

WATER QUALITY CONTROL POLICY  
FOR THE ENCLOSED  
BAYS AND ESTUARIES OF CALIFORNIA<sup>1/</sup>

INTRODUCTION

The purpose of this policy is to provide water quality principles and guidelines to prevent water quality degradation and to protect the beneficial uses of waters of enclosed bays and estuaries. Decisions on water quality control plans, waste discharge requirements, construction grant projects, water rights permits, and other specific water quality control implementing actions of the State and Regional Boards shall be consistent with the provisions of this policy.

The Board declares its intent to determine from time to time the need for revising this policy.

This policy does not apply to wastes from vessels or land runoff except as specifically indicated for siltation (Chapter III 4.) and combined sewer flows (Chapter III 7.).

CHAPTER I.

PRINCIPLES FOR MANAGEMENT OF  
WATER QUALITY IN ENCLOSED BAYS AND ESTUARIES

A. It is the policy of the State Board that the discharge of municipal wastewaters and industrial process waters<sup>2/</sup> (exclusive of cooling water discharges) to enclosed bays and estuaries, other than the San Francisco Bay-Delta system, shall be phased out at the earliest practicable date. Exceptions to this provision may be granted by a Regional Board only when the Regional Board finds that the wastewater in question would consistently be treated and discharged in such a manner that it would enhance the quality of receiving waters above that which would occur in the absence of the discharge.<sup>3/</sup>

B. With regard to the waters of the San Francisco Bay-Delta system, the State Board finds and directs as follows:

1a. There is a considerable body of scientific evidence and opinion which suggests the existence of biological degradation due to long-term exposure to toxicants which have been discharged to the San Francisco Bay-Delta system. Therefore, implementation of a program which controls toxic effects through a combination of source control for toxic materials, upgraded wastewater treatment, and improved dilution of wastewaters, shall proceed as rapidly as is practicable with the objective of providing full protection to the biota and the beneficial uses of Bay-Delta waters in a cost-effective manner.

1b. A comprehensive understanding of the biological effects of wastewater discharge on San Francisco Bay, as a whole, must await the results of further scientific study. There is, however, sufficient evidence at this time to indicate that the continuation of wastewater discharges to the southern reach of San Francisco Bay, south of the Dumbarton Bridge, is an unacceptable condition. The State Board and the San Francisco Regional Board shall take such action as is necessary to assure the elimination of wastewater discharges to waters of the San Francisco Bay, south of Dumbarton Bridge, at the earliest practicable date.

1c. In order to prevent excessive investment which would unduly impact the limited funds available to California for construction of publicly owned treatment works, construction of such works shall proceed in a staged fashion, and each stage shall be fully evaluated by the State and Regional Boards to determine the necessity for additional expenditures. Monitoring requirements shall be established to evaluate any effects on water quality, particularly changes in species diversity and abundance, which may result from the operation of each stage of planned facilities

and source control programs. Such a staged construction program, in combination with an increased monitoring effort, will result in the most cost-effective and rapid progress toward a goal of maintaining and enhancing water quality in the San Francisco Bay-Delta system.

2. Where a waste discharger has an alternative of in-bay or ocean disposal and where both alternatives offer a similar degree of environmental and public health protection, prime consideration shall be given to the alternative which offers the greater degree of flexibility for the implementation of economically feasible wastewater reclamation options.

7. The following policies apply to all of California's enclosed bays and estuaries:

1. Persistent or cumulative toxic substances shall be removed from the waste to the maximum extent practicable through source control or adequate treatment prior to discharge.
2. Bay or estuarine outfall and diffuser systems shall be designed to achieve the most rapid initial dilution<sup>4/</sup> practicable to minimize concentrations of substances not removed by source control or treatment.
3. Wastes shall not be discharged into or adjacent to areas where the protection of beneficial uses requires spatial separation from waste fields.
4. Waste discharges shall not cause a blockage of zones of passage required for the migration of anadromous fish.
5. Nonpoint sources of pollutants shall be controlled to the maximum practicable extent.

CHAPTER II.

QUALITY REQUIREMENTS FOR  
WASTE DISCHARGES

1. In addition to any requirements of this policy, effluent limitations shall be as specified pursuant to Chapter 5.5 of the Rortter-Cologne Water Quality Control Act, and Regional Boards shall limit the mass emissions of substances as necessary to meet such limitations. Regional Boards may set more restrictive mass emission rates and concentration standards than those which are referenced in this policy to reflect dissimilar tolerances to wastewater constituents among different receiving water bodies.
2. All dischargers of thermal wastes or elevated temperature wastes to enclosed bays and estuaries which are permitted pursuant to this policy shall comply with the "Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California", State Water Resources Control Board, 1972, and with amendments and supplements thereto.
3. Radiological limits for waste discharges (for which regulatory responsibility is not preempted by the Federal Government) shall be at least as restrictive as limitations indicated in Section 30269, and Section 30355, Appendix A, Table II, of the California Administrative Code.
4. Dredge spoils to be disposed of in bay and estuarine waters must comply with federal criteria for determining the acceptability of dredged spoils to marine waters, and must be certified by the State Board or Regional Boards as in compliance with State Plans and Policies.

## CHAPTER III.

### DISCHARGE PROHIBITIONS

1. New discharges<sup>5/</sup> of municipal wastewaters and industrial process waters<sup>2/</sup> (exclusive of cooling water discharges) to ~~enclosed bays and estuaries, other than the San Francisco Bay-Delta system, which are not consistently treated and discharged in a manner that would enhance the quality of receiving waters above that which would occur in the absence of the discharge, shall be prohibited.~~
2. The discharge of municipal and industrial waste sludge and untreated sludge digester supernatant, centrate, or filtrate to enclosed bays and estuaries shall be prohibited.
3. The deposition of rubbish or refuse into surface waters or at any place where they would be eventually transported to enclosed bays or estuaries shall be prohibited.<sup>6/</sup>
4. The direct or indirect discharge of silt, sand, soil clay, or other earthen materials from onshore operations including mining, construction, agriculture, and lumbering, in quantities which unreasonably affect or threaten to affect beneficial uses shall be prohibited.
5. The discharge of materials of petroleum origin in sufficient quantities to be visible or in violation of waste discharge requirements shall be prohibited, except when such discharges are conducted for scientific purposes. Such testing must be approved by the Executive Officer of the Regional Board and the Department of Fish and Game.
6. The discharge of any radiological, chemical, or biological warfare agent or high-level radioactive waste shall be prohibited.
7. The discharge or by-passing of untreated waste to bays and estuaries shall be prohibited.<sup>7/</sup>

CHAPTER IV.

GENERAL PROVISIONS

A. Effective Date

This policy is in effect as of the date of adoption by the State Water Resources Control Board.

B. Review and Revision of Plans, Policies and Waste Discharge Requirements

Provisions of existing or proposed policies or water quality control plans adopted by the State or Regional Boards for enclosed bays or estuaries shall be amended to conform with the applicable provisions of this policy.

Each appropriate Regional Board shall review and revise the waste discharge requirements with appropriate time schedules for existing discharges to achieve compliance with this policy and applicable water quality objectives. Each Regional Board affected by this policy shall set forth for each discharge allowable mass emission rates for each applicable effluent characteristic included in waste discharge requirements.

Regional Boards shall finalize waste discharge requirements as rapidly as is consistent with the National Pollutant Discharge Elimination System Permit Program.

C. Administration of Clean Water Grants Program

The Clean Water Grants Program shall require that the environmental impact report for any existing or proposed wastewater discharge to enclosed bays and estuaries, other than the San Francisco Bay-Delta system, shall evaluate whether or not the discharge would enhance the quality of receiving waters above that which would occur in the absence of the discharge.

The Clean Water Grants Program shall require that each study plan and project report (beginning with F. Y. 1974-75 projects) for a proposed wastewater treatment or conveyance facility within the San Francisco Bay-Delta system shall contain an evaluation of the degree to which the proposed project represents a necessary and cost-effective stage in a program leading to compliance with an objective of full protection of the biota and beneficial uses of Bay-Delta waters.

D. Administration of Water Rights

Any applicant for a permit to appropriate from a water-course which is tributary to an enclosed bay or estuary may be required to present to the State Board an analysis of the anticipated effects of the proposed appropriation on water quality and beneficial uses of the effected bay or estuary.

E. Monitoring Program

The Regional Board shall require dischargers to conduct self-monitoring programs and submit reports as necessary to determine compliance with waste discharge requirements and to evaluate the effectiveness of wastewater control programs. Such monitoring programs shall comply with applicable sections of the State Board's Administrative Procedures, and any additional guidelines which may be issued by the Executive Officer of the State Board.

3/12/16

FOOTNOTES

1/ Enclosed bays are indentations along the coast which enclose an area of oceanic water within distinct headlands or harbor works. Enclosed bays include all bays where the narrowest distance between headlands or outer-most harbor works is less than 75 percent of the greatest dimension of the enclosed portion of the bay. This definition includes, but is not limited to: Humboldt Bay, Bodega Harbor, Tomales Bay, Drakes Estero, San Francisco Bay, Morro Bay, Los Angeles-Long Beach Harbor, Upper and Lower Newport Bay, Mission Bay, and San Diego Bay.

Estuaries, including coastal lagoons, are waters at the mouths of streams which serve as mixing zones for fresh and ocean waters.

Mouths of streams which are temporarily separated from the ocean by sandbars shall be considered as estuaries.

Estuarine waters will generally be considered to extend from a bay or the open ocean to a point upstream where there is no significant mixing of fresh water and seawater.

Estuarine waters shall be considered to extend seaward if significant mixing of fresh and saltwater occurs in the open coastal waters. Estuarine waters include, but are not limited to, the Sacramento-San Joaquin Delta, as defined by Section 12224 of the California Water Code, Suisun Bay, Carquinez Strait downstream to Carquinez Bridge, and appropriate areas of the Smith, Klamath, Mad, Eel, Noyo, and Russian Rivers.

2/ For the purpose of this policy, treated ballast waters and innocuous nonmunicipal wastewater such as clear brines, wash-water, and pool drains are not necessarily considered industrial process wastes, and may be allowed by Regional Boards under discharge requirements that provide protection to the beneficial uses of the receiving water.

3/ Undiluted wastewaters covered under this exception provision shall not produce less than 90 percent survival, 50 percent of the time, and not less than 70 percent survival, 10 percent of the time of a standard test species in a 96-hour static or continuous flow bioassay test using undiluted waste. Maintenance of these levels of survival shall not by themselves constitute sufficient evidence that the discharge satisfies the criteria of enhancing the quality of the receiving water above that which occur in the absence of the discharge. Full and uninterrupted protection for the beneficial uses of the receiving water must be maintained. A Regional Board may require physical, chemical, bioassay, and bacteriological assessment of treated wastewater quality prior to authorizing release to the bay or estuary of concern.

- 4/ Initial dilution zone is defined as the volume of water near the point of discharge within which the waste immediately mixes with the bay or estuarine water due to the momentum of the waste discharge and the difference in density between the waste and receiving water.
- 5/ A new discharge is a discharge for which a Regional Board has ~~not received a report of waste discharge prior to the date~~ of adoption of this policy, and which was not in existence prior to the date of adoption of this policy.
- 6/ Rubbish and refuse include any cans, bottles, paper, plastic, vegetable matter, or dead animals or dead fish deposited or caused to be deposited by man.
- 7/ The prohibition does not apply to cooling water streams which comply with the "Water Quality Control Plan for the Control of Temperature in Coastal and Interstate Waters and Enclosed Bays and Estuaries of California" - State Water Resources Control Board.

STATE WATER RESOURCES CONTROL BOARD  
RESOLUTION NO. 74-43

WATER QUALITY CONTROL POLICY FOR THE  
ENCLOSED BAYS AND ESTUARIES OF CALIFORNIA

WHEREAS:

1. The Board finds it necessary to promulgate water quality principles, guidelines, effluent quality requirements, and prohibitions to govern the disposal of waste into the enclosed bays and estuaries of California;
2. The Board, after review and analysis of testimony received at public hearings, has determined that it is both feasible and desirable to require that the discharge of municipal wastewaters and industrial process waters to enclosed bays and estuaries (other than the San Francisco Bay-Delta system) should only be allowed when a discharge enhances the quality of the receiving water above that which would occur in the absence of the discharge;
3. The Board has previously promulgated requirements for the discharge of thermal and elevated temperature wastes to enclosed bays and estuaries (Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California - SWRCB, 1972);
4. The Board, after review and analysis of testimony received at public hearings, has determined that implementation of a program which controls toxic effects through a combination of source control for toxic materials, upgraded waste treatment, and improved dilution of wastewaters, will result in timely and cost-effective progress toward an objective of providing full protection to the biota and beneficial uses of San Francisco Bay-Delta waters;
5. The Board intends to implement monitoring programs to determine the effects of source control programs, upgraded treatment, and improved dispersion of wastewaters on the condition of the biota and beneficial uses of San Francisco Bay-Delta waters.

THEREFORE, BE IT RESOLVED, that

1. The Board hereby adopts the "Water Quality Control Policy for the Enclosed Bays and Estuaries of California".
2. The Board hereby directs all affected California Regional Water Quality Control Boards to implement the provisions of the policy.

3. The Board hereby declares its intent to determine from time to time the need for revising the policy to assure that it reflects current knowledge of water quality objectives necessary to protect beneficial uses of bay and estuarine waters and that it is based on latest technological improvements.

#### CERTIFICATION

The undersigned, Executive Officer of the State Water Resources Control 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 16, 1974.

*Bill B. Dendy*

Bill B. Dendy  
Executive Officer

WATER QUALITY CONTROL POLICY  
ON THE USE AND DISPOSAL OF INLAND  
WATERS USED FOR POWERPLANT COOLING

Introduction

The purpose of this policy is to provide consistent statewide water quality principles and guidance for adoption of discharge requirements, and implementation actions for powerplants which depend upon inland waters for cooling. In addition, this policy should be particularly useful in guiding planning of new power generating facilities so as to protect beneficial uses of the State's water resources and to keep the consumptive use of freshwater for powerplant cooling to that minimally essential for the welfare of the citizens of the State.

This policy has been prepared to be consistent with federal, state, and local planning and regulatory statutes, the Warren-Alquist State Energy Resources Conservation and Development Act, Water Code Section 237 and the Waste Water Reuse Law of 1974.

Section 25216.3 of the Warren-Alquist Act states:

"(a) The commission shall compile relevant local, regional, state, and federal land use, public safety, environmental, and other standards to be met in designing, siting, and operating facilities in the State; except as provided in subdivision (d) of Section 25402, adopt standards, except for air and water quality,...."

Water Code Section 237 and Section 462 of the Waste Water Reuse Law, direct the Department of Water Resources to:

237. "...either independently or in cooperation with any person or any county, state, federal, or other agency, including, but not limited to, the State Energy Resources Conservation and Development Commission, shall conduct studies and investigations on the need and availability of water for thermal electric powerplant cooling purposes, and shall report thereon to the Legislature from time to time...."

462. "...conduct studies and investigations on the availability and quality of waste water and uses of reclaimed waste water for beneficial purposes including, but not limited to ... and cooling for thermal electric powerplants."

Decisions on waste discharge requirements, water rights permits, water quality control plans, and other specific water quality control implementing actions by the State and Regional Boards shall be consistent with provisions of this policy.

The Board declares its intent to determine from time to time the need for revising this policy.

### Definitions

1. Inland Water - all waters within the territorial limits of California exclusive of the waters of the Pacific Ocean outside of enclosed bays, estuaries, and coastal lagoons.
2. Fresh Inland Waters - those inland waters which are suitable for use as a source of domestic, municipal, or agricultural water supply and which provide habitat for fish and wildlife.
3. Salt Sinks - areas designated by the Regional Water Quality Control Boards to receive saline waste discharges.
4. Brackish Waters - includes all waters with a salinity range of 1,000 to 30,000 mg/l and a chloride concentration range of 250 to 12,000 mg/l. The application of the term "brackish" to a water is not intended to imply that such water is no longer suitable for industrial or agricultural purposes.
5. Steam-Electric Power Generating Facilities - electric power generating facilities utilizing fossil or nuclear-type fuel or solar heating in conjunction with a thermal cycle employing the steam-water system as the thermodynamic medium and for the purposes of this policy is **synonymous** with the word "powerplant".
6. Blowdown - the minimum discharge of either boiler water or recirculating cooling water for the purpose of limiting the buildup of concentrations of materials in excess of desirable limits established by best engineering practice.
7. Closed Cycle Systems - a cooling water system from which there is no discharge of wastewater other than blowdown.
8. Once-Through Cooling - a cooling water system in which there is no recirculation of the cooling water after its initial use.
9. Evaporative Cooling Facilities - evaporative towers, cooling ponds, or cooling canals, which utilize evaporation as a means of wasting rejected heat to the atmosphere.
10. Thermal Plan - "Water Quality Control Plan for Control of Temperature In The Coastal and Interstate Waters and Enclosed Bays and Estuaries of California"

11. Ocean Plan - "Water Quality Control Plan for Ocean Waters of California"

Basis of Policy

1. The State Board believes it is essential that every reasonable effort be made to conserve energy supplies and reduce energy demands to minimize adverse effects on water supply and water quality and at the same time satisfy the State's energy requirements.
2. The increasing concern to limit changes to the coastal environment and the potential hazards of earthquake activity along the coast has led the electric utility industry to consider siting steam-electric generating plants inland as an alternative to proposed coastal locations.
3. Although many of the impacts of coastal powerplants on the marine environment are still not well understood, it appears the coastal marine environment is less susceptible than inland waters to the water quality impacts associated with powerplant cooling. Operation of existing coastal powerplants indicate that these facilities either meet the standards of the State's Thermal Plan and Ocean Plan or could do so readily with appropriate technological modifications. Furthermore, coastal locations provide for application of wide range of cooling technologies which do not require the consumptive use of inland waters and therefore would not place an additional burden on the State's limited supply of inland waters. These technologies include once-through cooling which is appropriate for most coastal sites, potential use of saltwater cooling towers, or use of brackish waters where more stringent controls are required for environmental considerations at specific sites.
4. There is a limited supply of inland water resources in California. Basin planning conducted by the State Board has shown that there is no available water for new allocations in some basins. Projected future water demands when compared to existing developed water supplies indicate that general fresh-water shortages will occur in many areas of the State prior to the year 2000. The use of inland waters for powerplant cooling needs to be carefully evaluated to assure proper future allocation of inland waters considering all other beneficial uses. The loss of inland waters through evaporation in powerplant cooling facilities may be considered an unreasonable use of inland waters when general shortages occur.
5. The Regional Boards have adopted water quality objectives including temperature objectives for all surface waters in the State.
6. Disposal of once-through cooling waters from powerplants to inland waters is incompatible with maintaining the water quality objectives of the State Board's "Thermal Plan" and "Water Quality Control Plans".

7. The improper disposal of blowdown from evaporative cooling facilities may have an adverse impact on the quality of inland surface and groundwaters and on fish and wildlife.
8. An important consideration in the increased use of inland water for powerplant cooling or for any other purpose in the Central Valley Region is the reduction in the available quantity of water to meet the Delta outflow requirements necessary to protect Delta water quality objectives and standards. Additionally, existing contractual agreements to provide future water supplies to the Central Valley, the South Coastal Basin, and other areas using supplemental water supplies are threatening to further reduce the Central Valley outflow necessary to protect the Delta environment.
9. The California Constitution and the California Water Code declare that the right to use water from a natural stream or watercourse is limited to such water as shall be reasonably required for beneficial use and does not extend to the waste or unreasonable use or unreasonable method of use or unreasonable method of diversion. Section 761, Article 17.2, Subchapter 2, Chapter 3, Title 23, California Administrative Code provides that permits or licenses for the appropriation of water will contain a term which will subject the permit or license to the continuing authority of the State Board to prevent waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of said water.
10. The Water Code authorizes the State Board to prohibit the discharge of wastes to surface and groundwaters of the State.

### Principles

1. It is the Board's position that from a water quantity and quality standpoint the source of powerplant cooling water should come from the following sources in this order of priority depending on site specifics such as environmental, technical and economic feasibility consideration: (1) wastewater being discharged to the ocean, (2) ocean, (3) brackish water from natural sources or irrigation return flow, (4) inland wastewaters of low TDS, and (5) other inland waters.
2. Where the Board has jurisdiction, use of fresh inland waters for powerplant cooling will be approved by the Board only when it is demonstrated that the use of other water supply sources or other methods of cooling would be environmentally undesirable or economically unsound.
3. In considering issuance of a permit or license to appropriate water for powerplant cooling, the Board will consider the reasonableness of the proposed water use when compared with other present and future needs for the water source and when viewed in the context of alternative water sources that could be used

for the purpose. The Board will give great weight to the results of studies made pursuant to the Warren-Alquist State Energy Resources Conservation and Development Act and carefully evaluate studies by the Department of Water Resources made pursuant to Sections 237 and 462, Division 1 of the California Water Code.

4. ~~The discharge of blowdown water from cooling towers or return flows from once-through cooling shall not cause a violation of water quality objectives or waste discharge requirements established by the Regional Boards.~~
5. The use of unlined evaporation ponds to concentrate salts from blowdown waters will be permitted only at salt sinks approved by the Regional and State Boards. Proposals to utilize unlined evaporation ponds for final disposal of blowdown waters must include studies of alternative methods of disposal. These studies must show that the geologic strata underlying the proposed ponds or salt sink will protect usable groundwater.
6. Studies of availability of inland waters for use in powerplant cooling facilities to be constructed in Central Valley basins, the South Coastal Basins or other areas which receive supplemental water from Central Valley streams as for all major new uses must include an analysis of the impact of such use on Delta outflow and Delta water quality objectives. The studies associated with powerplants should include an analysis of the cost and water use associated with the use of alternative cooling facilities employing dry, or wet/dry modes of operation.
7. The State Board encourages water supply agencies and power generating utilities and agencies to study the feasibility of using wastewater for powerplant cooling. The State Board encourages the use of wastewater for powerplant cooling where it is appropriate. Furthermore, Section 25601(d) of the Warren-Alquist Energy Resources Conservation and Development Act directs the Commission to study, "expanded use of wastewater as cooling water and other advances in powerplant cooling" and Section 462 of the Waste Water Reuse Law directs the Department of Water Resources to "...conduct studies and investigations on the availability and quality of waste water and uses of reclaimed waste water for beneficial purposes including, but not limited to ... and cooling for thermal electric powerplants."

#### Discharge Prohibitions

1. The discharge to land disposal sites of blowdown waters from inland powerplant cooling facilities shall be prohibited except to salt sinks or to lined facilities approved by the Regional and State Boards for the reception of such wastes.

2. The discharge of wastewaters from once-through inland powerplant cooling facilities shall be prohibited unless the discharger can show that such a practice will maintain the existing water quality and aquatic environment of the State's water resources.
3. The Regional Boards may grant exceptions to these discharge prohibitions on a case-by-case basis in accordance with exception procedures included in the "Water Quality Control Plan for Control of Temperature In The Coastal and Interstate Waters and Enclosed Bays and Estuaries of California."

#### Implementation

1. Regional Water Quality Control Boards will adopt waste discharge requirements for discharges from powerplant cooling facilities which specify allowable mass emission rates and/or concentrations of effluent constituents for the blowdown waters. Waste discharge requirements for powerplant cooling facilities will also specify the water quality conditions to be maintained in the receiving waters.
2. The discharge requirements shall contain a monitoring program to be conducted by the discharger to determine compliance with waste discharge requirements.
3. When adopting waste discharge requirements for powerplant cooling facilities the Regional Boards shall consider other environmental factors and may require an environmental impact report, and shall condition the requirement in accordance with Section 2718, Subchapter 17, Chapter 3, Title 23, California Administrative Code.
4. The State Board shall include a term in all permits and licenses for appropriation of water for use in powerplant cooling that requires the permittee or licensee to conduct ongoing studies of the environmental desirability and economic feasibility of changing facility operations to minimize the use of fresh inland waters. Study results will be submitted to the State Board at intervals as specified in the permit term.
5. Petitions by the appropriator to change the nature of the use of appropriated water in an existing permit or license to allow the use of inland water for powerplant cooling may have an impact on the quality of the environment and as such require the preparation of an environmental impact statement or a supplement to an existing statement regarding, among other factors, an analysis of the reasonableness of the proposed use.

6. Applications to appropriate inland waters for powerplant cooling purpose shall include results of studies comparing the environmental impact of alternative inland sites as well as alternative water supplies and cooling facilities. Studies of alternative coastal sites must be included in the environmental impact report. Alternatives to be considered in the environmental impact report, including but not limited to sites, water supply, and cooling facilities, shall be mutually agreed upon by the prospective appropriator and the State Board staff. These studies should include comparisons of environmental impact and economic and social benefits and costs in conformance with the Warren-Alquist State Energy Resources Conservation and Development Act, the California Coastal Zone Plan, the California Environmental Quality Act and the National Environmental Policy Act.

STATE WATER RESOURCES CONTROL BOARD  
RESOLUTION NO. 75-58

WATER QUALITY CONTROL POLICY ON THE USE  
AND DISPOSAL OF INLAND WATERS USED FOR  
POWERPLANT COOLING

WHEREAS:

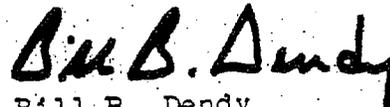
1. Basin planning conducted by the State Board has shown that there is presently no available water for new allocations in some basins.
2. Projected future water demands, when compared to existing developed water supplies, indicate that general freshwater shortages will occur in many areas of the State prior to the year 2000.
3. The improper disposal of powerplant cooling waters may have an adverse impact on the quality of inland surface and groundwaters.
4. It is believed that further development of water in the Central Valley will reduce the quantity of water available to meet Delta outflow requirements and protect Delta water quality standards.

THEREFORE, BE IT RESOLVED, that

1. The Board hereby adopts the "Water Quality Control Policy on the Use and Disposal of Inland Waters Used for Powerplant Cooling".
2. The Board hereby directs all affected California Regional Water Quality Control Boards to implement the applicable provisions of the policy.
3. The Board hereby directs staff to coordinate closely with the State Energy Resources Conservation and Development Commission and other involved state and local agencies as this policy is implemented.

CERTIFICATION

The undersigned, Executive Officer of the State Water Resources Control 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 19, 1975.

  
Bill B. Dendy  
Executive Officer

STATE WATER RESOURCES CONTROL BOARD  
RESOLUTION NO. 77-1

POLICY WITH RESPECT TO WATER  
RECLAMATION IN CALIFORNIA

WHEREAS:

1. The California Constitution provides that the water resources of the State be put to beneficial use to the fullest extent of which they are capable, and that waste or unreasonable use or unreasonable method of use of water be prevented, and that conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare;
2. The California Legislature has declared that the State Water Resources Control Board and each Regional Water Quality Control Board shall be the principal state agencies with primary responsibility for the coordination and control of water quality;
3. The California Legislature has declared that the people of the State have a primary interest in the development of facilities to reclaim water containing waste to supplement existing surface and underground water supplies;
4. The California Legislature has declared that the State shall undertake all possible steps to encourage the development of water reclamation facilities so that reclaimed water may be made available to help meet the growing water requirements of the State;
5. The Board has reviewed the document entitled "Policy and Action Plan for Water Reclamation in California", dated December 1976. This document recommends a variety of actions to encourage the development of water reclamation facilities and the use of reclaimed water. Some of these actions require direct implementation by the Board; others require implementation by the Executive Officer and the Regional Boards. In addition, this document recognizes that action by many other state, local, and federal agencies and the California State Legislature would also encourage construction of water reclamation facilities and the use of reclaimed water. Accordingly, the Board recommends for its consideration a number of actions intended to coordinate with the program of this Board;
6. The Board must concentrate its efforts to encourage and promote reclamation in water-short areas of the State where reclaimed water can supplement or replace other water supplies without interfering with water rights or instream beneficial uses or placing an unreasonable burden on present water supply systems; and

7. In order to coordinate the development of reclamation potential in California, the Board must develop a data collection, research, planning, and implementation program for water reclamation and reclaimed water uses.

THEREFORE, BE IT RESOLVED:

1. That the State Board adopt the following Principles:

- I. The State Board and the Regional Boards shall encourage, and consider or recommend for funding, water reclamation projects which meet Condition 1, 2, or 3 below and which do not adversely impact vested water rights or unreasonably impair instream beneficial uses or place an unreasonable burden on present water supply systems;
  - (1) Beneficial use will be made of wastewaters that would otherwise be discharged to marine or brackish receiving waters or evaporation ponds,
  - (2) Reclaimed water will replace or supplement the use of fresh water or better quality water,
  - (3) Reclaimed water will be used to preserve, restore, or enhance instream beneficial uses which include, but are not limited to, fish, wildlife, recreation and esthetics associated with any surface water or wetlands.
- II. The State Board and the Regional Boards shall (1) encourage reclamation and reuse of water in water-short areas of the State, (2) encourage water conservation measures which further extend the water resources of the State, and (3) encourage other agencies, in particular the Department of Water Resources, to assist in implementing this policy.
- III. The State Board and the Regional Boards recognize the need to protect the public health including potential vector problems and the environment in the implementation of reclamation projects.
- IV. In implementing the foregoing Principles, the State Board or the Regional Boards, as the case may be, shall take appropriate actions, recommend legislation, and recommend actions by other agencies in the areas of (1) planning, (2) project funding, (3) water rights, (4) regulation and enforcement, (5) research and demonstration, and (6) public involvement and information.

2. That, in order to implement the foregoing Principles, the State Board:

- (a) Approves Planning Program Guidance Memorandum No. 9, "PLANNING FOR WASTEWATER RECLAMATION",
  - (b) Adopts amendments and additions to Title 23, California Administrative Code Sections 654.4, 761, 764.9, 783, 2101, 2102, 2107, 2109, 2109.1, 2109.2, 2119, 2121, 2133(b)(2), and 2133(b)(3),
  - (c) Approves Grants Management Memorandum No. 9.01, "WASTEWATER RECLAMATION",
  - (d) Approves the Division of Planning and Research, Procedures and Criteria for the Selection of Wastewater Reclamation Research and Demonstration Projects,
  - (e) Approves "GUIDELINES FOR REGULATION OF WATER RECLAMATION",
  - (f) Approves the Plan of Action contained in Part III of the document identified in Finding Five above,
  - (g) Directs the Executive Officer to establish an Interagency Water Reclamation Policy Advisory Committee. Such Committee shall examine trends, analyze implementation problems, and report annually to the Board the results of the implementation of this policy, and
  - (h) Authorizes the Chairperson of the Board and directs the Executive Officer to implement the foregoing Principles and the Plan of Action contained in Part III of the document identified in Finding Five above, as appropriate.
3. That not later than July 1, 1978, the Board shall review this policy and actions taken to implement it, along with the report prepared by the Interagency Water Reclamation Policy Advisory Committee, to determine whether modifications to this policy are appropriate to more effectively encourage water reclamation in California.
  4. That the Chairperson of the Board shall transmit to the California Legislature a complete copy of the "Policy and Action Plan for Water Reclamation in California".

#### CERTIFICATION

The undersigned, Executive Officer of the State Water Resources Control Board, does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a special meeting of the State Water Resources Control Board held on January 6, 1977.

Dated: JAN 6 1977

*Bill B. Dendy*

Bill B. Dendy  
Executive Officer

STATE WATER RESOURCES CONTROL BOARD  
RESOLUTION NO. 87-22

POLICY ON THE DISPOSAL OF SHREDDER WASTE

WHEREAS:

1. Chemical analysis of wastes resulting from the shredding of automobile bodies, household appliances, and sheet metal (hereinafter shredder waste) by methods stipulated by the Department of Health Services (hereinafter DHS) has resulted in the classification of shredder waste as a hazardous waste and the determination that, if inappropriately handled, it could catch fire and release toxic gases.
2. The California Legislature has declared that shredder waste shall not be classified as hazardous for the purposes of disposal if the producer demonstrates that the waste will not pose a threat to human health or water quality if disposed of in a qualified Class III waste management unit, as specified in Section 2533 of Subchapter 15 of Chapter 3 of Title 23 of the California Administrative Code (hereinafter Subchapter 15).
3. DHS has granted shredder waste a variance for the purposes of disposal from hazardous waste management requirements pursuant to Section 66310 of Title 22 of the California Administrative Code.
4. Hazardous waste which has received a variance from DHS for the purposes of disposal is classified as a designated waste pursuant to Section 2522 of Subchapter 15.
5. In general, designated waste must be disposed of in a Class I or Class II waste management unit. However, designated waste may be disposed of in a Class III waste management unit provided that the discharger establishes to the satisfaction of the Regional Water Quality Control Board (hereinafter Regional Board) that the waste presents a lower risk of degrading water quality than is indicated by its classification. (Authority: Section 2520, Subchapter 15)
6. Analysis of shredder waste by the U. S. Environmental Protection Agency's extraction procedure for heavy metals does not normally result in its classification as a hazardous waste.
7. The disposal of shredder waste in a manner such that it is not in contact with putrescible waste or the leachate generated by putrescible waste will not result in the high mobilization of metals indicated by the tests used to determine that shredder waste is hazardous; therefore, such disposal may occur in accordance with Section 2520 of Subchapter 15.

8. Levels of polychlorinated biphenyls (hereinafter PCB) which slightly exceed 50 mg/kg, the level as defined by the U. S. Environmental Protection Agency which requires disposal to an approved site in accordance with the Federal Toxic Substances Control Act, have been measured in some existing shredder waste piles.

THEREFORE BE IT RESOLVED:

1. That shredder waste which is determined hazardous by DHS, but is granted a variance for the purposes of disposal by DHS, is suitable for disposal at Class III waste management units as designated by the Regional Board when it has been demonstrated to the Regional Board that the waste management units at least meet the minimum requirements for a Class III waste management unit as defined by Subchapter 15 provided that:
  - a. The shredder waste producer has demonstrated to the Regional Board that the waste contains no more than 50 mg/kg of PCB.
  - b. The shredder waste is disposed on the last and highest lift in a closed disposal cell or in an isolated cell solely designated for the disposal of shredder waste.
2. That shredder waste which is not determined hazardous by DHS is suitable for disposal at Class III waste management units as designated by the Regional Board without special segregation or management.
3. That this resolution in no way abridges the rights of the Regional Boards to designate appropriate Class III waste management units for disposal of shredder waste consistent with Section 25143.6 of the Health and Safety Code (Chapter 1395, Statutes of 1985).

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 March 19, 1987.



Maureen Marché  
Administrative Assistant to the Board

STATE WATER RESOURCES CONTROL BOARD  
RESOLUTION NO. 88- 23

ADOPTION OF THE POLICY REGARDING THE  
UNDERGROUND STORAGE TANK  
PILOT PROGRAM

WHEREAS:

1. State law requires local governments to implement an underground tank permit program consisting of monitoring requirements for existing underground tanks containing hazardous substances and design, construction and monitoring requirements for new tanks.
2. Monitoring efforts have led to the identification of approximately 5,000 leaking underground storage tank release sites with approximately 150 new cases being discovered statewide each month.
3. To address the problem of funding governmental oversight of remedial actions at these release sites, the Legislature appropriated funds and enacted AB 853 (Chapter 1317, Statutes of 1987).
4. Prior to expending funds from the reserve account established by Subdivision (c) of Section 7, Chapter 1439, Statutes of 1985 the State Water Resources Control Board must adopt administrative and technical procedures for cleanup and abatement action taken under this pilot program.

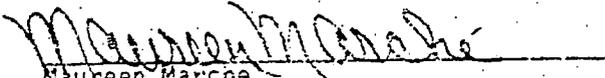
THEREFORE BE IT RESOLVED:

THAT THE STATE BOARD:

1. Adopts the attached policy regarding implementation of the underground tank pilot program.
2. Directs the Executive Director or his designee to take actions needed to implement the policy.

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 February 18, 1988.

  
Maureen Marcne  
Administrative Assistant to the Board

STATE WATER RESOURCES CONTROL  
BOARD POLICY REGARDING THE  
UNDERGROUND STORAGE TANK  
PILOT PROGRAM

Statutory authority exists at the federal, state and local level to require remedial action at underground storage tank release sites and to rank and fund remedial action at underground storage tank release sites where a responsible party cannot be identified or has insufficient financial resources to accomplish the needed work. Some local agencies have used this authority to respond to some of these releases, as have the nine Regional Water Quality Control Boards. In addition, the Regional Boards are providing technical assistance to local agencies addressing underground storage tank cleanup. However, no specific statewide program for funding governmental oversight of remedial action by responsible parties has been established. As a result, underground storage tank release oversight is not being consistently addressed statewide, leaving site cleanup by responsible parties without adequate guidance.

To address this problem, the State Board, in cooperation with the Department of Health Services, is implementing a pilot program to fund oversight of remedial action at underground storage tank sites. This program will be funded through an appropriation from the state Hazardous Substances Cleanup Bond Fund and the federal Underground Storage Tank Petroleum Trust Fund.

Prior to implementation of this pilot program, the State Board is required by Section 25297.1 of the Health and Safety Code (AB 853, Chapter 1517, Statutes of 1987) to adopt, as state policy for water quality control, administrative and technical procedures to guide local agencies in development of their individual programs.

As participants in the pilot program, local agencies may contract with the State Board to oversee preliminary site assessment and, if necessary, remedial action at leaking underground storage tank sites. The State Board plans to initially enter into 12 contracts with subsequent expansion as appropriate.

#### Site and Agency Selection

Local agencies will be selected for participation based on their readiness to implement the pilot program and the size of program which the agencies plan to conduct. Those agencies which have existing oversight efforts and plan to expand staff using pilot program funds were ranked highest among eligible candidates. Any local agency which, unless exempted, has failed to implement Chapter 6.7 of the Health and Safety Code and/or which has failed to collect and transmit to the State Board the surcharge fees pursuant to subdivision (b) of Section 25287, was eliminated from consideration.

Under the pilot program, funds may be used at all sites containing leaking tanks which are subject to the state permit program or Subtitle (I) of the federal Resource Conservation and Recovery Act. While contracting local agencies may perform oversight activities at any site within their jurisdictions, agencies may defer lead responsibility for any case affecting, or threatening to affect, ground water to the appropriate Regional Board.

In addition, the local agencies may defer lead responsibility for any case involving a non-petroleum substance to either the appropriate Regional Board or the Department of Health Services. Under terms of the contract between the Local agencies and State Board, all cases involving no financially solvent responsible party, no identifiable responsible party or no responsible party willing to conduct remedial action must be reported to the State Board for possible listing on the state Site Expenditure Plan.

#### Agreements Between the State Board and Local Agencies

The State Board has developed a model contract which will be used as the basis for negotiations between the local agencies and the State Board. This contract outlines in detail the types of activities expected of contracting agencies and the administrative duties of the State and Regional Boards. The model contract (Attachment 1) is hereby made a part of this water quality control policy. Language in the model contract may be modified in negotiations with the local agencies.

#### Petition for Review

Responsible parties or any other aggrieved persons may petition the State Board for review of actions or decisions made by a local agency as part of the agency's participation in the pilot program. The procedures for such review are contained in "Review by State Board of Action or Failure to Act by Local Agencies" (Attachment 2), which is hereby made a part of this water quality control policy.

#### Cost Recovery Procedures

Under terms of both the Cooperative Agreement with the federal government transferring money from the Trust Fund and Section 25297.1 of the Health and Safety Code concerning the Bond Fund, local contracting agencies must agree to keep site-specific accounting records and other such records as are necessary to verify all hours worked and expenses incurred at each underground storage tank site. Local contracting agencies will forward to the State Board monthly invoices listing all site-specific and administrative expenses.

The State Board must undertake cost recovery. Procedurally, the cost recovery efforts will be handled in the following manner. The State Board is responsible for ensuring the preparation of cost data and for invoicing responsible parties for all costs incurred by the State Board and/or local contracting agencies in performing activities covered by this agreement. Such costs shall include all additional costs required to be recovered pursuant to Health and Safety Code Section 25360. The State Board will provide guidelines to the local contracting agencies to ensure that necessary cost data are developed, maintained and reported to the State Board.

The State Board will invoice the responsible parties for all costs, both direct and indirect, attributable to that site upon conclusion of the preliminary site assessment phase. If cleanup of the site has not been completed, the State Board will continue invoicing the responsible parties at regular intervals thereafter until conclusion of site cleanup.

Upon receipt of a final invoice for each site, the State Board will invoice the responsible parties for all costs attributable to the site which have not previously been reimbursed by the responsible parties.

Payments received from responsible parties of sites having state-funded oversight will be deposited in the Hazardous Substances Clearing Account. Payments from responsible parties at federally funded sites will be handled according to procedures established by the federal Environmental Protection Agency.

Whenever a responsible party fails to repay all of the costs specified above, the State Board shall request the State Attorney General to bring a civil action to recover these moneys. The State Board shall be responsible for providing all necessary litigation support, including testimony, to the Attorney General and the Department of Health Services in any action to recover costs. The State Board will submit to the Department of Health Services a copy of each referral of state-funded sites to the Attorney General.

#### Evaluation Criteria

In conjunction with the pilot program, the State Board is developing the Leaking Underground Storage Tank Information System (LUSTIS). This computer tracking system will enable all local agencies and the Regional Boards to report known leaking tank sites and their cleanup status. Using LUSTIS, it will be possible to compare cleanup of sites in the pilot program with sites handled by non-contracting local agencies and the Regional Boards. Comparison criteria will include number of sites cleaned and length of time required to clean up each site. Additional statistics will be tracked by State Board staff to determine costs under the pilot program and success in cost recovery. Staff will report annually on the status of the pilot program including the above criteria. The report will be submitted to the State Board no later than September 1, 1988 and annually thereafter for the duration of the pilot program.

BECAUSE OF ITS TECHNICAL NATURE AND LENGTH, THE MODEL CONTRACT (ATTACHMENT 1) IS NOT INCLUDED IN THIS PACKET. COPIES WILL BE PROVIDED UPON REQUEST. FOR COPIES, PLEASE CONTACT BETTY MORENO, DIVISION OF WATER QUALITY, STATE WATER RESOURCES CONTROL BOARD, P.O. BOX 100, SACRAMENTO, CA 95801-0100, (916) 324-1262.

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REVIEW BY STATE BOARD OF ACTION OR FAILURE TO ACT BY LOCAL AGENCIES

- (1) Applicability. This section establishes the procedures by which a responsible party or other aggrieved person may petition the State Board for review of the action or decision a local agency made as part of that local agency's participation in the pilot program. Actions or decisions made by local agencies independent of their participation in the pilot program, and actions or decisions of local agencies that are not participating in the pilot program, are not subject to review by the State Board under this section.
- (2) Petitions. Any responsible party or other aggrieved person may petition the State Board for review of an action or decision of a local agency, including a local agency's failure to act, as part of the pilot program.
  - (A) The petition shall be submitted in writing and received by the State Board within 30 days of the action or decision of the local agency. In the case of a failure to act, the 30-day period shall commence upon refusal of the local agency to act, or 60 days after the request has been made to the local agency to act. The State Board will not accept any petition received after the 30-day period for filing petitions but the State Board may, on its own motion, at any time review any local agency's action or failure to act.
  - (B) The petition shall contain the following:
    - (1) The name and address of the petitioner;
    - (2) The specific action or inaction of the local agency which the State Board is requested to review;
    - (3) The date on which the local agency acted or refused to act or on which the local agency was requested to act;
    - (4) A full and complete statement of the reasons the action or failure to act was inappropriate or improper;
    - (5) The manner in which the petitioner is aggrieved;
    - (6) The specific action by the State Board or the local agency which the petitioner requests;
    - (7) A statement of points and authorities in support of legal issues raised in the petition;
    - (8) A list of persons, if any, other than the petitioner, known by the local agency to have an interest in the subject matter of the petition. Such list shall be obtained from the local agency;
    - (9) A statement that the petition has been sent to the local agency, the appropriate Regional Board, and to any responsible parties other than the petitioner, known to the petitioner or the local agency;
    - (10) A copy of the request to the local agency for preparation of the local agency record.

- (C) If petitioner requests a hearing for the purpose of presenting additional evidence, the petition shall include a statement that additional evidence is available that was not presented to the local agency or that evidence was improperly excluded by the local agency. A detailed statement of the nature of the evidence and the facts to be proved shall also be included. If evidence was not presented to the local agency, the reason it was not presented shall be explained. If the petitioner contends that evidence was improperly excluded, the request for a hearing shall include a specific statement of the manner in which the evidence was excluded improperly.
- (D) Upon receipt of a petition which does not comply with this subdivision, the petitioner will be notified in what respect the petition is defective and the time within which an amended petition may be filed. If a properly amended petition is not received by the State Board within the time allowed, the petition shall be dismissed unless cause is shown for an extension of time.
- (E) The State Board may dismiss the petition at any time if the petition is withdrawn or the petition fails to raise substantial issues that are appropriate for review.
- (3) Responses. Upon receipt of a petition which complies with subdivision (2), the State Board shall give written notification to the petitioner, the responsible party or parties, if not the petitioner, the local agency, the Regional Board, the Toxic Substances Control Division Office of Legal Counsel in the Department of Health Services, and other interested persons that they shall have 20 days from the date of mailing such notification to file a response to the petition with the State Board. Respondents to petitions shall also send copies of their responses to the petitioner and the local agency, as appropriate. The local agency shall file the record specified in paragraph (B)(10) of subdivision (2) within this 20-day period. Any response which requests a hearing by the State Board shall comply with paragraph (C) of subdivision (2). The time for filing a response may be extended by the State Board. When a review is undertaken on the State Board's own motion, all affected persons known to the State Board shall be notified and given an opportunity to submit information and comments, subject to such conditions as the State Board may prescribe.
- (4) Proceedings before the State Board. After review of the record, the State Board may deny the petition or grant the petition in whole or in part.
- (A) The State Board may order one or more proceedings which are legally or factually related to be considered or heard together unless any party thereto makes a sufficient showing of prejudice.
- (B) The State Board may, in its discretion, hold a hearing for the receipt of additional evidence. If a hearing is held, the State Board shall give reasonable notice of the time and place and of the issues to be considered to the responsible party or parties, if not the petitioner, the local agency, any interested persons who have

filed a response to the petition pursuant to subdivision (3) and such other persons as the State Board deems appropriate. The State Board in its discretion may require that, not later than ten days before the hearing, all interested parties intending to participate shall submit to the State Board in writing the name of each witness who will appear, together with a statement of the qualifications of each expert witness who will appear, the subject of the proposed testimony, and the estimated time required by the witness to present direct testimony. The Board may also require that copies of proposed exhibits be supplied to the State Board not later than ten days before the hearing.

- (C) The State Board may discuss a proposed order in a public workshop prior to final action at a State Board meeting. At the workshop meeting, the State Board may invite comments on the proposed order from interested persons. These comments shall be based solely upon factual evidence contained in the record or upon legal argument.
- (D) The evidence before the State Board shall consist of (i) the record before the local agency; (ii) any evidence admitted by the State Board at a hearing and (iii) any other relevant evidence which, in the judgment of the State Board, should be considered to effectuate and implement the pilot program. Upon the close of a hearing, the presiding officer may keep the hearing record open for a definite time, not to exceed thirty days, to allow any party to file additional exhibits, reports or affidavits. If any person desires to submit factual evidence not in the local agency record or hearing record, and the proposed order will be discussed at a workshop meeting such person may take this request to the State Board prior to or during the workshop. This request shall include a description of the evidence, and a statement and supporting argument that the evidence was improperly excluded from the record or an explanation of the reasons why the factual evidence could not previously have been submitted. If the State Board in its discretion approves the request, the evidence must be submitted in writing by the person requesting consideration of the evidence to the State Board, and to any other interested person who filed the petition or a response to the petition, within five days of such approval. The evidentiary submittal shall be accompanied by a notification that other interested parties shall be allowed an additional five days from the submittal date to file responsive comments in writing. A copy of the notification shall be filed with the State Board.
- (E) Any order granting or denying the petition will be adopted at a regularly scheduled State Board meeting. At the meeting the State Board may invite comments on the matter from interested persons. These comments shall be based solely upon factual evidence contained in the record, including any evidence accepted by the State Board pursuant to paragraph (D), or legal argument. No new factual evidence shall be submitted at the State Board meeting. If new

legal argument is to be submitted at the State Board meeting, this argument is to be filed in writing with the State Board and other interested persons at least five working days prior to the State Board meeting in order for such argument to be considered by the State Board.

(F) An order adopted by the State Board may:

- (i) Deny the petition upon a finding that the action or failure to act of the local agency was appropriate and proper;
- (ii) Set aside or modify the local agency's action;
- (iii) Direct the local agency to take appropriate action; or
- (iv) Request appropriate action by the Regional Board or the Department of Health Services.

(G) If the State Board does not adopt an order or dismiss the petition within 270 days of written notification provided in subdivision (C), the petition is deemed denied. This time limit may be extended for a period not to exceed 60 days by written agreement between the State Board and the petitioner.

(5) Stay Orders. The State Board may stay in whole or in part, pending final disposition of any petition or any proceedings for review on the State Board's own motion, the effect of the action or decision of the local agency. The filing of a petition shall not operate as a stay of the local agency's action or decision, or effect of the local agency's authority to implement or amend that action or decision, unless a stay is issued by the State Board.

(A) A stay order may be issued upon petition of an interested person, or on the State Board's own motion. The stay order may be issued by the State Board, upon notice and a hearing, or by the State Board's Executive Director. If the stay order is issued by the Executive Director, the State Board shall conduct a hearing within 60 days after the stay order is issued by the Executive Director, to consider whether the stay order should be rescinded or modified, unless the State Board makes final disposition of the petition within that 60-day period. A request for a stay may be denied without a hearing.

(B) A petition for a stay shall be supported by affidavit of a person or persons having knowledge of the facts alleged. The requirement of an affidavit may be waived by the State Board in case of an emergency. A petition for a stay will be denied unless the petitioner alleges facts and produces proof of:

- (i) Substantial harm to petitioner or to the public interest if a stay is not granted;
- (ii) A lack of substantial harm to other interested persons and or the public interest if a stay is granted;
- (iii) Substantial questions of law or fact regarding the action or decision of the local agency.

STATE WATER RESOURCES CONTROL BOARD  
RESOLUTION NO. 88-63

ADOPTION OF POLICY ENTITLED  
"SOURCES OF DRINKING WATER"

WHEREAS:

1. California Water Code Section 13140 provides that the State Board shall formulate and adopt State Policy for Water Quality Control; and,
2. California Water Code Section 13240 provides that Water Quality Control Plans "shall conform" to any State Policy for Water Quality Control; and,
3. The Regional Boards can conform the Water Quality Control Plans to this policy by amending the plans to incorporate the policy; and,
4. The State Board must approve any conforming amendments pursuant to Water Code Section 13245; and,
5. "Sources of drinking water" shall be defined in Water Quality Control Plans as those water bodies with beneficial uses designated as suitable, or potentially suitable, for municipal or domestic water supply (MUN); and,
6. The Water Quality Control Plans do not provide sufficient detail in the description of water bodies designated MUN to judge clearly what is, or is not, a source of drinking water for various purposes.

THEREFORE BE IT RESOLVED:

All surface and ground waters of the State are considered to be suitable, or potentially suitable, for municipal or domestic water supply and should be so designated by the Regional Boards<sup>1</sup> with the exception of:

1. Surface and ground waters where:
  - a. The total dissolved solids (TDS) exceed 3,000 mg/L (5,000 uS/cm, electrical conductivity) and it is not reasonably expected by Regional Boards to supply a public water system, or

- b. There is contamination, either by natural processes or by human activity (unrelated to a specific pollution incident), that cannot reasonably be treated for domestic use using either Best Management Practices or best economically achievable treatment practices, or
- c. ~~The water source does not provide sufficient water to supply a single well capable of producing an average, sustained yield of 200 gallons per day.~~

2. Surface waters where:

- a. The water is in systems designed or modified to collect or treat municipal or industrial wastewaters, process waters, mining wastewaters, or storm water runoff, provided that the discharge from such systems is monitored to assure compliance with all relevant water quality objectives as required by the Regional Boards; or,
- b. The water is in systems designed or modified for the primary purpose of conveying or holding agricultural drainage waters, provided that the discharge from such systems is monitored to assure compliance with all relevant water quality objectives as required by the Regional Boards.

3. Ground water where:

The aquifer is regulated as a geothermal energy producing source or has been exempted administratively pursuant to 40 Code of Federal Regulations, Section 146.4 for the purpose of underground injection of fluids associated with the production of hydrocarbon or geothermal energy, provided that these fluids do not constitute a hazardous waste under 40 CFR, Section 261.3.

4. Regional Board Authority to Amend Use Designations:

Any body of water which has a current specific designation previously assigned to it by a Regional Board in Water Quality Control Plans may retain that designation at the Regional Board's discretion. Where a body of water is not currently designated as MUN but, in the opinion of a Regional Board, is presently or potentially suitable for MUN, the Regional Board shall include MUN in the beneficial use designation.

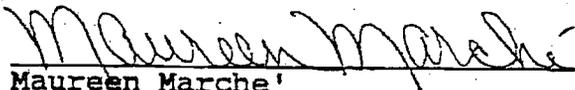
The Regional Boards shall also assure that the beneficial uses of municipal and domestic supply are designated for protection wherever those uses are presently being attained, and assure that any changes in beneficial use designations for waters of the State are consistent with all applicable regulations adopted by the Environmental Protection Agency.

The Regional Boards shall review and revise the Water Quality Control Plans to incorporate this policy.

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- <sup>1</sup> This policy does not affect any determination of what is a potential source of drinking water for the limited purposes of maintaining a surface impoundment after June 30, 1988, pursuant to Section 25208.4 of the Health and Safety Code.

CERTIFICATION

The undersigned, Administrative Assistant to the Board, does hereby certify that the foregoing is a full, true, and correct copy of a policy 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

WATER QUALITY CONTROL PLAN  
FOR CONTROL OF  
TEMPERATURE IN THE  
COASTAL AND INTERSTATE WATERS  
AND ENCLOSED BAYS AND ESTUARIES  
OF CALIFORNIA<sup>1/</sup>

DEFINITION OF TERMS

1. Thermal Waste - Cooling water and industrial process water used for the purpose of transporting waste heat.
2. Elevated Temperature Waste - Liquid, solid, or gaseous material including thermal waste discharged at a temperature higher than the natural temperature of receiving water. Irrigation return water is not considered elevated temperature waste for the purpose of this plan.
3. Natural Receiving Water Temperature - The temperature of the receiving water at locations, depths, and times which represent conditions unaffected by any elevated temperature waste discharge or irrigation return waters.
4. Interstate Waters - All rivers, lakes, artificial impoundments, and other waters that flow across or form a part of the boundary with other states or Mexico.
5. Coastal Waters - Waters of the Pacific Ocean outside of enclosed bays and estuaries which are within the territorial limits of California.
6. Enclosed Bays - Indentations along the coast which enclose an area of oceanic water within distinct headlands or harbor works. Enclosed bays will include all bays where the narrowest distance between headlands or outermost harbor works is less than 75 percent of the greatest dimension of the enclosed portion of the bay. This definition includes but is not limited to the following: Humboldt Bay, Bodega Harbor, Tomales Bay, Drakes Estero, San Francisco Bay, Morro Bay, Los Angeles Harbor, Upper and Lower Newport Bay, Mission Bay, and San Diego Bay.
7. Estuaries and Coastal Lagoons - Waters at the mouths of streams which serve as mixing zones for fresh and ocean water during a major portion of the year. Mouths of streams which are temporarily separated from the ocean by sandbars shall be considered as estuaries. Estuarine waters will generally be considered to extend from a bay or the open

<sup>1/</sup> This plan revises and supersedes the policy adopted by the State Board on January 7, 1971, and revised October 13, 1971, and June 5, 1972.

ocean to the upst<sup>ream</sup> limit of tidal action but may be considered to extend seaward if significant mixing of fresh and saltwater occurs in the open coastal waters. The waters described by this definition include but are not limited to the Sacramento-San Joaquin Delta as defined by Section 12220 of the California Water Code, Suisun Bay, Carquinez Strait downstream to Carquinez Bridge and appropriate areas of Smith River, Klamath River, Mad River, Eel River, Noyo River, and Russian River.

8. Cold Interstate Waters - Streams and lakes having a range of temperatures generally suitable for trout and salmon including but not limited to the following: Lake Tahoe, Truckee River, West Fork Carson River, East Fork Carson River, West Walker River and Lake Topaz, East Walker River, Minor California-Nevada Interstate Waters, Klamath River, Smith River, Goose Lake, and Colorado River from the California-Nevada stateline to the Needles-Topoc Highway Bridge.
9. Warm Interstate Waters - Interstate streams and lakes having a range of temperatures generally suitable for warm water fishes such as bass and catfish. This definition includes but is not limited to the following: Colorado River from the Needles-Topoc Highway Bridge to the northerly international boundary of Mexico, Tijuana River, New River, and Alamo River.
10. Existing Discharge - Any discharge (a) which is presently taking place, or (b) for which waste discharge requirements have been established and construction commenced prior to the adoption of this plan, or (c) any material change in an existing discharge for which construction has commenced prior to the adoption of this plan. Commencement of construction shall include execution of a contract for onsite construction or for major equipment which is related to the condenser cooling system.

Major thermal discharges under construction which are included within this definition are:

- A. Diablo Canyon Units 1 and 2, Pacific Gas and Electric Company.
- B. Ormond Beach Generating Station Units 1 and 2, Southern California Edison Company.
- C. Pittsburg No. 7 Generating Plant, Pacific Gas and Electric Company.
- D. South Bay Generating Plant Unit 4 and Encina Unit 4, San Diego Gas and Electric Company.

11. New Discharge - Any discharge (a) which is not presently taking place unless waste discharge requirements have been established and construction as defined in Paragraph 10 has commenced prior to adoption of this plan or (b) which is presently taking place and for which a material change is proposed but no construction as defined in Paragraph 10 has commenced prior to adoption of this plan.
12. Planktonic Organism - Phytoplankton, zooplankton and the larvae and eggs of worms, molluscs, and anthropods, and the eggs and larval forms of fishes.
13. Limitations or Additional Limitations - Restrictions on the temperature, location, or volume of a discharge, or restrictions on the temperature of receiving water in addition to those specifically required by this plan.

SPECIFIC WATER QUALITY OBJECTIVES

1. Cold Interstate Waters
  - A. Elevated temperature waste discharges into cold interstate waters are prohibited.
2. Warm Interstate Waters
  - A. Thermal waste discharges having a maximum temperature greater than 5°F above natural receiving water temperature are prohibited.
  - B. Elevated temperature wastes shall not cause the temperature of warm interstate waters to increase by more than 5°F above natural temperature at any time or place.
  - C. Colorado River - Elevated temperature wastes shall not cause the temperature of the Colorado River to increase above the natural temperature by more than 5°F or the temperature of Lake Havasu to increase by more than 3°F provided that such increases shall not cause the maximum monthly temperature of the Colorado River to exceed the following:

January	-	60°F	July	-	90°F
February	-	65°F	August	-	90°F
March	-	70°F	September	-	90°F
April	-	75°F	October	-	82°F
May	-	82°F	November	-	72°F
June	-	86°F	December	-	65°F

D. Lost River - Elevated temperature wastes discharged to the Lost River shall not cause the temperature of the receiving water to increase by more than 2°F when the receiving water temperature is less than 62°F, and 0°F when the receiving water temperature exceeds 62°F.

E. Additional limitations shall be imposed when necessary to assure protection of beneficial uses.

### 3. Coastal Waters

#### A. Existing discharges

(1) Elevated temperature wastes shall comply with limitations necessary to assure protection of the beneficial uses and areas of special biological significance.

#### B. New discharges

(1) Elevated temperature wastes shall be discharged to the open ocean away from the shoreline to achieve dispersion through the vertical water column.

(2) Elevated temperature wastes shall be discharged a sufficient distance from areas of special biological significance to assure the maintenance of natural temperature in these areas.

(3) The maximum temperature of thermal waste discharges shall not exceed the natural temperature of receiving waters by more than 20°F.

(4) The discharge of elevated temperature wastes shall not result in increases in the natural water temperature exceeding 4°F at (a) the shoreline, (b) the surface of any ocean substrate, or (c) the ocean surface beyond 1,000 feet from the discharge system. The surface temperature limitation shall be maintained at least 50 percent of the duration of any complete tidal cycle.

(5) Additional limitations shall be imposed when necessary to assure protection of beneficial uses.

4. Enclosed Bays

A. Existing discharges

- (1) Elevated temperature waste discharges shall comply with limitations necessary to assure protection of beneficial uses.

B. New discharges

- (1) Elevated temperature waste discharges shall comply with limitations necessary to assure protection of beneficial uses. The maximum temperature of waste discharges shall not exceed the natural temperature of the receiving waters by more than 20°F.
- (2) Thermal waste discharges having a maximum temperature greater than 4°F above the natural temperature of the receiving water are prohibited.

5. Estuaries

A. Existing discharges

- (1) Elevated temperature waste discharges shall comply with the following:
- a. The maximum temperature shall not exceed the natural receiving water temperature by more than 20°F.
  - b. Elevated temperature waste discharges either individually or combined with other discharges shall not create a zone, defined by water temperatures of more than 1°F above natural receiving water temperature, which exceeds 25 percent of the cross-sectional area of a main river channel at any point.
  - c. No discharge shall cause a surface water temperature rise greater than 4°F above the natural temperature of the receiving waters at any time or place.
  - d. Additional limitations shall be imposed when necessary to assure protection of beneficial uses.
- (2) Thermal waste discharges shall comply with the provisions of 5A(1) above and, in addition, the maximum temperature of thermal waste discharges shall not exceed 86°F.

B. New dischar.

- (1) Elevated temperature waste discharges shall comply with item 5A(1) above.
- (2) Thermal waste discharges having a maximum temperature greater than 4°F above the natural temperature of the receiving water are prohibited.
- (3) Additional limitations shall be imposed when necessary to assure protection of beneficial uses.

GENERAL WATER QUALITY PROVISIONS

1. Additional limitations shall be imposed in individual cases if necessary for the protection of specific beneficial uses and areas of special biological significance. When additional limitations are established, the extent of surface heat dispersion will be delineated by a calculated 1-1/2°F isotherm which encloses an appropriate dispersion area. The extent of the dispersion area shall be:
  - A. Minimized to achieve dispersion through the vertical water column rather than at the surface or in shallow water.
  - B. Defined by the Regional Board for each existing and proposed discharge after receipt of a report prepared in accordance with the implementation section of this plan.
2. The cumulative effects of elevated temperature waste discharges shall not cause temperatures to be increased except as provided in specific water quality objectives contained herein.
3. Areas of special biological significance shall be designated by the State Board after public hearing by the Regional Board and review of its recommendations.
4. Regional Boards may, in accordance with Section 316(a) of the Federal Water Pollution Control Act of 1972, and subsequent federal regulations including 40 CFR 122, grant an exception to Specific Water Quality Objectives in this Plan. Prior to becoming effective, such exceptions and alternative less stringent requirements must receive the concurrence of the State Board.
5. Natural water temperature will be compared with waste discharge temperature by near-simultaneous measurements accurate to within 1°F. In lieu of near-simultaneous measurements, measurements may be made under calculated conditions of constant waste discharge and receiving water characteristics.

## IMPLEMENTATION

1. The State Water Resources Control Board and the California Regional Water Quality Control Boards will administer this plan by establishing waste discharge requirements for discharges of elevated temperature wastes.
2. This plan is effective as of the date of adoption by the State Water Resources Control Board and the sections pertaining to temperature control in each of the policies and plans for the individual interstate and coastal waters shall be void and superseded by all applicable provisions of this plan.
3. Existing and future dischargers of thermal waste shall conduct a study to define the effect of the discharge on beneficial uses and, for existing discharges, determine design and operating changes which would be necessary to achieve compliance with the provisions of this plan.
4. Waste discharge requirements for existing elevated temperature wastes shall be reviewed to determine the need for studies of the effect of the discharge on beneficial uses, changes in monitoring programs and revision of waste discharge requirements.
5. All waste discharge requirements shall include a time schedule which assures compliance with water quality objectives by July 1, 1977, unless the discharger can demonstrate that a longer time schedule is required to complete construction of necessary facilities; or, in accordance with any time schedule contained in guidelines promulgated pursuant to Section 304(b) of the Federal Water Pollution Control Act.
6. Proposed dischargers of elevated temperature wastes may be required by the Regional Board to submit such studies prior to the establishment of waste discharge requirements. The Regional Board shall include in its requirements appropriate postdischarge studies by the discharger.
7. The scope of any necessary studies shall be as outlined by the Regional Board and shall be designed to include the following as applicable to an individual discharge:
  - A. Existing conditions in the aquatic environment.
  - B. Effects of the existing discharge on beneficial uses.
  - C. Predicted conditions in the aquatic environment with waste discharge facilities designed and operated in compliance with the provisions of this plan.

- D. Predicted effects of the proposed discharge on beneficial uses.
- E. An analysis of costs and benefits of various design alternatives.
- F. The extent to which intake and outfall structures are located and designed so that the intake of planktonic organisms is at a minimum, waste plumes are prevented from touching the ocean substrate or shorelines, and the waste is dispersed into an area of pronounced along-shore or offshore currents.

- 8. All waste discharge requirements adopted for discharges of elevated temperature wastes shall be monitored in order to determine compliance with effluent or receiving water temperature (or heat) requirements.

Furthermore, for significant thermal discharges as determined by the Regional Board or State, Regional Boards shall require expanded monitoring programs, to be carried out either on a continuous or periodic basis, designed to assess whether the source continues to provide adequate protection to beneficial uses (including the protection and propagation of a balanced indigenous community of fish, shellfish, and wildlife, in and on the body of water into which the discharge is made). When periodic expanded monitoring programs are specified, the frequency of the program shall reflect the probable impact of the discharge.

- 9. The State Board or Regional Board may require a discharger(s) to pay a public agency or other appropriate person an amount sufficient to carry out the expanded monitoring program required pursuant to paragraph 8 above if:
  - A. The discharger has previously failed to carry out monitoring programs in a manner satisfactory to the State Board or Regional Board, or;
  - B. More than a single facility, under separate ownerships, may significantly affect the thermal characteristics of the body of water, and the owners of such facilities are unable to reach agreement on a cooperative program within a reasonable time period specified by the State Board or Regional Board.

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 A. Smith*  
Regional Forester  
Pacific-Southwest Region

By *C. Whitney*  
Executive Director

Date: 3/17/81

Date: FEB 26 1981

By *D. 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

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 LTOs 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.

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.

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.

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.

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.

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

*Randall M. Ward*  
State Department of Conservation

3-9-88  
Date

*W. H. Mafford*  
State Oil and Gas Supervisor

3-4-1988  
Date

*W. Don Mauls*  
Chairman, State Water Resources Control Board

MAY 19 1988  
Date

*James L. Gorton*  
Executive Director, State Water Resources Control Board

MAY 19 1988  
Date

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.

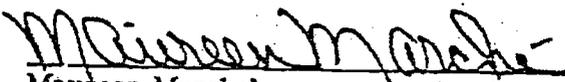
THEREFORE BE IT RESOLVED:

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

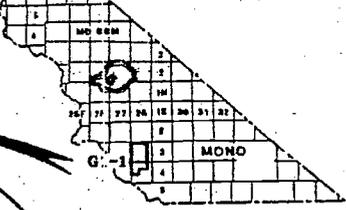
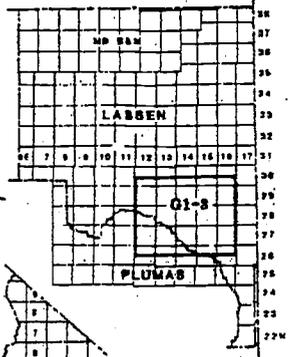
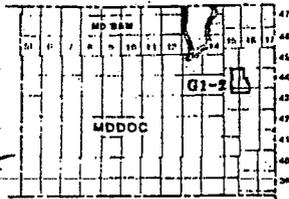
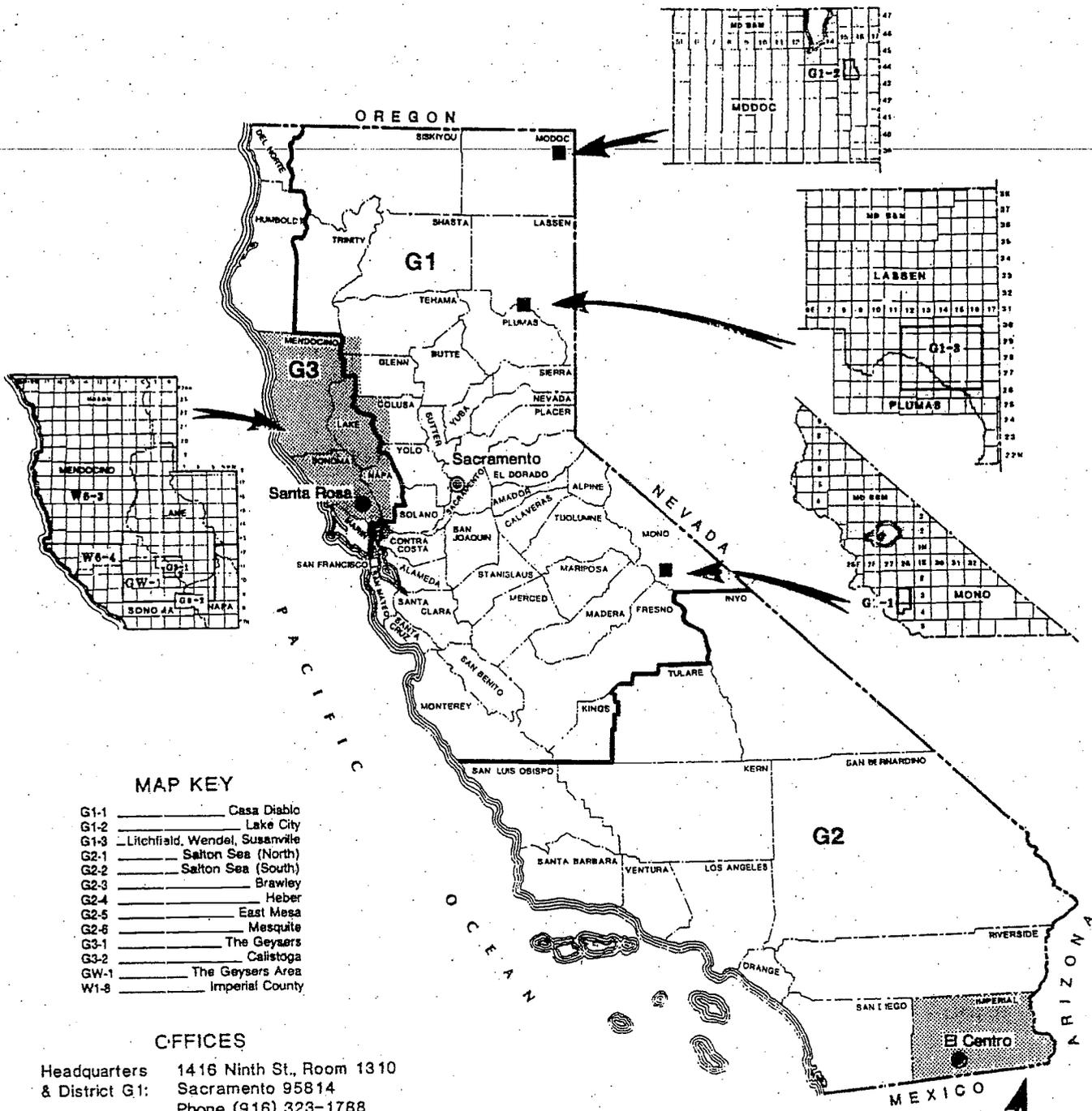
CERTIFICATION

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

# GEOHERMAL DISTRICT AND FIELD MAPS



## MAP KEY

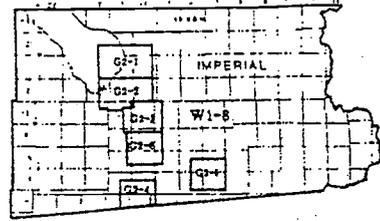
- G1-1 \_\_\_\_\_ Casa Diablo
- G1-2 \_\_\_\_\_ Lake City
- G1-3 \_\_\_\_\_ Litchfield, Wendel, Susanville
- G2-1 \_\_\_\_\_ Salton Sea (North)
- G2-2 \_\_\_\_\_ Salton Sea (South)
- G2-3 \_\_\_\_\_ Brawley
- G2-4 \_\_\_\_\_ Heber
- G2-5 \_\_\_\_\_ East Mesa
- G2-6 \_\_\_\_\_ Mesquite
- G3-1 \_\_\_\_\_ The Geysers
- G3-2 \_\_\_\_\_ Calistoga
- GW-1 \_\_\_\_\_ The Geysers Area
- W1-8 \_\_\_\_\_ Imperial County

## OFFICES

Headquarters 1416 Ninth St., Room 1310  
 & District G1: Sacramento 95814  
 Phone (916) 323-1788

District G2: 485 Broadway  
 Suite B  
 El Centro 92243  
 Phone (619) 353-9900

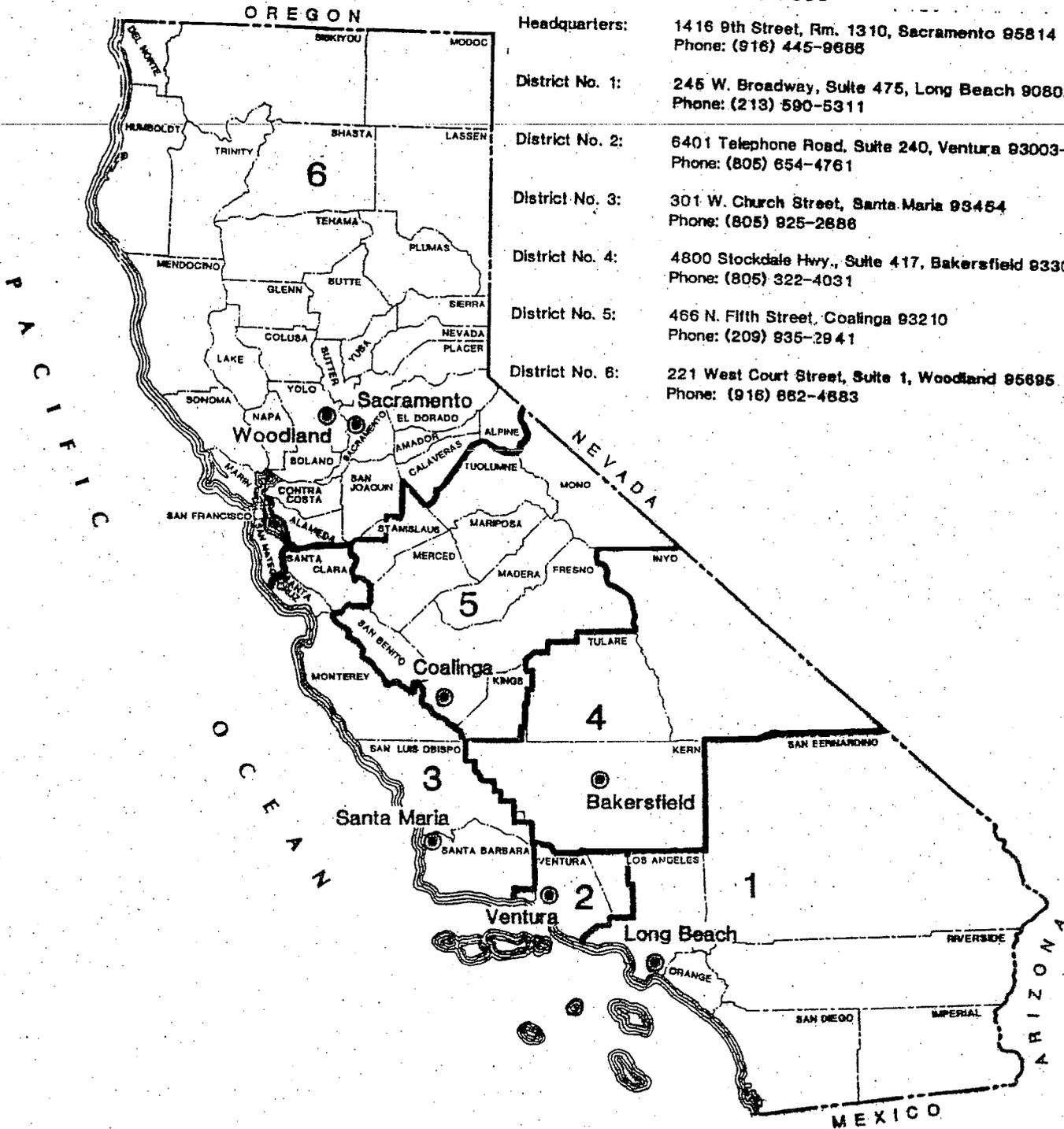
District G3: 50 D St., Room 300  
 Santa Rosa 95404  
 Phone (707) 576-2385



# OIL AND GAS DISTRICT BOUNDARIES

## Offices

- Headquarters:** 1416 9th Street, Rm. 1310, Sacramento 95814  
Phone: (916) 445-9688
- District No. 1:** 245 W. Broadway, Suite 475, Long Beach 90802  
Phone: (213) 590-5311
- District No. 2:** 6401 Telephone Road, Suite 240, Ventura 93003-4458  
Phone: (805) 654-4761
- District No. 3:** 301 W. Church Street, Santa Maria 93454  
Phone: (805) 925-2886
- District No. 4:** 4800 Stockdale Hwy., Suite 417, Bakersfield 93309  
Phone: (805) 322-4031
- District No. 5:** 466 N. Fifth Street, Coalinga 93210  
Phone: (209) 935-2941
- District No. 6:** 221 West Court Street, Suite 1, Woodland 95695  
Phone: (916) 862-4883



Memorandum of Understanding  
Between  
Ukiah 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, Ukiah 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 <sup>1/</sup> 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 H Crooks*

William Crooks  
EXECUTIVE OFFICER  
Central Valley RWQCB

9-30-85

Date

*Van W. Manning*

Van W. Manning  
DISTRICT MANAGER  
BLM, Ukiah District

9/6/85

Date

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

Memorandum of Understanding

Between

Susanville 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, Susanville 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 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 H Crooks*

William Crooks  
EXECUTIVE OFFICER  
Central Valley RWQCB

*9-30-85*

Date

*Rex Cleary*

Rex Cleary  
DISTRICT MANAGER  
BLM, Susanville District

*9/5/85*

Date

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

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<sup>1/</sup> 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 H Crooks

William Crooks  
EXECUTIVE OFFICER  
Central Valley RWQCB

9-30-85

Date

Robert D Rheiner Jr

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

8/13/85

Date

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

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

RESOLUTION NO. 83-105

ADOPTION OF AN AMENDMENT TO PART I OF THE WATER QUALITY CONTROL PLANS FOR THE  
SACRAMENTO RIVER (5A), SACRAMENTO-SAN JOAQUIN DELTA (5B), SAN JOAQUIN-RIVER (5C),  
AND TULARE LAKE (5D) BASINS  
FOR  
LAND DISPOSAL OF STILLAGE WASTE FROM WINERIES

WHEREAS, under Section 13240 of the Porter-Cologne Water Quality Control Act and Section 303(e) of the Federal Clean Water Act amendments of 1972 (PL 92-500), the California Regional Water Quality Control Board, Central Valley Region (hereafter Board), adopted Water Quality Control Plans for Basins 5A, 5B, 5C, and 5D on 25 July 1975; and

WHEREAS, the potential exists for disposal of stillage waste by land application to adversely affect water quality and create nuisance conditions; and

WHEREAS, a study was completed for The Wine Institute by Metcalf and Eddy Engineers in February of 1980, entitled, "Land Application of Stillage Waste: Odor Control and Environmental Effects"; and

WHEREAS, the Board has developed an amendment to Part I of the Water Quality Control Plans for Basins 5A, 5B, 5C, and 5D regarding disposal of winery stillage waste by land application; and

WHEREAS, the amendment prescribes guidelines to minimize the potential for adverse water quality effects and nuisance conditions but does not preclude the establishment of more stringent requirements by local agencies or the Board for control of water quality concerns associated with land disposal of stillage waste; and

WHEREAS, the basin planning process has been certified as a "functional equivalent" to the California Environmental Quality Act requirements for preparing environmental documents and is therefore exempt from those requirements (Public Resources Code Section 21000, et seq.) in accordance with Section 15108 of the State EIR guidelines (California Administrative Code, Title 14, Division 7, Chapter 3); and

WHEREAS, on 12 August 1983, the Board conducted a public hearing after notice to all interested persons, in accordance with PL 92-500 and the California Water Code, and has considered the evidence regarding the amendment introduced at that hearing and submitted to the Board prior to the hearing: Therefore be it

RESOLVED, That the Board adopts the above described amendment to the Water Quality Control Plans for Basins 5A, 5B, 5C, and 5D, and be it further

RESOLUTION NO. 83-105

ADOPTION OF AN AMENDMENT TO PART I OF THE WATER  
QUALITY CONTROL PLANS FOR THE SACRAMENTO RIVER (5A),  
SACRAMENTO-SAN JOAQUIN DELTA (5B), SAN JOAQUIN  
RIVER (5C), AND TULARE LAKE (5D) BASINS FOR LAND  
DISPOSAL OF STILLAGE WASTE FROM WINERIES

-2-

RESOLVED, That the Executive Officer is instructed to transmit the Water Quality Control Plan amendment 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 12 August 1983.

*William H. Crooks*

WILLIAM H. CROOKS, Executive Officer

16/2/6

**AMENDMENT TO WATER QUALITY  
CONTROL PLAN**

**Land Disposal of Stillage Waste from Wineries**

**Problem Statement**

A substantial number of wineries operate throughout the Central Valley. Many of these wineries operate stills. Wineries with stills produce substantial quantities of stillage waste which is high in concentrations of BOD and nitrogen. The stillage is normally discharged directly to land without any prior treatment. There is a potential for the waste to affect water quality and to create nuisance conditions.

A study has been conducted<sup>1/</sup> to develop recommendations for minimizing water quality effects and nuisance conditions resulting from land application of stillage waste. There is a need to implement guidelines for land disposal of stillage waste that can be used by the industry as a general indication of minimum disposal practices when accompanied with suitable soil, weather, ground water and other conditions affecting the discharge.

The guidelines address the unique problems associated with the management of the land disposal of stillage wastes. They will be utilized in the evaluation of the adequacy of technical reports submitted for the development of waste discharge requirements. Portions of the criteria contained herein may be included as part of the waste discharge requirements on a case-by-case basis depending on the site conditions.

**Guidelines for Land Disposal of Stillage Waste from Wineries**

The following guidelines will be applied for the preservation and enhancement of state waters for all present and anticipated beneficial uses, prevention of water pollution, health hazards and nuisance conditions. The guidelines may not be applicable in cases where local soil, ground water, weather or other conditions are not compatible with the stillage to be disposed. These guidelines prescribe criteria for disposal of stillage waste from wineries and do not preclude the establishment of more stringent requirements by local agencies or the Board.

The Board has determined that the following guidelines should be followed by wineries which practice land disposal of stillage without any prior treatment of the waste.

**Rapid Infiltration Method**

**1. Disposal Site Requirements**

1. The land used for disposal should be as remote from habitation as possible.
2. The soils should be capable of infiltrating 3 to 4 inches of stillage in 24 hours or less.

<sup>1/</sup> "Land Application of Stillage Waste: Odor Control and Environmental Effects" prepared for The Wine Institute, by Metcalf and Eddy, Engineers, Palo Alto, California, February 1980.

3. Soil permeability should be greater than 2 inches per hour for the entire profile.
4. There should be no unripped hardpan within the top 10 feet of the soil profile.
5. Soil depth should be 10 feet or greater.
6. Depth to ground water should be 10 feet or greater.

II. Operational Procedures

1. Cooling water and any other wastewater with low COD concentrations should be separated from the stillage before land application.
2. Stillage waste should be spread on land between long, narrow, level checks. The surface should be leveled uniformly within 0.1 foot per 100 feet, without potholes.
3. At the inlet of the checks, the flow should be distributed using splash plates or other devices to prevent deep holes from forming.
4. The depth of each stillage application should not exceed the following:

<u>Period of Year</u>	<u>Depth of Stillage Application (inches)</u>
Aug 1 to Oct 1	3.7
Oct 1 to Dec 1	3
Dec 1 to May 1	2.5

5. Standing stillage should not be present 24 hours after application has ceased.
6. After stillage waste has been applied to an area, the area should be allowed to dry for at least the following period before re-application of waste:

<u>Period of Year</u>	<u>Drying Time (days)</u>
Aug 1 to Oct 1	6
Oct 1 to Dec 1	9
Dec 1 to May 1	13

7. After stillage has been applied to an area, if leathers have not been removed, the area should be raked or rototilled before re-application of stillage.
8. Loading rates and drying times for stillage waste from raisins or pomace should follow the criteria for December 1 to May 1 operations.

9. Land area used for disposal should equal or exceed the following:

<u>Period of Year</u>	<u>Land Area<sup>1/</sup> (acres per 100,000 gpd of stillage waste)</u>
Aug 1 to Oct 1	7
Oct 1 to Dec 1	12.3
Dec 1 to May 1	20.6

<sup>1/</sup> These land areas are directly related to the drying time stated in No. 6 above. Complete infiltration recovery to the original values may not be obtained by these relatively short resting cycles. At some application sites, the infiltration rate constantly decreases as the application season progresses. A decrease in infiltration of about 75% can be expected with only three applications. Therefore the number of stillage applications at a specific site should be kept to a minimum. Repeated application of stillage with minimum drying times may require larger land areas.

10. During periods when it is not used for stillage disposal, the disposal area should be planted with crops to assist in the removal of residual nitrogen concentrations from the soil if necessary.

Slow Rate Irrigation Method

Most existing stillage disposal sites are located on relatively permeable soils. Where the available land for application of stillage is such that the limiting permeability is slow to moderately slow, the use of slow rate irrigation may be used as an alternative to rapid infiltration. The application depends on the expected evaporation and infiltration and can range from less than 0.5 to 1.5 inches (13,600 to 40,000 gal/acre). Resting periods should range from 18 to 20 days or more. The resultant average loading rates and land areas are shown in Table 1. All other Disposal Site Requirements and Operation Procedures for the rapid infiltration method also apply to the slow rate irrigation method.

TABLE 1. SLOW RATE IRRIGATION  
AREA REQUIREMENTS

	Soil Permeability, Slow	Soil Permeability, Moderately Slow
Limiting soil permeability, in/hr	0.06-0.2 (clay loam)	0.2-0.6 (clay loam or silt loam)
Infiltration capacity, in/day	0.5	1.0
Resting period, days	20	13
Average loading rate, gal/acre/day	670	1,940
Area required per 100,000 gal/day of stillage, acres	150	52