A P P E N D I X

APPENDIX DIRECTORY

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1.	State Water Board Policy for Water Quality Control
2.	State Water Board Resolution No. 68-16, Statement of Policy with Respect to Maintaining High Quality of Waters in California
3.	State Water Board Resolution No. 74-43, Water Quality Control Policy for the Enclosed Bays and Estuaries of California
4.	State Water Board Resolution No. 75-58, Water Quality Control Policy on the Use and Disposal of Inland Waters Used for Powerplant Cooling
5.	State Water Board Resolution No. 77-1, Policy with Respect to Water Reclamation in California
6.	State Water Board Resolution No. 87-22, Policy on the Disposal of Shredder Waste
7.	State Water Board Resolution No. 88-23, Policy Regarding the Underground Storage Tank Pilot Program
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9.	State Water Board Resolution No. 92-49, Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304
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11.	State Water Board Water Quality Control Plan for Temperature in Coastal and Inerstate Waters and Enclosed Bays and Estuaries in California (Thermal Plan)
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CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

STATE POLICY FOR WATER QUALITY CONTROL

I. FOREWORD

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

> The people of the state have a primary interest in the conservation, control, and utilization of the water resources, and the quality of all the waters shall be protected for use and enjoyment.
>
> Activities and factors which may affect the quality of the waters shall be regulated to attain the highest water quality which is reasonable, considering all demands being made and to be made on those waters and the total values involved, beneficial and detrimental, economic and social, tangible and intangible.
>
> The health, safety, and welfare of the people requires that there be a statewide program for the control of the quality of all the waters of the state. The state must be prepared to exercise its full power and jurisdiction to protect the quality of waters from degradation.
>
> The waters of the state are increasingly influenced by interbasin water development projects and other statewide considerations. Factors of precipitation, topography, population, recreation, agriculture, industry, and economic development vary from region to region. The statewide program for water quality control can be most effectively administered regionally, within a framework of statewide coordination and policy.

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

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

I. (continued)

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

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

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

II. GENERAL PRINCIPLES

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

1. Water rights and water quality control decisions must assure protection of available fresh water and marine water resources for maximum beneficial use.

2. Municipal, agricultural, and industrial wastewaters must be considered as a potential integral part of the total available fresh water resource.

3. Coordinated management of water supplies and wastewaters on a regional basis must be promoted to achieve efficient utilization of water.

4. Efficient wastewater management is dependent upon a balanced program of source control of environmentally hazardous substances[1/], treatment of wastewaters, reuse of reclaimed water, and proper disposal of effluents and residuals.

5. Substances not amenable to removal by treatment systems presently available or planned for the immediate future must be prevented from entering sewer systems

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

II. 5. (continued)

in quantities which would be harmful to the aquatic environment, adversely affect beneficial uses of water, or affect treatment plant operation. Persons responsible for the management of waste collection, treatment, and disposal systems must actively pursue the implementation of their objective of source control for environmentally hazardous substances. Such substances must be disposed of such that environmental damage does not result.

6. Wastewater treatment systems must provide sufficient removal of environmentally hazardous substances which cannot be controlled at the source to assure against adverse effects on beneficial uses and aquatic communities.

7. Wastewater collection and treatment facilities must be consolidated in all cases where feasible and desirable to implement sound water quality management programs based upon long-range economic and water quality benefits to an entire basin.

8. Institutional and financial programs for implementation of consolidated wastewater management systems must be tailored to serve each particular area in an equitable manner.

9. Wastewater reclamation and reuse systems which assure maximum benefit from available fresh water resources shall be encouraged. Reclamation systems must be an appropriate integral part of the long-range solution to the water resources needs of an area and incorporate provisions for salinity control and disposal of nonreclaimable residues.

10. Wastewater management systems must be designed and operated to achieve maximum long-term benefit from the funds expended.

11. Water quality control must be based upon latest scientific findings. Criteria must be continually refined as additional knowledge becomes available.

12. Monitoring programs must be provided to determine the effects of discharges on all beneficial water uses including effects on aquatic life and its diversity and seasonal fluctuations.

III. PROGRAM OF IMPLEMENTATION

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

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

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

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

STATE WATER RESOURCES CONTROL BOARD

RESOLUTION NO. 68-16

STATEMENT OF POLICY WITH RESPECT TO
MAINTAINING HIGH QUALITY OF WATERS IN CALIFORNIA

WHEREAS the California Legislature has declared that it is the policy of the State that the granting of permits and licenses for unappropriated water and the disposal of wastes into the waters of the State shall be so regulated as to achieve highest water quality consistent with maximum benefit to the people of the State and shall be controlled so as to promote the peace, health, safety and welfare of the people of the State; and

WHEREAS water quality control policies have been and are being adopted for waters of the State; and

WHEREAS the quality of some waters of the State is higher than that established by the adopted policies and it is the intent and purpose of this Board that such higher quality shall be maintained to the maximum extent possible consistent with the declaration of the Legislature;

NOW, THEREFORE, BE IT RESOLVED:

1. Whenever the existing quality of water is better than the quality established in policies as of the date on which such policies become effective, such existing high quality will be maintained until it has been demonstrated to the State that any change will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water and will not result in water quality less than that prescribed in the policies.

2. Any activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained.

3. In implementing this policy, the Secretary of the Interior will be kept advised and will be provided with such information as he will need to discharge his responsibilities under the Federal Water Pollution Control Act.

BE IT FURTHER RESOLVED that a copy of this resolution be forwarded to the Secretary of the Interior as part of California's water quality control policy submission.

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 October 24, 1968.

Dated: October 28, 1968

Kerry W. Mulligan
Executive Officer
State Water Resources
Control Board

State of California
The Resources Agency

STATE WATER RESOURCES CONTROL BOARD

WATER QUALITY CONTROL POLICY

FOR THE

ENCLOSED BAYS AND ESTUARIES OF CALIFORNIA

MAY 1974

3/1/16

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* To be furnished upon request.

WATER QUALITY CONTROL POLICY FOR THE ENCLOSED BAYS AND ESTUARIES OF CALIFORNIA[1/]

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[2/] (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. [3/]

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.

. 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[4/] 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 Porter-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 Califonia", 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[5] of municipal wastewaters and industrial process waters[2] (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.[6]
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.[7]

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.

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 12220 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, washwater, 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
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 synonomous 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 461 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 E. 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 Marche'
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 consisiting 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 prodecures 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 1317, 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.

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 filled. 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[1] 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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1 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

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

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

WHEREAS:

1. California Water Code (**WC**) Section 13001 provides that it is the intent of the Legislature that the State Water Resources Control Board (**State Water Board**) and each Regional Water Quality Control Board (**Regional Water Board**) shall be the principal state agencies with primary responsibility for the coordination and control of water quality. The State and Regional Water Boards shall conform to and implement the policies of the Porter-Cologne Water Quality Control Act (Division 7, commencing with WC Section 13000) and shall coordinate their respective activities so as to achieve a unified and effective water quality control program in the state;

2. WC Section 13140 provides that the State Water Board shall formulate and adopt State Policy for Water Quality Control;

3. WC Section 13240 provides that Water Quality Control Plans shall conform to any State Policy for Water Quality Control;

4. WC Section 13304 requires that any person who has discharged or discharges waste into waters of the state in violation of any waste discharge requirement or other order or prohibition issued by a Regional Water Board or the State Water Board, or who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance may be required to clean up the discharge and abate the effects thereof. This section authorizes Regional Water Boards to require complete cleanup of all waste discharged and restoration of affected water to background conditions (i.e., the water quality that existed before the discharge). The term waste discharge requirements includes those which implement the National Pollutant Discharge Elimination System;

5. WC Section 13307 provides that the State Water Board shall establish policies and procedures that its representatives and the representatives of the Regional Water Boards shall follow for the oversight of investigations and cleanup and abatement activities resulting from discharges of hazardous substances, including:

   a. The procedures the State Water Board and the Regional Water Boards will follow in making decisions as to when a person may be required to undertake an investigation to determine if an unauthorized hazardous substance discharge has occurred;

   b. Policies for carrying out a phased, step-by-step investigation to determine the nature and extent of possible soil and ground water contamination or pollution at a site;

   c. Procedures for identifying and utilizing the most cost-effective methods for detecting contamination or pollution and cleaning up or abating the effects of contamination or pollution;

   d. Policies for determining reasonable schedules for investigation and cleanup, abatement, or other remedial action at a site. The policies shall recognize the danger to public health and the waters of the state posed by an unauthorized discharge and the need to mitigate those dangers while at the same time taking into account, to the extent possible, the resources, both financial and technical, available to the person responsible for the discharge;

6. "Waters of the state" include both ground water and surface water;

7. Regardless of the type of discharge, procedures and policies applicable to investigations, and cleanup and abatement activities are similar. It is in the best interest of the people of the state for the State Water Board to provide consistent guidance for Regional Water Boards to apply to investigation, and cleanup and abatement;

8. WC Section 13260 requires any person discharging or proposing to discharge waste that could affect waters of the state, or proposing to change the character, location, or volume of a discharge to file a report with and receive requirements from the Regional Water Board;

9. WC Section 13267 provides that the Regional Water Board may require dischargers, past dischargers, or suspected dischargers to furnish those technical or monitoring reports as the Regional Water Board may specify, provided that the burden, including costs, of these reports, shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports;

10. WC Section 13300 states that the Regional Water Board may require a discharger to submit a time schedule of specific actions the discharger shall take in order to correct or prevent a violation of requirements prescribed by the Regional Water Board or the State Water Board;

11. California Health and Safety Code (**HSC**) Section 25356.1 requires the Department of Toxic Substances Control (**DTSC**) or, if appropriate, the Regional Water Board to prepare or approve remedial action plans for sites where hazardous substances were released to the environment if the sites have been listed pursuant to HSC Section 25356 (state "Superfund" priority list for cleanup of sites);

12. Coordination with the U.S. Environmental Protection Agency (**USEPA**), state agencies within the California Environmental Protection Agency (**Cal/EPA**) (e.g., DTSC, Air Resources Control Board), air pollution control districts, local environmental health agencies, and other responsible federal, state, and local agencies: (1) promotes effective protection of water quality, human health, and the environment and (2) is in the best interest of the people of the state. The principles of coordination are embodied in many statutes, regulations, and interagency memoranda of understanding (**MOU**) or agreement which affect the State and Regional Water Boards and these agencies;

13. In order to clean up and abate the effects of a discharge or threat of a discharge, a discharger may be required to perform an investigation to define the nature and extent of the discharge or threatened discharge and to develop appropriate cleanup and abatement measures;

14. Investigations that were not properly planned have resulted in increases in overall costs and, in some cases, environmental damage. Overall costs have increased when original corrective actions were later found to have had no positive effect or to have exacerbated the pollution. Environmental damage may increase when a poorly conceived investigation or cleanup and abatement program allows pollutants to spread to previously unaffected waters of the state;

15. A phased approach to site investigation should facilitate adequate delineation of the nature and extent of the pollution, and may reduce overall costs and environmental damage, because: (1) investigations inherently build on information previously gained; (2) often data are dependent on seasonal and other temporal variations; and (3) adverse consequences of greater cost or increased environmental damage can result from improperly planned investigations and the lack of consultation and coordination with the Regional Water Board. However, there are circumstances under which a phased, iterative approach may not be necessary to protect water quality, and there are other circumstances under which phases may need to be compressed or combined to expedite cleanup and abatement;

16. Preparation of written workplans prior to initiation of significant elements or phases of investigation, and cleanup and abatement generally saves Regional Water Board and discharger resources. Results are superior, and the overall cost-effectiveness is enhanced;

17. Discharger reliance on qualified professionals promotes proper planning, implementation, and long-term cost-effectiveness of investigation, and cleanup and abatement activities. Professionals should be qualified, licensed where applicable, and competent and proficient in the fields pertinent to the required activities. California Business and Professions Code Sections 6735, 7835, and 7835.1 require that engineering and geologic evaluations and judgements be performed by or under the direction of registered professionals;

18. WC Section 13360 prohibits the Regional Water Boards from specifying, but not from suggesting, methods that a discharger may use to achieve compliance with requirements or orders. It is the responsibility of the discharger to propose methods for Regional Water Board review and concurrence to achieve compliance with requirements or orders;

19. The USEPA, California state agencies, the American Society for Testing and Materials, and similar organizations have developed or identified methods successful in particular applications. Reliance on established, appropriate methods can reduce costs of investigation, and cleanup and abatement;

20. The basis for Regional Water Board decisions regarding investigation, and cleanup and abatement includes: (1) site-specific characteristics; (2) applicable state and federal statutes and regulations; (3) applicable water quality control plans adopted by the State Water Board and Regional Water Boards, including beneficial uses, water quality objectives, and implementation plans; (4) State Water Board and Regional Water Board policies, including State Water Board Resolutions No. 68-16 (Statement of Policy with Respect to Maintaining High Quality of Waters in California) and No. 88-63 (Sources of Drinking Water); and (5) relevant standards, criteria, and advisories adopted by other state and federal agencies;

21. Discharges subject to WC Section 13304 may include discharges of waste to land; such discharges may cause, or threaten to cause, conditions of soil or water pollution or nuisance that are analogous to conditions associated with migration of waste or fluid from a waste management unit;

22. The State Water Board has adopted regulations governing discharges of waste to land (California

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

23. State Water Board regulations governing site investigation and corrective action at underground storage tank unauthorized release sites are found in 23 CCR Division 3, Chapter 16, in particular Article 11 commencing with Section 2720;

24. It is the responsibility of the Regional Water Board to make decisions regarding cleanup and abatement goals and objectives for the protection of water quality and the beneficial uses of waters of the state within each Region;

25. Cleanup and abatement alternatives that entail discharge of residual wastes to waters of the state, discharges to regulated waste management units, or leaving wastes in place, create additional regulatory constraints and long-term liability, which must be considered in any evaluation of cost-effectiveness;

26. The Porter-Cologne Water Quality Control Act allows Regional Water Boards to impose more stringent requirements on discharges of waste than any statewide requirements promulgated by the State Water Board (e.g., in this Policy) or than water quality objectives established in statewide or regional water quality control plans as needed to protect water quality and to reflect regional and site-specific conditions.

THEREFORE BE IT RESOLVED:

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

I. The Regional Water Board shall apply the following procedures in determining whether a person shall be required to investigate a discharge under WC Section 13267, or to clean up waste and abate the effects of a discharge or a threat of a discharge under WC Section 13304. The Regional Water Board shall:

A. Use any relevant evidence, whether direct or circumstantial, including, but not limited to, evidence in the following categories:

1. Documentation of historical or current activities, waste characteristics, chemical use, storage or disposal information, as documented by public records, responses to questionnaires, or other sources of information;

2. Site characteristics and location in relation to other potential sources of a discharge;

3. Hydrologic and hydrogeologic information, such as differences in upgradient and downgradient water quality;

4. Industry-wide operational practices that historically have led to discharges, such as leakage of pollutants from wastewater collection and conveyance systems, sumps, storage tanks, landfills, and clarifiers;

5. Evidence of poor management of materials or wastes, such as improper storage practices or inability to reconcile inventories;

6. Lack of documentation of responsible management of materials or wastes, such as lack of manifests or lack of documentation of proper disposal;

7. Physical evidence, such as analytical data, soil or pavement staining, distressed vegetation, or unusual odor or appearance;

8. Reports and complaints;

9. Other agencies' records of possible or known discharge; and

10. Refusal or failure to respond to Regional Water Board inquiries;

B. Make a reasonable effort to identify the dischargers associated with the discharge. It is not necessary to identify all dischargers for the Regional Water Board to proceed with requirements for a discharger to investigate and clean up;

C. Require one or more persons identified as a discharger associated with a discharge or threatened discharge subject to WC Section 13304 to undertake an investigation, based on findings of I.A and I.B above;

D. Notify appropriate federal, state, and local agencies regarding discharges subject to WC Section 13304 and coordinate with these agencies on investigation, and cleanup and abatement activities.

II. The Regional Water Board shall apply the following policies in overseeing: (a) investigations to determine the nature and horizontal and vertical extent of a discharge and (b) appropriate cleanup and abatement measures.

A. The Regional Water Board shall:

1. Require the discharger to conduct investigation, and cleanup and abatement, in a progressive sequence ordinarily consisting of the following phases, provided that the sequence shall be adjusted to accommodate site-specific circumstances, if necessary:

a. Preliminary site assessment (to confirm the discharge and the identity of the dischargers; to identify affected or threatened waters of the state and their beneficial uses; and to develop preliminary information on the nature, and vertical and horizontal extent, of the discharge);

b. Soil and water investigation (to determine the source, nature and extent of the discharge with sufficient detail to provide the basis for decisions regarding subsequent cleanup and abatement actions, if any are determined by the Regional Water Board to be necessary);

c. Proposal and selection of cleanup and abatement action (to evaluate feasible and effective cleanup and abatement actions, and to develop preferred cleanup and abatement alternatives);

d. Implementation of cleanup and abatement action (to implement the selected alternative, and to monitor in order to verify progress);

e. Monitoring (to confirm short- and long-term effectiveness of cleanup and abatement);

2. Consider, where necessary to protect water quality, approval of plans for investigation, or cleanup and abatement, that proceed concurrently rather than sequentially, provided that overall cleanup and abatement goals and objectives are not compromised, under the following conditions:

a. Emergency situations involving acute pollution or contamination affecting present uses of waters of the state;

b. Imminent threat of pollution;

c. Protracted investigations resulting in unreasonable delay of cleanup and abatement; or

d. Discharges of limited extent which can be effectively investigated and cleaned up within a short time;

3. Require the discharger to extend the investigation, and cleanup and abatement, to any location affected by the discharge or threatened discharge.

4. Where necessary to protect water quality, name other persons as dischargers, to the extent permitted by law;

5. Require the discharger to submit written workplans for elements and phases of the investigation, and cleanup and abatement, whenever practicable;

6. Review and concur with adequate workplans prior to initiation of investigations, to the extent practicable. The Regional Water Board may give verbal concurrence for investigations to proceed, with written follow-up. An adequate workplan should include or reference, at least, a comprehensive description of proposed investigative, cleanup, and abatement activities, a sampling and analysis plan, a quality assurance project plan, a health and safety plan, and a commitment to implement the workplan;

7. Require the discharger to submit reports on results of all phases of investigations, and cleanup and abatement actions, regardless of degree of oversight by the Regional Water Board;

8. Require the discharger to provide documentation that plans and reports are prepared by professionals qualified to prepare such reports, and that each component of investigative and cleanup and abatement actions is conducted under the direction of appropriately qualified professionals. A statement of qualifications of the responsible lead professionals shall be included in all plans and reports submitted by the discharger;

9. Prescribe cleanup levels which are consistent with appropriate levels set by the Regional Water Board for analogous discharges that involve similar wastes, site characteristics, and water quality considerations;

B. The Regional Water Board may identify investigative and cleanup and abatement activities that the discharger could undertake without Regional Water Board oversight, provided that these investigations and cleanup and abatement activities shall be consistent with the policies and procedures established herein;

III. The Regional Water Board shall implement the following procedures to ensure that dischargers shall have the opportunity to select cost-effective methods for detecting discharges or threatened discharges and methods for cleaning up or abating the effects thereof. The Regional Water Board shall:

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

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

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

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

1. The following techniques may be applicable:

   a. Use of available current and historical photographs and site records to focus investigative activities on locations and wastes or materials handled at the site;

   b. Soil gas surveys;

   c. Shallow geophysical surveys;

   d. Remote sensing techniques;

2. The above techniques are in addition to the standard site assessment techniques, which include:

   a. Inventory and sampling and analysis of materials or wastes;

   b. Sampling and analysis of surface water;

   c. Sampling and analysis of sediment and aquatic biota;

   d. Sampling and analysis of ground water;

   e. Sampling and analysis of soil and soil pore moisture;

   f. Hydrogeologic investigation;

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

1. Source removal and/or isolation;

2. In-place treatment of soil or water:

   a. Bioremediation;

   b. Aeration;

   c. Fixation;

3. Excavation or extraction of soil, water, or gas for on-site or off-site treatment by the following techniques:

   a. Bioremediation;

   b. Thermal destruction;

   c. Aeration;

   d. Sorption;

   e. Precipitation, flocculation, and sedimentation;

   f. Filtration;

   g. Fixation;

   h. Evaporation;

4. Excavation or extraction of soil, water, or gas for appropriate recycling, re-use, or disposal;

F. Require actions for cleanup and abatement to:

1. Conform to the provisions of Resolution No. 68-16 of the State Water Board, and the Water Quality Control Plans of the State and Regional Water Boards, provided that under no circumstances shall these provisions be interpreted to require cleanup and abatement which achieves water quality conditions that are better than background conditions;

2. Implement the provisions of Chapter 15 that are applicable to cleanup and abatement, as follows:

   a. If cleanup and abatement involves corrective action at a waste management unit regulated by waste discharge requirements issued under Chapter 15, the Regional Water Board shall implement the provisions of that chapter;

   b. If cleanup and abatement involves removal of waste from the immediate place of release and discharge of the waste to land for treatment, storage, or disposal, the Regional Water Board

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

c. If cleanup and abatement involves actions other than removal of the waste, such as containment of waste in soil or ground water by physical or hydrological barriers to migration (natural or engineered), or in-situ treatment (e.g., chemical or thermal fixation, or bioremediation), the Regional Water Board shall apply the applicable provisions of Chapter 15, to the extent that it is technologically and economically feasible to do so; and

3. Implement the applicable provisions of Chapter 16 for investigations and cleanup and abatement of discharges of hazardous substances from underground storage tanks; and

G. Ensure that dischargers are required to clean up and abate the effects of discharges in a manner that promotes attainment of either background water quality, or the best water quality which is reasonable if background levels of water quality cannot be restored, considering all demands being made and to be made on those waters and the total values involved, beneficial and detrimental, economic and social, tangible and intangible; in approving any alternative cleanup levels less stringent than background, apply Section 2550.4 of Chapter 15, or, for cleanup and abatement associated with underground storage tanks, apply Section 2725 of Chapter 16, provided that the Regional Water Board considers the conditions set forth in Section 2550.4 of Chapter 15 in setting alternative cleanup levels pursuant to Section 2725 of Chapter 16; any such alternative cleanup level shall:

1. Be consistent with maximum benefit to the people of the state;

2. Not unreasonably affect present and anticipated beneficial use of such water; and

3. Not result in water quality less than that prescribed in the Water Quality Control Plans and Policies adopted by the State and Regional Water Boards.

IV. The Regional Water Board shall determine schedules for investigation, and cleanup and abatement, taking into account the following factors:

A. The degree of threat or impact of the discharge on water quality and beneficial uses;

B. The obligation to achieve timely compliance with cleanup and abatement goals and objectives that implement the applicable Water Quality Control Plans and Policies adopted by the State Water Board and Regional Water Boards;

C. The financial and technical resources available to the discharger; and

D. Minimizing the likelihood of imposing a burden on the people of the state with the expense of cleanup and abatement, where feasible.

V. The State and Regional Water Boards shall develop an expedited technical conflict resolution process so when disagreements occur, a prompt appeal and resolution of the conflict is accomplished.

CERTIFICATION

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

Maureen Marché

Administrative Assistant to the Board

9/6/6

STATE WATER RESOURCES CONTROL BOARD
RESOLUTION NO. 93-62

POLICY FOR REGULATION OF DISCHARGES OF MUNICIPAL SOLID WASTE

WHEREAS:

1. **Water quality protection**–The State Water Resources Control Board (**State Water Board**) and each Regional Water Quality Control Board (**Regional Water Board**) are the state agencies with primary responsibility for the coordination and control of water quality (California Water Code Section 13001, "WC §13001");

2. **State Policy for Water Quality Control**–The State Water Board is authorized to adopt State Policy For Water Quality Control which may consist of or contain "...principles and guidelines deemed essential by the state board for water quality control" (Authority: WC §§1058, 13140, 13142);

3. **State agency compliance**–All State agencies shall comply with State Policy For Water Quality Control regarding any activities that could affect water quality (WC §13146);

4. **Waste Discharge Requirements**–Regional Water Boards regulate discharges of waste that could affect the quality of waters of the state, including discharges of solid waste to land, through the issuance of waste discharge requirements (WC §13263);

5. **Solid waste disposal**–The State Water Board is directed to classify wastes according to threat to water quality and to classify waste disposal sites according to ability to protect water quality (WC §13172);

6. **Chapter 15**–The State Water Board promulgated regulations, codified in Chapter 15 of Division 3 of Title 23 of the California Code of Regulations (23 CCR §§2510-2601, "**Chapter 15**"), governing discharges of waste to land. These regulations:

   a. Contain classification criteria for wastes and for disposal sites;

   b. Prescribe minimum standards for the siting, design, construction, monitoring, and closure of waste management units;

7. **Federal authority**–The federal Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (42 USC §6901, *et seq*, "SWDA"), authorizes development of nationwide standards for disposal sites for municipal solid waste [MSW], including criteria for sanitary landfills (SWDA §§1007, 4004, 42 USC §§6907, 6944);

8. **Federal MSW regulations**–On October 9, 1991, the United States Environmental Protection Agency (USEPA) promulgated regulations that apply, in California, to dischargers who own or operate landfills which accept municipal solid waste on or after October 9, 1991, (**MSW landfills**), regardless of whether or not a permit is issued (Title 40, Code of Federal Regulations [CFR], Parts 257 and 258, "**federal MSW regulations**"). The majority of the federal MSW regulations become effective on what is hereinafter referred to as the "**Federal Deadline**" [40 CFR §258.1(e)], currently October 9, 1993;

9. **States required to apply federal MSW regulations**–Each state must "...adopt and implement a permit program or other system of prior approval and conditions to assure that each...[MSW landfill]...within such state...will comply with the...[federal MSW landfill regulations]." State regulations promulgated to satisfy this requirement are subject to approval by USEPA. (SWDA §§4003, 4005, 42 USC §§6943, 6945);

10. **Approved state's authority**–The permitting authority in an "approved state" may approve engineered alternatives to certain prescriptive standards contained in the federal MSW regulations, provided that the alternative meets specified conditions and performance standards (40 CFR 256.21);

11. **State application**–The State Water Board and the Integrated Waste Management Board submitted an application for program approval to the USEPA on February 1, 1993;

12. **Chapter 15 deficiencies**–The State Water Board's Chapter 15 regulations are comparable to the federal MSW regulations. Nevertheless, the USEPA has identified several areas of Chapter 15 which are not adequate to ensure compliance with

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

13. **Rulemaking to amend Chapter 15**–There is insufficient time, prior to October 9, 1993, for the State Water Board to amend Chapter 15 to ensure complete consistency with the federal MSW regulations and subsequently for the USEPA to carry out a review of the revised chapter and to render a decision approving California's permit program;

14. **Composite liner(s) needed**–Solid Waste Assessment Test Reports, submitted to Regional Water Boards pursuant to WC §13273, have shown that releases of leachate and gas from MSW landfills that are unlined are likely to degrade the quality of underlying ground water. Research on liner systems for landfills indicates that (a) single clay liners will only delay, rather than preclude, the onset of leachate leakage, and (b) the use of composite liners represents the most effective approach for reliably containing leachate and landfill gas;

15. **Lack of compliance with Chapter 15**–WDRs for many MSW landfills have not been revised to meet the most recent Chapter 15 amendments;

16. **CEQA**–Adoption of this policy is categorically exempt from the provisions of the California Environmental Quality Act (Division 13, commencing with §21000, of the Public Resources Code, "CEQA") because it is an action by a regulatory agency for the protection of natural resources, within the meaning of §15307 of the *Guidelines For Implementation of California Environmental Quality Act* in Title 14 of the California Code of Regulations;

17. **Public notice**–Notice of the State Water Board's proposal to adopt a State Policy for Water Quality Control regarding Regulation of Discharges of Municipal Solid Waste was published on March 31, 1993, and a public hearing on the matter was held on June 1, 1993; and

18. **Reference**—This Policy implements, interprets, or makes specific the following Water Code Sections: §13142, §13160, §13163, and §13172.

THEREFORE BE IT RESOLVED:

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

A. **WDR revision**—In order to insure compliance with SWDA §§4003, 4005 (42 USC §§6943, 6945), each Regional Water Board shall henceforth implement in waste discharge requirements for discharges at MSW landfills, both the Chapter 15 regulations and those applicable provisions of the federal MSW regulations that are necessary to protect water quality, particularly the containment provisions stipulated in Section III of this Policy and the provisions identified in Attachment I to this Policy, and shall revise existing waste discharge requirements to accomplish this according to the schedule provided in Section II of this Policy;

B. **Alternatives limited**—The Regional Water Board shall not rely upon any exemption or alternative allowed by Chapter 15 if such an exemption or alternative would not be allowed under the federal MSW regulations, nor shall the Regional Water Board waive waste discharge requirements for the discharge of municipal solid waste at landfills;

C. **Applicability in the absence of useable waters**—Although all other provisions of this Policy would continue to apply, the Regional Water Board shall have the discretion to prescribe requirements for containment systems and water quality monitoring systems that are less stringent than the design and construction standards in this Policy, in the federal MSW regulations, and in Chapter 15 if the Regional Water Board finds that the containment systems satisfy the performance standard for liners in the federal MSW regulations [40 CFR §§258.40(a)(1) and (c)], that the prerequisite for an exemption from ground water monitoring in the federal MSW regulations is satisfied [40 CFR §258.50(b)], and that either of the following two conditions is satisfied:

1. A hydrogeologic investigation shows that:

   a. There is no aquifer (i.e., a geological formation, group of formations, or portion of a formation capable of yielding significant quantities of ground water to wells or springs) underlying the facility property; and

   b. It is not reasonably foreseeable that fluids—including leachate and landfill gas—migrating from the landfill could reach any aquifer or surface water body in the ground water basin within which the landfill is located; or

2. The ground water in the basin underlying the facility has no beneficial uses and a hydrogeologic investigation shows that it is not reasonably foreseeable that fluids—including leachate and landfill gas—migrating from the landfill could reach any aquifer or surface water body having beneficial uses.

II. Implementation schedule:

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

1. Except for the ground water monitoring and corrective action requirements under 40 CFR §§258.50-258.58, comply with all applicable portions of the federal MSW regulations by the Federal Deadline; and

2. Achieve full compliance with Chapter 15 and with the federal ground water monitoring and corrective action requirements under 40 CFR §§258.50-258.58 as follows:

   a. For all MSW landfills that are less than one mile from a drinking water intake (surface or subsurface), by no later than October 9, 1994; and

   b. For all other MSW landfills that have accepted waste prior to the effective date of this Policy, by no later than October 9, 1995;

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

III. Containment–

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

A. **Standards for liners**

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

   a. **Prescriptive Design**:

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

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

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

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

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

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

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

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

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

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

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

CERTIFICATION

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

Maureen Marchè
Administrative Assistant to the Board

ATTACHMENT I

To Resolution No. 93-62

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

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

State Water Resources Control Board

WATER QUALITY CONTROL PLAN FOR CONTROL OF TEMPERATURE IN THE COASTAL AND INTERSTATE WATERS AND ENCLOSED BAYS AND ESTUARIES OF CALIFORNIA1/

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

1/ 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 upstream 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 north 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 discharges

(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.

STATE WATER RESOURCES CONTROL BOARD
RESOLUTION NO. 92-82

APPROVAL OF AN EXCEPTION TO THE WATER QUALITY CONTROL PLAN FOR CONTROL OF TEMPERATURE IN THE COASTAL AND INTERSTATE WATERS AND ENCLOSED BAYS AND ESTUARIES OF CALIFORNIA (THERMAL PLAN) FOR SACRAMENTO REGIONAL COUNTY SANITATION DISTRICT (DISTRICT)

WHEREAS:

1. The District has a municipal wastewater discharge at an elevated temperature into the Sacramento River at Freeport in the Sacramento-San Joaquin Delta Estuary (Estuary).

2. Objective 5A(1)(b) of the Thermal Plan prohibits a waste discharge which causes more than a 1°F rise in more than 25 percent of the receiving water cross section at discharge locations in the Estuary.

3. The District requested an exception to Thermal Plan Specific Water Quality Objective 5A(1)(b).

4. An exception to the Thermal Plan can be granted by the State Water Resources Control Board (State Water Board) provided that a less stringent objective will assure the protection and propagation of balanced indigenous population of shellfish, fish, and wildlife in and on the Sacramento River.

5. Under discharge conditions for the next five years, the heat load contributed by the District's effluent does not appear to pose a threat to aquatic life, including chinook salmon, at any season.

6. In Resolution 90-103, the State Water Board noted that projected increases in effluent volume will cause more frequent violations of Objective 5A(1)(b). At the times of the year that Sacramento River temperatures upstream of the discharge are 65°F or greater, the effects of increased discharge on aquatic life may become significant after five years, but cannot be predicted at present.

7. The District prepared a report that states that the surest option for attaining compliance with Objective 5A(1)(b) at river temperatures of 65°F and above is the addition of a second outfall diffuser. However, the District has not proposed to construct this diffuser at this time.

8. Other measures, including control of temperature from industrial sources and wastewater reclamation for irrigation or for creation of wetlands, can reduce but probably not eliminate violations of Objective 5A(1)(b). A staged

reclamation project, with first stage capacity estimated to be 3 million gallons per day, is under way and stage one should be in operation in 1995. A demonstration constructed wetland project using 1 million gallons per day is under way and construction should be complete in 1994.

9. The District has prepared a Supplemental Environmental Impact Report (SEIR) that has evaluated the potential impacts of the elevated temperature discharge on the beneficial uses and aquatic environment of the receiving water.

10. The State Board has reviewed and considered the District's SEIR and its finding that the proposed exceptions will not result in any significant environmental impacts, including impacts to migrant chinook salmon.

11. The State Water Board on October 8, 1992 held a hearing in Sacramento and considered all evidence concerning this matter. Based on available information, the exception should not result in any significant environmental impacts, including impacts to migrant chinook salmon.

THEREFORE BE IT RESOLVED THAT:

1. The State Water Board grants an exception to Specific Water Quality Objective 5A(1)(b) of the Thermal Plan for the District's municipal wastewater discharge to the Sacramento River as follows: elevated temperature waste discharges, either individually or combined with other discharges, shall not create a zone, defined by water temperatures of more than 2°F above natural receiving water temperature which exceeds 25 percent of the cross-sectional area of the main river channel at any point.

2. Whenever the temperature of the Sacramento River upstream of the discharge is 65°F or higher, Objective 5A(1)(b) shall be exceeded no more than one hour per day as an average in any thirty-day period.

3. Whenever measurements indicate that the temperature of the Sacramento River upstream of the discharge is 65°F or higher, the District shall determine the fraction of each day that the discharge causes more than a 1°F rise in more than 25 percent of the receiving water cross section at the discharge location. The District shall report the results of such determinations each month to the Regional Water Quality Control Board, Central Valley Region.

4. The exception in paragraph one above expires five years from the effective date of this Resolution, after which time Thermal Plan Objective 5A(1)(b) applies to the discharge.

5. Upon expiration of the exception, the District shall report to the State Water Board the results of its temperature control program, including measures taken and the effectiveness of those measures.

6. The Executive Director shall transmit the decision on the exception request to the U.S. Environmental Protection Agency, Region 9, for approval.

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 October 22, 1992.

Maureen Marché
Administrative Assistant to the 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

By _____
Regional Forester
Pacific-Southwest Region

Date: 3/17/81

By _____
Regional Forester
Intermountain Region

Date: 4-1-81

By _____
for Regional Forester
Pacific Northwest Region

Date: 5-26-81

STATE WATER RESOURCES CONTROL BOARD
STATE OF CALIFORNIA

By _____
Executive Director

Date: FEB 26 1981

ATTACHMENT A

Schedule for Completing the BMPs

Priority	Best Management Practice	Completion Date (F.Y.)
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

Region	Issue	Completion Date (F.Y.)
1	Herbicide Use (Resolution 80-5)	'81
1	Protection of Wild and Scenic Rivers	'82

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

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

BACKGROUND

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

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

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

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

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

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

AUTHORITY

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

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

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

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

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

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

PRINCIPLES OF AGREEMENT

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

a. the review and evaluation of the water quality aspects of facility siting and design, ground water (including that found in the unsaturated zone) and surface water monitoring and protection programs, the water quality aspects of facility closure plans and post-closure monitoring programs; and

b. the development of appropriate water quality protection requirements and permit conditions to prevent water quality degradation.

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

5. The Department and the Board agree to develop jointly and sign an interagency agreement, prior to the beginning of each fiscal year, which clearly defines the tasks, work products, time of performance, and associated costs for the Board's performance of the responsibilities described in this MOA. The Department, contingent upon availability of funding, agrees to reimburse the Board in fulfillment of their responsibilities under the interagency agreement.

6. As the State does not allow intervention as a right in any civil action by any citizen having an interest which may be or is adversely affected, the Board agrees, at a minimum, to provide public participation, relative to enforcement actions taken on behalf of the Department at hazardous waste management facilities, in a manner that is not less stringent than RCRA statute or regulations.

7. The Board agrees that any information obtained or used in the administration of those portions of Subchapter 15 and the Porter-Cologne Act that relate to the terms and conditions of this MOA or the annually negotiated Interagency Agreement shall be available to the Department without restriction. If the information has been submitted to the Board under a claim of confidentiality, the Board agrees to submit that claim to the Department when providing the information. The Department shall acknowledge and respond to such claims of confidentiality as required by state law.

8. On or before September 30 of each year, the Board shall submit to the Department a final accounting of all costs incurred by the Board for all work performed in compliance with this MOA during the previous fiscal year.

9. This MOA may be amended by mutual agreement as necessary to assure effective and timely implementation and operation of the State's hazardous waste program.

10. The Secretary for Environmental Affairs and the Secretary for the Department of Health Services shall make the final determination in any jurisdictional dispute between the Department and the Board concerning the implementation of this memorandum, to the extent such dispute resolution does not render the State's authorization program inconsistent with, or less stringent then, the Federal RCRA program.

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

Date

Raymond R. Stone, Chairperson
State Water Resources Control Board

11/27/86
Date

EXHIBIT A

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

1. The Department Requests Permit Application (Part B)

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

2. Orientation Meetings for Permit Applicants

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

3. Technical Assistance for Permit Applicants

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

4. Part B Received by the Department

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

* After program authorization by EPA

5. Review of Application

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

6. The Department Prepares Responses to Permit Applicant

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

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

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

8. RWQCB Prepares Draft Waste Discharge Requirements

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

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

9. The Department Prepares Preliminary Draft Hazardous Waste Facility Permit

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

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

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

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

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

14. RWQCB Adopts the WDR

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

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

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

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

I. PURPOSE AND SCOPE OF MOA.

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

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

II. GENERAL BACKGROUND.

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

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

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

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

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

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

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

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

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

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

III. GENERAL PRINCIPLES.

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

(A) Reclamation requirements issued by the Regional Boards will impose all absolute reclamation criteria established by the Department's regulations.

(B) All recommendations of the Department which involve areas of critical or essential health concern shall be included in any reclamation requirements issued by a Regional Board or by the State Board, unless variation therefrom is adequately documented and justified by the Regional Board. This principle encompasses all absolute criteria contained in the Department's Guidelines.

(C) Each agency hereto and the Regional Boards shall, to the maximum extent compatible with fulfillment of its primary responsibility to protect and preserve public health or water quality, promote and facilitate use of reclaimed water in this State.

IV. PROGRAM PROVISIONS AND COMMITMENTS.

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

(A) Issuance and Enforcement of Reclamation Requirements:

1. The Regional Boards will consult with and seek recommendations from the Department prior to the issuance of any reclamation requirements. The Department will be provided with a copy of any reclamation requirements which a Regional Board proposes to issue as a part of the consultation process, and shall have reasonable opportunity to comment thereon prior to any adoption thereof. Any comments or recommendations which the Department intends to make on proposed reclamation requirements will be expeditiously provided. As a part of the consultation process, the Regional Boards will notify the Department of any intended departure from any absolute criteria contained in the Department's Guidelines.

2. Any Department recommendations to the Regional Boards relative to proposed reclamation requirements will identify those nonregulatory recommendations which the Department believes are critical and essential for protection of public health. In the event that the staff of any Regional Board does not intend to recommend inclusion of any such recommendation in the proposed reclamation requirements which will be submitted to the Regional Board, the Department will be notified at the Branch Chief level. The Regional Board Executive Officer and the appropriate Department Branch Chief will attempt to resolve any differences over the terms of the proposed reclamation requirements. If the differences cannot be resolved at this level, the matter will be brought to the attention of the Chief of the Department's Environmental Health Division. If the differences are not resolved at this level, the Regional Board staff will proceed toward presentation of the proposed reclamation requirements to

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

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

3. Other recommendations of the Department, not identified by the Department as critical or essential for the protection of public health, will be included by the Regional Boards in their reclamation requirements in the manner and to the extent determined to be appropriate by the Regional Boards after full consideration of the Department's recommendations. In each case where there is any significant variation from any such recommendation given by the Department to which the Department has not agreed, the Regional Boards will notify the Department in writing that changes have been made to the Department's recommendations. Such notice will clearly identify the changes that have been made and provide a statement of the reasons and rationale for variation from the Department's recommendations.

4. If a Regional Board accepts and imposes any recommendation made by the Department and the requirement so imposed is challenged by any person, the Department will supply justification for, and otherwise reasonably support and defend, such recommendation.

5. The provisions of Paragraphs 2 and 3 above are intended to apply, as appropriate, to all recommendations of the Department, including but not limited to, recommendations related to treatment requirements, treatment methods, necessary facilities, monitoring, sampling requirements and analyses thereof, reporting requirements, reliability features, operation and maintenance requirements, alarm and warning systems, cross connection protections, set back and buffer zones, and pipeline separation.

6. The Regional Boards will not waive the necessity of reclamation requirements for any proposed use of reclaimed water without consultation with the Department.

7. The Regional Boards shall be primarily responsible for reasonable surveillance and monitoring of all activities subject to reclamation requirements. The Regional Boards will expeditiously notify the Department of all significant violations of reclamation requirements or improper reclamation uses within their jurisdictions. The Department will expeditiously notify the appropriate Regional Board of improper reclamation uses or violation of reclamation requirements which become known to the Department.

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

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

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

(B) Revision of Department Guidelines For Use of Reclaimed Water.
The agencies hereto recognize that the current Department Guidelines need to be reviewed and revised as appropriate. The Department will undertake to develop updated, mutually acceptable Guidelines, in the following manner:

1. The Department will forward a copy of the current Guidelines and relevant and related material to the Regional Boards, the State Board, the California Conference of Local Health Officers (CCLHO) and the California Conference of Directors of Environmental Health (CCDEH) soliciting comments regarding the Guidelines including any changes or revisions desired.

2. The recipients will expeditiously, and in any event not later than November 10, 1988, provide any comments which they intend to make.

3. The Department will prepare and distribute the first draft of proposed revised Guidelines by January 1, 1989.

4. The agencies hereto will form a Joint Task Force to provide advice to the Department on development of Guidelines. It is anticipated that this Task Force will be comprised of three representatives from the Department, two Regional Board Executive Officers, two representatives from the State Board, one representative from Tri-TAC, and two representatives on behalf of local health authorities, presumably from CCLHO and/or CCDEH.

5. It is anticipated that final revised Guidelines will be concurred in by the agencies hereto and that, in addition, the revised Guidelines will be endorsed and concurred in by both CCDEH and CCLHO.

6. In addition to advising the Department on development of revised Guidelines, the Task Force will also make recommendations to the Department concerning what portions of the revised Guidelines should be promulgated in the formally adopted regulations of the Department.

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

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

2. The Department will develop and make available an issue paper which explains and sets forth the justification and rationale for the Current Title 22 reclamation criteria. It is anticipated that the necessary document will be developed by January 1, 1989.

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

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

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

(E) Inconsistencies Between Regulation of Use of Reclaimed Water and Nonregulation of Reuse of Treated Wastewater (Incidental Reuse); Development of Programs and Strategies. The agencies hereto recognize that, unlike the strict regulation that occurs where use of

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

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

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

SC 12/5/88

V. DISPUTE AND CONFLICT RESOLUTION.

(A) It is the desire of the agencies hereto to establish a speedy, efficient, informal method for resolution of interagency problems, disputes or conflicts. To that end, except as otherwise provided in this MOA, and to the extent not inconsistent with any formal administrative appeals which may be pending:

1. Department concerns with Regional Board action or inaction, which cannot otherwise be informally resolved, will be brought to the attention of the State Board Executive Director who will attempt to resolve the same with the appropriate Regional Board or Boards. In the event that such concerns still cannot be resolved to the satisfaction of the Department, the matter shall be referred to the Director of the Department and the Chairman of the State Board for consideration and appropriate action toward resolution.

2. Regional Board concerns with Department action or inaction, which cannot otherwise be informally resolved, will be referred to the

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

3. Concerns between the Department and the State Board which cannot otherwise be informally resolved will be referred to the State Board Executive Director and the Department's Deputy Director for Public Health. In the event that the concerns still cannot be resolved to the mutual satisfaction of the State Board and the Department, the matters in issue shall be referred to the Director of the Department and the Chairman of the State Board for appropriate action.

4. Nothing contained herein shall be construed to deprive the Department of formal appeal rights relative to any alleged Regional Board action or inaction. In the event of such an appeal, the State Board will expedite any review process.

VI. MODIFICATION AND PERIODIC REVIEW.

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

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

Director
Department of Health Services

12-5-88

Chairman
State Water Resources Control Board

11-15-88

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

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

WHEREAS:

1. The Board of Forestry has the authority and responsibility, pursuant to the State's Z'berg-Nejedly Forest Practice Act, to promulgate Forest Practice Rules (Rules) and policies to specify practices related to timber operations on non-federal lands in order to restore, enhance and maintain the maximum sustained production of high-quality timber while giving consideration to other natural resources, including the quality and beneficial uses of water.

2. The Department has the authority and responsibility to administer these Rules and policies.

3. The Water Board and the Regional Water Quality Control Boards (Regional Boards) have the authority and responsibility, pursuant to the State Porter-Cologne Act and the Federal Clean Water Act (as amended), to promulgate Water Quality Management (WQM) plans and water quality control plans (Basin Plans) which set forth objectives for restoring, enhancing, and maintaining the quality and beneficial uses of the State's waters, to promulgate regulations and policies to attain these objectives, and to administer these regulations and policies to ensure that waste discharges, including those from silvicultural activities, do not degrade the quality and beneficial uses of the State's waters.

4. The Water Board has the authority and responsibility, pursuant to Section 208 of the Federal Clean Water Act and Title 40, Part 35, Subchapter G, of the Code of Federal Regulations, to designate appropriate management agencies for implementing certain provisions of 208 WQM plans and to certify 208 WQM plans which incorporate Best Management Practices (BMPs) for control of nonpoint sources of pollution, including silvicultural land uses.

5. The Board of Forestry, the Department and the Water Board mutually desire:

   a. To achieve the goals of the Federal Clean Water Act (as amended), of the State Porter-Cologne Act, and of the State Z'berg-Nejedly Forest Practice Act by restoring, enhancing, and maintaining the quality and beneficial uses of the State's waters;

   b. To achieve the water quality objectives set forth in applicable Basin Plans of the State;

   c. To minimize duplication of effort and to establish complementary resource protection programs; and

   d. To assure protection of the quality and beneficial uses of the State's waters through development and implementation of BMPs.

6. The Board of Forestry has promulgated, and the Department administers, Rules which are intended to be BMPs for protection of the quality and beneficial uses of the State's waters from waste discharges due to timber operations on nonfederal lands. The BOF has requested certification of these Rules and the procedures (Process) by which they are promulgated and implemented.

7. On January 21, 1988 and effective upon execution of this Agreement, the Water Board designated the Board of Forestry and the Department as joint management agencies for timber operations on nonfederal lands in the State and certified a 208 WQM plan consisting of: (a) the water quality-related Rules effective through December 31, 1986 (See Item C. 1.), (b) the Process by which they are promulgated and implemented, and (c) this Agreement.

NOW, THEREFORE, the parties hereto agree as follows:

A. The Board of Forestry agrees:

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

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

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

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

   a. Evaluate any recommended Rule language and adopt that found to be appropriate;

   b. Evaluate any recommended non-Rule approaches, and in cooperation with other appropriate parties, affect implementation of those found to be appropriate; and

   c. Report results to the Water Board in accordance with Items B.4 and B.5 below.

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

1. To each accept designation as, and the responsibilities of, a water quality management agency for timber operations on nonfederal lands in the State of California.

2. To consider, in consultation with the interagency liaison committee (as described in Item D. 7. et. seq.) and others, the best means of resolving issues regarding improvement of BMPs and their implementation which are set forth in Attachment C and to develop and implement appropriate improvements.

3. To develop and carry out improved auditing of agency performance in implementing BMPs.

4. To jointly provide progress reports at Water Board workshops regarding resolution of the issues specified herein:

   a. Semi-annually for the first two years following the date of certification; and

   b. As mutually deemed necessary thereafter, but not more frequently than semi-annually.

5. To submit, with the annual BOF report to the Legislature, a concurrent written report to the Water Board which:

   a. Summarizes the following:

      (1) Progress in resolving issues in accordance with any attachment hereto,

      (2) Any significant additions, deletions, or amendments of the laws, Rules and Process which have or will become effective after January 1, 1987 and which may affect protection of the quality and beneficial uses of water, with explanation for each such change, and

      (3) The results of any agency studies or audits of the performance of foresters, timber operators, and agency personnel, and of the Rules and implementation Process; and

   b. Presents any suggestions for needed studies and for changes in the Rules, the Process, or in this Agreement.

C. The Water Board agrees:

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

   Subchapter 1 (Abbreviations and Definitions)

   Article 1

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

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

Subchapter 4 (Coast Forest District)

Article 11 (Coastal Commission Special Treatment Areas), and

Article 12 (Logging Roads and Landings)

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

Article 11 (Logging Roads and Landings)

2. That this Agreement, together with the Rules referenced in Item C.1 above, and the Process (including interagency Review Teams) constitute a 208 WQM plan for control of nonpoint source pollution from timber operations on nonfederal lands which:

   a. Is consistent with relevant provisions of the State/EPA Agreement and Work Program, Federal regulations, and the Federal Clean Water Act;

   b. Is technically sound and economically feasible;

   c. Is consistent with other relevant and approved WQM plans; and

   d. Represents substantial progress toward achievement of water quality goals.

3. To review the annual written report specified in Item B.5, and to identify any concerns regarding protection of water quality due to changes in the Rules or Process made or proposed by BOF and/or CDF.

4. To direct Regional Boards, upon EPA approval of the 208 WQM plan, to cease issuance of Waste Discharge Requirements for timber operations on nonfederal lands except as provided in Section 4514.3 of the Public Resources Code.

D. The Water Board, the Board of Forestry, and the Department agree:

1. That Rule modifications or other means to resolve, in a manner acceptable to the parties hereto, the issues set forth in Attachments A and B will be pursued through normal BOF procedures.

2. That resolution of the issues in Attachment C will be pursued in a manner acceptable to the parties hereto, after further study.

3. That improved methods for implementing BMPs shall be developed and carried out as follows:

   a. Implementation of guidance documents developed in accordance with Attachment D shall begin within 2 years after the effective date of certification or as soon thereafter as feasible;

   b. Training and education programs, and participation therein, shall be pursued on a continuing basis in accordance with Attachment E; and

   c. State agency procedures which are acceptable to the parties hereto and which are developed in accordance with Attachment F shall be incorporated into appropriate Memoranda of Understanding (MOUs) within one year after the effective date of certification.

4. That improved private sector procedures for implementing BMPs shall be encouraged on a continuing basis in accordance with Attachment G.

5. That additional studies to further assess the effects of timber operations on water quality and to provide for continued evaluation, development, and improvement of BMPs and their implementation shall be developed in accordance with Attachment H. Study workplans will be submitted to the parties no more than 2 years after the effective date of certification or as soon thereafter as feasible.

6. That the development and implementation of BMPs and the additional studies conducted by the parties hereto shall be coordinated with concerned state agencies, especially the Department of Fish and Game (DFG) and Regional Boards, with Federal agencies, with BOF DTACS, and with the private sector.

7. That activities needed to carry out Items D.1 through D.5 above shall begin within 30 days after the effective date of certification.

8. That the Chairpersons of BOF and the Water Board (or another Board member) and the Director of CDF shall serve as an interagency liaison committee, and the Director of DFG shall be invited to serve with them.

9. That each agency liaison shall:

   a. Designate an alternate liaison member, if necessary; and

   b. Coordinate the activities of the designating agency as set forth herein with the activities of the other parties hereto, as well as with DFG, Regional Boards, and Federal agencies.

10. That the liaison committee shall seek mutually acceptable technical support, as needed.

11. That the liaison committee members shall meet no less than annually to maintain coordination and communication, to review and discuss the BOF/CDF annual report, to review activities under this agreement, and to consider any revisions to this Agreement, including anticipated target dates and schedules, which are requested by any party hereto. The Director of DFG, or an authorized representative, shall be invited to participate in such meetings.

12. That the parties hereto shall work together to resolve any conflicts which may arise.

13. That representatives of Regional Boards and CDF Regions shall meet with each other, and with DFG representatives, as needed to resolve conflicts and concerns, and shall submit brief written summaries of the reasons for and results of such meetings to the designated liaison in each agency.

14. That the liaison committee shall meet as necessary to resolve conflicts or concerns which arise from and are not resolved by other meetings or reports. Meetings may be initiated at the request of the Executive Director of BOF and the Water Board, the Director of CDF and DFG, or the Executive Officer of a Regional Board.

15. That this Agreement may be terminated upon a 90 day notice by either board.

16. That another multidisciplinary assessment, in a mutually accepted format, of the adequacy of the Rules and the Process shall be conducted by the parties hereto not more than 5 years after certification. DFG shall be invited to participate in such assessment.

17. That, based on the results of said assessment, certification of the Rules and Process as part of a 208 WQM plan shall be formally reviewed no more than 6 years from the date of certification.

18. That future assessments and related review of certification may again be carried out at such time thereafter as may be mutually agreed upon among the parties.

19. That 208 WQM plan certification or management agency designation shall be reviewed in one or more Water Board hearings under any of the following conditions:

    a. If, for other than financial reasons, the assessments specified herein cannot be implemented;

    b. If, at any time, there is substantial evidence that BOF or CDF have failed to maintain a water quality regulatory program consistent with certification or have failed to satisfy terms of this Agreement; or

    c. If BOF requests such a review.

20. That, except for the provisions of Item C.4 above, nothing herein shall be construed in any way as limiting the legal authority or responsibility of the Water Board or Regional Boards in carrying out their mandates for control of water pollution and protection of the quality and beneficial uses of the State's waters.

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

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

STATE BOARD OF FORESTRY,
STATE OF CALIFORNIA

By Harold R. Walt
Harold R. Walt,
Chairman

Date: 2/3/88

STATE WATER RESOURCES CONTROL BOARD
STATE OF CALIFORNIA

By W. Don Maughan
W. Don Maughan,
Chairman

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.)

	Issue		Suggested Resolution		Target Date
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.)

	Issue		Suggested Resolution		Target Date
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

Issue	Suggested Resolution	Target Date
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

Issue	Suggested Resolution	Target Date
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

Issue	Suggested Resolution	Target Date
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.)

	Issue		Suggested Resolution		Target Date
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

	Issue		Suggest Resolution		Target Date
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.