

CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

STATE POLICY FOR
WATER QUALITY CONTROL

I. FOREWORD

To assure a comprehensive statewide program of water quality control, the California Legislature by its adoption of the Porter-Cologne Water Quality Control Act in 1969 set forth the following statewide policy:

The people of the state have a primary interest in the conservation, control, and utilization of the water resources, and the quality of all the waters shall be protected for use and enjoyment.

Activities and factors which may affect the quality of the waters shall be regulated 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.

The health, safety, and welfare of the people requires that there be a statewide program for the control of the quality of all the waters of the state. The state must be prepared to exercise its full power and jurisdiction to protect the quality of waters from degradation.

The waters of the state are increasingly influenced by interbasin water development projects and other statewide considerations. Factors of precipitation, topography, population, recreation, agriculture, industry, and economic development vary from region to region. The statewide program for water quality control can be most effectively administered regionally, within a framework of statewide coordination and policy.

To carry out this policy, the Legislature established the State Water Resources Control Board and nine California Regional Water Quality Control Boards as the principal state agencies with primary responsibilities for the coordination and control of water quality. The State Board is required pursuant to legislative directives set forth in the California Water Code (Division 7, Chapter 3, Article 3, Sections 13140 Ibid) to formulate and adopt state policy for water quality control consisting of all or any of the following:

Adopted by the State Water Resources Control Board by motion of July 6, 1972.

State Policy for
Water Quality Control

I. (continued)

Water quality principles and guidelines for long-range resource planning, including groundwater and surface water management programs and control and use of reclaimed water.

Water quality objectives at key locations for planning and operation of water resource development projects and for water quality control activities.

Other principles and guidelines deemed essential by the State Board for water quality control.

II. GENERAL PRINCIPLES

The State Water Resources Control Board hereby finds and declares that protection of the quality of the waters of the State for use and enjoyment by the people of the State requires implementation of water resources management programs which will conform to the following general principles:

1. Water rights and water quality control decisions must assure protection of available fresh water and marine water resources for maximum beneficial use.
2. Municipal, agricultural, and industrial wastewaters must be considered as a potential integral part of the total available fresh water resource.
3. Coordinated management of water supplies and wastewaters on a regional basis must be promoted to achieve efficient utilization of water.
4. Efficient wastewater management is dependent upon a balanced program of source control of environmentally hazardous substances^{1/}, treatment of wastewaters, reuse of reclaimed water, and proper disposal of effluents and residuals.
5. Substances not amenable to removal by treatment systems presently available or planned for the immediate future must be prevented from entering sewer systems

^{1/} Those substances which are harmful or potentially harmful even in extremely small concentration to man, animals, or plants because of biological concentration, acute or chronic toxicity, or other phenomenon.

II. 5. (continued)

- in quantities which would be harmful to the aquatic environment, adversely affect beneficial uses of water, or affect treatment plant operation. Persons responsible for the management of waste collection, treatment, and disposal systems must actively pursue the implementation of their objective of source control for environmentally hazardous substances. Such substances must be disposed of such that environmental damage does not result.
6. Wastewater treatment systems must provide sufficient removal of environmentally hazardous substances which cannot be controlled at the source to assure against adverse effects on beneficial uses and aquatic communities.
 7. Wastewater collection and treatment facilities must be consolidated in all cases where feasible and desirable to implement sound water quality management programs based upon long-range economic and water quality benefits to an entire basin.
 8. Institutional and financial programs for implementation of consolidated wastewater management systems must be tailored to serve each particular area in an equitable manner.
 9. Wastewater reclamation and reuse systems which assure maximum benefit from available fresh water resources shall be encouraged. Reclamation systems must be an appropriate integral part of the long-range solution to the water resources needs of an area and incorporate provisions for salinity control and disposal of nonreclaimable residues.
 10. Wastewater management systems must be designed and operated to achieve maximum long-term benefit from the funds expended.
 11. Water quality control must be based upon latest scientific findings. Criteria must be continually refined as additional knowledge becomes available.
 12. Monitoring programs must be provided to determine the effects of discharges on all beneficial water uses including effects on aquatic life and its diversity and seasonal fluctuations.

State Policy for
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III. PROGRAM OF IMPLEMENTATION

Water quality control plans and waste discharge requirements hereafter adopted by the State and Regional Boards under Division 7 of the California Water Code shall conform to this policy.

This policy and subsequent State plans will guide the regulatory, planning, and financial assistance programs of the State and Regional Boards. Specifically, they will (1) supersede any regional water quality control plans for the same waters to the extent of any conflict, (2) provide a basis for establishing or revising waste discharge requirements when such action is indicated, and (3) provide general guidance for the development of basin plans.

Water quality control plans adopted by the State Board will include minimum requirements for effluent quality and may specifically define the maximum constituent levels acceptable for discharge to various waters of the State. The minimum effluent requirements will allow discretion in the application of the latest available technology in the design and operation of wastewater treatment systems. Any treatment system which provides secondary treatment, as defined by the specific minimum requirements for effluent quality, will be considered as providing the minimum acceptable level of treatment. Advanced treatment systems will be required where necessary to meet water quality objectives.

Departures from this policy and water quality control plans adopted by the State Board may be desirable for certain individual cases. Exceptions to the specific provisions may be permitted within the broad framework of well established goals and water quality objectives.

Appendix 2

State Water Board Resolution No. 68-16 Statement of Policy with Respect to Maintaining High Quality of Waters in California

https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/1968/rs68_016.pdf

Appendix 3

State Water Board Resolution No. 75-58 Water Quality Control Policy on the Use and Disposal of Inland Waters Used for Powerplant Cooling

https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/1975/rs75_058.pdf

Appendix 4

State Water Board Resolution No. 77-1 Policy with Respect to Water Reclamation in California

https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/1977/rs77_001.pdf

Appendix 5

State Water Board Resolution No. 87-22 Policy on the Disposal of Shredder Waste

https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/1987/rs1987_0022.pdf

Appendix 6

State Water Board Resolution No. 88-23 Policy Regarding the Underground Storage Tank Pilot Program

https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/1988/rs1988_0023.pdf

Appendix 7

State Water Board Resolution No. 88-63 Sources of Drinking Water Policy

https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2006/rs2006_0008_rev_rs88_63.pdf

STATE WATER RESOURCES CONTROL BOARD
RESOLUTION NO. 92-49
(As Amended on April 21, 1994)

POLICIES AND PROCEDURES
FOR INVESTIGATION AND
CLEANUP AND ABATEMENT OF
DISCHARGES UNDER WATER CODE
SECTION 13304

WHEREAS:

1. California Water Code (WC) Section 13001 provides that it is the intent of the Legislature that the State Water Resources Control Board (**State Water Board**) and each Regional Water Quality Control Board (**Regional Water Board**) shall be the principal state agencies with primary responsibility for the coordination and control of water quality. The State and Regional Water Boards shall conform to and implement the policies of the Porter-Cologne Water Quality Control Act (Division 7, commencing with WC Section 13000) and shall coordinate their respective activities so as to achieve a unified and effective water quality control program in the state;
2. WC Section 13140 provides that the State Water Board shall formulate and adopt State Policy for Water Quality Control;
3. WC Section 13240 provides that Water Quality Control Plans shall conform to any State Policy for Water Quality Control;
4. WC Section 13304 requires that any person who has discharged or discharges waste into waters of the state in violation of any waste discharge requirement or other order or prohibition issued by a Regional Water Board or the State Water Board, or who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance may be required to clean up the discharge and abate the effects thereof. This section authorizes Regional Water Boards to require complete cleanup of all waste discharged and restoration of affected water to background conditions (i.e., the water quality that existed before the discharge). The term waste discharge requirements includes those which implement the National Pollutant Discharge Elimination System;
5. WC Section 13307 provides that the State Water Board shall establish policies and procedures that its representatives and the representatives of the Regional Water Boards shall follow for the oversight of investigations and cleanup and abatement activities resulting from discharges of hazardous substances, including:
 - a. The procedures the State Water Board and the Regional Water Boards will follow in making decisions as to when a person may be required to undertake an investigation to determine if an unauthorized hazardous substance discharge has occurred;
 - b. Policies for carrying out a phased, step-by-step investigation to determine the nature and extent of possible soil and ground water contamination or pollution at a site;
 - c. Procedures for identifying and utilizing the most cost-effective methods for detecting contamination or pollution and cleaning up or abating the effects of contamination or pollution;
 - d. Policies for determining reasonable schedules for investigation and cleanup, abatement, or other remedial action at a site. The policies shall recognize the danger to public health and the waters of the state posed by an unauthorized discharge and the need to mitigate those dangers while at the same time taking into account, to the extent possible, the resources, both financial and technical, available to the person responsible for the discharge;
6. "Waters of the state" include both ground water and surface water;
7. Regardless of the type of discharge, procedures and policies applicable to investigations, and cleanup and abatement activities are similar. It is in the best interest of the people of the state for the State Water Board to provide consistent guidance for Regional Water Boards to apply to investigation, and cleanup and abatement;
8. WC Section 13260 requires any person discharging or proposing to discharge waste that could affect waters of the state, or proposing to change the character, location, or volume of a discharge to file a report with and receive requirements from the Regional Water Board;
9. WC Section 13267 provides that the Regional Water Board may require dischargers, past dischargers, or suspected dischargers to furnish those technical or monitoring reports as the Regional Water Board may specify, provided that the burden, including costs, of these reports, shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports;
10. WC Section 13300 states that the Regional Water Board may require a discharger to submit a time schedule of specific actions the discharger shall take in order to correct or prevent a violation of requirements prescribed by the Regional Water Board or the State Water Board;

11. California Health and Safety Code (HSC) Section 25356.1 requires the Department of Toxic Substances Control (DTSC) or, if appropriate, the Regional Water Board to prepare or approve remedial action plans for sites where hazardous substances were released to the environment if the sites have been listed pursuant to HSC Section 25356 (state "Superfund" priority list for cleanup of sites);
12. Coordination with the U.S. Environmental Protection Agency (USEPA), state agencies within the California Environmental Protection Agency (Cal/EPA) (e.g., DTSC, Air Resources Control Board), air pollution control districts, local environmental health agencies, and other responsible federal, state, and local agencies: (1) promotes effective protection of water quality, human health, and the environment and (2) is in the best interest of the people of the state. The principles of coordination are embodied in many statutes, regulations, and interagency memoranda of understanding (MOU) or agreement which affect the State and Regional Water Boards and these agencies;
13. In order to clean up and abate the effects of a discharge or threat of a discharge, a discharger may be required to perform an investigation to define the nature and extent of the discharge or threatened discharge and to develop appropriate cleanup and abatement measures;
14. Investigations that were not properly planned have resulted in increases in overall costs and, in some cases, environmental damage. Overall costs have increased when original corrective actions were later found to have had no positive effect or to have exacerbated the pollution. Environmental damage may increase when a poorly conceived investigation or cleanup and abatement program allows pollutants to spread to previously unaffected waters of the state;
15. A phased approach to site investigation should facilitate adequate delineation of the nature and extent of the pollution, and may reduce overall costs and environmental damage, because: (1) investigations inherently build on information previously gained; (2) often data are dependent on seasonal and other temporal variations; and (3) adverse consequences of greater cost or increased environmental damage can result from improperly planned investigations and the lack of consultation and coordination with the Regional Water Board. However, there are circumstances under which a phased, iterative approach may not be necessary to protect water quality, and there are other circumstances under which phases may need to be compressed or combined to expedite cleanup and abatement;
16. Preparation of written workplans prior to initiation of significant elements or phases of investigation, and cleanup and abatement generally saves Regional Water Board and discharger resources. Results are superior, and the overall cost-effectiveness is enhanced;
17. Discharger reliance on qualified professionals promotes proper planning, implementation, and long-term cost-effectiveness of investigation, and cleanup and abatement activities. Professionals should be qualified, licensed where applicable, and competent and proficient in the fields pertinent to the required activities. California Business and Professions Code Sections 6735, 7835, and 7835.1 require that engineering and geologic evaluations and judgements be performed by or under the direction of registered professionals;
18. WC Section 13360 prohibits the Regional Water Boards from specifying, but not from suggesting, methods that a discharger may use to achieve compliance with requirements or orders. It is the responsibility of the discharger to propose methods for Regional Water Board review and concurrence to achieve compliance with requirements or orders;
19. The USEPA, California state agencies, the American Society for Testing and Materials, and similar organizations have developed or identified methods successful in particular applications. Reliance on established, appropriate methods can reduce costs of investigation, and cleanup and abatement;
20. The basis for Regional Water Board decisions regarding investigation, and cleanup and abatement includes: (1) site-specific characteristics; (2) applicable state and federal statutes and regulations; (3) applicable water quality control plans adopted by the State Water Board and Regional Water Boards, including beneficial uses, water quality objectives, and implementation plans; (4) State Water Board and Regional Water Board policies, including State Water Board Resolutions No. 68-16 (Statement of Policy with Respect to Maintaining High Quality of Waters in California) and No. 88-63 (Sources of Drinking Water); and (5) relevant standards, criteria, and advisories adopted by other state and federal agencies;
21. Discharges subject to WC Section 13304 may include discharges of waste to land; such discharges may cause, or threaten to cause, conditions of soil or water pollution or nuisance that are analogous to conditions associated with migration of waste or fluid from a waste management unit;
22. The State Water Board has adopted regulations governing discharges of waste to land (California

Code of Regulations (CCR), Title 23, Division 3, Chapter 15);

23. State Water Board regulations governing site investigation and corrective action at underground storage tank unauthorized release sites are found in 23 CCR Division 3, Chapter 16, in particular Article 11 commencing with Section 2720;
24. It is the responsibility of the Regional Water Board to make decisions regarding cleanup and abatement goals and objectives for the protection of water quality and the beneficial uses of waters of the state within each Region;
25. Cleanup and abatement alternatives that entail discharge of residual wastes to waters of the state, discharges to regulated waste management units, or leaving wastes in place, create additional regulatory constraints and long-term liability, which must be considered in any evaluation of cost-effectiveness;
26. The Porter-Cologne Water Quality Control Act allows Regional Water Boards to impose more stringent requirements on discharges of waste than any statewide requirements promulgated by the State Water Board (e.g., in this Policy) or than water quality objectives established in statewide or regional water quality control plans as needed to protect water quality and to reflect regional and site-specific conditions.

THEREFORE BE IT RESOLVED:

These policies and procedures apply to all investigations, and cleanup and abatement activities, for all types of discharges subject to Section 13304 of the Water Code.

- I. The Regional Water Board shall apply the following procedures in determining whether a person shall be required to investigate a discharge under WC Section 13267, or to clean up waste and abate the effects of a discharge or a threat of a discharge under WC Section 13304. The Regional Water Board shall:
 - A. Use any relevant evidence, whether direct or circumstantial, including, but not limited to, evidence in the following categories:
 1. Documentation of historical or current activities, waste characteristics, chemical use, storage or disposal information, as documented by public records, responses to questionnaires, or other sources of information;
 2. Site characteristics and location in relation to other potential sources of a discharge;
 3. Hydrologic and hydrogeologic information, such as differences in

upgradient and downgradient water quality;

4. Industry-wide operational practices that historically have led to discharges, such as leakage of pollutants from wastewater collection and conveyance systems, sumps, storage tanks, landfills, and clarifiers;
 5. Evidence of poor management of materials or wastes, such as improper storage practices or inability to reconcile inventories;
 6. Lack of documentation of responsible management of materials or wastes, such as lack of manifests or lack of documentation of proper disposal;
 7. Physical evidence, such as analytical data, soil or pavement staining, distressed vegetation, or unusual odor or appearance;
 8. Reports and complaints;
 9. Other agencies' records of possible or known discharge; and
 10. Refusal or failure to respond to Regional Water Board inquiries;
- B. Make a reasonable effort to identify the dischargers associated with the discharge. It is not necessary to identify all dischargers for the Regional Water Board to proceed with requirements for a discharger to investigate and clean up;
 - C. Require one or more persons identified as a discharger associated with a discharge or threatened discharge subject to WC Section 13304 to undertake an investigation, based on findings of I.A and I.B above;
 - D. Notify appropriate federal, state, and local agencies regarding discharges subject to WC Section 13304 and coordinate with these agencies on investigation, and cleanup and abatement activities.
- II. The Regional Water Board shall apply the following policies in overseeing: (a) investigations to determine the nature and horizontal and vertical extent of a discharge and (b) appropriate cleanup and abatement measures.
 - A. The Regional Water Board shall:
 1. Require the discharger to conduct investigation, and cleanup and abatement, in a progressive sequence ordinarily consisting of the following phases, provided that the sequence shall be adjusted to accommodate site-specific circumstances, if necessary:

- a. Preliminary site assessment (to confirm the discharge and the identity of the dischargers; to identify affected or threatened waters of the state and their beneficial uses; and to develop preliminary information on the nature, and vertical and horizontal extent, of the discharge);
 - b. Soil and water investigation (to determine the source, nature and extent of the discharge with sufficient detail to provide the basis for decisions regarding subsequent cleanup and abatement actions, if any are determined by the Regional Water Board to be necessary);
 - c. Proposal and selection of cleanup and abatement action (to evaluate feasible and effective cleanup and abatement actions, and to develop preferred cleanup and abatement alternatives);
 - d. Implementation of cleanup and abatement action (to implement the selected alternative, and to monitor in order to verify progress);
 - e. Monitoring (to confirm short- and long-term effectiveness of cleanup and abatement);
2. Consider, where necessary to protect water quality, approval of plans for investigation, or cleanup and abatement, that proceed concurrently rather than sequentially, provided that overall cleanup and abatement goals and objectives are not compromised, under the following conditions:
 - a. Emergency situations involving acute pollution or contamination affecting present uses of waters of the state;
 - b. Imminent threat of pollution;
 - c. Protracted investigations resulting in unreasonable delay of cleanup and abatement; or
 - d. Discharges of limited extent which can be effectively investigated and cleaned up within a short time;
 3. Require the discharger to extend the investigation, and cleanup and abatement, to any location affected by the discharge or threatened discharge.
 4. Where necessary to protect water quality, name other persons as dischargers, to the extent permitted by law;
 5. Require the discharger to submit written workplans for elements and phases of the investigation, and cleanup and abatement, whenever practicable;
 6. Review and concur with adequate workplans prior to initiation of investigations, to the extent practicable. The Regional Water Board may give verbal concurrence for investigations to proceed, with written follow-up. An adequate workplan should include or reference, at least, a comprehensive description of proposed investigative, cleanup, and abatement activities, a sampling and analysis plan, a quality assurance project plan, a health and safety plan, and a commitment to implement the workplan;
 7. Require the discharger to submit reports on results of all phases of investigations, and cleanup and abatement actions, regardless of degree of oversight by the Regional Water Board;
 8. Require the discharger to provide documentation that plans and reports are prepared by professionals qualified to prepare such reports, and that each component of investigative and cleanup and abatement actions is conducted under the direction of appropriately qualified professionals. A statement of qualifications of the responsible lead professionals shall be included in all plans and reports submitted by the discharger;
 9. Prescribe cleanup levels which are consistent with appropriate levels set by the Regional Water Board for analogous discharges that involve similar wastes, site characteristics, and water quality considerations;
- B. The Regional Water Board may identify investigative and cleanup and abatement activities that the discharger could undertake without Regional Water Board oversight, provided that these investigations and cleanup and abatement activities shall be consistent with the policies and procedures established herein;
- III. The Regional Water Board shall implement the following procedures to ensure that dischargers shall have the opportunity to select cost-effective methods for detecting discharges or threatened discharges and methods for cleaning up or abating the effects thereof. The Regional Water Board shall:
 5. Require the discharger to submit written workplans for elements and phases of the investigation, and cleanup and abatement, whenever practicable;
 6. Review and concur with adequate workplans prior to initiation of investigations, to the extent practicable. The Regional Water Board may give verbal concurrence for investigations to proceed, with written follow-up. An adequate workplan should include or reference, at least, a comprehensive description of proposed investigative, cleanup, and abatement activities, a sampling and analysis plan, a quality assurance project plan, a health and safety plan, and a commitment to implement the workplan;
 7. Require the discharger to submit reports on results of all phases of investigations, and cleanup and abatement actions, regardless of degree of oversight by the Regional Water Board;
 8. Require the discharger to provide documentation that plans and reports are prepared by professionals qualified to prepare such reports, and that each component of investigative and cleanup and abatement actions is conducted under the direction of appropriately qualified professionals. A statement of qualifications of the responsible lead professionals shall be included in all plans and reports submitted by the discharger;
 9. Prescribe cleanup levels which are consistent with appropriate levels set by the Regional Water Board for analogous discharges that involve similar wastes, site characteristics, and water quality considerations;

A. Concur with any investigative and cleanup and abatement proposal which the discharger demonstrates and the Regional Water Board finds to have a substantial likelihood to achieve compliance, within a reasonable time frame, with cleanup goals and objectives that implement the applicable Water Quality Control Plans and Policies adopted by the State Water Board and Regional Water Boards, and which implement permanent cleanup and abatement solutions which do not require ongoing maintenance, wherever feasible;

B. Consider whether the burden, including costs, of reports required of the discharger during the investigation and cleanup and abatement of a discharge bears a reasonable relationship to the need for the reports and the benefits to be obtained from the reports;

C. Require the discharger to consider the effectiveness, feasibility, and relative costs of applicable alternative methods for investigation, and cleanup and abatement. Such comparison may rely on previous analysis of analogous sites, and shall include supporting rationale for the selected methods;

D. Ensure that the discharger is aware of and considers techniques which provide a cost-effective basis for initial assessment of a discharge.

1. The following techniques may be applicable:
 - a. Use of available current and historical photographs and site records to focus investigative activities on locations and wastes or materials handled at the site;
 - b. Soil gas surveys;
 - c. Shallow geophysical surveys;
 - d. Remote sensing techniques;
2. The above techniques are in addition to the standard site assessment techniques, which include:
 - a. Inventory and sampling and analysis of materials or wastes;
 - b. Sampling and analysis of surface water;
 - c. Sampling and analysis of sediment and aquatic biota;
 - d. Sampling and analysis of ground water;
 - e. Sampling and analysis of soil and soil pore moisture;
 - f. Hydrogeologic investigation;

E. Ensure that the discharger is aware of and considers the following cleanup and abatement methods or combinations thereof, to the extent that they may be applicable to the discharge or threat thereof:

1. Source removal and/or isolation;
2. In-place treatment of soil or water:
 - a. Bioremediation;
 - b. Aeration;
 - c. Fixation;
3. Excavation or extraction of soil, water, or gas for on-site or off-site treatment by the following techniques:
 - a. Bioremediation;
 - b. Thermal destruction;
 - c. Aeration;
 - d. Sorption;
 - e. Precipitation, flocculation, and sedimentation;
 - f. Filtration;
 - g. Fixation;
 - h. Evaporation;
4. Excavation or extraction of soil, water, or gas for appropriate recycling, re-use, or disposal;

F. Require actions for cleanup and abatement to:

1. Conform to the provisions of Resolution No. 68-16 of the State Water Board, and the Water Quality Control Plans of the State and Regional Water Boards, provided that under no circumstances shall these provisions be interpreted to require cleanup and abatement which achieves water quality conditions that are better than background conditions;
2. Implement the provisions of Chapter 15 that are applicable to cleanup and abatement, as follows:
 - a. If cleanup and abatement involves corrective action at a waste management unit regulated by waste discharge requirements issued under Chapter 15, the Regional Water Board shall implement the provisions of that chapter;
 - b. If cleanup and abatement involves removal of waste from the immediate place of release and discharge of the waste to land for treatment, storage, or disposal, the Regional Water Board

shall regulate the discharge of the waste through waste discharge requirements issued under Chapter 15, provided that the Regional Water Board may waive waste discharge requirements under WC Section 13269 if the waiver is not against the public interest (e.g., if the discharge is for short-term treatment or storage, and if the temporary waste management unit is equipped with features that will ensure full and complete containment of the waste for the treatment or storage period); and

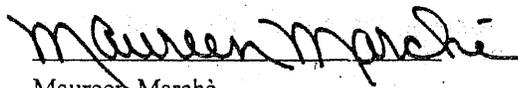
- c. If cleanup and abatement involves actions other than removal of the waste, such as containment of waste in soil or ground water by physical or hydrological barriers to migration (natural or engineered), or in-situ treatment (e.g., chemical or thermal fixation, or bioremediation), the Regional Water Board shall apply the applicable provisions of Chapter 15, to the extent that it is technologically and economically feasible to do so; and
3. Implement the applicable provisions of Chapter 16 for investigations and cleanup and abatement of discharges of hazardous substances from underground storage tanks; and
- G. Ensure that dischargers are required to clean up and abate the effects of discharges in a manner that promotes attainment of either background water quality, or the best water quality which is reasonable if background levels of water quality cannot be restored, 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; in approving any alternative cleanup levels less stringent than background, apply

Section 2550.4 of Chapter 15, or, for cleanup and abatement associated with underground storage tanks, apply Section 2725 of Chapter 16, provided that the Regional Water Board considers the conditions set forth in Section 2550.4 of Chapter 15 in setting alternative cleanup levels pursuant to Section 2725 of Chapter 16; any such alternative cleanup level shall:

1. Be consistent with maximum benefit to the people of the state;
 2. Not unreasonably affect present and anticipated beneficial use of such water; and
 3. Not result in water quality less than that prescribed in the Water Quality Control Plans and Policies adopted by the State and Regional Water Boards.
- IV. The Regional Water Board shall determine schedules for investigation, and cleanup and abatement, taking into account the following factors:
 - A. The degree of threat or impact of the discharge on water quality and beneficial uses;
 - B. The obligation to achieve timely compliance with cleanup and abatement goals and objectives that implement the applicable Water Quality Control Plans and Policies adopted by the State Water Board and Regional Water Boards;
 - C. The financial and technical resources available to the discharger; and
 - D. Minimizing the likelihood of imposing a burden on the people of the state with the expense of cleanup and abatement, where feasible.
 - V. The State and Regional Water Boards shall develop an expedited technical conflict resolution process so when disagreements occur, a prompt appeal and resolution of the conflict is accomplished.

CERTIFICATION

The undersigned, Administrative Assistant to the Board, does hereby certify that the foregoing is full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the State Water Resources Control Board held on June 18, 1992, and amended at a meeting of the State Water Resources Control Board held on April 21, 1994.



Maureen Marché

Administrative Assistant to the Board

STATE WATER RESOURCES CONTROL BOARD
RESOLUTION NO. 93-62

POLICY FOR REGULATION OF DISCHARGES
OF MUNICIPAL SOLID WASTE

WHEREAS:

1. Water quality protection—The State Water Resources Control Board (State Water Board) and each Regional Water Quality Control Board (Regional Water Board) are the state agencies with primary responsibility for the coordination and control of water quality (California Water Code Section 13001, "WC §13001");
2. State Policy for Water Quality Control—The State Water Board is authorized to adopt State Policy For Water Quality Control which may consist of or contain "...principles and guidelines deemed essential by the state board for water quality control" (Authority: WC §§1058, 13140, 13142);
3. State agency compliance—All State agencies shall comply with State Policy For Water Quality Control regarding any activities that could affect water quality (WC §13146);
4. Waste Discharge Requirements—Regional Water Boards regulate discharges of waste that could affect the quality of waters of the state, including discharges of solid waste to land, through the issuance of waste discharge requirements (WC §13263);
5. Solid waste disposal—The State Water Board is directed to classify wastes according to threat to water quality and to classify waste disposal sites according to ability to protect water quality (WC §13172);
6. Chapter 15—The State Water Board promulgated regulations, codified in Chapter 15 of Division 3 of Title 23 of the California Code of Regulations (23 CCR §§2510-2601, "Chapter 15"), governing discharges of waste to land. These regulations:
 - a. Contain classification criteria for wastes and for disposal sites;
 - b. Prescribe minimum standards for the siting, design, construction, monitoring, and closure of waste management units;
7. Federal authority—The federal Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (42 USC §6901, *et seq.*, "SWDA"), authorizes development of nationwide standards for disposal sites for municipal solid waste [MSW], including criteria for sanitary landfills (SWDA §§1007, 4004, 42 USC §§6907, 6944);
8. Federal MSW regulations—On October 9, 1991, the United States Environmental Protection Agency (USEPA) promulgated regulations that apply, in California, to dischargers who own or operate landfills which accept municipal solid waste on or after October 9, 1991, (MSW landfills), regardless of whether or not a permit is issued (Title 40, Code of Federal Regulations [CFR], Parts 257 and 258, "federal MSW regulations"). The majority of the federal MSW regulations become effective on what is hereinafter referred to as the "Federal Deadline" [40 CFR §258.1(e)], currently October 9, 1993;
9. States required to apply federal MSW regulations—Each state must "...adopt and implement a permit program or other system of prior approval and conditions to assure that each...[MSW landfill]...within such state...will comply with the...[federal MSW landfill regulations]." State regulations promulgated to satisfy this requirement are subject to approval by USEPA. (SWDA §§4003, 4005, 42 USC §§6943, 6945);
10. Approved state's authority—The permitting authority in an "approved state" may approve engineered alternatives to certain prescriptive standards contained in the federal MSW regulations, provided that the alternative meets specified conditions and performance standards (40 CFR 256.21);
11. State application—The State Water Board and the Integrated Waste Management Board submitted an application for program approval to the USEPA on February 1, 1993;
12. Chapter 15 deficiencies—The State Water Board's Chapter 15 regulations are comparable to the federal MSW regulations. Nevertheless, the USEPA has identified several areas of Chapter 15 which are not adequate to ensure compliance with

certain provisions of the federal MSW regulations, as summarized in Attachment I;

13. **Rulemaking to amend Chapter 15**—There is insufficient time, prior to October 9, 1993, for the State Water Board to amend Chapter 15 to ensure complete consistency with the federal MSW regulations and subsequently for the USEPA to carry out a review of the revised chapter and to render a decision approving California's permit program;
14. **Composite liner(s) needed**—Solid Waste Assessment Test Reports, submitted to Regional Water Boards pursuant to WC §13273, have shown that releases of leachate and gas from MSW landfills that are unlined are likely to degrade the quality of underlying ground water. Research on liner systems for landfills indicates that (a) single clay liners will only delay, rather than preclude, the onset of leachate leakage, and (b) the use of composite liners represents the most effective approach for reliably containing leachate and landfill gas;
15. **Lack of compliance with Chapter 15**—WDRs for many MSW landfills have not been revised to meet the most recent Chapter 15 amendments;
16. **CEQA**—Adoption of this policy is categorically exempt from the provisions of the California Environmental Quality Act (Division 13, commencing with §21000, of the Public Resources Code, "CEQA") because it is an action by a regulatory agency for the protection of natural resources, within the meaning of §15307 of the *Guidelines For Implementation of California Environmental Quality Act* in Title 14 of the California Code of Regulations;
17. **Public notice**—Notice of the State Water Board's proposal to adopt a State Policy for Water Quality Control regarding Regulation of Discharges of Municipal Solid Waste was published on March 31, 1993, and a public hearing on the matter was held on June 1, 1993; and
18. **Reference**—This Policy implements, interprets, or makes specific the following Water Code Sections: §13142, §13160, §13163, and §13172.

THEREFORE BE IT RESOLVED:

I. Implementation of the Chapter 15 and federal MSW regulations:

- A. **WDR revision**—In order to insure compliance with SWDA §§4003, 4005 (42 USC §§6943, 6945), each Regional Water Board shall henceforth implement in waste discharge requirements for discharges at MSW landfills,

both the Chapter 15 regulations and those applicable provisions of the federal MSW regulations that are necessary to protect water quality, particularly the containment provisions stipulated in Section III of this Policy and the provisions identified in Attachment I to this Policy, and shall revise existing waste discharge requirements to accomplish this according to the schedule provided in Section II of this Policy;

- B. **Alternatives limited**—The Regional Water Board shall not rely upon any exemption or alternative allowed by Chapter 15 if such an exemption or alternative would not be allowed under the federal MSW regulations, nor shall the Regional Water Board waive waste discharge requirements for the discharge of municipal solid waste at landfills;
- C. **Applicability in the absence of useable waters**—Although all other provisions of this Policy would continue to apply, the Regional Water Board shall have the discretion to prescribe requirements for containment systems and water quality monitoring systems that are less stringent than the design and construction standards in this Policy, in the federal MSW regulations, and in Chapter 15 if the Regional Water Board finds that the containment systems satisfy the performance standard for liners in the federal MSW regulations [40 CFR §§258.40(a)(1) and (c)], that the prerequisite for an exemption from ground water monitoring in the federal MSW regulations is satisfied [40 CFR §258.50(b)], and that either of the following two conditions is satisfied:
 1. A hydrogeologic investigation shows that:
 - a. There is no aquifer (i.e., a geological formation, group of formations, or portion of a formation capable of yielding significant quantities of ground water to wells or springs) underlying the facility property; and
 - b. It is not reasonably foreseeable that fluids—including leachate and landfill gas—migrating from the landfill could reach any aquifer or surface water body in the ground water basin within which the landfill is located; or
 2. The ground water in the basin underlying the facility has no beneficial uses and a hydrogeologic investigation shows that it is not reasonably foreseeable that fluids—including leachate and landfill gas—migrating from the landfill could reach any aquifer or surface water body having beneficial uses.

II. Implementation schedule:

A. MSW landfills—By the Federal Deadline (e.g., October 9, 1993), each Regional Water Board shall amend the waste discharge requirements for discharges of waste at all MSW landfills in its region (including discharges to any area outside the actual waste boundaries of an MSW landfill as they exist on that date ["lateral expansion" hereinafter]), to require persons who own or operate such landfills to:

1. Except for the ground water monitoring and corrective action requirements under 40 CFR §§258.50-258.58, comply with all applicable portions of the federal MSW regulations by the Federal Deadline; and
2. Achieve full compliance with Chapter 15 and with the federal ground water monitoring and corrective action requirements under 40 CFR §§258.50-258.58 as follows:
 - a. For all MSW landfills that are less than one mile from a drinking water intake (surface or subsurface), by no later than October 9, 1994; and
 - b. For all other MSW landfills that have accepted waste prior to the effective date of this Policy, by no later than October 9, 1995;

B. Proposed MSW landfills—As of the date of the Federal Deadline, waste discharge requirements for the discharge of waste at all MSW landfills that have not accepted waste as of that date shall ensure full compliance both with Chapter 15 and with the federal MSW regulations prior to the discharge of waste to that landfill.

III. Containment—As of the Federal Deadline, discharges of waste to either an MSW landfill that has not received waste as of that date or to a lateral expansion of an MSW landfill unit are prohibited unless the discharge is to an area equipped with a containment system which is constructed in accordance with the standard of the industry and which meets the following additional requirements for both liners and leachate collection systems:

A. Standards for liners

1. Post-Federal Deadline construction—Except as provided in either §III.A.3. (for steep sideslopes) or §III.A.2. (for new discharges to pre-existing liners), after the Federal Deadline, all containment systems shall include a composite liner that consists of an upper synthetic flexible membrane

component (Synthetic Liner) and a lower component of soil, and that either:

a. Prescriptive Design:

- i. Upper component—Has a Synthetic Liner at least 40-mils thick (or at least 60-mils thick if of high density polyethylene) that is installed in direct and uniform contact with the underlying compacted soil component described in paragraph III.A.1.a.ii.; and

- ii. Lower component—Has a layer of compacted soil that is at least two feet thick and that has an hydraulic conductivity of no more than 1×10^{-7} cm/sec (0.1 feet/year); or

- b. Alternative design—Satisfies the performance criteria contained in 40 CFR §§258.40(a)(1) and (c), and satisfies the criteria for an engineered alternative to the above Prescriptive Design [as provided by 23 CCR §2510(b)], where the performance of the alternative composite liner's components, in combination, equal or exceed the waste containment capability of the Prescriptive Design;

2. New discharges to liners constructed prior to the Federal Deadline—Except as provided in §III.A.3. (for steep sideslopes), containment systems that will begin to accept municipal solid waste after the Federal Deadline, but which have been constructed prior to the Federal Deadline, are not required to meet the provisions of §III.A.1. if the containment system includes a composite liner that:

- a. Prescriptive Design—Features as its uppermost component a Synthetic Liner at least 40-mils thick (or at least 60-mils if high density polyethylene) that is installed in direct and uniform contact with the underlying materials; and

- b. Performance—Meets the performance criteria contained in 40 CFR §§258.40(a)(1) and (c);

3. Steep sideslopes—Containment systems installed in those portions of an MSW landfill where an engineering analysis shows, and the Regional Water Board finds, that sideslopes are too steep to permit construction of a stable composite liner that meets the prescriptive standards contained in §III.A.1 or 2. shall include an alternative liner that meets the performance criteria

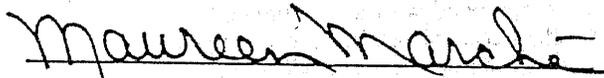
contained in 40 CFR §§258.40(a)(1) and (c) and that either:

- a. Is a composite system and includes as its uppermost component a Synthetic Liner at least 40-mils thick (or at least 60-mils if high density polyethylene) that is installed in direct and uniform contact with the underlying materials; or
- b. Is not a composite system, but includes a Synthetic Liner at least 60-mils thick (or at least 80-mils if of high density polyethylene) that is installed in direct and uniform contact with the underlying materials; and

B. Standards for leachate collection—Include a leachate collection and removal system which conveys to a sump (or other appropriate collection area lined in accordance with §III.A.) all leachate which reaches the liner, and which does not rely upon unlined or clay-lined areas for such conveyance.

CERTIFICATION

The undersigned, Administrative Assistant to the Board, does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the State Water Resources Control Board held on June 17, 1993.



Maureen Marchè
Administrative Assistant to the Board

ATTACHMENT I

To Resolution No. 93-62

Pursuant to §I.A., in writing or revising the waste discharge requirements for MSW landfills, Regional Water Boards shall implement those portions of the following sections of the federal MSW regulations that either are more stringent than, or do not exist within, Chapter 15.

- o Floodplains—40 CFR §§258.11 and 258.16
- o Wetlands—40 CFR §258.12
- o Unstable areas—40 CFR §§258.15 and 258.16
- o Run-on/Run-off control systems—40 CFR §258.26
- o Liquids acceptance—40 CFR §§258.28 [esp. §(a)(2)]
- o Design Criteria—40 CFR §258.40, according to the provisions of Section III
- o Well/piezometer performance—40 CFR §258.51
- o Ground-water sampling/analysis—40 CFR §258.53
- o Monitoring Parameters—40 CFR §258.54 and Appendix I to Part 258
- o Constituents of Concern—40 CFR §258.55 and Appendix II to Part 258
- o Response to a release—40 CFR §§258.55 [esp. §(g)(1)(ii, iii)]
- o Establishing corrective action measures—40 CFR §§258.56 [esp. §§(c and d)] and 258.57
- o Ending corrective action program—40 CFR §258.58 [esp. §(e)]
- o Closure/post-closure—40 CFR §§258.60-258.61 [esp. §§258.60(a-g)]
- o Deed notation—40 CFR §258.60(i)
- o Ending post-closure—40 CFR §258.61 [esp. §§(a and b)]
- o Corrective action financial assurance—40 CFR §258.73

Appendix 10

State Water Board Water Quality Control Plan for Temperature in Coastal and Interstate Waters and Enclosed Bays and Estuaries in California (Thermal Plan)

https://www.waterboards.ca.gov/water_issues/programs/ocean/docs/wgplans/thermpln.pdf

MANAGEMENT AGENCY AGREEMENT BETWEEN THE
STATE WATER RESOURCES CONTROL BOARD, STATE OF CALIFORNIA
AND THE FOREST SERVICE, UNITED STATES DEPARTMENT OF AGRICULTURE

This Management Agency Agreement is entered into by and between the State Water Resources Control Board, State of California (State Board), and the Forest Service, United States Department of Agriculture (Forest Service), acting through the Regional Forester of the Pacific Southwest Region, for the purpose of carrying out portions of the State's Water Quality Management Plan related to activities on National Forest System (NFS) lands.

WHEREAS:

1. The Forest Service and the State Board mutually desire:
 - (a) To achieve the goals in the Federal Water Pollution Control Act, as amended;
 - (b) To minimize duplication of effort and accomplish complementary pollution control programs;
 - (c) To implement Forest Service legislative mandates for multiple use and sustained yield to meet both long- and short-term local, state, regional, and national needs consistent with the requirement for environmental protection and/or enhancement; and
 - (d) To assure control of water pollution through implementation of Best Management Practices (BMPs).
2. The State Board and the Regional Water Quality Control Boards are responsible for promulgating a Water Quality Management Plan pursuant to the Federal Water Pollution Control Act, Section 208, and for approving water quality control plans promulgated by the Regional Water Quality Control Boards pursuant to state law. Both types of plans provide for attainment of water quality objectives and for protection of beneficial uses.
3. The State Board and the Regional Water Quality Control Boards are responsible for protecting water quality and for ensuring that land management activities do not adversely affect beneficial water uses.
4. Under Section 208 of the Federal Water Pollution Control Act, the State Board is required to designate management agencies to implement provisions of water quality management plans.
5. The Forest Service has the authority and responsibility to manage and protect the lands which it administers, including protection of water quality thereon.
6. The Forest Service has prepared a document entitled "Water Quality Management for National Forest System Lands in California" (hereafter referred to as the Forest Service 208 Report), which describes current Forest Service practices and procedures for protection of water quality.

7. On August 16, 1979, the State Board designated the Forest Service as the management agency for all activities on NFS lands effective upon execution of a management agency agreement.

NOW, THEREFORE, the parties hereto agree as follows:

1. The Forest Service agrees:

- (a) To accept responsibility of the Water Quality Management Agency designation for NFS lands in the State of California.
- (b) To implement on NFS lands statewide the practices and procedures in the Forest Service 208 Report.
- (c) To facilitate early State involvement in the project planning process by developing a procedure which will provide the State with notification of and communications concerning scheduled, in-process, and completed project Environmental Assessments (EAs) for projects that have potential to impact water quality.
- (d) To provide periodic project site reviews to ascertain implementation of management practices and environmental constraints identified in the EA and/or contract and permit documents.
- (e) To review annually and update the Forest Service documents as necessary to reflect changes in institutional direction, laws and implementation accomplishment as described in Section IV of the Forest Service 208 Report. A prioritization and schedule for this updating is provided in Attachment A to this Agreement.
- (f) That in cases where two or more BMPs are conflicting, the responsible Forest Service official shall assure that the practice selected meets water quality standards and protects beneficial uses.
- (g) That those issues in Attachment B to this agreement have been identified by the State and/or Regional Boards as needing further refinement before they are mutually acceptable to the Forest Service and the State Board as BMPs.

2. The State Board agrees:

- (a) The practices and procedures set forth in the Forest Service 208 Report constitute sound water quality protection and improvement on NFS lands, except with respect to those issues in Attachment B. The State and Regional Boards will work with the Forest Service to resolve those issues according to the time schedule in Attachment B.
- (b) That Section 313 of the Federal Water Pollution Control Act mandates federal agency compliance with the substantive and procedural requirements of state and local water pollution control law. It is contemplated by this agreement that Forest Service reasonable implementation of those practices and procedures and of this agreement will

2. (b) (cont.)

constitute compliance with Section 13260, subdivision (a) of Section 13263, and subdivision (b) of Section 13264, Water Code. It is further contemplated that these provisions requiring a report of proposed discharge and issuance of waste discharge requirements for nonpoint source discharges will be waived by the Regional Board pursuant to Section 13269, Water Code provided that the Forest Service reasonably implements those practices and procedures and the provisions of this agreement. However, waste discharges from land management activities resulting in point source discharges, as defined by the Federal Water Pollution Control Act, will be subject to NPDES permit requirements, since neither the State Board nor the Regional Board has authority to waive such permits.

(c) That implementation will constitute following the Implementation Statement, Section I of the Forest Service 208 Report.

3. It is mutually agreed:

- (a) To meet no less than annually to maintain coordination/communication, report on water quality management progress, review proceedings under this agreement, and to consider revisions as requested by either party.
- (b) To authorize the respective Regional Boards and National Forests to meet periodically, as necessary, to discuss water quality policy, goals, progress, and to resolve conflicts/concerns.
- (c) That the development and improvement of BMPs will be through a coordinated effort with federal and state agencies for adjacent lands and areas of comparable concern.
- (d) To meet periodically, as necessary, to resolve conflicts or concerns that arise from and are not resolved at the Forest and Regional Board meetings. Meetings may be initiated at the request of either party, a National Forest, or a Regional Board.
- (e) To coordinate present and proposed water quality monitoring activities within or adjacent to the National Forests and to routinely make available to the other party any unrestricted water quality data and information; and to coordinate and involve one another in subsequent/continuing water quality management planning and standard development where appropriate.
- (f) That nothing herein shall be construed in any way as limiting the authority of the State Board or the Regional Boards in carrying out their legal responsibilities for management or regulation of water quality.

3. (cont.)

(g) That nothing herein shall be construed as limiting or affecting in any way the legal authority of the Forest Service in connection with the proper administration and protection of National Forest System lands in accordance with federal laws and regulations.

(h) That this Agreement shall become effective as soon as it is signed by the parties hereto and shall continue in force unless terminated by either party upon ninety (90) days notice in writing to the other of intention to terminate upon a date indicated.

IN WITNESS WHEREOF, the parties hereto, by their respective duly authorized officers, have executed this Agreement in duplicate on the respective dates indicated below.

FOREST SERVICE,
U. S. DEPARTMENT OF AGRICULTURE

STATE WATER RESOURCES CONTROL BOARD
STATE OF CALIFORNIA

By *James H. Smith*
Regional Forester
Pacific-Southwest Region

By *C. Whitley*
Executive Director

Date: 3/17/81

Date: FEB 26 1981

By *J. M. Durbin*
Regional Forester
Intermountain Region

Date: 4-1-81

By *James F. Torrance*
Regional Forester
Pacific Northwest Region

Date: 5-26-81

ATTACHMENT A

Schedule for Completing the BMPs

<u>Priority</u>	<u>Best Management Practice</u>	<u>Completion Date (FY.)</u>
1	Cumulative Watershed Impacts	'81
2	Closure or Obliteration of Temporary Roads (2.26)	'81
3	Minimization of Sidecasting (2.11)	'81
4	Stabilization of Road Prisms and of Spoil Disposal Areas	'82
5	Control of Road Maintenance Chemicals	'83-'86*
6	Tractor Windrowing on the Contour (5.5)	'83-'86*
7	Sanitary and Erosion Control for Temporary Camps	'84-'86*
8	Administering Terms of the U. S. Mining Laws (3.1)	'84-'86*

* To be firmed up to a specific fiscal year two years in advance at the annual meeting called for in Section 3(a) of this Agreement.

ATTACHMENT B

Schedule for Resolving Regional Board Issues

<u>Region</u>	<u>Issue</u>	<u>Completion Date (FY.)</u>
1	Herbicide Use (Resolution 80-5)	'81
1	Protection of Wild and Scenic Rivers	'82

MEMORANDUM OF AGREEMENT
BETWEEN
THE DEPARTMENT OF HEALTH SERVICES
AND
THE STATE WATER RESOURCES CONTROL BOARD
ON IMPLEMENTATION OF THE HAZARDOUS WASTE PROGRAM

This Memorandum of Agreement (hereinafter "MOA") sets forth those principles and procedures to which the Department of Health Services (hereinafter "Department") and the State Water Resources Control Board [hereinafter "Board", which also includes and represents the nine Regional Water Quality Control Boards (RWQCBs)] commit themselves to implement the State's Hazardous Waste Program, including support of the State's implementation of Subtitle C of the Resource Conservation and Recovery Act (RCRA, 42 USC 6921 et seq.). Specifically, the MOA covers surveillance and enforcement related to water quality at landfills, surface impoundments, waste piles, and land treatment facilities which treat, store, or dispose of hazardous waste (all hereinafter referred to as "hazardous waste management facilities"). This MOA also covers the issuance, modification, or denial of permits to facilities, including the revision of the water quality aspects of hazardous waste management facility siting, design, closure and post-closure, and surface and ground water monitoring and protection. This MOA hereby includes by reference Exhibit A, entitled "General Procedures for Permit Development for Hazardous Waste Management Facilities". This MOA and subsequent amendments shall be effective as of the date of signature by both the Director of the Department and the Chairperson of the Board. It shall be considered binding on both agencies, to the fullest extent allowed by law. No provision of this memorandum is intended to nor shall be interpreted as amending in any way the provisions of any statute, regulation, order, or permit.

BACKGROUND

The United States Environmental Protection Agency (hereinafter "EPA") may authorize states to administer and enforce a hazardous waste program pursuant to Subtitle C of RCRA, provided that the states can demonstrate to EPA that their state hazardous waste laws, regulations, and program procedures are equivalent to and consistent with the federal counterparts. The first phase of EPA's RCRA regulations were promulgated on May 19, 1980. They included hazardous waste criteria, standards for generators and transporters, and interim status standards for treatment, storage, and disposal facilities.

The remaining regulations were issued in three components, with standards for storage and treatment promulgated on January 12, 1981, standards for incinerators promulgated on January 26, 1981, and standards for land disposal promulgated on July 26, 1982. These regulations have undergone subsequent revisions and amendments to reflect changes in EPA policy and to provide for more effective environmental protection.

The Department has been designated under State law as the agency to administer and enforce the State's hazardous waste management program authorized under Section 3006(c) of RCRA. The State was granted interim RCRA Phase I authorization on June 4, 1981 and Phase IIA authorization on January 11, 1983. Interim authorization was dependent upon the existence of a state program that is "substantially equivalent" to the federal RCRA program.

Substantial equivalency was demonstrated by using existing California laws governing hazardous waste control and water quality protection, and the administrative regulations of the Department and the Board.

The Department applied for final authorization, with full input from the Board on all water quality areas, for all phases of RCRA on November 7, 1985. Final authorization of the State program depends upon the State's ability to demonstrate equivalency to and consistency with the federal program. Any inconsistencies which would make the State program less stringent must be resolved.

The Department and the Board have promulgated and will maintain regulations which make the State program equivalent to or more stringent than federal laws and regulations.

AUTHORITY

The RCRA regulations are codified in Title 40 of the Code of Federal Regulations (40 CFR) in Parts 124 and 260 through 271, inclusive.

Unless otherwise stated, all references to "federal law" shall refer to RCRA and references to federal regulations shall refer to 40 CFR, parts 124 and 260 through 271, inclusive. Because EPA may continue to amend their hazardous waste regulations, it may be necessary to revise the aforementioned list of federal regulations from time to time. Such revisions may be proposed by either party and, if agreed to by both parties, may be appended to this MOA, provided such revisions do not change the meaning of the Agreement or otherwise alter its intent.

With the exception of Article 9.5 ("Toxic Pits Cleanup Act of 1984") the Department has the authority to implement and enforce the State's Hazardous Waste Control Law, Health and Safety Code (HSC), Division 20, Chapter 6.5. The Department also has the authority, pursuant to Sections 25159.5 and 25159.7 of the HSC, to enforce federal law until such time as the Department adopts regulations corresponding to and equivalent to, or more stringent or extensive than, federal regulations. The Department has promulgated regulations which establish, in detail, standards for the handling, processing, use, storage, and disposal of wastes, California Administrative Code, Title 22, Division 4, Chapter 30.

The Board has the authority to implement and enforce the Porter-Cologne Water Quality Control Act, Water Code, Division 7; Article 9.5 of Chapter 6.5 of Division 20 of the HSC; and to develop standards for local implementation and enforcement of Chapter 6.7 (Underground Storage of Hazardous Substances) of Division 20 of the HSC. The Board has promulgated regulations which

establish, in detail, water quality protection standards for discharges of waste to land: California Administrative Code, Title 23, Chapter 3, Subchapter 15. The Board also has regulations governing other discharges of waste which could affect the quality of waters of the State, and regulations implementing Chapter 6.7 of the HSC. The Board also is the lead agency for implementation of the Federal Clean Water Act in California.

Nothing in this MOA shall be construed as a waiver of the Department's authority to administer and enforce the State hazardous waste management program authorized under Section 3006(c) of RCRA.

PRINCIPLES OF AGREEMENT

For the purpose of this MOA, the Department and the Board agree to the following principles:

1. Only one Hazardous Waste Facility Permit, encompassing all Department and Board standards, shall be issued. It is the intent of the Department and Board to hold a joint public hearing prior to the issuance of a Hazardous Waste Facility Permit and in accordance with Exhibit A. The Department shall be responsible for issuing the Hazardous Waste Facility Permit.

The Board will adopt necessary waste discharge requirements and agrees to ensure that such requirements are consistent with and no less stringent than 40 CFR 264, Subpart F. Further, in other regulatory areas of this program where the Board's Waste Discharge Requirements may contain water quality requirements or standards which parallel RCRA, the Board agrees to ensure, subject to the availability of supporting resources, that such requirements and standards are consistent with and no less stringent than counterpart Federal regulations at 40 CFR 264.

The Department shall be responsible for providing assurance to EPA that all applicable RCRA standards are incorporated into the Hazardous Waste Facility Permit issued by the Department.

The Hazardous Waste Facility Permit shall incorporate as a condition of the permit any applicable waste discharge requirements issued by the State Water Resources Control Board or a California Regional Water Quality Control Board, and shall be consistent with all applicable water quality control plans adopted pursuant to Section 13170 of the Water Code and Article 3 (commencing with Section 13240) of Chapter 4 of Division 7 of the Water Code and state policies for water quality control adopted pursuant to Article 3 (commencing with Section 13140) of Chapter 3 of Division 7 of the Water Code, and any amendments made to these plans, policies or requirements. The Hazardous Waste Facility Permit shall also include such additional provisions as may be required by the Federal RCRA program. The Board may also issue and enforce additional requirements and orders authorized by state law.

The Board shall notify and provide two copies to the Department of any proposed revision of waste discharge requirements for hazardous waste management facilities at least 30 days before such requirements are issued except where such requirements are issued to correct a deficiency of interim status or permit requirements, in which case the Board shall promptly notify the Department of such action.

The Department shall notify and provide two copies to the Board of any proposed change in a Hazardous Waste Facility Permit or Interim Status Document. Such notice shall occur at least 30 days before modification of an Interim Status Document or public notice of a permit modification except when such a modification is issued to correct a deficiency of interim status documents or permit requirements, in which case the Department shall promptly notify the Board of such action.

The Department and the Board shall develop detailed procedures for permit processing as necessary to ensure an effective and efficient hazardous waste permit program and shall forward draft and final versions and modifications to each other in a timely manner. When finalized, such procedures are included and made part of this MOA.

As a condition of final RCRA authorization, EPA has requested assurance that the Department has the authority to impose RCRA-equivalent water quality standards as hazardous waste facility permit conditions in the unlikely event that the Board's waste discharge requirements for a facility are not RCRA-equivalent. The Department has given EPA the requested assurances with recognition of the Board's primary role in adopting water quality control plans (Basin Plans) and waste discharge requirements for all hazardous waste management facilities.

If EPA or the Department identify a lack of RCRA equivalency in water quality control plans or waste discharge requirements applicable to a Hazardous Waste Facility Permit, the Department will notify the appropriate Regional Board in writing requesting necessary corrections or additions to the applicable water quality control plans or waste discharge requirements. If the Regional Board fails to act on the Department's notice, or if the response is inadequate to correct the deficiency, the Department agrees to petition the matter to the State Board for a final ruling. In the interim, the Department may impose the necessary water quality requirements in the permit in order to assure RCRA equivalency. Even if the appeal to the State Board is resolved in favor of the Regional Board, the Department may impose any additional water quality requirements on Hazardous Waste Facility Permits that are necessary to assure RCRA equivalency.

2. The Board shall be responsible for conducting the RCRA surveillance activities for hazardous waste management facilities in accordance with the annually negotiated Interagency Agreement and with the terms and conditions of this MOA.

3. The Department and the Board recognize the separate, but parallel, enforcement authorities of each agency. It is the intent of the Department and Board to strive to eliminate duplicative enforcement action.

The Department agrees that in instances where the Board's authorities are similar to those of the Department's and where the Board uses, subject to the availability of supporting resources, those activities in a timely and appropriate manner, the Department may decide that a particular Board action is sufficient for purposes of RCRA and the authorized State hazardous waste management program, and that further or separate action by the Department is not necessary.

The Department also agrees to provide the Board with notice of any hazardous waste management facility compliance inspection which indicates the violation of water quality protection requirements. If the Board does not act in a timely manner to bring the facility into compliance or demonstrate that the indicated violation does not exist, to the satisfaction of the Department, the Department will take separate action to bring the facility into compliance and shall notify the Board prior to taking such action. The Board shall notify the Department of any enforcement action taken relating to hazardous waste land disposal prior to such action.

If EPA advises the Department of a violation of RCRA water quality standards needing corrections, EPA will also send a copy of the letter to the appropriate Regional Board. If the Board has taken or intends to take action in response to EPA's letter, the Board agrees to notify, in a timely manner, the appropriate DHS regional office that an action has been, or will be, taken. If EPA or the Department is not satisfied with the timeliness or appropriateness, with respect to RCRA, of the Board's action, the Department or EPA will take separate action to bring the facility into compliance. The Department will contact the Board prior to taking such action.

The Department and the Board shall develop detailed surveillance and enforcement procedures to ensure an effective and efficient hazardous waste compliance program and shall forward draft and final versions and modifications to each other in a timely manner. The Department and the Board shall prepare jointly and incorporate into this MOA "General Procedures for Surveillance and Enforcement Activities for Hazardous Waste Land Disposal".

4. The Board shall be responsible for providing the Department with water quality protection requirements consistent with and no less stringent than 40 CFR 264 and 265, Subpart F for facilities operating under interim status or Hazardous Waste Facility Permit.

The Department shall be responsible for all aspects outside of 40 CFR 264 and 265, Subpart F for hazardous waste management facilities operating under interim status or Hazardous Waste Facility Permit.

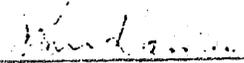
The Department and Board recognize that the Board also has separate regulatory authority that parallels RCRA regulations at Subparts in addition to 40 CFR 264 and 265, Subpart F. For this area of parallel authority, subject to the availability of supporting resources, the Board's responsibilities shall include:

- a. the review and evaluation of the water quality aspects of facility siting and design, ground water (including that found in the unsaturated zone) and surface water monitoring and protection programs, the water quality aspects of facility closure plans and post-closure monitoring programs; and
- b. the development of appropriate water quality protection requirements and permit conditions to prevent water quality degradation.

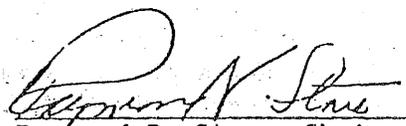
These responsibilities shall be carried out in a manner that is sufficient to assure compliance with applicable RCRA regulations. The specific commitments and responsibilities will be negotiated annually through the Interagency Agreement.

5. The Department and the Board agree to develop jointly and sign an interagency agreement, prior to the beginning of each fiscal year, which clearly defines the tasks, work products, time of performance, and associated costs for the Board's performance of the responsibilities described in this MOA. The Department, contingent upon availability of funding, agrees to reimburse the Board in fulfillment of their responsibilities under the interagency agreement.
6. As the State does not allow intervention as a right in any civil action by any citizen having an interest which may be or is adversely affected, the Board agrees, at a minimum, to provide public participation, relative to enforcement actions taken on behalf of the Department at hazardous waste management facilities, in a manner that is not less stringent than RCRA statute or regulations.
7. The Board agrees that any information obtained or used in the administration of those portions of Subchapter 15 and the Porter-Cologne Act that relate to the terms and conditions of this MOA or the annually negotiated Interagency Agreement shall be available to the Department without restriction. If the information has been submitted to the Board under a claim of confidentiality, the Board agrees to submit that claim to the Department when providing the information. The Department shall acknowledge and respond to such claims of confidentiality as required by state law.

8. On or before September 30 of each year, the Board shall submit to the Department a final accounting of all costs incurred by the Board for all work performed in compliance with this MOA during the previous fiscal year.
9. This MOA may be amended by mutual agreement as necessary to assure effective and timely implementation and operation of the State's hazardous waste program.
10. The Secretary for Environmental Affairs and the Secretary for the Department of Health Services shall make the final determination in any jurisdictional dispute between the Department and the Board concerning the implementation of this memorandum, to the extent such dispute resolution does not render the State's authorization program inconsistent with, or less stringent than, the Federal RCRA program.



Kenneth W. Kizer, M.D., M.P.H.
Director
Department of Health Services



Raymond R. Stone, Chairperson
State Water Resources Control Board

Date

1/27/86

Date

EXHIBIT A

General Procedures for Permit Review Process for Hazardous Waste Land Disposal Facilities*

1. The Department Requests Permit Application (Part B)

The Department will request Board [State Water Resources Control Board (SWRCB) and Regional Water Quality Control Boards (RWQCBs)] recommendations when selecting facilities for Part B call-in. All recommendations by the Board for Part B call-ins will be considered by the Department. The Department will issue a formal written request for the Part B of the application for a Hazardous Waste Facility Permit. The Department's request will also state the authority under which the request is made, set a due date, describe the consequences of a failure to submit a Part B application, and give the number of copies to be submitted.

2. Orientation Meetings for Permit Applicants

Orientation or pre-application meetings for permit applicants will be provided to each applicant upon request by representatives from the Department. The Board (RWQCB and SWRCB, where appropriate) will attend these meetings to discuss the permitting process and application requirements. Subsequent meetings with individual applicants will be part of the technical assistance portion of the Program.

3. Technical Assistance for Permit Applicants

During preparation of the application (Part B), the Department and the Board (RWQCB and SWRCB, where appropriate) will provide technical assistance to permit applicants and track the progress of application development. This assistance will include reviews of preliminary materials prepared for the application package (including documents required under Interim Status), attendance at technical and progress meetings, and inspection of facilities. Areas of technical assistance will include, but not be limited to, design features, ground water monitoring, closure/post-closure plans, and the amount of detail required in general throughout the Part B application.

4. Part B Received by the Department

The Department will request at least five copies of the Part B application. The Department will forward one copy to the SWRCB, one copy to the appropriate RWQCB, and two copies to the appropriate Department regional office. The Department headquarters will retain one copy and maintain records of transmittal.

* After program authorization by EPA

5. Review of Application

The Department (regional office or headquarters, where appropriate) and the Board (RWQCB and SWRCB, where appropriate) will review the Part B for completeness and for compliance with RCRA in the respective areas in which these groups will be working. As part of the review, one or more hazardous waste management facility inspections may be needed. The Department and the RWQCB's will strive to make joint inspections of the facilities whenever feasible. The Department and the Board (RWQCB and SWRCB, where appropriate) will complete their review using applicable state and federal guidance documents. Cost estimates submitted by the applicant for closure/post-closure will be "verified" by Department staff and used during the review for financial responsibility. The Department will track the progress of the application reviews. The RWQCB (and SWRCB, where appropriate) will submit comments to the Department in accordance with guidance documents and checklists provided by the Department.

6. The Department Prepares Responses to Permit Applicant

The Department will consolidate all comments. The Department will incorporate all comments from the Board (RWQCB and SWRCB, where appropriate) relevant to the Board's responsibilities outlined in the interagency agreement. The Department will prepare a Notice of Deficiency (MOD) to the permit applicant regarding the completeness and compliance of the applicant. The Department will seek the Board's input and concurrence prior to sending the NOD to the applicant.

7. Permit Applicant Responds to NOD or Prepares and re-Submits Application, when Required

If more information is needed to complete the Part B application, the applicant will submit such information as directed. At least five copies shall again be submitted to the Department for distribution as previously discussed. Once the application is judged by the Department (with input from the appropriate RWQCB and SWRCB, where appropriate) to be complete, the Department will notify the applicant in writing and the permitting process begins. If the application is judged incomplete, the Department will inform the applicant in writing and a resubmittal will be necessary.

8. RWQCB Prepares Draft Waste Discharge Requirements

The appropriate Department Regional Office shall coordinate a permitting schedule with the appropriate RWQCB. The appropriate RWQCB will prepare draft waste discharge requirements (WDR) or a draft revision of existing WDR and forward these to the Department.

NOTE: The Department will notify and give to the Air Resources Board (ARB) a copy of the complete Part B application whenever air quality could be affected by the facility. ARB comments on the application will be submitted to the Department.

9. The Department Prepares Preliminary Draft Hazardous Waste Facility Permit

The Department will prepare a preliminary draft Hazardous Waste Facility Permit which incorporates the draft WDR and other appropriate input from the SWRCB and RWQCB. The Department will transmit a copy of the draft Hazardous Waste Facility Permit to the RWQCB, SWRCB, and ARB (when appropriate) for concurrence.

10. The Department prepares final draft Hazardous Waste Facility Permit incorporating requirements and input from the SWRCB and RWQCB.

11. The Department gives notice of the proposed permit and public hearing to be held by the Department, as lead agency, and jointly with the RWQCB. The Department shall give notice to the public and all interested parties. With the concurrence of the Department and the appropriate RWQCB, the joint hearing may be held by the RWQCB provided that such a hearing is conducted in a manner that is not less stringent than RCRA statute or regulations.

12. Joint public hearing by the Department and the RWQCB.

13. The RWQCB (and SWRCB, where appropriate) shall provide comments to the Department within 30 days after the hearing. The Department will prepare a joint response to comments from the hearing.

14. RWQCB Adopts the WDR

The adoption of the WDR will occur concurrently with the processing of the permit application. The WDR adoption may also occur following the joint public hearing. A copy of the WDR, as adopted, will be forwarded to the Department and incorporated into the permit.

15. The Department will adopt and issue the final Hazardous Waste Facility Permit.

MEMORANDUM OF AGREEMENT
BETWEEN
THE DEPARTMENT OF HEALTH SERVICES
AND
THE STATE WATER RESOURCES CONTROL BOARD
ON USE OF RECLAIMED WATER

This Memorandum of Agreement (hereafter MOA) is made between the Department of Health Services (hereafter the Department) and the State Water Resources Control Board (hereafter the State Board). This MOA sets forth principles, procedures and agreements to which these agencies commit themselves relative to use of reclaimed water in California.

I. PURPOSE AND SCOPE OF MOA.

This MOA is intended to assure that the respective authority of the Department, the State Board and the nine California Regional Water Quality Control Boards (hereafter the State Board and the Regional Boards) relative to use of reclaimed water will be exercised in a coordinated and cohesive manner designed to eliminate overlap of activities, duplication of effort, and inconsistency of action. To that end, this MOA establishes basic principles relative to activities of the agencies hereto and the Regional Boards, allocates primary areas of responsibility and authority between these agencies, and provides for methods and mechanisms necessary to assure ongoing, continuous future coordination of activities relative to use of reclaimed water in this State.

The initial MOA is intended to serve as an umbrella agreement between the agencies hereto. It will be supplemented, as appropriate, by addenda which will reflect any additional agreements, commitments and understandings arrived at by the agencies hereto.

II. GENERAL BACKGROUND.

In order to supplement existing surface and underground water supplies to help meet water needs in the State, it is state policy that use of reclaimed water in the State be promoted to the maximum extent commensurate with protection of public health. (See Chapter 7, Div. 7, California Water Code.)

So long as its use is compatible with public health and water quality objectives, reclaimed water can be used in a variety of ways to assist in meeting the water needs of this State. Uses of reclaimed water include use for crop and landscape irrigation, supply for recreation impoundments, industrial cooling, and groundwater recharge including protection against saltwater intrusion.

The Department is the primary state agency responsible for protection of public health. To assure protection of public health where reclaimed water use is involved, the Department has been statutorily directed to establish statewide reclamation criteria for the various uses of reclaimed water. (Water Code Section 13521.) The Department has promulgated regulatory criteria, which are currently set forth in the California Code of Regulations, Title 22, Division 4, Section 60301 et seq. The Department's regulatory criteria include numerical limitations and requirements, treatment method requirements, and provisions and requirements related to sampling and analysis, engineering

reports, and design, operation, maintenance and reliability of facilities. The Department's regulations also permit the granting of exceptions to reclaimed water quality requirements in some cases, call for a case-by-case review of groundwater recharge projects, and allow use of alternative methods of treatment so long as the alternative methods used are determined by the Department to assure equivalent treatment and reliability. Many of the regulatory requirements related to sampling, analysis, engineering reports, personnel, operation and design are narrative in nature and leave room for discretionary decisions based on the individual situation in each case.

The Department has also developed Guidelines For Use of Reclaimed Water (hereafter Guidelines). The Guidelines, except insofar as they may incorporate provisions of the Department's regulatory criteria, are not considered binding or mandatory upon permit issuing agencies, such as the Regional Boards.

The State Board and the Regional Boards are the primary state agencies charged with protection, coordination and control of water quality in the State. Where regulatory reclamation criteria have been adopted by the Department, all persons who reclaim or propose to reclaim water, or who use or propose to use reclaimed water, must file a report with the appropriate Regional Board. (Water Code Section 13522.5.) Where regulatory reclamation criteria have been adopted, no person may either reclaim water or use reclaimed water until the appropriate Regional Board has either issued reclamation requirements or waived the necessity for such requirements. (Water Code Section 13524.) In the process of issuing reclamation requirements, the Regional Boards must consult with and consider recommendations of the Department. (Water Code Section 13523.) Any reclamation requirements which are issued by the Regional Boards, whether applicable to the reclaimer or to the user of reclaimed water, must include or be in conformance with any regulatory reclamation criteria adopted by the Department.

Where reclaimed water use is involved or proposed, both the Department and the Regional Boards have authority to require construction reports and such other reports as may be necessary to assure protection of both public health and water quality.

Where use of reclaimed water is involved, both the Department and the Regional Boards have enforcement authority. The Department may take steps to abate any contamination which may result from use of reclaimed water. The Regional Boards may undertake various actions, both of a civil nature and relative to criminal sanctions, for failure to file necessary reports, for reclamation or use of reclaimed water without reclamation requirements, or for violation of any reclamation requirements imposed by a Regional Board.

There are other specific areas involving or associated with use of reclaimed water where interaction between the Department, the State Board and the Regional Boards is required. These areas include direct injection of reclaimed water into groundwater which is suitable for domestic water supply and use of reclaimed water for irrigation of greenbelt areas.

In addition to the authority vested in the Department, the State Board and the Regional Boards relative to use of reclaimed water, various local health authorities have an independent and autonomous role and authority in assuring protection of public health and water quality in areas subject to their jurisdiction.

III. GENERAL PRINCIPLES.

The general principles agreed to by the Department and the State Board are as follows:

- (A) Reclamation requirements issued by the Regional Boards will impose all absolute reclamation criteria established by the Department's regulations.
- (B) All recommendations of the Department which involve areas of critical or essential health concern shall be included in any reclamation requirements issued by a Regional Board or by the State Board, unless variation therefrom is adequately documented and justified by the Regional Board. This principle encompasses all absolute criteria contained in the Department's Guidelines.
- (C) Each agency hereto and the Regional Boards shall, to the maximum extent compatible with fulfillment of its primary responsibility to protect and preserve public health or water quality, promote and facilitate use of reclaimed water in this State.

IV. PROGRAM PROVISIONS AND COMMITMENTS.

To assure fulfillment of the purposes and principles set forth in the MOA, the agencies hereto commit themselves to the following programmatic approaches:

(A) Issuance and Enforcement of Reclamation Requirements:

1. The Regional Boards will consult with and seek recommendations from the Department prior to the issuance of any reclamation requirements. The Department will be provided with a copy of any reclamation requirements which a Regional Board proposes to issue as a part of the consultation process, and shall have reasonable opportunity to comment thereon prior to any adoption thereof. Any comments or recommendations which the Department intends to make on proposed reclamation requirements will be expeditiously provided. As a part of the consultation process, the Regional Boards will notify the Department of any intended departure from any absolute criteria contained in the Department's Guidelines.
2. Any Department recommendations to the Regional Boards relative to proposed reclamation requirements will identify those nonregularory recommendations which the Department believes are critical and essential for protection of public health. In the event that the staff of any Regional Board does not intend to recommend inclusion of any such recommendation in the proposed reclamation requirements which will be submitted to the Regional Board, the Department will be notified at the Branch Chief level. The Regional Board Executive Officer and the appropriate Department Branch Chief will attempt to resolve any differences over the terms of the proposed reclamation requirements. If the differences cannot be resolved at this level, the matter will be brought to the attention of the Chief of the Department's Environmental Health Division. If the differences are not resolved at this level, the Regional Board staff will proceed toward presentation of the proposed reclamation requirements to

the Regional Board. The Department will be given adequate notice of any meeting or hearing relative to adoption of the proposed reclamation requirements, and a reasonable opportunity to present its perspectives, arguments and rationale to the Regional Board prior to adoption of the reclamation requirements.

In the event that a Regional Board determines not to impose any nonregulatory recommendations which have been identified by the Department as critical and essential for the protection of public health, the Regional Board will expeditiously provide the Department with a full and detailed written explanation of the basis and rationale for its decision.

3. Other recommendations of the Department, not identified by the Department as critical or essential for the protection of public health, will be included by the Regional Boards in their reclamation requirements in the manner and to the extent determined to be appropriate by the Regional Boards after full consideration of the Department's recommendations. In each case where there is any significant variation from any such recommendation given by the Department to which the Department has not agreed, the Regional Boards will notify the Department in writing that changes have been made to the Department's recommendations. Such notice will clearly identify the changes that have been made and provide a statement of the reasons and rationale for variation from the Department's recommendations.
4. If a Regional Board accepts and imposes any recommendation made by the Department and the requirement so imposed is challenged by any person, the Department will supply justification for, and otherwise reasonably support and defend, such recommendation.
5. The provisions of Paragraphs 2 and 3 above are intended to apply, as appropriate, to all recommendations of the Department, including but not limited to, recommendations related to treatment requirements, treatment methods, necessary facilities, monitoring, sampling requirements and analyses thereof, reporting requirements, reliability features, operation and maintenance requirements, alarm and warning systems, cross connection protections, set back and buffer zones, and pipeline separation.
6. The Regional Boards will not waive the necessity of reclamation requirements for any proposed use of reclaimed water without consultation with the Department.
7. The Regional Boards shall be primarily responsible for reasonable surveillance and monitoring of all activities subject to reclamation requirements. The Regional Boards will expeditiously notify the Department of all significant violations of reclamation requirements or improper reclamation uses within their jurisdictions. The Department will expeditiously notify the appropriate Regional Board of improper reclamation uses or violation of reclamation requirements which become known to the Department.

8. As between the agencies hereto, it is understood that the Regional Boards shall have primary responsibility for enforcement of reclamation requirements and prevention of improper reclamation uses in their respective jurisdictions. The Regional Boards and the State Board will commit sufficient staff resources to assure adequate enforcement of reclamation requirements and reclamation uses within their regions. It is recognized, however, that enforcement action may be undertaken by the Department and by local health authorities for violation of reclamation requirements or improper reclamation use where action by the Department or local health authorities is deemed essential for adequate protection of public health.

9. The Department will take reasonable steps to assure consistency of action between its various regions and offices.

10. The State Board will take reasonable steps to assure consistency of action between the Regional Boards.

(B) Revision of Department Guidelines For Use of Reclaimed Water.

The agencies hereto recognize that the current Department Guidelines need to be reviewed and revised as appropriate. The Department will undertake to develop updated, mutually acceptable Guidelines, in the following manner:

1. The Department will forward a copy of the current Guidelines and relevant and related material to the Regional Boards, the State Board, the California Conference of Local Health Officers (CCLHO) and the California Conference of Directors of Environmental Health (CCDEH) soliciting comments regarding the Guidelines including any changes or revisions desired.
2. The recipients will expeditiously, and in any event not later than November 10, 1988, provide any comments which they intend to make.
3. The Department will prepare and distribute the first draft of proposed revised Guidelines by January 1, 1989.
4. The agencies hereto will form a Joint Task Force to provide advice to the Department on development of Guidelines. It is anticipated that this Task Force will be comprised of three representatives from the Department, two Regional Board Executive Officers, two representatives from the State Board, one representative from Tri-TAC, and two representatives on behalf of local health authorities, presumably from CCLHO and/or CCDEH.
5. It is anticipated that final revised Guidelines will be concurred in by the agencies hereto and that, in addition, the revised Guidelines will be endorsed and concurred in by both CCDEH and CCLHO.
6. In addition to advising the Department on development of revised Guidelines, the Task Force will also make recommendations to the Department concerning what portions of the revised Guidelines should be promulgated in the formally adopted regulations of the Department.

(C) Review of the Department's Regulatory Reclamation Criteria.

The agencies hereto recognize that the Department's regulatory reclamation criteria, presently set forth in the California Code of Regulations, Title 22, Division 4, Section 60301 et seq., should be reviewed. In addition, concerns have been periodically expressed over the adequacy of the Department's justification for its current Title 22 reclamation criteria. In the light of these circumstances, the agencies hereto agree as follows:

1. The Department will undertake and expeditiously complete a review of its Title 22 reclamation criteria. The Joint Task Force which is to be formed under Part IV, (B) 4 above will review the current regulatory criteria and provide its comments and recommendations to the Department. Dependent upon the recommendations of the Task Force, the Department may reestablish and reconstitute its Health Effects Advisory Committee to provide additional assistance in the development of revised regulatory criteria. The State Board will supply reasonable support and resources to the Department toward the effort of revision of the regulatory criteria upon request of the Department. The Department anticipates that, by July 1, 1989, it will be able to determine whether the Title 22 regulations do require modification. If modification is determined to be appropriate, the Department will expeditiously undertake the necessary revision.
2. The Department will develop and make available an issue paper which explains and sets forth the justification and rationale for the Current Title 22 reclamation criteria. It is anticipated that the necessary document will be developed by January 1, 1989.

- (D) Groundwater Recharge. The State Board and the Department, in conjunction with the Department of Water Resources, are in the process of development of an interagency policy and guidelines relative to use of reclaimed water for groundwater recharge. It is anticipated that the policy and guidelines will be developed in two phases, will address planned, unplanned, and incidental recharge, and will also address mutual goals, objectives, principles and coordination of activities of the agencies hereto relative to groundwater recharge. The State Board and the Department will continue their efforts to develop the necessary interagency policy and guidelines in accordance with the following schedule:

Completion of final draft of Phase I	January 15, 1989
Completion of final draft of Phase II	January 15, 1990

It is anticipated that the final policy/guidelines will be approved and adopted jointly by the Department and the State Board, and that, upon concurrence of the Regional Boards, the final approved policy/guidelines will be incorporated by addendum into this MOA.

- (E) Inconsistencies Between Regulation of Use of Reclaimed Water and Nonregulation of Reuse of Treated Wastewater (Incidental Reuse): Development of Programs and Strategies. The agencies hereto

recognize that, unlike the strict regulation that occurs where use of

reclaimed water is involved, there are instances where somewhat similar uses of treated wastewater are presently unregulated. It is also recognized that some instances of nonregulation of reuse of treated wastewater may result in cases which involve significant health concerns, and that additional work needs to be done to develop those programs and strategies necessary to assure protection of public health and water quality in such situations. The agencies hereto, however, also recognize that the issues involved are complex. As the other requirements of this MOA are fulfilled and as staff and resources become available, the agencies hereto commit themselves to resolve the problems and issues noted in this paragraph.

As an interim measure, pending further action pursuant to the foregoing paragraph, if the Department notifies a Regional Board of any instance of unregulated reuse of treated wastewater which the Department believes involves critical or essential health concerns, the Regional Board which is involved shall take whatever action is appropriate to protect public health. If the Regional Board declines to take any action, or if the Regional Board in taking action decides not to impose any recommendation of the Department, the Regional Board will expeditiously provide the Department with a full and detailed written explanation of the basis and rationale for its decision.

- (F) Coordination with Local Health Authorities. The agencies hereto acknowledge the need to and desirability of working with and cooperating with local health authorities to assure coordination of activities relative to use of reclaimed water, to reduce conflicts, and to promptly and effectly resolve any conflict which may arise. The Task Force formed under Part IV, B 4 above will undertake to ~~attempt~~ develop appropriate mechanisms to promote cooperation and coordination between state agencies and local health authorities in the reclamation area and to resolve any disputes that may arise. Proposed mechanisms when developed will be presented to the agencies hereto for consideration of appropriate action.

SC
12/5/88

V. DISPUTE AND CONFLICT RESOLUTION.

- (A) It is the desire of the agencies hereto to establish a speedy, efficient, informal method for resolution of interagency problems, disputes or conflicts. To that end, except as otherwise provided in this MOA, and to the extent not inconsistent with any formal administrative appeals which may be pending:
1. Department concerns with Regional Board action or inaction, which cannot otherwise be informally resolved, will be brought to the attention of the State Board Executive Director who will attempt to resolve the same with the appropriate Regional Board or Boards. In the event that such concerns still cannot be resolved to the satisfaction of the Department, the matter shall be referred to the Director of the Department and the Chairman of the State Board for consideration and appropriate action toward resolution.
 2. Regional Board concerns with Department action or inaction, which cannot otherwise be informally resolved, will be referred to the

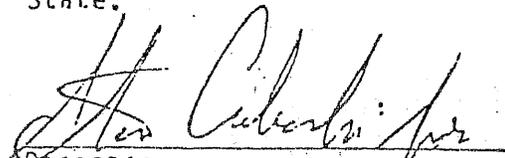
State Board Executive Director who will attempt to resolve the same with the Department's Deputy Director for Public Health. In the event that the concerns still cannot be resolved to the satisfaction of the Regional Board or Boards involved, the matter shall be referred to the Director of the Department and the Chairman of the State Board for consideration and appropriate action for resolution.

3. Concerns between the Department and the State Board which cannot otherwise be informally resolved will be referred to the State Board Executive Director and the Department's Deputy Director for Public Health. In the event that the concerns still cannot be resolved to the mutual satisfaction of the State Board and the Department, the matters in issue shall be referred to the Director of the Department and the Chairman of the State Board for appropriate action.
4. Nothing contained herein shall be construed to deprive the Department of formal appeal rights relative to any alleged Regional Board action or inaction. In the event of such an appeal, the State Board will expedite any review process.

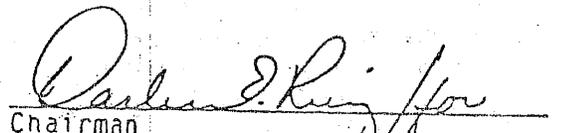
VI. MODIFICATION AND PERIODIC REVIEW.

This MOA may be modified in writing at any time by mutual agreement of the agencies hereto. Proposed modifications may be suggested by any agency hereto at any time.

The agencies hereto will meet periodically, not less than once each year, to discuss the actions of each agency relative to this agreement, to devise and agree to appropriate activities for the forthcoming fiscal year, and to consider additional actions and activities which each agency can take to better coordinate their activities and further promote use of reclaimed water in the State.


Director
Department of Health Services

12-5-88


Chairman
State Water Resources Control Board

11-15-88

MANAGEMENT AGENCY AGREEMENT BETWEEN
THE WATER RESOURCES CONTROL BOARD,
THE BOARD OF FORESTRY, AND THE
DEPARTMENT OF FORESTRY AND FIRE PROTECTION,
STATE OF CALIFORNIA

This Management Agency Agreement (Agreement) is entered into by and between the State Water Resources Control Board (Water Board), the State Board of Forestry (BOF), and the State Department of Forestry and Fire Protection (Department, CDF), State of California, for the purpose of carrying out, pursuant to Section 208 of the Federal Clean Water Act, those portions of the State's Water Quality Management Plan related to silvicultural activities on nonfederal lands in the State of California.

WHEREAS:

1. The Board of Forestry has the authority and responsibility, pursuant to the State's Z'berg-Nejedly Forest Practice Act, to promulgate Forest Practice Rules (Rules) and policies to specify practices related to timber operations on non-federal lands in order to restore, enhance and maintain the maximum sustained production of high-quality timber while giving consideration to other natural resources, including the quality and beneficial uses of water.
2. The Department has the authority and responsibility to administer these Rules and policies.
3. The Water Board and the Regional Water Quality Control Boards (Regional Boards) have the authority and responsibility, pursuant to the State Porter-Cologne Act and the Federal Clean Water Act (as amended), to promulgate Water Quality Management (WQM) plans and water quality control plans (Basin Plans) which set forth objectives for restoring, enhancing, and maintaining the quality and beneficial uses of the State's waters, to promulgate regulations and policies to attain these objectives, and to administer these regulations and policies to ensure that waste discharges, including those from silvicultural activities, do not degrade the quality and beneficial uses of the State's waters.
4. The Water Board has the authority and responsibility, pursuant to Section 208 of the Federal Clean Water Act and Title 40, Part 35, Subchapter G, of the Code of Federal Regulations, to designate appropriate management agencies for implementing certain provisions of 208 WQM plans and to certify 208 WQM plans which incorporate Best Management Practices (BMPs) for control of nonpoint sources of pollution, including silvicultural land uses.

5. The Board of Forestry, the Department and the Water Board mutually desire:
 - a. To achieve the goals of the Federal Clean Water Act (as amended), of the State Porter-Cologne Act, and of the State Z'berg-Nejedly Forest Practice Act by restoring, enhancing, and maintaining the quality and beneficial uses of the State's waters;
 - b. To achieve the water quality objectives set forth in applicable Basin Plans of the State;
 - c. To minimize duplication of effort and to establish complementary resource protection programs; and
 - d. To assure protection of the quality and beneficial uses of the State's waters through development and implementation of BMPs.
6. The Board of Forestry has promulgated, and the Department administers, Rules which are intended to be BMPs for protection of the quality and beneficial uses of the State's waters from waste discharges due to timber operations on nonfederal lands. The BOF has requested certification of these Rules and the procedures (Process) by which they are promulgated and implemented.
7. On January 21, 1988 and effective upon execution of this Agreement, the Water Board designated the Board of Forestry and the Department as joint management agencies for timber operations on nonfederal lands in the State and certified a 208 WQM plan consisting of: (a) the water quality-related Rules effective through December 31, 1986 (See Item C. 1.), (b) the Process by which they are promulgated and implemented, and (c) this Agreement.

NOW, THEREFORE, the parties hereto agree as follows:

A. The Board of Forestry agrees:

1. To refine, continue to develop, and adopt BMPs based on consideration of the potential for protecting the quality and beneficial uses of water, technical soundness, and economic and institutional feasibility, in accordance with the Forest Practice Act and with the issues and anticipated schedules set forth in the following attachments:

Attachment A - ITEMS FOR DEVELOPMENT
Attachment B - ITEMS FOR REFINEMENT
Attachment C - ITEMS FOR FURTHER CONSIDERATION

2. That BOF in consultation with the interagency liaison committee (as described in Item D. 8. et. seq.) and others, will approach each issue in Attachments A and B by defining the problem, stating suggested solutions, drafting Rule language and presenting any alternative non-rule approaches which would implement such solutions. Recommendations will be referred through the BOF chairman to the appropriate BOF committee and then, as appropriate, to the BOF District Technical Advisory Committees (DTACs). The DTACs will then review issues and make recommendations after hearing from the public, industry, and concerned agencies. The DTACs' recommendations will be reported to the BOF.

Following receipt of recommendations from DTACs and/or other appropriate committees, BOF will, as part of its regular agenda (including public hearings), do the following in accordance with the anticipated schedules in Attachments A and B:

- a. Evaluate any recommended Rule language and adopt that found to be appropriate;
- b. Evaluate any recommended non-Rule approaches, and in cooperation with other appropriate parties, affect implementation of those found to be appropriate; and
- c. Report results to the Water Board in accordance with Items B.4 and B.5 below.

B. The Board of Forestry and the Department jointly agree:

1. To each accept designation as, and the responsibilities of, a water quality management agency for timber operations on nonfederal lands in the State of California.
2. To consider, in consultation with the interagency liaison committee (as described in Item D. 7. et. seq.) and others, the best means of resolving issues regarding improvement of BMPs and their implementation which are set forth in Attachment C and to develop and implement appropriate improvements.
3. To develop and carry out improved auditing of agency performance in implementing BMPs.

4. To jointly provide progress reports at Water Board workshops regarding resolution of the issues specified herein:
 - a. Semi-annually for the first two years following the date of certification; and
 - b. As mutually deemed necessary thereafter, but not more frequently than semi-annually.
5. To submit, with the annual BOF report to the Legislature, a concurrent written report to the Water Board which:
 - a. Summarizes the following:
 - (1) Progress in resolving issues in accordance with any attachment hereto,
 - (2) Any significant additions, deletions, or amendments of the laws, Rules and Process which have or will become effective after January 1, 1987 and which may affect protection of the quality and beneficial uses of water, with explanation for each such change, and
 - (3) The results of any agency studies or audits of the performance of foresters, timber operators, and agency personnel, and of the Rules and Implementation Process; and
 - b. Presents any suggestions for needed studies and for changes in the Rules, the Process, or in this Agreement.

C. The Water Board agrees:

1. That those provisions of the Rules which were in effect before January 1, 1987, and which are set forth in the following Subchapters and Articles of the California Administrative Code, Title 14, Division 1.5, Chapter 4 constitute BMPs:

Subchapter 1 (Abbreviations and Definitions)

Article 1

Subchapters 4, 5, and 6 (Coast, Northern, and Southern Forest Districts, respectively)

Article 2 (Definitions, Ratings, and Standards),
Article 3 (Silvicultural Methods),
Article 4 (Harvesting Practices and Erosion Control),
and
Article 6 (Watercourse and Lake Protection)

Subchapter 4 (Coast Forest District)

Article 11 (Coastal Commission Special Treatment Areas), and

Article 12 (Logging Roads and Landings)

Subchapters 5 and 6 (Northern and Southern Forest Districts, respectively)

Article 11 (Logging Roads and Landings)

2. That this Agreement, together with the Rules referenced in Item C.1 above, and the Process (including interagency Review Teams) constitute a 208 WQM plan for control of nonpoint source pollution from timber operations on nonfederal lands which:
 - a. Is consistent with relevant provisions of the State/EPA Agreement and Work Program, Federal regulations, and the Federal Clean Water Act;
 - b. Is technically sound and economically feasible;
 - c. Is consistent with other relevant and approved WQM plans; and
 - d. Represents substantial progress toward achievement of water quality goals.
3. To review the annual written report specified in Item B.5, and to identify any concerns regarding protection of water quality due to changes in the Rules or Process made or proposed by BOF and/or CDF.
4. To direct Regional Boards, upon EPA approval of the 208 WQM plan, to cease issuance of Waste Discharge Requirements for timber operations on nonfederal lands except as provided in Section 4514.3 of the Public Resources Code.

- D. The Water Board, the Board of Forestry, and the Department agree:
1. That Rule modifications or other means to resolve, in a manner acceptable to the parties hereto, the issues set forth in Attachments A and B will be pursued through normal BOF procedures.
 2. That resolution of the issues in Attachment C will be pursued in a manner acceptable to the parties hereto, after further study.
 3. That improved methods for implementing BMPs shall be developed and carried out as follows:
 - a. Implementation of guidance documents developed in accordance with Attachment D shall begin within 2 years after the effective date of certification or as soon thereafter as feasible;
 - b. Training and education programs, and participation therein, shall be pursued on a continuing basis in accordance with Attachment E; and
 - c. State agency procedures which are acceptable to the parties hereto and which are developed in accordance with Attachment F shall be incorporated into appropriate Memoranda of Understanding (MOUs) within one year after the effective date of certification.
 4. That improved private sector procedures for implementing BMPs shall be encouraged on a continuing basis in accordance with Attachment G.
 5. That additional studies to further assess the effects of timber operations on water quality and to provide for continued evaluation, development, and improvement of BMPs and their implementation shall be developed in accordance with Attachment H. Study workplans will be submitted to the parties no more than 2 years after the effective date of certification or as soon thereafter as feasible.
 6. That the development and implementation of BMPs and the additional studies conducted by the parties hereto shall be coordinated with concerned state agencies, especially the Department of Fish and Game (DFG) and Regional Boards, with Federal agencies, with BOF DTACS, and with the private sector.

7. That activities needed to carry out Items D.1 through D.5 above shall begin within 30 days after the effective date of certification.
8. That the Chairpersons of BOF and the Water Board (or another Board member) and the Director of CDF shall serve as an interagency liaison committee, and the Director of DFG shall be invited to serve with them.
9. That each agency liaison shall:
 - a. Designate an alternate liaison member, if necessary; and
 - b. Coordinate the activities of the designating agency as set forth herein with the activities of the other parties hereto, as well as with DFG, Regional Boards, and Federal agencies.
10. That the liaison committee shall seek mutually acceptable technical support, as needed.
11. That the liaison committee members shall meet no less than annually to maintain coordination and communication, to review and discuss the BOF/CDF annual report, to review activities under this agreement, and to consider any revisions to this Agreement, including anticipated target dates and schedules, which are requested by any party hereto. The Director of DFG, or an authorized representative, shall be invited to participate in such meetings.
12. That the parties hereto shall work together to resolve any conflicts which may arise.
13. That representatives of Regional Boards and CDF Regions shall meet with each other, and with DFG representatives, as needed to resolve conflicts and concerns, and shall submit brief written summaries of the reasons for and results of such meetings to the designated liaison in each agency.
14. That the liaison committee shall meet as necessary to resolve conflicts or concerns which arise from and are not resolved by other meetings or reports. Meetings may be initiated at the request of the Executive Director of BOF and the Water Board, the Director of CDF and DFG, or the Executive Officer of a Regional Board.

15. That this Agreement may be terminated upon a 90 day notice by either board.
16. That another multidisciplinary assessment, in a mutually accepted format, of the adequacy of the Rules and the Process shall be conducted by the parties hereto not more than 5 years after certification. DFG shall be invited to participate in such assessment.
17. That, based on the results of said assessment, certification of the Rules and Process as part of a 208 WQM plan shall be formally reviewed no more than 6 years from the date of certification.
18. That future assessments and related review of certification may again be carried out at such time thereafter as may be mutually agreed upon among the parties.
19. That 208 WQM plan certification or management agency designation shall be reviewed in one or more Water Board hearings under any of the following conditions:
 - a. If, for other than financial reasons, the assessments specified herein cannot be implemented;
 - b. If, at any time, there is substantial evidence that BOF or CDF have failed to maintain a water quality regulatory program consistent with certification or have failed to satisfy terms of this Agreement; or
 - c. If BOF requests such a review.
20. That, except for the provisions of Item C.4 above, nothing herein shall be construed in any way as limiting the legal authority or responsibility of the Water Board or Regional Boards in carrying out their mandates for control of water pollution and protection of the quality and beneficial uses of the State's waters.

21. That nothing herein shall be construed in any way as limiting the legal authority or responsibility of the Board of Forestry or of the Department in carrying out their mandates for regulation of timber and other natural resources on nonfederal lands.

IN WITNESS WHEREOF, the parties hereto, by their respective duly authorized officers, have executed this Agreement in triplicate, on the respective dates indicated below.

STATE BOARD OF FORESTRY,
STATE OF CALIFORNIA

STATE WATER RESOURCES CONTROL BOARD
STATE OF CALIFORNIA

By Harold R. Walt
Harold R. Walt,
Chairman

By W. Don Maughan
W. Don Maughan,
Chairman

Date: 2/3/88

Date: FEB 1 1988

DEPARTMENT OF FORESTRY AND FIRE PROTECTION
STATE OF CALIFORNIA

By Jerry Partain
Jerry Partain,
Director

Date: Feb 3, 1988

ATTACHMENT A

ITEMS FOR DEVELOPMENT

(These issues are not covered by current Rules. Consistent with the process set forth in Item A.2, language for new Rules will be proposed, evaluated and, if appropriate, adopted by BOF. Non-Rule resolutions will also be evaluated and, if appropriate, implemented.)

<u>Issue</u>	<u>Suggested Resolution</u>	<u>Target Date</u>
1. Practices for site preparation after timber harvesting	1. Regulation of site preparation activities pursuant to AB 1629 (Statute 87; Chapter 987).	1. 11/88
2. Long-term maintenance of erosion control facilities	2. Regulation of long-term maintenance of erosion control facilities in logging area pursuant to AB 1629 (Statute 87; Chapter 987).	2. 11/88
3. Evaluation of cumulative watershed effects	3. Improved requirements and procedures for evaluating cumulative effects.	3. 12/88
4. Notification of startup date of operations	4. Requirement that licensed timber operator (LTO) or landowner notify CDF of actual date logging starts.	4. 12/89
5. Timber operator licensing requirements	5. Requirements for mandatory training for timber operator's license.	5. 12/89

ATTACHMENT B

ITEMS FOR REFINEMENT

(These issues are at least partially covered by existing Rules. Consistent with the process set forth in Item A.2, Rule language to refine and supplement the existing Rules will be proposed, evaluated and, if appropriate, adopted by BOF. Non-Rule resolutions will also be evaluated and, if appropriate, implemented.)

<u>Issue</u>	<u>Suggested Resolution</u>	<u>Target Date</u>
1. Transfer of Timber Harvesting Plan (THP) information from preparer to LTO	1. Pre-operation meeting between THP preparer and timber operator, and operator's signature on any THP or amendment.	1. 9/88
2. Extra protection measures where tractor operations, or roads or landings are near or within standard watercourse and lake protection zone (WLPZ) widths or on very highly erodible slopes	2. THP specification of extra protective measures.	2. 12/88
3. Performance standard for planning, locating, constructing, and maintaining all roads to protect water-related values	3. Improved language in 14 CAC 923, 943, 963 to provide enforceable protection performance standards.	3. 12/88
4. Road and landing construction standards	4. Additional specifications for road and landing construction standards.	4. 12/89
5. Temporary road crossing removal	5. Improved specifications for appropriate removal procedures.	5. 12/88
6. Disposal of landing debris over edge of landing above water courses	6. Improved requirements for disposal of landing debris.	6. 12/88

<u>Issue</u>	<u>Suggested Resolution</u>	<u>Target Date</u>
7. Alternative protection practices	7. Clarification of Section 916.2(c), 936.2(c), 956.2(c) regarding "feasible practices" and "adequate protection".	7. 12/88
8. Vegetative canopy and structure in WLPZ	8. Improved criteria and methods for retaining vegetative canopy within WLPZ and for retaining riparian vegetation.	8. 12/88
9. Ground cover retention in WLPZ	9. Improved language in 14. CAC 916.5e, 936.5e, 956.5e, to require retention of adequate ground cover.	9. 12/88
10. Terms used in determination of WLPZ width	10. Rule definitions for "bank" and "change in slope".	10. 12/88
11. Flood prone area protection	11. Inclusion of flood prone areas in WLPZ and/or extra protection to prevent erosion or debris flotation.	11. 12/88
12. Determination of WLPZ width and protection measures	12. Inclusion of geological, hydrological and biological factors in determining appropriate WLPZ width and protection measures.	12. 12/88
13. Standards for existing roads	13. Application of new-road standards for drainage facilities, ditch drains, soil stabilization, etc., to existing roads.	13. 12/88

<u>Issue</u>	<u>Suggested Resolution</u>	<u>Target Date</u>
14. Domestic water supply protection	14. Requirements for: (a) protection for water supply springs and pipelines, and identification in THP; (b) identification of potable water supplies within an appropriate distance downstream from operation; (c) notification of THP filing to the owners of such water supplies; and (d) protection for likely potential and restorable human uses.	14. 12/88
15. Clear, enforceable performance standards for water quality protection	15. Clarification of intent Sections 914, 916, 934, 936, 954, and 956, to provide clear, enforceable performance standards.	15. 12/89
16. Skid trail erosion control requirements	16. Requirements for: (a) extra protective measures where skid trails are close to other skid trails, roads and landings; (b) temporary road maintenance and abandonment provisions when skid trails are equivalent to a temporary road; and (c) application of temporary road crossing, drainage stabilization and removal provisions to temporary skid trail crossings.	16. 12/89

<u>Issue</u>	<u>Suggested Resolution</u>	<u>Target Date</u>
17. Winter operations procedures	17. THP justification for using 914.7c, 934.7c, 954.7c, in lieu of a winter operating plan.	17. 12/89
18. Sensitive area operations	18. THP specification of methods and equipment for road and landing construction, disposal, drainage, stabilization, maintenance, and abandonment.	18. 12/89
19. Erosion control on roads	19. Requirements for: (a) THP specification of erosion and drainage control on road crossings; (b) THP specification measures to prevent or reduce future failure of road areas being reconstructed; and (c) improved seasonal abandonment of temporary roads.	19. 12/89

ATTACHMENT C

ITEMS FOR FURTHER CONSIDERATION

(These issues need further study to determine the most appropriate resolutions. Both Rule and non-Rule approaches will be considered. Evaluation of Rule language will occur consistent with the process set forth in Item A.2.)

<u>Issue</u>	<u>Suggested Resolution</u>	<u>Target Date</u>
1. Erosion hazard rating	1. Improved use of erosion hazard rating system and minor adjustments to rating system.	1. 12/89
2. Retention of riparian hardwood and non-commercial trees	2. Improved treatment of riparian hardwoods and noncommercial trees, especially after conifer harvest.	2. 12/89
3. Registered Professional Forester (RPF) responsibility	3. Evaluation of: (a) . . . increased RPF accountability for THP adequacy; (b) addition of RPF supervision and (c) reevaluation of present rules for suspension or revocation of RPF and LTO licenses for serious violations of the Rules.	3. 12/89
4. Repeal of 14 CAC 898.2e	4. Consider reinstatement 14 CAC 898.2e which required denial of THPs if implementation would violate state or federal standards.	4. 12/89
5. Culvert sizing	5. THP specification of culvert sizing method used.	5. 12/89
6. Agency disagreement over approval of plan	6. Provide dispute resolution procedure through MOU or consider head-of-agency appeal.	6. 12/88

<u>Issue</u>	<u>Suggest Resolution</u>	<u>Target Date</u>
7. Confusion over meaning of "in lieu" practice	7. Evaluate use of "in lieu" concept in Rules.	7. 12/88
8. Agency consultation prior to approving in-stream cleanup	8. Provide for such consultation through MOU	8. 12/88
9. Improved participation by public and nonreview agencies in review process	9. Improved procedures for participation	9. 12/88
10. Reevaluation by review team after response by RPF	10. Provide for such re-evaluation through MOU	10. 12/88
11. Point of RPF transfer of responsibility to LTO	11. Study need for Rule.	11. 12/89
12. Recognition of and protection against mass wasting hazard	12. Improved criteria and methods for evaluating and protecting against mass wasting hazard.	12. 12/89
13. Use of guidance documents	13. Requirements for use of guidance documents (if necessary) after development of documents.	13. 12/89

ATTACHMENT D

DEVELOPMENT AND IMPLEMENTATION OF GUIDANCE DOCUMENTS TO
COMMUNICATE INFORMATION TO PRACTITIONERS

- A. Develop or improve guidance documents on the following topics:
1. Criteria and methods for identifying and evaluating (or rating) the following types of sensitive areas or conditions:
 - a. Erodible and unstable slopes;
 - b. Near-stream geological and hydrological conditions;
 - c. Near-stream biological conditions, including riparian zone, canopy cover, and windthrow potential;
 - d. Instream structure, habitat, and wildlife value; and
 - e. Offsite beneficial uses of water.
 2. Criteria and methods for evaluating potential adverse effects and for selecting measures to protect any of the above from adverse effects of:
 - a. Felling, yarding, and stream clearing activities;
 - b. Road and landing location, construction, and maintenance; and
 - c. Site preparation activities; and
 - d. Cumulative watershed effects.
 3. Criteria and methods for road and landing construction, maintenance and abandonment.
 4. THP content needed to:
 - a. Describe the following:
 - (1) site environmental conditions,
 - (2) proposed practices, especially if non-standard, and
 - (3) probable environmental effects of practices;
 - b. Describe and justify proposed protection measures; and
 - c. Set forth the above in a manner which provides for:
 - (1) thorough disclosure and environmental review,
 - (2) clear and comprehensive guidance to LIOs and other responsible parties, and
 - (3) specific and enforceable standards.

- B. Determine the most effective and appropriate methods of assuring use of the guidance documents, considering the following:
1. Incorporation into training and education programs;
 2. Promotion through professional meetings and publications;
 3. Implementation by THP review teams;
 4. Amendment of THP forms to demonstrate use where appropriate;
 5. Amendment of Rules to require use; and
 6. Adoption as Technical Rule Addendum.
- C. In carrying out the above, perform the following tasks:
1. Compile and review available reference material to determine whether, for each subject area, available material is adequate, can be readily supplemented, or whether new guidance documents are needed.
 2. Determine the need for additional financial and administrative assistance, for scientific or technical assistance, and/or for additional studies in order to carry out the foregoing tasks.

ATTACHMENT E

IMPROVEMENT AND DEVELOPMENT OF TRAINING AND EDUCATION PROGRAMS

- A. Continue to develop and upgrade training and education programs on the topics set forth in Attachment D and on any other topics deemed appropriate by the liaison committee.
- B. In carrying out the above, the following tasks are recommended:
1. Review existing programs and training materials to determine whether, for each topic, existing programs are adequate, could be adequately supplemented, and/or whether new programs are needed.
 2. Determine the most important training and education needs of:
 - a. Foresters involved in planning, supervising, or monitoring timber operations;
 - b. Non-foresters (agency personnel) involved in planning, reviewing, inspecting, and monitoring timber operations;
 - c. Timber operators, timber owners, and other parties responsible for operations and environmental protection.
 3. Determine the most appropriate program formats and materials (e.g., guidelines, handouts, video cassettes, seminars, workshops, tailgate sessions, etc.).
 4. Determine the most appropriate parties (including review team agency representatives) to develop and present program materials.
 5. Determine any administrative and financial needs and feasible methods for satisfying these needs.
 6. Determine the most appropriate methods of encouraging participation (e.g., credits toward education requirements, payment or waiver of fees, etc.).
- C. Continue to update training programs to meet changing needs.

ATTACHMENT F

INTERAGENCY PROCEDURES FOR BMP IMPLEMENTATION

- A. Determine appropriate interagency procedures for each of the following:
1. Improved training programs in forestry and protection of water-related values for Review Team agencies and assuring adequate agency participation.
 2. Procedures by which Review Team agencies shall more consistently seek and provide consultation before, during, and after timber operations, giving special consideration in the following:
 - a. Appropriate use of watercourse classification system, especially for Class II and III watercourses;
 - b. Sensitivity of onsite geological, hydrological, and biological conditions which may affect water-related values;
 - c. Probable effects of timber operations on sensitive conditions and water-related values, especially where:
 - (1) Yarding, roads, or landings will be, are or were within or close to standard WLPZ widths, reducing density of ground cover or canopy cover,
 - (2) Sensitive geological, hydrological, or biological conditions exist onsite which are likely to be disturbed by operations,
 - (3) Non-standard practices will be, are, or were used, and
 - (4) Special concerns have been raised;
 - d. Appropriateness of practices and protection measures which may be, are, or were used.
 3. Procedures to provide for cooperative monitoring studies to better determine the effects of forest practices, especially under the conditions listed in Item A.2.
 4. Access by DFG and Regional Board representatives onto nonfederal timberlands.
 5. Improved procedures for assuring the adequacy of THP content.

C. Study criteria and methods for evaluating actual and potential cumulative watershed effects. The methods shall be:

1. Feasible and reasonably accurate.
2. Mutually acceptable to State and Federal agencies and capable of being used in areas of mixed Federal and nonfederal ownership of land.
3. Capable of evaluating contributions to cumulative effects from every significant land use or activity within a watershed.
4. Capable of evaluating the variability of individual cumulative effects with time and location.

D. Study long-term effects on mass wasting and water-related values caused by timber harvesting and related activities, especially in sensitive near-stream locations.

ATTACHMENT H

DEVELOPMENT AND IMPLEMENTATION OF
PROGRAMS FOR ADDITIONAL STUDIES

- A. Study appropriate criteria and methods for evaluating or rating sensitive conditions listed in Attachment D, Item A.
- B. Develop and conduct studies of the best feasible methods for the following:
 1. Establishing natural resource databases which are:
 - a. Located in state agencies (including DFG, CDMG, CDF, Water Board, and Regional Boards) and Federal agencies involved with natural resource management.
 - b. Mutually compatible in structure and format in order to facilitate interagency use;
 - c. Capable of using the existing files, databases, and unorganized information currently in the State agencies, and, to the degree feasible, in Federal agencies, educational institutions, and the private sector;
 - d. Capable of expanding to incorporate new information developed by additional studies of natural resources;
 - e. Accessible to users in the private sector, educational institutions, and Federal agencies;
 - f. Descriptive of the characteristics and geographical distribution of geologic, topographic and climatic features, soils, vegetation, animals, wildlife habitats, land uses (past, present, and potential), water quality, and beneficial uses.
 2. Establishing watershed planning programs which are:
 - a. Capable of facilitating evaluation of the location and sensitivity of unstable or erodible slopes, near-stream geological, hydrological, and biological conditions, instream or lacustrine aquatic habitats, and human uses of water; and
 - b. Capable of facilitating evaluation of the probable effects of alternative courses of action or combinations of activities within a watershed.

ATTACHMENT G

DEVELOPMENT AND IMPROVEMENT OF VOLUNTARY
PROCEDURES FOR PRIVATE SECTOR BMP IMPLEMENTATION

- A. Encourage adoption of clear comprehensive policy statements by landowners, companies and/or professional associations by doing the following:
1. Working with representatives of the timber industry and related professional associations to assist in development of policy statements regarding environmental protection for use by the private sector.
 2. Where feasible, developing key concepts and suggested language for incorporation into policy statements.
- B. Encourage private sector implementation of BMPs by suggesting feasible procedures, such as the following:
1. Encouraging foresters to more frequently consult with other subject matter experts when warranted.
 2. Training employees using appropriate techniques.
 3. Improving communication between foresters and operators regarding desired site-specific environmental results of operations.
 4. Improving and standardizing flagging and marking codes used in site layout to assist operator.
 5. Improving supervision of operations by foresters.
 6. Improving inhouse monitoring of effects of operations to ensure that desired results are being achieved.
 7. Improving auditing of operator performance.
 8. Improving self-policing within industry and professional associations of persons who repeatedly violate environmental protection policies.

6. Improved procedures for THP review, including the following:
 - a. Increased review agency attendance at Review Team meetings and preharvest inspections;
 - b. Increased participation by public and non-Review Team agencies in Timber Harvesting Plan review;
 - c. Increased review times if needed;
 - d. Review Team re-evaluation of any post-review changes made to THP between review and approval of THP; and
 - e. Improved resolution of conflicts between representatives of Review Team agencies, including a stepwise time-certain process for negotiating or appealing disagreements to higher levels of authority within each agency.

7. Procedures to improve operator compliance with Rule and THP requirements, including the following:
 - a. Increased use of unannounced inspections;
 - b. Increased use of inspections focused on operations in sensitive areas which may threaten water-related values;
 - c. Increased participation in compliance inspections by other Review Team representatives;
 - d. Increased and improved inspection of road construction practices; and
 - e. Increased use of DFG and Regional Boards in support of CDF enforcement actions.

- B. Incorporate appropriate improvements in agency procedures into any needed and mutually acceptable MOUs (or other agreements) which specify:
 1. The authority and responsibility (including decision-making and advisory roles) given to each agency for implementing such improvements; and
 2. The levels of adequately trained staff and other resources to be maintained by each agency in order to implement these improvements.

MEMORANDUM OF AGREEMENT
BETWEEN THE
STATE WATER RESOURCES CONTROL BOARD
AND THE
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

Purpose

The purpose of this Memorandum of Agreement (MOA) is to outline the procedures for reporting proposed oil, gas, and geothermal field discharges and for prescribing permit requirements. These procedures are intended to provide a coordinated approach resulting in a single permit satisfying the statutory obligations of both parties to this MOA. These procedures will ensure that construction or operation of oil, gas, and geothermal injection wells and surface disposal of waste water from oil and gas and geothermal production does not cause degradation of waters of the State of California.

General

Responsibilities of the Agencies

The Department of Conservation, Division of Oil and Gas (CDOG) has the statutory responsibility to prevent, as far as possible, damage to underground and surface waters suitable for irrigation or domestic purposes resulting from the drilling, operation, maintenance, or abandonment of oil, gas, and geothermal wells (Public Resources Code Sections 3106 and 3714). In March 1983, CDOG received primacy from the Environmental Protection Agency (EPA) pursuant to the provisions of Section 1425(a) of the federal Safe Drinking Water Act that gives CDOG additional authority and responsibility to regulate Class II wells in the State. Class II wells are used to inject fluids into the subsurface that are related to oil and gas production.

The State Water Resources Control Board (SWRCB) and the nine California Regional Water Quality Control Boards (collectively RWQCB) have statutory responsibility to protect the waters of the State and to preserve all present and anticipated beneficial uses of those waters (Water Code, Division 7, Chapters 1 through 7).

Scope of Agreement

The following procedures have been formulated and adopted by the CDOG and SWRCB to: (1) simplify reporting of proposed waste discharges by the oil, gas, and geothermal operators; (2) achieve coordination of activity; and, (3) eliminate duplication of effort among the State agencies. As far as these agencies are concerned, the method of reporting proposed oil, gas, and geothermal underground injection and surface discharges will be uniform throughout the State. The attached maps show district and regional boundaries and office addresses.

The following procedures will not generally be applicable to injection wells or surface disposal methods used by operators to dispose of wastes other than produced water and fluids defined by the EPA as Class II. Other discharges (e.g., refinery wastes) must be issued waste discharge requirements or waivers through the appropriate Regional Water Quality Control Board (Water Code, Division 7, Chapter 4). Such discharges will not be subject to regulation by CDOG unless the subject disposal well is within the administrative limits of an oil, gas, or geothermal field. In such case, the CDOG must also issue a permit for the well construction (Public Resources Code Sections 3008 and 3203). The conditions of this permit should be in agreement with the waste discharge requirements for this well.

The CDOG personnel shall report all pollution problems, including spills to the ground surface or surface streams, to the appropriate Regional Board.

Procedures

Underground Injection

1. Application: Oil, gas, or geothermal operators must file an application for all proposed injection projects with the appropriate CDOG District office. The District office will forward a copy of the application to the appropriate Regional Board for its review and comment. Data to be included with the application shall include: (1) a chemical analysis, as appropriate, to characterize the proposed injection fluid considering the source of the fluid and/or the exposures the fluid has or will undergo before disposal; (2) a chemical analysis, as appropriate, from the proposed zone of injection considering the characteristics of the zone (to include name, location, depth and formation for well from which zone fluid was sampled); and, (3) depth, location, and injection formation of the proposed well. If the Regional Board wishes to comment prior to the issuance of a draft permit for review, comments shall be received by CDOG within 14 days.
2. Review and Consultation: During the review of the application, the CDOG, the Regional Board and the State Board shall consult with one another and local agencies, as necessary, and may require the applicant to submit additional data, as necessary, to demonstrate that the proposed injection will not cause a water quality problem. Additional data required by the RWQCB, if reasonably available, shall be forwarded upon request. Data regarded as confidential by CDOG, or the applicant, will be identified and kept confidential by the RWQCB.

3. Permit Preparation and Issuance:

- a. CDOG will prepare a draft permit, including monitoring requirements, for the injection in accordance with statutory obligations, furnishing a copy of the draft document to the appropriate Regional Board.
- b. The Regional Board will have the opportunity to comment on the draft requirements during the public review period established pursuant to the Memorandum of Agreement (MOA) between the CDOG and the Environmental Protection Agency (EPA).
- c. The Regional Board shall determine whether or not the draft requirements provide protection to ground and surface waters having present or anticipated beneficial uses. If the draft requirements are not adequate, the Regional Board shall, within 30 days, propose conditions or revisions which would satisfy Regional Board concerns. CDOG will not issue final requirements until Regional Board concerns have been satisfied.

If no response is received from the Regional Board by the end of the public comment period, the requirements will be presumed to be acceptable to the Regional Board.

CDOG will furnish a copy of the final requirements to the Regional Board.

Surface Discharge

1. Application: The oil, gas, or geothermal operator shall file a Report of Waste Discharge with the appropriate Regional Board. The Regional Board will review the Report of Waste Discharge in accordance with applicable state and federal requirements, including 40 CFR Part 435. No report need be filed when such a requirement is waived by the Regional Board pursuant to Water Code Section 13269.

When a Report of Waste Discharge is not adequate in the judgment of the Regional Board, the Board may require the applicant to supply additional information as it deems necessary. If a surface disposal site is within the administrative limits of an oil, gas, or geothermal field, the Regional Board shall send a copy of the Report of Waste Discharge to the CDOG for review and comment when the report is complete. If CDOG wishes to comment, the Regional Board should receive comments within 14 days to ensure consideration of these comments during the drafting of waste discharge requirements.

2. Preparation and Adoption of Waste Discharge Requirements:

- a. The Regional Board will prepare draft waste discharge requirements for the disposal of production waters by surface discharge. If a surface disposal site is within the administrative limits of an oil, gas, or geothermal field, a copy of the draft document shall be furnished to the appropriate CDOG District office.
- b. The CDOG shall determine whether or not the draft requirements fulfill CDOG's statutory obligations related to water quality. If the draft requirements are not adequate, the CDOG shall, within 30 days, propose conditions to the Regional Board which would meet these statutory obligations. The Regional Board will not issue final requirements until CDOG concerns have been satisfied.

If no response is received from CDOG by the end of the public comment period, the requirements will be presumed to be acceptable to CDOG. The Regional Board will furnish a copy of the final requirements to CDOG.

Enforcement Coordination

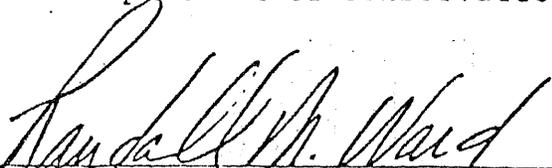
After construction, CDOG will notify the appropriate Regional Board of any pollution problems noticed during its inspection activities. The Regional Boards will notify CDOG of any suspected violations of CDOG requirements uncovered during the Regional Boards' inspection activities.

If a determination is made by CDOG, or by the Regional Board, or the SWRCB, that an injection or surface disposal operation is violating the terms of its permit or is causing an unacceptable water quality problem, the permitting agency shall take any necessary actions to assure that compliance is achieved, or that the practice causing water pollution is abated forthwith. If necessary, the permitting agency shall order work to be done and/or order operation to be halted. Enforcement actions involving both statutory authorities should be coordinated among the parties involved in this MOA, but neither agency is precluded from taking independent enforcement action.

Modification of this Agreement

This agreement will be effective upon signature by the designated parties. The agreement may be modified upon the initiative of either party for the purpose of ensuring consistency with State or Federal statutes or regulations, or for any other purpose mutually agreed upon. Any such modifications must be in writing and must be signed by the Director of the Department of Conservation, the State Oil and Gas Supervisor, and the Chairman of the SWRCB.

Memorandum of Agreement Between the State Water Resources Control Board and the Department of Conservation Division of Oil and Gas



State Department of Conservation

3-9-88
Date



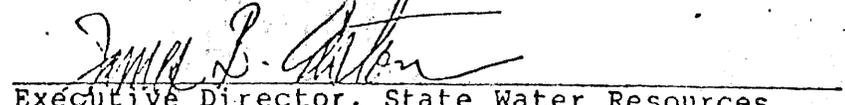
State Oil and Gas Supervisor

3-4-1988
Date



Chairman, State Water Resources Control Board

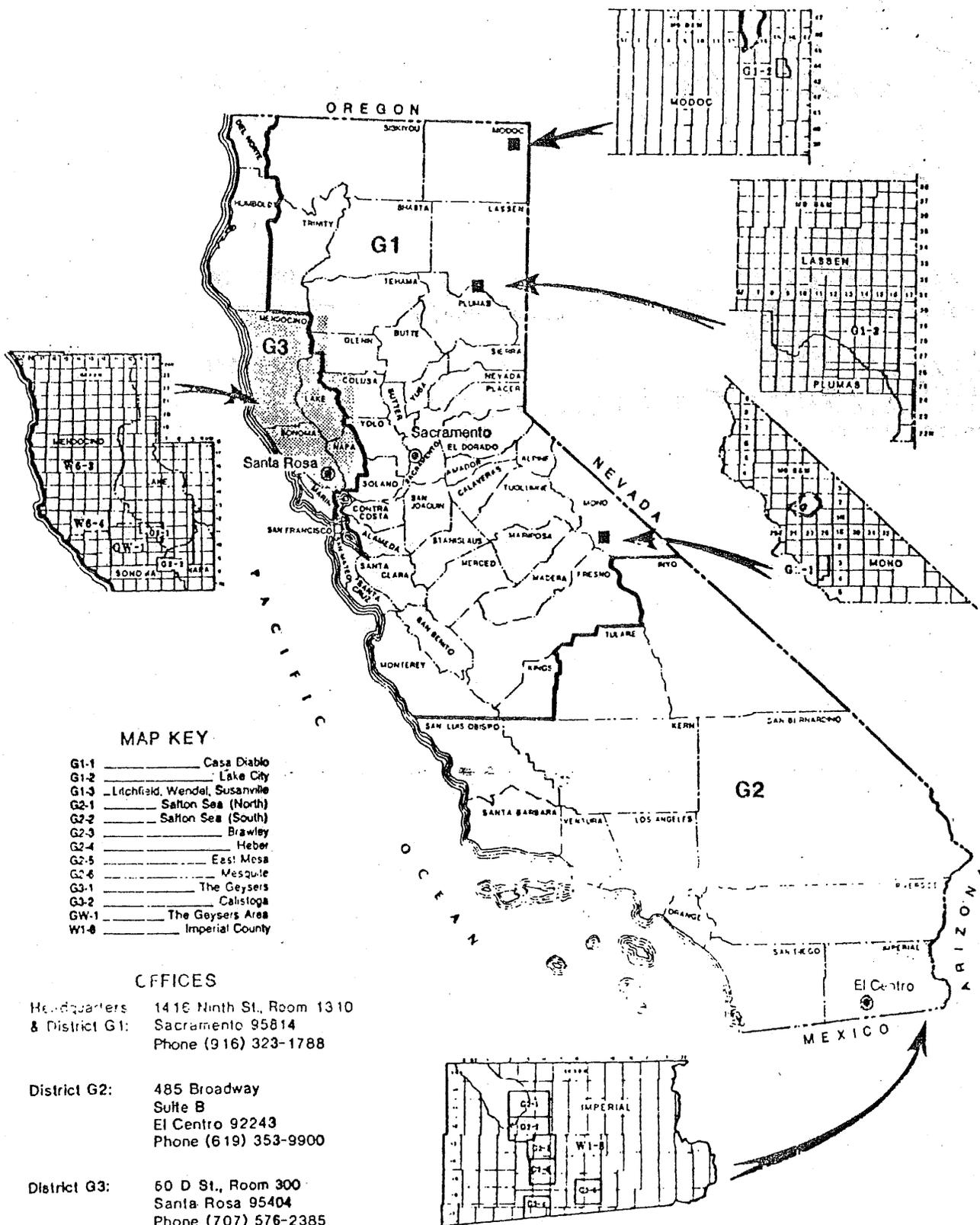
MAY 19 1988
Date



Executive Director, State Water Resources Control Board

MAY 19 1988
Date

GEOHERMAL DISTRICT AND FIELD MAPS



STATE WATER RESOURCES CONTROL BOARD
RESOLUTION 88- 61

APPROVAL OF AMENDMENTS TO THE MEMORANDUM OF AGREEMENT
BETWEEN THE STATE WATER RESOURCES CONTROL BOARD AND
THE DEPARTMENT OF CONSERVATION, DIVISION OF OIL AND GAS
REGARDING CLASS II INJECTION WELLS

WHEREAS:

1. The State Water Resources Control Board (State Board) and the Department of Conservation, Division of Oil and Gas executed a Memorandum of Agreement (MOA) in August 1982 that outlined the procedures for reporting proposed oil, gas, and geothermal field discharges and the procedures for prescribing permit requirements for said discharges.
2. The CDOG received primacy to administer the federal Underground Injection Control Program for Class II wells in California from the U.S. Environmental Protection Agency (EPA) in March 1983.
3. The EPA revised its classification of materials that are considered Class II fluids in July 1987.
4. The EPA revised classification requires revisions to the MOA for consistency.
5. Additional revisions to the MOA are necessary to clarify procedures.

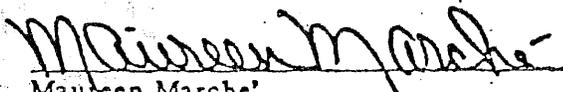
THEREFORE, BE IT RESOLVED:

That the State Board approves the revised MOA with CDOG and directs the Chairman and Executive Director to sign said agreement.

CERTIFICATION

The undersigned, Administrative Assistant to the Board, does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the State Water Resources Control Board held on

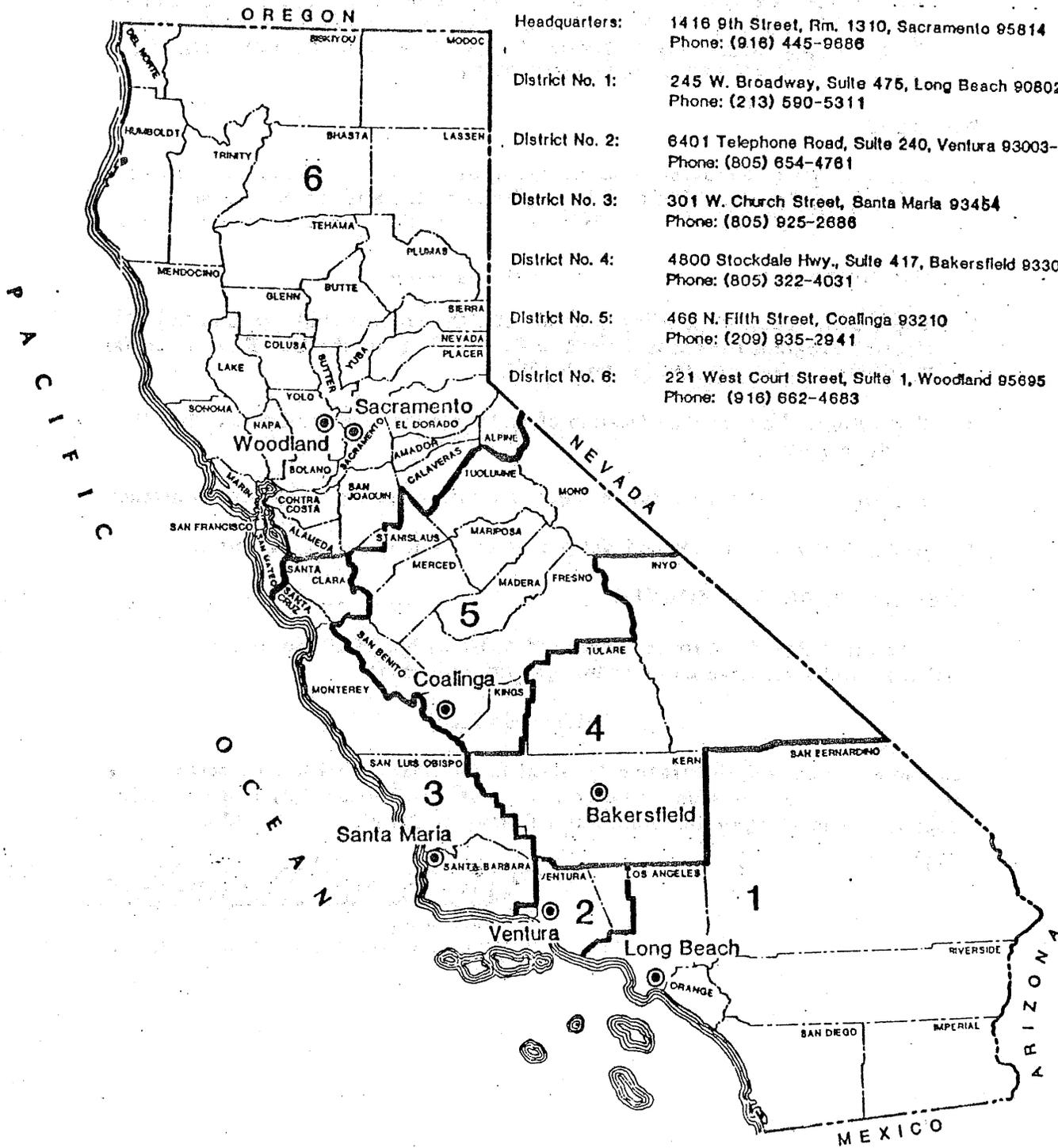
MAY 19 1988


Maureen Marche
Administrative Assistant to the Board

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MEMORANDUM OF UNDERSTANDING
BETWEEN
THE DEPARTMENT OF HEALTH SERVICES
AND
THE STATE WATER RESOURCES CONTROL BOARD
THE REGIONAL WATER QUALITY CONTROL BOARDS
FOR THE CLEANUP OF HAZARDOUS WASTE SITES

August 1, 1990

INTRODUCTION

This Memorandum of Understanding (MOU) consists of general and specific provisions for the cleanup of hazardous waste sites. General provisions include the scope of the agreement, which defines the parties and the type of sites to which the MOU applies; the principles, not found in law or regulation, which govern the conduct of the parties; and the methods for implementation, which explain the manner by which the parties will execute, and perform according to, this MOU.

Specific provisions, which address the protocol the parties will follow for the cleanup of hazardous waste sites, include: the method by which the lead agency and, consequently, the support agency are determined; the responsibilities of the lead and support agencies, which are defined in terms of tasks to be accomplished; procedures to be followed to ensure coordination; outputs to be produced to ensure that minimum technical requirements are satisfied; the manner by which the parties will enforce their respective authorities and settle their claims against hazardous waste site owners, operators, or dischargers; and the manner by which the parties will settle their disputes.

BACKGROUND

Based on a recommendation of the Governor's Task Force on Toxics, Waste, and Technology, Governor Deukmejian issued Executive Order D-55-86, which states, in part, that the Department of Health Services (DHS), the State Water Resources Control Board (SWRCB), and the Regional Water Quality Control Boards (RWQCB) shall enter into an MOU that specifies each agency's responsibilities in hazardous waste site cleanup, defines standards and criteria for use in Remedial Action Plan (RAP) development, and identifies a conflict resolution process to resolve interagency disputes. Subsequently, the Legislature included a provision in the Supplemental Report of the 1988 Budget Act requiring the development of this MOU.

Statutes of the State of California, embodied in the state codes, authorize certain actions or express fundamental principles which must govern the intent and goals of the MOU. Relevant code sections include, but are not limited to, the following:

- A. DHS is mandated to carry out all hazardous waste management responsibilities imposed or authorized by the Resources Conservation and Recovery Act (RCRA), the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and any regulations promulgated pursuant to these federal acts (Health and Safety Code [HSC] 25159.7).
- B. DHS shall prepare a plan for the expeditious implementation of the Hazardous Substance Cleanup Bond Act of 1984 which shall include procedures required for the development and adoption of final RAPs by DHS and RWQCB (HSC 25351.6 and 25334.5).
- C. DHS, or if appropriate, the RWQCB shall prepare or approve RAPs for all sites listed by DHS for Remedial Action (RA) (HSC 25356.1 and 25356).

- D. DHS or the RWQCB shall review and consider any public comments, revise the draft plan if appropriate, and then issue the final RAP. (HSC 25356).
- E. DHS shall implement procedures for the abatement of an imminent and substantial endangerment (HSC 25358.3).
- F. DHS is authorized to spend funds from the Hazardous Substance Account or the Hazardous Substance Cleanup Fund for removal or remedial actions on any site included on the list established pursuant to HSC 25356 only if DHS enters into an enforceable agreement or issues an order and determines in writing that the potential responsible party(s) is not in compliance with the order or agreement. (HSC 25355.5)
- G. The SWRCB and each RWQCB shall be the principal state agencies with primary responsibility for the coordination and control of water quality (Water Code [WC] 13001).
- H. Each RWQCB shall obtain coordinated action in water quality control, including the prevention and abatement of water pollution and nuisance (WC 13225).

Under direction from the Governor, DHS signed a Defense (Department)-State Memorandum of Agreement (DSMOA) in May 1990, which allows for funding state oversight of remedial actions at military facilities in California. Although both DHS and the State and Regional Boards are eligible to receive payment for their oversight costs, federal funding is limited and qualified. Separate agreements between DHS regional offices and the RWQCBs for specific sites will be required in order to allocate available funding. This MOU provides a basis for DHS and the Boards to agree on funding and performance at military facilities.

DHS, also, has recently signed an Agreement in Principle (AIP) with the U.S. Department of Energy (DOE). The AIP will provide reimbursement of state costs for oversight of specified environmental compliance activities at DOE facilities. An Interagency Agreement between the DHS Environmental Health Division and the SWRCB will specify water quality oversight tasks which the State and Regional Boards will perform.

THE DHS AND THE SWRCB AND THE RWQCBs AGREE TO THE FOLLOWING:

I. SCOPE

This MOU is effective immediately and is binding upon DHS, the SWRCB, and the nine RWQCBs. It covers the cleanup of hazardous substances at all sites or facilities where such substances must be cleaned up in order to protect public health or the environment. The cleanup of other substances is not covered under this agreement. Sites include, but are not limited to, sites listed on the National Priorities List (NPL) and in the DHS Site Mitigation annual work plan. This MOU shall be used to determine the relationship of the parties and to guide the site-specific communications between them on activities at the sites. The provisions of this MOU are applicable both at sites where a state agency is the lead agency as well as at sites where the U.S. Environmental Protection Agency, Region 9 (EPA) is the lead agency. In the latter case, the provisions of this MOU shall be utilized to determine which state agency will act as the liaison between the State and EPA and how the state agencies will coordinate their review and comment on site-specific documents submitted by EPA.

Contracts and agreements also exist which involve DHS, SWRCB, RWQCB, and local agencies in the cleanup of leaking underground storage tanks. There are also other specific agreements between state and/or federal agencies. This MOU is not intended to conflict with the provisions of those contracts and agreements nor is it intended to add procedure and requirements which the agencies agree are not necessary for the satisfactory cleanup of leaking underground storage tanks.

A Memorandum of Agreement (MOA) exists between DHS and the SWRCB regarding coordination of activities at facilities subject to regulation pursuant to RCRA. For coordination of cleanup activities at these facilities, the agencies should refer to both this MOU and the RCRA MOA.

II. PRINCIPLES

The parties recognize that certain principles, not found in law or regulation, should govern their conduct. One principle is that the participation of both agencies acting within their respective authorities, jurisdiction, and expertise, whether acting as lead agency or support agency, is essential for the successful cleanup of hazardous waste sites and is in the best interest of the State.

In the cleanup of hazardous waste sites, mutual trust, confidence, cooperation, and communication between the parties are to be expected. It is a basic aim of this MOU and the policy of the parties that duplication of effort in the site cleanup program be avoided. Public health and the environment are best served by each party minimizing duplication of effort on the greatest number of sites possible. Both parties do, however, recognize that there are certain situations where one or the other will have the necessary technical resources, expertise, or authority. To the extent staff and other resources allow, and in a manner set forth in this MOU, the parties agree to assist each other. This cooperative approach is in the best interest of public health and the environment.

Finally, the parties recognize that cleanup of hazardous waste sites throughout California can best be achieved if the state agencies act with consistency and predictability. Both the public and the responsible parties expect that state government will apply rational methodologies and standards to site cleanup. Compliance with the terms of this MOU will eliminate or significantly reduce any apparent inconsistencies between the agencies. Consistency will be achieved by agreement on minimum technical and procedural requirements, coordination of enforcement actions, close and constant communication between project staff, and exchange of Applicable or Relevant and Appropriate Requirements (ARARs) or state standards for site cleanup. If either agency is developing such standards, that agency will involve the other agency in the development at an early stage so that consistency in technical issues can be maintained.

III. IMPLEMENTATION

In order to facilitate implementation of this MOU, the parties will establish an "MOU Technical Advisory Committee" (TAC) within four months of the effective date of this MOU. The TAC will serve to provide guidance and advice to management and staff on technical issues that develop during performance under this agreement and will assist, if called upon, in the settlement of technical disputes. The TAC will also evaluate the achievement of the goals of the Executive Order and the compliance principles of this MOU and will provide an annual report to management. This report will be submitted by March 1 of each year, will cover the prior calendar year and will, if appropriate, include recommendations for modifications to this MOU to improve attainment of the principles of the parties. The TAC will consist of a total of six members, each at a level equivalent to Supervising Engineer, Supervising Hazardous Materials Specialist, or above, as follows: one member from DHS Headquarters, two members from DHS Regional Sections, one member from SWRCB, and two members from RWQCBs. Annually the TAC will elect one of its members as chairman who will be responsible for coordinating the activities of the TAC.

IV. LEAD AGENCY DETERMINATION

DHS Regional Offices and RWQCBs will meet to determine the lead agency as appropriate under this section.

- A. The agency which first discovers a potential or actual hazardous waste site shall serve as the lead agency until the criteria of this MOU are utilized to determine a lead agency.
- B. Within 180 days after the effective date of this MOU, the agencies shall determine the lead and support agencies for each hazardous waste site on which either agency plans to work in Fiscal Year 1990-91. Each Regional Board Executive Officer (EO) and Department Regional Administrator (RA) shall compile an inventory of hazardous waste sites within their respective regions and shall determine whether resources are or will be available to perform the tasks required by this MOU. The EO and RA shall then agree on which agency shall be lead and which shall be support for sites of common jurisdiction. Sites for which neither agency has resources shall be listed in a holding pool until resources become available or priorities change. This process shall be repeated for each subsequent fiscal year as necessary to implement this MOU. The designation of lead agency may be changed at any time by agreement of the agencies.
- C. The determination of a lead agency shall be made by considering the factors listed in Paragraph D of this section. It is probable that more than one factor may be applicable to a site. In these situations, more weight should be given to those factors listed first.
- D. The lead agency as between DHS and SWRCB/RWQCB, for the cleanup of hazardous waste sites shall be determined using the following guidance:
 1. DHS should be the lead agency at sites where there is no responsible party.
 2. If the site does not meet the criteria in number 1 above, then the following conditions apply:
 - a. If after reasonable enforcement actions are implemented, the responsible party is unwilling or is financially unable to perform cleanup and the expenditure of state Superfund monies is deemed appropriate to perform actual site cleanup, then DHS should be the lead agency.
 - b. If the site is on the NPL, then DHS should be the lead agency.
 - c. If one agency has a significantly longer history of involvement working to clean up the site, then it should be the lead agency.
 - d. If the source of the contamination is a leaking underground storage tank, then the RWQCB or a local agency, upon delegation by a Regional Board, or by contracting with the state Board, should be the lead agency.
 - e. If the contamination is primarily airborne, then DHS should be the lead agency in consultation with the Air Resources Board and the appropriate Air Quality Management District.
 - f. If the site is primarily a result of agricultural activities, then the RWQCB should be the lead agency.
 - g. If the source of the contamination is an inactive mine, then the RWQCB should be the lead agency.
 - h. If the contamination is confined to soils, then DHS should be the lead agency.
 - i. If the contamination is primarily impacting surface waters, then the RWQCB should be the lead agency.

- j. If the source of the contamination is a RCRA regulated disposal facility, then DHS should be the lead.
 - k. If the source of the contamination is a non-RCRA surface impoundment, then the RWQCB should be the lead agency.
 - l. If the source of the contamination is a landfill which would not normally be regulated by DHS, then the RWQCB should be the lead agency in consultation with the California Integrated Waste Management Board.
- E. Notwithstanding a determination under Paragraph D of this section, DHS Regional Offices and the RWQCB may otherwise agree which agency shall be lead agency at a particular site. Specific examples of situations where this provision may be used are where multiple sources are contributing to the same problem or where resource availability affects the determination; however, other situations may warrant a decision using this provision.
- F. The agency determined to be the lead agency for purposes of site cleanup under this MOU is not necessarily the lead agency for implementing programs or tasks that are applicable to the site but not within its authority or jurisdiction. Where the support agency happens to have sole or primary responsibility or exclusive capability for a program or task related to cleanup activities, then that agency shall perform those required tasks pursuant to its exclusive lead authority in a manner consistent with its role under this MOU. Examples of such tasks and programs include, but are not limited to, issuance of a National Pollutant Discharge Elimination System permit, approval of a transportation plan, regulation of nonhazardous wastes, enforcement of the Toxic Pits Control Act, approval of a solid waste water quality assessment test report, performance of a public health evaluation, or the imposition of restrictions for land use. The support agency will coordinate all activities described in this paragraph with the lead agency.
- G. Any dispute regarding the determination of the lead agency shall be resolved pursuant to Section VII.

V. RESPONSIBILITIES OF LEAD AND SUPPORT AGENCIES

A. Coordination Procedures

1. General

- a. The lead agency is responsible for coordinating and communicating with the support agency in a timely manner. This includes, but is not limited to, providing schedules, technical reports, correspondence, and enforcement papers; soliciting and responding to comment, analysis, evaluation, and advice; and meeting, conferring and discussing the project.
- b. The support agency is responsible for coordinating and communicating with the lead agency in a timely manner. This includes, but is not limited to, providing notification that selected sites are of particular interest; providing comment, analysis, evaluation, and advice, especially that within the unique expertise of the agency; and meeting, conferring, and discussing the project.
- c. EPA will be the lead agency for many sites listed on the NPL. The State will designate a state lead agency using the criteria specified in Section IV. The agency so designated has the responsibility of maintaining communications between the State and EPA. This agency does not have responsibility for ensuring completion of the tasks listed in Section V B. However, this agency shall ensure that comments from all state agencies

are transmitted to EPA and shall coordinate the resolution of any disputes so that the State presents only one position to EPA.

- d. Neither agency will significantly change its procedures for the cleanup of hazardous substances without notification to and review and comment from the other agency. Examples of such changes include technical guidance documents and applicable regulations.

2. Specific

- a. Each agency will coordinate with the other agencies on its enforcement activities as specified in Section VI.
- b. The lead agency shall provide to the support agency any California Environmental Quality Act (CEQA) documents at least ten working days prior to sending these documents to the state clearinghouse. If the support agency decides to comment, it shall do so within ten working days after receipt, or during the formal review process as mandated by CEQA.
- c. The lead agency shall contact the support agency to identify ARARs for each specific site at the following times:
 - (1) During the scoping phase of the remedial investigation/ feasibility study (RI/FS) or equivalent.
 - (2) During the site characterization phase of the RI or equivalent.
 - (3) During the development of alternatives in the FS or equivalent.
 - (4) During Remedial Design (RD).

The support agency shall respond within 30 calendar days after a request for ARARs. The lead agency shall apply the ARARs identified by the support agency or it shall provide to the support agency, at least 20 calendar days prior to informing the responsible party or the public, a written memorandum which identifies ARARs that will not be applied and the reasons for such decisions.

For those sites where EPA is the lead agency, the state lead agency as determined according to this MOU, shall notify EPA of all ARARs identified by the parties to this agreement. However, the party identifying the ARARs shall be responsible for defending the application of its ARARs should EPA elect not to apply them.

- d. The lead agency shall prepare or have the responsible party(ies) prepare the draft RAP or equivalent cleanup plan as an internal working draft document and provide a copy to the support agency at least 20 working days prior to general public distribution. If the support agency decides to comment, it will do so within 20 working days after receipt. Unless a shorter period of time is mutually agreed upon, any dispute shall be resolved by Section VII.
- e. The lead agency shall provide all other technical documents, as specified in Section V.B.9., and not otherwise referred to above, within a time sufficient for review and comment. In all cases, the lead agency shall provide at least 15 working days for review and response by a support agency unless a shorter period of time is mutually agreed upon. The support agency shall respond, as appropriate, in a timely manner.

B. Tasks

1. For sites listed on the NPL or in the DHS Site Mitigation annual work plan:
 - a. The lead agency shall be responsible for ensuring completion of the following tasks:
 - (1) Identifying imminent threats and initiate removal actions (if necessary).
 - (2) Identifying responsible parties.
 - (3) Issuing an order or entering into an enforceable agreement (if necessary).
 - (4) Coordinating enforcement actions (see Enforcement and Settlement Section VI).
 - (5) Establishing and maintaining an administrative record.
 - (6) Providing project oversight:
 - (i) Assigning a remedial project manager.
 - (ii) Maintaining a field presence including, if necessary, providing an on-scene coordinator.
 - (iii) Preparing and maintaining site schedules and workplans.
 - (iv) Reviewing technical documents listed in Section 9 of this paragraph for comment or approval.
 - (v) Managing applicable contracts.
 - (vi) Accounting for project costs.
 - (7) Preparing and/or reviewing RI/FS which includes:
 - (i) Site characterization.
 - (ii) RA alternatives.
 - (iii) Risk assessment.
 - (8) Requiring and approving the Quality Assurance Project Plan (QAPP) and Sampling and Analysis Plan (SAP).
 - (9) Providing technical documents to the support agency, including, but not limited to, as appropriate:
 - (i) Site schedule.
 - (ii) RI/FS workplan.
 - (iii) RI report.
 - (iv) FS report.

- (v) Health and Safety Plan.
 - (vi) QAPP.
 - (vii) SAP.
 - (viii) Community relations plan.
 - (ix) RAP.
 - (x) CEQA documents.
 - (xi) Transportation plan.
- (10) Maintaining community relations:
- (i) Developing and implementing a community relations program.
 - (ii) Managing any technical assistance grants.
- (11) Compiling ARARs.
- (12) Conducting a complete Public Health Evaluation (PHE) (as appropriate).
- (13) Preparing and approving the RAP.
- (14) Preparing and/or approving RD/RA
- (15) Complying with CEQA.
- (16) Recovering cost (if necessary).
- (17) Overseeing operations and maintenance, including long-term monitoring (if necessary).
- (18) Restricting land use (as appropriate).
- b. The support agency shall be responsible for reviewing and, if appropriate, providing comments on the documents listed in Section V.B.1.a.(9) within the time periods determined utilizing Section V.A.2. or the lead agency may assume that the support agency does not have any comments. Additionally, the support agency shall always respond to a request for ARARs, and shall perform tasks as appropriate according to its exclusive authority or capability.
2. For sites not listed on the NPL nor on the DHS Site Mitigation annual work plan:
- a. The lead agency shall be responsible for ensuring completion of the following tasks:
 - (1) Conducting removal actions (if necessary).
 - (2) Identifying a responsible party.
 - (3) Coordinating enforcement action (see Enforcement and Settlement, Section VI).

- (4) Establishing and maintaining an administrative record.
- (5) Providing project oversight.
 - (i) Assigning a project manager.
 - (ii) Preparing and maintaining site schedules and workplans.
 - (iii) Reviewing technical documents.
 - (iv) Maintaining a field presence, as necessary.
- (6) Preparing or approving an Employee Health and Safety Plan.
- (7) Characterizing the nature and extent of the problem.
- (8) Requiring and approving quality assurance and sampling plans.
- (9) Evaluating cleanup alternatives.
- (10) Complying with CEQA.
- (11) Conducting community relations.
- (12) Preparing or approving the cleanup plan.
- (13) Overseeing cleanup.
- (14) Providing technical reports to the support agency.

- b. The support agency shall be responsible for reviewing and, if appropriate, providing written comments on the documents submitted pursuant to Section V.B.2.a within the time periods determined utilizing Section V.A.2. or the lead agency may assume that the support agency does not have any comments. Additionally, the support agency shall always respond to a request for ARARs, and shall perform tasks as appropriate according to its exclusive authority or capability.

C. Technical Requirements

1. The following outputs or items, in whole or in part, are required to be addressed for the completion of RAs at hazardous waste sites:
 - a. For sites Listed on the NPL or in the DHS Site Mitigation annual work plan:
 - (1) RAs (if needed).
 - (2) Identification of responsible parties.
 - (3) Enforceable agreement or order.
 - (4) Cooperative agreement.
 - (5) Administrative record.

- (6) Remedial project manager.
 - (7) On-scene coordinator.
 - (8) Site schedule.
 - (9) Workplans.
 - (10) Community relations plan.
 - (11) QAPP.
 - (12) SAP.
 - (13) RI.
 - (i) Site history.
 - (ii) Identification of sources.
 - (iii) Site characterization.
 - (14) ARARs.
 - (15) FS.
 - (16) Record of decision (ROD)/RAP
 - (17) RD
 - (18) RA.
 - (19) PHE.
 - (20) CEQA document.
 - (21) Health and Safety Plan.
 - (22) Transportation plan (if needed).
- b. For sites not listed on the NPL nor in the DHS Site Mitigation annual work plan:
- (1) RAs.
 - (2) Identification of responsible parties.
 - (3) Administrative record.
 - (4) Remedial project manager.
 - (5) Site schedule.
 - (6) Workplan.

- (7) Quality assurance plan.
- (8) Sampling and analysis plan.
- (9) RAP or cleanup plan.
 - (i) Site history.
 - (ii) Identification of sources.
 - (iii) Site characterization.
 - (iv) Feasible remedial alternative.
 - (v) RD.
- (10) Community relations plan.
- (11) RA.
- (12) Employee Health and Safety Plan.
- (13) Community Health and Safety Plan (if needed).
- (14) CEQA compliance.
- (15) Transportation plan (if needed).

2. The agencies shall define these requirements, as appropriate, according to 40 CFR 300 et seq., and HSC 25350 et seq., in addition to the guidance documents listed in Attachment A.

VI. ENFORCEMENT AND SETTLEMENT

- A. For purposes of this MOU, enforcement means the action by an agency to compel performance by a responsible party, such as the issuance of an order or the filing of a complaint. Settlement means the resolution by agreement with the responsible party, in whole or in part, of matters in dispute, such as the performance required for satisfactory remedial action, claims for money, or liability.
- B. The lead agency will communicate with the other agencies regarding its enforcement and settlement activities for hazardous waste sites. Communication means, for example, notification at least 10 working days in advance, if feasible, of a decision to issue an order or to initiate settlement negotiations; provision of enforcement or settlement documents for information or for review and comment; and, to the extent feasible, modification of a proposed order or agreement to incorporate the other agency's concerns. Staffs will meet and confer, as necessary, during drafting of enforcement and settlement documents.
- C. Unnecessary or redundant enforcement documents are to be avoided. Neither agency will take enforcement actions that are not compatible or complementary to the enforcement actions of the other agencies. To the extent possible, consistent with preserving their respective authority or mandates, each agency will coordinate time schedules and demands so that responsible parties can respond to consistent direction.

- D. To the extent practicable, each agency will assist the other in enforcement. Information that may be used to determine compliance or noncompliance will be transmitted to the enforcing agency as soon as possible but no later than 15 working days after being obtained and formalized.
- E. Upon a determination of noncompliance with an administrative order and a decision to pursue litigation (i.e., referral to the Attorney General or filing a complaint), the responsible agency will notify the other agencies at least seven working days prior to referring a matter to the Attorney General. Each agency will coordinate its legal actions to the extent practicable so that the Attorney General may bring joined or consolidated causes of action.
- F. Negotiations may be commenced with a responsible party to enter into an enforceable agreement either to take cleanup action without the issuance of an order, to resolve noncompliance with an order that has been issued, or to resolve causes of action alleged in complaint. All decisions to negotiate with a responsible party will be coordinated between the agencies.
- G. The lead agency will act as lead spokesperson for the negotiating team. The lead spokesperson will be responsible only for initiating and maintaining communications with the responsible parties, for coordinating the State's position, and for directing the agenda for settlement. The negotiating team will be composed of representatives from each agency with authority, with legitimate claims, and electing to participate. For purposes of dispute resolution in Federal Facility Agreements (FFAs), the lead agency and support agency may agree to designate which state agency will cast the State's vote.

Each agency is responsible for presenting its respective position. If an agency fails to attend negotiations or to meet other negotiating responsibilities without good cause, or without notifying the other participating agency in advance, then that agency must either defer to negotiating participants on issues discussed at the missed negotiation or withdraw from further negotiations relative to that particular site.

However, where practicable, in order to avoid unnecessary expenditure of resources for conducting negotiations, the support agency, after prior notification to and agreement by the lead agency, may elect to withdraw from or not participate in active negotiations, either temporarily or permanently. In such cases, the support agency is responsible for providing to the lead agency the details of their specific concerns regarding settlement. If this information is not provided, the lead agency will negotiate in the best interest of the State, but will have no responsibility to negotiate on behalf of the support agency issues for which the lead agency has neither authority nor assistance.

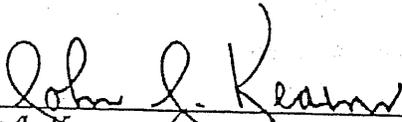
When the support agency does not attend negotiations, the lead agency is responsible for obtaining for the support agency terms of settlement identical to its own, provided that: the support agency provides the necessary information and assistance to the lead agency pursuant to this section; and the terms requested by the support agency are similar in scope and documentation to that of the lead agency ("identical terms" means similar percentage of settlement request or similar conditions as opposed to a dollar-for-dollar separation). Moreover, the lead agency is responsible for notifying the support agency if new issues arise which may be within the sole authority of the support agency, in order that the support agency has the opportunity to participate in those portions of the negotiations addressing such issues. The negotiation of FFAs with the federal government is an example of when this situation may occur. In this example, the lead agency will not settle for recovery of their costs without including those similarly justifiable costs of the support agency.

- H. All communications with a responsible party related to negotiations will be coordinated by the lead spokesperson. Documents related to negotiations will be shared freely between the agencies and such documents which are confidential will be maintained in a manner consistent with any applicable requirements for confidentiality.

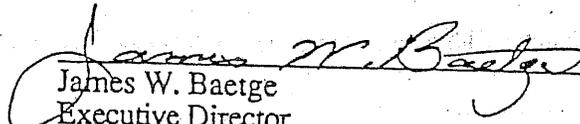
- I. Each agency will support the other during negotiations. A single position is essential, and the agency advocating the most conservative or stringent position will be responsible for defending its position. A disagreeing agency will remain silent or request a recess. All agencies involved should meet prior to each negotiating session in order to minimize disagreements.
- J. Before agreement or settlement with responsible parties can be reached, the concerns and claims of each agency regarding the issues to be agreed upon or settled will be resolved. An agency will not settle independently with responsible parties without advance concurrence by the other participating parties. Disputes shall be settled pursuant to the procedure described in Section VII.
- K. Settlement with a responsible party will include provision for payment by the responsible party for all oversight costs incurred or to be incurred by any negotiating agency that will participate in the RA procedure.

VII. DISPUTE RESOLUTION

- A. Disputes shall be resolved, if at all possible, through informal discussion, negotiation, and consensus. Such informal discussions may, if necessary, include staff at all levels, including those listed in Section VII.B.1. If the dispute cannot be resolved informally within a reasonable length of time or if continuing nonresolution of the dispute would place either party at a disadvantage, then either party may notify the other party that such a dispute exists and exercise the formal dispute resolution procedure described below.
- B. Disputes shall be resolved formally using the following procedure:
 1. Jointly the staffs of the agencies involved in the dispute shall prepare a memorandum describing the dispute. The lead agency shall provide copies to the appropriate RA of the Toxic Substances Control Program (TSCP) and to the Executive Officer (EO) of the appropriate Regional Board. The memorandum shall address and explain all sides to the dispute, shall state the consequences of each recommended decision and shall provide a date by which a decision is needed. The lead staff person for each agency shall co-sign the memorandum prior to submitting it to management.
 2. If the DHS RA and the RWQCB EO cannot resolve the dispute within the time requested in the memorandum, then they will jointly present written notification of the dispute to both the Executive Director (ED) of the SWRCB and the Deputy Director of the TSCP.
 3. If the SWRCB ED and the TSCP Deputy Director cannot resolve the dispute within 30 calendar days from the day the memorandum is delivered to them, then the memorandum shall be delivered to the SWRCB and the Director of DHS. If within 30 calendar days they cannot resolve the dispute, the memorandum shall be delivered to the Secretary of Environmental Affairs and to the Secretary of Health and Welfare. If within 30 calendar days they cannot resolve the dispute, the memorandum shall be delivered to the Governor.
 4. When the dispute is resolved, a written decision shall be provided to all parties to this MOU.
- C. During such time that any formal or informal dispute is not yet resolved, neither agency will comment adversely in public. The time required to resolve a dispute shall not be used to unnecessarily or unfairly delay action by either agency.



John J. Kearns
Acting Deputy Director
Toxic Substances Control Program
Department of Health Services
State of California



James W. Baetge
Executive Director
State Water Resources Control Board
State of California

Date: 7/30/90

Date: 7-31-90

ATTACHMENT A

APPLICABLE LAWS, REGULATIONS, AND GUIDANCE DOCUMENTS

- A. California Water Code.
- B. California Health and Safety Code.
- C. Titles 22/23 (Subchapter 15) California Code of Regulations.
- D. California Environmental Quality Act.
- F. National Oil and Hazardous Substances Contingency Plan.
- G. Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA.
- H. Superfund Public Health Evaluation Manual.
- I. Superfund Exposure Assessment Manual.
- J. Methodology for Characterization of Uncertainty in Exposure Assessments.
- K. RCRA Ground-Water Monitoring Technical Enforcement Guidance Document.
- L. The Endangerment Assessment Handbook.
- M. Superfund Remedial Design and Remedial Action Guidance.
- N. Standard Operation Safety Guides (OSWER).
- O. Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities (DHS [NIOSH]).
- P. Data Quality Objectives for Remedial Response Activities (OSWER).
- Q. Samplers and Sampling Procedures for Hazardous Waste Sources (EPA).
- R. A Compendium of Superfund Field Operations Methods.
- S. Handbook on Remedial Action on Waste Disposal Sites.
- T. Uncontrolled Hazardous Waste Site Ranking System—A User's Manual.
- U. Community Relations in Superfund: A Handbook (EPA) 03/86.
- V. The California Site Mitigation Decision Tree Manual.
- W. Small Site Cleanup Guidance Document (to be completed).
- X. Leaking Underground Fuel Tank Manual.

ATTACHMENT B

ACRONYMS USED IN THE MEMORANDUM OF UNDERSTANDING

1. AIP Agreement In Principle
2. ARARS Applicable or Relevant and Appropriate Requirements
3. CERCLA Comprehensive Environmental Response, Compensation, and Liability Act
4. CEQA California Environmental Quality Act
5. DHS Department of Health Services
6. DOE U.S. Department of Energy
7. DSMOA Defense (Department)-State Memorandum of Agreement
8. ED Executive Director
9. EO Executive Officer
10. EPA U.S. Environmental Protection Agency, Region 9
11. FFA Federal Facility Agreement
12. FS Feasibility Study
13. HSC Health and Safety Code
14. MOA Memorandum of Agreement
15. MOU Memorandum of Understanding
16. NPL National Priorities List
17. PHE Public Health Evaluation
18. QAPP Quality Assurance Project Plan
19. RA Remedial Action or Regional Administrator
20. RAP Remedial Action Plan (State equivalent to ROD)
21. RCRA Resource Conservation and Recovery Act
22. RD Remedial Design
23. RI Remedial Investigation
24. ROD Record of Decision (Federal equivalent to RAP)
25. RWQCB Regional Water Quality Control Board

- 26. SAP Sampling and Analysis Plan
- 27. SWRCB State Water Resources Control Board
- 28. TAC Technical Advisory Committee
- 29. TSCP Toxic Substances Control Program
- 30. WC Water Code

MEMORANDUM OF UNDERSTANDING
BETWEEN THE
SOIL CONSERVATION SERVICE
U.S. DEPARTMENT OF AGRICULTURE
AND THE
STATE WATER RESOURCES CONTROL BOARD
FOR
PLANNING AND TECHNICAL ASSISTANCE RELATED TO
WATER QUALITY POLICIES AND ACTIVITIES

I. PURPOSE:

The purpose of this Memorandum of Understanding (MOU) is to formalize cooperation between U.S. Department of Agriculture (USDA), Soil Conservation Service (SCS) and the State Water Resources Control Board (State Board), and to develop appropriate guidelines and procedures related to water quality activities. The SCS and State Board share a common interest in maintaining, protecting, and improving the quality of waters (surface and ground water) of the State.

Through this MOU, the State Board seeks to utilize the personnel and expertise of SCS to increase the assistance available to California in the development and implementation of water quality programs and projects. Coordination and cooperation between SCS and State Board will reduce unnecessary duplication of effort, accelerate the implementation of best management practices (BMPs) and other nonpoint source (NPS) measures, and increase overall program effectiveness.

II. AUTHORITIES:

This MOU is entered into under the authorities of the Soil Conservation and Domestic Allotment Act (16 U.S.C. Section 590-f), as amended, Division 7 of the California Water Code (Porter-Cologne Act), and the authorities of the Clean Water Act (CWA), [Section 304(1), 314, 319, and 320], as amended.

Nothing in this MOU alters the statutory or regulatory authority of SCS or the State Board. This MOU is intended to strengthen those statutory requirements through the development of cooperative federal-State efforts.

III. BACKGROUND:

USDA Regulation 9500-7, Nonpoint Source Water Quality Policy, December 5, 1986 and USDA Regulation 9500-8, Policy for Groundwater Quality, November 9, 1987 established policy for integrating surface and ground water quality protection and improvement into the appropriate programs and activities.

The report to the Congress by the Secretary of Agriculture in the National Program for Conservation of Soil and Water: The 1988-90 Update gives top priority to the solution of soil erosion on agricultural land. The second priority is the "protection of the quality of surface and ground water from harmful contamination from nonpoint sources".

SCS, a technical agency of the USDA and, in cooperation with Resource Conservation Districts in California, provides technical assistance for implementation of water quality programs. SCS has a number of field offices which can provide technical assistance to most of the counties within California.

The Porter-Cologne Act, administered by the State Board, establishes a comprehensive program for the protection of water quality and the beneficial uses of the waters of the State. The Porter-Cologne Act is intended to provide a "statewide program for water quality control".

Section 319 of the CWA, as amended, requires the State to develop a NPS management program for controlling NPS pollution. The State Board has developed a State NPS Management Program which lists the SCS as providing technical and financial assistance to improve and protect land and water resources.

The State Board and SCS recognize the need to improve, conserve, and protect the quality of surface and ground water by undertaking efforts to avoid harmful NPS contamination and, thereby maintain the quality and quantity of water available for safe drinking supplies, irrigated agriculture, fisheries, and other beneficial uses. A coordinated effort is necessary to address these issues.

IV. SCS AGREES TO:

- A. Integrate water quality concepts and management techniques into all programs and activities to address surface and ground water NPS pollution.
- B. Implement internal policies that elevate the importance of water quality in all SCS programs and assure consistency of SCS actions with the State NPS Management Program.
- C. Provide technical assistance to the State Board in the support and development of BMPs appropriate for the control and reduction of NPS pollution.
- D. Encourage the targeting of water resource projects to hydrologic units that are tributary to the high priority waterbodies identified in the State Board's Clean Water Strategy and Water Quality Assessment Process.
- E. Encourage the California Association of Resource Conservation Districts (CARCDs) and their more than 100 member districts to cooperate with appropriate State and local agencies in addressing the water quality priorities of federal agencies and the State Board.
- F. Provide technical assistance through RCDs to landowners in dealing with NPS pollution problems.

V. STATE BOARD AGREES TO:

- A. Use the SCS Field Office Technical Guide as a resource reference in the development and implementation of BMPs.
- B. Assist the SCS in the selection of priority hydrologic units for the implementation of water resource projects.
- C. Jointly develop with the SCS and CARCD demonstration projects addressing water quality concerns.
- D. Encourage the voluntary or cooperative approach as the first step in the development and implementation of solutions to the NPS problem.
- E. Consider the development of a statewide water quality policy for reducing NPS pollution of surface and ground waters and achieving water quality standards by working with other agencies.
- F. Coordinate the activities of the California Regional Water Quality Control Boards with those activities being proposed and implemented by the SCS.
- G. Define the goals and objectives of the NPS Interagency Advisory Committee and conduct regular meetings.

VI. SCS AND STATE BOARD MUTUALLY AGREE TO:

- A. Develop a process for BMP selection and implementation to reduce or prevent agricultural pollution in priority waterbodies.
- B. Continue to upgrade and update the SCS's Field Office Technical Guide and BMPs as new technology is developed.
- C. Develop agricultural BMPs for NPS pollution control with input from the NPS Interagency Advisory Committee, and others.
- D. Develop implementation priorities and policies for NPS pollution activities.
- E. Provide guidance and technical assistance to implementation agencies.
- F. Encourage participation of other federal, State, and local agencies in the control of NPS pollution.

VII. OTHER CONDITIONS OF THE MOU:

- A. This is not a fiscal or a funds obligation document. Endeavors involving reimbursements or transfer of funds between SCS and the State Board for the purposes of this Agreement will be in accordance with USDA/SCS and State Board financial procedures. Any reimbursement agreement will be contingent upon the availability of funds and upon limitations of appropriations authorized by law.

- B. This MOU complies with the nondiscrimination provisions of Title VI of the Civil Rights Act of 1964 and other nondiscrimination statutes, namely, Section 504, Title IX and the Age Discrimination Act of 1975 provides that no person in the United States shall, on the grounds of race, color, national origin, age, sex, religion, or handicap be excluded from participation in, or be denied the benefits of, or be otherwise subjected to discrimination under any program or activity receiving federal or State assistance.
- C. This MOU becomes effective on the date of signature by both parties and shall continue indefinitely. It may be modified at any time upon the mutual consent of the parties and it may be terminated by either party giving a 30-day advance written notice to the other party.

BY:

W. Don Maughan
W. Don Maughan
Chairman
State Water Resources
Control Board
Sacramento, California

Date:

July 31, 1990

BY:

Pearlie S. Reed
Pearlie S. Reed
State Conservationist
Soil Conservation Service
Davis, California

Date:

July 31, 1990

MEMORANDUM OF UNDERSTANDING

AMONG

ENVIRONMENTAL AFFAIRS AGENCY
AIR RESOURCES BOARD
STATE WATER RESOURCES CONTROL BOARD
CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD

I. INTRODUCTION

This Memorandum of Understanding (MOU) expresses the desire of the Air Resources Board (ARB), State Water Resources Control Board (SWRCB), California Integrated Waste Management Board (CIWMB), and Environmental Affairs Agency (Agency) to enhance program coordination. We undertake this task to minimize risks to public health and the environment, eliminate duplication of effort, and provide regulatory consistency.

The MOU consists of general and specific provisions. General provisions include (A) the scope of the agreement, which defines the parties and issues to which the MOU applies, (B) the principles which will govern the conduct of the parties and, (C) the existing statutory framework.

Specific provisions, which address the protocols the parties will follow, include (A) the responsibilities of the Boards and the Agency, (B) procedures to be followed to ensure communication and program coordination, (C) the manner by which the parties will settle their disputes, (D) implementation steps, and (E) procedures for amending, withdrawing from, and repealing this MOU.

II. BACKGROUND

California has a decentralized environmental management system. At the state level, the ARB, SWRCB, CIWMB, and Department of Health Services (DHS) formulate policies and regulations pertaining to air quality, water quality, solid waste, and hazardous waste, respectively. At the regional and local levels, the Air Quality Management Districts, Air Pollution Control Districts, Regional Water Quality Control Boards, and Local Enforcement Agencies conduct permitting and enforcement activities.

Many environmental issues cut across organizational lines. These interagency issues stem from the fact that pollutants do not recognize the boundaries of environmental media or political and institutional subdivisions. To effectively deal with interagency issues, the management of the Boards and the Agency set forth in this MOU some guiding principles and procedures to govern our conduct.

III. GENERAL PROVISIONS

A. SCOPE

This MOU is binding upon the ARB, SWRCB, CIWMB, and Agency. This MOU is effective immediately.

This MOU covers all activities of the Boards, and shall be used to determine the relationship of the Boards and guide communication among them and with the Agency.

An MOU is being prepared by the three Boards regarding solid waste disposal site testing and remediation (the SWAT program). For coordination of SWAT program activities, the parties should refer to both this MOU and the SWAT program MOU.

It is anticipated that in a limited number of instances, other, program-specific MOUs may be developed as a result of the problem identification and dispute resolution provisions of this MOU.

Although the local air districts, regional water quality control boards, and solid waste local enforcement agencies are not signatories to this agreement, the three Boards understand and agree that it is each Board's responsibility to inform and coordinate with their respective local or regional counterparts as outlined in Section IV(B)(3)(a) below.

B. PRINCIPLES

The Boards and the Agency recognize that we share a common goal--protection of public health and the environment. We also recognize that the resources available to achieve this goal are limited, and that duplication of effort, conflict, and confusion detract from our collective efforts. It therefore is the policy of the Agency and the Boards that the parties work together, in an atmosphere of mutual trust, confidence, cooperation and communication, to maximize the efficient use of our resources. Accordingly, the ARB, SWRCB, CIWMB, and the Agency are committed to work together, with other state agencies and other levels of government, to closely follow these guiding principles:

- We will resolve conflicts promptly.
- We will promote a multimedia approach to pollution control and pollution prevention that minimizes the total exposure to pollution faced by humans and the environment.
- We will avoid duplication of effort, and maximize the efficient use of resources.

C. EXISTING STATUTORY FRAMEWORK

1. Statutes of the State of California authorize certain actions or provide fundamental authority which must govern the operation of this MOU. Relevant sections include:

- a. The ARB has the responsibility for control of emissions from motor vehicles and shall coordinate, encourage, and review the efforts of all levels of government as they affect air quality (Health and Safety Code Section 39500).

The ARB is the air pollution control agency for all purposes set forth in federal law (Health and Safety Code Section 39602).

- b. The SWRCB is the principal state agency with primary responsibility for the coordination and control of water quality (Water Code Section 13001).

The SWRCB is the state water pollution control agency for all purposes stated in the Federal Water Pollution Control Act and any other federal act (Water Code Section 13160).

- c. The CIWMB shall adopt and revise minimum standards for solid waste handling and disposal for the protection of air, water and land from pollution (Public Resources Code Section 43020). The Board shall adopt rules and regulations, as necessary, to carry out Division 30 of the Public Resources Code (Public Resources Code Section 40502). The standards which the CIWMB must adopt shall include the design, operation, maintenance and ultimate reuse of solid waste processing or disposal facilities (Public Resources Code Section 43021).

The CIWMB is the state solid waste management agency for all purposes stated in the Federal Resources Conservation and Recovery Act of 1976 and any other federal act affecting solid waste (Public Resources Code Section 40508).

- d. The Chairperson of the ARB serves as the principal advisor to the Governor on, and assists the Governor in establishing, major policy and program matters on environmental protection. The Chairperson also serves as the principal communications link for the effective transmission of policy problems and decisions to the Governor relating to the activities of the SWRCB and the CIWMB (Health and Safety Code Section 39511).

2. Other statutory provisions, noted below, speak to the interaction of the Boards. In particular, these provisions address the interaction of the Boards with respect to control of the air quality and water quality impacts of solid waste management facilities. However, these provisions do not adequately cover all

situations that arise, they are themselves subject to interpretation, and in general they need to be viewed in the context of each Board's general authority as outlined above. Section IV(A)(4) below sets forth procedures to be used to address such issues.

3. The statutory provisions which speak to the interaction of the Boards are as follows:
 - a. The CIWMB shall consider any recommendations of the ARB for the prevention of air pollution and the SWRCB for the prevention of water pollution (Public Resources Code Section 43020).
 - b. Division 30 of the Public Resources Code (which confers CIWMB authority) is not a limitation on the power of any state agency in the enforcement or administration of any provision of law which it is specifically authorized or required to enforce or administer, including, but not limited to, the exercise by the state water board or the regional water boards of any of their powers and duties pursuant to Division 7 (commencing with Section 13000) of the Water Code, and the exercise by the State Air Resources Board or any air pollution control district or air quality management district of any of its powers and duties pursuant to Part 3 (commencing with Section 40000) of Division 26 of the Health and Safety Code. (Public Resources Code Section 40055 (a)).
 - c. The exercise of CIWMB authority under Division 30, including, but not limited to, the adoption of regulations, plans, permits, or standards and enforcement actions shall not duplicate or be in conflict with any determination relating to water quality control made by the state water board or regional water boards. (Public Resources Code Section 40055(b)).
 - d. Any plans, permits, standards, or corrective action taken by the CIWMB pursuant to Division 30 shall incorporate, as a condition of the action, any applicable waste discharge requirements issued by the state water board or a regional water board, and shall be consistent with all applicable water control plans adopted pursuant to Section 13170, and Article 3 (commencing with Section 13240) of Chapter 4 of Division 7, of the Water Code and the state policies for water quality control adopted pursuant to Article 3 (commencing with Section 13140) of Chapter 3 of Division 7 of the Water Code existing at the time of the action or proposed action. (Public Resources Code Section 40055(c)).
 - e. No provision of Division 7 of the Water Code (which confers SWRCB authority) or any ruling of the state [water] board or a regional board is a limitation . . . on the power of a state agency in the enforcement or administration of any provision of law which it is specifically permitted or required to enforce or administer (Water Code Section 13002).

IV. SPECIFIC PROVISIONS

A. BOARD AND AGENCY RESPONSIBILITIES

1. The ARB is responsible for development of standards and regulations pertaining to air quality, the SWRCB is responsible for development of standards and regulations pertaining to water quality, and the CIWMB is responsible for development of standards and regulations pertaining to waste management.
2. It is the responsibility of all Boards to act in a fashion to minimize overlap and duplication of effort. Management of the Boards has an affirmative responsibility to identify areas of duplication and overlap, work towards a mutually-agreeable delineation of activity, and foster a multimedia approach to pollution prevention and pollution control. The Agency will, as a back-up mechanism, screen Board material to identify issues with potential multi-Board implications.
3. It is the intent of the Boards and the Agency that regulations pertaining to issues of mutual interest, to the extent possible, be jointly developed by the affected Boards. The development of regulations by the Boards shall be governed by the following procedure:
 - a. When a Board determines that it intends to develop or modify regulations, it shall notify the other Boards and the Agency in writing as to the subject matter of any proposed new regulation, and the section numbers of any existing regulations proposed to be modified.
 - b. The other Boards shall review the notice and, within 30 days, notify the originating Board and the Agency in writing as to which proposals, if any, deal with issues that are of concern.
 - c. For issues so identified, regulatory language shall be jointly developed by the affected Boards. The resulting language shall be adopted by each affected Board and placed in the relevant portion of the California Administrative Code for each affected Board.
 - d. Any disputes that arise during this process shall be resolved according to the dispute resolution procedure outlined in Section IV(C) below. If the dispute cannot be resolved in a manner that results in the adoption of identical language by each affected Board, then any Board may proceed with individually developed regulations.
4. The Boards shall apply the following procedures when interpreting and implementing the statutory provisions regarding the interaction of the Boards cited in Section III(C)(3) above:

- a. Any disagreement as to the interpretation of the above-referenced statutory provisions shall be resolved according to the dispute resolution procedure outlined in Section IV(C) below.
 - b. The CIWMB shall be the principal coordinating agency for all matters concerning the collection and disposal of solid waste in California, acting in concert with other affected state agencies. To "act in concert" means to act in a manner consistent with the intent and the provisions of this MOU.
 - c. As a pro-active measure to prevent potential conflict, the Executive Officers, at the first quarterly meeting convened pursuant to Section IV(D) below, shall identify critical waste management-related regulatory areas where cooperative work is needed. ("Executive Officers" refers to the Executive Officer of the ARB, the Executive Director of the SWRCB, and the Chief Executive Officer of the CIWMB). The Executive Officers shall define tasks and milestones necessary to address the identified issues.
 - d. At subsequent quarterly meetings the Executive Officers shall review progress on waste management coordination, take corrective action as needed, and identify future needs.
5. It is the responsibility of each Board to:
- a. Communicate with the other Boards in a timely manner.
 - b. Forward applicable draft policies, regulations, guidance documents or other relevant materials to the Agency for screening.
 - c. Notify other Boards when a particular facility, site or issue is of interest.
 - d. Provide comment, analysis, evaluation and advice on areas within its unique expertise.
 - e. Carry forward to other Boards the concerns and positions expressed by advocacy groups active in its issue areas.
6. It is the responsibility of the Agency to:
- a. Screen the draft materials forwarded pursuant to Section IV(A)(5)(b) above to identify areas with potential multi-Board impact. If the Agency identifies such a potential impact, the Agency will provide comments to all Boards.

B. COMMUNICATION

The parties recognize that achieving the goals of this MOU rests upon effective communication across programmatic and organizational lines. This MOU therefore sets forth procedures addressing communication at the management level, at the staff level, with other levels of government, and with regulated facilities. The purpose of these procedures is to systematize and formalize the existing communication mechanisms.

1. At the management level, the Executive Officers or their designees will meet quarterly as described in Section (IV)(D) below.
2. Another essential step is fostering an awareness, at the staff level, that our environmental programs are inter-related, and that actions taken in one program can have an effect upon other programs. In order to encourage such an awareness, the Executive Officers will:
 - a. Identify the issues where inter-staff communication is needed.
 - b. Designate, for each Board, a contact person on that issue.
 - c. Ensure that the contact persons meet on a regular basis.
 - d. Provide regular opportunities for cross-program training and orientation.
 - e. Provide copies of Office of Administrative Law rulemaking calendars to Agency and to the other Boards.
3. Local government and the federal government are essential components of California's environmental regulatory system. The Boards and the Agency recognize that the state must work with other levels of government in a clear, consistent fashion, and that each Board has a unique relationship with its local and federal counterparts.
 - a. Each Board and the Agency agrees to work through the appropriate Board when communicating with local and regional agencies on a statewide basis. Any communication addressed to all local air pollution districts shall be routed through the ARB, communication addressed to all Regional Boards shall be routed through the SWRCB, and communication addressed to all Local Enforcement Agencies shall be routed through the CIWMB. Communication addressed to a single local or regional agency on a site-specific basis need not be routed through the appropriate Board. In such cases, however, the Board shall receive a copy of the correspondence.
 - b. When providing comments to or otherwise communicating with federal agencies, each Board shall work with the other Boards to ensure that a consistent, coordinated state position is expressed.

4. It also is important that the Boards and the Agency deal with regulated facilities in a consistent, predictable fashion. The long-term credibility and effectiveness of our environmental programs suffers whenever regulatory agencies impose conflicting or duplicative requirements on facilities.

In order to prevent such occurrences, each Board will establish procedures to ensure that appropriate notification is provided to other Boards regarding activities which affect facilities which are also regulated by other Boards.

C. DISPUTE RESOLUTION

1. It is the intent of the three Boards and the Agency that programmatic conflicts be resolved, to the extent possible, through informal discussion, negotiation, and consensus. However, it is also the intent that conflicts be resolved promptly.

If a dispute cannot be resolved informally within a reasonable length of time or if continuing nonresolution of the dispute would place a Board at a disadvantage, then any Board may notify the other Boards and the Agency that a dispute exists and invoke the formal dispute resolution procedure described below.

2. Disputes shall be resolved formally using the following procedure:
 - a. A meeting shall be convened involving staff from the affected Boards. At the meeting the staffs shall clarify the issues subject to dispute, identify alternative solutions, identify the consequences that would result from each alternative, and determine the date by which a decision is needed. This information shall be provided to the relevant Division Chiefs, who shall have no more than 30 days to resolve the issue.
 - b. If the Division Chiefs from the affected Boards cannot resolve the dispute within the time allowed, then they will jointly notify the Executive Officers of the affected Boards, and the Agency Secretary.

The affected Boards shall jointly be responsible for resolving the dispute. If the dispute is not resolved within 30 days, then the issue shall be referred to the Agency Secretary for resolution. The Agency Secretary, acting in consultation with the affected Boards, shall develop a recommended course of action and act as coordinator to bring about a resolution to the dispute.

- c. If the Agency Secretary is unable to develop a consensus course of action acceptable to all affected Boards within 30 calendar days of referral from the Boards, then each affected Board shall prepare a memorandum providing direction to their respective staffs as to how to proceed in the case. These memoranda will not necessarily describe a single course of action, but are intended to communicate and document each Board's future direction.

- d. If the dispute is resolved by the Agency Secretary, then a written decision shall be provided to all parties of this MOU.
3. If, on an issue for which the formal dispute resolution mechanism has been invoked, a formal petition for review of an action or inaction by a Board is filed by a third party, the statutory or regulatory time periods required for action on the petition shall take precedence over those in Section IV(C)(2) above. However, the parties shall attempt to complete the actions described in Section IV(C)(2) to resolve the dispute within the statutory or regulatory time periods associated with the petition.

D. IMPLEMENTATION

1. In order to facilitate implementation of this MOU, the Executive Officers or their designees and the Secretary of Environmental Affairs designee will meet quarterly. This group will provide guidance and advice to the Agency Secretary and Board staff on technical issues that develop during performance under this agreement, and will assist, if called upon, in the settlement of technical disputes. The group will also evaluate the achievement of the principles of this MOU and will provide an annual report to the Agency Secretary. This report will be submitted by March 1 of each year, will cover the prior calendar year and will, if appropriate, include recommendations for modifications to this MOU to improve attainment of the principles of the parties.

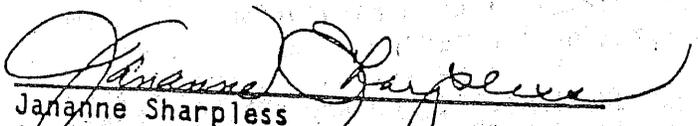
The quarterly meetings will be held on a rotating chair basis, with each Executive Officer or designee and the Agency Secretary designee being responsible, in turn, for organizing and hosting the meeting and preparing the agenda.

2. The first quarterly meeting of the Executive Officers or their designees will be held within 30 days of the execution of this MOU.

E. AMENDMENT, WITHDRAWAL, AND REPEAL

1. This MOU may be amended with the mutual written approval of all signatories or their successors.
2. Any signatory to the MOU, or his or her successor, may withdraw from the MOU by sending written notification to the Agency Secretary. In the event that one party withdraws from the MOU, the MOU continues in full force for the remaining parties and continues to govern their activities.
3. This MOU may be repealed in its entirety with the mutual written approval of all signatories or their successors.

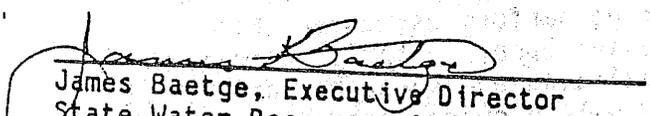
The parties hereto have caused this MOU to be duly executed on the respective dates set forth opposite their signatures.


Jananne Sharpless
Secretary of Environmental Affairs

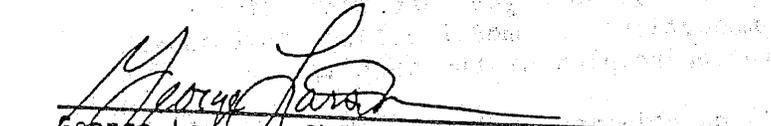
8/27/90
Date


James Boyd, Executive Officer
Air Resources Board

8/27/90
Date


James Baetge, Executive Director
State Water Resources Control Board

8/27/90
Date


George Larson, Chief Executive Officer
California Integrated Waste Management Board

8/27/90
Date

MEMORANDUM OF UNDERSTANDING
BETWEEN THE
STATE WATER RESOURCES CONTROL BOARD
AND THE
CALIFORNIA DEPARTMENT OF PESTICIDE REGULATION
FOR THE PROTECTION OF
WATER QUALITY (SURFACE AND GROUND WATER)
FROM POTENTIALLY ADVERSE
EFFECTS OF PESTICIDES

BACKGROUND

The State Water Resources Control Board (SWRCB) and the California Department of Pesticide Regulation (CDPR) have responsibilities relating to the protection of water quality from the potentially adverse effects of pesticides. Both agencies believe that the State will benefit by a unified and cooperative program to address water quality problems related to the use of pesticides.

The purpose of this Memorandum of Understanding (MOU) between the SWRCB and CDPR is to ensure that pesticides registered in California are used in a manner that protects water quality and the beneficial uses of water while recognizing the need for pest control.

The Food and Agricultural Code, as amended by the 1991 Governor's Reorganization Plan No. 1, charges CDPR with the responsibility of ensuring the orderly regulation of pesticides while protecting the quality of the total environment (including water quality) and the health, and safety of the public.

SCOPE

This MOU is intended to assure that the respective authorities of the SWRCB and CDPR, relative to the protection of water quality and beneficial uses from impairment by the use of pesticides, will be exercised in a coordinated and cohesive manner designed to eliminate overlap of activities, duplication of effort, and inconsistency of action. To that end, this MOU establishes principles of agreement regarding activities of the signatory agencies, identifies primary areas of responsibility and authority between these agencies, and provides methods and mechanisms necessary to assure ongoing coordination of activities relative to such purposes. This MOU also describes how the agencies will work cooperatively to achieve the goals of the respective agencies.

STATUTORY AUTHORITIES

The Porter-Cologne Water Quality Control Act establishes a comprehensive water quality control program for California. The Federal Clean Water Act adds additional water quality control provisions to be implemented nationwide. The SWRCB and the nine California Regional Water Quality Control Boards (CRWQCB) are responsible for protecting the beneficial uses of water in California and for controlling all discharges of waste into waters of the State. The SWRCB sets overall State policy, adopts or approves all water quality control plans, and hears petitions to review CRWQCB decisions. The CRWQCBs have primary responsibility for permitting, inspection, and enforcement actions. The CRWQCBs implement and enforce the policies adopted by the SWRCB.

CDPR is the lead agency for pesticide regulation in California. California law requires CDPR to register and regulate the use of pesticides and protect public health and safety by providing for environmentally sound pest management.

The Pesticide Contamination Prevention Act of 1985 (Article 15, Chapter 2, Division 7 of the Food and Agricultural Code) authorizes CDPR to:

1. Collect and analyze environmental fate data on all pesticides registered for agricultural use in California to determine ground water data gaps and identify and monitor potential ground water contaminants;
2. Review any pesticide or related chemical found in ground water or in soil under certain conditions to determine if that chemical pollutes or threatens to pollute ground water as a result of legal agricultural use and take appropriate corrective action when necessary; and
3. Compile and maintain a statewide database of wells sampled for pesticide active ingredients and to make an annual report on that inventory and any corrective actions taken by CDPR and/or the SWRCB.

The Pesticide Contamination Prevention Act (Act) also prescribes a cooperative working relationship between CDPR, as the lead agency, and the SWRCB for the purpose of protecting ground water from pesticide pollution as a result of agricultural uses. A subcommittee of CDPR's Pesticide Registration and Evaluation Committee (PREC) is established by the Act for this purpose.

The local administration of CDPR's pesticide regulatory program is the responsibility of the County Agricultural Commissioners (Commissioners), with coordination, supervision, and training provided by CDPR. The Commissioners enforce pesticide laws and regulations and evaluate permit requests for the use of restricted pesticides. In addition, the Commissioners monitor and inspect pesticide handling and use operations, investigate suspected pesticide misuse, and take enforcement action against violators.

PRINCIPLES OF AGREEMENT

The SWRCB and CDPR agree that the use of certain pesticides may degrade water quality and threaten beneficial uses. To protect the State's water, it is necessary to prevent water pollution by pesticides by establishing water quality objectives and by implementing control measures for those pesticides which have a potential to unreasonably affect beneficial uses.

In order to provide for better protection of water quality and beneficial uses for the people of California, the SWRCB and CDPR mutually agree to:

1. Promote both technical and policy consultations concerning pesticide water quality issues through formal channels, such as standing interagency committees and SWRCB workshops and meetings, as well as through informal staff exchanges of information. The SWRCB and CRWQCBs and CDPR will consult during the early stages of planning any investigation related to pesticides and water quality. The agencies will provide technical assistance to each other upon request.
2. Implement a pesticide detection notification system to ensure mutual awareness of pesticide finds in the waters of the State. Results of pesticide monitoring will be provided in an expeditious manner. Results of pesticide monitoring related to ground water will be provided in compliance with "Minimum Reporting Requirements for Well Sampling" approved by the SWRCB, California Department of Food and Agriculture, and California Department of Health Services in July 1986. Reporting requirements and procedures for data referrals relative to surface water will be described in an implementation document.
3. Collect, exchange, and disseminate information on (a) the use of pesticides, (b) impacts on the quality of the State's waters from such uses, and (c) any efforts to mitigate those impacts.

4. Share information on pesticide formulations and environmental fate and toxicity of active ingredients, inert ingredients, and break-down products. Procedures to protect proprietary information will be described in an implementation document.
5. Consult each other in developing or revising water quality objectives for pesticides and in developing or revising regulations which may impact water quality.
6. Participate in the development of State policies, guidelines, and management plans relative to pesticide use and water quality control.
7. Promote the development and implementation of Best Management Practices (BMPs) whenever necessary to protect the beneficial uses of the waters of the State from the potentially adverse effects of the use of certain pesticides. CDPR's plans to implement BMPs, as furnished to the SWRCB and/or CRWQCBs, should (a) describe the nature of the actions which are necessary to achieve the objectives, including recommendations for appropriate actions by any entity, public or private; (b) set a time schedule for actions to be taken; and (c) describe the points of application and the monitoring to be undertaken to determine compliance with the water quality objectives.
8. Implement BMPs initially upon voluntary compliance to be followed by regulatory-based encouragement of BMPs as circumstances dictate. Mandatory compliance will be based, whenever possible, on CDPR's implementation of regulations and/or pesticide use permit requirements. However, the SWRCB and CRWQCBs retain ultimate responsibility for compliance with water quality objectives. This responsibility may be implemented through the SWRCB and CRWQCBs' Basin Planning Programs or other appropriate regulatory measures consistent with applicable authorities and the provisions of the Nonpoint Source Management Plan approved by the SWRCB in November 1988.
9. Develop an implementation plan to (a) provide uniform guidance and direction to the CRWQCBs and to the Commissioners regarding the implementation of this MOU, (b) describe in detail procedures to implement specific sections of this MOU, and (c) make specific the respective roles of units within the signatory agencies.

DISPUTE AND CONFLICT RESOLUTION

It is the desire of both agencies to establish a speedy, efficient, and informal method for the resolution of interagency conflicts. Conflicts between the SWRCB and CRWQCBs, CDPR, and the Commissioners which cannot otherwise be informally resolved will be referred to the Executive Director of the SWRCB and the Director of CDPR. Conflicts which cannot be resolved at this level will be elevated to the Secretary of the California Environmental Protection Agency.

To assist the Executive Director of the SWRCB and the Director of CDPR in resolving conflicts, two staff persons will be appointed by the Chairman of the SWRCB and the Director of CDPR representing the interests of the SWRCB and CRWQCBs and CDPR and Commissioners, respectively.

This MOU 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 thirty (30) day advance written notice to the other party.

STATE WATER RESOURCES CONTROL BOARD

W. Don Maughan
W. Don Maughan, Chairman

Dec. 23, 1991
Date

CALIFORNIA DEPARTMENT OF PESTICIDE REGULATION

James W. Wells
James W. Wells, Interim Director

Dec 23, 1991
Date

DEPARTMENT OF PESTICIDE REGULATION

James Wells, Director



January 4, 1993

TO: ALL SWRCB DIVISION CHIEFS
ALL DPR BRANCH CHIEFS
ALL REGIONAL BOARD EXECUTIVE OFFICERS
ALL COUNTY AGRICULTURAL COMMISSIONERS

SUBJECT: IMPLEMENTING THE PESTICIDES-WATER QUALITY MEMORANDUM OF UNDERSTANDING (MOU)

The Department of Pesticide Regulation (DPR) and the State Water Resources Control Board (SWRCB) executed a Memorandum of Understanding (MOU) on December 23, 1991, to ensure that pesticides registered in California are used in a manner that protects water quality and the beneficial uses of water while recognizing the need for pest control. The MOU established principles of agreement regarding activities of both agencies, identifies primary areas of responsibility and authority between these agencies, and provides methods and mechanisms necessary to assure ongoing coordination of activities at both the State and local levels.

In order to provide for better protection of water quality and beneficial uses for the people of California, the SWRCB and DPR mutually agreed, in part, to develop an implementation plan to (1) provide uniform guidance and direction to the Regional Water Quality Control Boards (RWQCBs) and to the County Agricultural Commissioners (CACs) regarding the implementation of this MOU, (2) describe in detail procedures to implement specific sections of this MOU, and (3) make specific the respective roles of units within both agencies.

Despite our mutual best efforts, the implementation document has not been completed. We remain committed to making the drafting of an implementation plan and/or a water quality management plan a high priority activity leading to an eventual Management Agency Agreement.

However, it has come to our attention that, in the absence of a completed implementation document, many staff at the State and local levels of both agencies remain unaware of the MOU and its principles of agreement and/or are unsure of its implications for their respective assignments and projects. In fact, the CACs were informed that "the MOU places no immediate requirements on county staff or programs" until an implementation document has been developed.

All SWRCB Division Chiefs
All DPR Branch Chiefs
All Regional Board Executive Officers
All County Agricultural Commissioners
January 4, 1993
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In January, 1992, such instructions made sense, but today we cannot afford to delay any longer the integration of the MOU and its principles of agreement into policy development and program implementation. We have long ago agreed to exercise our respective authorities "in a coordinated and cohesive manner designed to eliminate overlap of activities, duplication of effort, and inconsistency of action." While coordination is occurring, efforts could be improved. Therefore, we have mutually agreed to provide the following interim guidance for implementation of our MOU.

I. Appointment of Staff Persons for Dispute Resolution

The MOU declares, and we reaffirm, that it is the mutual intent of both agencies to resolve any interagency conflicts in "a speedy, efficient, and informal" way. However, in the event that conflict resolution between any parties to this agreement (SWRCB, RWQCBs, DPR, or CACs) cannot be reached informally, the dispute will be referred to the SWRCB Executive Director and DPR Director.

The MOU specifies that "two staff persons will be appointed" by each agency to "assist the Executive Director of the SWRCB and the Director of DPR in resolving conflicts." Jesse M. Diaz, Chief of the Division of Water Quality, and Jack Hodges, Chief of the Nonpoint Source Agriculture Unit, will be appointed by Eliseo M. Samaniego, Acting Chairman, to these roles on behalf of the SWRCB. Ronald J. Oshima, Assistant Director for the Division of Enforcement, Environmental Monitoring, and Data Management, and Steven C. Monk, Regulatory Coordinator, will be appointed by James W. Wells, Director, to represent DPR in these roles.

II. Designation of State-Level Interim MOU Coordinators

To facilitate the integration of the MOU principles of agreement into the mainstream of policy development and program implementation at both the State and local levels, we hereby designate two State-level interim MOU coordinators. Jack Hodges and Steven Monk will serve their respective agencies in this role. The MOU Coordinators will be the key point of contact on all matters related to the implementation of the MOU. In that capacity, Jack and Steven should be added to any appropriate State and local "interested parties" mailing lists. The MOU Coordinators will be a source of information, will facilitate interagency contacts, and generally

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promote the MOU principles of agreement. Jack and Steven can be reached as follows:

Jack Hodges, Chief
Nonpoint Source Agriculture Unit
Division Of Water Quality
STATE WATER RESOURCES CONTROL
BOARD
901 P Street, P.O. Box 100
Sacramento, California 95801-0100
(916) 657-0682 or 8-437-0682
FAX (916) 657-2388

Steven C. Monk,
Regulatory Coordinator
DEPARTMENT OF
PESTICIDE REGULATION
Environmental Monitoring
1220 N Street, P.O. Box 942871
Sacramento, California 94271-0001
(916) 654-1141 or 8-464-1141
FAX (916) 654-0539

III. Implementation of Interim Staff Guidance

It is not our intent to disrupt the ongoing activities of either state or local programs. On the other hand, we fully intend that the process of integration and coordination begin in earnest. Therefore, we are providing the following interim guidelines for implementation:

(a) Appropriate staff should be informed of the existence of the MOU and provided access to a reference copy.

(b) It is our intent that interagency staff communication take place at all levels in a frequent and meaningful manner. Staff should be encouraged to seek and provide technical assistance, and to explore the opportunities for joint projects. In addition, we propose that an interagency staff briefing be convened at least quarterly to highlight existing and proposed projects of mutual interest. On a routine basis, Jesse Diaz, Ron Oshima, and the MOU Coordinators will coordinate these briefings and ensure that appropriate staff are invited to discuss items of mutual interest. An executive summary of each quarterly briefing will be sent to the CACs, RWQCBs, and appropriate State staff.

(c) To facilitate consultation "during the early stages of planning", staff should be informed to, at least, contact the MOU Coordinators in any of the following situations when related to pesticides and water quality:

(1) Prior to the issuance of any public notice of either:

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regulations; or workshops, hearings, or public meetings where policies or projects of mutual interest will be discussed or adopted.

- (2) Prior to the release of any pertinent reports.
 - (3) Prior to finalizing the study design or contract workplan for any field monitoring or other investigations of mutual interest.
 - (4) Prior to proposing legislation, budget change proposals, or grant workplans which impact mutual program interests.
 - (5) Prior to setting or revising any water quality objectives or other standards.
 - (6) During the development of policies, guidelines, and management plans for federal and/or State projects.
- (d) To "implement a pesticide detection notification system", staff should be informed to, at least, contact the MOU Coordinators as soon as any pesticide detections are confirmed in violation of any water quality objective or other known standard. In the case of surface water detections which do not violate an objective or standard, monitoring results should be made available within a reasonable period after the study is completed.

All ground water sampling results, both positive and negative, must be reported in a timely manner to DPR pursuant to the Pesticide Contamination Prevention Act of 1985. Minimum reporting requirements for ground water sampling were established by DPR, SWRCB, and the Department of Health Services in 1986. To obtain a copy of the minimum reporting requirements or to report sampling results, please contact:

Candace Maes
Associate Environmental Research Scientist
Environmental Monitoring and Pest Management Branch
Department of Pesticide Regulation
1220 N Street, P.O. Box 942871
Sacramento, California 94271-0001
(916) 654-1141 or 8-461-1441
FAX (916) 654-0539

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- (e) While recognizing that the SWRCB and RWQCBs retain ultimate responsibility for compliance with water quality objectives, staff should ensure that programs and workplans are consistent with and support DPR's responsibility to develop and implement voluntary and regulatory-based "best management practices" to control the potentially adverse impacts of pesticide use on water quality.

Finally, we would encourage staff to operate under the following maxim --when in doubt, consult. A reason for designating the MOU Coordinators is to encourage staff to presume that consultation promotes efficient and effective discharge of our respective roles and responsibilities.

Thank you all for your assistance in giving substance and value to the MOU and our principles of agreement.

DEPARTMENT OF PESTICIDE REGULATION

James W. Wells
James W. Wells, Director

Jan. 5, 1993
Date

STATE WATER RESOURCES CONTROL BOARD

Walter G. Pettit
Walter G. Pettit, Executive Director

Jan 19, 1993
Date

cc: Jesse M. Diaz, Water Quality Division Chief
Ronald J. Oshima, Assistant Director
Jack Hodges
Steven Monk

SWRC Approval
1/23/92

MEMORANDUM OF UNDERSTANDING (MOU)
FOR IMPLEMENTATION OF
THE SAN JOAQUIN VALLEY DRAINAGE PROGRAM'S RECOMMENDED PLAN
DECEMBER 1991

The U. S. Bureau of Reclamation, U. S. Fish and Wildlife Service, U. S. Soil Conservation Service, U. S. Geological Survey, Department of Water Resources, Department of Fish and Game, Department of Food and Agriculture, and the State Water Resources Control Board agree to the following:

1. Background. A management plan for agricultural subsurface drainage and related problems on the westside San Joaquin Valley was developed by the Federal-State San Joaquin Valley Drainage Program (SJVDP) during the period 1985-1990, and published in a September 1990 report by the same name.
2. Purpose. All parties to this MOU will use the management plan described in the September 1990 final report of the San Joaquin Valley Drainage Program (SJVDP Recommended Plan) as the principal guide for remedying subsurface agricultural drainage and related problems. All parties will work together to identify and define specific tasks and associated responsible parties, to seek needed funding and authorities, and to determine schedules for accomplishment, as necessary to implement all components of the SJVDP Recommended Plan.
3. Program. The parties will use the strategy described in "A Strategy for Implementation of the Management Plan for Agricultural Subsurface Drainage and Related Problems on the Westside San Joaquin Valley", December 1991, as the initial step in developing an action plan. Based on it, the parties will prepare an annual work plan to establish priorities and coordinate activities to address the objectives of the Recommended Plan. During 1992, the parties will prepare work plans for 1992 and 1993. Subsequent work plans will be prepared two years in advance to facilitate budget development and funding requests. The parties will prepare an annual report that will outline and evaluate accomplishments during the year.

4. Funding and Legal Authority. It is understood by all parties that implementation of this MOU and the SJVDP Recommended Plan are subject to the availability of funding and legal authority. All parties to this MOU agree to support attempts by signatory agencies to secure the funding and authority necessary to implement work plans adopted pursuant to this MOU.

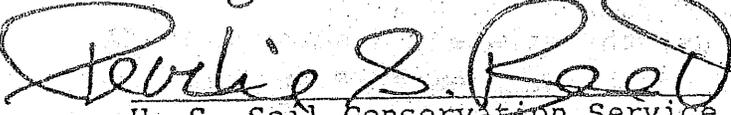
In order to enhance efficiency and economy, and reduce duplications or conflicts in efforts, all parties to this MOU agree to coordinate requests for funding and authority.

5. Amendments. This MOU may be modified by mutual agreement as necessary to accomplish drainage management objectives.
6. Withdrawal. Any party to this MOU may withdraw by submitting a written notice to each of the other parties 120 days in advance of the intended withdrawal.
7. MOU not a contract. In entering into this MOU, it is the intention of the parties that this MOU shall not be construed to be an enforceable contract or agreement, but is rather a statement of principles.
8. Term of MOU. This MOU shall remain in effect until all components of the SJVDP Recommended Plan have been fully implemented or until it is dissolved by unanimous agreement of the signatory parties.

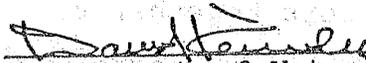
SIGNATURES


U. S. Bureau of Reclamation


U. S. Fish and Wildlife Service


U. S. Soil Conservation Service


U. S. Geological Survey


Department of Water Resources

Howard A. Sarasohn for
Department of Fish and Game


Department of Food and Agriculture

W. Won Mayhew
State Water Resources Control Board

MEMORANDUM OF UNDERSTANDING
BETWEEN
THE STATE WATER RESOURCES CONTROL BOARD
AND
THE CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD
FOR THE REVIEW OF
BACKLOGGED SOLID WASTE ASSESSMENT TEST REPORTS

INTRODUCTION

This Memorandum of Understanding (MOU) consists of general and specific provisions for the review of Solid Waste Assessment Test (SWAT) reports as required by Assembly Bill 3348 (Eastin), signed by the Governor September 29, 1992.

BACKGROUND

1. Agency Authority:

The California Water Code, Division 7 designates the State Water Resources Control Board (State Water Board) as the State's lead regulatory agency for water quality protection.

The California Public Resources Code, Division 30 designates the California Integrated Waste Management Board (CIWMB) as the state's lead regulatory agency for solid waste disposal.

2. Solid Waste Assessment Test Program:

In 1984, the Legislature adopted California Water Code §13273 which, among other things, required:

- A. The State Water Resources Control Board (State Water Board) to group all solid waste disposal sites (both active and closed) in ranks of 150 each in accordance with their threat to water quality,
- B. All landfill owner/operators, one rank per year, to conduct a SWAT (a determination whether the landfill is leaking hazardous waste) and to submit to the appropriate California Regional Water Quality Control Boards (Regional Water Boards) a report signed by a specified professional containing the findings of the SWAT together with appropriate conclusions,
- C. The Regional Water Boards are to review this report and determine whether, (1) the monitoring system was adequate to determine whether hazardous waste had leaked for the site and (2) the report author's conclusions were credible.

3. Current SWAT Program Status:

Between the start up of the SWAT program and June 30, 1991, 195 SWAT reports were approved and 15 SWAT waivers granted (for those cases where hazardous waste leakage was already well known). In addition, another 231 SWAT reports had been received, but not approved. Because of the heavy demands on the State's General Fund, funding for SWAT report review was eliminated in July 1991, leaving this large backlog of unreviewed SWAT reports.

4. Assembly Bill Number 3348 (Eastin):

In 1992, the Legislature adopted Assembly Bill 3348 (Eastin) which contains in Section 10, the following language:

** The following sums are hereby appropriated from the Solid Waste Disposal Site Cleanup and Maintenance Account in the Integrated Waste Management fund to the State Water Resources Control Board:*

** (a) (1) Two million five hundred thousand dollars (\$2,500,000), as a one-time allocation, but without regard to fiscal year, to complete a review of all solid waste assessment test reports that are required to be submitted to the appropriate regional water quality control boards by July 1, 1991, that have been classified in ranks one through five in the Solid Waste Assessment Test (SWAT) program pursuant to Section 13273 of the Water Code.*

** (2) The expenditure of these funds shall be subject to the conditions specified in a memorandum of understanding which shall be entered into by the California Integrated Waste Management Board and the State Water Resources Control Board and which shall include, but need not be limited to, provisions linking the review and ranking of solid waste landfill facilities by the State Water Resources Control Board with the Solid Waste Disposal Site Cleanup and Maintenance Program implemented by the California Integrated Waste Management Board.**

and the following:

** (c) The Legislature encourages the State Water Resources Control Board to complete the review performed pursuant to paragraph (1) of subdivision (a) on or before June 30, 1995.**

THE CIWMB AND THE STATE WATER BOARD AGREE TO THE FOLLOWING:

1. Scope:

This MOU is effective immediately and is binding upon CIWMB, the State Water Board, and the nine Regional Water Boards.

This MOU includes provisions for sharing data, ensuring that activities at sites of common interest are coordinated, and conflict resolution.

2. Sharing of Data:

- A. **SWAT Report Summaries:** The State Water Board will provide the CIWMB copies of all SWAT Report Summaries as prepared by the Regional Water Boards. Newly prepared Summaries shall be transmitted quarterly.
- B. **Quarterly Progress Report:** Every three months, the State Water Board will provide the CIWMB an updated SWAT Status Report showing the current SWAT report review status for each landfill included in Ranks 1 through 5. For those SWAT reports which have not been approved yet, these status reports shall include for each, the name of the staff person assigned to work on it and the anticipated quarters (1) the review will start, (2) a corrected Report will be submitted, or (3) the SWAT report will be approved.
- C. **Final Report:** The State Water Board will prepare a Summary Report of the findings of all the SWAT reports to date including, but not limited to, discussions of the following:
 1. Hazardous waste presence in landfills,
 2. General characterization of solid waste disposal site leakage,
 3. Chemical characterization of leakage,
 4. Impact of leakage on quality of nearby waters,
 5. Impact of leakage on beneficial uses of nearby waters, especially of drinking water supply wells, and
 6. Completed or proposed remedial actions.

In addition, this report shall contain a discussion of needed improvements in landfill designs and monitoring to reduce the threat which landfills pose to the beneficial uses of the State's waters.

A copy of this report shall be provided to the CIWMB by June 30, 1995.

3. Ensuring that Activities of Common Interest are Coordinated:

Whenever the CIWMB has a need for expedited Regional Water Board review of any landfill's SWAT report, CIWMB shall:

- A. Request such a review in writing to the State Water Board and
- B. State the date by which they need these data.

The State Water Board shall respond within 10 working days of the receipt of the request with:

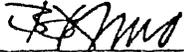
- A. The anticipated date the review will be completed, and
- B. Reasons for delay should it be impossible to meet the CIWMB's due date.

4. Conflict Resolution:

Any dispute arising out of the implementation of this Agreement shall be resolved in the following manner:

- A. The designated Program Managers for the CIWMB and the State Water Board shall meet within ten (10) days of a request by either party. The party calling the meeting shall provide, in writing, at least five (5) days in advance of the meeting, a clear description of the dispute and a proposed solution. Following the meeting, the CIWMB Program Manager shall make a determination on the dispute, in writing, including reasons for the determination. The determination shall be sent to the State Water Board Program Manager within ten (10) days of the meeting.
- B. If the State Water Board does not agree with the determination, the State Water Board may make a written request for a meeting between the Deputy Executive Director of the CIWMB, and the Chief of the Division of Clean Water Programs of the State Water Board. Such a meeting should occur within fifteen (15) days of the receipt of such request. The request must be accompanied by a statement of the disputed issues and a proposed solution. The CIWMB shall make a determination, in writing, and shall send this to the Chief, Division of Clean Water Programs, State Water Board, within fifteen (15) days of the meeting.
- C. If the two Division Chiefs cannot resolve the issue in dispute, the matter shall be elevated to the Executive Directors of the two agencies for resolution.
- D. Unresolved issues may be elevated to the Board Chairpersons of the State Water Board and the CIWMB.

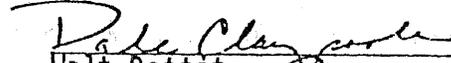
E. Any issues which cannot be resolved by the Board Chairpersons shall be forwarded to the Secretary for Environmental Protection for a final and binding decision.



Ralph Chandler
Executive Director
California Integrated Waste
Management Board
State of California

Date: _____

1/8/93



Walt Pettit
Executive Director
State Water Resources Control Board
State of California

Date: _____

DEC 16 1992

SOLID WASTE ASSESSMENT TEST (SWAT)/AB 3348 PROGRAM
QUARTERLY STATUS REPORT
EXAMPLE FORMAT

For each landfill included in Rands 1 through 5:

1. Rank: 4
2. Name (including SWIS and WMUDS numbers): Klamath County Landfill,
59-AA-001, 1A123456789
3. Location (County and Nearest Community): Klamath, Deadman's Bar
4. Review Status:
 - A. Approved,
 - B. Awaiting Review,
 - C. In Review,
 - D. Returned to Owner/Operator for Corrections, or
 - E. Never received.
5. Regional Water Board (if status 4B, 4C, or 4D above, name and telephone number of review): North Coast, Jane Doe, (209) 555-1212
6. Review Target Dates (by Quarter)
 - A. State of Review:
 - B. Due date for Owner/Operator to have corrections made: 3rd Quarter,
FY 1992-93
 - C. Approval of SWAT Report:
7. Comments: No ground water sample taken. SWAT Investigation was clearly inadequate. Letter to owner/operator ordering correction of deficiencies was sent out February 1992 with a March 1993 deadline.

MEMORANDUM OF UNDERSTANDING
BETWEEN THE
BUREAU OF LAND MANAGEMENT
U.S. DEPARTMENT OF THE INTERIOR
AND THE
CALIFORNIA STATE WATER RESOURCES CONTROL BOARD
FOR
PLANNING AND COORDINATION OF
NONPOINT SOURCE WATER QUALITY POLICIES AND ACTIVITIES

I. PURPOSE:

The purpose of this Memorandum of Understanding (MOU) is to formalize cooperation between the Bureau of Land Management (BLM), U.S. Department of the Interior, and the State Water Resources Control Board (SWRCB) and to develop appropriate procedures and clarify responsibilities related to nonpoint source (NPS) water quality issues and activities. The BLM and SWRCB share a common interest in maintaining, protecting, and improving the quality of waters (surface and ground water) of the State.

II. OBJECTIVES:

Through this MOU, SWRCB seeks to utilize the personnel and expertise of BLM to increase the development and implementation of water quality programs and projects relative to, but not limited to, agricultural, animal husbandry, silvicultural, mining, and construction activities on the public lands managed by BLM within the State of California. Coordination and cooperation between BLM and SWRCB will reduce unnecessary duplication of effort, accelerate the implementation of best management practices (BMPs), management measures (MM), and other NPS measures (NPSM) and increase overall program effectiveness.

The SWRCB and BLM recognize the need to improve, conserve, and protect the quality of surface and ground water by undertaking efforts to avoid pollution by NPSs and thereby maintain the quality and quantity of water available for safe drinking water supplies, irrigated agriculture, fisheries, and other beneficial uses. A coordinated effort will improve the likelihood of meeting these goals.

III. AUTHORITIES:

This MOU is entered into under the authorities of Division 7 of the California Water Code (Porter-Cologne Water Quality Control Act [Porter-Cologne Act]), the

authorities of the federal Clean Water Act (CWA), [Section 304(1), 314, 319, and 320], as amended, and the Federal Land Policy and Management Act of 1976, as amended, 43 U.S.C. 1701, et seq.

BLM Manual Section 7000.06(D-E), March 8, 1984, established BLM's policy for coordination with State agencies for related programs and provided for compliance with applicable State and federal water pollution control laws, standards, programs, and implementation plans.

BLM Instruction Memorandum No. 88-511, June 17, 1988, provides guidance to BLM field offices regarding coordination with State agencies on NPS pollution control activities. Instruction Memorandum No. 88-511 also addresses how BLM's NPS actions will be incorporated into the BLM planning process and into BLM's overall multiple-use resource objectives.

BLM has management responsibility for over 17 million acres of federal public lands throughout California. BLM's land-use oversight is provided through four district offices which are further subdivided into 15 resource area offices.

The Porter-Cologne Act, administered by SWRCB and the California Regional Water Quality Control Boards (CRWQCBs) establishes a comprehensive program for the protection of water quality and the beneficial uses of the waters of the State. The Porter-Cologne Act provides a "statewide program for water quality control."

SWRCB sets overall State policy, adopts statewide water quality control plans, approves all water quality control plans adopted by the CRWQCBs, and hears petitions to review CRWQCBs actions or inactions. The CRWQCBs have primary responsibility for permitting, inspecting, and enforcing actions regarding dischargers of waste. The CRWQCBs implement and enforce the policies and plans adopted by SWRCB.

Section 319 of CWA, as amended, requires the State to develop an NPS management program for controlling NPS pollution. SWRCB has developed a State NPS management program which lists the BLM as an agency with BMP/MM/NPSM implementation capability.

IV. PROCEDURES:

A. BLM AGREES TO:

1. Integrate water quality concepts and management techniques into the BLM planning system and into environmental review and clearance of land-use proposals to address surface and ground water NPS pollution.
2. Provide copies of draft Resource Management Plans, draft Environmental Impact Statements, and draft Environmental Assessments which have significant water quality issues to the CRWQCBs responsible for the affected area.
3. Provide BLM activity plans for those actions which have NPS issues as a primary concern to the responsible CRWQCBs for review and comment.
4. Incorporate BMP/MM/NPSM into BLM land uses and BLM permitted land uses, when necessary, to protect or maintain water quality.

B. SWRCB AGREES TO:

1. Encourage the voluntary or cooperative approach as the first step in the development and implementation of solutions to the NPS problem.
2. Coordinate the activities of the CRWQCBs with those activities being proposed and implemented by the BLM.
3. Define the goals and objectives of the NPS Interagency Advisory Committee and conduct regular meetings.
4. Emphasize to the CRWQCBs the importance of a timely response to BLM documents submitted for review.

C. BLM AND SWRCB MUTUALLY AGREE TO:

1. Encourage participation of other federal, State, and local agencies and land users in the control of NPS pollution.

2. Develop a process for BMP/MM/NPSM selection and implementation to reduce or prevent NPS pollution from public lands.
3. Develop BMP/MM/NPSM for federal land uses with input from the NPS Interagency Advisory Committee and other affected parties.
4. Develop implementation priorities and policies for NPS pollution activities.
5. Provide NPS guidance and technical assistance to parties responsible for implementation of NPS pollution control on public lands.
6. Encourage the participation of BLM, SWRCB, and CRWQCB staffs in on-the-ground inspections and tours to discuss public land NPS issues and proposed, ongoing, or completed BMPs.
7. Develop a Water Quality Management Plan and a Management Agency Agreement for the purpose of carrying out portions of the State's NPS Management Program on BLM lands.
8. Wherever appropriate, encourage the development and implementation of comprehensive management plans covering entire or significant portions of watersheds. These plans would be developed using the principles of Coordinated Resource Management and Planning and, as appropriate, would seek to resolve issues relating to biological diversity as they relate to NPS pollution.

V. ADMINISTRATION:

- A. Nothing in this MOU alters the statutory or regulatory authority of BLM or SWRCB or requires the participants to obligate or expend funds in excess of available appropriations.
- B. The terms of this MOU may be renegotiated at any time at the initiative of one of the participants following at least 30 days notice to the other participant.
- C. This MOU may be cancelled at any time by one of the participants following at least 30 days notice to the other participant.

- D. Any participant may propose changes to the MOU during its term. Such changes will be in the form of an amendment and will become effective upon signature by all of the participants.
- E. The need for this MOU is expected to continue until the Water Quality Management Plan and Management Agency Agreement are in effect.
- F. This MOU will become effective upon the date of signature by both parties.

APPROVED:

Ed Hastey
Ed Hastey, California State Director
U.S. Bureau of Land Management

2/5/93
Date

Eliseo M. Samaniego
Eliseo M. Samaniego, Vice Chairman
State Water Resources Control Board

January 27, 1993
Date

RESOLUTION
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

DELEGATION OF CERTAIN DUTIES AND POWERS OF THE BOARD
TO ITS EXECUTIVE OFFICER PURSUANT TO SECTION 13223
CALIFORNIA WATER CODE

Resolution No: 70-118

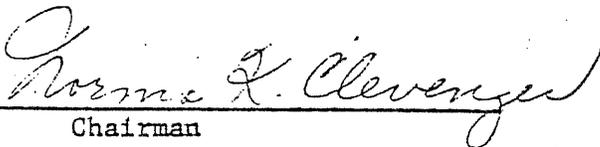
Adopted: 1-22-70

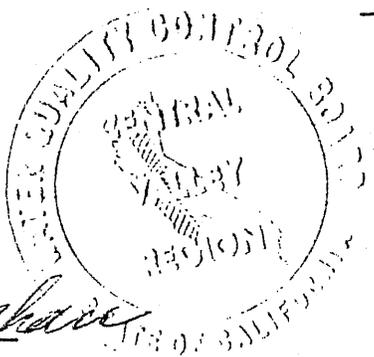
WHEREAS, Section 13223 of the Porter-Cologne Water Quality Control Act provides that the Regional Board may delegate any of its powers and duties, with certain exceptions, to its Executive Officer, be it, therefore;

RESOLVED, that the California Regional Water Quality Control Board, Central Valley Region, does hereby delegate to its Executive Officer, under the general direction and control of the Board, all of the powers and duties of the Board under Division 7 of the California Water Code except those specified in Section 13223(a); and,

RESOLVED further, That the Executive Officer is authorized, and he is hereby directed to certify and submit copies of this resolution to such agencies and individuals as may have need therefor or as may request same; and

RESOLVED further, That any action that may be taken by the Regional Board pursuant to Division 7, California Water Code, includes such action by its Executive Officer pursuant to powers and duties delegated to him by the Board.


Chairman



ATTEST:


Executive Officer

Memorandum of Understanding

Between

Bakersfield District
U.S. Bureau of Land Management

and

California Regional Water Quality
Control Board, Central Valley Region

This agreement expresses an understanding made this date between the Bureau of Land Management, Bakersfield District, hereinafter referred to as the BLM, and the California Regional Water Quality Control Board, Central Valley Region, hereinafter referred to as the "Board."

Whereas:

The State Water Resources Control Board and Regional Water Quality Control Boards have overall responsibility for water quality protection and, as such, must ensure that land management activities do not cause adverse impacts on beneficial water uses, and

Whereas:

The BLM is responsible for management and protection of the public land,

Therefore:

This agreement is hereby entered into between the BLM and the Board in order to improve and facilitate future coordination between these agencies, thereby ensuring that environmental degradation resulting from actions taken on the BLM lands relating to locatable minerals, solid leasable minerals, and other leasable minerals including oil and gas and geothermal activities in California is minimized.

Agreement

I. Permitting:

- 1) BLM approval of plans of operations, permits, leases or other use authorization on the BLM lands that involve the potential for a discharge of hazardous wastes or substances^{1/} into the environment will be conditioned on the approval by the Board of waste discharge requirements for the proposed activity, when applicable prior to commencement of any discharge.
- 2) The Board agrees to notify the BLM of the earliest possible time of any new applications for waste discharge requirements or permits for activities located on BLM lands and to provide the BLM with the opportunity to recommend requirements necessary to ensure adequate bonding for site closure, neutralization and surface reclamation, i.e., removal and/or neutralization necessary for full cleanup.

- 3) BLM agrees to notify the Board of and to circulate documents prepared pursuant to the National Environmental Protection Act (NEPA) which involve the interests of the State, such as the issuance of waste discharge requirements. This action is consistent with the Memorandum of Understanding entered into between the State and BLM on November 23, 1983.
- 4) BLM will supply lists of mining operations that may involve the use of hazardous materials when 3809 "Notice" has been submitted for a plan of operations (operations under 5 acres), to ensure the Board is aware of all operations occurring on the BLM lands and to ensure that operators required to obtain waste discharge requirements have applied for them.

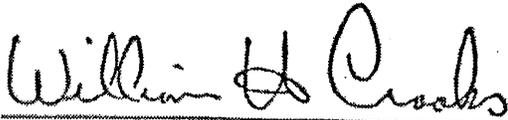
II. Compliance

- 1) The Board will provide the BLM with a list identifying the operator/discharger and locations of all sites on BLM lands where hazardous materials are used or stored onsite that are currently regulated under waste discharge requirements.
- 2) The Board will provide BLM with a list of indicators of potential waste discharge violations that BLM inspectors can use to assist in the identification of potential violations, i.e., lists of the types of indicators at a site that should be noted when performing an inspection.
- 3) The BLM will notify the Board of any potential violations of waste discharge requirements established by the Board on the BLM lands discovered during routine compliance checks or otherwise brought to the BLM's attention.
- 4) The Board will provide BLM with a summary of all compliance inspection reports issued for sites on the BLM lands and copies of those reports which document violation.
- 5) Upon the Board's determination that a violation exists, the Board will take appropriate action to enforce the stipulations found in waste discharge requirements with assistance from BLM.
- 6) BLM will assist the Board in obtaining the operator/discharger's compliance with State and Federal regulations during any cleanup/detoxification of a site.

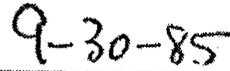
III. Abandonment

For purposes of this agreement, "abandonment cases" means sites located on the BLM lands where the operator/discharger is unknown.

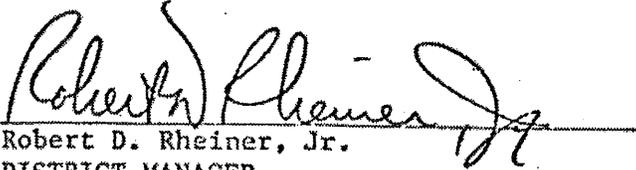
Prior to taking any formal enforcement action for violations of federal, state, or local requirements respecting waste discharges on abandoned sites located on the BLM lands, the Board will notify the BLM of the violation and provide the BLM with an opportunity to meet with the Board staff to explore methods of abating the violation. It is understood that this may not be possible in emergency situations. It is jointly agreed that this MOU can be canceled with 30 days notice and this agreement does not commit funds.



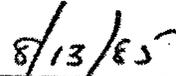
William Crooks
EXECUTIVE OFFICER
Central Valley RWQCB



Date



Robert D. Rheiner, Jr.
DISTRICT MANAGER
BLM, Bakersfield District



Date

1/ As defined in Title 22 of the California Administrative Code, Division 4, Chapter 30.

MEMORANDUM OF UNDERSTANDING BETWEEN THE CALIFORNIA DEPARTMENT OF FISH AND GAME, THE CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD AND MOSQUITO ABATEMENT AND VECTOR CONTROL DISTRICTS OF THE SOUTH SAN JOAQUIN VALLEY REGARDING VEGETATION MANAGEMENT IN WASTEWATER TREATMENT FACILITIES.

A meeting of representatives of the California Department of Fish and Game and the California Regional Water Quality Control Board, Central Valley Region and representatives from Mosquito Abatement and Vector Control Districts (Districts) from the Southern San Joaquin Valley Region was held on June 22, 1992 in the Department of Fish and Game office in Fresno, California. Also present at the meeting, though not in a participatory function, were representatives from the United States Fish and Wildlife Service and the California Department of Health Services, Environmental Management Branch. The purpose of the meeting was to discuss concerns regarding the vegetation management operations of Wastewater Treatment Facilities in the region.

During the course of the meeting several areas of agreement between the Department of Fish and Game, the Regional Water Quality Control Board and the Districts were reached. It is the intent of this Memorandum of Understanding to record and formalize these understandings.

Whereas, it is understood and agreed that:

1. The Districts have the legal authority to abate mosquitoes and mosquito breeding sources pursuant to California Health and Safety Code Section 2270.
2. The Department of Fish and Game has the legal authority for the protection of nesting birds, eggs and nests pursuant to California Fish and Game Code Section 3503.
3. The Regional Water Quality Control Board has the legal authority to order abatement of nuisances created by and to regulate discharges from wastewater treatment facilities, and may establish conditions in waste discharge requirements to prevent nuisance and pollution pursuant to California Water Code Sections 13304 and 13263.
4. Wastewater treatment facility operators are subject to waste discharge requirements and are responsible for the vegetation management operations at their respective facilities. Vegetation management includes the chemical or physical control of weeds in and around water impoundments

5. Vegetation associated with impounded water promotes mosquito breeding and the production of mosquitoes constitutes a public health nuisance.
6. Effective, on site, vegetation control by operators of wastewater treatment facilities is essential for the reduction of mosquito breeding in water impoundments and to maintain accessibility to the impoundments for inspection and mosquito control activities.
7. Birds, including waterfowl, shorebirds and passerines, utilize wastewater treatment facilities during the nesting season that occurs from April 1 through June 30.
8. Weed control operations, during the nesting season, are potentially detrimental and may result in the destruction of nesting birds, nests and eggs.
9. The diverse authorities of the various regulatory agencies has led to confusion on the part of wastewater treatment facility operators with regard to weed control operations.

Therefore, it is understood and agreed that:

1. The District will act as the lead agency in determining the adequacy of vegetation management operations in abating mosquito breeding sources.
2. On site, vegetative management operations at wastewater treatment facilities should include the maintenance of weed-free embankments, water edges and peripheral access roads, and the elimination of emergent and floating vegetation in all water impoundments.
3. Vegetation management operations in areas that attract nesting birds at wastewater treatment facilities should be carried out either before or after, but not during, the April 1 to June 30 bird nesting season.
4. In the event the District determines the existence of a potential public health nuisance from mosquito breeding, weed control may be conducted during the nesting season; provided that wastewater treatment facility personnel first survey the area and flag all existing nests and assure that these nests and birds are avoided during the weed control activities. Prior to conducting the survey, the Department of Fish and Game must be notified and given the opportunity to advise or assist facility personnel.

5. Should a public health threat create a situation where the destruction of nests and eggs due to weed control activity is unavoidable, the District will first contact the Department of Fish and Game and the U.S. Fish and Wildlife Service to request the issuance of an incidental take permit.
6. Areas away from impounded water may be left in a vegetated (weedy) state to attract nesting birds and to offer nesting habitat throughout the nesting season. These areas cannot be flooded unless vegetation is removed and vegetation cannot be removed during the nesting season.

These understandings were reached and this memorandum is signed in a spirit of cooperation among the signatory agencies. It is signed in the belief that a healthy environment and the protection of natural resources and the concern for and protection of the public health are compatible issues.

These understandings may be amended or terminated at any time provided that the Department of Fish and Game, the Regional Water Quality Control Board and the Districts agree in writing.

Concurrence:

By *Merge D. Waker*
 CALIFORNIA DEPARTMENT OF
 FISH AND GAME

Dated 3/16/93

By *William H. Orsels*
 CALIFORNIA REGIONAL WATER QUALITY
 CONTROL BOARD, CENTRAL VALLEY REGION

Dated 2-24-93

By *Ralph Bani*
 COALINGA-HURON MOSQUITO ABATEMENT
 DISTRICT

Dated 3-25-93

By *Steve Milligan*
 CONSOLIDATED MOSQUITO ABATEMENT
 DISTRICT

Dated 2-25-93

By *Ralph J. Cills*
 DELANO MOSQUITO ABATEMENT DISTRICT

Dated 2-24-93

By Michael W. Alburn
DELTA VECTOR CONTROL DISTRICT

Dated 2-25-93

By [Signature]
FRESNO MOSQUITO AND VECTOR CONTROL DISTRICT

Dated 3-18-93

By Elizabeth Ann Clene
FRESNO WESTSIDE MOSQUITO ABATEMENT DISTRICT

Dated 2/25/93

By Harmon L. Clement
KERN MOSQUITO AND VECTOR CONTROL DISTRICT

Dated 2-25-93

By [Signature]
KINGS MOSQUITO ABATEMENT DISTRICT

Dated 02-25-93

By [Signature]
MADERA COUNTY MOSQUITO ABATEMENT DISTRICT

Dated 2-25-93

By Marshall Hargraves
TULARE MOSQUITO ABATEMENT DISTRICT

Dated 2-25-93

By [Signature]
WEST SIDE MOSQUITO AND VECTOR CONTROL DISTRICT

Dated 2-25-93

The Federal Antidegradation Policy
(40 CFR 131.12)

- (a) The State shall develop and adopt a statewide antidegradation policy and identify the methods for implementing such policy pursuant to this subpart. The antidegradation policy and implementation methods shall, at a minimum, be consistent with the following:
- (1) Existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.
 - (2) Where the quality of the waters exceed levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality shall be maintained and protected unless the State Finds, after full satisfaction of the continuing planning process, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located. In allowing such degradation or lower water quality, the State shall assure water quality adequate to protect existing uses fully. Further, the State shall assure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for nonpoint source control.
 - (3) Where high quality waters constitute and outstanding National resource, such as waters of National and State parks and wildlife refuges and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected.
 - (4) In those cases where potential water quality impairment associated with a thermal discharge is involved, the antidegradation policy and implementing method shall be consistent with Section 316 of the (Clean Water) Act.

Amendment to Water Quality Control Plan and Action Plan
for Mining

Problem Statement

Although water quality problems from active mines are effectively controlled through traditional avenues of waste discharge requirements, permits, and enforcement, acid mine drainage and heavy metals from inactive mines have created sterile stream conditions in isolated locations throughout central and northern California. Most of those mines known to be causing water quality problems are in the Central Valley Region.

Action Plan and Development

In planning to correct water quality problems caused by past mining activity, the Board undertook several related studies, the summaries and general recommendations of which are given below.

Tables 1 and 2 show, respectively, an inventory and ranking of problem mines in the Central Valley Region. A report was prepared describing the method used to rank the mines.

A study of enforcement and funding options was also completed.

Technical feasibility studies were conducted or are underway. These site-specific studies at Walker Mine in Plumas County; Malakoff Diggins in Nevada County; and Leviathan Mine in Alpine County will be used to promote cleanup at those sites and serve as examples of the application of BMPs for tunnel, open pit spoils, and sediment problems, respectively, with transfer value to other mines. The abatement project a Penn Mine, Calaveras County, begun as a 208 project, will also aid in identifying controls and techniques for other mines. A summary of acid mine drainage control technology has been prepared. control methods (BMPs) that appear most promising for application in California are suggested in Figure 1. A Memorandum of Understanding among the State Water Resources Control Board, the US Bureau of Reclamation, and the Department of Fish and Game was prepared which outlines a program of correction for the Spring Creek watershed, Iron Mountain Mine, Shasta County.

The Board will take the following approach in applying the results of the studies described above:

1. The Board finds there are serious water quality problems related to inactive mines and will take necessary actions to control those problems using the priorities shown in Table 2 as a guide.
2. In implementing necessary controls, the Board will take appropriate actions identified in the legal, institutional, and funding studies conducted during the 208 planning program.

3. As an important initial step in implementation and enforcement, feasibility studies should be developed for all high priority problem mines. Owners and operators will be required to prepared such plans, or in some cases, as appropriate, the Board will seek funds from the identified sources to conduct the studies. BMPs shown in Figure 1 should be considered in developing those plans.
4. The State Board and EPA should assist the Region in pursuing promising funding sources and other appropriate measures as recommended in the legal, institutional, and funding studies.
5. To prevent future problems, the Board will require owners and operators of active mines to prepare plans for closure and reclamation. Closure and reclamation plans for all operations will meet the minimum requirements of regulations in the Surface Minign and Reclamation Act of 1975 and will be coordinated with the State Board of Mining and Geology.

Public Participation

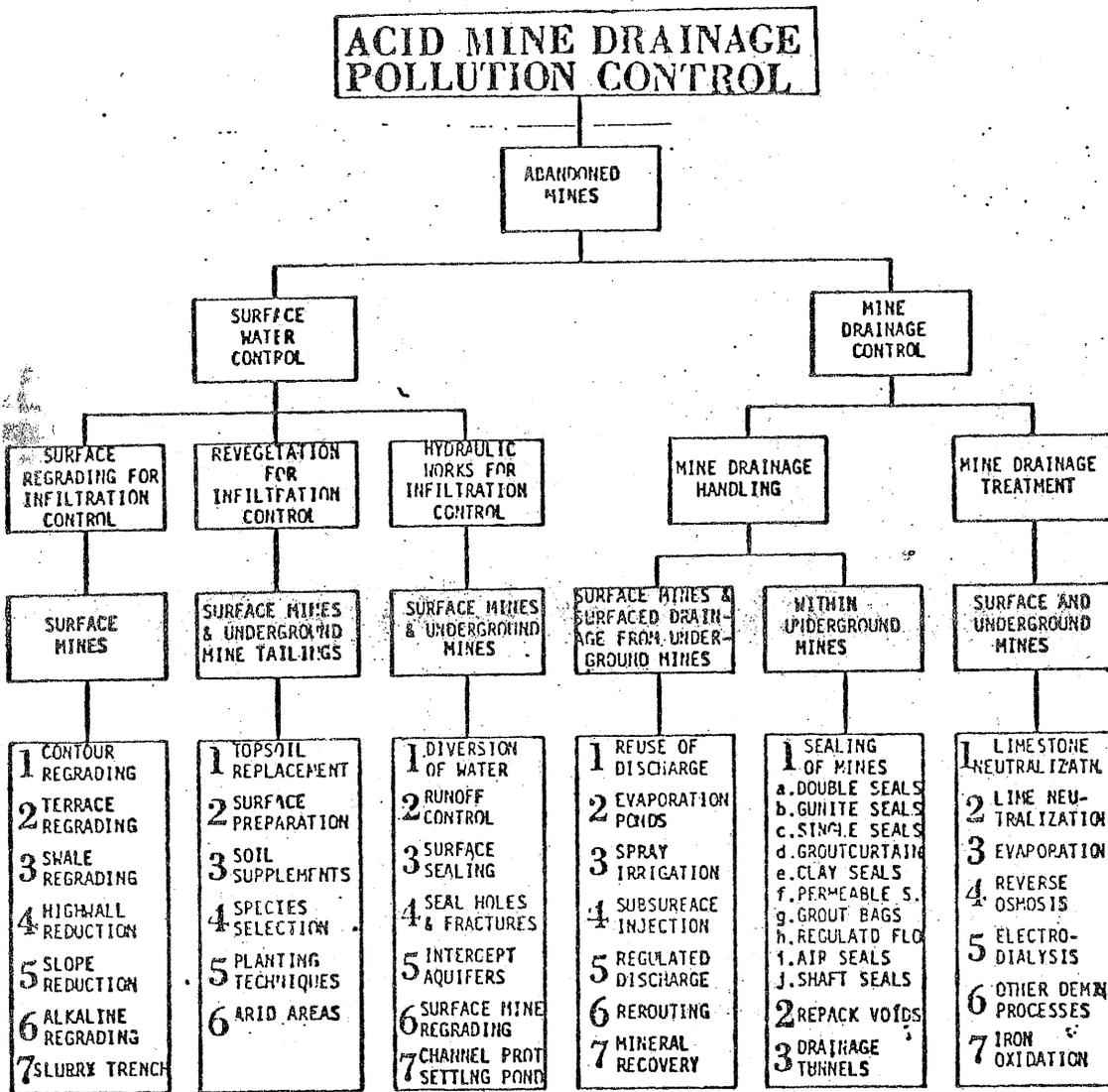
Work plans and products were reviewed by a Mining Technical Advisory Group (MTAG) and individuals and groups on the Regional and State Board agenda lists. A Penn Mine subcommittee toured the mine site and reviewed proposed abatement plans. One meeting with the MTAG was held to review the draft inventory and assessment report, discuss the legal study, and evaluate staff proposals for the site-specific feasibility studies.

Negative Declaration

A Negative Declaration was prepared for this project.

FIGURE 1

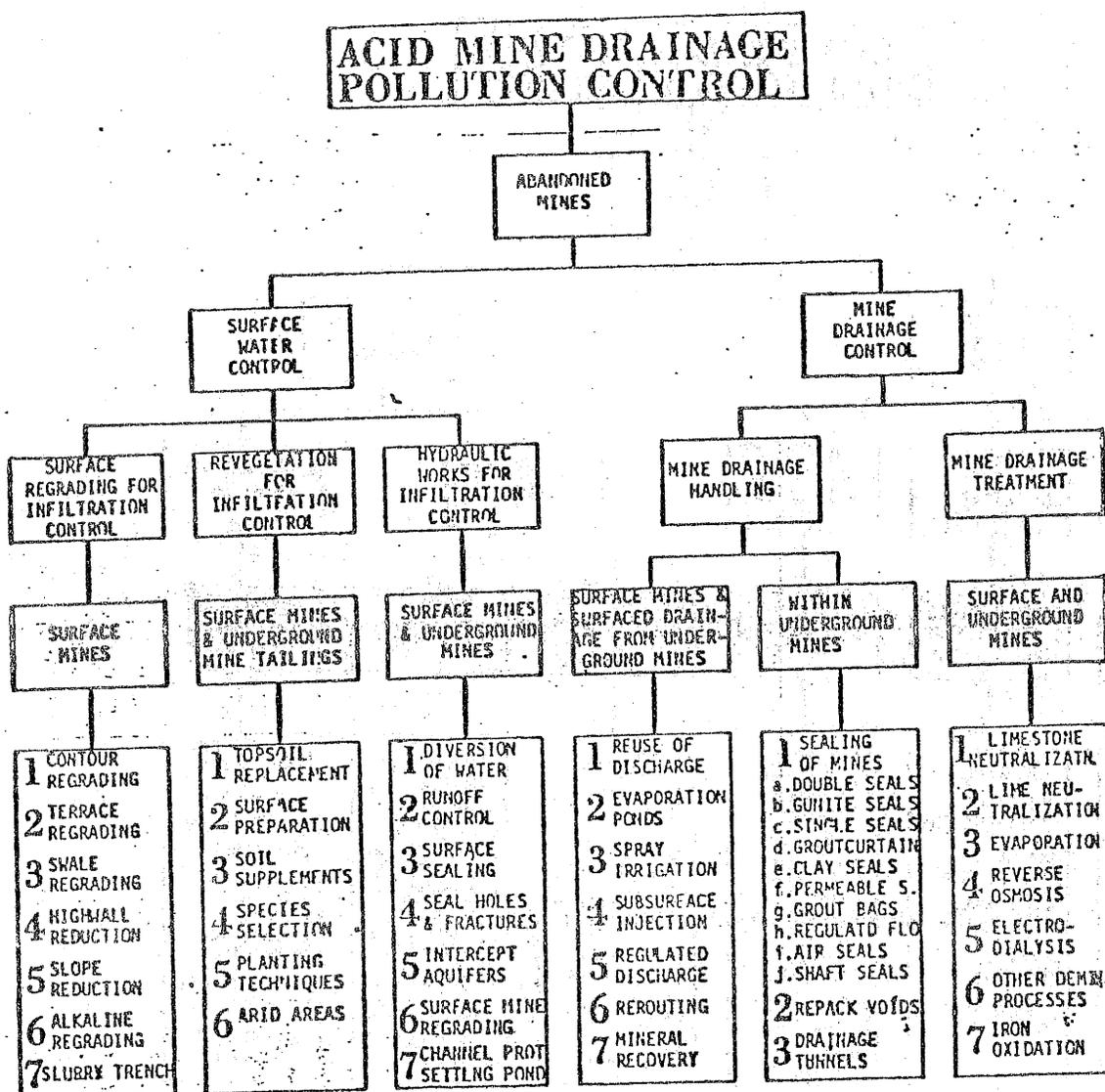
BEST MANAGEMENT PRACTICES AVAILABLE FOR CONTROL OF AMD FROM ABANDONED MINES



adapted from unpublished literature review by the Sanitary Engineering Research Lab, U.C. Berkeley

FIGURE 1

BEST MANAGEMENT PRACTICES AVAILABLE FOR CONTROL OF AMD FROM ABANDONED MINES



adapted from unpublished literature review by the Sanitary Engineering Research Lab, U.C. Berkeley

TABLE 2 MINE RANKING

Mine Name	Rank	Chemical C	Chemical Q	Pollution Problem	Data Source
Iron Mountain	H	30	5-70	acid,Cu,Zn,Fe from tailings and adits to creeks	USGS WRI78-32, CDEG, CDMG reports, and CVRWQCB inspections
Mammoth	H	30	3	acid,Cu,Zn,Fe from adits to creek	USGS WRI78-32
Penn	H	26	680	acid,Cu,Zn,Fe from tailings and shafts to river	CDFG and CVRWQCB reports and inspections
Salakale	H	26	5	acid,Cu,Zn,Fe from adits and dump to creek	USGS WRI78-32 and DWR report
Zeystone	H	26	5	acid,Cu,Zn from adits and dump to creek	USGS WRI78-32 and DWR report
Afterthought	H	24	68	acid,Cd,Cu,Zn from main portal to creek	CDFG report
Mount Diablo	H	23	.6-7	acid,Hg,Fe from tailings and overburden to creek	CVRWQCB and DWR inspections and reports
Sully Hill	H	21	1.8	acid,Cd,Cu,Zn from mine to creek	USGS WRI78-32
Welker	H	17	11	Cu,Zn from tailings and portal to creek	CVRWQCB, COMOCO, and AMAX inspections and sampling
Sulfur Bank	H	15	5	Hg from open pit to lake	USGS and DWR reports
Newton	M	30	.3	acid,Cu,Fe from tailings to creek	CVRWQCB inspections
Greenhorn	M	19	.6-5	Cu,Zn,Fe from tailings to creek	CDFG inspection
New Idria	M	19	.6-5	Hg,Fe from mine to creek	CVRWQCB inspection
Corona	M	17	1.2	acid,Hg,Fe from adits to creek	CVRWQCB inspections
Marzenita	M	15	3.5	Hg from mine area to creek	CVRWQCB inspection
Cherokee	M	15	.6-5	Hg from mine area to creek	CVRWQCB inspection
Copper Hill	M	5	474	Cu,Zn from mine area to river	CVRWQCB inspection
Empire	L	20	.3	Cu from tailings to creek	STORET and USGS-DWR data
Abbott	L	15	.1	Hg from tailings to creek	CVRWQCB inspection
Knoxville	L	10	2	Hg from mine area to creek	CVRWQCB inspections
Keystone	L	4	2	none observed but Cu suspected, perhaps Fe	CVRWQCB inspection
Lave Cap-Banner	L	3	1.3	none detected in creek but As,Ag,Hg are possible	CVRWQCB inspection
Great Western	L	3	1	none detected but Hg suspected	CVRWQCB inspection
Alhambra Shumway	L	2	1	none detected and sedimentation suspected	CVRWQCB inspection
Anderson	L	0	13	none detected but Hg suspected	CVRWQCB inspection
Big Injun	L	0	8	none detected but Hg suspected	CVRWQCB inspection
Kenton	L	0	5	none detected but As possible	CVRWQCB inspection
16 to 1	L	0	5	none detected but As possible	CVRWQCB inspection
Engel	L	0	3	none detected but Cu suspected	STORET data and CVRWQCB inspections of creek
China Gulch	L	0	3	none detected but Cu suspected	STORET data and CVRWQCB inspections of creek
Oat Hill	L	0	3	none detected in creek but mine runoff high in Hg,Fe	STORET data
Aetne	L	0	.5	none detected but Hg suspected	STORET data
Shasta King	L	0	.1	none detected in creek but mine water high in acid,Cu	CVRWQCB inspections
Golinsky	L	0	0	none observed (no flow from mine) but Cu,Zn are possible	CVRWQCB inspection
Iron Dyke	L	0	0	none observed (no flow from mine) but Cu is possible	USGS WRI78-32 and DWR report
Argonaut	L	0	0	none observed (no flow from mine) but acid is possible	USGS WRI78-32
Dairy Farm	L	0	0	none observed but acid,Cu are possible	CVRWQCB inspections
Plumbago	U N K N O W N		0	no inspection due to remote location, As suspected	CVRWQCB inspection
Reid	U N K N O W N		0	no inspection due to inaccessibility, acid,Hg suspected	CVRWQCB communication with S. Sutter Water District
Melakoff Diggings	S P E C I A L			high sediment and turbidity from mine area to creek	CVRWQCB inspection
Mineral Slide	S P E C I A L			sediment and turbidity from mine area to creek	CVRWQCB observation

Basin Plan Amendment and Action Plan for Erosion/Sedimentation

Problem Statement

Accelerated erosion from man's disturbance of soil resources (construction, agricultural operations, highway construction, etc.) contributes to turbidity and sedimentation in basin streams. For example, the US Army Corps of Engineers removes over 10 million cubic yards of sediment yearly from the Sacramento River.

There exists a tremendous push by the urban population for construction of primary residences and second-homes (with support activities) in the rural lands of the Central Valley. Exposure of soil during construction of house pads and access roads, and the subsequent earth disturbing cuts and fills can accelerate erosion many times above that which occurs in undeveloped watershed lands.

Agricultural activities can cause a long-term persistent erosion/sedimentation problem. Conversion of steeper sloping lands for agricultural production is occurring as new water sources become available and flatter land becomes more scarce. The conversion of these lands involves the removal of natural vegetation and alteration of natural drainage patterns, which can increase erosion from irrigation and rainfall runoff.

Highway construction, management of forest lands and federal grazing lands are also sources of accelerated erosion; however, these are dealt with in other 208 issues.

Sediment from erosion can have both short and long-term effects on water quality/beneficial uses. The immediate effect is increased turbidity in adjacent water ways, resulting in adverse impacts on fish and wildlife habitat, reduced water pump life due to abrasion, increased municipal/industrial water treatment costs for turbidity removal, and impaired recreation and aesthetic value. Some of the long-term effects are reduced reservoir capacity, increased flooding hazard from reduced channel capacities, increased irrigation system maintenance and increased dredging costs. Sediment is also a carrier of other pollutants such as pesticides, heavy metals, and nutrients.

Action Plan

The State and Regional Boards contracted with several agencies to collect existing data and make recommendations for developing a statewide policy and a regional action plan for the control of erosion/sedimentation. These studies have been completed and used as supportive studies (Attachment 1) for this Regional Board action plan.

Objective are:

1. Beneficial uses of receiving waters that are presently significantly impacted by sediment should be restored to a water quality level consistent with state and federal water quality standards.

2. Beneficial uses of receiving waters presently unimpaired but threatened by impacts of sediment should be protected.
3. Sediment control standards and program performance evaluation criteria should be based upon Best Management Practices and understanding of the impacts of sediment on beneficial uses.
4. Local units of government should have the lead role, with the Regional Board involving and assisting them, in the assessment of sediment problems, the determination of problem areas, and the estimate of sediment control priorities within their jurisdiction.
5. Land use activities that produce significant sediment impacts upon beneficial uses should be addressed by local voluntary programs that provide for inclusion of Best Management Practices applied in the context of management plans acceptable to the affected land users..
6. Minimum county-wide erosion control and surface runoff management criteria should be enacted to address impacts of sediment produced by construction activities.
7. Regional Board participation in sediment control programs shall include assistance in the establishment of local control programs, participation in the determination of water quality problem areas and a cooperative program evaluation with local units of government. Upon failure of local programs to address impacts, waste discharge permits shall be issued for sediment control purposes.
8. In critical water quality problem areas, counties and cities in the Central Valley should submit action plans to the Regional Board within a reasonable time frame that sets forth local sediment control programs consistent with basin plan objectives and criteria. The control features of such action plans shall be incorporated into subsequent water quality management plans.

Guidelines for Existing Erosion/Sedimentation Problems

1. The resource management subsystem approach developed by the USDA-Soil Conservation Service and reported in their "Recommended Plan for Best Management Practices" shall be considered as Best Management Practices to control or reduce erosion/sedimentation.
2. The Regional Board recognizes the sediment problem area maps developed by the USDA-Soil Conservation Service as the most comprehensive regional assessment of erosion problems for private lands presently available. These maps will be refined to assess significantly impacted water with the help of SCS/RCD, county, and interested agencies.

3. Regional Board will cooperate with counties to establish county erosion control committees, composed of interest groups including those representing the public interest, and local, state, and federal agencies with resource management skills. Committee duties are:
 - a. Provide local input and assistance to develop a control plan for the problem area.
 - b. Define with the Regional Board, seasonal water quality and soil loss standards for their area.
 - c. Seek technical assistance from agencies in planning, review, and implementation of Best Management Practices.
 - d. Seek funding for implementation of Best Management Practices.
 - e. Provide leadership in working with land users in the problem area.
 - f. Encourage development and/or implementation of local erosion/sedimentation control ordinance.

Guidelines for Potential Erosion/Sediment Problems

- A. Agriculture
 - Potential problems stem from conversion of one type of agricultural land use to another (i.e., range to cultivated agriculture) which result in soil disturbing activities and removal of vegetative cover.
 1. Local units of government should identify areas where such conversions are likely to occur and erosion sedimentation will have adverse impacts on water quality.
 2. The county erosion control committees should work with the county to develop a control plan for identified areas.
 3. Local USDA-Soil Conservation Service/RCD and UC Cooperative Extension offices should establish education and information programs to assist agricultural land users in planning and applying Best Management Practices to mitigate erosion during and after conversion.
- B. Construction
 1. Plans for erosion/sedimentation control should be a requirement for issuance of a county or city grading and/or building permit for construction activities that will disturb greater than 10,000 square feet of surface area and/or more than 100 cubic yards of excavated material.

2. Plans for erosion/sedimentation control should meet the following minimum criteria:
 - a. During development and/or construction, adequate measures to protect against erosion/sedimentation shall be provided.
 - b. Land shall be developed in increments of workable size that can be completed during a single construction season. Erosion and sediment control measures shall be coordinated with the sequence of grading, development and construction operations.
 - c. Vegetation shall be removed only when absolutely necessary.
 - d. Every effort shall be made to conserve top soil for reuse in revegetation of disturbed areas.
 - e. All disturbed soil surfaces shall be stabilized and revegetated before the rainy season.

In addition, plans should address the need for the following criteria:

- a. Sediment basins and traps shall be installed in conjunction with the initial grading operation.
 - b. The drainage and storm water runoff control system and its component facilities shall be designed to fit the hydrology of the area under full development and have adequate capacity to transport the flow from all upstream areas.
 - c. The drainage and storm water runoff control system and its component facilities shall be nonerosive in design, shall conduct runoff to a stable outlet, and be installed prior to the rainy season.
3. A combination and cities that have adopted and are implementing ordinances and programs compatible with these guidelines shall transmit tentative maps for land developments containing 100 lots or more with sufficient information that the proposed development will meet these guidelines or the approved county/city erosion control ordinances.
 4. Construction activities in counties and cities having no erosion control programs or one which is not in compliance with the Regional Board guidelines may be required to file a report of waste discharge.

Attachment 1

Supportive Studies

The following studies were performed to provide much of the technical and institutional information on which the recommendations of this plan are based:

1. Recommended Plan of Best Management Practices, Soil Conservation Service, 1979.
2. 208 Institutional Study, John Muir Institute, 1979.
3. Nevada County Sediment Control Plan, Nevada County RCD and Nevada County, 1979.
4. Placer County Sediment Control Plan, Placer County RCD and Placer County, 1979.
5. A Water Quality Study for Spanish Grant Drainage District and Crow Creek Watershed, G.L. Gustafson and Orestimba RCD, 1978.
6. A Gully Control Demonstration Project, Cottonwood RCD, 1979.
7. Erosion and Sediment Control Handbook, Department of Conservation Resources Agency, State of California, 1978.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

RESOLUTION NO. 83-135

AMENDING THE WATER QUALITY CONTROL PLAN
FOR
GUIDELINES FOR PROTECTION OF WATER QUALITY
DURING CONSTRUCTION AND OPERATION OF
SMALL HYDRO PROJECTS

WHEREAS, the California Regional Water Quality Control Board, Central Valley Region, (hereafter Board) adopted a Water Quality Control Plan on 25 July 1975; and

WHEREAS, high energy costs and attractive economic benefits have resulted in a recent boom in the development of small hydropower projects in Central Valley watersheds; and

WHEREAS, these projects can adversely affect water quality, aquatic and riparian habitat, and recreational/aesthetic uses of streams; and

WHEREAS, guidelines have been developed which set forth Regional Board policy on small hydro development, project standards for water quality protection, and procedures for project approval; and

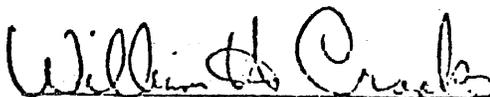
WHEREAS, the Regional Board has conducted an environmental assessment pursuant to Title 14, California Administrative Code, and has determined that the proposed action will not have a significant effect on the environment; and

WHEREAS, the Regional Board, on 23 September 1983 in Sacramento and on 28 October 1983 in Redding, held public hearings and considered all evidence concerning this matter: Therefore be it

RESOLVED, That the Board hereby adopts the Guidelines for Protection of Water Quality During Construction and Operation of Small Hydro Projects as an amendment to the Water Quality Control Plan; and be it further

RESOLVED, That the Executive Officer is instructed to transmit the Water Quality Control Plan amendments to the State Water Resources Control Board for its consideration and approval.

I, WILLIAM H. CROOKS, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of a Resolution adopted by the California Regional Water Quality Control Board, Central Valley Region, on 28 October 1983.



WILLIAM H. CROOKS, Executive Officer

GUIDELINES FOR PROTECTION OF WATER QUALITY
DURING CONSTRUCTION AND OPERATION OF
SMALL HYDRO PROJECTS

I. POLICIES AND PRINCIPLES

All beneficial instream uses, including water quality, aquatic and riparian habitat, recreational and aesthetic uses, should be protected.

The Regional Board will be responsible for addressing water quality-related impacts of small hydro projects. Nonwater quality-related impacts will be addressed by other authorities; i.e., Department of Fish and Game; State Water Resources Control Board, Division of Water Rights; federal land management agencies; and local governments.

Construction and operation of small hydro projects shall not result in a violation of adopted water quality objectives as contained in the Board's Water Quality Control Plan. The following objectives are considered of particular importance in protecting beneficial uses from adverse impacts of small hydro projects.

A. TEMPERATURE

Water temperature shall not be altered unless it can be demonstrated to the satisfaction of the Regional Board that such alteration does not adversely affect beneficial uses. At no time shall temperature be increased by more than 5°F above background levels. Where temperature increases would threaten fisheries or other beneficial uses, the applicant may be required to establish baseline temperature conditions.

B. TURBIDITY

Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses.

Increases in turbidity attributable to controllable water quality factors shall not exceed the following limits:

- Where natural turbidity is between 0 and 50 Jackson Turbidity Units (JTU), increases shall not exceed 20%.
- Where natural turbidity is between 50 and 100 JTU, increases shall not exceed 10 JTU.
- Where natural turbidity is greater than 100 JTU, increases shall not exceed 10%.

The above turbidity limits will be eased during any working period when construction work must occur in flowing water, to allow a turbidity increase of 15 JTU as measured 300 feet below the discharge.

C. SEDIMENT

The suspended sediment load and concentration shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses. Where suspended or settleable sediment would threaten fisheries or other beneficial uses, the applicant may be required to establish baseline sediment conditions.

D. SETTLEABLE MATERIAL

Waters shall not contain substances in concentrations that result in deposition of material that causes nuisance or adversely affects beneficial uses.

E. DISSOLVED OXYGEN

Dissolved oxygen shall not be depressed below levels specified in the Board's Water Quality Control Plan.

II. PROJECT STANDARDS AND REQUIREMENTS

A. CONSTRUCTION

The project applicant shall submit to the Regional Board an Erosion Control Plan specifying those measures which will be used to prevent erosion/sedimentation problems during project construction. The plan shall include a map of the project site delineating where erosion control measures will be applied. The erosion control plan shall include the following minimum criteria.

1. Construction equipment shall not be operated in flowing water except as may be necessary to construct crossings or barriers.
2. Where working areas are adjacent to or encroach on live streams, barriers shall be constructed which are adequate to prevent the discharge of turbid water in excess of those limits specified above.
3. Material from construction work shall not be deposited where it could be eroded and carried to the stream by surface runoff or high stream flows.
4. All permanent roads shall be surfaced with material sufficient to maintain a stable road surface.
5. All disturbed soil and fill slopes shall be stabilized in an appropriate manner.

GUIDELINES FOR PROTECTION OF WATER QUALITY
DURING CONSTRUCTION AND OPERATION OF
SMALL HYDRO PROJECTS

-3-

6. Surface drainage facilities shall be designed to transport runoff in a nonerosive manner.
7. Riparian vegetation shall be removed only when absolutely necessary.
8. There shall be no discharge of petroleum products, cement washings or other construction materials.
9. Erosion control measures shall be in place by October 15 of each year.
10. Stream diversion structures should be designed to preclude accumulation of sediment. If this is not feasible, the applicant must develop an operation plan that will prevent adverse downstream effects from sediment discharges.
11. The project shall be designed to avoid erosion and degradation of water quality in the event of a failure in the water transport system. An automatic, immediate shutoff mechanism is an acceptable method (in many cases, the only feasible method).

III. PROJECT REVIEW AND REGULATION

- A. Applicants should seek early consultation with the Regional Board to determine water quality concerns and to arrange a site inspection if needed.
- B. Where appropriate, the Regional Board will participate with the applicant and other reviewing agencies to determine the scope of the project's environmental assessment.
- C. The Regional Board will review the FERC application which should include the following water quality-related information:
 1. All environmental assessment information.
 2. A copy of the Erosion Control Plan.
 3. A description of all project mitigations for water quality protection.
- D. The Regional Board will issue a letter addressing the need for Water Quality Certification and waste discharge requirements.

Waste Discharge Requirements

1. The Regional Board believes the standard specifications contained in Section II of these guidelines will provide water quality protection from small hydro construction and operation. In most instances, the Regional Board will waive the need for Reports of Waste Discharge and waste discharge requirements for projects which comply with these standard specifications.
2. Waste discharge requirements may be required for projects having high potential for water quality impairment or for major projects where construction work will be continued beyond one year.

Water Quality Certification

1. Regulations under Section 401 of the Clean Water Act require applicants for federal licenses or permits (such as FERC licenses or U.S. Corps Dredge and Fill Permits) to obtain state certification of conformance with water quality standards.
2. In most instances, the Regional Board will waive water quality certification provided the project includes the standards specified in Section II of these guidelines and it is determined that project operation will not violate adopted water quality objectives.

IV. ENFORCEMENT

When investigations by staff reveal that a project is impairing, or threatens to impair, beneficial uses of water, the project owner/operator is required to take corrective action as follows:

- A. The responsible party shall be promptly notified and asked to submit a description of actions and a time schedule to be taken to bring the project into compliance with these guidelines.
- B. A Cleanup and Abatement Order may be issued where the discharge of waste to surface waters is imminent and normal administrative procedures will not afford timely water quality protection. Upon failure to comply with such Cleanup and Abatement Order, the matter shall be referred to the Attorney General for appropriate action.
- C. The Regional Board may expend available monies to perform any cleanup and abatement work which, in its judgment, is required to prevent substantial adverse impacts on water quality and beneficial uses. The discharger shall be liable for all costs incurred in taking the cleanup and abatement action.

State of California
Department of Health Services

GUIDELINES FOR USE OF RECLAIMED WATER

I. General

- A. Reclaimed water shall meet the Regional Water Quality Control Board (RWQCB) requirements and the requirements specified in the "Wastewater Reclamation Criteria." (Title 22, Div. 4, Section 60301 through 60355). These guidelines apply to those reclaimed water use areas supplied water from sewage treatment plants having reliability features and operational histories meeting the Regional Water Quality Control Board and "Wastewater Reclamation Criteria" requirements. Additional precautions may be required where these conditions are not met.
- B. Reclaimed water should be confined to the authorized use area.
 1. Direct or windblown spray should be confined to the area designated and approved for reclamation.
 2. Precautions should be taken to assure that reclaimed water will not be sprayed on any facility or area not designated for reclamation such as passing vehicles, buildings, domestic water facilities or food handling facilities.
- C. Notification should be provided to inform the public that reclaimed wastewater is being used. The notification should include the posting of conspicuous warning signs with proper wording of sufficient size to be clearly read.
- D. Public contact with reclaimed water should be minimized except where specifically approved by the health agencies and the Regional Water Quality Control Board.
- E. The reclaimed water distribution and transmission system piping should comply with the design requirements contained in the California-Nevada Section AWWA publication "Guidelines for Distribution of Nonpotable Water."
 1. All piping, valves and outlets should be marked to differentiate reclaimed water from domestic or other water.
 2. All reclaimed water controllers, valves, etc., should be affixed with reclaimed water warning signs.
- F. All reclaimed water valves, outlets, quick couplers, and sprinkler heads should be of a type or secured in a manner that only permits operation by personnel authorized by the user.

- G. Use or installation of hose bibbs on any irrigation system presently operating or designated to operate with reclaimed water, regardless of the hose bibb construction or identification, should not be permitted.
- H. There should be at least a 10-foot horizontal and 1-foot vertical separation (with the domestic water above the reclaimed water pipeline) between all pipelines transporting reclaimed water and those transporting domestic water.
- I. Plans and specifications for the reclaimed and domestic water systems should be submitted to the Sanitary Engineering Branch of the State Department of Health Services and the local health department for review and approval before construction of new reclamation facilities or system conversion.
- J. An air-gap separation or reduced pressure principle device shall be provided at all domestic water service connections to reclaimed water use areas. (Title 17, Chapter 5, Section 7604).
- K. There shall be no connection between the potable water supply and piping containing reclaimed water. Supplementing reclaimed water with water used for domestic supply shall not be allowed except through an air-gap separation. (Title 17, Chapter 5, Section 7604).
- L. Supplementing reclaimed water with water from irrigation or industrial wells should not be allowed except through an air gap or reduced pressure principle device.
- M. Drinking water facilities should be protected from direct or windblown reclaimed water spray.
- N. Tank trucks and other equipment which are used to distribute reclaimed water should be clearly identified with warning signs.
- O. There should be no irrigation or impoundment of reclaimed water within 500 feet of any well used for domestic supply or 100 feet of any irrigation well unless it can be demonstrated that special circumstances justify lesser distances to be acceptable.
- P. Adequate measures should be taken to prevent the breeding of insects and other vectors of health significance, and the creation of odors, slimes or unsightly deposits.
- Q. A user supervisor should be appointed by the user. The user supervisor should be responsible for installation, operation and maintenance of the reclamation system, prevention of potential hazards, implementing these Guidelines, and coordination with the cross-connection control program of the water purveyor or the local health department.

- R. The user should maintain as-built plans of the use area showing all buildings, domestic and reclaimed water facilities, the sewage collection system, etc. Plans should be updated as modifications are made.
- S. A contingency plan including notification of the RWQCB and health agencies should be developed outlining the action to be taken in the event effluent quality fails to meet required standards.
- T. Inspection, supervision and employee training should be provided by the user to assure proper operation of the reclaimed water system. Records of inspection and training should be maintained by the user.
- U. The producer and/or user should submit a monthly report to the State Department of Health Services and the local health agencies containing:
 - 1. The quality and quantity of water reclaimed.
 - 2. The use (the method of irrigation and the crop(s) and area(s) irrigated).
 - 3. The reason for noncompliance with standards, if appropriate and the corrective action taken.

II. Landscape Irrigation

- A. At parks, playgrounds, schoolyards, other areas (e.g. golf courses with contiguous residential development) where the public has similar access or exposure, and other areas irrigated with oxidized, coagulated, clarified, filtered, disinfected wastewater having a 7-day median number of coliform organisms not exceeding 2.2/100 ml, and a maximum concentration of coliform organism not exceeding 23/100 ml in any sample:

(The reclaimed water treatment and quality stated above also applies at use areas having adjacent property where the public may be subject to direct or indirect contact with reclaimed water spray for example; golf courses with contiguous residential development).

 - 1. Adequate signs should be posted indicating that reclaimed wastewater is used for irrigation and is not safe for drinking (e.g. ATTENTION: RECLAIMED WASTEWATER - DO NOT DRINK).
- B. At golf courses not included in A. above irrigated with oxidized, disinfected wastewater having a 7-day median number of coliform organisms not exceeding 23/100 ml or any two consecutive coliform samples not exceeding 240/100 ml:
 - 1. Irrigation should only be practiced when golfers are not present.

2. Adequate signs should be posted indicating that reclaimed wastewater is used for irrigation and it is not safe for drinking or contact (e.g. ATTENTION: RECLAIMED WASTEWATER AVOID CONTACT - DO NOT DRINK).
 3. Score cards should indicate that reclaimed wastewater is used.
 4. Irrigation with reclaimed water should not occur in areas where food is handled or consumed.
 5. Irrigation should be controlled to prevent ponding and runoff of reclaimed water unless acceptable to the Regulatory Agency.
- C. At cemeteries irrigated with oxidized, disinfected wastewater having a 7-day median number of coliform organisms not exceeding 23/100 ml or any two consecutive coliform samples not exceeding 240/100 ml:
1. Irrigation should be scheduled for times the public is not present.
 2. Adequate signs should be posted indicating that reclaimed wastewater is used for irrigation and it is not safe for drinking or contact (e.g. ATTENTION: RECLAIMED WASTEWATER AVOID CONTACT - DO NOT DRINK).
 3. Potable water should be supplied for flower containers.
 4. Irrigation should be controlled to prevent ponding and runoff of reclaimed water unless acceptable to the Regulatory Agency.
- D. Highway landscape and other landscaped areas irrigated with oxidized, disinfected wastewater having a 7-day median number of coliform organisms not exceeding 23/100 ml or any two consecutive coliform samples not exceeding 240/100 ml:
1. Signs should be posted along the perimeter at points of access to the use area indicating that reclaimed wastewater is used for irrigation and it is not safe for drinking or contact (e.g. ATTENTION: RECLAIMED WASTEWATER AVOID CONTACT - DO NOT DRINK).
 2. Irrigation should be controlled to prevent ponding and runoff of reclaimed water unless acceptable to the Regulatory Agency.

III. Impoundments

- A. Nonrestricted recreational impoundments containing oxidized, coagulated, clarified filtered, disinfected wastewater having a 7-day median number of coliform organisms not exceeding 2.2/100 ml and a maximum concentration of coliform organisms not exceeding 23/100 ml in more than one sample in a 30-day period:

1. Impoundments should have perimeter signs indicating that the wastewater stored is not safe for drinking (e.g. ATTENTION: RECLAIMED WASTEWATER - DO NOT DRINK).
 2. Runoff should be prevented from entering the pond unless the impoundment is sized to accept the runoff without discharge or an NPDES permit has been issued for the discharge.
 3. There should be no discharge of reclaimed water to any pond with less than one foot of freeboard unless discharge from the pond is allowed by NPDES permit.
- B. Restricted recreational impoundments containing oxidized, disinfected wastewater having a 7-day median number of coliform organisms not exceeding 2.2/100 ml:
1. Impoundments should have perimeter signs indicating that the wastewater stored is not safe for drinking or body contact (e.g. ATTENTION: RECLAIMED WASTEWATER AVOID CONTACT - DO NOT DRINK).
 2. Runoff should be prevented from entering the pond unless the impoundment is sized to accept the runoff without discharge or an NPDES permit has been issued for the discharge.
 3. There should be no discharge of reclaimed water to any pond with less than one foot of freeboard unless discharge from the pond is allowed by NPDES permit.
- C. Landscape impoundments containing oxidized, disinfected wastewater having a 7-day median number of coliform organisms not exceeding 23/100 ml:
1. Impoundments should have perimeter signs indicating that the wastewater stored is not safe for drinking or body contact (e.g. ATTENTION: RECLAIMED WASTEWATER AVOID CONTACT - DO NOT DRINK).
 2. Runoff should be prevented from entering the pond unless the impoundment is sized to accept the runoff without discharge or an NPDES permit has been issued for the discharge.
 3. There should be no discharge of reclaimed water to any pond with less than one foot of freeboard unless discharge from the pond is allowed by NPDES permit.

IV. Agricultural Reuse Area Guidelines

- A. At areas irrigated with undisinfected primary or undisinfected secondary effluent:
1. Warning signs reading "SEWAGE DISPOSAL AREA - KEEP OUT" should be posted at least every 500 feet with a minimum of one sign at each corner and one at each access road.
 2. Fencing or other barriers should be installed where needed to restrict public access.
 3. The perimeter of the disposal area should be graded to prevent ponding along public roads or other public areas.
 4. Setbacks
 - a. Surface Irrigation - setbacks should be established where needed to restrict public contact.
 - b. Spray Irrigation - there should be no irrigation within 500 feet of the authorized spray boundary. A setback of less than 500 feet may be approved if warranted by the use area design. Some of the use area characteristics to be taken into account are: wind velocity and direction, topography, sprinkler characteristics and controls.
- B. At areas irrigated with oxidized, disinfected, wastewater having a 7-day median number of coliform organisms not exceeding 23/100 ml:
1. Perimeter warning signs indicating that the reclaimed wastewater is not safe for drinking or contact (e.g. WARNING: RECLAIMED WASTEWATER AVOID CONTACT - DO NOT DRINK) should be posted at least every 500 feet with a minimum of one sign at each corner and one at each access road.
 2. Fencing should be installed where needed to restrict public access.
 3. The perimeter of the disposal area should be graded to prevent ponding along public roads or other public areas.
 4. Setbacks
 - a. Surface Irrigation - Setbacks should be established where needed to restrict public contact.
 - b. Spray Irrigation - The amount of setback is to be determined by the use of the adjoining property.

- C. At areas irrigated with oxidized, disinfected wastewater having a 7-day median number of coliform organisms not exceeding 2.2/100 ml:
1. Warning signs indicating that the reclaimed wastewater is not safe for drinking or contact (e.g. WARNING: RECLAIMED WASTEWATER AVOID CONTACT - DO NOT DRINK) should be posted with a minimum of one sign at each corner and one at each access road.
 2. Fencing or other barriers should be installed where needed to restrict public access.
 3. The perimeter of the disposal area should be graded to prevent ponding along public roads or other public areas.
 4. Setbacks
 - a. Surface Irrigation - Setbacks should be established where needed to restrict public contact.
 - b. Spray Irrigation - The amount of setback is to be determined by the use of the adjoining property.
- D. At areas irrigated with oxidized, disinfected, coagulated, clarified, filtered, disinfected wastewater having a 7-day median number of coliform organisms not exceeding 2.2/100 ml:
- a. Warning signs indicating that the reclaimed wastewater is unsafe to drink (e.g. WARNING: RECLAIMED WASTEWATER - DO NOT DRINK) should be posted every 500 feet with a minimum of one sign at each corner and one at each access road.
- E. The following table indicates the minimum degree of treatment for the specific types of crops and methods of application:

TREATMENT GUIDELINES FOR
AGRICULTURAL USE OF RECLAIMED WATER

MINIMUM DEGREE OF TREATMENT FOR TYPE OF CROP AND METHOD OF APPLICATION

TYPE OF CROP	PRIMARY EFFLUENT	OXIDIZED, DISINFECTED TO 23 mpn/100 ml	OXIDIZED, DISINFECTED TO 2.2 mpn/100 ml	OXIDIZED, COAGULATED, CLARIFIED, FILTERED, DISINFECTED TO 2.2 mpn/100 ml
GENERAL				
Food Crops	*	*	Surface(1)	Surface or Spray
Processed Food Crops (2)	*	Surface or Spray	Surface or Spray	Surface or Spray
Orchards and Vineyards	Surface(3)	Surface(3)	Surface(3)	Surface or Spray
Odder, Fiber and Seed (4) Crops	Surface or Spray	Surface or Spray	Surface or Spray	Surface or Spray
Pasture for Milking Animals	*	Surface or Spray	Surface or Spray	Surface or Spray
SPECIFIC				
Produce General (Lettuce, Carrots, etc.)	*	*	*	Surface or Spray
Tomatoes (unprocessed)	*	*	Surface (3)	Surface or Spray
Tomatoes(2) (Processed - No gleaning)	*	Surface or Spray	Surface or Spray	Surface or Spray
Strawberries	*	*	*	Surface or Spray
Artichokes	*	*	Surface (3)	Surface or Spray
Watercress	*	*	*	Surface or Spray
Sugar Beets	*	Surface or Spray	Surface or Spray	Surface or Spray
Spinach - for human consumption	*	*	Surface (3)	Surface or Spray

Ice No effluent allowed in irrigation water because of mosquito propagation problems.

TYPE OF CROP	PRIMARY EFFLUENT	OXIDIZED, DISINFECTED TO 23 mpn/100 ml	OXIDIZED, DISINFECTED TO 2.2 mpn/100 ml	OXIDIZED, COAGULATED, CLARIFIED, FILTERED, DISINFECTED TO 2.2 mpn/100 ml
rees and Vines Frost Protection	Surface	Surface or Spray (5)	Surface or Spray (5)	Surface or Spray
Pistachio or Walnut	*	*	*	Surface or Spray
Almond	*	*	*	Surface or Spray
Citrus	Surface (3)	Surface (3)	Surface (3)	Surface or Spray
Avocado	Surface (3)	Surface (3)	Surface (3)	Surface or Spray
Olive	Surface (3)	Surface (3)	Surface or Spray	Surface or Spray
<u>Other Crops</u> Sod	*	*	Surface or Spray	Surface or Spray
ornamental Nursery Stock	*	*	Surface or Spray	Surface or Spray
Christmas Trees	*	Surface or Spray	Surface or Spray	Surface or Spray
irewood Customer Cut	*	Surface or Spray	Surface or Spray	Surface or Spray
irewood Not Customer Cut	Surface or Spray	Surface or Spray	Surface or Spray	Surface or Spray

- Not Allowed

- .. Not acceptable for root crops or crops where edible parts touch the ground.
- .. Processed food crops must undergo extensive commercial, physical or chemical processing sufficient to destroy pathogenic agents. Processing does not include washing, pickling, fermenting, or milling.
- .. Edible portion of plant does not contact the ground.
- .. Not for human ingestion.
- .. No spraying within 30 days of fruit formation.

V. Guidelines for Worker Protection

- A. Workers should be informed of the potential health hazards involved with contact or ingestion of reclaimed water, and should be educated regarding proper hygienic procedures to protect themselves and their families.
- B. Precautionary measures should be taken to minimize worker contact with reclaimed water.
 1. Workers should not be subjected to reclaimed water sprays.
 2. Workers should be provided with protective clothing when there will be more than casual contact with the reclaimed water.
 3. Where oxidized, coagulated, clarified, filtered, disinfected wastewater is used, less stringent precautions may be allowed.
- C. Safe drinking water should be supplied for workers. Where bottled water is provided, the water should be in contamination-proof containers and protected from reclaimed water and dust.
- D. Handwashing facilities should be provided.
- E. Precautions should be taken to avoid contamination of food taken into reclaimed water use areas. Food should not be taken into areas still wet with reclaimed water.
- F. Workers should be notified that reclaimed water is in use. Notification should include the posting of conspicuous warning signs with proper wording of sufficient size to be clearly read.

In those locations where English is not the primary language of the workers, the signs should be in the appropriate language as well as English.
- G. An adequate first aid kit should be available on location.