leaching and runoff, e.g., schedule soil applications after large irrigations for frost protection, leaching of salts, or replenishing deep soil moisture. Allow at least a 12-hour time interval between pesticide application and predicted runoff events.

7. Reduce drift:

    a. Apply pesticides only when wind speed is less likely to result in drift.
    b. Use low delivery pressure and nozzles that do not create ultra-small droplets that can easily drift off-target.
    c. Use spray adjuvants that enhance penetration of leaf and soil surfaces.

8. Equip each service rig and piece of application equipment that handles pesticides and draws water from an outside source with an air-gap separation, a reduced pressure principle backflow prevention device, or a double check valve assembly. Backflow protection must be acceptable to both the water purveyor and the local health department (3 CCR, section 6610).
9. Mix, load, and store pesticides at least 100 feet away from water sources, pumps, well heads and sink holes. Store pesticides in a secure and dry site.
10. Properly rinse spray equipment and use closed mixing systems in compliance with 3 CCR, section 6746 to facilitate a triple rinse of the empty pesticide container in compliance with 3 CCR, section 6684 and safely apply the rinsate to the target field or dispose of safely.
11. Use returnable, refillable liquid pesticide containers when available. Properly dispose of pesticide containers in compliance with 3 CCR, sections 6670-6686.
12. Prepare an emergency spill and response plan for each chemical tank truck.

D. Water and Soil Conservation

Minimize water, soil, and sediment losses from treated sites.

1. Improve irrigation system uniformity, and manage irrigation timing and amount to minimize deep percolation and surface runoff losses.
2. Use crop rotations, crop residue management, cover crops, conservation tillage, vegetative filter strips, grade stabilization structures, or sediment basins to minimize soil erosion and runoff velocity from rainfall and irrigation and allow sediment deposition.

3. Install irrigation tailwater return systems to reduce runoff, allowing more time for pesticide dissipation and degradation.
4. For control of urban runoff from new development and construction, avoid conversions of areas particularly susceptible to erosion and sediment loss and/or establish development guidance that identifies these areas and protects them from erosion and sediment loss. These areas are characterized by steep slopes, highly erodible soils, periods of intense rainfall. and inability to revegetate once disturbed.

E. Drainage and Disposal of Surface Water Runoff

Prevent the transport of runoff from treated areas to surface waters and wetlands and to sites that may serve as pathways for ground water contamination, including production water wells, dry wells, and infiltration basins.

1. Surface waters and wetlands.

   Surface waters include all reservoirs, lakes, streams, springs, ponds, marshes, and other features where open water surface is discernable other than immediately after rainfall. Wetlands are those areas that are inundated or saturated by surface or ground water at a frequency or duration sufficient to support, and under normal circumstances do support a prevalence of vegetation typically adapted for life in saturated soil conditions.

   a. In situations where there is direct surface water runoff from treatment sites to surface water bodies or wetlands, apply only those chemicals formulated for aquatic or wetland use.
   b. Wherever possible, establish noncropland sites adjacent to surface water features as application exclusion zones to reduce the potential for surface water contamination by the transport of residues in storm water runoff.
   c. Urban runoff from new development and construction.

      (1) To the extent feasible, preserve and, where possible, create or restore areas that provide water quality benefits, such as riparian corridors and wetlands, and promote the design of new development so that it protects the natural integrity of drainage systems and water bodies.
      (2) Integrate storm water quality protection into construction and postconstruction activities at all development sites. This should include minimizing the use of toxic materials and their proper containment on-site.

(3) Wherever practicable, maintain peak runoff rates at predevelopment levels.

2. Sites that may serve as pathways for ground water contamination.

a. Production water wells.

(1) Divert the flow of runoff from treated areas to bypass entirely the area where a production water wellhead is located. Where this is not possible, protect the well by sealing or repairing the wellhead or constructing berms.

(2) Properly seal new wells, add safeguards to old wells, and properly destroy abandoned wells.

b. Infiltration drainage structures and sites.

(1) Alter drainage design where necessary to divert runoff from treated areas away from dry wells, infiltration basins, and other infiltration sites.

(2) Properly destroy unused, nonfunctional, improperly constructed or improperly located dry wells and infiltration basins. Dry wells and infiltration basins that are not constructed with the proper setback distance from the water table (in compliance with local ordinances) or are located in areas of shallow ground water may present a pathway for ground water contamination.

APPENDIX III. Federal and State Authority for the Department of Pesticide Regulation, the County Agricultural Commissioners, the State Water Resources Control Board, and the Regional Water Quality Control Boards.

C—031223

C-031223

C-031224

APPENDIX III. Federal and State Authority for the Department of Pesticide Regulation, the County Agricultural Commissioners, the State Water Resources Control Board, and the Regional Water Quality Control Boards.

A. Department of Pesticide Regulation

1. Federal Authority: *Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)—Amendments of 1972 and 1988 and the Code of Federal Regulations (CFR 40)*

Pesticide products must be registered federally before distribution or sale to any person. Registration includes submission of required data by the person seeking the registration, evaluation and acceptance of these data by the U.S. Environmental Protection Agency (U.S. EPA), submission of a proposed label by the registrant, review and acceptance of the final labeling by U.S. EPA, establishment of a tolerance (maximum residue level) for pesticides used on food or feed commodities, and the classification by U.S. EPA of the pesticide product for restricted use or general use as appropriate. The federal authority for the routine registration of pesticide products is under FIFRA section 3.

Other types of federal registration and exemption from registration are allowed. FIFRA section 5 allows the registrant to acquire a use permit, under certain conditions, in order to accumulate information necessary to register a pesticide under FIFRA section 3. Under FIFRA section 18, a federal or state agency may be exempted from the requirements of registration prior to the use of a product if emergency conditions exist that require such exemption.

Once a pesticide product is registered federally, FIFRA section 24(a) authorizes a state to regulate the sale or use with the restriction that any sale or use prohibited federally is not permitted by the state. Section 24(b) requires uniformity of pesticide labeling and restricts a state from requiring changes to the federally accepted pesticide label. A state may register a pesticide product for additional uses of a federally registered pesticide to meet a special local need within the state in accord with FIFRA section 24(c).

FIFRA section 26(a) authorizes a state to have primary enforcement responsibility for federal use violations of the pesticide if the state:

1. Has adopted adequate pesticide use laws and regulations.
2. Has adopted and is implementing adequate procedures for the enforcement of such laws and regulations.
3. Will keep the records and make reports showing compliance with 1 and 2 above.

U.S. EPA has determined that DPR qualifies under these standards and has primary enforcement responsibility for pesticide use violations in California.

FIFRA section 11(2) authorizes states to certify applicators of federal restricted use pesticides if states submit a plan for U.S. EPA approval. DPR has submitted a plan and is authorized by U.S. EPA to certify applicators.

2. State Authority: *Food and Agricultural Code (FAC), and Title 3, CCR*

The State of California has an extensive pesticide program that enables DPR to evaluate and register pesticide products before their use in the State, monitor the sales within the State, regulate and record the use, protect workers who might come in contact with pesticides, identify pesticides with high risk to human health or the environment and regulate these in special manners; and, through the Commissioners' system, enforce the laws and regulations and take appropriate enforcement action when necessary.

The purposes of the FAC Division 6 and Division 7 and listed in section 11501 are as follows:

1. 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.
2. To protect the environment from environmentally harmful pesticides by prohibiting, regulating, or controlling uses of such pesticides.
3. To assure the agricultural and pest control workers of safe working conditions where pesticides are present.
4. To permit agricultural pest control by competent and responsible licensees and permittees under strict control of the Director and Commissioners.
5. To assure the users that economic poisons are properly labeled and are appropriate for the use designated by the label.
6. To encourage the 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.

FAC section 12753 defines "economic poison" as any of the following:

1. Any spray adjuvant.
2. Any substance, or mixture of substances that is intended to be used for defoliating plants, regulating plant growth, or for preventing, destroying, repelling, or mitigating any pest, as defined in section 12754.5, which may infest or be detrimental to vegetation, man, animals, or households, or be present in any agricultural or nonagricultural environment whatsoever.

As defined in section 12754.5, "pest" means any of the following that is, or is liable to become, dangerous or detrimental to the agricultural or nonagricultural environment of the state:

1. Any insect, predatory animal, rodent, nematode, or weed.
2. Any form of terrestrial, aquatic, or aerial plant or animal, virus, fungus, bacteria, or other microorganism (except viruses, fungi, bacteria, or other microorganisms on or in living man or other living animals).
3. Anything that the Director, by regulation, declares to be a pest.

The Director controls the registration of pesticides in the State under FAC section 12811, which requires every manufacturer, importer, or dealer of any economic poison to obtain a certificate of registration from DPR before offering the economic poison for sale in the State.

FAC section 12824 provides the process to eliminate from use in the State any pesticide product that endangers the agricultural or nonagricultural environment, is not beneficial for the purposes for which it is sold, or is misrepresented. To accomplish this, an orderly program for the continuous evaluation of all pesticide products currently registered will be developed.

Before a substance is registered as a pesticide product for the first time, a thorough evaluation will occur and appropriate restrictions may be placed on the product's use including, but not limited to, limitations on quantity, area, and manner of application.

The Birth Defect Prevention Act (FAC section 13121) requires certain toxicological data for both new active ingredients and currently registered pesticides.

The PCPA of 1985 (FAC section 13141) requires DPR to call in environmental fate data for agricultural use pesticides, use these data to identify pesticides with the potential to pollute ground water, monitor for those pesticides in ground water, review and modify, if appropriate, the use of pesticides found in soil under certain conditions or in ground water due to agricultural use, and maintain a database of wells sampled in the state for pesticides.

B. State Water Resources Control Board and Regional Water Quality Control Boards

The State Water Resources Control Board (State Board) and the nine Regional Water Quality Control Boards (Regional Boards) are the principal State agencies with primary responsibility for water quality control. The following is a brief discussion of their general mandates:

1. **Legal authority and regulations:** *The Porter-Cologne Water Quality Control Act (Porter-Cologne Act), California Water Code, Divisions 2 and 7; Public Resources Code, Division 10; Title 23, California Code of Regulations Divisions 3 and 4. Federal Clean Water Act (CWA)*

General mandate

The State Board and Regional Boards regulate factors and activities that may affect the quality of the waters of the State to attain the highest water quality which is reasonable considering all demands being made and to be made on those waters and the total values involved—beneficial and detrimental, economic and social, tangible and intangible.

Division 7 of the Porter-Cologne Act assigns overall responsibility for water quality protection to the State Board and directs the Regional Boards to establish and enforce water quality standards within their individual regions. The Porter-Cologne Act applies to both surface and ground waters, point and nonpoint sources, and waste discharges to land.

It is the intent of the Porter-Cologne Act to create a water quality control program administered regionally within a framework of statewide coordination and policy. The State Board provides program guidance and oversight to the Regional Boards through adoption of statewide regulations, plans, policies, and administrative procedures. The State Board and Regional Boards carry out their water protection authority through specific "Water Quality Control Plans" which (1) designate beneficial uses, (2) set water quality objectives to protect beneficial uses, and (3) establish programs to achieve these objectives. Such plans may include prohibitions against the discharge of waste, or certain types of waste, in specified areas under specified conditions. Discharge prohibitions may be adopted for nonpoint sources, such as surface runoff or waste discharge to land, or for direct discharges to surface or ground water. The Porter-Cologne Act also requires the State Board to adopt "State Policy for Water Quality Control," including water quality objectives directly affecting water projects.

The principal means of regulating activities that affect water quality and of implementing water quality control plans is by issuing waste discharge requirements (WDRs). Any person discharging waste or proposing to discharge waste that could affect the quality of waters of the State, other than discharge into a community sewer system, must submit a report of waste discharge to the Regional Boards unless the Regional Boards waive the filing of a report.

The Porter-Cologne Act provides Regional Boards with additional enforcement powers to address unauthorized discharges, discharges violating WDRs or prohibitions of discharge, violations of reporting or monitoring requirements, or other activities that threaten water quality. The State Board may use its water rights authority to enforce requirements for the protection of water quality.

The State Board has authority to administer all financial assistance programs administered by the State pursuant to the CWA. Additional water quality authority provided by the Porter-Cologne Act includes provisions for grants and loans for waste water treatment facilities, a State water pollution cleanup and abatement account, regulation of reclaimed water use, sewage treatment plant operator certification, regulation of water wells, monitoring wells and cathodic protection wells, and regulation of waste discharges from houseboats.

Chapter 5.5 of the Porter-Cologne Act authorizes regulation of point source discharge of pollutants to surface waters through WDRs, which also serve as National Pollutant Discharge Elimination System (NPDES) permits required under the federal CWA. Chapter 5.5 also authorizes regulation of sewage sludge use and disposal, disposal of pollutants into wells, and pretreatment of waste.

In addressing nonpoint source problems, the State Board and Regional Boards generally use three management approaches: (1) voluntary implementation of best management practices (BMPs), (2) regulatory-based encouragement of BMPs implementation, and (3) effluent requirements. It will generally be up to the Regional Boards to decide which option(s) to use to address particular problems. The Regional Boards generally refrain from imposing effluent requirements on dischargers who implement BMPs in accordance with a State Board or Regional Board's formal action.

In some cases, BMPs developed through a nonpoint source management program may be implemented through the NPDES program. Activities commonly thought of as nonpoint sources may result in point source discharges in specific cases where the discharge happens to occur through a pipe, ditch, or other confined and discrete conveyance. Moreover, an NPDES permit may impose BMPs on an industrial facility to control nonpoint sources of discharge of toxic or hazardous pollutants from ancillary industrial activities.

2. Specific Programs

a. Aboveground Petroleum Storage

Legal Authority: *Clean Water Act; Federal Regulations 40 CFR, Part 112 Aboveground Petroleum Storage Act, Health and Safety Code, Chapter 6.67*

In accordance with the Aboveground Petroleum Storage Act, every two years owners and operators of aboveground storage tanks facilities with a single tank capacity

greater than 660 gallons or cumulative tank capacity greater than 1,320 gallons must file a storage statement and pay a fee to the State Board. In addition, most owner/operators must prepare a Spill Prevention Control and Containment Plan in accordance with federal oil pollution prevention regulations.

b. ***Regulation of Dischargers of Solid Waste to Land***

Legal Authority: *Clean Water Act; Water Code, Sections 13172, 13263, 13267, and 13304. California Code of Regulations (CCR) Title 23, Division 3, Chapter 15.*

The State Board shall develop standards for discharges of solid waste to land. Chapter 15 (CCR, Title 23, Division 3) establishes a classification system for waste and waste management units. Waste classifications include hazardous, designated, solid nonhazardous, and inert. Each waste type has its own requirements. These regulations govern siting, construction, operation, closure, monitoring and response to leaks, including cleanup standards. The State Board and Regional Boards regulate some of the same dischargers as the Department of Toxic Substances Control (DTSC) and the Integrated Waste Management Board (IWMB). DTSC is the lead agency for Resource Conservation and Recovery Act (RCRA) Subtitle C and IWMB is the lead for RCRA Subtitle D.

c. Solid Waste Assessment Tests (SWAT) to Protect Water Quality

Legal Authority: *Public Resources Code, Section 45700; Water Code, Sections 13273-13273.3*

The State Board ranked all solid waste disposal sites in groups of 150 based on their potential threat to water quality. SWAT reports from Rank 1 sites were due July 1, 1987, from rank 2 sites July 1, 1988, and from rank 3 sites July 1, 1989, etc. Each succeeding year, 150 sites from the next rank must submit SWAT Reports.

Each SWAT report must contain the following: (1) an analysis of the surface and ground water on, under, and within one mile of the solid waste disposal site to provide a reliable indication of whether there is any leakage of hazardous waste; and (2) a chemical characterization of the soil-pore liquid in those areas likely to be affected from the leaking solid waste disposal site, as compared with geologically similar areas near the solid waste disposal site not affected by leakage or waste discharge.

d. *Toxic Pits Cleanup Act (TCPA)*

Legal Authority: *Health and Safety Code, Article 9.5, Section 25208 et seq.*

The TCPA prohibits storage or disposal of hazardous liquids in surface impoundments unless they are constructed with a double-liner and leachate collection system, and requires closure of all nonexempt sites. TPCA construction standards essentially mirror existing prescriptive standards for Class I surface impoundments in Chapter 15 (CCR Title 23, Division 3), regulations for discharge of waste to land. The TPCA also requires the facility owner or operator to submit a hydrogeological assessment report to the Regional Boards for review.

The TPCA also restricts the siting of hazardous waste impoundments to areas that are not within 1/2 mile upgradient of a potential source of drinking water (a requirement that has no Chapter 15 equivalent), and specifies requirements for facility design and construction, facility monitoring, corrective action upon detected releases, closure and postclosure activities, and various types of disposal operations.

e. ***Underground Storage Tanks***

Legal Authority: *Health and Safety Code, Chapters 6.65 and 6.67, CCR Title 23, Division 3, Chapters 16, 17, and 18*

The regulations establish construction standards for new underground storage tanks; separate monitoring standards for new and existing underground storage tanks; uniform standards for unauthorized release reporting, repair, upgrade, and closure of underground storage tanks; and specific variance request procedures.

Most aspects of this program, e.g., permitting, tank system inspections, underground storage tank testing and record-keeping, closure requirements removal and/or installation, plus site-specific inquiries, are administered locally by cities or counties.

C-031232

APPENDIX IV. Glossary.

C—031233

C-031233

C-031234

APPENDIX IV. Glossary.

Basin Plans
Water Quality Control Plans that identify existing and potential beneficial uses of marine, ground, and surface waters; establish water quality objectives to protect the beneficial uses; describe implementation programs to achieve these objectives; and describe surveillance and monitoring activities to evaluate the effectiveness of the water quality control program (CWC sections 13050[j]; 13242).

Beneficial uses
Uses of the waters of the State (any water, surface or underground within the boundaries of the State) that may be protected against quality degradation include, but are not limited to, domestic, municipal, agricultural, and industrial supply; power generation; recreation; esthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves.

Best Management Practices
Methods, measures, and practices selected by an agency to meet its nonpoint source pollution control needs. These include schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of water.

Commissioner
County Agricultural Commissioner.

Compliance monitoring
Monitoring of soil conducted to determine whether a pesticide listed in 3 CCR 6800(a) and banned for use in some or all sites in pesticide management zones (PMZs) is being used on those sites.

Four-section survey monitoring
This monitoring survey is conducted by DPR after a pesticide active ingredient is found in ground water. Wells are sampled in the four cardinal directions (north, south, east, and west) from the contaminated well.

Four-stage approach
The philosophy of the Pesticide Management Plan is that DPR and the State Board adopt a four-stage approach to minimize the potential for pesticide movement to ground and surface waters. In Stage 1, prevention of pesticide contamination of ground and surface water is promoted through education and outreach efforts. Stage 2 will be initiated following detections of pesticides that require response. It relies on voluntary or cooperative efforts to identify and implement the most appropriate site-specific reduced risk practices. If adequate protection cannot be achieved by Stage 2, DPR and the county agricultural commissioners will implement

Stage 3. In Stage 3, reduced-risk practices will be implemented based on restricted material use permit requirements, regulations, and other regulatory authority used by DPR and the county agricultural commissioners. If Stage 4 is necessary, the State and Regional Boards will use water quality control planning programs or other appropriate regulatory measures consistent with applicable authorities and the provisions of the Nonpoint Source Management Plan approved by the State Board. These four stages may not be implemented in sequential order, but rather as necessary to protect beneficial uses.

Ground Water Protection List monitoring
Conducted to determine whether residues of suspected leachers listed in 3 CCR 6800(b) occur in ground water under certain conditions.

Management Agency Agreement
Agreements between government agencies to coordinate water quality issues.

Mitigation
The term mitigation as used for the MAA and Plan means to moderate or eliminate an existing condition at a specific site using such reduced-risk practices as noted in Appendix II of the Plan. It does not include remediation, provide other water supplies, or create wetlands.

Nonpoint Source Pollution
Pollution that originates from diffuse sources.

Nonpoint Source Management Plan
Adopted by the State Board in 1988, the Plan outlines three management approaches in addressing nonpoint source problems, including pesticide runoff:

(a) Voluntary implementation of best management practices.

(b) Regulatory-based encouragement of best management practices.

(c) Waste discharge requirements.

Pesticide Management Plan
California Pesticide Management Plan for Water Quality.

Quality of the water(s)
Refers to chemical, physical, biological, bacteriological, radiological, and other properties and characteristics of water that affect its use.

Regional Board
California Regional Water Quality Control Board.

Reduced-risk practices
Any pest management practice that is a cost-effective alternative to a current practice and judged to be of overall less risk to human health and the environment.

State Board
State Water Resources Control Board.

Statewide Plans
Adopted by the State Board to address water quality concerns for surface waters that overlap Regional Board boundaries, are statewide in scope, or are otherwise considered significant.

Water quality objectives
The limit or level of a water quality constituent or characteristic established for the reasonable protection of beneficial uses of the water or the prevention of a nuisance in a specific area [CWC Section 13050(h)]. Thus, the designated beneficial uses to be made of the water result in objectives based upon sound scientific rationale to protect the designated beneficial uses.

Factors to be considered in establishing water quality objectives shall include, but not be limited to, all of the following (CWA Section 13241):

1. Past, present, and probable future beneficial uses of water.

2. Environmental characteristics of the hydrographic unit under consideration, including the quality of water available.

3. Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area.

4. Economic considerations.

5. The need for developing housing within the region.

6. The need to develop and use recycled water.

Water quality objectives can be either numerical values based upon CWA guidance [section 304(a)] or other scientifically defensible methods or narrative objectives with which compliance is evaluated through methods such as biomonitoring methods. Water quality objectives must support the most sensitive of the designated beneficial uses (40 CFR 131.11).

Water Quality Standards
Established through the basin planning process. Water quality standards consist of the designated beneficial uses and water quality objectives of the Statewide and Basin Plans. Water quality standards shall protect the public health or welfare, enhance the quality of water, and

serve the purposes of the CWA. Such standards must take into consideration the use and value of water for: (1) public water supplies; (2) the protection and propagation of fish, shellfish, and wildlife; (3) recreation in and on the water; and (4) agricultural, industrial, and other purposes including navigation [CWA section 303(c)].

APPENDIX V. Abbreviations.

C—031239

C-031239

APPENDIX V. Abbreviations.

Abbreviations	Full Form
BMP	Best Management Practice
CACSA	County Agricultural Commissioners and Sealers Association
Cal/EPA	California Environmental Protection Agency
CCR	California Code of Regulations
3 CCR	Title 3, California Code of Regulations
CFR	Code of Federal Regulations
CWA	Clean Water Act of 1972
CWC	California Water Code
DPR	Department of Pesticide Regulation
DTSC	Department of Toxic Substances Control
EM & PM	Environmental Monitoring and Pest Management
FAC	Food and Agricultural Code
FIFRA	Federal Insecticide, Fungicide and Rodenticide Act
IPM	Integrated Pest Management
IWMB	Integrated Waste Management Board
LUSTIS	Leaking Underground Storage Tank Information System
MAA	Management Agency Agreement
MCL	Maximum Contaminant Level
MOU	Memorandum of Understanding
NOAA	National Oceanic and Atmospheric Administration

NPDES	National Pollutant Discharge Elimination System
PCPA	Pesticide Contamination Prevention Act
PMZ	Pesticide Management Zone
PREC	Pesticide Registration and Evaluation Committee
QA/QC	Quality Assurance and Quality Control
QRL	Quantitative Response Limit
RCD	Resource Conservation District
RCRA	Resource Conservation and Recovery Act
SDWA	Safe Drinking Water Act
SWAT	Solid Waste Assessment Test
TIE	Toxicity Identification Evaluation
TPCA	Toxic Pits Cleanup Act
USDA	United States Department of Agriculture
UST	Underground Storage Tank
U.S. EPA	United States Environmental Protection Agency
WDR	Waste Discharge Requirements

APPENDIX VI. Procedures to Protect Proprietary Information.

C-031244

Procedures to Protect Proprietary Information

Guidelines for Maintaining Security of Registrant-Submitted Data and Related Materials in the Department of Pesticide Regulation Library

I. Access for Review Purposes

These guidelines outline procedures established to control access to registration support data submitted to the Department of Pesticide Regulation (DPR) by registrants or applicants and filed in DPR's library. These procedures apply to the data volumes and to any reviews of the data generated during the evaluation process and subsequently filed in the library, either with the data volumes reviewed or in a separate file.

The library staff will also apply these procedures to the control of data packages which have not completed the evaluation process, when they are made available for review in the library during that process.

A. Authorized Review Categories

Individuals who will be allowed access to registration support data are the following;

1. DPR employees who process or review data in the course of their work.

2. Members of the Pesticide Registration Evaluation Committee (PREC) and the Pesticide Advisory Committee (PAC), their alternates, and staff from their agencies who are assigned and authorized to review data in connection with the responsibilities of those committees.

3. Employees of, and consultants to, other State agencies and the Legislature, who are authorized by DPR to review data for the purpose of providing input to the pesticide registration process, for developing reports and recommendations on legislation or regulations relative to that process, or for implementing a specific state government policy in an effective manner.

4. Persons authorized by DPR to review information in connection with a public proceeding.

5. Company representatives who wish to examine data previously submitted by their company.

6. Any person with written company authorization may examine data submitted by the company.

B. Acknowledgment of Data Confidentiality

Individuals in categories 1, 2, and 3 will be required to sign an Acknowledgment of Data Confidentiality which contains notice of potential personal liabilities.

C. Affirmation of Status

Individuals in categories 4 and 6 will be required to sign an Affirmation of Status when requesting access to registration support data, as required by section 6254.2 of the Government Code.

D. Register of Data Access

Individuals in categories 2 through 6 will be required to sign a register when they visit the library to review data.

E. Data Reference/Review Request

Authorization of the Chief of the Pesticide Registration Branch (PRB), a supervisor of registration, or a designated alternate must be obtained on the Data Reference/Review Request before library staff will allow access to data by individuals in categories 2, 3, 4, and 6.

F. Departmental Staff and Library Staff Responsibilities

1. Branch Chiefs will be responsible for designating individuals in their branches who are allowed to have access to pesticide data.

2. The Chief of the PRB or a designated alternate will be responsible for:

   a. Approving additions to the list of PREC who are authorized to review data on a continuing basis.
   b. Authorizing individuals in categories 3 through 6 to review designated items for specific purposes.

3. The Chief of the Information Services Branch will notify the library of changes in personnel assigned to the PAC.

4. Library staff will be responsible for:

   a. Providing guidelines and orientation as to the procedures to be followed by individuals in all categories who may require access to pesticide data.
   b. Verifying the identity and authorization of all individuals who request access to data.
   c. Maintaining a permanent file of individuals in category 1 who are/were authorized to review data and to remove data from the library.
   d. Maintaining a record of data circulated to DPR staff.
   e. Providing printouts of study titles to individuals in all categories so that the data volumes to be reviewed may be identified.
   f. Retrieving requested data volumes for review in the library or other appropriate area.
   g. Maintaining a permanent register of individuals in categories 2 through 6 who visit the library to review data (indefinitely), a three-year record of the data volumes reviewed, and a file of the appropriate authorization forms.
   h. Providing a secure means for disposing of duplicate copies of registrant-submitted data which may contain trade secret information.

5. DPR employees will check out all data taken from the library and will be responsible for its security while in their possession.

G. Company Authorized Review

1. Company representatives (category 5) will contact their assigned registration specialist for an appointment to review data, providing adequate lead time for library staff to assemble the desired material from their company's files and to arrange for a location at which the data may be reviewed.

2. When an individual in category 6 has authorization to see only certain items in a company's data volumes, copies will be made of those specific items for the purpose of the review. These copies will be retained in the library with the company's written authorization for the review, the approved Data Reference/Review Request, and the individual's Affirmation of Status.

H. Notes and Photocopies

Individuals in categories 2, 3, 4 and 6 may make notes from the data volumes they are authorized to review, subject to the provisions of California Government Code, section 6254.2, and the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), section 10.

Photocopies of data, including evaluation memos which may contain extracts from data, may be provided on a case-by-case basis with the authorization of the Chief of the PRB.

Individuals in category 5, with appropriate authorization, may be provided with copies from any of their company's data including memos of evaluation filed with the data; however, they will not be allowed to remove or alter data previously submitted.

II. Release of Registration Support Data as a Public Record

Requests for release of pesticides information under the California Public Records Act will be filled by a registration specialist designated by the supervising librarian in consultation with the Chief of PRB, a staff counsel, and other DPR staff as required.

A. General Information

Requests from the public for general information about pesticide chemicals may sometimes be filled by providing excerpts from published sources and may not trigger a formal public records request procedure. For this reason, the supervising librarian may review incoming requests to determine the appropriate response, contacting the requester for clarification as required.

B. Formal Release Process

When the request triggers a formal public records request procedure, these steps are followed:

1. If a telephone inquiry is received, the requester will be asked to follow up with a written request for desired data, including the name of the active ingredient or product and the specific type of data desired.

2. Upon receipt of a written request, a letter is sent to the requester acknowledging receipt of the request. If the request is unclear, the designated registration specialist will contact the Requester for clarification before proceeding with a search.

3. A data search is done which results in a printout of data on file. A letter of prepayment for the printout is mailed to the requester.

4. The printout is sent with copies of Government Code section 6254.2 and the Affirmation of Status form.

5. To obtain copies of data, the requester must submit a follow-up request specifying the particular studies wanted. The requester must also submit the signed Affirmation of Status form as required by Government Code 6254.2(h). This signed affirmation is a prerelease requirement for *any* data submitted by a registrant, whether it was claimed confidential or not.

6. a. If the requester does not respond with a specific request within 30 days of the date the printout was mailed, a follow-up letter is sent to inquire whether the material was received. If no response is received within 30 days of the date of this letter, the file is closed.
   b. If a follow-up request is received, the registration specialist notifies the registrant who submitted the specific items of data that a request for release has been received. The requester receives copies of all such correspondence. Copies of title pages or other appropriate identifying material are supplied to the registrant to assist in the identification of the specific studies being requested. The registrant has 30 days from the date of receipt of this letter, which is sent certified mail/return receipt requested, to respond.

7. a. If no response is received from the registrant, the registrant is considered to have waived any objections to release of the requested data. A final notice is sent by the registration specialist indicating that the data will be released. The data is released 15 days after the receipt date of the final notice
   b. If the registrant submits a justification for its claim of confidentiality, that justification is reviewed by the legal staff in consultation with appropriate division staff and the Chief of PRB. Legal staff makes the final determination as to trade secret status. The registration specialist then sends a final notice to the registrant indicating which, if any, data is exempt from release. The data are released upon the receipt of a payment for duplication, with any exempted portions deleted, no sooner that 15 days after mailing of the final notice.

8. The requester receives a copy of the final notice sent to the registrant.

C. Retention of Library Copies

Once a study has been released following the trade-secret determination process, the library retains the record number of the released study in the database. Such studies may then be released in response to future requests without repeating the trade-secret determination process.

Printed by
Department of Water Resources
Reprographics

C—031251

C-031251