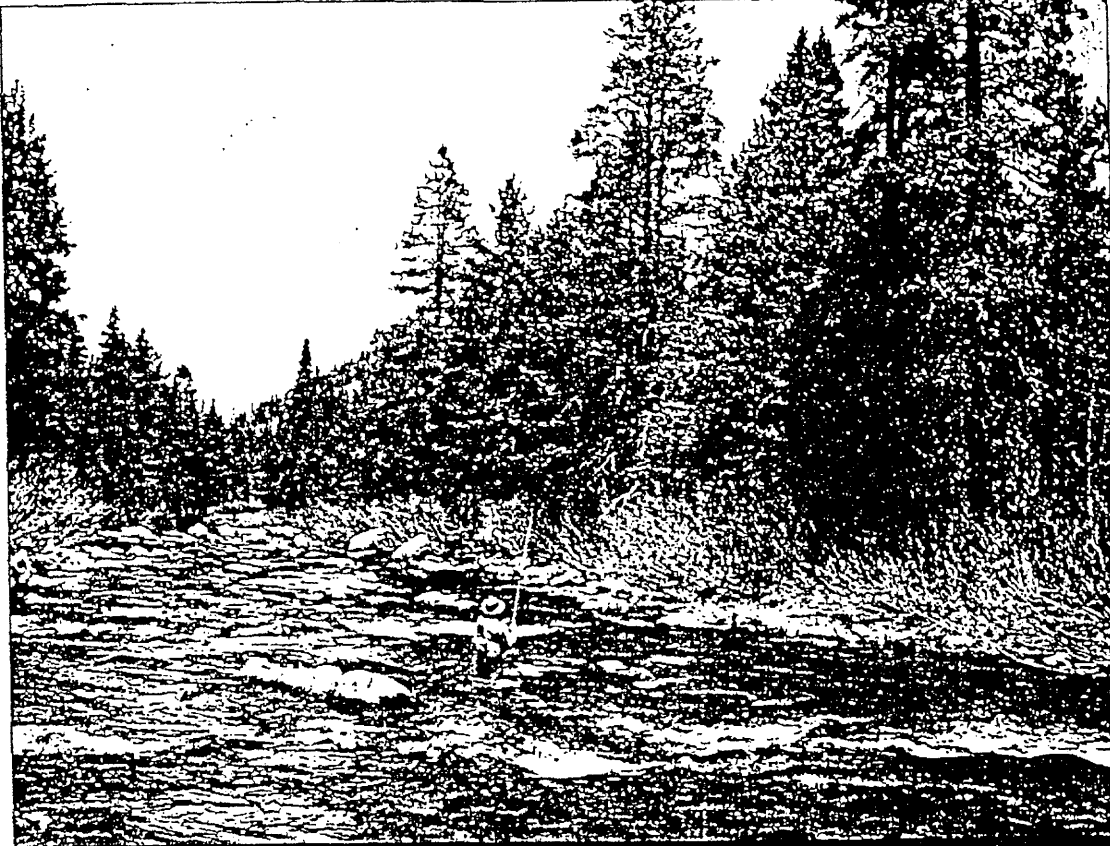


7930
35
..2

STATE OF CALIFORNIA
RONALD REAGAN, Governor

The RESOURCES AGENCY



RECOMMENDED CHANGES IN WATER QUALITY CONTROL

FINAL REPORT of the
STUDY PANEL to the
CALIFORNIA STATE
WATER RESOURCES CONTROL BOARD

Study Project
Water Quality Control Program

Prepared for the CALIFORNIA LEGISLATURE

MARCH
1969

CALIFORNIA
STATE LIBRARY
JUL 25 1969
GOVERNMENT
PUBLICATIONS

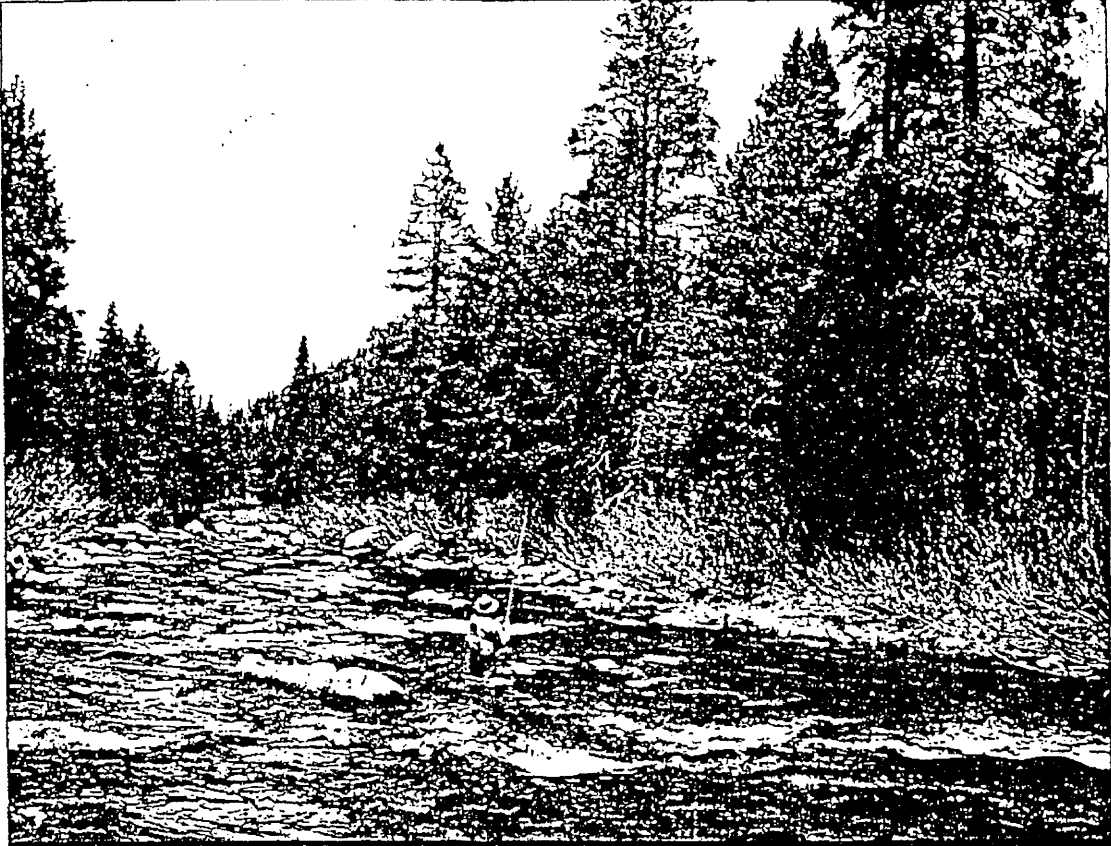
2

730
35
1.2

STATE OF CALIFORNIA

RONALD REAGAN, Governor

The RESOURCES AGENCY



RECOMMENDED CHANGES IN WATER QUALITY CONTROL

FINAL REPORT of the
STUDY PANEL to the
CALIFORNIA STATE
WATER RESOURCES CONTROL BOARD

Study Project
Water Quality Control Program

Prepared for the CALIFORNIA LEGISLATURE

MARCH
1969

CALIFORNIA
STATE LIBRARY
JUL 25 1969
GOVERNMENT
PUBLICATIONS

2

State of California
Ronald Reagan
Governor

The Resources Agency
Norman B. Livermore, Jr.
Secretary for Resources

RECOMMENDATIONS OF THE STUDY PANEL
TO THE
CALIFORNIA STATE WATER RESOURCES CONTROL BOARD
FOR LEGISLATIVE CHANGES
AND ADMINISTRATIVE PRACTICES
RELATING TO WATER QUALITY

Study Project - Water Quality Control Program

The Study Panel:

Harvey O. Banks, Chairman
Jerome B. Gilbert, Vice Chairman
Burton J. Gindler
Norman B. Hume
Carlyle Reed
Bert L. Smith
Dr. Richard B. Tibby

The State Board:

Kerry W. Mulligan, Chairman
W. A. Alexander, Vice Chairman
George B. Maul
(Resigned in April, 1969)
Edward J. Dibble
Norman B. Hume
Ronald B. Robie
Ralph J. McGill
(Term expired in January, 1969)
Jerome B. Gilbert, Executive Officer

Study Project Staff:

Luther H. Gullick, Director
Bill B. Dendy, Assistant Director
Sandy Tackitt, Administrative
Assistant
Ruth Derby, Secretary

The recommended legislative changes in Appendix A were adopted by the State Board on March 20, 1969, for transmittal to the California Legislature.

TABLE OF CONTENTS

	<u>Page</u>
FOREWORD	(i)
CHAPTER I. INTRODUCTION	1
A. The Problems	1
1. The Impact of Growth on California Water Quality Problems	1
2. Specific California Water Quality Problems	2
B. The Approach	3
C. Basic Concepts for an Effective Water Quality Control Program	4
D. Needed Legislative Changes	5
CHAPTER II. LEGISLATIVE POLICY	7
A. Water Quality	7
B. Regional Concept	7
C. Water Quality and Water Rights	8
CHAPTER III. WATER QUALITY CONTROL POLICIES AND PLANS	11
A. State Policy for Water Quality Control	11
B. Regional Water Control Plans	11
CHAPTER IV. WASTE DISCHARGE REQUIREMENTS	15
CHAPTER V. SURVEILLANCE, MONITORING AND BASIC DATA COLLECTION	17
CHAPTER VI. ENFORCEMENT AND IMPLEMENTATION	19
A. Deficiencies of Present Law	19
B. Rationale of Proposed Law	19
C. Summary of Enforcement and Implementation Procedures under Division 7 of the Water Code	20
1. Preventive and Abatement Procedures	20
2. Remedial Proceedings	22
3. Criminal Misdemeanors	22
CHAPTER VII. SPECIAL PROGRAMS AND ORGANIZATION OF THE REGULATORY AGENCIES	23
A. State Water Resources Control Board	23

TABLE OF CONTENTS (Continued)

	<u>Page</u>
CHAPTER VII. (Continued)	
1. State Programs	23
a. Research	23
b. Planning and Coordination	24
c. State Board-Regional Board Relationships	27
d. State Intergovernmental Relationships	27
e. Program for Public Information	28
f. Training of Treatment Plant Operators	28
2. Organization	29
a. Research and Planning	29
b. Public Information	29
3. Advisory Committee	29
4. State-Federal Relationships	30
5. Manpower Needs	31
B. Regional Water Quality Control Boards	32
1. Board Membership	32
2. Delegation of Authority to Executive Officer	34
3. Additional Regional Programs	34
4. Manpower Needs	35
CHAPTER VIII. WASTE DISCHARGE PROBLEMS	37
A. Community Sewer Systems	37
1. Additions to Systems	37
2. Financing Problems	37
a. Federal Grant Program	37
b. Local Government Financing	38
c. Sewer Service Charges	38
d. State Financing	38
3. Subdivision Laws	39
4. Regional Systems	39
5. Consolidation of Special Districts	40
B. Agricultural Water Use	40
1. The Mineral or Salt Problem	41
2. Pesticides	41
3. Fertilizers	42
C. Waste Water Reclamation	42
D. Oil Problems	42
E. Vessel Wastes	43
CHAPTER IX. PROBLEMS NEEDING FURTHER STUDY	47
A. Fish and Game Code Section 5650	47
B. Waste Disposal from Mobile Homes	48

TABLE OF CONTENTS (Continued)

	<u>Page</u>
CHAPTER IX. (Continued)	
C. Prevention of Lake Eutrophication	48
D. Industrial Waste Hauling	48
E. Delayed Pollution	48
F. Possible Need to Revise Health and Safety Code, Section 6644	49
G. Other Problems Previously Discussed	49

APPENDICES

- A. Recommended Changes to the Water Code, Business and Professions Code, Government Code, Harbors and Navigation Code, and Health and Safety Code
- B. Fines and Penalties for Water Pollution In Various States
- C. Interagency Programming Committee for Water Quality Control and Management Activities and A Proposal for the Coordinated Storage and Retrieval of Water Quality Information
- D. Manpower Requirements
- E. Acknowledgments

FOREWORD

The origin of and authorization for the State Water Resources Control Board's Study Project - Water Quality Control Program, is explained by two basic documents printed in the Assembly Daily Journal for May 13, 1968, on pages 3003 to 3005, as follows:

"Assembly Committee on Water

February 7, 1968

"Mr. George Maul, Chairman
State Water Resources Control Board
1416 Ninth Street
Sacramento, California

"Dear George: As you know, at the end of next year we will complete 20 years of operation under the State's Water Quality Control Act which was enacted by the Legislature in 1949. I am certain that you will agree that our experience to date has shown that the Act has proved to be an effective tool for upgrading the quality of California's waters and maintaining them in adequate water quality.

"As you are probably also aware, the Assembly Water Committee and its predecessor committees of the Legislature have made several studies of the Water Quality Control Act with major changes being enacted at the 1959, 1963, and 1965 sessions. The 1963 and 1965 changes added a new dimension - water quality - to the basic water pollution control features of the Act.

"Most importantly, in 1967 for the first time we modified our basic organization for water pollution and quality control through the creation of the State Water Resources Control Board and the integration of consideration of water quantity and water quality on a state level. Also in 1967 the Act was broadened to include waste water reclamation and water well standards.

"Major action on the federal level in the water quality field has actually followed California's leadership, but in recent years the demands for clean water have stepped up and increasing emphasis is being placed on higher water quality than ever before.

"In working with the Water Quality Control Act over the years, this committee and its predecessor committees have made many changes but have never made a comprehensive review of its basic procedures and provisions.

"It seems to me appropriate that as the new State Water Resources Control Board organizes and begins its operations and as we complete two decades of operations under the Water Quality Control Act, that a comprehensive review of the Act should be undertaken.

"We are indeed in different times and facing different situations than existed in 1949 with regard to protecting our environment.

"I would respectfully suggest that the board establish a task force to develop a comprehensive review of the Water Quality Control Act, including legal and engineering aspects. The task force objective would be to recommend to the Legislature any changes necessary to update the Act's basic provisions to make it more effective and more workable and particularly to make it more adequate to meet the expanding responsibilities in water quality and the increased demands being placed upon state government by the federal government in formulating effective water quality control programs. For example, inter-relationship between water quality and water pollution responsibilities has created uncertainties and is an area in need of immediate study, particularly with regard to enforcement.

"I would hope that such a study would be a comprehensive one which undoubtedly will take considerable time, perhaps even a year. The board should assemble the best available talent from within and without state service to conduct such a study. It should also work closely with its own Water Quality Advisory Committee and with a broadly representative group of technical experts from business, industry, recreation, conservation and agricultural fields so that all aspects of the Act can be carefully reviewed and the views of all interested parties obtained.

"I do not prejudge the results of such a study. But, I am certain that such a study can be most productive at this time.

"I stand ready to support this request with whatever legislative action is necessary, and respectfully request that this suggestion be given the board's early consideration.

"Sincerely yours,

CARLEY V. PORTER, Chairman"

The State Board, after an in-depth review of all facets of such an investigation and consideration of benefits to be derived therefrom, concurred in Mr. Porter's recommendations and adopted the following resolution:

"STATE WATER RESOURCES CONTROL BOARD
RESOLUTION NO. 68-7

"Authorizing establishment of study project for comprehensive review of water quality control laws, including legal, engineering, and manpower needs, to clarify and update laws, and improve enforceability;

"WHEREAS the State Water Resources Control Board is authorized to formulate and adopt statewide policies for control of water

(11)

pollution and water quality, and to coordinate the actions of various state agencies and political subdivisions; and

"WHEREAS the Assembly Committee on Water and its predecessor committees of the Legislature have made several studies of the Water Quality Control Act, but no comprehensive review has been made of all aspects of the law since original enactment of the Dickey Act in 1949, and said Committee concurs with this Board in the need for such a review;

"NOW, THEREFORE, BE IT RESOLVED that there is hereby authorized to be established a study project for comprehensive review of water quality control laws, including legal, engineering and manpower needs, to clarify and update laws, and improve enforceability, to be referred to, for convenience, as study project - water quality control laws. The purpose of the study project is to identify and analyze legal, engineering, manpower and administrative problems and needs, and to recommend legislative and administrative changes in a report to be made available to the Assembly Committee on Water in March, 1969; and

"BE IT FURTHER RESOLVED that outstanding leaders be designated to serve on the study project, with five members from the fields of law, engineering, life environmental science, economics, and public administration or community service, with one member from the State Water Resources Control Board and one member from a regional water quality control board. Consultants may be used, as needed, within budgetary limitations. The study project shall work closely with the Water Quality Advisory Committee in this matter. The study project shall organize itself into subcommittees as appropriate, and invite subcommittee membership and participation by representatives of interested governmental and private organizations, and of business, science, industry, and conservation organizations. Subcommittee recommendations and suggested legislative changes will be the basis for the final report of the study project. A staff shall be assigned to assist the study project.

"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 2, 1968.

"Dated: May 2, 1968

KERRY W. MULLIGAN
Executive Officer"

(iii)

The State Board promptly implemented its resolution by designating to its Study Panel the following leaders in their respective fields (as indicated), each of whom was officially appointed by the Secretary for the Resources Agency.

Harvey O. Banks, Chairman
Chairman of the Board
Leeds, Hill and Jewett, Inc.
of San Francisco
(Engineering)

Jerome B. Gilbert, Vice Chairman
Former Chairman of the San Francisco
Regional Board
(Resigned in February, 1969)
(Regional Board)

Burton J. Gindler
Former Deputy Attorney General
State of California; Now in
Private practice in Los Angeles
(Law)

Norman B. Hume
Member, State Water Resources
Control Board
(State Board)

Carlyle Reed
Publisher of the Sacramento Union
(Community Affairs)

Bert L. Smith
Former Vice President, Farm Credit
Banks of Berkeley
(Economics)

Richard B. Tibby
Director, Catalina Marine Science
Center, University of Southern
California
(Life Environmental Sciences)

The State Board also immediately selected a small staff to give support to the Study Panel. The staff was directed by Luther H. Gulick, an attorney from the State Board's Legal Division.

The Study Panel in June, 1968, organized itself into four working subcommittees, with subcommittee chairmen as follows:

Organization and Administration: Bert L. Smith
Definitions and Policy: Jerome B. Gilbert
Enforcement and Implementation: Burton J. Gindler
Intergovernmental Relations: Norman B. Hume

Each Study Panel member was designated to serve on two subcommittees, - as chairman, vice chairman, or member. Harvey O. Banks, as Study Panel Chairman, was ex-officio a member of all subcommittees.

In June of 1968 each subcommittee expanded its membership to include representatives of 23 statewide organizations and 13 state agencies with responsibility or interest in water quality or water quality control. Representatives of these organizations and agencies who participated in some or all of the twenty workshop-type subcommittee meetings held from June, 1968, to the middle of December, are identified in Appendix E, as are individuals and other organizations that participated in this Study Project.

Without the unselfish and constructive participation of all these organizations, agencies, and individuals, this report would not have been possible in its present form.

The Preliminary Report of the Study Panel, published in January, 1969, contained all legislative recommendations of the Study Panel and an outline of the administrative problems, practices and recommendations relating to water quality and water quality control which are elaborated upon in this Final Report. The Study Panel and State Board held meetings in January with members and staffs of the nine regional boards to consider the Preliminary Report, and hearings were held in Los Angeles, San Francisco and Sacramento on February 3, 5 and 7, 1969, to which the public was invited.

The legislative recommendations of the Study Panel, constituting Appendix A of this report, were adopted by the State Board on March 20, 1969, for transmittal to the California Legislature as State Board recommendations.

CHAPTER I

INTRODUCTION

The increasing demands on California's limited water resources make urgent the broad-scale planning and sound decision-making needed to protect or enhance the quality of all the waters of the state. This urgency is superimposed upon important economic and scientific considerations. Water resources that have once become degraded may be practically impossible to restore to a usable or acceptable quality. This is particularly true of groundwater resources, where there is very little water circulation available to remove impurities.

It costs much less in the long run - and the result is much more certain - to spend the money needed for an effective water quality control program than to try to salvage water resources that have been allowed to become unreasonably degraded.

A. THE PROBLEMS

1. The Impact of Growth on California Water Quality Problems

Man's survival has always depended upon the nature of the environment in which he lives. All natural resources, which provide the basis of man's existence, are interrelated and are supported by the water resources system. Demands on this system are increasing in all parts of the world, particularly in California where rapid population, agricultural and industrial growth and peculiar geographic conditions cause unique problems.

Water is used in many ways: for domestic, agricultural, industrial, and other purposes. Man's senses respond to it. The state's economic and recreational potential depends on it. Water provides separation and absolute space. The direct and indirect effects of water use are interrelated in complex ways.

In 1900, the pace of life was leisurely, fresh water supplies of high quality were relatively plentiful in areas where many people lived, and the disposal of liquid wastes bothered few. In those days, a town - a city - in water surplus areas could take all the water it wanted from the nearest river, use it, then return it to the same river downstream. Nature, through chemical and physical processes, was able to restore the water to its original, or at least an acceptable, condition. Primitive kinds of waste often were broken down into simpler compounds by these natural processes. This chemical and physical action, given time to do a thorough job, significantly improved the quality of the water and in many cases made it usable by the next community.

If the laws of nature worked so well in 1900, why don't they work today? The answer is, "They do." Nature has not changed, but society has.

To begin with, there are a great many more towns and cities in California than there were in 1900. The state's population then was 1,490,000. Today it is 20,000,000. By the year 2020, an estimated 54,000,000 people will reside in California. So, answer number one is people.

In addition, each person today is using a great deal more water than each person did in 1900. The reason is that man has greatly increased his standard of living. Instead of the 1900 average of five gallons of water used in the home per person per day, it is estimated that man now uses for his household needs an average of 150 gallons of water per person per day, and from 1,500 to 2,000 gallons per person per day is required to supply man with the products of agriculture and industry. Answer number two, then, is prosperity.

Few people are aware of the amount of water required for all the products of this highly complex society. It takes 300 gallons of water to grow the grain for a single loaf of bread; 4,000 gallons of water to produce one pound of beef; and 100,000 gallons of water to manufacture just one automobile. Our advances in technology have resulted in many new and complex types of waste, many of which are imperfectly understood and difficult to treat. The third answer then, is products.

During the last 20 years there has been created a great deal more waste to be discharged - domestic and industrial waste, drainage from farmlands - all the side effects of more people, more prosperity, and more products. As a result, more than 80 percent of the water used nationwide by man has been previously used. In addition, the in-stream uses, such as fish and wildlife and recreation have become vastly more important, therefore, water must be given a higher degree of treatment before discharge into waters of the state in order to maintain these in-stream uses and to enable reuse for other purposes. In the future, there must be a much greater emphasis on the multiple use and reuse of water.

It must be recognized that regardless of the degree of treatment provided for waste there always remains some residual for which satisfactory disposal must be provided.

2. Specific California Water Quality Problems

Control of water pollution and of water quality in the surface, saline and groundwaters of California primarily has been by administrative control of discharges of waste in the manner provided for in the Dickey Water Pollution Act of 1949. This pioneering Act followed a two-year legislative study and publication of a valuable document, the Dickey Report. There have been various amendments and additions to the Act over the following years, but no comprehensive review has been made of the laws or of administrative practices relating to water pollution or water quality control.

Since enactment of the Dickey Act, extensive interpretation of the law has been developed by opinions rendered by the Office of the Attorney General. Little of this interpretation has found its way into the statutes, and, therefore, often remains obscure, both to the regulatory agencies and to those being regulated.

The state's water regulatory activities include a second major component: water rights, and the issuance of permits and licenses to appropriate surface waters for those who propose to put water to some beneficial use.

In 1967, the Legislature consolidated all water rights and water quality control activities, assigning those activities to the State Water Resources

Control Board by combining the State Water Quality Control Board (successor to the State Water Pollution Control Board) and the State Water Rights Board. A five-man, full-time board was established. This legislation was based upon the principle that the state's water quality and water quantity regulatory activities should be jointly administered because they are interrelated and cannot be effectively administered independently.

The intent of the Legislature in establishing the state board was to achieve a better integration of the quantity and quality aspects of overall water resource management. However, the concepts, policies, and procedures for achieving this objective required study and definition.

As indicated in the Foreword, other major areas of the state's water pollution and water quality control programs were in need of review. Changing conditions made mandatory a basic review of all aspects.

B. THE APPROACH

The fundamental concern of the Study Project - Water Quality Control Program has been to develop a way in which all affected parties, acting together, can plan for and have available water of the quality as well as the quantity needed for use and reuse. Research and technological advances have indicated a significant improvement in man's ability to deal with the immediately damaging effects to his environment. However, planning must not be just for today, but based on a long-range 40 or 50-year concept. Planning must include research on the control of those subtle, long-term effects on the environment resulting from the use of new chemical substances, altering of surface water flow patterns, and man-made changes in the earth's landscape.

Attempts to control and regulate the factors that affect the water resource system have come from necessity. Often when a problem has become severe, man has jumped with alarmed haste to control pollution, to build massive new water supply projects, to establish marine recreational areas and protect groundwater basins. These efforts have generally been single-purpose. California has now reached a point in time when it must coordinate and integrate all such actions in accordance with a comprehensive water planning and control effort. This does not require that all such efforts be consolidated in a single authority; quite the contrary. But to preserve the effectiveness of existing water control activities - extending from domestic water purveyors to waste dischargers and from fish and wildlife enthusiasts to boaters - there must be a comprehensive approach and direction to the state's water resources programs.

Problems must be anticipated, the necessary information and data obtained and plans formulated in advance. Corrective action must be initiated before a problem becomes acute and forces are set in motion which may well be irreversible except over very long periods of time.

Over the past two decades the state has controlled water pollution by regulating waste discharges, but there is now an increasingly urgent need for a greatly expanded, comprehensive control program covering the many

other factors, apart from waste disposal, that affect water quality, such as impoundments, saline water intrusion, and land use. Water pollution control will, of course, continue to be a very significant means for protecting water quality, and the Study Panel has attempted to find the best methods and tools to strengthen and improve that program of control.

In the future, water use projects must be carried out under a coordinated planning program that includes the economic and social evaluation of California's long-term needs for its limited water resources.

The Study Panel believes that California has accomplished a great deal in water resources development and water pollution control. Many existing programs have been developed in an atmosphere of cooperation between waste dischargers and the regulating agencies, and have been, by and large, very successful. But California must now enable itself to meet the challenge to the quality of its waters and to its water quality control program which results from the state's tremendous and continuing growth and from the heavy water use demands of modern technology. For California to retain a place of preeminence in the field of water quality control, the state must build on its successful programs and look to the future. The state's programs must effectively deal with current and anticipated future problems and must be designed to protect the interests of its present and future citizens. The legislative recommendations in Appendix A and the specific recommendations in the body of this report for administrative activity or future study have been developed to meet these needs.

C. BASIC CONCEPTS FOR AN EFFECTIVE WATER QUALITY CONTROL PROGRAM

1. The State's Water Quality Control Program should consider all of the significant factors that affect water quality. To do this it will be necessary to substantially increase the magnitude and scope of water quality planning efforts which must be fully coordinated with planning for the protection and development of other natural resources. As water use becomes more intensive and the quantity of wastes becomes larger, knowledge concerning water quality must be expanded, and a comprehensive approach involving all levels of government, industry and agriculture is required.
2. Beneficial uses of waters of the state that are to be protected against unreasonable quality degradation include the esthetic enjoyment of clean water as well as the traditionally accepted beneficial uses.
3. A vested right cannot be acquired to discharge waste into the waters of the state or to continue a discharge at any particular level of quality, once initiated. Periodic revision and upgrading of waste discharge requirements will be necessary to adapt to changing conditions in the receiving waters, and to accommodate new discharges as the state's economy expands and the population increases.
4. Enforcement will be a greater and more difficult problem in the future due to the much greater volume of waste

that will be generated, the greater scope and variety of corrective actions required, the magnitude of the costs involved, and the far more complicated interrelationships between the many kinds of waste discharges, and between water users and the dischargers.

5. The basic policies and procedures for establishing water quality objectives and setting waste discharge requirements, and the format for requirements, should be as uniform as possible throughout the state. Whenever possible, requirements should be expressed in explicit and statistically significant terms in order to facilitate enforceability.

6. The interrelationships between waste dischargers and the effects of their discharges on the receiving waters must be recognized in water quality control planning, in the setting of waste discharge requirements, and in other quality control actions, if equity is to be achieved.

7. The aquatic environment, including its quality aspects, is a dynamic system continually changing both in time and in space. A sound water quality program must be geared to this dynamism.

8. "Regional water pollution control . . . has proven, over the years, to be the best means of involving all levels of government in accomplishing cooperative and effective control of water pollution and water quality." (Stats. 1967, Ch. 284)

D. NEEDED LEGISLATIVE CHANGES

The effective water quality control program which California needs cannot be accomplished within the framework of existing water quality control laws.

The recommended legislative changes in Appendix A of this report are urgently needed and should be enacted as the framework for an effective water quality control program in California.

CHAPTER II
LEGISLATIVE POLICY

A. WATER QUALITY

The recommended legislation modifies existing legislative policy in California in order to clarify apparent ambiguities that have resulted in conflicting arguments during the establishment of water quality policies and, particularly, of waste discharge requirements. The waste dischargers and those concerned primarily with economic development have long emphasized the cost-benefit aspects in the treatment of wastes, including the cost of providing high quality water.

On the other hand, those concerned mainly with conservation, sports, and recreation generally believe that state law should prohibit any degradation of water quality and that the environment should be given maximum protection at almost any cost. The recommended language (section 13000, paragraph 2) recognizes that efforts made toward accomplishing the ideal of clean water must accelerate but that economic progress and development is essential, not, however, at the sacrifice of the environment.

The key to the proper balancing of these interests lies only partly in established statewide policy. The regional and state boards which, in their decisions in which policy is applied to specific cases, weigh the benefits and costs to society, are the ones who actually determine this balance. In performing this function, there is no substitute for sound judgment. The regional boards have shown a commendable, increasing conservatism in establishing requirements and a growing concern for long-term environmental protection. It is evident that this is the direction the public wishes to take, as evidenced by recent federal legislation and public attention given to pollution matters. The Study Panel agrees with this approach and the recommended legislative policy moves accordingly in this direction.

B. REGIONAL CONCEPT

Among the principles enunciated in the Dickey Water Pollution Act of 1949 is the concept of regional water pollution control. The Legislature, in framing this concept, recognized that California's water pollution problems are primarily regional and that they depend on factors of climate, topography, population, and recreational, agricultural and industrial development which vary greatly from region to region. This concept was implemented by the creation of ten state boards, nine of them called regional boards, and the tenth the state board which was assigned the general duty of coordination and establishment of statewide policy. This concept was reviewed by the Legislature in 1959, 1963, 1965 and again in 1967 and, considering the alternatives, the Legislature chose to maintain this concept. The Study Panel conducted an in-depth study of the concept, believed unique among the 50 states, and concluded that the statewide program for water quality control can be most effectively administered regionally within a framework of statewide coordination and policy. (Section 13000, paragraph 3)

C. WATER QUALITY AND WATER RIGHTS

As a result of the 1967 legislation, the Water Code now includes the following:

Section 174. (Second paragraph) "It is also the intention of the Legislature to combine the water rights and water pollution and water quality functions of state government to provide for consideration of water pollution and water quality, and availability of unappropriated water whenever applications for appropriation of water are granted or waste discharge requirements or water quality objectives are established."

Section 1258. "In acting upon applications to appropriate water, the board shall consider water quality objectives which have been established pursuant to law, and may subject such appropriations to such terms and conditions as it finds are necessary to carry out such objectives."

The Study Panel considered how best to implement these legislative mandates and concluded that several legislative tools and administrative procedures are needed for this purpose.

1. Actions by the state board with respect to the administration of water rights and those with regard to water quality control must be fully integrated and coordinated, and, in some cases, be concurrent.
2. The board should be expressly authorized to approve appropriation by storage of water that is to be released for the purpose of protecting or enhancing the quality of other waters that are put to beneficial uses. (Section 1242.5)
3. In determining the amount of water available for appropriation, the board should be specifically authorized to take into account the amounts of water needed to remain in the source for the protection of beneficial uses, including any uses specified to be protected in any relevant water quality control plan (Sections 1243, 1257 and 1259), and should subject appropriations to necessary permit and license terms and conditions for that purpose. (Section 1258)
4. Specific procedures are needed to initiate necessary court actions for the protection of the quality of groundwater. (Sections 2100-2103)
5. The state board should initiate and establish administrative procedures that will better merge the consideration of water rights with that of water quality.

The purpose and necessity of these recommended legislative actions and administrative procedures are explained in Appendix A as annotations following the cited sections.

CHAPTER III

WATER QUALITY CONTROL POLICY AND PLANS

A. STATE POLICY FOR WATER QUALITY CONTROL

As indicated in the policy provisions of the legislative recommendations, "the statewide program for water quality control can be most effectively administered regionally within a framework of statewide coordination and policy". (Section 13000)

Under present law, the former State Water Quality Control Board in March, 1967, adopted a Statewide Policy for the Control of Water Quality, in which guidelines were established for the formulation of water quality control policies. (The revised authority for this procedure is section 13164.) Recommendations now made by the Study Panel include the formulation of a more broadly conceived state policy for water quality control as the basic framework within which the state board, the nine regional boards, and other state and local agencies are to operate.

State policy, in accordance with the proposed recommendations, includes principles and guidelines for long-range resource planning, including water management programs, the control and use of reclaimed water, and general principles and guidelines for water quality control. It also includes water quality objectives at certain key locations, and water quality control plans adopted by the state board for interstate or coastal waters or other waters of inter-regional or statewide interest. (Section 13142)

All state policy for water quality control should be reviewed periodically and may be revised. (Section 13143) The regional water quality control boards are to adopt water quality control plans for intra-state waters, which are to become effective when approved by the state board. (Section 13245)

In order to integrate state policy into the total framework of state water law, state and regional water quality control plans are to become part of the California Water Plan. (Section 13141)

Compliance with state policy for water quality control by all state departments, boards and commissions is required (unless there is statutory exception). (Section 13146)

These provisions replace the vague requirements of existing law under which state offices, departments and boards need only "take cognizance" of "such policy".

B. REGIONAL WATER QUALITY CONTROL PLANS

Under existing law, the regional boards develop water quality control policies for specific waters within their region. When the Legislature

added provisions relating to water quality to the state law in 1963, it provided for the adoption of water quality control policies which were defined as "water quality objectives for affected waters of the state where water quality control measures are necessary or may be needed in the future to assure suitable water quality for beneficial use." (Section 13005 of the present law)

"Water quality objectives" established at levels which "are necessary or may be needed in the future to assure suitable water quality for beneficial use" may call for water of a higher quality than that needed to prevent pollution, i.e., an adverse and unreasonable effect on existing beneficial uses, because of inevitable changes in types and intensification of use in the future. Following this legislative mandate, some of the regional boards soon established objectives or goals for water quality control policies at levels designed to ensure water of very high quality. This was and is part of a frustrating administrative procedure because waste discharge requirements consistent with high water quality objectives are not enforceable to the extent they call for water of a quality higher than that needed to prevent pollution as defined in existing law.

The Study Panel approached this problem by revising certain definitions (such as "pollution", Section 13050(e)) and by defining procedures for the establishment and enforcement of relatively high objectives in water quality control plans and in waste discharge requirements. It is expected that objectives will be tailored on the high quality side of needs of the present and future beneficial uses. But at the level where established, it is intended that these objectives shall be reasonable, enforceable and enforced.

These policies are redesignated by the proposed legislation as "regional water quality control plans" and consist of a designation for the waters within a specified area of:

1. Beneficial uses to be protected
2. Water quality objectives necessary to insure the reasonable protection of beneficial uses and the prevention of nuisance
3. A program of implementation and enforcement (See Sections 13050 (i) and 13240-13247)

The criteria in regional water quality control plans (i.e., "to insure reasonable protection of beneficial uses, etc.") are thus identical to the criteria applied to waste discharge requirements.

Water quality control plans, as a result of these changes, for the first time will be enforceable by the establishment of waste discharge requirements which are selected to implement the water quality control plans.

It is recognized that in establishing water quality plans and waste discharge requirements, the quality of water may be changed to some degree without unreasonably affecting beneficial uses. Clearly, the very continuance of society depends upon some utilization of the waste assimilative capacity of the waters of the state.

Water is a chemical compound of unique properties and is too useful as a solvent and as a mechanical carrier to remain completely unused. The basic problem in water quality management and control is that of determining the degree to which the available amounts of water can (or should) be used as a receptacle and transport mechanism for the discarded by-products of civilization.

The regional boards must balance environmental characteristics, past, present and future beneficial uses, and economic considerations (both the cost of providing treatment facilities and the economic value of development) in establishing plans to achieve the highest water quality which is reasonable. All water quality control policies previously adopted must be reviewed because many will need to be amended to comply with the proposed legislative recommendations.

CHAPTER IV

WASTE DISCHARGE REQUIREMENTS

Waste discharge requirements should be established to implement regional water quality control plans.

If plans have not yet been adopted, the waste discharge requirements would be established on the same basis as water quality control plans; that is, on the designation of beneficial uses to be protected, and on the establishment of water quality objectives reasonably required for the protection of those beneficial uses and the prevention of nuisance. (Section 13263)

There must be increased attention to the full consequences of water quality changes with particular attention to ecological and environmental effects.

The conventional parameters of biological oxygen demand, dissolved oxygen, and others which have been historically used as the yardsticks for measuring the effectiveness of pollution control are inadequate. Other parameters which are scientifically valid and of greater usefulness, and which measure all effects of beneficial uses, must also be employed.

Conservatism in the direction of high quality should guide the establishment of objectives both in water quality control plans and in waste discharge requirements. A margin of safety must be maintained to assure the protection of all beneficial uses. (See Section 13263, and note.)

A great deal remains unknown concerning water quality and the effects of waste on the beneficial uses of water. Also, there are many uncontrollable pollutants which enter the waters of the state, such as runoff from urban and agricultural lands, for which provision must be made. To assure the maintenance of high quality, ample allowance must be made for the unknown and uncontrollable.

Under existing law discharges may be made prior to the filing of a report with the regional board of the proposed discharge and prior to the establishment of waste discharge requirements. In order to provide maximum protection to the public, a new procedure is recommended.

No person may initiate a new discharge of waste or make a material change in an existing discharge prior to the filing of a discharge report nor prior to the issuance of requirements.

This prohibition on discharges is limited to one hundred twenty (120) days after the report has been filed. The prohibition on the discharge may be waived by the regional board when it finds a waiver to be justified and not against the public interest. (Sections 13264 and 13269)

The present policy of specifying waste discharge requirements in the effluent or receiving waters, or both, is continued.

The filing fees recommended by the Study Panel are not intended to cover the costs of the state water quality enforcement program but rather all fees collected should be deposited in the Water Quality Cleanup and Abatement Account. (Sections 13260(d) and 13440-13442) The state board will prescribe specific fee schedules, taking into consideration the volume of the waste discharge and other relevant factors.

Reports under the State Water Quality Control Act will be made under penalty of perjury with criminal penalties provided for falsification of or failure to file such reports. Injunctive action is also made available to the regional boards or state board to prevent discharge prior to the filing of the necessary report.

CHAPTER V

SURVEILLANCE, MONITORING AND BASIC DATA COLLECTION

A water quality control program (including water quality planning, research and enforcement) cannot be effective unless the state and regional boards, in cooperation with other state agencies, carry out a carefully coordinated and thorough program of surveillance, monitoring and basic data collection.

Adequate basic data concerning hydrology, quality and other matters are a necessary prerequisite to the establishment of reasonable water quality objectives and waste discharge requirements. Basic data collection programs must be comprehensive and be initiated far enough in advance of need to provide information covering a wide variety of conditions. Basic data collection must be a continuing program because of the dynamic nature of the system. The current basic data programs of the federal, state and local agencies are not adequate.

Surveillance and monitoring are the foundation of a successful enforcement program. At present, there are about 9,200 dischargers in the state that are under requirements. It is estimated that there are 650 other dischargers who will be placed under requirements each year in the near future. Establishing requirements and then ignoring the waste discharge until obvious pollution exists is not an effective program for water quality management or pollution control. All dischargers' wastes must be checked periodically. Standard and simplified techniques for evaluating compliance must be developed. Compliance may become more difficult to achieve, and court action can result when violation - even unintentional violation - is not detected at an early date.

The surveillance must be broad enough in scope to determine not merely compliance with requirements, but whether the objectives do in fact reasonably protect the beneficial uses for which they were established. This approach is essential to a sound program of reviewing water quality control plans and waste discharge requirements.

For many years the Department of Water Resources has conducted an extensive monitoring program on many of the principal waters of the state, monitoring a wide range of characteristics, - but not all those needed in a water quality control program. Water quality regulation requires additional emphasis on biological characteristics, and it requires additional knowledge of water quality characteristics throughout various time periods (a day, a week, etc.) that is not satisfied by occasional sampling. Also required is a knowledge of the precise location of the monitoring with respect to the location of major waste discharges and tributary inflows of watercourses, - information which now is sometimes imprecise.

Regional boards are increasing their surveillance and monitoring activities to determine dischargers' compliance with requirements, to check on dischargers' self-monitoring programs, and to develop long-term policies. State and federal agencies have engaged in increasingly extensive water quality monitoring in the Delta.

The recent approval by the federal government of California's standards for water quality control includes an implementation program and commits the state to monitoring and surveillance.

An expanded and improved monitoring and surveillance program is essential to an adequate water quality control program, and should be established.

A greatly expanded basic data program is also essential to an effective water quality planning effort, and should be established.

The Study Panel believes that the waste dischargers themselves have the basic responsibility to provide a continuing flow of information concerning the quality of their waste discharges and the effects upon the receiving waters.

The Study Panel did consider a program for the monitoring of waste discharges by regional boards on a contractual basis, *i.e.*, the waste dischargers would pay the boards to employ specialists to conduct the monitoring services. This approach was rejected because it would require very substantial increases in regional board staffs, and because waste dischargers must do a certain amount of monitoring in any event to assure the effective operation of their own facilities.

However, self-monitoring by waste dischargers will not do the job alone. Regional boards must "spot-check" discharges on a scientific basis to determine if established requirements are being met. Spot-checking is presently inadequate due to lack of staff, and in some cases, equipment. Without adequate staffing, this situation will worsen in the future as the number of dischargers under requirements increase and workloads become heavier in other respects as well.

The state board should have adequate staff to develop and recommend, at the earliest possible date, a comprehensive program with respect to surveillance, monitoring, and basic data collection.

Regional boards also will need substantially increased personnel for the surveillance, monitoring, and basic data collection that needs to be done.

CHAPTER VI

ENFORCEMENT AND IMPLEMENTATION

A. DEFICIENCIES OF PRESENT LAW

The enforcement provisions in the current Water Quality Control Act are totally inadequate.

For example, the act now provides that any person proposing to discharge wastes into waters of the state shall first file a report of such proposed discharge with the regional board. The regional board thereafter establishes requirements as to the nature of his discharge or the condition to be maintained in the receiving waters. If a report is not filed, the regional board may go to court to secure an injunction prohibiting the discharge of waste until the report has been filed. However, once the report has been filed, the board has no jurisdiction to prohibit a discharge that occurs after the filing of the report and before the waste discharge requirements have been established by the board.

Thus, if the board has reason to believe that a proposed waste discharge might be harmful to the waters of the state, it may prohibit that discharge until a report thereon is filed. But, once the report of discharge is filed, even though the report indicates that the proposed discharge would indeed be harmful to waters of the state, the board is not authorized to take any corrective action until requirements have been established, which usually takes several months.

Another example relates to the restricted applicability of the "cease and desist" procedure, which is the initial step in the enforcement procedures.

Section 13060 now authorizes issuance of a cease and desist order only where two conditions exist: (1) a waste discharger is violating requirements and (2) "such discharge is threatening to cause or is causing pollution or a nuisance." No allowance is made under the second condition for the effects of discharges by others, although water quality reflects many discharges of waste. It is the discharge of the person against whom the cease and desist order is directed which - apparently alone - must be causing or threatening to cause the pollution or nuisance! The statutory restriction has made enforcement practically impossible.

B. RATIONALE OF PROPOSED LAW

It is worse than useless to establish a public body to perform an indispensable public service, to carefully define areas of responsibilities and authorities, and then to withhold the means by which those responsibilities can be discharged. Accordingly, the Study Panel has sought to place in the hands of the regional boards and the state board a full range of tools on the administrative level and on the judicial level (civil and criminal) that will enable the boards to require compliance with the law and the decisions and orders of the boards, whenever such action becomes necessary, and to penalize and recover damages for violations. (See Chapter 5; see also Article 4 of Chapter 4.)

This comprehensive approach will have two beneficial results: (1) Improved enforcement devices will encourage cooperative resolutions of problems that arise. (2) Should a lack of cooperation occur, however, the disadvantage would fall upon the person who violates the law, thus placing an even greater premium upon cooperative action.

The proposed law retains a basic approach of the former act that neither a regional board nor the state board has jurisdiction to specify the design, location, type of construction, or particular manner in which a discharge shall comply with requirements or other order of the board. The board simply specifies the end result to be achieved (as to the nature of the discharge or the condition to be maintained in the receiving waters, or both), and the person so ordered may comply in any lawful manner.

However, in judicial enforcement proceedings, the court may find that an injunction that simply prohibits a discharge in violation of a board order is not a practical means of securing compliance with the law. For example, it is usually impractical for a court to order a city to stop discharging waste from its sewer system. Under such circumstances, the court now may specify the means that shall be undertaken in order to comply with the decision and order of the court. (Section 13360)

C. SUMMARY OF ENFORCEMENT AND IMPLEMENTATION PROCEDURES UNDER DIVISION 7 OF THE WATER CODE

Enforcement and implementation in California involve, of course, not only the provisions of the new proposed State Water Control Act in Division 7, but also its interaction with other provisions relating to water quality in the Water Code and in other codes, such as the Health and Safety Code, Fish and Game Code, Penal Code, Public Resources Code, Public Utility Code, and Harbors and Navigation Code. The common law powers of state and local government agencies, as well as common law and statutory rights of private persons within the State of California, also are involved. Finally, the relationship between state laws and federal and international laws must be considered.

The following outline is intended to summarize only some salient features of the enforcement provisions and some closely related implementation provisions included in the new proposed State Water Quality Control Act, which will be Division 7 of the Water Code.

I. Preventive and Abatement Procedures

a. Special procedures:

- (1) Suit by Attorney General to enjoin pollution or nuisance (Sections 13002(c), 13223(a) (5))
- (2) Summary judicial abatement of pollution or nuisance constituting an emergency (Sections 13223(a) (5), 13340)

- (3) Delegation of authority to act by regional board to executive officer (Section 13223)
- (4) Enforcement of lien on property to repay costs of correction in cases of "non-operating facilities" (Section 13267)
- (5) Control of discharges from "houseboats" on state waters (Sections 13900-08)

b. Regular procedures:

(1) Administrative level:

- (a) Report of discharge and issuance of waste discharge requirements (Sections 13260-65, 13269)
- (b) Issuance of time schedule (Section 13300)
- (c) Issuance of cease and desist order (Sections 13301-03)
- (d) Investigations by regional board, including requirements for technical reports from dischargers (Sections 13267-69)
- (e) State board review of regional board actions under sections 13260-13304 (Section 13320)
- (f) Stay orders by state board (Section 13321)

(2) Judicial level:

- (a) Injunction to require submission of report of waste discharge (Section 13262)
- (b) Enjoining discharges prior to report and prior to (i) issuance of waste discharge requirements, (ii) expiration of 120 days after waste discharge report has been filed, or (iii) waiver of report or requirements, whichever of (i), (ii) or (iii) occurs first (Section 13264(b))
- (c) Appellate proceedings by any aggrieved party (e.g., discharger, downstream user, conservationist organization) from state board decision to the court (Section 13330)
- (d) Injunctive proceedings to enforce cease and desist order (Sections 13223(a) (5), 13331)
- (e) General provisions that the Attorney General shall bring civil actions in the name of the People of the State of California; relating to joinder, consolidation, and venue; and that allegation or proof of irreparable injury or inadequate remedy at law not required to secure injunctive relief (Section 13361)

(f) Stay of administrative orders pending judicial review or enforcement proceedings (Sections 13330(c), 13331(d))

2. Remedial proceedings

- a. Cleanup and abatement of wastes, and some funding thereof by the State Water Pollution Cleanup and Abatement Account (Sections 13304, 13440-42)
- b. Civil monetary remedies of not to exceed \$6,000 per day for intentional or negligent violation of cease and desist order (Section 13350) (See also, Harbors and Navigation Code section 151.) For a comparison with fines and penalties in various other states, see Appendix B.

3. Criminal misdemeanors

- a. Failure to file report of discharge when requested or falsifying report of discharge (Section 13261)
- b. After notice of such violation, discharging waste in violation of section 13264 (see item 1-b(2)(b) above) (Section 13265)
- c. Failure or refusal to file, or falsification of, technical report (Section 13268)

CHAPTER VII

SPECIAL PROGRAMS AND ORGANIZATION OF THE REGULATORY AGENCIES

A. STATE WATER RESOURCES CONTROL BOARD

1. State Programs

a. Research

The increased expenditures needed for water quality control, as well as for water resource development, require that research efforts be accelerated to ensure that adequate information is available in order to arrive at proper decisions.

The Federal Water Pollution Control Administration, many of the 50 state water pollution or water quality control agencies, endowed foundations and private associations, and public and private universities, conduct extensive research in water pollution, water quality control and related subjects. Extensive and important research also has been conducted in other parts of the world. The state board has not had the staff to evaluate reports issued on these research projects to determine the applicability of their findings, conclusions and recommendations to conditions existing in California. An extremely valuable store of information, provided essentially free to the state, is not being utilized. The state board should be provided with the necessary staff in the interest of both economy and efficiency in carrying out the legislative mandate for clean water.

While California has earned worldwide recognition for its sponsorship of the research study that resulted in the publication of Water Quality Criteria, State Board Publication No. 3-A, research activities in the field of water quality and environmental protection have been limited in California compared to research efforts in other technical areas. Approximately \$2.2 million (exclusive of investigations conducted for the regional boards or specific local problems) have been invested in research and social studies by the State Water Resources Control Board and its predecessor agencies between January 1, 1950 and June 1, 1967. The information and data obtained have been - and are - of great value to the regional boards in establishing waste discharge requirements, and to waste dischargers in designing, constructing and operating waste treatment and disposal facilities. Approximately \$1.1 billion was spent during the same period by local agencies and industry for the construction of waste treatment facilities (exclusive of collection systems).

In a report submitted to the Legislature in March, 1968, by the state board, it was estimated that financial needs of California communities for the construction of waste treatment and disposal facilities would be \$530 million for the period 1968-1972, inclusive.

As the state moves further into the field of water quality control, the costs of adequate water management will increase. In other words, cleaner water costs more money. The cost of well-planned research efforts and evaluation will be returned many times to the people of the state in improved, more economical methods for obtaining cleaner water.

It is essential also to develop and to coordinate research programs as needed to support water quality planning and implementation.

1. A separate unit in the state board's organization should be established to advise the board on research and planning.
2. The state board should be given central responsibility to coordinate and recommend necessary research programs and major field investigations to be administered by the state board, the regional boards or other appropriate state agencies.
3. A scientific research program should make use of the research capabilities now existing in the Departments of Water Resources, Fish and Game, Public Health, and other state agencies.
4. The state board should develop a system for determining priorities and funding scientific and other research activities to be conducted by state agencies, academic institutions, industry and other non-state agencies.
5. The state board should have a technical advisory group consisting of experts from appropriate areas in the scientific and professional communities to provide the board with information and to make recommendations on research matters and the broader phases of water quality control.

b. Planning and Coordination

The state's activities in water quality control must be guided by policies that are based on a comprehensive planning effort. This planning effort must be coordinated, and must extend well beyond that which has been undertaken by individual state agencies in the past.

The state board will adopt water quality control plans for interstate and coastal waters and the waters of interregional or statewide interest. It will also review and evaluate regional board plans, and will have the ultimate responsibility for development and coordination of an effective statewide program of water quality control. (Sections 13140-45)

Each regional board will adopt water quality control plans for various areas within its region, and will encourage regional planning by local agencies through every available method and incentive. (Sections 13240-47 and 13225(i))

The Study Panel believes that the state board and regional boards, in formulating these water quality control plans, should depend primarily upon the planning activities of other agencies - federal, state and local. However, these boards must have adequate staffing to evaluate these plans of other agencies and to consolidate them into coordinated and useful water quality control plans.

Many state agencies conduct programs that have an effect on, or are concerned with, water quality.

The Department of Water Resources is the engineering arm of state government in water resource development and provides guidelines for all state and federal water projects through the California Water Plan, long-range projections, and regional, statewide and interstate planning programs. The department is constructing and operating the State Water Project, and in this capacity has responsibility for the principal state program in the field of water use. The department further conducts extensive investigations, including water quality analyses of surface and groundwaters and saline waters, and waste water reclamation studies. While these activities relate directly or indirectly to water quality, the activities of the Department of Water Resources are separate and distinct from the water resource regulatory activities - the water rights procedures and the regulation of water quality - of the State Water Resources Control Board.

The Department of Public Health, Division of Environmental Sanitation, has water quality responsibilities principally in the fields of sewage, industrial waste and garbage disposal insofar as these affect domestic water supply, shellfish culture, recreation and radiological health. In discharging these responsibilities, the department (in cooperation with local health agencies) investigates certain water quality conditions in all of the waters of the state.

The Department of Fish and Game, charged with the responsibility for the protection, maintenance, and enhancement of the state's living resources, is vitally concerned with water quality and conducts water quality investigations.

In addition, the Department of Agriculture, the Department of Parks and Recreation, the Department of Conservation, the California Water Commission, the Colorado River Board, and many federal and local agencies are directly concerned in one way or another with water quality.

The activities of other state and local agencies, like those of the Department of Water Resources, relate directly or indirectly to water quality, but are separate and distinct from those of the state board. The state board, together with the regional boards, are designated in the new legislation as "the principal state agencies with primary responsibility for the coordination and control of water quality." (Section 13001)

The state board, as an effective regulatory body, must, in the decision-making process, be able to obtain and evaluate all necessary information to arrive at the best possible decision. Obviously, the water quality efforts of all state agencies should be objectively coordinated in order to be effective and to avoid duplication.

1. The state board will coordinate water quality related investigations of state agencies, and will consult with the regional boards in the implementation of related water quality investigations. (Section 13163(a))
2. The state board will evaluate the need for water quality related investigations and transmit its recommendations to the appropriate federal, state or local agency for implementation. (Section 13163(b))

3. State agencies will submit to the state board plans for, and results of, all investigations that relate to or have an effect upon water quality for review and comment. (Sections 13163(c), 12617.1, and 12923.1)

Factors to be considered in a comprehensive planning effort include economics, long-range environmental effects, and the social consequences of man's activities on our water resources. In this effort, water quality planning must involve many agencies in addition to the state board. Regional boards, to effectively establish water quality plans, particularly those which may require studies related to peculiarly local problems, must also contribute to this effort. Local and regional agencies must play an essential role in basin-wide water quality planning, with particular emphasis on implementation activities.

The following are but two of the many areas where planning efforts are urgently needed:

(1) Costs:

All waste dischargers and others contributing to quality problems in a given water resource should share equitably in the costs of achieving and maintaining the requisite levels of quality. Ideally, also, waste dischargers should pay the social and economic costs of any residual effects of their discharges on the receiving waters, rather than having those costs passed on to users downstream; similarly, they should pay for any benefits received from water resources management. Maintaining equity among waste dischargers and among water users and waste dischargers will be one of the more difficult problems of the future.

(2) Scientific Parameters:

In connection with waste discharge requirements, the Study Panel has indicated that all scientific parameters which affect water quality must be analyzed. The state board must see that necessary studies are conducted to determine, for all parameters, what objectives or range of objectives are needed for the protection of different beneficial uses.

The state board should fully exercise its new authority as the principal coordinating agency for all state water quality planning efforts and should implement this program by the addition of a small but highly qualified, multi-disciplinary staff as recommended in the preceding discussion on research.

Legislative recommendations also include an extension of the 1967 directive to the state board to make regular surveys of future needs for water quality control facilities. (Section 13601) This survey is essential in planning state financing policies and programs and should be broadened to include methods of financing local projects.

c. State Board - Regional Board Relationships

The state board should establish policies and guidelines for the regional boards covering those matters of common concern to all regional boards, such as procedures for establishing water quality control plans, the establishment of waste discharge requirements and the format of requirements. This will achieve three important purposes: (1) to assure uniform administration of law throughout the state; (2) to assist the regional boards in the performance of their duties; and (3) to improve enforceability of waste discharge requirements.

d. State Intergovernmental Relationships

(1) Interagency Programming Committee:

While the principal area of common interest between all agencies with major responsibilities in the field of water quality is in future planning, there are many other enforcement and regulatory activities that should be coordinated. The principal purpose of an Interagency Programming Committee is to assure that the total state program for the control and management of water quality is adequate to meet all state and local needs. This committee would be responsible for identifying the specific activities required to carry out statutory responsibilities and statewide policy for water quality control, for recommending priorities for the activities identified and for recommending the assignment of specific activities to the proper state agency.

As one example, there is an obvious need for central coordination of cleanup activities. If the Study Panel's recommendations on waste discharge cleanup, whether resulting from oil discharge, accidental industrial spill or municipal plant failure, are adopted, there should be a clearly defined agent with responsibility to direct cleanup activities.

An interagency committee for water quality control and management activities should be created, consisting of water quality representatives from each of the following: The Resources Agency, the State Water Resources Control Board, the Departments of Agriculture, Conservation, Finance, Fish and Game, Harbors and Watercraft, Public Health, Water Resources, and the Colorado River Board. The Committee should be chaired by a representative of the State Water Resources Control Board.

Appendix C describes the functions and activities of the proposed committee.

(2) Data Collection and Retrieval:

The need for additional and coordinated investigative programs is discussed above, under the subheading Planning

and Coordination. To expedite processing the data obtained and to insure its availability and effective use, there is a need for an information storage and retrieval center.

All water-related data (water quantity and quality, land and water use, etc.) should be processed by a single information storage and retrieval center in the Resources Agency. The center should include an information screening and processing section composed of representatives of departments or boards which will use the center.

Appendix C describes the need and the operation of the Information Storage and Retrieval Center in more detail.

e. Program for Public Information

Within recent years there has been an increasing public awareness of the need to protect and to enhance man's natural environment. The demand to protect our natural resources and prevent spoilage will not diminish. High on the list of what people want, according to public polls, is clean water and air, uncluttered beaches, parks and highways, and the beautification of cities and rural areas. The volume of mail requesting information on water quality control received by the state board attests to this fact.

Much has been accomplished in California since 1949 to prevent and control water pollution and to enhance water quality. Yet, after 19 years, it is apparent from surveying newspaper and magazine stories that very little is known of what has been done and what must be done in the future. News media emphasis is on the dirty, not on the clean. An appalling ignorance exists among nearly all sectors of the people concerning California's water quality control problems, its law, and its continuing efforts to prevent water pollution and to control water quality.

A planned program of public information should be developed and implemented to the end that the general public will know what the water quality problems are, how they are being met, and the anticipated needs for facilities and programs to meet water quality objectives. (Section 13167) The public should understand water quality problems of local and statewide importance. An informed public will recognize the need for, and cooperate in, an effective water quality control program.

Examples of successful and economic water quality control programs, methods and operations of government and industry should be identified and included in the information made available to the public.

f. Training of Treatment Plant Operators

California has invested billions of dollars in waste treatment facilities. Many more billions will be invested in the future. These facilities, which must provide an increasingly high degree of treatment through more sophisticated methods, equipment and controls, require highly trained personnel to achieve the results for which the expenditure on equipment was originally made.

A significant portion of the additional expenditure on treatment plants has been wasted and even more will be wasted in the future because technically qualified treatment plant operators are not hired.

There is a tremendous shortage of technically trained and qualified operators. With the assistance of several agencies and educational institutions throughout the state, the California Water Pollution Control Association is operating a training and certification program. Considering its voluntary nature, it has produced good results. However, training programs must be expanded and their value recognized in all parts of the state. The format of instruction should be standardized and uniform qualifications established for the several levels of competence designated. Such a cooperative program, with all concerned agencies participating, is urgently needed.

The state board should develop a statewide training program through the classifications of plants, establishment of operator qualifications and the development of training curricula. The board should have the authority to assure that the operation of plants constructed with state or federal financial assistance will be operated at the highest level of technical competence commensurate with the nature of the facilities. (Sections 13608 and 13625-13630)

2. Organization

a. Research and Planning

There should be established within the state board a unit responsible for the effective conduct of the research, planning and coordination activities described earlier in this chapter. (Section A, 1, d)

A highly qualified, multi-disciplinary staff is necessary and should include, in addition to water quality engineers, persons competent in the fields of economics, biology, geology and fish and wildlife resources management.

b. Public Information

The state board's staff should include a person or persons, the number to be determined by the scope of the program, to carry out the public information program as recommended in this chapter, above. (Section A, 1, d)

3. Advisory Committee

The Water Quality Advisory Committee to the state board has been functioning for a little more than a year and has made some significant policy recommendations to the state board. However, the present composition of the committee tends to represent some fields of endeavor several times over, and other fields not at all, because the regional board chairmen, or their designees, who are members of the committee in many instances represent the same fields as the nine appointed committee members. (See present section 13015.) To enable the Advisory Committee to carry out more effectively the specific advisory functions assigned to it by statute and to advise the state board

effectively on other matters that may be referred to it, the committee will be composed of three categories of people: representatives of regional boards, people from agriculture, industry and municipalities, and members from new and important fields of expert knowledge who possess broad and practical experience.

The Water Quality Advisory Committee can also provide great service to the state board by undertaking further studies, discussion and evaluation of those issues that could not be resolved in the limited time allocated to the Study Project.

1. The revised Water Quality Advisory Committee will include the chairmen of each of the nine regional boards and nine members appointed by the Governor selected from persons with specialized knowledge in one of each of the following fields: Agricultural Science; Aquatic Biology; Economics; Environmental Sciences; Industrial Waste Problems; Municipal Waste Problems; Oceanography; Recreational Water Use; and Urban Planning.

2. Members of the Advisory Committee should receive \$25 dollars for each day while on official board business in addition to actual necessary expenses.

4. State-Federal Relationships

Federal laws and administrative action cross the paths of state laws and administrative actions in the field of pollution control and in financing of waste collection and treatment facilities.

The Refuse Act of 1899 (33 U.S.C. 407 et seq.) is now used by the Federal Water Pollution Control Administration (FWPCA), in cooperation with the Corps of Engineers, as a water pollution control measure, especially with respect to oil pollution.

The Oil Pollution Act of 1924, also enforced by the FWPCA, is seldom used because, under a recent amendment, its enforcement is limited to "grossly negligent or willful" spilling of "discharge". This act is regarded as practically unenforceable.

The Federal Water Pollution Control Act (33 U.S.C. 466 et seq.), which began as a weak and temporary federal pollution control measure in 1948, has been extensively amended and is now considered the breakthrough in federal anti-pollution legislation. One essential feature of the Federal Water Pollution Control Act, as amended in 1956 by P.L. 84-660, is that it helped communities to build waste treatment facilities by providing them with federal grants of up to 33 percent of project costs. Another provision authorizes grants to state pollution control agencies to help them improve their programs.

For the period of 1956 to 1971, congressional authorization of grant funds increased from \$50 million per year to \$1250 million per year nationally. Until fiscal 1968 the amount of moneys authorized were the same as the amount appropriated. In fiscal 1968, however, \$450 million was authorized and only \$203 million was appropriated. In fiscal 1969, \$700 million was authorized but only \$225 million appropriated.

The federal grant program has been administered at the state level in California by the state board. California's share of the national appropriation has increased from about \$2 million in 1957 to about \$16 million in 1969.

Several other amendments to the FWPC Act should be mentioned. In 1961 33 U.S.C. 466a was amended to require consideration, in planning for federal reservoirs, of the inclusion of storage for regulation of streamflow for the purpose of water quality control. This provision was implemented the same year in P.L. 87-874, with respect to the New Melones Project.

The Water Quality Act of 1965 amended the FWPC Act by giving the states an opportunity to hold public hearings and propose federal water quality standards for interstate and coastal waters within their borders. About 33 areas of interstate and coastal waters were identified in California, and hearings were held in all these areas. According to the federal law, once the standards are approved by the Secretary of the Interior, they become both state and federal standards, enforceable by both governments.

The Clean Water Restoration Act of 1966 further amended the act with additional provisions relating to planning, research, grants for research and for pollution control programs, grants for construction, and enforcement measures.

There are several additional federal financing programs. The Farmers Home Administration of the U. S. Department of Agriculture has five lending programs, oriented to the needs of the farming or rural communities. The Department of Housing and Urban Development has grant and other lending programs to help communities construct adequate basic water and sewer facilities, or to help finance such facilities.

Long-range planning and research funds are also available through the Office of Water Resources Research and the Office of Saline Water, both of the U. S. Department of the Interior.

It is important that the State of California so manage its water quality programs as to take maximum advantage of the federal programs.

The federal agency with by far the greatest impact on California's water quality control program is the FWPCA. In the deliberations of Study Project subcommittees, and at special panels held by the Study Panel, the cooperative attitude and actions of regional and district representatives of the FWPCA became quite evident.

The Study Panel decided early that the best contribution it could make towards improved state-federal relationships dealing with water quality control, was to concentrate on improving California's water quality control laws and administrative procedures.

5. Manpower Needs

The state board's staff must be expanded.

The need for additional qualified personnel is explained in specific sections of this report, such as those on research and planning. The state

board's personnel needs in other areas are substantial. They include: treatment plant operator training, financial assistance programs, quality control activities, coordinating functions, emergency cleanup programs, administration of applied research contracts, public information, preparation of long-range plans and policies, and staff support to the Water Quality Advisory Committee. In fact, even without these added responsibilities, the present staff does not permit the state board to do essential policy evaluation and give thorough review to applications for financial assistance as provided for in both federal and state laws.

Appendix D shows unit effort requirements for state board program activities.

The following table indicates the type and number of personnel that should be added to the state board staff to meet these unit effort requirements.

Table I

<u>Disciplines</u>	<u>1969-70</u>
Sanitary or Water Quality Engineer	9
Biologist	2
Engineering Economist	1
Statistician	1
Other*	3
Clerical	5
Total Number of Positions	22

B. REGIONAL WATER QUALITY CONTROL BOARDS

The principal action arm of California's water quality control program is the nine regional water quality control boards. Equipped with staffs ranging in size from four to eighteen full-time employees, the boards have been administering the increasingly complex and extensive water pollution/water quality control programs for twenty years. The complexity and scope of the regional board programs will increase in the future.

The major programs of the regional boards are the establishment of water quality control plans and waste discharge requirements; surveillance and monitoring of the requirements; and enforcement and implementation. These programs have been discussed in Chapters III (Section B), IV, V and VI. In addition, the following matters relating to the regional boards have received specific considerations.

1. Board Membership

The present water quality control program has been criticized by persons claiming that there is potential conflict of interest on the part of certain categories of regional board members.

*"Other" includes management analyst, records and information officer and administrative assistant. The state board's Division of Water Rights has a geologist and hydrologists available.

The Dickey Act of 1949 established the first five of the existing seven categories of regional board membership as persons associated with:

1. Water supply, conservation or production
2. Irrigated agriculture
3. Industry
4. Municipalities, and
5. Counties

In 1959 the regional board membership was expanded by Chapter 1299 which added the following two additional members:

6. One person, not employed by any governmental agency, from a responsible organization associated with both recreation and wildlife
7. One person not specifically associated with any of the foregoing interests representing the public at large

The 1959 amendment was the result of publicity and pressure primarily from wildlife organizations. All regional boards in retrospect now believe that this was a very good amendment. The argument in favor of that amendment was that the boards lacked representation for wildlife and recreation and that the large representation of waste dischargers on the boards resulted in lax regulations. The same argument again has been raised in recent months by letter, at public hearings conducted by the Study Project, and by newspaper and radio editorials.

Those members appointed in the categories related to industry, agriculture, municipalities, and (in certain instances) counties, have been referred to sometimes as the "waste dischargers". Most municipalities have community sewer systems subject to regulation, and many County Boards of Supervisors are ex-officio officers of special sewer districts. Industry and agriculture also add their special forms of waste. Yet it is most important, in the opinion of the Study Panel, that persons from all these categories be on regional boards not because they "represent polluters", but because their fields of expert knowledge are indispensable. They should, however, be persons with broad perspective in activities relating to water use and governmental affairs. Their background or technical knowledge is needed in all aspects of water quality regulation and management in the public interest.

In the last analysis, the effectiveness of each regional board depends much more on the ability, character and dedication of individuals appointed to the boards, rather than on the category from which they are appointed. The Governor should exercise care to appoint persons who will carry out the express provision of section 13201 that all members shall represent all the people.

As additional assurance that members from the categories of agriculture, industry, municipalities and certain counties, as well as those whose particular associations are not specified do, in fact, represent all the people, several restrictions or procedures are needed:

1. All appointments to regional boards of persons associated with any agency or business discharging waste should be made

only if the entities with which those persons are associated have good waste discharge programs and a good record of compliance.

2. No member should vote or participate in the deliberations preceding a vote on any question involving a conflict of interest.

3. Continuous care is needed in the appointment of qualified and able members to regional boards, to insure a balanced board and an effective program in controlling pollution. State-wide organizations should be asked to help identify qualified individuals.

4. There will be two additional board members, each with special competence in areas related to water quality problems. (Section 13201(a)(7))

5. Regional board members should come from different fields and backgrounds in order to bring diversified knowledge and expertise to the board. All regional board members shall serve not as representatives of the activity category from which they are selected, but as representatives of all the people and are so designated. (Section 13201(a))

Possible fields of competence for the two new, additional members could be as identified with respect to the revised Water Quality Advisory Committee. (Section 13120)

This amendment will add to the competence of the boards and, together with the guiding principles outlined above, will help to eliminate cause for criticism directed at the present composition of the regional boards.

2. Delegation of Authority to Executive Officer

To streamline the administrative activities of the regional boards, section 13223 allows the delegation of authority on certain matters to the executive officer of each regional board. The extent of this delegation is limited by this section, but within those limits the extent of delegation will depend on the desires of each regional board.

3. Additional Regional Programs

An important program of the regional boards in addition to those already identified is that of conducting special investigations to obtain data directly applicable to specific problems. While many of these special investigations have been undertaken by other agencies and private consultants, the staffs of the regional boards themselves have undertaken many special investigations. Over 200 reports have been issued on these investigations, several having statewide significance. This program should be encouraged.

The importance of regional planning has been clearly demonstrated in the San Diego and San Francisco Bay areas and by the San Francisco Bay-Delta

Water Quality Control Program. The latter program required special legislative authority as it exceeds the scope of planning needed for purely regulatory purposes.

The regional board shall encourage regional planning and action for water quality control. (Section 13225(i))

Regional planning is further discussed in Chapter VIII (Section A), below, Community Sewer Systems.

4. Manpower Needs

The nine regional boards presently have a deficit of 77 management, professional and technical personnel, 3 administrative assistants, and 19 clerical personnel, for a total deficit of 99 persons. See Table 2. Most of these personnel are required to do an adequate job under existing law.

The Study Panel recommends that these personnel be provided. Because of recruitment, training and financing, this increase in personnel and the necessary provisions for operating expenses is projected over a five fiscal year period beginning in the 1969-70 fiscal year at January 1, 1970.

The statutory changes will help clarify the work to be done and procedures to accomplish the work.

All the regional boards must continue and must accelerate the preparation of water quality control plans. Plans (previously called policies) already adopted must be reviewed periodically.

There will also be a tremendous increase in the number and complexity of waste discharges taking place throughout the State. This means increased surveillance and monitoring programs, and more thorough investigations for the establishment of requirements. If the urgently needed manpower is provided as hereby recommended, it will suffice for these programs and purposes.

Appendix D discusses in more detail the manpower requirements for the regional boards.

TABLE 2
REGIONAL BOARD MANPOWER DEFICIT SUMMARY

Regional Boards by number	1		2		3		4		5		6		7		8		9		Totals												
	N	H	D	N	H	D	N	H	D	N	H	D	N	H	D	N	H	D	N	H	D										
CLASS																															
Executive Officer I	1	1	0				1	1	0																						
Executive Officer II				1	1	0																									
Supervising Engineer				1	0	1																									
Senior Engineer	2	2	0	5	3	2	1	1	0	3	0	7	4	3	1	1	0	3	2	0	27	17	10								
Associate Engineer	1	1	0	6	2	4	2	1	1	2	1	1	1	4	7	2	1	1	0	2	0	30	12	18							
Engineering Assoc.				2	2	0				2	1	1	3	3	0																
Assistant Engineer	1	1	0	4	1	3	3	1	2	6	2	4	1	2	9	1	1	0	1	2	1	1	30	9	21						
Junior Engineer				6	1	5				1	0	1																			
Technician II				3	0	3				3	0	3																			
Aid II				2	1	1																									
Associate Economist																															
Associate Geologist																															
Fish and Wildlife Resources Manager	1	0	1																												
Associate Biologist				2	0	2	1	0	1	1	0	1	1	0	1																
Assistant Biologist																															
Sub-Totals	6	5	1	32	11	21	8	4	4	20	8	12	39	14	25	6	4	2	9	4	5	6	3	3	8	4	4	134	57	77	
Administrative Assistants	0	0	0	1	0	1	0	0	0	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3
Clerical	2	2	0	11	6	5	2	2	0	8	3	5	9	4	5	3	2	1	3	2	1	3	2	1	3	2	1	44	25	19	
Totals	8	7	1	44	17	27	10	6	4	29	11	18	49	18	31	9	6	3	12	6	6	6	5	4	11	6	5	181	82	99	

N - Need H - Has D - Deficit

CHAPTER VIII

WASTE DISCHARGE PROBLEMS

A. COMMUNITY SEWER SYSTEMS

Municipalities or public agencies constitute about 14 percent of all waste dischargers that are under waste discharge requirements. However, these discharges contain a very large proportion of the total amount of pollutants added to the waters of the state.

It is quite unlikely that a court would enjoin a municipal waste discharge (even if in serious violation of requirements) because of the practical difficulties of reducing or eliminating entirely the discharge from community sewer systems. Therefore, a number of specific procedures are recommended to promote compliance by municipal dischargers.

1. Additions to Systems

A procedure must be available to minimize adverse effects resulting from violations of waste discharge requirements in the operation of a community sewer system.

In the event of an existing or threatened violation of waste discharge requirements by a municipality, county or other public agency, cease and desist orders may restrict or prohibit the volume, type, or concentration of waste that might be added to the system. (Section 13301)

The ability to restrict additions to waste discharges will not only prevent additional violation of existing waste discharge requirements, but would indirectly bring public pressure on the city to induce it to comply with the requirements.

2. Financing Problems

a. Federal Grant Program

The federal grant program, which at the state level is administered by the state board in California, (see State-Federal Relationships, page 30) has been of great assistance to communities in the building of waste treatment facilities.

There has been some discussion of a state contribution to sewerage facility construction financing on a statewide basis in the amount of a minimum of 25 percent of construction costs, to complement the federal program. Some states do this. But, while this state contribution on a statewide basis would reduce the local share of plant costs from 67 percent to a minimum of 20 percent of actual cost, (state 25 percent, federal 55 percent, local 20 percent) it would not increase the total amount of federal funds that California would receive. The backlog totaling \$530 million of needed waste treatment and disposal facilities should be completed as soon as possible. The present distribution of federal funds among many local communities is more compatible with this goal than would be the distribution of a higher proportion of federal and state funds to relatively few communities.

b. Local Government Financing

The Study Panel considered legislation that would remove local government debt limitation for the purposes of constructing municipal waste treatment facilities. After considering the implications of such a removal on the general problem of municipal financing, the Panel decided to forgo recommending at this time elimination of this statutory impediment to the ability of municipalities to finance sewage facilities. It is recognized, however, that the key to water quality improvement lies in providing the financial ability to install and provide adequate waste treatment and disposal facilities.

It is recognized that better allocation of resources is obtained when each contributor to the pollution load pays for facilities necessary to treat his wastes. Any relief from this burden tends to cause unwise economic decisions by the dischargers. This may result in greater costs to the state as a whole, but may be a necessary burden if the objective of high quality water is to be achieved.

c. Sewer Service Charges

The state board should be authorized to require the establishment of sewer service charges by public agencies applying for federal grant funds when such agencies cannot otherwise adequately finance the local agency share of the proposed waste treatment facility. (Section 13606)

The use of sewer service charges is increasingly prevalent. The San Francisco Bay-Delta Study for the twelve-county study area revealed that 55.4 percent of the Bay Area revenue for water waste disposal between 1962/63 and 1966/67 has been derived from sewer service charges. Their use should be encouraged because they have the following advantages:

1. Costs are distributed amongst the producers of waste who cause the problem.
2. Local property taxes are not thereby increased.
3. There is increased flexibility in financing, with the result that rates can be established to reflect local situations.

d. State Financing

The State Water Quality Control Fund is available for loans approved by the state board and the Director of Finance to local agencies for facilities for sewage collection, treatment or export, or for the reclamation or conveyance of reclaimed water. (Section 13100 et seq. of present law. Section 13400 of proposed new law.) In recent years the funds available have been earmarked for the Lake Tahoe area.

The state should consider making additional funds available for loans, and it should consider a grant program to cover situations where federal, local and state financing is unable to meet pressing financial needs.

Such a grant program would be comparable to that of the states which now contribute 25 percent of sewerage facility construction costs on a state-wide basis to complement the federal grant program.

3. Subdivision Laws

Subdivision laws should be amended in one respect, and supplemented in another, to help prevent violations of waste discharge requirements, and to protect against aggravation of violations.

1. The Subdivision Map Act administered by the State Department of Real Estate should be modified to include sewerage facilities among those public utilities the plans for which must be included in the notice of intention. (Business and Professions Code Section 11010. Appendix A, page 109)

2. The Business and Professions Code should be amended to require that when acting on tentative subdivision maps the affected local government agency make a factual determination as to whether or not the discharge of waste from the proposed subdivision would result in a violation of existing requirements and that such a finding be grounds for disapproval of a tentative subdivision map. (Business and Professions Code, proposed new Section 11551.6. Appendix A, page 110)

4. Regional Systems

One of the most important ways to reduce the cost of sewerage facilities and increase the effectiveness of waste treatment is through coordinated regional plans and systems. Gradually, throughout the state, there is recognition of this need. The regional boards have been given the responsibility to coordinate implementation with local agencies, but they cannot force such cooperation. Many times there are issues within local government that will cause a city, county or district to avoid or frustrate a cooperative sewerage plan in order to achieve other governmental objectives.

The statewide interest in waste treatment and disposal is evidenced by the history of legislation and study of the problem in California. If there are local governmental problems (and financing is the major one), they should be solved directly by the Legislature; in this way the most economical and efficient solutions to pollution problems will not be frustrated. The state board, acting as the grant agency, should work with the Federal Water Pollution Control Administration to use the federal grant program to insure the regional cooperation. Careful study should be made of methods of implementing regional schemes. These have been discussed in detail in the San Francisco Bay-Delta Report, and that work has statewide implications. It must be emphasized that the above recommendations with regard to community sewer systems are only first steps and, if they are not adequate, more stringent devices may be necessary in the future.

5. Consolidation of Special Districts

The two prerequisites for the construction of sewage treatment and disposal facilities are the ability to finance and an appropriate governmental structure. The financial aspects have been discussed in other sections of this report. Public agencies that dispose of waste range from cities to special districts which are sometimes administered by counties. By far the largest number of waste disposing agencies are special districts. There has been a commendable tendency in some of the metropolitan areas of California toward consolidation of waste disposing agencies, but in others, despite strenuous efforts of regional water quality control boards and others interested in more efficient and effective pollution control, the existence of separate special districts has promoted continued pollution.

The existence of many sources of waste increases the problem and difficulty, and in most cases the cost, of collection, treatment, and disposal. In some instances a small district will insist on continuing to operate and expand its own treatment plant although connection to an efficient regional system may be close at hand.

With the establishment of local agency formation commissions in each county of the state, the state decided to regulate the establishment and expansion of local government units. The program can provide an effective method, allowing the voters in a local district to determine whether or not their facilities should be consolidated with an existing district or city. At present, the district itself or an affected district or city can initiate proceedings for dissolution, consolidation, or reorganization.

Since regional boards are in a prime position to determine the effectiveness of waste treatment facilities that are constructed in meeting water quality objectives, and since waste dischargers frequently use their inability to finance (because of size) as a reason for a delay in time schedules, it is appropriate that the regional boards be given the authority to initiate dissolutions, consolidations or reorganizations to the local agency formation commission in the affected county or counties. This would in no way remove the authority of the local agency formation commissions, the board of supervisors, and ultimately the people of the district to decide the district's fate. It would, however, allow initiation of proposals to accomplish more effective pollution control. This cannot be done under present law.

The District Reorganization Act should be amended as promptly as possible to allow regional boards, after appropriate hearings, to adopt a resolution initiating a consolidation, dissolution, or reorganization of a special district rendering sewerage service.

B. AGRICULTURAL WATER USE

Since by far the largest percentage (about 90 percent) of the water used in California is used for irrigation, any evaluation of effects on water

quality must give consideration to irrigation practices and problems. These practices and problems fall into three general categories.

1. The Mineral or Salt Problem

The practice of irrigation increases the mineral content of downstream waters which receive the irrigation return flows. If agricultural land is not properly irrigated and drained, salts build up in the soil and ultimately make it sterile. The proposed construction of agricultural drainage facilities of the Central Valley to preserve agricultural land and protect this other priceless natural resource have brought this problem to everyone's attention. It is, however, a problem that involves agricultural practices, management of irrigation systems, and the planning of water development projects. This problem is not easily solved through the conventional process of regulation of waste discharge. Regional Board activity in this field has been extremely limited. Some requirements have been placed on runoff waters or waste discharges from heavy agricultural uses such as cattle feedlots. It is likely in the future that there will be the need for additional regulation of wastes from agriculture, but the quality problems created by use of water for irrigation are not readily amenable to solution in this fashion.

Long-range water quality control planning on an integrated basis, considering all factors that affect water use, will provide the means to determine the actions required to protect water quality from the effects of waste water from irrigated agriculture. The needs again focus on protection of land and water, as well as the uses of other segments of our economy and the needs for long-term resource and environmental protection must all be satisfied. Such water planning activities should recommend agricultural practices as well as any needed legislation to insure the long-term protection of our land and water resources.

2. Pesticides

Extensive studies of the use of pesticides, and particularly of the chlorinated hydrocarbons, have shown alarming residual concentrations in fish and fowl across wide areas of the earth, as well as here in California. Present accumulations of these toxic, nondegradable chemicals are causing heavy mortality in some birds and perhaps in fish. These concentrations do not seem to be dangerous to people in the amounts now found in California, but there is legitimate concern for the future. The country of Hungary is reported last summer to have banned the use of DDT, and the State of Wisconsin is now considering similar legislation.

There has been a tendency toward increased use of organic phosphates which are degradable. This is an important and encouraging trend. However, if the use of chlorinated hydrocarbons is continued, it will probably be necessary to regulate this problem at its source rather than at the point of application. The state board should continue the work that has been initiated in this area by the Bay-Delta Study.

The choice and use of pesticides and herbicides in agriculture have not been and cannot be directly regulated by the water quality control boards. Such regulation is outside the scope of present water quality law. However, discharges of waste water into the waters of the state can be

regulated. If any upstream additives cause an unreasonable degradation of water quality at the discharge point, they can be regulated indirectly by establishment of requirements on the discharge itself or on the receiving waters.

The California Department of Agriculture has a procedure for testing and approving for use all different kinds and brands of pesticides and herbicides. However, this testing is entirely directed to the safety of food products for human consumption. It in no way relates to the agricultural return flows carrying residual wastes directly or indirectly into the waters of the state.

3. Fertilizers

Nutrients such as the compounds of nitrogen and phosphorous directly affect the food chain. Nutrients may be removed by collection and treatment of agricultural drainage water. This is expensive, and has not yet been done on any large scale. Significant additional research is needed in biostimulation and related fields as recommended in the San Francisco Bay-Delta Program.

C. WASTE WATER RECLAMATION

The Legislature enacted the Waste Water Reclamation and Reuse Law in 1967. Modifications in the law recommended by the Study Panel are primarily technical but specific provisions are being added to clarify the establishment of water reclamation requirements and enforcement provisions.

Where there is a potential direct public health danger, as in the case of projects to use reclaimed water, the projects must be designed and operated to ensure reliability.

Design criteria should be established by the State Department of Public Health as part of statewide reclamation criteria in order to provide an adequate degree of reliability of performance in project operation.

D. OIL PROBLEMS

In California, oil well drilling is subject to statutory regulations administered by the Department of Conservation through its Division of Oil and Gas. These regulations emphasize safety and conservation of oil and gas, and also include some references to the prevention of pollution of water. For instance, Public Resources Code Section 3220 requires owners or operators of wells to "shut out detrimental substances from strata containing water suitable for irrigation or domestic purposes ..." The Department of Conservation has not to date adopted supplementary administrative regulations covering this subject in the California Administrative Code.

Oil wells drilled on dry land offer relatively controllable problems of potential pollution to surface and groundwaters of the state. But the 1969 discharge in an area under federal jurisdiction outside of

California's ocean boundaries off Santa Barbara has focused attention on special problems relating to oil wells located in salt or fresh water areas, where the water can serve to disperse oil from unidentified or uncontrollable sources or seepages, and where the depth of the facility makes control extremely difficult and, perhaps, impossible. The result of such dispersal can be widespread water pollution.

The state lands within California's three-mile ocean boundaries, and in California's inland water and estuary areas, are administered by the State Lands Commission, which decides when and where to issue leases for oil well drilling and production. Such leases are of course subject to the regulations of the Department of Conservation. Under joint procedures worked out several years ago by the Division of Oil and Gas and the state and regional boards, the oil operator reports proposed discharges of waste to the Division of Oil and Gas and to the appropriate regional board. The latter issues waste discharge requirements, which, it is emphasized, are directed only to the planned discharge of waste; they do not contemplate a Santa Barbara type situation.

There is an urgent need that all California agencies involved in oil well drilling review all procedures to prevent the occurrence of pollution from oil wells. The state and regional boards must play a responsible role in the initial review and approval of such operations and in the remedial or clean-up work made necessary by oil spills.

There is a similar need to develop emergency plans to deal with effects of disasters to ships, particularly tankers.

E. VESSEL WASTES

Recently introduced federal legislation (S 7, 91st Congress, 1st session) provides for a federal control program for control of individual vessel sources of pollution to be implemented by 1971. An article in the December 1968 Water Pollution Control Journal included the following summary of the present national situation:

1. Twenty-one states did not control pollution discharges from watercraft.
2. Twenty-nine states had laws partially controlling discharges.
3. Twelve states prohibited any discharge of wastewater.
4. Fifteen states required only minimal treatment.
5. Four states required approved treatment devices that were not specified.
6. Twenty-one states required such devices.
7. Twelve states approved on-board incinerators.

"Many organizations have researched the question of just how much pollution watercraft adds to the waters. Many of these reports are conflicting. Some say that the total watercraft pollution is equivalent to that created by a city of half a million people. Other reports state that the contribution of watercraft pollution is negligible in relationship to that created by municipalities and shore-based industries.

"Regardless of the amount, pollution by watercraft contributes to the total problem. It should be and can be controlled. Pumping raw wastewater into waterways can cause diseases such as infectious hepatitis, dysentery, typhoid, shigellosis, paratyphoid fevers, and others. Raw wastewater, in addition to causing health problems, is unsightly and can lower real estate values of shore property. Polluted waters also will eliminate aquatic life and other wildlife."

With public concern for the pollution problem at an all-time high, it is likely that proposed federal legislation may be passed in some form. The present proposal is to define the word vessel to include every description of watercraft used, or capable of being used, as a means of transportation on the navigable waters of the United States.

Assuming that the federal legislation is enacted in substantially its presently proposed form, there will remain several broad areas needing early California legislation and regulation. One such area is that of the thousands of pleasure boats operating in fresh water locations which are not made subject to the proposed new federal legislation but where there may be an actual hazard from disease. Another area that needs California regulation consists of marinas where unregulated or insufficiently regulated waste disposal from boats may result in pollution or nuisance.

One technical detail that has frustrated those dealing with this problem in California is the argument of some boaters that until shore-side facilities are provided for pumpout of waste holding facilities, the boaters should not be required to install them. The other side of the coin is that the installation of shore-side facilities has been held up because those responsible say that until boats are equipped with holding facilities, shore connections are not needed. The Study Panel believes that these fronts must both be attacked at the same time. The recommendations below are designed to achieve this.

The Study Panel makes the following specific recommendations as a start toward effective state action to control vessel pollution:

Separate legislation should be enacted at the earliest opportunity to give the regional boards authority:

1. To hold marina, harbor and port operators responsible for posting of notices, construction of convenient on-shore toilet facilities, on-shore waste receiving or holding tanks, and/or dock-side sewage connections when a regional board has prohibited discharges of waste into waters of the state at these marinas, harbors and ports.

2. In the event the dock or marina operator should fail to implement these programs and conduct his operation so as to avoid the discharge of waste in an area where prohibited by a regional board, he should be compelled to do so.

3. As an alternate to 1. and 2., the provisions in the recommended houseboat legislation could be broadened to apply to marinas.

If the pending federal legislation passes it would in a sense be complementary to the above recommendation because shore-side facilities are essential if on-board facilities of the holding variety are approved by the federal government. If this federal legislation does not pass, the State Water Resources Control Board should expedite a study of a state program as compatible as possible with those programs adopted by other states establishing criteria for on-board facilities and a program requiring their installation. The study should give full consideration to vessel type, size and the costs and benefits involved. It should also give consideration to the development of regulations adapted to California where those generally well suited to Wisconsin (an example) might not be appropriate or necessary.

The Study Panel believes it is not practicable to regulate small boats that do not have toilets, and that state regulation of boats to achieve control over occasional discharge of pleasure craft into the open waters of the ocean is not necessary.

The problem of waste from large ships has proved exceedingly complicated. The pending federal legislation includes them, but only as to sanitary wastes. There are many other types of wastes that can be extremely damaging to the environment, including galley wastes, bilge pump-out, and other washed-down waste, depending upon the function of the vessel. Since large vessels have a long life, it will be many years after the adoption of federal criteria requiring the installation of ship-board treatment and/or holding devices before all the thousands of vessels in international and coast-wide service can be fitted with approved devices. In fact, even if this occurs, there will be great difficulty in insuring proper operation of these facilities.

The state should launch a one-year study as necessary to supplement current studies by the U. S. Navy and Coast Guard on the provision of dock-side facilities, flexible facilities to connect to and receive waste from ships of existing design.

CHAPTER IX

PROBLEMS NEEDING FURTHER STUDY

Time or circumstances did not permit the needed study, the full development of background issues and facts, or the full discussion with vitally concerned parties needed in connection with several important problems that relate to the water quality control program.

A. FISH AND GAME CODE SECTION 5650

One of California's agencies most vitally concerned with the quality of the waters of the state is the Department of Fish and Game. Its wardens and deputies are located in all regions of California, enforcing not only fishing laws and regulations, but also helping to make sure that no pollution occurs which would damage fish or wildlife. Fish and Game also is consulted with respect to water quality objectives needed in policies (proposed to be renamed water quality control plans) and in waste discharge requirements.

Two of the more important sections in the Fish and Game Code are 5650 and 5651 which provide:

5650: It is unlawful to deposit in, permit to pass into, or place where it can pass into the waters of this state any of the following:

- (a) Any petroleum, acid, coal or oil tar, lampblack, aniline, asphalt, bitumen, or residuary product of petroleum, or carbonaceous material or substance.
- (b) Any refuse, liquid or solid, from any refinery, gas house, tannery, distillery, chemical works, mill or factory of any kind.
- (c) Any sawdust, shavings, slabs, edgings.
- (d) Any factory refuse, lime, or slag.
- (e) Any cocculus indicus.
- (f) Any substance or material deleterious to fish, plant life, or bird life.

5651. Whenever it is determined by the department that a continuing and chronic condition of pollution exists, the department shall report such condition to the appropriate regional water pollution (quality) control board, and shall cooperate with and act through such board in obtaining correction in accordance with any laws administered by such board for control of practices for sewage and industrial waste disposal.

On its face, section 5650 is so sweeping in its prohibitions that it literally prohibits practically any and every discharge of waste into the waters

state, including discharges of waste in full compliance with waste discharge requirements issued by a regional board, and regardless of the fact that nearly all requirements adopt the informal recommendations of representatives of Fish and Game. The state board should immediately initiate appropriate steps to achieve a resolution of this problem.

B. WASTE DISPOSAL FROM MOBILE HOMES

This problem has been ignored to date in many areas of the state, and will become increasingly acute.

C. PREVENTION OF LAKE EUTROPHICATION

Eutrophication and its consequent abnormal algal growths in the Tahoe Keys at Lake Tahoe is largely the result of natural processes at work in semienclosed areas of the lake. Jurisdiction of the regional boards is based upon discharges of waste, yet only very minor man-made wastes are understood to be involved in this eutrophication at the Tahoe Keys. Similar algal growths occur in other enclosed portions of Lake Tahoe waters, as well as other bodies of water throughout the state, located apart from houses and people. It follows that city or county ordinances or additional state laws are needed to cope with this type of problem. The specific problem at the Tahoe Keys may be headed towards solution by the adoption and enforcement of ordinances that will require circulation of water in these areas sufficient to prevent eutrophication.

D. INDUSTRIAL WASTE HAULING

Consideration was given to the problem of indiscriminate dumping by industrial waste haulers in the Los Angeles and San Francisco metropolitan areas. Suggestions ranged from the regional board licensing of waste haulers to requiring the establishment of local ordinances for such activities. The regulation of waste haulers is a complicated subject involving local government, regulation of the waste dumps, and policing. It is recommended that the State Water Resources Control Board, in conjunction with the regional boards, develop and implement a program for regulation of industrial waste haulers and make necessary legislative recommendations to the next session of the legislature.

E. DELAYED POLLUTION

This problem arises, for example, where gravel pits are converted to dump sites, subject during filling to what are considered to be tight and appropriate regulations to prevent seepage of toxic wastes into the groundwaters or to runoff into surface waters of the state. After the dump site is filled and covered, the surface above the gravel pit is developed as a subdivision or for another purpose. Then pollution is found, and traced to a leak or seepage - possibly caused by an earthquake or land subsidence - from the dump waste. Problem: What to do, who is to do it, and who is to pay for correction.

F. POSSIBLE NEED TO REVISE HEALTH AND SAFETY CODE, SECTION 6644

One sanitary district believes strongly that present requirements of section 6644 of the Health and Safety Code should be amended to modify its two-third majority requirement where sewer works essential to public health are involved. The district's recommendations are:

1. Amend section 6644 to require a three-fifths rather than a two-thirds favorable vote for bond issues. A precedent already exists in the case of the San Francisco Bay Rapid Transit enabling legislation.

2. Add section 6644.1 to allow passage of bonds by a simple majority in the event a county health officer finds that sewers are necessary as a health measure. This proposal is the same as the original section 6644.1 which was on the books for many years, but which expired on September 1, 1965.

G. OTHER PROBLEMS PREVIOUSLY DISCUSSED

In addition to the foregoing matters requiring further study, the Legislature should immediately initiate intensive studies to find solutions to a number of other water quality problems discussed in earlier sections of this report. These studies should cover problems of local waste facility financing, (including the possibility of a state grant program), control and use of pesticides and fertilizers, prevention, clean up and abatement of oil pollution, and the disposal of large-vessel wastes by dock-side facilities or other means.

A P P E N D I X A

RECOMMENDED CHANGES TO THE
WATER CODE
BUSINESS AND PROFESSIONS CODE
GOVERNMENT CODE
HARBORS AND NAVIGATION CODE
and
HEALTH AND SAFETY CODE

ERRATA

PAGE NO.

31	Paragraph (o) - Change "contract" to "contact"
93	Section 13608, 3rd line - Change "Chapter 5" to "Chapter 6"

ADDITIONAL OR MODIFIED RECOMMENDATIONS BY THE
STATE WATER RESOURCES CONTROL BOARD

The State Water Resources Control Board on March 20, 1969, adopted the recommendations herein for transmittal to the California Legislature as State Board recommendations, but indicated that it would have several minor and additional changes. They are as follows:

1. Section 13203, on page 15, revise section to read:

13203. The official designation of each regional board shall be: "California Regional Water Quality Control Board, _____."

The purpose of this amendment would be to make clear by the title that the board in question is a regional board, and not the regional office of California's State Board.

For clarification, section 13200(c) on page 13, line 16, should be revised to read in part:

(a) North ~~eastal~~ Coast region, . . .

Also for clarification, section 13200(c) on page 13, line 35, should be revised to read in part:

(c) Central ~~eastal~~ Coast region, . . .

(The effect of these changes for clarification would be, for example, the title:

"California Regional Water Quality Control Board, North Coast", not "North coastal".)

Other changes would be needed to all sections which refer by title to the name of the regional boards. These changes would be numerous, but are considered to be important.

2. Section 1243, on page 4, make the first sentence, which starts on line 44, subsection (a). Make the second sentence subsection (b).

These two sentences are sufficiently unrelated that the subsection approach would add clarity.

3. In section 13201(a), on page 14, in line 42, delete:

"in the Resources Agency."

This matter is already covered by an amendment to Government Code, section 12805, which is section 25 of the bill, on page 41. The purpose of this amendment would be to clarify intra-agency relationships.

4. Section 13163(a), revise to read in part:

13163(a). The state board shall coordinate water-quality-related investigations of state agencies, recognizing that other state agencies have primary statutory responsibility for conducting such investigations, and shall consult with the concerned regional boards in implementing this section.

INDEX TO CHANGES TO THE WATER CODE*

DIVISION, Chapter, Article or Section	New Number	Old Number	Heading	Nature of Change
DIVISION	1.	1.	GENERAL STATE POWERS OVER WATER	none
Sec.	175.	175.		amend.
"	183.	183.		"
"	185.	185.		"
"	186.	186.		"
"	230.	230.		"
"	231.	231.		"
DIVISION	2.	2.	WATER	none
Part	1.	1.	General Provisions	"
Sec.	1058.	1058.		amend.
"	1075.	1075.		"
Part	2.	2.	Appropriation of Water	none
Sec.	1242.5	none		new
"	1243.	1243.		amend.
"	1257.	1257.		"
"	1258.	1258.		"
"	1259.	none		new
Part	3.	3.	Determination of Water Rights	none
Chap.	2.5	none	Adjudications to Pro- tect the Quality of Groundwater	new
Secs.	2100.- 2103.	none		new
DIVISION	6.	6.	CONSERVATION DEVELOP- MENT, etc.	none
Part	6.	6.	Water Development Projects	none
Sec.	12617.1	none		new
"	12923.1	"		"
DIVISION	7.	7.	WATER QUALITY	none
Chap.	1.	1.	Policy	"
Sec.	13000.	13000.		amend.
		13000.1		
		13000.2		
"	13001.	13003.		"
		13000.3		
"	13002.	13001.		amend; new in part

*Unindexed changes include Sections 11010. and 11551.6(new) of the Business and Professions Code; Sections 11558., 11558.1(new), 11563., 11563.1(new), and 12805. of the Government Code; Sections 151. and 152.(repeal) of the Harbors and Navigation Code; and Sections 4458.(repeal), and 5410. of the Health and Safety Code.

DIVISION, Chapter, Article or Section	New Number	Old Number	Heading	Nature of Change
Chap. Sec.	2. 13050.	2. 13005.	Definitions	none amend; new in part.
"	--	13006.		repeal.
"	13060.	--		new
Chap.	3.	3.	State Water Quality Control	none
Art.	1.	none	State Water Resources Control Board	new
Sec.	13100.	"		"
Art.	2.	1.	Water Quality Advisory Comm.	amend.
Sec.	13120.	13015.		"
"	13121.	13016.		"
"	13022.	13017.		"
"	13023.	13018.		"
"	13024.	13019.		"
Art.	3.	none	State Policy for Water Quality Control	new
Sec.	13140.	13022.1 13022.2		amend.
"	13141.	none		new
"	13142.	"		"
"	13143.	"		"
"	13144.	"		"
"	13145.	13022.2		amend.
"	13146.	part of 13022.1		"
"	13147.	13022.4		"
"	none	13025.4		
"	"	13025.5		repeal; replaced by 13320.
Art.	4.	2.	Other Powers and Duties of the State Board	amend.
Sec.	13160.	in part, 13600.		new; amend.
"	13161.	none		new
"	13162.	13024.		amend.
"	13163.	none		new
"	13164.	parts of 13022.1 13022.3		amend.
"	13165.	13025.7		"
"	13166.	none		new
"	13167.	"		"
"	13168.	13020.		amend.

(2)

DIVISION, Chapter, Article or Section	New Number	Old Number	Heading	Nature of Change
Chap.	4.	4.	Regional Water Quality Control	amend.
Art.	1.	1.	Organization and Membership of Regional Boards	"
Sec.	13200.	13040.		"
"	13201.	13041.		"
"	13202.	13042.		"
"	--	13042.5		repeal; see 13201.
"	13203.	--		new
"	13204.	13043.		amend.
"	13205.	13044.		"
"	13206.	13045.		"
Art.	2.	2.	General Provisions Relating to Powers and Duties of Regional Boards	"
Sec.	13220.	13050.		"
"	13221.	13051.		"
"	13222.	--		new
"	13223.	none		"
"	13224.	in part, 13052.(e)		amend.
"	13225.	13052.		"
Art.	3.	none	Regional Water Quality Control Plans	new
Sec.	13240.	13052.(e)		amend.
"	13241.	none		new
"	13242.	"		"
"	13243.	13054.3		amend.
"	13244.	in part, 13052.2		"
"	13245.	in part, 13052.2		"
"	13246.	in part, 13052.2		"
"	13247.	13052.3		"
Art.	4.	none	Waste Discharge Requirements	new
Sec.	13260.	in part, 13053.		new; amend.
"		13054.		"
"	13261	13054.4		"
"	13262.	in part, 13063.		"
"	13263.	13002.		"
		13054.		
		13054.1		
		13054.2		

(3)

DIVISION, Chapter, Article or Section	New Number	Old Number	Heading	Nature of Change
Sec.	13264.	none		new
"	13265.	"		"
"	13266.	"		"
"	13267.	13055.		amend.
"	13268.	13055.1		"
"	13269.	in part, 13054.		new; amend.
Chap.	5.	part of 4.	Enforcement and Implementa- tion	new
Art.	1.	none	Administrative Enforcement and Remedies by Regional Boards	"
Sec.	13300.	"		"
"	13301.	13060.		amend.
"	13302.	none		new
"	13303.	"		"
"	13304.	"		"
"	13305.	"		"
Art.	2.	"	Administrative Enforcement and Remedies by the State Board	"
Sec.	13320.	13025. 13025.5		new; amend.
"	13321.	none		new
Art.	3.	"	Judicial Review and Enforce- ment	"
Sec.	13330.	in part, 13063.		new; amend.
"	13331.	none		new
Art.	4.	4.	Summary Judicial Abatement	amend.
Sec.	13340.	13080.		"
Art.	5.	none	Civil Monetary Remedies	new
Sec.	13350.	"		"
Art.	6.	"	General Provisions Relating to Enforcement and Review	"
Sec.	13360.	13064.		amend.
"	13361.	none		new
Chap.	6.	5.	State Financial Assistance	amend.
Art.	1.	1.	State Water Quality Control Fund	none
Sec.	13400.	13100.		amend.
"	13401.	13101.		"
Art.	2.	2.	Loans to Local Agencies	none
Sec.	13410.	13110.		amend.
"	13411.	13111.		"
"	13412.	13112.		"
"	13413.	13112.5		"

DIVISION, Chapter, Article or Section	New Number	Old Number	Heading	Nature of Change
Sec.	13414.	13113.		amend.
"	13415.	13114.		"
"	none	13115.		repeal.
"	13416.	13125.		amend.
"	13417.	13126.		"
Art.	--	3.		repeal.
"	3.	--	State Water Pollution Cleanup and Abatement Account	new
Sec.	13340.- 13342.	none		new
Chap.	7.	6.	Water Reclamation	amend.
Art.	1.	1.	Short Title	none
Sec.	13500.	13500.		amend.
Art.	2.	2.	Declaration of Policy	none
Sec.	13510.	13510.		amend.
"	13511.	13511.		"
"	13512.	13512.		"
Art.	3.	3.	State Assistance	none
Sec.	13515.	13515.		amend.
Art.	4.	4.	Regulation of Reclama- tion	"
Sec.	13520.	13520.		"
"	13521.	13521.		"
"	13522.	13522.		"
"	13523.	13523.		"
"	13524.	none		new
"	13525.	"		"
"	13526.	"		"
"	13527.	13524.		amend.
"	13528.	13525.		"
Art.	5.	5.	Surveys and Investi- gations	none
Sec.	13530.	13530.		amend.
Art.	6.	none	Waste Well Regulation	new
Sec.	13540.	"		"
"	13541.	"		"
Chap.	8.	6.5	Federal Assistance for Treatment Facil- ities	amend.
Sec.	13600.	13600.		"
"	13601.	13601.		"
"	13602.	13602.		none
"	13603.	13603.		"
"	13604.	13604.		amend.
"	13605.	none		new
"	13606.	"		"
"	13607.	13605.		none
"	13608.	none		new

DIVISION, Chapter, Article or Section	New Number	Old Number	Heading	Nature of Change
Chap.	9.	none	Waste Treatment Plant	new
Sec.	13625.- 13630.	"	Operator Qualifications	"
Chap.	10.	7.	Water Wells and Cath- odic Protection Wells	none
Art.	1.	1.	Declaration of Policy	none
"	1.5	2.	Definitions	amend.
"	2.	3.	Reports	"
"	4.	4.	Quality Control	none
Sec.	13800.	13800.		"
"	13801.	13801.		amend.
"	13802.	13802.		"
"	13803.	13803.		none
"	13804.	13804.		amend.
"	13805.	13805.		"
"	13806.	13806.		"
Chap.	11.	none	Discharges from House- boats on or in the	new
Secs.	13900.- 13908.	"	Waters of the State	new

An act to amend Sections 175, 183, 185, 186, 230, 231, 1058, 1075, 1243, 1257, and 1258 of, to add Sections 1242.5, 1259, 12617.1, and 12923.1 to, to add Chapter 2.5 (commencing with Section 2100) to Part 3, Division 2 of, to repeal Division 7 (commencing with Section 13000) of, and to add Division 7 (commencing with Section 13000) to, the Water Code, to amend Section 11010 of, and to add Section 11551.6 to, the Business and Professions Code, to amend Sections 11558, 11563, and 12805 of, and to add Sections 11558.1 and 11563.1 to, the Government Code, to amend Section 151 of, and to repeal Section 152 of, the Harbors and Navigation Code, to amend Section 5410 of, and to repeal Section 4458 of, the Health and Safety Code

* * * * *

WATER CODE

DIVISION 1. GENERAL STATE POWERS
OVER WATER

Chapter 2. Administration Generally
Article 3. State Water Resources
Control Board

* * * * *

Section 1. Section 175 of the Water Code is amended to read:

175. There is in the Resources Agency the State Water Resources Control Board consisting of five members appointed by the Governor. One of the members appointed shall be an attorney admitted to practice law in this state who is qualified in the fields of water supply and water

rights, one shall be a registered civil engineer under the laws of this state who is qualified in the fields of water supply and water rights, one shall be a registered civil engineer under the laws of this state who is experienced in sanitary engineering and who is qualified in the field of water quality, one shall be qualified in the field of water quality, and one member shall not be required to have specialized experience.

Each member shall represent the state at large and not any particular portion thereof and shall serve full time. The appointments so made by the Governor shall be subject to confirmation by the Senate at the next regular or special session of the Legislature, and the refusal or failure of the Senate to confirm an appointment shall create a vacancy in the office to which the appointment was made.

(Note. It is understood that members of the state board are considering the advisability of eliminating the word "Resources" from "State Water Resources Control Board". Such a change would help in avoiding confusion between the names and authority of the state board and the Department of Water Resources. The Study Panel would support such a change. One other state (Virginia) has a comparable board named "State Water Control Board".)

Section 2. Section 183 of the Water Code is amended to read:

183. The board may hold any hearings and conduct any investigations in any part of the state necessary to carry out the powers vested in it, and for such purposes has the powers conferred upon heads of departments of the state by Article 2 (commencing with section 11180), Chapter 2, Part 1, Division 3, Title 2 of the Government Code.

Any hearing or investigation by the board, except including hearings pursuant to section 13245 but excluding all other hearings or investigations pursuant to Division 7 of this code, may be conducted by any member upon authorization of the board, and he shall have the powers granted to the board by this section, but any final action of the board shall be taken by a majority of the members of the board at a meeting duly called and held.

All hearings held by the board or by any member thereof shall be open and public.

(Note. Amendment would permit hearing pursuant to section 13245 conducted by less than a full state board on a water quality control plan (now called a policy) proposed by a regional board. There is no intention to minimize the importance of hearings within a region on such plans. However, the state board members will be very busy, and there are a total of over 250 areas in California which will eventually be subject to separate water quality control plans. Although the hearing pursuant to section 13245 might be conducted by less than the full board, the full state board would be required to consider the results of that hearing, and to decide as a full board whether to approve the regional water quality control plan.)

Section 3. Section 185 of the Water Code is amended to read:

185. The board shall adopt rules for the conduct of its affairs in conformity, as nearly as practicable, with the provisions of Chapter 4 4.5 (commencing at section 11370), Part 1, Division 3, Title 2 of the Government Code.

(Note. To correct an error.)

Section 4. Section 186 of the Water Code is amended to read:

186. The board shall have such powers, and may employ such legal counsel and other personnel and assistance,

as may be necessary or convenient for the exercise of its duties under Division 2 (commencing with section 1000), except Part 4 (commencing with section 4000) and Part 6 (commencing with section 5900) thereof, Part 2 (commencing with section 10500) of Division 6, and Division 7 (commencing with section 13000) of this code.

For the purpose of administration, the board shall organize itself, with the approval of the Governor, in the manner it deems necessary properly to segregate and conduct the work of the board. The work of the board shall be divided into at least two divisions, known as the Division of Water Rights and the Division of Water Quality Control. The board shall appoint a chief of each division who shall supervise the work thereof and act as technical adviser to the board on functions under his jurisdiction.

The Attorney General shall represent the board and the state in litigation concerning affairs of the board unless another state agency, represented by the Attorney General, is a party to the action. In such case the legal counsel of the board shall represent the board. Sections 11041, 11042, and 11043 of the Government Code are not applicable to the State Water Resources Control Board. The legal counsel of the board shall advise and furnish legal services, except representation in litigation, to the regional boards upon their request.

* * * * *

Chapter 2.5. Miscellaneous Powers
of Department

Article 2. Surveys, Investigations,
And Distribution of Water

* * * * *

Section 5. Section 230 of the Water Code is amended to read:

230. The department, either independently or in cooperation with any person or any county, state, federal, or other agency, or upon the request of the State Water Resources Control Board, to the extent funds are allocated therefor, shall conduct surveys and investigations relating to the reclamation of water from sewage or other wastes for beneficial purposes, including but not limited to the determination of quantities of such water presently wasted, and possibilities of use of such water for recharge of underground storage or for agricultural or industrial uses; and shall report to the Legislature and to the appropriate regional California water quality control board thereon, annually.

(Note. Amendment conforms to new definition of waste.)

Section 6. Section 231 of the Water Code is amended to read:

231. The department, either independently or in cooperation with any person or any county, state, federal or other agency, shall investigate and survey conditions of damage to quality of underground waters, which conditions are or may be caused by improperly constructed, abandoned or defective wells through the interconnection of strata or the introduction of surface waters into underground waters. The department shall report to the appropriate regional California water pollution quality control board its

recommendations for minimum standards of well construction in any particular locality in which it deems regulation necessary to protection of quality of underground water, and shall report to the Legislature from time to time, its recommendations for proper sealing of abandoned wells.

(Note. Amendment to correct oversight.)

* * * * *

DIVISION 2. WATER

Part 1. General Provisions

Chapter 2. Administrative Provisions

Generally

* * * * *

Section 7. Section 1058 of the Water Code is amended to read:

1058. The board may make such reasonable rules and regulations as it may from time to time deem advisable in carrying out its powers and duties under this division code.

(Note. Amendment would authorize state board to issue regulations with respect to water quality under the provisions of division 7.)

* * * * *

Chapter 3. Witnesses and Production

Of Evidence

Section 8. Section 1075 of the Water Code is amended to read:

1075. As used in this chapter, "proceeding" means any inquiry, investigation, hearing, ascertainment,

or other proceeding ordered or undertaken by the board pursuant to this division code.

(Note. Amended definition would include proceedings relating to water quality pursuant to division 7. The effect of the amendment would be to authorize the state board to administer oaths and issue subpoenas for the attendance and giving of testimony by witnesses and for the production of evidence in proceedings relating to water quality as well as in proceedings relating to water rights.)

* * * * *

Part 2. Appropriation of Water*

Chapter 1. General Provisions

* * * * *

Section 9. Section 1242.5 is added to the Water Code to read:

1242.5. The board may, whenever it is in the public interest, approve appropriation by storage of water to be released for the purpose of protecting or enhancing the quality of other waters which are put to beneficial uses.

(Note. New section. Would specifically authorize board to approve intended use from projects, such as New Melones, which contemplate some storage and conservation of water to improve downstream

*The State Water Resources Control Board (operative on December 1, 1967) was created by Chapter 284, Statutes of 1967, by consolidating the functions of the predecessor 14-member, part-time State Water Quality Control Board and the 3-member, full-time State Water Rights Board. The consolidation was intended to facilitate consideration of the interrelationships between water quantity and water quality.

Water Code section 174 provides in part:

"It is also the intention of the Legislature to combine the water rights and the water pollution and water quality functions of state government to provide for consideration of water pollution and water quality, and availability of unappropriated water whenever applications for appropriation of water are granted or waste discharge requirements or water quality objectives are established."

Section 1258 provides in part:

"In acting upon applications to appropriate water, the board shall consider water quality objectives ..." (See section 1258, below, as proposed to be amended.)

The proposed new sections and amendments to sections in Part 2 are intended to help implement the coordinated consideration of water quality and water rights.

water quality for protection of beneficial uses. Will make California law consistent with Federal Water Pollution Control Act (33 U.S.C. 466 et seq.), particularly with its section 3(b) (1), which provides:

"In the survey or planning of any reservoir by the Corps of Engineers, Bureau of Reclamation, or other federal agency, consideration shall be given to inclusion of storage for regulation of streamflow for the purpose of water quality control, except that any such storage and water releases shall not be provided as a substitute for adequate treatment or other methods of controlling waste at the source." (Underscoring added.)

The proposed California statute is worded a little differently than the federal statute because of the provisions of California Constitution, Article XIV, section 3, which requires:

". . . that the water resources of the State be put to beneficial use . . . "

The federal language, "for the purpose of water quality control", is not a beneficial use in and of itself. Downstream beneficial uses should exist and should require the level of water quality to be protected or enhanced by the storage of water and subsequent regulation of streamflow. To comply with California's Constitution, it is proposed to require that water stored pursuant to this section be released for the purpose of protecting or enhancing the quality of the waters which are put to beneficial uses.

Concern has been expressed that the proposed storage and subsequent release of water would result in water not put to a beneficial use. This would be contrary to the stated statutory purpose. It would also be contrary to the mandate of the section of the California Constitution quoted above, which prohibits:

". . . unreasonable use or unreasonable method of use or unreasonable method of diversion of water."

Section 10. Section 1243 of the Water Code is amended to read:

1243. The use of water for recreation and preservation and enhancement of fish and wildlife resources is a beneficial use of water. In determining the amount of water available for appropriation for other beneficial uses, the board shall take into account, whenever it is in the public interest, the amounts of water required for recreation and the preservation and enhancement of fish and wildlife resources needed to remain in the source for protection of beneficial uses, including any uses specified to be protected in any relevant water quality control plan established pursuant to Division 7 (commencing with Section 13000) of this code.

This section shall not be construed to affect riparian rights.

(Note. Section proposed to be amended consistent with section 1258. Section 1243 relates to the quantity of water which the board decides, acting in the public interest, should remain in the source, and therefore be unavailable as unappropriated water until it has served the purpose for which reserved. Amendment would authorize board to look broadly at water quality of whole stream.

The intent here and in section 1257, as amended, is to integrate completely the administration of water rights and water quality.)

* * * * *

Chapter 2. Applications to
Appropriate Water

* * * * *

Section 11. Section 1257 of the Water Code is amended to read:

1257. In acting upon applications to appropriate water, the State Water Rights Board board shall consider the relative benefit to be derived from all beneficial uses of the water concerned including, but not limited to, use for domestic, irrigation, municipal, industrial, preservation and enhancement of fish and wildlife, recreational, mining and power purposes, and any uses specified to be protected in any relevant water quality control plan, and may subject such appropriations to such terms and conditions as in its judgment will best develop, conserve, and utilize in the public interest, the water sought to be appropriated.

(Note. Amendment would expressly permit board to consider water quality when evaluating relative benefit to be derived from all beneficial uses of the water concerned. Enhancement of fish and wildlife already recognized in section 1243.)

Section 12. Section 1258 of the Water Code is amended to read:

1258. In acting upon applications to appropriate water, the board shall consider water quality objectives control plans which have been established pursuant to law Division 7 (commencing with Section 13000) of this code, and may subject such appropriations to such terms and conditions as it finds are necessary to carry out such objectives plans.

(Note. See definition of "water quality control plan" in division 7. The language of the present law equates "water quality control policy" with "objectives". The word "plan" has been substituted for "objectives" (or "policy") because "plan" is the appropriate word in the revised law.)

Section 13. Section 1259 is added to the Water Code, to read:

1259. After notice and a public hearing, the board may reserve from appropriation water in such locations and quantities and for such seasons of the year as in its judgment is required in the public interest to implement water quality control plans established pursuant to Division 7 of this code. Such reservations shall be subject to periodic review and revision in the light of changed conditions.

(Note. New section. Under existing law board decisions have no express statutory scope or status outside the applications to which they relate. Reservation from appropriation would not be so limited, but any reservation would be subject to periodic review and revision.)

* * * * *

Section 14. Chapter 2.5 (commencing with Section 2100) is added to Part 3, Division 2 of the Water Code, to read:

Chapter 2.5. Adjudications to Protect
The Quality of Groundwater*

2100. After the department has submitted to the board plans and recommendations for the protection of the quality of groundwater pursuant to sections 12617.1 or 12923.1 of this code, or in reliance upon investigation by any governmental agency, the board may file an action in the superior court to restrict pumping, or to impose physical solutions, or both, to the extent necessary to prevent destruction of or irreparable injury to the quality of such water. In such action, any of the claimants to the use of the affected water may be named as defendants. In any

* Note. New chapter would authorize state board to begin an action in the superior court for the protection of the quality of groundwater, when indicated by an investigation and plans or recommendations of the Department of Water Resources pursuant to proposed new sections 12617.1 or 12923.1 of this code. The board could also rely upon the investigation of another governmental agency.

Note the following required steps: (1) An investigation by some responsible governmental agency, indicating the quality of certain groundwater to be threatened with irreparable injury; (2) A public hearing by the state board; (3) A determination of the necessity of an adjudication in order to control the pumpage or impose a physical solution; (4) Intervention in any pending adjudication proceeding, or one in which appropriate jurisdiction has been retained; (5) A determination whether a local public agency will undertake the adjudication; (6) An action filed by the state board, only if other alternatives fail.

watershed or groundwater basin wherein (a) all or substantially all of the rights to water have been adjudicated and the court has retained continuing jurisdiction arising from said adjudication, or (b) wherein such action is pending, any such proceedings by the board shall be undertaken only by intervention by the board in such existing action.

2101. (a) Before filing or intervening in any such action the board shall hold a public hearing on the necessity for restricting groundwater pumping or for a physical solution in order to protect the quality of water from destruction or irreparable injury.

(b) In the event the board decides that the rights to the use of the groundwater must be adjudicated in order to require the restriction of pumping or physical solution necessary to preserve it from destruction or irreparable injury to quality, the board shall first determine whether any local public agency overlying all or a part of the groundwater basin will undertake such adjudication of water rights. If such local agency commences an adjudication, the board shall take no further action, except that the board may, through the Attorney General, become a party to such action.

(c) In the event no local agency commences such action within 90 days after notice of the decision of the board, the board may file such action.

2102. At any time after the filing of a complaint or intervening pursuant to Section 2100, the board may apply to the court for a preliminary injunction equitably

restricting and apportioning the reduction in the pumping of water without requiring bond.

2103. When a preliminary injunction has been granted pursuant to Section 2102, the final judgment shall equitably compensate in quantities of water for such variations as there may be between the rights of parties to the use of water on which such preliminary injunction is based, and as such rights are determined in the final judgment.

* * * * *

Part 6. Water Development Projects

Chapter 1. Investigation of Projects

* * * * *

Section 15. Section 12617.1 is added to the Water Code, to read:

12617.1. The department, in making investigations and plans for water projects and for the solution of the water problems of the state pursuant to Sections 12616 and 12617, shall include plans and recommendations for the protection of the quality of the waters affected, including downstream waters, with respect to all sources of impairment and factors affecting quality. In doing so, the department shall cooperate with counties, cities, state agencies, and public districts to the end that planning for water quality control shall be coordinated to the maximum extent possible. Such plans and recommendations shall be transmitted to the State Water Resources Control Board and

to the appropriate California water quality control boards for their consideration in the adoption of state policy for water quality control, water quality control plans, and waste discharge requirements.

(Note. The main purpose of this section is to make certain that water quality is considered in the course of all major investigations and plans for water projects made by the Department of Water Resources.

Of course, DWR would be expected to submit to the state board, pursuant to section 13163, the plans for and results of all such investigations. This proposed section, next to those authorizing DWR to make the investigations, would be expected to point up water quality considerations at the start of DWR's investigation procedure. It would also lay the foundation for possible adjudication to protect the quality of groundwater, pursuant to section 2100, et seq.)

* * * * *

Chapter 7.5. Protection of Ground
Water Basins

* * * * *

Section 16. Section 12923.1 is added to the Water Code to read:

12923.1. The results of the investigations and studies conducted and the plans and design criteria developed by the department pursuant to this article shall be transmitted to the State Water Resources Control Board and to the appropriate California water quality control boards for their consideration in the adoption of state policy for water quality control, water quality control plans and waste discharge requirements.

(Note. New section comparable to section 12617.1. It relates to procedures for the protection of the quality of groundwater pursuant to the Porter-Dolwig Ground Water Basin Protection Law. An adjudication to protect the quality of groundwater, pursuant to section 2100, et seq., might be indicated.)

* * * * *

Sec. 17. Division 7 (commencing with Section 13000) of the Water Code is repealed.

Sec. 18. Division 7 (commencing with Section 13000) is added to the Water Code, to read:

DIVISION 7. WATER QUALITY

Chapter 1. Policy

13000. The Legislature finds and declares that the people of the state have a primary interest in the conservation, control, and utilization of the water resources of the state, and that the quality of all the waters of the state shall be protected for use and enjoyment by the people of the state.

The Legislature further finds and declares that activities and factors which may affect the quality of the waters of the state 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 Legislature further finds and declares that the health, safety and welfare of the people of the state require that there be a statewide program for the control of the quality of all the waters of the state; that the state must be prepared to exercise its full power and jurisdiction to protect the quality of waters in the state from degradation originating inside or outside the boundaries of the state; that the waters of the state are

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

(Note. Replaces the present secs. 13000, 13000.1, and 13000.2.

The first paragraph of new section 13000 uses a declaration of the importance of conservation, control and utilization of the water resources of the state as establishing the foundation for regulation to protect the quality of the waters of the state which is referred to in the second paragraph.

The second paragraph is intended to represent the present interpretation of section 13000.2, which section is generally liked but given widely different interpretations because of the ambiguous phrase, "maximum benefit".

The third paragraph is based on the present section 13000, particularly its second paragraph, but avoids repetition as much as possible.

The new section is rearranged to introduce in order ideas consistent with the needs for conservation, control and utilization of water resources, regulation to attain the highest quality which is reasonable, and administration of water quality control by regional boards within a framework of state coordination and policy.

In the Preliminary Report the second paragraph of section 13000 had concluded with references both to desirable esthetic conditions and to waste disposal and assimilation. It is now proposed to delete both these references and to conclude this important paragraph with language found in the "long-range goals for water quality

control" at the bottom of page 13 of the Preliminary Report. This language identifies the different kinds of values that might have to be considered in evaluating the "highest water quality which is reasonable", as applied to a specific situation.

"Esthetic enjoyment", which had been in the Preliminary Report, is included in the definition of "beneficial uses" in section 13050 (f). Waste disposal and assimilation are not included in the definition of "beneficial uses", but they are recognized as part of the necessary facts of life, to be evaluated and subject to reasonable consideration and action by the regional boards. Section 13263 (derived from section 13054.2) provides that a regional board need not utilize the full waste assimilation capacity of the receiving waters.)

13001. It is the intent of the Legislature that the state board and each regional board shall be the principal state agencies with primary responsibility for the coordination and control of water quality. The state board and regional boards in exercising any power granted in this division shall conform to and implement the policies of this chapter and shall, at all times, coordinate their respective activities so as to achieve a unified and effective water quality control program in this state.

(Note. First sentence is present section 13003. Second sentence is based on present section 13000.3.)

13002. No provision of this division or any ruling of the state board or a regional water quality control board is a limitation:

(a) On the power of a city or county or city and county to adopt and enforce additional regulations, not in conflict therewith, imposing further conditions, restric-

tions, or limitations with respect to the disposal of waste or any other activity which might degrade the quality of the waters of the state.

(b) On the power of any city or county or city and county to declare, prohibit, and abate nuisances.

(c) On the power of the Attorney General, at the request of a regional board, the state board, or upon his own motion, to bring an action in the name of the people of the State of California to enjoin any pollution or nuisance.

(d) On the power of a state agency in the enforcement or administration of any provision of law which it is specifically permitted or required to enforce or administer.

(e) On the right of any person to maintain at any time any appropriate action for relief against any private nuisance as defined in the Civil Code or for relief against any contamination or pollution.

(Note. Present section 13001. A new subsection (c) has been added because of the decision in People v. New Penn Mines, Inc., 212 Cal. App. 2d 667.)

(Note. Present section 13002. First sentence to be deleted, and balance in modified section 13263. (g). Said deletion does not suggest any attempt to interfere with constitutionally protected rights to the use of water.)

Chapter 2. Definitions

13050. As used in this division:

(a) "State board" means the State Water Resources Control Board.

(b) "Regional board" means any California water quality control board for a region as specified in section 13200.

(c) "Person" also includes any city, county, district, the state or any department or agency thereof.

(d) "Waste" includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation of whatever nature.

(Note. Combines and replaces the former definitions of "sewage" and "other waste". Much industrial and other waste is now collected with sewage and disposed of in plants referred to as "waste disposal plants". The "Suggested State Water Pollution Control Act" (Gindler, p. 308*) has no separate definition of sewage.

The proposed new definition of waste is intended to be as all-inclusive as the present definition of "sewage" and "other waste". The proposed new definition also adds a specific reference to gaseous or radioactive substances, each of which is included in the definition of "wastes" in the "Suggested State Water Pollution Control Act".

The present definitions of "sewage" and "industrial waste" or "other waste" have been interpreted in Opinions of the Attorney General to include the following:

* References to Gindler are to Waters and Water Rights, Volume 3, "Water Pollution and Quality Controls", the Allen Smith Co., Indianapolis (1967), by Burton J. Gindler.

1. Drainage into surface streams or lakes of water from inoperative or abandoned mine tunnels that have leached through ore dumps and tailings and contains harmful materials which, but for the mining operations, would not be present at all or in the amounts now found. 26 Ops. Cal. Atty. Gen. 88 (1955)

2. The current drainage, flow, or seepage into waters of the state of harmful concentrations of all the following listed materials constitutes the discharge of waste over which a regional board has jurisdiction:

a. Bark, slash, sawdust, and other debris resulting from logging operations;

b. Earth eroded from tractor trails and other areas which have been denuded of protective vegetation by logging operations;

c. Garbage, ashes, rubbish, mixed refuse, and solid industrial waste found in dumps;

d. Return irrigation or drainage water from agricultural operations containing materials not present prior to use;

e. Liquids containing harmful materials which arise in one stratum intercepted by a water, oil, or gas well and flow through the well into other intercepted strata containing water of good quality. 27 Ops. Cal. Atty. Gen. 182. (1956)

3. The discharge of water from a hydroelectric plant is industrial waste. Change in stream temperature caused by hydroelectric operation might constitute a pollution. Wastes from agricultural operations including insecticides, pesticides, herbicides and other chemicals constitute (industrial) waste. 43 Ops. Cal. Atty. Gen. 302. (1964)

It is intended that the proposed definition of waste will be interpreted to include all the materials, etc., which the Attorney General has interpreted to be included in the definitions of "sewage", "industrial waste", and "other waste".)

(e) "Waters of the state" means any water, surface or underground, including saline waters, within the boundaries of the state.

(Note. Deletes last part of present definition because recent court decisions raise questions as to whether sections 170, 171 and 172 of the Government Code accurately reflect boundaries of the state. Note that (1) other sections may control ocean discharges outside "waters of the state," where discharges would or might affect waters of the state, and (2) other sections may be used to control activities of California citizens outside state boundaries. See Skiriote v. Florida, 313 U.S. 69 (1941), and 34 Ops. Cal. Atty. Gen. 260 (1959). See also added phrase in paragraph 3 of proposed new section 13000 and new section 13260.)

(f) "Beneficial uses" of the waters of the state that may be protected against quality degradation include, but are not necessarily limited to, domestic, municipal, agricultural and industrial supply; power generation; recreation; esthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves.

(Note. This proposed new definition relates to protection of the quality of surface and ground waters of the state. Section 1257 of this code relates only to particular beneficial uses to be considered in connection with appropriation and usually some consumptive use of unappropriated waters of the state. The new definition is based in part on the definition in "Statewide Policy for the Control of Water Quality", as adopted and amended by State Board Resolutions 67-7, and 67-36, respectively, and on section 1243 of this code.

The Statewide Policy definition is as follows:

"Beneficial Use of the water resources of the state is that use of water that is, in general, productive of public benefit, which promotes the peace, health, safety, and welfare of the people of the state.

1. Beneficial uses of the waters of the state that may be protected against damage resulting from quality degradation include but are not necessarily limited to:

- a. Domestic and municipal supply;
- b. Agricultural supply;
- c. Industrial supply (including power generation);
- d. Propagation, sustenance and harvest of fish, aquatic life (including shell fish) and wildlife;
- e. Recreation;
- f. Esthetic enjoyment;
- g. Navigation.

2. Waste disposal, dispersion and assimilation are economic beneficial uses of water but shall be regulated as required to protect other beneficial uses. These economic beneficial uses shall be considered in the process of establishing a water quality control policy."

After careful consideration, the portion of the quoted definition calling waste disposal, etc., "economic beneficial uses of water", was not included in the proposed new definition. All recognized categories of beneficial uses of water require varying degrees of water quality for their protection, and this protection is directed largely against the effects of waste disposal. Under these circumstances it would be very confusing to refer to waste disposal, dispersion and assimilation as any kind of beneficial uses of water. However, this omission is not intended to question the obvious facts that ultimately the residual substances remaining after treatment of wastes must, in most instances, reach waters of the state, and economic benefits to a waste discharger result from the discharge of waste either directly or indirectly into the waters of the state, and that these economic benefits relate inversely to the cost of treatment. These economic values are recognized in paragraph 2 of section 13000. In connection with the establishment

of water quality objectives in regional water quality control plans (now called policies), "it is recognized that it may be possible for the quality of water to be changed to some degree without unreasonably affecting beneficial uses." (Section 13241.) Section 13263 (derived from section 13054.2) also provides that a regional board need not utilize the full waste assimilation capacity of the receiving waters.)

(g) "Quality of the water" or "quality of the waters" refers to chemical, physical, biological, bacteriological, radiological, and other properties and characteristics of water which affect its use.

(Note. Based on language in the definition of pollution in the Federally suggested state act. This phrase is also used in a context other than that of pollution, and a separate definition is therefor used.)

(h) "Water quality objectives" means the limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water or the prevention of nuisance within a specific area.

(Note. New section, consistent with and explanatory of present usage. An important part of "water quality control plans", as defined herein, and of waste discharge requirements.

The constituents or characteristics include, but are not limited to, temperature, dissolved oxygen, biochemical oxygen demand, chloride, bacterial population density, appearance, odor, taste, and various measures of populations of aquatic biota.

The Federal Water Pollution Control Act, as amended by the Water Quality Act of 1965, (33 U.S.C. 466, et seq.), provides in part in Section 10 (c) (1) for the adoption before June 30, 1967, of "(A) water quality criteria

applicable to interstate waters . . . and (B) a plan for the implementation and enforcement of the water quality criteria adopted . . . such State criteria and plan shall thereafter be the water quality standards applicable to such interstate waters . . . " Note that in the foregoing context, the federal use of the word standards includes the plan for implementation and enforcement. The Federal Act intermingles usage of the phrase "water quality standards" and "water quality criteria".

California has consistently used the phrase "water quality objectives", in lieu of "criteria" or "standards". "Procedures for Formulating Water Quality Control Policy", adopted by the state and regional boards on June 6, 1966, is authority for this use, in reliance upon statutory authority. The state board has stated that the term "criteria", as used by the FWPCA in their "Guidelines for Establishing Water Quality Standards", will be considered synonymous with water quality objectives as used in California's "Statewide Policy for Water Quality Control", adopted on March 7, 1967. The Secretary of the Interior has stated his concurrence with this interpretation.

In view of the confused and interchangeable usage of the words "standards" and "criteria" in the FWPC Act, and the consistent and widespread usage of "water quality objectives" in California, it is recommended that present usage of "water quality objectives" be continued.)

(i) "Water quality control" means the regulation of any activity or factor which may affect the quality of the waters of the state and includes the prevention and correction of water pollution and nuisance.

(Note. New section, consistent with present usage. Reference to water pollution and nuisance results in deletion as surplusage of sections or portions of sections which relate to water pollution control. For example, present section 13022 to be deleted, and phrase "water pollution" (control) removed from sections in Article 3 of Chapter 3.)

(j) "Water quality control plan" consists of a designation or establishment for the waters within a

specified area of (1) beneficial uses to be protected, (2) water quality objectives, and (3) a program of implementation needed for achieving water quality objectives.

(Note. New section, consistent with present practice. Word "plan" substituted for "policy" to be more descriptive and avoid multiple use and misuse of word "policy".)

(k) "Contamination" means an impairment of the quality of the waters of the state by waste to a degree which creates a hazard to the public health through poisoning or through the spread of disease. "Contamination" shall include any equivalent effect resulting from the disposal of waste, whether or not waters of the state are affected.

(Note. Word "actual" before "hazard" deleted at suggestion of State Department of Public Health, to make section more enforceable. New definition of "waste" used. No other change suggested.)

(l) "Pollution" means an alteration of the quality of the waters of the state by waste to a degree which unreasonably affects (1) such waters for beneficial uses, or (2) facilities which serve such beneficial uses. "Pollution" may include "contamination".

(Note. Modification of present definition by:
1. Eliminating phrase "does not create an actual hazard to the public health," consistent with ruling of Attorney General that a "pollution" and a "contamination" may exist simultaneously in the same waters and be attacked simultaneously by the appropriate regulatory agencies. 26 Ops. Cal. Atty. Gen. 253. (Caution. Simultaneous contamination and pollution cover only particular situations. Individual analysis of each situation required.)

2. Eliminating word "adversely" for same reason that word "actual" before "hazard" is proposed to be eliminated from definition of contamination. Word "adversely" suggests that harm to quality of waters of state must be immediate and direct, and allows no reasonable discretion required for future growth and other considerations.

3. Reference to facilities which serve beneficial uses is added because of certain past damage to channel linings and inability to correct problem under existing law.

Judicious action by the regional boards, based on the facts of different cases and different areas, is the key to establishment of water quality objectives and waste discharge requirements. In a negative way, reasonableness is also the key to pollution: it is the unreasonable effect upon beneficial uses of water, caused by waste, that constitutes pollution.)

(m) "Nuisance" means anything which (1) is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property, and (2) affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal, and (3) occurs during, or as a result of, the treatment or disposal of wastes.

(Note. The present definition of nuisance is considered to be practically unenforceable because of its requirements of proof of the vague terms "damages" and "unreasonable practices", as well as its non-applicability to treatment plants, with respect to which most nuisance complaints are directed.

The opening language of the proposed definition was copied from Civil Code section 3479, and the language in the middle was copied from Civil Code section 3480. The concluding language is based on the present definition,

expanded to include treatment as well as the disposal of wastes.)

(n) "Reclaimed water" means water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur.

(Note. The amendment is recommended because the end product is water, not waste water. "Direct" use, within the meaning of this definition, occurs when treated water is applied to another use without any prior commingling with other water.

"Controlled use" may best be explained by illustrations. Example 1: Below the Whittier Narrows is an area where the groundwater is recharged with reclaimed water, water reclaimed from waste water of a consistent high quality. Here the control is exercised in the recharge operation, which precedes the pumpage and use by others of the groundwater. A discharge of waste into a surface stream would be an example of non-control, would result in commingling with other water, and would not constitute "reclaimed water". Example 2: The reclamation project of the Santee County Water District, near San Diego. At least some of the reclaimed water enters the recreation reservoir, not directly, but by a controlled seepage through a porous ground area.)

(o) "Citizen or domiciliary" of the State of California includes a foreign corporation having substantial business contracts in the State of California or subject to service of process in this state.

* * * * *

(Note. Definition of "district attorney" deleted. The Attorney General is the usual legal representative of state agencies, such as the regional boards. The Attorney General is designated herein to represent the state and regional boards in all civil enforcement proceedings. The Central Valley Regional

Board is located in all or parts of 33 counties. Amendment would permit civil enforcement proceedings by dealing with one attorney instead of 33. All criminal enforcement would remain with local district attorneys.)

(13006. Note. The following definition in section 13006 has been omitted:

"No act or event shall be deemed 'threatened' or 'threatening' within the meaning of this division unless there is a reasonable probability that the act or event will occur."

The purpose is to eliminate an undesirable restrictive effect of the present definition, which seems to say that an act or event must be more probable than not ("reasonable probability") before it is "threatened" or "threatening" under the definition. However, an act or event should be subject to regulation as "threatened" or "threatening" where the consequences could be extremely serious (such as a health hazard) even though it is less than 50% probable. The omission of the definition "threatened" or "threatening" now in section 13006 will permit the boards to consider that balance between the likelihood of an occurrence and the seriousness of its consequence in determining whether an act or event is "threatening" or "threatened".)

(13008. Note. Repealed in 1968 by AB 1381, Chapter ____.)

* * * * *

13060. This division shall be known as and may be cited as the "State Water Quality Control Act".

Chapter 3. State Water Quality
Control

Article 1. State Water Resources
Control Board

13100. There is in the Resources Agency the State Water Resources Control Board, the organization, membership, and some of the duties of which are provided for in Article 3 (commencing with Section 174) of Chapter 2 of Division 1 of this code.

(Note. New article. Present chapter fails to give any organizational background of the state board. Amendment to section 1075 would extend to proceedings under this division state board power to administer oaths and issue subpoenas.)

Article 2. Water Quality Advisory
Committee

13120. There is in the State Water Resources Control Board a Water Quality Advisory Committee to provide information and advice to the board on state and regional problems and technical matters. The committee shall consist of the chairman of each of the nine regional water quality control boards or his designee and nine members appointed by the Governor. Of the nine members appointed by the Governor, one person with specialized knowledge shall be selected from each of the following fields:

- (a) Agricultural science, including water use and drainage.
- (b) Aquatic biology.
- (c) Economics.

- (d) Environmental sciences.
- (e) Industrial waste problems.
- (f) Municipal waste problems.
- (g) Oceanography.
- (h) Recreational water use.
- (i) Urban planning.

The members of the existing committee shall continue to serve until the expiration of their terms at which time the Governor shall appoint members in accordance with the foregoing categories.

Insofar as practical, the Governor shall appoint members in such manner as to afford representation on the committee of all parts of the state.

All members appointed to the committee shall serve for a term of four years.

(Note. Statute now provides appointive membership of advisory committee to be from same kinds of organizations and backgrounds already represented by regional board membership, including their chairmen. See section 13201. Change would bring to advisory group representation of new and important fields of expert knowledge. It is expected that most of the appointments on the basis of specialized knowledge will be of persons with broad, practical experience.)

13121. The committee shall meet at least once each quarter. The committee may meet jointly with the state board. All meetings shall be open and public.

13122. The committee shall annually elect one of its members chairman. Ten of the members of the committee shall constitute a quorum for the purpose of transacting any business of the committee.

13123. Each member of the committee shall be entitled to receive twenty-five dollars for each day while on official business of the committee in addition to his actual necessary expenses.

(Note. Amendment recommended consistent with section 13205.)

13124. The state board may consult with and seek the advice of the committee with regard to state board responsibilities relating to water quality control and shall do so prior to adopting state policy for water quality control pursuant to subdivisions (a) and (d) of Section 13142. The committee shall advise the board on such matters.

Article 3. State Policy for
Water Quality Control*

13140. The state board shall formulate and adopt state policy for water quality control. Such policy shall be adopted in accordance with the provisions of this article and shall be in conformity with the policies set forth in Chapter 1 (commencing with Section 13000).

13141. State policy for water quality control adopted or revised in accordance with the provisions of this article and regional water quality control plans approved or revised in accordance with section 13245 shall become a part of the California Water Plan.

*If this article adopted, all previously adopted policies (water quality control plans, herein) which relate to interstate or coastal waters, etc., (sec. 13142 (d)) should be reviewed by state board to see if further proceedings needed.

(Note. New section. See present section 13022.2.)

13142. State policy for water quality control shall consist of all or any of the following:

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

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

(c) Water quality control plans adopted by the state board for interstate or coastal waters or other waters of interregional or statewide interest.

(d) Other principles and guidelines deemed essential by the state board for water quality control.

(Note. New section defines "state policy for water quality control".)

13143. State policy for water quality control shall be periodically reviewed and may be revised.

(Note. New.)

13144. During the process of formulating or revising state policy for water quality control the state board shall consult with and carefully evaluate the recommendations of concerned federal, state, and local agencies.

(Note. New. See old section 13022.3.)

13145. The state board shall take into consideration the effect of its actions pursuant to this chapter on the California Water Plan as adopted or revised pursuant to Division 6 of this code, and on any other general or coordinated governmental plan looking toward the development, utilization, or conservation of the waters of the state.

(Note. Revised section 13022.2.)

13146. State offices, departments and boards shall comply with state policy for water quality control in carrying out activities which affect water quality unless otherwise directed or authorized by statute, in which case they shall advise the board in writing why they do not comply.

(Note. Revised and renumbered part of section 13022.1.)

13147. The state board shall not adopt state policy for water quality control unless a public hearing is first held respecting the adoption of such policy. At least 90 days in advance of such hearing the state board shall notify any affected regional boards, and shall give notice of such hearing by publication within the affected region pursuant to Section 6061 of the Government Code. The regional boards shall submit written recommendations to the state board at least 20 days in advance of the hearing.

(Note. Replaces section 13022.4.)

(Note. Sections 13025 and 13025.5 recommended to be repealed and replaced by Article 2 of Chapter 5.)

Article 4. Other Powers and Duties
Of the State Board

13160. The state board is designated as the state water pollution control agency for all purposes stated in the Federal Water Pollution Control Act and any other federal act, heretofore or hereafter enacted.

(Note. New section. Also replaces the second paragraph of old section 13600.)

13161. The state board shall annually determine state needs for water quality research and recommend projects to be conducted.

(Note. New section. Would prevent duplication as well as point out needs.)

13162. The state board shall administer any state-wide program of research in the technical phases of water quality control which may be delegated to it by law and may accept funds from the United States or any person to that end. The state board may conduct such a program independently, or by contract or in cooperation with any federal or state agency, including any political subdivision of the state, or any person or public or private organization.

13163. (a) The state board shall coordinate water quality related investigations of state agencies, and shall consult with the concerned regional boards in implementing this section.

(b) The state board from time to time shall evaluate the need for water quality related investigations to effectively develop and implement state policy for water quality control and shall transmit its recommendations for

investigations to affected or concerned federal, state, and local agencies. The affected state agencies shall comply with the recommendations or shall advise the state board in writing why they do not comply with such recommendations.

(c) State agencies shall submit to the state board plans for and results of all investigations that relate to or have an effect upon water quality for review and comment.

(Note. New section. The Legislature has delegated authority to conduct water quality related investigations to various state agencies. The Water Code includes the following delegations of such authority:

Department of Water Resources: Water Code sections 226, 229, 230, 231, 12616, 12617, and 12920 - 12923.

Regional boards: Water Code section 13267 herein (present section 13055. modified).)

13164. The state board shall formulate, adopt and revise general procedures for the formulation, adoption and implementation by regional boards of water quality control plans. During the process of formulating or revising such procedures, the state board shall consult with and evaluate the recommendations of any affected regional boards and may seek the advice of the Water Quality Advisory Committee.

(Note. Revised and renumbered portions of sections 13022.1 and 13022.3.)

13165. The state board may require any state or local agency to investigate and report on any technical factors involved in water quality control.

(Note. Revised former section 13025.7.)

13166. The state board, with the assistance of the regional boards, shall prepare and implement a state-wide water quality information storage and retrieval program. Such program shall be coordinated and integrated to the maximum extent practicable with data storage and retrieval programs of other agencies.

(Note. New section.)

13167. The state board shall implement a public information program on matters involving water quality, and shall maintain an information file on water quality research and other pertinent matters.

(Note. New section. Information and educational material available to municipal governments, civic organizations and schools can result in local backing of needed projects on a voluntary basis. State board should support regional boards because almost all public contact is with the regional boards.)

13168. The state board shall allocate to the regional boards from funds appropriated to the state board such part thereof as may be necessary for the administrative expenses of such boards. The regional boards shall submit annual budgets to the state board. Subject to the provisions of Chapter 3 (commencing with Section 13290) of Part 3, Division 3, Title 2 of the Government Code and any other laws giving the Department of Finance fiscal and

budgetary control over state departments generally, the state board shall prepare an annual budget concerning its activities and the activities of the regional boards.

Chapter 4. Regional Water Quality
Control

Article 1. Organization and Membership
Of Regional Boards

13200. The state is divided, for the purpose of this division, into nine regions:

(a) North coastal region, which comprises all basins including Lower Klamath Lake and Lost River Basins draining into the Pacific Ocean from the California-Oregon state line southerly to the southerly boundary of the watershed of Estero de San Antonio and Stemple Creek in Marin and Sonoma Counties.

(b) San Francisco Bay region, which comprises San Francisco Bay, Suisun Bay, from Sacramento River and San Joaquin River westerly from a line which passes between Collinsville and Montezuma Island and follows thence the boundary common to Sacramento and Solano Counties and that common to Sacramento and Contra Costa Counties to the westerly boundary of the watershed of Markley Canyon in Contra Costa County, all basins draining into the bays and rivers westerly from this line, and all basins draining into the Pacific Ocean between the southerly boundary of the north coastal region and the southerly boundary of the watershed of Pescadero Creek in San Mateo and Santa Cruz Counties.

(c) Central coastal region, which comprises all basins, including Carrizo Plain in San Luis Obispo and

Kern Counties, draining into the Pacific Ocean from the southerly boundary of the watershed of Pescadero Creek in San Mateo and Santa Cruz Counties to the southeasterly boundary, located in the westerly part of Ventura County, of the watershed of Rincon Creek.

(d) Los Angeles region, which comprises all basins draining into the Pacific Ocean between the southeasterly boundary, located in the westerly part of Ventura County, of the watershed of Rincon Creek and a line which coincides with the southeasterly boundary of Los Angeles County from the ocean to San Antonio Peak and follows thence the divide between San Gabriel River and Lytle Creek drainages to the divide between Sheep Creek and San Gabriel River drainages.

(e) Santa Ana region, which comprises all basins draining into the Pacific Ocean between the southeasterly boundary of the Los Angeles region and a line which follows the drainage divide between Muddy and Moro Canyons from the ocean to the summit of San Joaquin Hills; thence along the divide between lands draining into Newport Bay and into Laguna Canyon to Niguel Road; thence along Niguel Road and Los Aliso Avenue to the divide between Newport Bay and Aliso Creek drainages; thence along that divide and the southeasterly boundary of the Santa Ana River drainage to the divide between Baldwin Lake and Mojave Desert drainages; thence along that divide to the divide between Pacific Ocean and Mojave Desert drainages.

(f) San Diego region, which comprises all basins draining into the Pacific Ocean between the southern boundary of the Santa Ana region and the California-Mexico boundary.

(g) Central Valley region, which comprises all basins including Goose Lake Basin draining into the Sacramento and San Joaquin Rivers to the easterly boundary of the San Francisco Bay region near Collinsville. The Central Valley region shall have section offices in the Sacramento Valley and the San Joaquin Valley.

(h) Lahontan region, which comprises all basins east of the Santa Ana, Los Angeles and Central Valley regions from the California-Oregon boundary to the southerly boundary located in Los Angeles and San Bernardino Counties of the watersheds draining into Antelope Valley, Mojave River Basin and Dry Lake Basin near Ivanpah.

(i) Colorado River Basin region, which comprises all basins east of the Santa Ana and San Diego regions draining into the Colorado River, Salton Sea and local sinks from the southerly boundary of the Lahontan region to the California-Mexico boundary.

The regions defined and described in this section shall be as precisely delineated on official maps of the department and include all of the areas within the boundaries of the state.

For purposes of this section the boundaries of the state extend three nautical miles into the Pacific Ocean

from the line of mean lower low water marking the seaward limits of inland waters and three nautical miles from the line of mean lower low water on the mainland and each offshore island.

(Note. Change proposed in (a) to north coastal region boundary because present regional boundary along center line of Tomales Bay makes that bay subject to jurisdiction of two regional boards. No problem has arisen yet, but change would prevent occurrence of such a problem.

Recommendation for section offices in the Sacramento Valley and the San Joaquin Valley, in (g), are made because of the large size of the Central Valley region, and the hydrologic problems in the delta that would result from dividing the Central Valley region into two regions.

The definition of coastal waters added to this section is intended to recognize the extent of state jurisdiction over coastal waters as being consistent with primary state responsibility for water quality in this area under the Federal Water Pollution Control Act as amended (33 U. S. Code 466 et seq.) and is not intended to affect the definition of coast line as that term is used in the Submerged Lands Act of 1953. (43 U. S. Code sections 1301-1315.)

It is recommended that the sense of the disclaimer in the preceding paragraph should be expressed in a note printed on the face of each official map prepared by the department pursuant to Water Code section 13200. Hopefully such a disclaimer would safeguard against the possibility that a map delineating regional board boundaries might be used against the State of California in future litigation involving mineral deposits in submerged land.

Reference to "department" in this division, unless otherwise specified, means the "Department of Water Resources".)

13201. (a) There is in the Resources Agency a regional board for each of the regions described in section 13200. Each board shall consist of the following nine

members appointed by the Governor, each of whom shall represent and act on behalf of all the people of the region and shall reside or have a principal place of business within the region:

- (1) One person associated with water supply, conservation, and production;
- (2) One person associated with irrigated agriculture;
- (3) One person associated with industrial water use;
- (4) One person associated with municipal government;
- (5) One person associated with county government;
- (6) One person from a responsible nongovernmental organization associated with recreation, fish, or wildlife;
- (7) Three persons not specifically associated with any of the foregoing categories, two of whom shall have special competence in areas related to water quality problems.

(b) Insofar as practicable, appointments shall be made in such manner as to result in representation on the board from all parts of the region.

(Note. The constitution of the regional board membership has been revised. On one hand, the expertise brought to boards by members in the

specific fields has been retained and expanded. On the other hand, the composition of the regional boards has been broadened to emphasize that all board members represent the people of the region and not any special interest of waste discharges. This emphasis seems useful and necessary.

By inadvertence, regional boards were removed from the Resources Agency by Executive Reorganization Plan No. 1 of 1968. It is intended that the regional boards be restored promptly as members of the Resources Agency by an amendment of Gov. Code section 12805, consistent with this section.)

13202. Each member of a regional board shall be appointed for a term of four years. Vacancies shall be immediately filled by the Governor for the unexpired portion of the terms in which they occur.

13203. The official designation of each regional board shall be: "California Water Quality Control Board, _____ Region".

(Note. Although regional boards operate in a semi-autonomous manner, they are state boards. Their unexplained title of "_____ Regional Board" has lead to endless confusion, particularly with respect to proposals to consolidate them with local agencies. A new title is proposed that will identify them clearly as state boards.)

13204. Each regional board shall hold at least six regular meetings each calendar year and such additional special sessions as shall be called by the chairman or any two members of the regional board.

13205. Each member of the regional boards shall be entitled to receive twenty-five dollars for each day while on official business of the board in addition to his actual necessary expenses.

(Note. Change would add provision for entitlement of twenty-five dollars per day while on official business of the board. More meetings will be required in the future, and board members may be called upon to participate in hearing panels.)

Regional boards are regulatory agencies performing an important decision-making function.)

13206. Public officers, whether elected or appointed, may be appointed to, and may serve contemporaneously as members of, a regional board.

Article 2. General Provisions Relating
To Powers and Duties of
Regional Boards

13220. Each regional board shall:

- (a) Establish an office.
- (b) Select one of its members as chairman at the first regular meeting held each year.
- (c) Appoint as its confidential employee, exempt from civil service, under paragraph (5) of subdivision (a) of Section 4 of Article XXIV of the Constitution, and fix the salary of, an executive officer who shall meet technical qualifications as defined by the State Water Resources Control Board. The executive officer shall serve at the pleasure of the regional board.

(d) Employ such other assistants as may be determined necessary to assist the executive officer.

13221. Members of the regional board shall be empowered to administer oaths and issue subpoenas for the attendance and giving of testimony by witnesses and for the

production of evidence in any proceeding before the board in any part of the region. The provisions of Chapter 3 (commencing with section 1075) of Part 1 of Division 2 of this code (Witnesses and Production of Evidence) shall apply to regional boards within their own regions, where they shall have the same power as the state board within the state.

13222. Pursuant to such guidelines as the state board may establish, each regional board shall adopt regulations to carry out its powers and duties under this division.

(Note. New section, based on language in section 1058. Would include regulations covering organization and procedures at business meetings.)

13223. (a) Each regional board may delegate any of its powers and duties vested in it by this division to its executive officer excepting only the following: (1) the promulgation of any regulation; (2) the issuance, modification, or revocation of any water quality control plan, water quality objectives, or waste discharge requirement; (3) the issuance, modification, or revocation of any cease and desist order; (4) the holding of any hearing on water quality control plans; and (5) the application to the Attorney General for judicial enforcement but excluding cases of specific delegation in a cease and desist order and excluding the cases described in sections 13002(c) and 13340.

(b) Whenever any reference is made in this division to any action that may be taken by a regional board, such reference includes such action by its executive officer pursuant to powers and duties delegated to him by the regional board.

(Note. New section.)

13224. Each regional board may issue policy statements relating to any water quality matter within its jurisdiction.

13225. Each regional board, with respect to its region, shall:

(a) Obtain coordinated action in water quality control, including the prevention and abatement of water pollution and nuisance.

(b) Encourage and assist in self-policing waste disposal programs, and upon application of any person, advise the applicant of the condition to be maintained in any disposal area or receiving waters into which the waste is being discharged.

(c) Require as necessary any state or local agency to investigate and report on any technical factors involved in water quality control or to obtain and submit analyses of water.

(d) Request enforcement by appropriate federal, state and local agencies of their respective water quality control laws.

(e) Recommend to the state board projects which the regional board considers eligible for any financial assistance which may be available through the state board.

(f) Report to the state board and appropriate local health officer any case of suspected contamination in its region.

(g) File with the state board, at its request, copies of the record of any official action.

(h) Take into consideration the effect of its actions pursuant to this chapter on the California Water Plan adopted or revised pursuant to Division 6 (commencing with section 10000) of this code and on any other general or coordinated governmental plan looking toward the development, utilization or conservation of the water resources of the state.

(i) Encourage regional planning and action for water quality control.

(Note. Several amendments. Consideration was given to language to require the formation of regional agencies for waste collection, treatment, etc. It was concluded that specific statutory language for this purpose should await legislative consideration (anticipated for the 1970 session) of improved annexation legislation which would permit and require community cooperation in this and other fields of urban governmental services. Regional boards should continue, pursuant to subsection (i), to emphasize the need for regional planning and action by local agencies.

Reference to formal and informal meetings deleted as an unnecessary limitation.

Subsection (d) modified for clarification and word "respective" added. Subsection (e) of present statute removed to Article 3. Subsection (g), formerly (h), broadened. New subsection (h) based on section 13052.1. Subsection (i) combined with (c), and modified to eliminate restriction to wells of water analyses.)

Article 3. Regional Water Quality

Control Plans

13240. Each regional board shall formulate and adopt water quality control plans for all areas within the region. Such plans shall conform to the policies set forth in Chapter 1 (commencing with section 13000) of this division and any state policy for water quality control. During the process of formulating such plans the regional boards shall consult with and consider the recommendations of affected state and local agencies. Such plans shall be periodically reviewed and may be revised.

(Note. This section is based on section 13052(e).

See definition of "water quality control plan". It consists of the designation for the waters within a specified area of (1) beneficial uses to be protected, (2) water quality objectives to protect those uses, and (3) a program of implementation or enforcement.

Although plans are to be periodically reviewed, water quality objectives should be set on a long-range basis. If a review shows that there has been no change in beneficial uses, and that the objectives properly and reasonably protect those uses, there would probably be no need to change the objectives. A change to another beneficial use, as from irrigation to domestic or municipal use, could require the upgrading of objectives. Any reasonable adjustment should be made.)

13241. Each regional board shall establish such water quality objectives in water quality control plans as in its judgment will ensure the reasonable protection of beneficial uses and the prevention of nuisance; however, it is recognized that it may be possible for the quality

of water to be changed to some degree without unreasonably affecting beneficial uses. Factors to be considered by a regional board in establishing water quality objectives shall include but not necessarily be limited to all of the following:

(a) Past, present, and probable future beneficial uses of water.

(b) Environmental characteristics of the hydrographic unit under consideration.

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

(d) Economic considerations.

(Note. New section.)

13242. The program of implementation for achieving water quality objectives shall include, but not be limited to:

(a) A description of the nature of actions which are necessary to achieve the objectives, including recommendations for appropriate action by any entity, public or private.

(b) A time schedule for the actions to be taken.

(c) A description of surveillance to be undertaken to determine compliance with objectives.

(Note. New section.)

13243. A regional board, in a water quality control plan or in waste discharge requirements, may specify

certain conditions or areas where the discharge of waste, or certain types of waste, will not be permitted.

(Note. Based on section 13054.3. Word "direct" before "discharge" has been deleted, to cover situations, as in certain lava areas, where an indirect discharge can threaten domestic water supplies as much as a direct discharge can do so. "Certain types of waste" added to cover situations where a complete prohibition of discharges is not required or desired.)

13244. The regional boards shall not adopt any water quality control plan unless a public hearing is first held, after the giving of notice of such hearing by publication in the affected county or counties pursuant to section 6061 of the Government Code. When the plan proposes to prohibit discharges of waste pursuant to section 13243, similar notice shall be given by publication pursuant to section 6061.3 of the Government Code.

(Note. Based on section 13052.2)

13245. A water quality control plan, or a revision thereof, shall not become effective unless and until it is approved by the state board. The state board may approve such plan, or return it to the regional board for further consideration and resubmission to the state board. Upon resubmission the state board may either approve or, after a public hearing in the affected region, revise and approve such plan.

(Note. Based on section 13052.2, but in case of deadlock would permit state board to revise plan after holding hearing in local region.)

13246. The state board shall act upon any water quality control plan within 60 days after the regional

board has submitted such plan to the state board, or 90 days after resubmission of such plan.

(Note. The 60-day provision based on section 13052.2.)

13247. State offices, departments, and boards, in carrying out activities which may affect water quality, shall comply with water quality control plans approved by the state board unless otherwise directed or authorized by statute, in which case they shall indicate to the regional boards in writing their authority for not complying with such plans.

(Note. Based on present section 13052.3. Eliminates ambiguous word "cognizance".)

Article 4. Waste Discharge

Requirements

13260. (a) Any person discharging waste or proposing to discharge waste within any region, other than into a community sewer system, and any person who is a citizen, domiciliary, or political agency or entity of this state discharging waste or proposing to discharge waste outside the boundaries of the state in a manner that could affect the quality of the waters of the state within any region, shall file with the regional board of that region a report of the discharge, containing such information as may be required by the board.

(b) Every such person discharging waste shall file with the regional board of that region a report of

any material change or proposed change in the character, location, or volume of the discharge.

(c) Each report under this section shall be sworn to or submitted under penalty of perjury.

(d) Each report under this section shall be accompanied by a filing fee of not to exceed _____ dollars (\$_____) according to a reasonable fee schedule established by the state board.

(Note. The state board is now studying possible amounts of filing fees to accompany reports, and is expected to conclude its study in the near future, in time to amend this section accordingly.)

(e) When a report filed by any person pursuant to this section is not adequate in the judgment of the regional board, the board may require such person to supply such additional information as it deems necessary.

(Note. Based on existing sections 13053 and 13054. If forms are used for reports of waste discharges, the same should be adopted by regional board regulation, pursuant to section 13222, and should show statements to be made under penalty of perjury.

For waiver of the filing of reports, see section 13269.

Waiver provision relates in part to fact that many local health agencies, city and county, are available and must continue to play a major role in controlling and eliminating domestic waste problems. Local control is by enforcement of ordinances regarding underground disposal of sewage from individual premises, both residential and commercial. Waiver provision can and should also be used to relate to farming and other land use as long as reasonable practices are observed.

It will be necessary for the state board to establish by regulation what constitutes a "material change", referred to in (b), or guidelines with respect thereto.

Filing fees in (d) would contribute to Clean-Up and Abatement Account in section 13441.)

13261. Any person failing to furnish a report under section 13260 when so requested by a regional board or falsifying any information provided under said section is guilty of a misdemeanor.

(Note. Based on section 13054.4.)

13262. The Attorney General, at the request of the regional board, shall petition the superior court for the issuance of a temporary restraining order, temporary injunction, or permanent injunction, or combination thereof, as may be appropriate, requiring any person not complying with section 13260 to comply therewith.

13263. (a) The regional board, after any necessary hearing, shall prescribe requirements as to the nature of any proposed discharge, existing discharge, or material change therein, except discharges into a community sewer system, with relation to the conditions existing from time to time in the disposal area or receiving waters upon or into which the discharge is made or proposed. The requirements shall implement relevant water quality control plans, if any have been adopted, and shall take into consideration the beneficial uses to be protected, the water quality objectives reasonably required for that purpose, other waste discharges, the need to prevent nuisance, and the provisions of section 13241.

(b) A regional board, in prescribing requirements, need not authorize the utilization of the full

waste assimilation capacities of the receiving waters.

(c) The requirements may contain a time schedule, subject to revision in the discretion of the board.

(d) The board may prescribe requirements although no discharge report has been filed.

(e) Upon application by any affected person or on its own motion, the regional board may review and revise requirements. All requirements shall be reviewed periodically.

(f) The regional board shall notify in writing the person making or proposing the discharge or the change therein of the discharge requirements to be met. After receipt of such notice, the person so notified shall provide adequate means to meet such requirements.

(g) No discharge of waste into the waters of the state, whether or not such discharge is made pursuant to waste discharge requirements, shall create a vested right to continue such discharge. All discharges of waste into waters of the state are privileges, not rights.

(Note. Based on sections 13002, 13054, 13054.1, and 13054.2.

Subsection (b) authorizes the regional board, among other things, to maintain a margin of safety in its requirements to assure protection of all beneficial uses.)

13264. (a) No such person shall initiate any new discharge of waste or make any material change in any discharge prior to the filing of the report required by section 13260 nor shall any such person do so thereafter

and prior to (1) the issuance of waste discharge requirements pursuant to section 13263, (2) the expiration of 120 days after his compliance with section 13260, or (3) the regional board's waiver pursuant to section 13269, whichever of (1), (2), or (3) occurs first.

(b) The Attorney General, at the request of a regional board, shall petition the superior court for the issuance of a temporary restraining order, preliminary injunction, or permanent injunction, or combination thereof, as may be appropriate, prohibiting forthwith any person who is violating or threatening to violate this section from (1) discharging the waste in question or (2) making any material change therein, whichever of (1) or (2) is applicable.

(Note. Section does not apply to existing discharges, unless a material change. The prohibition of this section would not apply in cases where the filing of a report of waste discharge is waived by the regional board, because then there would be no "report required by section 13260". The regional board could require that a report be filed, but then waive the provisions of this section pursuant to section 13269.

Minimum required processing time from receipt of a report of waste discharge to adoption of a resolution specifying requirements is about 60 days. Some boards will meet only once every 60 days. A report received 10 days after a board meeting would have to be processed in either 50 days or 110 days. 120 days appears to be a reasonable time to allow for processing requirements without undue burden on regional board staffs. Regional board could take as long as necessary to prescribe waste discharge requirements, but could not prohibit the discharge pursuant to this section after expiration of the 120 days until after issuance of the discharge requirements.)

13265. Any person discharging waste in violation of section 13264, after such violation has been called to his attention in writing by the regional board, is guilty of a misdemeanor. Each day of such discharge shall constitute a separate offense.

13266. Pursuant to such regulations as the regional board may prescribe, each city, county, or city and county shall notify the regional board of the filing of a tentative subdivision map, or of any application for a building permit which may involve the discharge of waste, other than discharges into a community sewer system and discharges from dwellings involving five-family units or less.

(Note. New section. This section will help regional boards anticipate water quality problems before they develop.)

13267. (a) A regional board, in establishing or reviewing any water quality control plan or waste discharge requirements, or in connection with any action relating thereto, may investigate the quality of any waters of the state within its region.

(b) In such an investigation, the regional board may require that any person discharging or proposing to discharge waste within its region or any citizen or domiciliary, or political agency or entity of this state discharging or proposing to discharge waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, such

technical or monitoring program reports as the board may specify; provided that the burden, including costs, of such reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained therefrom.

When requested by the person furnishing a report, the portions of a report which might disclose trade secrets or secret processes shall not be made available for inspection by the public but shall be made available to governmental agencies for use in making studies; provided, however, that such portions of a report shall be available for use by the state or any state agency in judicial review or enforcement proceedings involving the person furnishing the report.

(c) In such an investigation, the regional board may inspect the facilities of any such person to ascertain whether the purposes of this division are being met and waste discharge requirements are being complied with. Such inspection shall be made with the consent of the owner or possessor of such facilities or, if such consent is refused, with a warrant duly issued pursuant to the procedure set forth in Title 13 (commencing with section 1822.50) of Part 3, Code of Civil Procedure; provided, however, that in the event of an emergency affecting the public health or safety such inspection may be made without consent or the issuance of a warrant.

(Note. Section 13055, modified. The warrant procedure is added to meet legal requirements.)

13268. Any person failing or refusing to furnish technical or monitoring program reports as required by subdivision (b) of section 13267 or falsifying any information provided therein is guilty of a misdemeanor.

13269. The provisions of subdivision (a) and (b) of section 13260, subdivision (a) of section 13263, or subdivision (a) of section 13264 may be waived by a regional board as to a specific discharge or a specific type of discharge where such waiver is not against the public interest. Such waiver shall be conditional and may be terminated at any time by the board.

(Note. New section. Combines waiver provisions.)

Chapter 5. Enforcement and Implementation*

Article 1. Administrative Enforcement and
Remedies by Regional Boards

13300. Whenever a regional board finds that a discharge of waste is taking place or threatening to take place within its region that violates or will violate requirements prescribed by the regional board or that the waste collection, treatment, or disposal facilities of a discharger

* When a regional board finds an actual or threatened violation of its waste discharge requirements is occurring, it can issue administrative orders to obtain compliance. It can also direct the discharger to clean up or pay for the costs of clean up of a waste; and, in the case of nonoperating facilities (e.g., abandoned mines), it can enforce a lien on the property involved to repay costs of correction by the board or other public agency.

Any aggrieved person -- e.g., discharger, downstream user, conservationist organization -- may appeal a decision of a regional board to the state board upon the ground that the regional board's decision is too strict or that it is not strict enough.

Any aggrieved person may appeal a state board decision to the superior court, but failure to do so does not preclude a challenge to the validity of a board decision during enforcement proceedings that may be brought thereafter -- e.g., to enjoin violation of regional or state board orders.

Normally, the boards may only specify the end result and cannot specify the means to be undertaken by the discharger to achieve those ends -- an approach carried over from the prior act. During judicial proceedings, however, the court may find that a decree simply prohibiting a certain discharge cannot do the job (e.g., in the case of a city, whose sewer system cannot be closed down); and in such a case, the court may specify means to be undertaken by the discharger for compliance with its decree.

In an emergency situation, the state may seek summary judicial abatement of a harmful discharge or condition.

Civil monetary remedies (sometimes called "civil penalties") may be recovered from a discharger in a judicial proceeding where intentional or negligent violations of board orders are involved.

All civil actions are to be brought by the Attorney General in the name of the People of the State of California.

are approaching capacity, the board may require the discharger to submit for approval of the board, with such modifications as it may deem necessary, a detailed time schedule of specific actions the discharger shall take in order to correct or prevent a violation of requirements.

13301. When a regional board finds that a discharge of waste is taking place or threatening to take place within its region in violation of requirements or discharge prohibitions prescribed by the regional board, the board may issue an order to cease and desist and direct that those persons not complying with the requirements or discharge prohibitions (a) comply forthwith, (b) comply in accordance with a time schedule set by the board, or (c) in the event of a threatened violation, take appropriate remedial or preventive action. In the event of an existing or threatened violation of waste discharge requirements in the operation of a community sewer system, cease and desist orders may restrict or prohibit the volume, type, or concentration of waste that might be added to such system. Cease and desist orders may be issued directly by a board, after notice and hearing, or in accordance with the procedure set forth in section 13302.

(Note. Based in part on present procedures in section 13060. The Study Panel does not approve of the former practice of using cease and desist orders to assist waste dischargers in obtaining federal financial assistance under P.L. 660, 84th Congress. It is understood that the state board is in the process of revising its regulations to eliminate this practice.)

13302. (a) Hearings for consideration of issuance of a cease and desist order may be conducted by hearing

panels designated by the regional board, each panel to consist of three or more members of the board as it may specify. A member of the board may serve on more than one panel.

(b) Due notice of the hearing shall be given to all affected persons. After the hearing, the panel shall report its proposed decision and order to the regional board and shall supply a copy to all parties who appeared at the hearing and requested a copy. Members of the panel are not disqualified from sitting as members of the board in deciding the matter. The board, after making such independent review of the record and taking such additional evidence as may be necessary, may adopt, with or without revision, the proposed decision and order of the panel.

13303. Cease and desist orders of the board shall become effective and final as to the board upon issuance thereof. Copies shall be served forthwith by registered mail upon the person being charged with the violation of the requirements and upon other affected persons who appeared at the hearing and requested a copy.

13304. (a) Any person who discharges waste into the waters of this state in violation of any waste discharge requirement or other order issued by a regional board, or who intentionally or negligently causes or permits any waste to be deposited where it is discharged into the waters of the state and creates a condition of pollution or nuisance, shall upon order of the regional board clean up such waste or abate the effects thereof. Upon failure of any person to comply with such cleanup or abatement order, the Attorney General,

at the request of the board, shall petition the superior court for that county for the issuance of an injunction requiring such person to comply therewith. In any such suit, the court shall have jurisdiction to grant a prohibitory or mandatory injunction, either preliminary or permanent, as the facts may warrant.

(b) If such waste is cleaned up or the effects thereof abated by any governmental agency after issuance of a cleanup or abatement order, such person shall be liable to that governmental agency to the extent of the reasonable costs actually incurred in cleaning up such waste or abating the effects thereof. The amount of such costs shall be recoverable in a civil action by, and paid to, such governmental agency and the state board to the extent of the latter's contribution to the cleanup costs from the State Water Pollution Cleanup and Abatement Account.

(Note. New section. If this section and section 13350 (civil monetary remedies) are enacted, section 151 of the Harbors and Navigation Code should be amended (see below) and section 152 should be repealed.)

13305. (a) Upon determining that a condition of pollution or nuisance exists which has resulted from a non-operating industrial or business location within its region, a regional board may cause notice of such condition to be posted upon the property in question. The notice shall state that such condition constitutes either a condition of pollution or nuisance which must be abated by correction of such condition, otherwise it will be corrected by the city, county, other public agency, or regional board at the

property owner's expense. Such notice shall further state that all property owners having any objections to the proposed correction of such condition may attend a hearing to be held by the board at a time not less than 10 days from the posting of the notice.

(b) Notice of the hearing prescribed in this section shall be given in the county where the property is located pursuant to section 6061 of the Government Code.

(c) In addition to posting and publication, notice as required in this section shall be mailed to the property owners as their names and addresses appear from the last equalized assessment roll.

(d) At the time stated in the notices, the board shall hear and consider all objections or protests, if any, to the proposed correction of the condition, and may continue the hearing from time to time.

(e) After final action is taken by the board on the disposition of any protests or objections, or in case no protests or objections are received, the board shall request the city, county, or other public agency in which the conditions of pollution or the nuisance exists to abate it. In the event that such city, county, or other public agency does not abate such condition within a reasonable time the board shall cause the condition to be abated. It may proceed by force account, contract or other agreement or any other method deemed most expedient by the board, and shall apply to the state board for the necessary funds.

(f) The owner of the property on which the condition exists, or is created, is liable for all reasonable costs incurred by the board or any city, county, or public agency in abating the condition and the amount of the cost for abating the condition upon the property in question shall constitute a lien upon the property and notice of such lien and the amount thereof shall be recorded in the county in which the property is located. Such lien may be foreclosed by an action brought by the city, county, other public agency, or state board, on behalf of the regional board, for a money judgment. Money recovered by a judgment in favor of the state board shall be returned to the State Water Pollution Cleanup and Abatement Account.

(g) As used in this section, the words "nonoperating" or "not in operation" mean the business is not conducting routine operations usually associated with that kind of business.

(Note. Legislative finding and declaration relating to this section is not proposed to be included in Water Code, and is placed near end of this proposed legislative bill.)

Article 2. Administrative Enforcement
And Remedies by the State
Board

13320. (a) Upon petition by any aggrieved person or upon its own motion, the state board may at any time review any action or failure to act by a regional board under Article 4 (commencing with section 13260) of Chapter 4 of this division or under Chapter 5 (commencing with section 13300) of this division.

(b) The evidence before the state board shall consist of (1) the record before the regional board, and (2) any other relevant evidence which, in the judgment of the state board, should be considered to effectuate and implement the policies of this division.

(c) The state board may find the regional board action or inaction to be appropriate and proper. Upon finding that the action of the regional board, or the failure of the regional board to act, was inappropriate or improper, the state board may (1) direct that the appropriate action be taken by the regional board, (2) refer the matter to any other state agency having jurisdiction, (3) take the appropriate action itself, or (4) any combination of the foregoing. In taking any such action, the state board is vested with all the powers of the regional boards under this division.

(d) In the event a waste discharge in one region affects the waters in another region and there is any disagreement between the regional boards involved as to the requirements which should be established, either regional board may submit the disagreement to the state board which shall determine the applicable requirements.

(Note. Based on repealed sections 13025 and 13025.5. The state board has a discretion whether to review any action or failure to act by a regional board. The state board will have to provide, by regulations, criteria to guide further proceedings before a regional board in a matter on review before the state board.)

13321. (a) In the case of a review by the state board under section 13320, the state board, upon notice and

a hearing, may stay in whole or in part the effect of the decision and order of a regional board or of the state board.

(b) If a petition is filed with the superior court to review a decision of the state board, any stay in effect at the time of the filing of the petition shall remain in effect by operation of law for a period of twenty days from the date of the filing of such petition.

Article 3. Judicial Review and
Enforcement

13330. (a) Within thirty days after service of a copy of a decision and order issued by the state board under section 13320, any aggrieved party may file with the superior court a petition for a writ of mandate for review thereof. Failure to file such an action shall not preclude a party from challenging the reasonableness and validity of a decision or order of a regional board or the state board in any judicial proceedings brought to enforce such decision or order or for other civil remedies.

(b) The evidence before the court shall consist of the record before the state board, including the regional board's record, and any other relevant evidence which, in the judgment of the court, should be considered to effectuate and implement the policies of this division. In every such case, the court shall exercise its independent judgment on the evidence.

(c) Except as otherwise provided herein, the provisions of subdivisions (e) and (f) of section 1094.5 of the Code of Civil Procedure shall govern proceedings hereunder.

13331. (a) Upon the failure of any person or persons to comply with any cease and desist order issued by a regional board or the state board, the Attorney General, upon request of the board, shall petition the superior court for the issuance of a preliminary or permanent injunction, or both, as may be appropriate, restraining such person or persons from continuing the discharge in violation of the cease and desist order.

(b) The evidence before the court shall consist of the record before the regional board or state board, or both, and any other relevant evidence which, in the judgment of the court, should be considered to effectuate and implement the policies of this division. In every such case, the court shall exercise its independent judgment on the evidence.

(c) The court shall issue an order directing defendants to appear before the court at a time and place certain and show cause why the injunction should not be issued. The court may grant such prohibitory or mandatory relief as may be warranted.

(d) The court may stay the operation of the cease and desist order. Any such stay may be imposed or continued only if it is not against the public interest.

Article 4. Summary Judicial Abatement

13340. Whenever a regional board finds that a discharge of waste within its region is taking place or threatening to take place which does or will cause a condition of pollution or nuisance, constituting an emergency requiring immediate action to protect the public health, welfare, or

safety, the Attorney General, upon request of the board, shall petition the superior court to enjoin such discharge. The court shall have jurisdiction to grant such prohibitory or mandatory injunctive relief as may be warranted by way of temporary restraining order, preliminary injunction, and permanent injunction.

Article 5. Civil Monetary Remedies

13350. (a) Any person who intentionally or negligently violates any cease and desist order hereafter issued, reissued, or amended by a regional board or the state board may be liable civilly in a sum of not to exceed six thousand dollars (\$6,000) for each day in which any violation occurs.

(b) The Attorney General, upon request of the regional or state board, shall petition the superior court to impose, assess and recover such sums.

(Note. The concept of civil monetary remedies (or civil penalties) is not new in the California law. Section 151 of the Harbors and Navigation Code authorizes recovery of a civil penalty of \$6,000 for any intentional or negligent spilling of oil into state waters. See also section 17536 of the Business and Professions Code (\$2,500 civil penalty for each violation of prohibition against false advertising.)

A recent review of the laws of other states shows that a substantial number include civil penalties or fines, many times along with possible imprisonment. The Wisconsin statute provides for a \$5,000 fine for each day of violation.)

Article 6. General Provisions Relating To Enforcement and Review

13360. No waste discharge requirement or other order of a regional or state board or decree of court issued under the provisions of this division shall specify

the design, location, type of construction or particular manner in which compliance may be had with such requirement, order or decree, and the person so ordered shall be permitted to comply therewith in any lawful manner; provided, however, that if the court, in an action for an injunction brought pursuant to section 13331, finds that the enforcement of an injunction restraining the discharger from discharging waste would be impracticable, the court shall have the power to issue any order reasonable under the circumstances requiring specific measures to be undertaken by the discharger to comply with the discharge requirements, order or decree.

13361. (a) Every civil action brought under the provisions of this division at the request of a regional board or the state board shall be brought by the Attorney General in the name of the People of the State of California and any such actions relating to the same discharge may be joined or consolidated.

(b) Any civil action brought pursuant to this division shall be brought in a county in which the discharge is made, or proposed to be made.

(c) In any civil action brought pursuant to this division in which a temporary restraining order, preliminary injunction, or permanent injunction is sought, it shall not be necessary to allege or prove at any stage of the proceeding that irreparable damage will occur should the temporary restraining order, preliminary injunction, or permanent injunction not be issued, or that the remedy at law is inadequate, and the

temporary restraining order, preliminary injunction, or permanent injunction shall issue without such allegations and without such proof.

(Note. Subsection (c) merely confirms the rule of law that would be applicable even in its absence.)

Chapter 6. State Financial
Assistance

Article 1. State Water Quality
Control Fund

13400. As used in this chapter, unless otherwise
apparent from the context:

(a) "Fund" means the State Water Quality Control
Fund.

(b) "Public agency" means any city, county, dis-
trict, or other political subdivision of the state.

(c) "Facilities means either or both (1) facil-
ities for the collection, treatment, or export of sewage
when necessary to prevent water pollution or (2) facilities
to reclaim waste waters and to convey reclaimed water.

(Note. See definition of "reclaimed water"
in section 13050.)

13401. The State Water Quality Control Fund is
continued in existence. The following moneys in the fund
are appropriated, without regard to fiscal years, for
expenditure by the state board in making loans to public
agencies in accordance with the provisions of this chapter:

(a) The balance of the original moneys deposited
therein.

(b) Any money repaid thereto.

(c) Any remaining balance of the money in the
fund deposited therein after the specific appropriations
for loans to the South Tahoe Public Utility District, the

North Tahoe Public Utility District, the Tahoe City Public Utility District, the Truckee Sanitary District, and to any other governmental entity in the areas served by such districts have been made.

Article 2. Loans to Local Agencies

13410. Applications for construction loans under this chapter shall include:

- (a) A description of the proposed facilities.
- (b) A statement of facts showing the necessity for the proposed facilities and showing that funds of the public agency are not available for financing such facilities and that the sale of revenue or general obligation bonds through private financial institutions is impossible or would impose an unreasonable burden on the public agency.
- (c) A proposed plan for repaying the loan.
- (d) Other information as required by the state board.

13411. Upon a determination by the state board, after consultation with the State Board of Public Health, that (a) the facilities proposed by an applicant are necessary to the health or welfare of the inhabitants of the state, (b) that the proposed facilities meet the needs of the applicant, (c) that funds of the public agency are not available for financing such facilities and that the sale of revenue or general obligation bonds through private financial institutions is impossible or would impose an unreasonable burden on the public agency, (d) that the

proposed plan for repayment is feasible, (e) in the case of facilities proposed under section 13100(c) (1) that such facilities are necessary to prevent water pollution, and (f) in the case of facilities proposed under section 13100(c) (2) that such facilities will produce reclaimed water and that the public agency has adopted a feasible program for use thereof, the state board, subject to approval by the Director of Finance, may loan to the applicant such sum as it determines is not otherwise available to the public agency to construct the proposed facilities.

13412. No loan shall be made to a public agency unless it executes an agreement with the state board under which it agrees to repay the amount of the loan, with interest, within 25 years following, at the election of the state board and with the concurrence of the Director of Finance, a 10-year moratorium on principal and interest payments. Except as otherwise provided in this section, the interest shall be at a rate equal to the average, as determined by the state board, of the net interest costs to the state on the sales of general obligation bonds of the state that occurred during the calendar year immediately preceding the calendar year in which the interest falls due. The interest falling due after the moratorium shall be payable at the last rate applied during the moratorium. However, when the applicable average of the net interest costs to the state is not a multiple of one-tenth of 1 percent, the interest rate shall be at the multiple of one-tenth of 1 percent next above the applicable average of the net interest costs.

The interest rate applicable to any loan made pursuant to this chapter for which an application was filed prior to January 1, 1967, shall be at the rate of 2 percent.

13413. It is the policy of this state that, in making construction loans under this article, the state board should give special consideration to facilities proposed to be constructed by public agencies in areas in which further construction of buildings has been halted by order of the Department of Public Health or a local health department, or both, or notice has been given that such an order is being considered; provided, however, that each of the public agencies designated in this section shall otherwise comply with all of the other provisions of this chapter.

13414. All money received in repayment of loans under this chapter shall be paid to the State Treasurer and credited to the fund.

13415. (a) Loans may be made by the state board to public agencies to pay not more than one-half of the cost of studies and investigations made by such public agencies in connection with waste water reclamation.

(b) Not more than a total of two hundred thousand dollars (\$200,000) shall be loaned pursuant to this section in any fiscal year, and not more than fifty thousand dollars (\$50,000) shall be loaned to any public agency in any fiscal year pursuant to this section. In the event that less than two million dollars (\$2,000,000) is available in any fiscal year for loans under this article, then not

more than 10 percent of the available amount shall be available for loans for studies and investigations pursuant to this section.

(c) Applications for such loans shall be made in such form, and shall contain such information, as may be required by the state board.

(d) Such loans shall be repaid within a period not to exceed 10 years, with interest at a rate established in the manner provided in section 13112.

13416. Before a public agency may enter into a contract with the state board for a construction loan under this chapter, the public agency shall hold an election on the proposition of whether or not the public agency shall enter into the proposed contract and more than 50 percent of the votes cast at such election must be in favor of such proposition.

13417. The election shall be held in accordance with the following provisions:

(a) The procedure for holding an election on the incurring of bonded indebtedness by such public agency shall be utilized for an election of the proposed contract as nearly as the same may be applicable. Where the law applicable to such agency does not contain such bond election procedure, the procedure set forth in the Revenue Bond Law of 1941 (Chapter 6 (commencing with section 54300) Part 1, Division 2, Title 5 of the Government Code), as it may now or hereafter be amended, shall be utilized as nearly as the same may be applicable.

(b) No particular form of ballot is required.

(c) The notice of the election shall include a statement of the time and place of the election, the purpose of the election, the general purpose of the contract, and the maximum amount of money to be borrowed from the state under the contract.

(d) The ballots for the election shall contain a brief statement of the general purpose of the contract substantially as stated in the notice of the election, shall state the maximum amount of money to be borrowed from the state under the contract, and shall contain the words "Execution of contract--Yes" and "Execution of contract--No".

(e) The election shall be held in the entire public agency except where the public agency proposes to contract with the state board on behalf of a specified portion, or of specified portions, of the public agency, in which case the election shall be held in such portion or portions of the public agency only.

Article 3. State Water Pollution Cleanup

And Abatement Account

13440. There is in the State Water Quality Control Fund the State Water Pollution Cleanup and Abatement Account (hereinafter called the "account"), to be administered by the state board.

13441. There is to be paid into the account all moneys from the following sources:

(a) All moneys appropriated by the Legislature for the account.

(b) All moneys contributed to the account by any person and accepted by the state board.

(c) One-half of all moneys collected by way of criminal penalty and all moneys collected civilly under any proceeding brought pursuant to any provision of this division.

(d) All moneys collected by the state board for the account under section 13304.

(e) All moneys paid for the filing of a report of discharge under section 13260.

13442. Upon application by a public agency with authority to clean up a waste or abate the effects thereof, the state board may order moneys to be paid from the account to the agency to assist it in cleaning up the waste or abating its effects on waters of the state. The agency shall not become liable to the state board for repayment of such moneys, but this shall not be any defense to an action brought pursuant to subdivision (b) of section 13303 for the recovery of moneys paid hereunder.

Chapter 7. Water Reclamation

Article 1. Short Title

13500. This chapter shall be known as and may be cited as the Water Reclamation Law.

Article 2. Declaration of Policy

13510. It is hereby 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 and to assist in meeting the future water requirements of the state.

13511. The Legislature finds and declares that a substantial portion of the future water requirements of this state may be economically met by beneficial use of reclaimed water.

The Legislature further finds and declares that the utilization of reclaimed water by local communities for domestic, agricultural, industrial, recreational, and fish and wildlife purposes will contribute to the peace, health, safety and welfare of the people of the state. Use of reclaimed water constitutes the development of "new basic water supplies" as that term is used in Chapter 5 (commencing with section 12880) of Part 6 of Division 6.

13512. It is the intention of the Legislature that the state undertake all possible steps to encourage development of water reclamation facilities so that reclaimed water may be made available to help meet the growing water requirements of the state.

Article 3. State Assistance

13515. In order to implement the policy declarations of this chapter, the state board is authorized to provide loans for the development of water reclamation facilities, or for studies and investigations in connection with water reclamation, pursuant to the provisions of Chapter 6 (commencing with section 13400) of this division.

Article 4. Regulation of Reclamation*

13520. As used in this article "reclamation criteria" are the levels of constituents of reclaimed water, and means for assurance of reliability under the design concept which will result in reclaimed water safe from the standpoint of public health, for the uses to be made.

* Section 13050(n) provides: "'Reclaimed water' means water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur."

To assure the protection of public health when reclaimed water is used, section 13521 provides for the establishment of statewide reclamation criteria by the State Department of Public Health. It is then the duty of each regional board, when it finds that a specific situation requires such action, to establish water reclamation requirements pursuant to section 13523. Note that such water reclamation requirements shall include, or be in conformance with, the statewide reclamation criteria.

Establishment of and compliance with water reclamation requirements are of particular importance when a direct use (not an indirect, controlled use) is made of the reclaimed water. Note that section 13524 provides that waste discharge requirements (in addition to water reclamation requirements) may also be established if a discharge is involved.

13521. The State Department of Public Health shall establish statewide reclamation criteria for each varying type of use of reclaimed water where such use involves the protection of public health.

13522. Whenever the State Department of Public Health finds that a contamination exists as a result of use of reclaimed water, the department shall order the contamination abated in accordance with the procedure provided for in Chapter 6 (commencing with section 5400) of Part 3, Division 5 of the Health and Safety Code.

13523. Each regional board, after consulting with and receiving the recommendations of the State Department of Public Health, and if it determines such action to be necessary to protect the public health, safety, or welfare, shall establish water reclamation requirements for water which is used or will be used as reclaimed water. Such requirements shall include, or be in conformance with, the statewide reclamation criteria established pursuant to this article. The regional board may require the submission of a pre-construction report for the purpose of determining compliance with the reclamation criteria.

13524. Upon refusal or failure of any person or persons to comply with any water reclamation requirements established by a regional board pursuant to this article, the regional board establishing the requirements may certify the facts to the Attorney General who shall petition the superior court for the county in which the violation or threatened violation occurs for the issuance of a mandatory

injunction requiring such person or persons to comply with such water reclamation requirements, and proceedings thereon shall be conducted in the same manner as in any other action brought for an injunction pursuant to Chapter 3 (commencing with section 525), Title 7, Part 2 of the Code of Civil Procedure.

13525. No person shall use reclaimed water for any purpose for which reclamation criteria have been established until water reclamation requirements have been established therefor pursuant to this article. The Attorney General, at the request of a regional board shall petition the superior court of the county in which the violation occurs for an injunction pursuant to Chapter 3 (commencing with section 525) of Title 7 of Part 2 of the Code of Civil Procedure, to enjoin any act, actual or threatened, in violation of this section.

13526. Any person who, after such action has been called to his attention in writing by the regional board, uses reclaimed water for any purpose for which reclamation criteria have been established prior to the establishment of water reclamation requirements, is guilty of a misdemeanor.

13527. In administering any statewide program of financial assistance for water pollution or water quality control which may be delegated to it pursuant to Chapter 6 (commencing with section 13400) of this division, the state board shall give added consideration to water quality control facilities providing optimum water reclamation and use of reclaimed water.

Nothing in this chapter prevents the appropriate regional board from establishing waste discharge requirements if a discharge is involved.

13528. No provision of this chapter shall be construed as affecting the existing powers of the State Department of Public Health.

Article 5. Surveys and Investigations

13530. The department, either independently or in cooperation with any person or any county, state, federal, or other agency, or on request of the state board, to the extent funds are allocated therefor, shall conduct surveys and investigations relating to the reclamation of water from waste pursuant to section 230.

Article 6. Waste Well Regulation

13540. No person shall construct, maintain or use any waste well extending to or into a subterranean water-bearing stratum that is used or intended to be used as, or is suitable for, a source of water supply for domestic purposes. Notwithstanding the foregoing, when a regional board finds that water quality considerations do not preclude controlled recharge of such stratum by direct injection, and when the State Board of Public Health, following a public hearing, finds the proposed recharge will not impair the quality of water in the receiving aquifer as a source of water supply for domestic purposes, reclaimed water may be injected by a well into such stratum. The State Board of Public Health may make and enforce such regulations pertaining thereto as it deems proper. Nothing

in this section shall be construed to affect the authority of the state board or regional boards to prescribe and enforce requirements for such discharge.

13541. As used in this article, "waste well" includes both of the following:

(a) Any hole dug or drilled into the ground, and intended for use as a water supply, which has been abandoned and is being used for the disposal of waste.

(b) Any hole dug or drilled into the ground, used or intended to be used for the disposal of waste.

(Note. Health and Safety Code section 4458 is recommended to be repealed. In amended form it is proposed to be reenacted as this section.)

Chapter 8. Federal Assistance for
Treatment Facilities

13600. The state board shall administer any program of financial assistance for water quality control which may be delegated to it by law, and may accept funds from the United States or any person to that end.

13601. The state board, in cooperation with the regional boards, shall survey the statewide need for waste collection, treatment and disposal facilities which will be required during the five-year period, January 1, 1968, to December 31, 1972, inclusive, to adequately protect the waters of the state for beneficial use. The state board shall also, biennially, commencing in 1970, survey the need for facilities which will be required by public agencies for the ensuing five-year period. The state board may request a local public agency operating such facilities to transmit to its regional board a report on the following:

(1) A summary of the construction or improvement of its waste collection, treatment and disposal facilities and amounts expended therefor.

(2) An estimate of its needs for the five-year period, January 1, 1968, to December 31, 1972, inclusive, and for any ensuing five-year period.

The state board shall review the information contained in the reports made by the local public agencies. The state board shall submit to the Legislature findings and conclusions as to the anticipated local, state, and federal financing necessary to provide the needed facilities for such periods.

13602. The state board shall make no commitment or enter into any agreement pursuant to an exercise of authority under this chapter until it has determined that any money required to be furnished as the state's share of project cost is available for such purpose.

13603. The Governor may request the funds required to finance the state's share of project costs for each fiscal year through inclusion of the anticipated state's share in the annual Budget Bill. In no case, however, shall funds under this chapter be appropriated by the Legislature prior to 1968, nor until the findings of need have been reported and evaluated by the Legislature.

13604. The state board shall review and approve each waste collection, treatment, and disposal project for which an application for a grant under the act has been made. The state board shall, in reviewing each project, determine whether such project is in conformity with statewide policies for control of water pollution and water quality and in conformity with policies with respect to water pollution control and water quality control adopted by regional water quality control boards, and shall certify that such project is entitled to priority over other eligible projects on the basis of financial as well as water pollution control needs.

13605. For the purpose of reviewing applications for grants made pursuant to authority granted in section 13600, the state board shall give added consideration to applicants having facilities providing optimum water reclamation and use of reclaimed water.

13606. If an application states that the applicant is not able to finance the project, the state board shall consider whether the applicant should be required to levy a sewerage service charge. If the state board determines a sewerage service charge is necessary to pay such costs, the state board shall not approve the grant application unless, as a condition to such approval, the applicant agrees to levy a reasonable and equitable sewerage service charge in connection with the proposed project.

Any such applicant, not otherwise authorized, is authorized by this section to levy a sewerage service charge pursuant to such an agreement, and shall levy such charge in the manner provided in the agreement.

13607. All money appropriated by the Legislature for the state's share of the project costs shall be appropriated without regard to fiscal years, or shall augment an appropriation without regard to fiscal years.

13608. After January 1, 1971, no application for a grant under the Federal Water Pollution Control Act, or amendment thereof, or pursuant to Chapter 5 (commencing with section 13400) of this division, shall be accepted by the state board unless such application contains assurances that at least one person responsible for plant operations meets or will meet operator training qualifications, adopted pursuant to Chapter 9 (commencing with section 13625) of this division for the proposed plant, as well as the plant in current operation.

Chapter 9. Waste Treatment Plant Operator

Qualifications

13625. The State Water Resources Control Board is the state agency which is authorized to represent the state and its local governmental agencies in administering any federal or state funds available for waste treatment plant operator training.

13626. The state board shall classify types of sewage treatment plants for the purpose of determining the levels of competence necessary to operate them. The state board shall adopt and promulgate regulations setting forth the types of plants and the factors on which the state board based its classification.

13627. The state board shall develop and specify in its regulations the training necessary to qualify an operator for each level of competence for each type of plant. Prior to establishment of such training qualifications the state board shall consult with the Governor's Advisory Council on Public Service Training. The state board may accept experience in lieu of qualification training.

13628. The state board may approve courses of instruction at higher educational institutions which will qualify operators for each level of competence. The state board shall also approve courses of instruction given by professional associations, or other nonprofit private or public agencies which shall be deemed equivalent to courses of instruction given by higher educational institutions.

13629. The state board may provide technical and financial assistance to organizations providing operator training programs.

13630. Prior to approving any courses for operator training, the state board shall appoint an advisory committee to assist it in carrying out its responsibilities under this chapter.

Chapter 10. Water Wells and Cathodic
Protection Wells

Article 1. Declaration of Policy

13700. The Legislature finds that the greater portion of the water used in this state is obtained from underground sources and that such waters are subject to impairment in quality and purity, causing detriment to the health, safety and welfare of the people of the state. The Legislature therefore declares that the people of the state have a primary interest in the location, construction, maintenance, abandonment and destruction of water wells and cathodic protection wells, which activities directly affect the quality and purity of underground waters.

Article 2. Definitions

13711. "Cathodic protection well," as used in this chapter, means any artificial excavation in excess of 50 feet constructed by any method for the purpose of installing equipment or facilities for the protection electrically of metallic equipment in contact with the ground, commonly referred to as cathodic protection.

Article 3. Reports

13750. Every person who hereafter intends to dig, bore, or drill a water well or cathodic protection well, or who intends to deepen or re-perforate any such well, or to abandon or destroy any such well, shall file with the department a notice of intent to engage in such construction, alteration, destruction, or abandonment prior to commencing

such construction, alteration, destruction, or abandonment; provided, that when such construction, alteration, destruction or abandonment must be accomplished immediately in order to prevent damage to persons or property due to the loss of an existing water supply, such notice shall be filed with the department as soon as possible thereafter, but in any event not more than five days after commencement of such construction, alteration, destruction, or abandonment or repair.

The report shall be made on forms furnished by the department and shall contain such information as the department may require, including, but not limited to: (a) description of the well site sufficiently exact to permit location and identification of the well; (b) proposed date of construction of the well; (c) the use for which the well is intended; (d) the work to be done and a description of type of construction; and (e) in event of late filing, the reasons therefor.

13751. Every person who hereafter digs, bores or drills a water well or cathodic protection well, or abandons or destroys any such well, or who deepens or re-perforates any such well, shall file with the department a report of completion of such well within 30 days after its construction or alteration has been completed.

The report shall be made on forms furnished by the department and shall contain such information as the department may require, including, but not limited to:

(a) description of the well site sufficiently exact to permit location and identification of the well; (b) detailed log of the well; (c) description of type of construction; (d) details of perforation; and (e) methods used for sealing off surface or contaminated waters.

13752. Reports made pursuant to section 13751 shall not be made available for inspection by the public but shall be made available to governmental agencies for use in making studies; provided, that any report shall be made available to any person who obtains a written authorization from the owner of the well.

13753. Every person who hereafter converts for use as a water well or cathodic protection well, any oil or gas well originally constructed under the jurisdiction of the Department of Conservation pursuant to the provisions of Article 4 (commencing with section 3200), Chapter 1, Division 3 of the Public Resources Code, shall comply with all provisions of this chapter.

13754. Failure to comply with any provision of this article, or willful and deliberate falsification of any report required by this article, is a misdemeanor.

Before commencing prosecution against any person, other than for willful and deliberate falsification of any report required by this article, the person shall be given reasonable opportunity to comply with the provisions of this article.

13755. Nothing in this chapter shall affect the powers and duties of the State Department of Public Health with respect to water and water systems pursuant to Chapter 7 (commencing with section 4010) of Division 5 of the Health and Safety Code. Every person shall comply with this chapter and any regulation adopted pursuant thereto, in addition to standards adopted by any city or county.

Article 4. Quality Control

13800. The department, after such studies and investigations pursuant to section 231 as it finds necessary, on determining that water well and cathodic protection well construction, maintenance, abandonment, and destruction standards are needed in an area to protect the quality of water used or which may be used for any beneficial use, shall so report to the appropriate regional water quality control board and to the State Department of Public Health. The report shall contain such recommended standards for water well and cathodic protection well construction, maintenance, abandonment, and destruction as, in the department's opinion, are necessary to protect the quality of any affected water.

13801. The regional board upon receipt of a report from the department shall hold a public hearing on the need to establish such well standards for the area involved. The regional board may hold such a public hearing with respect to any area regardless of whether a report has been received from the department if it has information that such standards may be needed.

makes such a determination it shall so report to the affected county or city and also recommend the well standards, or the modification of the county or city well standards, which it determines are necessary.

13805. If a county or city fails to adopt an ordinance establishing water well and cathodic protection well construction, maintenance, abandonment, and destruction standards within 180 days of receipt of the regional board's report of its determination that such standards are necessary pursuant to section 13802, or fails to adopt or modify such well standards in the manner determined as necessary by the regional board pursuant to section 13804 within 90 days of receipt of the regional board's report, the regional board may adopt standards for water well and cathodic protection well construction, maintenance, abandonment, and destruction for the area. Such regional board well standards shall take effect 30 days from the date of their adoption by the regional board and shall be enforced by the city or county and have the same force and effect as if adopted as a county or city ordinance.

13806. Any action, report, or determination taken or adopted by a regional board or any failure of a regional board to act pursuant to this article, or any county or city ordinance in the event of the failure of a regional board to review such ordinance pursuant to section 13804, may be reviewed by the state board on its own motion, and shall be reviewed by the state board on the request of

any affected person, county, or city, in the same manner as other action or inaction of the regional board is reviewed pursuant to section 13320. The state board has the same powers as to the review of action or inaction of a regional board or of a county or city ordinance under this article as it has as to other action or inaction of a regional board under section 13320, including being vested with all the powers granted a regional board under this article, with like force and effect if it finds that appropriate action has not been taken by a regional board. Any action of a regional board under this article or any county or city ordinance affected by the review of the state board shall have no force or effect during the period of the review by the state board.

Chapter 11. Discharges from Houseboats
on or in the Waters of the
State

13900. The Legislature finds and hereby declares that discharges from houseboats in or on the waters of the state constitute a significant source of waste as defined in section 13050; that discharges of waste from houseboats in or on the waters of the state may impair the beneficial uses of the waters of the state to the detriment of the health, safety, and welfare of the people of the state; and that the discharges of waste from houseboats are not adequately regulated. The Legislature therefore declares that the people of the state have a primary interest in the coordination and implementation of the regulation of discharges of waste from houseboats on or in the waters of the state.

13901. As used in this article, "houseboat" means a watercraft or industrial or commercial structure on or in the waters of the state, floating or nonfloating, which is designed or fitted out as a place of habitation and is not principally used for transportation. "Houseboat" includes platforms, and waterborne hotels and restaurants.

"City or county" means any city, county, city and county, or port authority.

13902. Each regional board shall investigate its region to determine areas in which discharges of waste from houseboats are inadequately regulated by local ordinance.

13903. Each regional board shall notify each affected city or county, the State Department of Public Health

and the State Department of Harbors and Watercraft of areas of inadequate regulation by ordinance of discharges of waste from houseboats and shall recommend provisions necessary to control the discharges of waste from houseboats into the waters.

13904. Each such affected city or county shall within 120 days of receipt of the notice from the regional board, adopt an ordinance for control of discharges of waste from houseboats within the area for which notice was given by the board. A copy of such ordinance shall be sent to the regional board on its adoption and the regional board shall transmit such ordinance to the state board, the State Department of Public Health and the State Department of Harbors and Watercraft.

13905. Such city or county ordinance shall take effect 60 days from the date of adoption by the city or county, unless the regional board holds a public hearing on the matter and determines that the city or county ordinance is not sufficiently restrictive to protect the quality of the waters affected. If the board makes such a determination, it shall so report to the affected city or county and also recommend the ordinance, or modification of the city or county ordinance, which it determines is necessary.

13906. If a city or county fails to adopt an ordinance controlling discharges of waste from houseboats within 120 days of receipt of the regional board's notice pursuant to section 13903, or fails to adopt or modify such ordinance in the manner determined as necessary by the

regional board pursuant to section 13905, within 90 days of receipt of the regional board's notice, the regional board may adopt regulations necessary for the control of discharges of waste from houseboats for the area designated. Such regional board standards shall take effect 30 days from the date of their adoption and shall be enforced by the city or county and have the same force and effect as if adopted as a city or county ordinance.

13907. Any action, report, determination, or regulation taken or adopted by a regional board, or any failure of a regional board to act may be reviewed by the state board, and shall be reviewed by the state board on the request of any city or county. The state board has all powers as to the review of action or inaction of a regional board under this article as it has to other action or inaction of a regional board, including all powers granted to a regional board to initially determine areas in which discharges of waste from houseboats are inadequately regulated by local ordinance and to adopt standards when a city or county fails to do so, if the state board finds that appropriate action has not been taken by a regional board. Any action of a regional board under this chapter or any city or county ordinance affected by the review of the state board shall have no force or effect during the period of the review by the state board.

13908. No provision in this chapter and no action thereunder by a regional board or the state board is a limitation on the power of a city or county to adopt and enforce additional ordinances or regulations not in conflict therewith

imposing further conditions, restrictions, or limitations
with respect to the discharges of waste from houseboats.

Section 19. Section 11010 of the Business and Professions Code is amended to read:

11010. Prior to the time when subdivided lands are to be offered for sale or lease, the owner, his agent or subdivider shall notify the commissioner in writing of his intention to sell or lease such offering.

The notice of intention shall contain the following information:

- (a) The name and address of the owner.
- (b) The name and address of the subdivider.
- (c) The legal description and area of lands.
- (d) A true statement of the condition of the title to the land, particularly including all encumbrances thereon.
- (e) A true statement of the terms and conditions on which it is intended to dispose of the land, together with copies of any contracts intended to be used.
- (f) A true statement of the provisions, if any, that have been made for public utilities in the proposed subdivision, including water, electricity, gas and, telephone, and sewerage facilities.
- (g) A true statement of the use or uses for which the proposed subdivision will be offered.
- (h) A true statement of the provisions, if any, limiting the use or occupancy of the parcels in the subdivision.
- (i) A true statement of the maximum depth of fill used, or proposed to be used on each lot, and a true statement on the soil conditions in the subdivision supported by engineering reports showing the soil has been, or will be,

prepared in accordance with the recommendations of a registered civil engineer.

(j) A true statement of the amount of indebtedness which is a lien upon the subdivision or any part thereof, and which was incurred to pay for the construction of any onsite or offsite improvement, or any community or recreational facility.

(k) A true statement or reasonable estimate, if applicable, of the amount of any indebtedness which has been or is proposed to be incurred by an existing or proposed special district, entity, taxing area or assessment district, within the boundaries of which, the subdivision, or any part thereof, is located, and which is to pay for the construction or installation of any improvement or to furnish community or recreational facilities to such subdivision, and which amounts are to be obtained by ad valorem tax or assessment, or by a special assessment or tax upon the subdivision, or any part thereof.

(l) Such other information as the owner, his agent, or subdivider, may desire to present.

Section 20. Section 11551.6 is added to the Business and Professions Code, to read:

11551.6. The governing body of any city or county shall determine whether the discharge of waste from the proposed subdivision into an existing community sewer system would result in violation of existing requirements prescribed by a California water quality control board pursuant to Division 7 (commencing with section 13000) of the Water Code.

In the event that the governing body finds that the proposed waste discharge would result in or add to violation of requirements of the regional board, it may disapprove the tentative map or maps of the subdivision.

Section 21. Section 11558 of the Government Code is amended to read:

11558. An annual salary of twenty thousand five hundred dollars (\$20,500) shall be paid to each of the following:

- (a) Each member of the Adult Authority.
- (b) Each member of the Board of Equalization.
- (e) Each member of the State Water Resources Control Board.
- (d) (c) Each member of the Unemployment Insurance Appeals Board.
- (e) (d) Each member of the Youth Authority.
- (f) (e) Deputy Director of Employment.

Section 22. Section 11558.1 is added to the Government Code, to read:

11558.1. An annual salary of twenty-five thousand dollars (\$25,000) shall be paid to each of the following:

- (a) Each member of the State Water Resources Control Board.

Section 23. Section 11563 of the Government Code is amended to read:

11563. In addition to the salaries provided for them elsewhere in this article, an annual amount of five

hundred dollars (\$500) shall be paid to each of the following:

- (a) President of the Public Utilities Commission.
- (b) Chairman of the Adult Authority.
- (c) Chairman of the Alcoholic Beverage Control

Appeals Board.

- (d) Chairman of the Board of Barber Examiners.
- (e) Chairman of the Board of Equalization.
- (f) Chairman of the Unemployment Insurance

Appeals Board.

- (g) Chairman of the Water Rights Board.

Section 24. Section 11563.1 is added to the Government Code, to read:

11563.1. In addition to the salaries provided for in section 11558.1, an additional amount of 5 percent shall be paid to each of the following:

- (a) Chairman of the State Water Resources Control Board.

Section 25. Section 12805 of the Government Code is amended to read:

12805. The Resources Agency consists of the State Air Resources Board, the Colorado River Board, the Office of Nuclear Energy, the State Water Rights Board, the State Water Quality Resources Control Board, and each California water pollution quality control board, and the following departments: Conservation; Fish and Game; Harbors and Water craft; Parks and Recreation; and Water Resources.

Section 26. Section 151 of the Harbors and Navigation Code is amended to read:

151. Except where permitted pursuant to the provisions of Chapter 4 (commencing with section 13040) of Division 7 of the Water Code, any person that intentionally or negligently causes or permits any oil to be deposited in the water of this state, including but not limited to navigable waters, shall be liable civilly in an amount not exceeding six thousand dollars (\$6,000) and, in addition, shall be liable to any governmental agency charged with the responsibility for cleaning up or abating any such oil for all actual damages, in addition to the reasonable costs actually incurred in abating or cleaning up the oil deposit in such waters. Any person for whom waste discharge requirements have not been established pursuant to Division 7 (commencing with section 13000) of the Water Code, who intentionally or negligently causes or permits any oil to be deposited in the water of this state, including but not limited to navigable waters, resulting in a condition of pollution or nuisance as defined in section 13050 of the Water Code, shall be liable civilly in an amount not exceeding six thousand dollars (\$6,000). The amount of the civil penalty recovery which is assessed pursuant to this section shall be based upon the amount of discharge and the likelihood of permanent injury and shall be recoverable in a civil action by, and paid to, such a governmental agency charged with the responsibility for cleaning up or abating

any such oil. If more than one such agency has responsibility for the waters in question, the agency which conducts the any cleaning or abating activities shall be the agency authorized to proceed under this section, but if more than one agency is involved, the court shall allocate among them the amount of the recovery hereunder.

Section 27. Section 152 of the Harbors and Navigation Code is repealed.

152. The agency cleaning up the oil deposit shall notify, in writing, the appropriate regional water quality control board of the nature of the deposit and of the corrective action taken or contemplated.

Section 28. Section 4458 of the Health and Safety Code is repealed.

4458. No person shall construct, maintain or use any sewer well extending to or into a subterranean water-bearing stratum that is used or intended to be used as, or is suitable for, a source of water supply for domestic purposes, except that where a regional water pollution control board finds that water quality considerations do not preclude controlled recharge of such stratum by direct injection, water reclaimed from sewage may be injected by a well into such stratum after a public hearing and a finding by the State Board of Public Health that the proposed recharge will not impair the quality of water in the receiving aquifer as a source of water supply for domestic purposes. Said board may make and enforce such regulations pertaining

thereto as it deems proper. Nothing in this section shall be construed to affect the authority of the State Water Pollution Control Board or regional water pollution control boards to prescribe and enforce requirements for such discharge.

"Sewer well" as used in this section includes all of the following:

(a) Any hole dug or drilled into the ground, and intended for use as a water supply, which has been abandoned and is being used for the disposal of sewage.

(b) Any hole dug or drilled into the ground, used or intended to be used for the disposal of sewage.

Section 29. Section 5410 of the Health and Safety Code is amended to read:

5410. As used in this chapter:

(a) "Sewage" means any and all waste substance, liquid or solid, associated with human habitation, or which contains or may be contaminated with human or animal excreta or excrement, effal, or any feculent matter. "Waste includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation of whatever nature.

(b) "Other waste" means any and all liquid or solid waste substance, not sewage, from any producing, manufacturing or processing operation of whatever nature.

(e) (b) "Person" as used in this article also includes any city, county and any district, the state or any department or agency thereof.

(d) (c) "Waters of the state" means any waters water, surface or underground, including saline waters, within the boundaries of the state as defined and described in section 1 of Article XXI of the Constitution and as given greater precision in sections 170, 171, and 172 of the Government Code.

(e) (d) "Contamination" means an impairment of the quality of the waters of the state by sewage or other waste to a degree which creates an actual a hazard to the public health through poisoning or through the spread of disease. "Contamination" shall include any equivalent effect resulting from the disposal of sewage or other waste, whether or not waters of the state are affected.

(f) (e) "Pollution" means an impairment alteration of the quality of the waters of the state by sewage or other waste to a degree which does not create an actual hazard to the public health but which does adversely and unreasonably affect affects (1) such waters for domestic, industrial, agricultural, navigational, recreational or other beneficial use uses, or (2) facilities which serve such beneficial uses. "Pollution" may include "contamination".

(g) (f) "Nuisance" means damage to any community by odors or unsightliness resulting from unreasonable practices in the disposal of sewage or other wastes anything which (1)

is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property, and (2) affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal, and (3) occurs during, or as a result of, the treatment or disposal of wastes.

~~(h)~~ (g) "Regional board" means any regional California water quality control board created pursuant to section ~~13041~~ 13201 of the Water Code.

Section 30. Notwithstanding the provisions of this act, all members of a regional water quality control board on the effective date of this act shall continue to serve as members of such board pursuant to section 13201 of the Water Code for the remainder of the term for which they were appointed. The Governor shall appoint two additional members to each regional board who shall meet the qualifications of category (7) of subdivision (a) of section 13201 of the Water Code. The term of one member so appointed to the board, who shall be designated by the Governor, shall expire on September 30, 1972, and the term of the other such member shall expire on September 30, 1973, and thereafter such members shall be appointed for a term of four years.

Section 31. To the extent that the disciplines specified in subdivisions (a) through (i), inclusive, of section 13120 of the Water Code closely relate to fields represented by the membership of the Water Quality Advisory Committee at the time of the effective date of this act, appointments to the committee, as they occur, shall be made in accordance with the discipline which relates to the field represented by the member whose term has expired.

Section 32. Notwithstanding the provisions of subdivision (c) of section 13220, any person incumbent in the position of executive officer of a regional water quality control board on the effective date of the amendment of subdivision (c) of section 13050 of the Water Code at the 1963 Regular Session of the Legislature, shall continue to serve at the pleasure of his appointing board.

Section 33. The Legislature hereby finds and declares that over the years chronic and continuing conditions of pollution and nuisance have resulted from the physical and geographic locations of property once used as industrial or business sites but not in operation. The Legislature further finds and declares that such conditions cannot be effectively dealt with pursuant to other regulatory authority exercised by a regional water quality control board, since continuing discharges are not usually involved and the industry or businesses are not in operation and since the owners of such property are frequently absent from the board's jurisdiction and cannot readily be

required to abate the condition. The Legislature, therefore, further finds and declares that it is imperative, in order to remedy conditions of pollution and nuisance emanating from nonoperating industrial or business locations, such as mines, that regional water quality control boards be authorized to regulate such conditions in the manner provided in section 13305 of the Water Code.

Section 34. This act shall become operative on January 1, 1970.

Section 35. There is hereby appropriated from the General Fund the sum of _____ dollars (\$ _____) to the State Water Resources Control Board for the purposes of this act.

Section 36. This act is intended to implement the legislative recommendations of the final report of the State Water Resources Control Board submitted to the 1969 Regular Session of the Legislature entitled "Recommended Changes in Water Quality Control," prepared by the Study Project-Water Quality Control Program.

Section 37. This act shall be known as the "California Water Quality Improvement Act of 1969."

A P P E N D I X B

FINES AND PENALTIES
FOR WATER POLLUTION IN VARIOUS STATES

FINES AND PENALTIES FOR WATER POLLUTION IN VARIOUS STATES

(Note that in many states each day of violation constitutes a separate offense)

State	Statute Cited	Maximum Fine	Maximum Im-prisonment	Added Penalties
Alabama	Ala. Code Tit. 22, Sec. 140-(p) & (q) (Recomp. 1967)	\$10,000	--	a
Alaska	Stat. Sec. 46.05.210 (1962)	500	30 days	b
Florida	Fla. Stat. Ann. Sec. 403.161 (Supp. 1969)	1,000	1 year	b, c
Idaho	Idaho Code Sec. 39-118 C. (Supp. 1967)	1,000	1 year	a, b, c, d
Kentucky	Ky. Rev. Stat. 220.990 (1962)	1,000	1 year	b, c
Maine	38 MRSA Sec. 571 (1964)	5,000	any term of years	--
Massachusetts	Mass. Ann. Laws Ch. 111, Sec. 162 (1967)	500	1 year	b
Michigan	Mich. Stat. Ann. Sec. 3.529(1) (Supp. 1968)	No maximum specified (Minimum 500)	--	a, c (\$500/day)
Mississippi	Sec. 7106-127(a) & (b) Miss. Code Ann. (1966 Cum. Supp.)	3,000	1 year	b, c, d
Montana	Sec. 69-4908 Rev. Codes of Mont. (1967 Cum. Supp.)	1,000	1 year	b

State	Statute Cited	Maximum Fine	Maximum Im-prisonment	Added Penalties
Nebraska	RRS 1943, (1967 Cum. Supp.) Sec. 71-3009 (1) & (2)	\$ 500	60 days	c (\$10/day), d
New Hampshire	RSA 148:3 (1964)	1,000	1 year	--
New York	N.Y. Public Health Law Sec. 1252 (1968 Cum. Supp.)	500	1 year	b, c
North Carolina	Gen. Stat. Sec. 143-215.6(b) (Supp. 1967)	1,000	--	c
Ohio	Rev. Code Ann. Sec. 6111.99 Anderson, 1954	500	1 year	b
Oklahoma	Okla. Stat. Ann. Tit. 82 Sec. 937(b) (Supp. 1968)	500	90 days	b, c
Pennsylvania	Pa. Stat. Ann. Tit. 35 Sec. 691.401 (1964)	500	60 days	c*
Rhode Island	R.I. General Laws Sec. 46-12-14 (1956)	500	30 days	b, c
Tennessee	Sec. 70-317 T.C.A. (1955)	500	--	--
Virginia	Va. Code Ann. Sec. 62.1- 194.1 (1968 Repl.)	500	1 year	a, b, c
West Virginia	W. Va. Code Ann. Sec. 20-5A-19 (1968 supp.)	f	f	f
Wisconsin	Sec. 144.57 W.S.A. (1968 Supp.)	5,000	--	c

State	Statute Cited	Maximum Fine	Maximum Im-prisonment	Added Penalties
Wyoming	Sec. 35-195 Wyoming Statutes Ann. (1959)	\$ 1,000	1 year	b

EXPLANATORY NOTES

- a - Civil action (in addition to set penalties) may be brought against polluter for any damages or injury resulting from his polluting.
- b - Both imprisonment and fine may be imposed.
- c - Every day that such conduct continues shall constitute a separate offense or violation.
- d - Polluter is also liable for any expenses incurred by the state board or commission responsible for enforcing the act, or in removing or terminating the cause of pollution.
- * - PENNSYLVANIA--statute cited states that: "Any person who shall continue to violate the provisions of this section, after conviction in a summary proceeding . . . , shall be guilty of a misdemeanor, and upon conviction shall be sentenced to pay a fine of not . . . more than \$10,000 and prison sentences not . . . more than one year. Each day during which this section is violated shall constitute a separate offense." (Emphasis added.)
- ^ - WEST VIRGINIA--statute cited provides for a graduated sentencing for violations in the following manner:
 - First offense - maximum fine - \$ 100
 - Second offense - maximum fine - \$ 500
 - Third offense - maximum fine - 1,000 or 6 months in jail, or both.
 Each day the violation is continued constitutes a separate offense.

A P P E N D I X C

INTERAGENCY PROGRAMMING COMMITTEE
FOR
WATER QUALITY CONTROL AND MANAGEMENT ACTIVITIES

and

A PROPOSAL FOR THE COORDINATED STORAGE AND RETRIEVAL
OF WATER QUALITY INFORMATION

INTERAGENCY PROGRAMMING COMMITTEE
FOR
WATER QUALITY CONTROL AND MANAGEMENT ACTIVITIES

A. MEMBERSHIP

The membership of this group shall be composed of individuals familiar with their departmental programs and policies and who have management decision responsibilities. Generally, representatives from the various departments will be at the Division or Bureau Chiefs' level. The following departments having major water quality (management and fiscal) responsibilities should be represented:

1. State Water Resources Control Board, Chairman
2. Resources Agency
3. Department of Agriculture
4. Department of Conservation
5. Department of Finance
6. Department of Fish and Game
7. Department of Public Health
8. Department of Water Resources
9. Colorado River Board

Staff support for the committee's functioning will be provided by the State Water Resources Control Board

B. OBJECTIVES

To assure that the total state program for the control and management of water quality is adequate to meet state and local needs and to assure maximum efficiency

in the conduct of individual state agency activities which form a part of the total state program.

C. ACTIVITIES

1. Identify specific activities (i.e., in the general areas of basic data, surveillance, investigations, monitoring, research, enforcement, pollution cleanup, etc.) required to carry out statutory responsibilities and statewide policy for water quality control, and recommend priorities for the activities identified.

2. Recommend the assignment of specific activities to the proper state agencies with the objective of achieving maximum efficiency and benefit to the state with due consideration for the statutory responsibilities of the affected agencies.

3. Develop procedures for continuing coordination and evaluation of departmental activities and programs to assure that the objectives are met and that duplication of effort is avoided.

D. RESOLUTION OF CONFLICTS

1. In the event that the Committee cannot agree to priorities of activities or to departmental assignments, after review by the respective directors, the Committee shall recommend referral of unresolved issues to the Secretary for Resources.

2. In the event that there is conflict between Agencies' viewpoints the Secretary will resolve any issues jointly with Secretaries of other affected Agencies.

A PROPOSAL FOR THE
COORDINATED STORAGE AND RETRIEVAL
OF
WATER QUALITY INFORMATION

The Subcommittee on Intergovernmental Relations decided at its meeting on December 17, 1968, to recommend to the Study Panel that all water quality information generated in the state should be handled in a coordinated manner through an Information Storage and Retrieval Center.

All water-related data (water quantity and quality, land and water use, etc.) should eventually be handled by such a Center. That data which can be computerized should be; that which cannot or should not be computerized should be stored in a catalogue or library and coded in such a manner that efficient retrieval is possible.

The attached diagram indicates handling of water quality data only. All other water-related data would be handled in a similar manner.

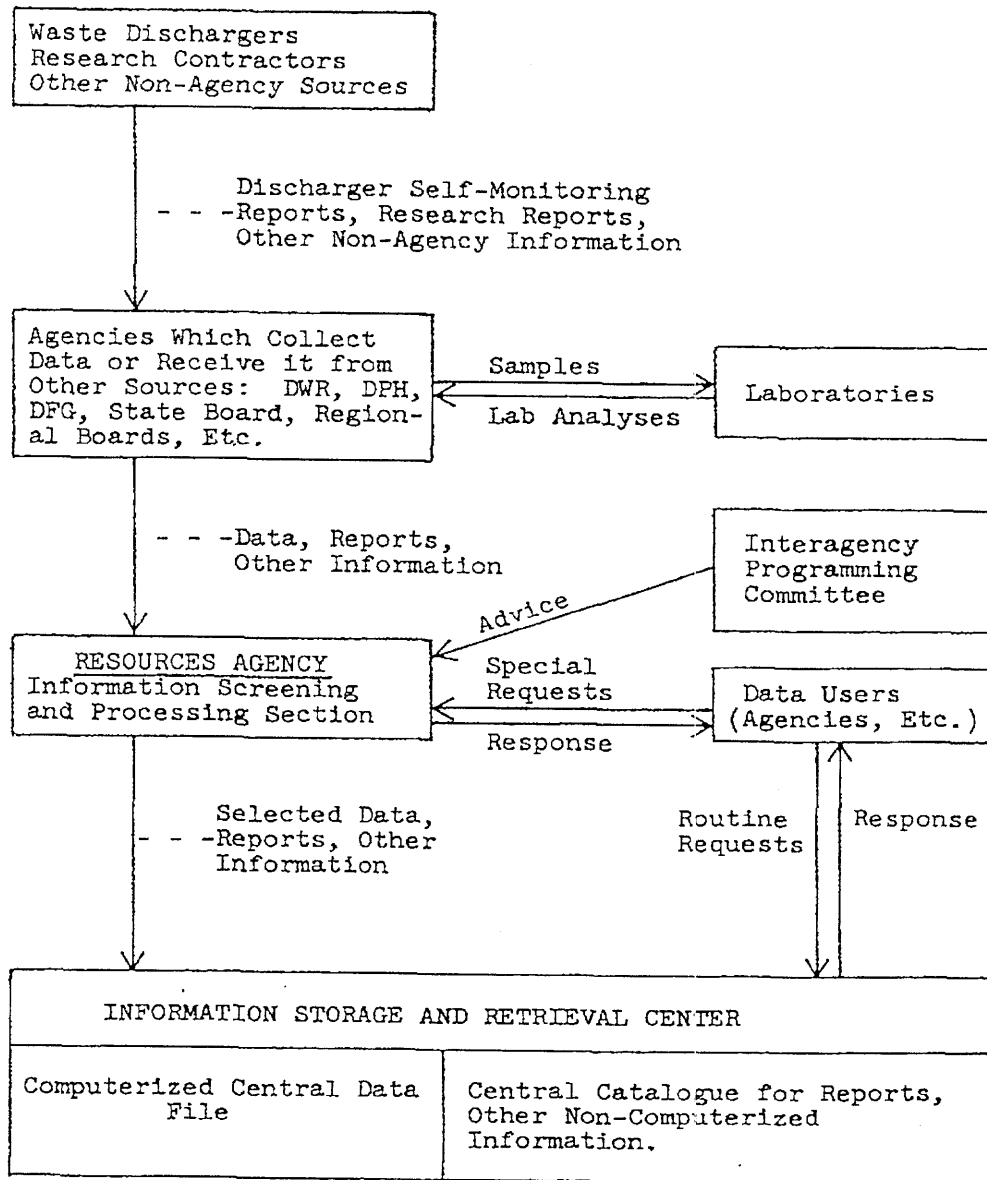
The purpose of the Information Screening and Processing Section is to assure uniformity of procedures and to provide screening of data for integrity and usability. The Section could be composed of representatives of several

of the agencies who use the center, and could include persons who are familiar with various data collection programs and with data handling and programming techniques. The Section is shown on the diagram as being located in the Resources Agency. It could be located in a member department or board of the Resources Agency for administrative purposes, provided a mechanism can be developed for assuring that the needs of other departments or boards are met.

It is estimated that the cost of operating the Section, exclusive of computer and programmer time, would be about \$100,000.00 per year. This amount would cover about five people. Funding would come from agencies participating in the use of the Center, or it could be budgeted separately. No data analysis, other than very routine programs, is envisioned for the Section; it is assumed that data users will pay-as-they-go.

The Interagency Programming Committee, also proposed by the Subcommittee on Intergovernmental Relations, would provide valuable advice to the Section on water quality data needs. This proposal does not conflict with the recommendation that the State Water Resources Control Board "prepare and implement a statewide water quality information storage and retrieval program". The state board would merely act as an intermediate data screening and processing body for the regional boards to assure uniformity in the data submitted by them to be put in the Center.

COORDINATED STORAGE AND RETRIEVAL
OF
WATER QUALITY INFORMATION*



* A part of a system for handling all water related data.

A P P E N D I X D

MANPOWER REQUIREMENTS

UNIT EFFORT REQUIREMENTS FOR STATE BOARD PROGRAM ACTIVITIES

Program Activities	Estimated* Unit Effort Requirement (Man Weeks)	Estimated* Annual Workload (Man Weeks)	Manpower Requirements (Man Weeks)	Professional Manpower Deficit
			Need	Have
			7	3
			4	4
ENVIRONMENTAL ANALYSES				
Review Environmental Needs	**	**	84	2
Plan Formulation & Review	1.6	50	80	1
Policy Formulation & Review	1.3	97	130	1
			294	7
			3	4
COORDINATION				
Surveillance	0.2	210 separate water areas	42	1
Waste Discharge Review Data System	1.0	21	21	.5
	**	**	42	1
			2.5	.5
			2	2
GRANT REVIEW				
Engineering Review Processing	0.4	200 applications	84	2
	0.2		42	1
	0.2		42	1
			2	1
			1	.5
			1	.5
OPERATOR TRAINING				
Development & Coordination Supervision & Administration	0.4	2,000 operators	39	1
	0.025		49	1
			2	-
			-	2

* Based on 42 man week year
 ** Cannot be numerically identified

D-1

Program Activities	Estimated* Unit Effort Requirement (Man Weeks)	Estimated Annual Workload	Manpower Requirements (Man Weeks)	Professional Manpower Deficit	
				Need	Have
RESEARCH	5.2	20 pro- jects	105	2.5	.5
Evaluation	1.1	-	21	.5	.1
Development	1.1	-	21	.5	.1
Coordination & Management	3.0	-	63	1.5	.3
INVESTIGATIONS	1.3	100	126	3	1
Need Analyses	0.3		22	.6	.2
Development	0.5		52	1.2	.4
Liaison & Coordination	0.5		52	1.2	.4
PROGRAM RECORDS CENTER	**			3	1
Answer Request for Information		3,600	42	1	.3
Research & Preparation of Material for Public Presentation	0.6	75	42	1	.3
State & Regional Board Publications	1.7	25	42	1	.4
REGIONAL BOARD & ADVISORY COMMITTEE SUPPORT				4	2
Review by State Board of Regional Board Actions Preparation - Agendas, Com- mittee Agendas & Techni- cal Support	1.26	100 items	126	3	1.5
	0.42	100 items	42	1	.5

Program Activity	Estimated* Unit Effort Requirement (Man Weeks)	Estimated Annual Workload	Manpower Requirements (Man Weeks)	Professional Manpower Deficit Need Have	Professional Manpower Deficit
CLERICAL SUPPORT	-	-	-	10	5
Support of Above 26 Professional Positions	-	-	-	10	5
TOTAL				36	14
					22

MANPOWER REQUIREMENTS FOR REGIONAL BOARDS

The nine regional boards presently have a deficit of 77 management, professional, and technical personnel; 3 administrative assistants; and 19 clerical personnel. The total deficit is 99 persons as compared to a present staff of 82.

The variance in the nature of work performed by the staff of different regional boards is such that uniform standards of staffing are impossible to prescribe. Water quality problems vary from region to region and so, therefore, must the water quality control program emphasis.

Some examples:

1. The San Francisco Bay Region is characterized by highly concentrated industrial and municipal developments which contribute liquid wastes to a common disposal area - the Bay. The overlapping effects of these discharges, and the complexity of the materials in the discharges, dictate frequent sampling and analysis of the entire Bay and all major discharges. Self-monitoring programs are numerous and complicated. Further, the quality of water in the Bay is affected by the amount and quality of inflow from the Central Valley Region, necessitating a direct interest in water project development inland.
2. The Santa Ana River Basin Regional Board is concerned primarily with groundwater problems - quantity problems as well as quality problems. Salt balances and sea water intrusion are important. Imported water

can help or hinder, depending on its quality and where it is used. The effects of individual discharges may not be felt for months or years after discharge occurs, so long-term monitoring is necessary.

In an effort to lend some degree of standardization to regional staffs, the types of program activities carried out in all regions were listed in seven basic categories, some with sub-categories. Each regional executive officer was then requested to indicate his "unit effort" requirement (e.g., 0.5 man-days per discharge inspection) and his estimated annual workload for the next five years (e.g., 1,000 inspections per year). Workload estimates were based on the assumption that existing "backlogs" of work would be caught up in two years and that all water quality control plans would be completed in five years.

The following tables contain the results of the executive officers' estimates:

Table 1: Unit Effort Requirements for Regional Board Program Activities

The requirements are all expressed in man-weeks per unit of work for uniformity. The original data were obtained in man-hours, man-days, man-weeks, and man-months, depending on the magnitude of time required. For instance, the time required to analyze a self-monitoring report was given in man-hours originally because less than a half-day is generally necessary.

Table 2: Estimated Annual Workload for Regional Board Program Activities

Data show the number of units of work in each category of activity. For instance, Region 5 estimates 4,500 discharge inspections per year.

Table 3: Manpower Requirements for Regional Board Program Activities

This table shows the number of people required by each region for each activity. The numbers represent the product of Table 1 and Table 2, divided by 43 man-weeks per year, which is estimated to be the amount of time available per employee per year for program work. Following is a breakdown of employee time:

Program activities	43 weeks/year
Keeping current on technology	2
Sick Leave	2
Annual Leave (vacation)	3
Holidays	<u>2</u>
Total	52 weeks/year

Table 1

UNIT REPORT REQUIREMENTS FOR REGIONAL BOARD PROGRAM ACTIVITIES

Program Activities	Regions									Median	Man Weeks Per:	
	1	2	3	4	5	6	7	8	9			
1. Development of Plans Policies	32	40	23	48	24	24	24	24	24	24	24	Plan Policy
	4	7.6	12	8	8	8	8	4.8	3	8		
2. Establishment and Review of:												
a. Discharge requirements	2	.68	2	.8	.5	.5	.6	.7	1.96	.7		Discharge
b. Self-monitoring programs	2	.78	.26	.2	.2	.2	.2	.2	.2	.2		Program
3. Surveillance:												
a. Discharge Inspections	.26	.3	.17	.06	.1	.1	.14	.1	.07	.5		Inspection
b. Receiving water surveys	4	7.2	2	1	4	4	2	.4	1	2		Survey
c. Self-monitoring reports	.125	.0125	.045	.0625	.025	.05	.05	.0175	.0075	.045		Report
4. Enforcement	3.5	0.9	0.7	1	2	2	2	2	3.2	2		Case
5. Review of Requests for Financial Assistance	1	.86	.46	.4	.4	.4	.4	.4	.1	.4		Request
6. Research & Special Investigations	48	54	48	64	48	8	8	18	13	48		Year
7. Miscellaneous												
a. Participation in regional or basin planning programs	4	15.6	1.52	2	8	24	8	8	6.4	8		Program
b. Water well stds.	-	8.8	5	22	12	12	8	12	8.4	8.8		Area
c. Wastewater reclam.	-	.56	.5	1.5	.5	.5	.4	.2	.76	.5		Discharge
d. Public information	10	8.8	14.8	32	16	4	4	4.8	14	10		Year
e. Treatment plant operator training	4	2.4	5	2	48	8	8	4.8	4	5		Year

Table 2

ESTIMATED ANNUAL WORKLOAD FOR REGIONAL BOARD PROGRAM ACTIVITIES

Program Activities	Regions									Total	
	1	2	3	4	5	6	7	8	9		
1. Development of Plans and Policies	2	5	3	3	8	2	2	3	2	40	Plans/yr.
	2	7	2	2	8	1	3	1	2	28	Policies/yr.
2. Establishment and Review of:											
a. Discharge requirements	10	450	35	250	250	20	57	75	27	1174	Discharges/yr.
b. Self-monitoring programs	2	395	35	200	150	40	200	30	50	1102	Programs/yr.
3. Surveillance:											
a. Discharge inspections	200	372	240	2200	4500	400	760	400	700	9772	Inspections/yr.
b. Receiving water surveys	6	12	12	25	50	6	10	20	45	186	Surveys/yr.
Analysis of Data From:											
c. Self-monitoring reports	120	4000	200	1000	1800	100	880	530	1200	9830	Reports/yr.
4. Enforcement	2	72	20	90	30	5	7	9	6	241	Cases/yr.
5. Review of Requests for Financial Assistance	8	50	15	12	60	10	10	20	20	205	Requests/yr.
6. Research and Special Investigations	48	54	48	64	48	8	8	18	13	309	Man-weeks/yr.
7. Miscellaneous											
a. Participation in regional or basin planning programs	2	4	6	12	6	2	2	1	4	39	Programs/yr.
b. Water well standards	0	5	1	1	2	1	1	0.5	2	13.5	Areas/yr.
c. Wastewater reclamation	0	4	10	6	90	4	17	10	40	181	Discharges/yr.
d. Public information	10	8.8	14.8	32	16	4	4	4.8	13.5	107.9	Man-weeks/yr.
e. Treatment plant operator training	4	2.4	5	2	48	8	8	4.8	4	86.2	Man-weeks/yr.

Table 3

MANPOWER REQUIREMENTS FOR REGIONAL BOARD PROGRAM ACTIVITIES

Program Activities	Regions									Total
	1	2	3	4	5	6	7	8	9	
1. Development of Plans And Policies	1.49	4.65	1.60	3.35	10.00	1.12	1.12	1.67	1.12	26.12
	.19	1.24	.56	.37	1.49	.19	.56	.11	.14	4.85
2. Establishment and Review of:										
a. Discharge requirements	.47	7.12	1.63	4.65	2.91	.23	.80	1.22	1.23	20.26
b. Self-monitoring programs	.09	7.17	.21	.93	.70	.19	.93	.14	.23	10.59
3. Surveillance:										
a. Discharge inspections	1.21	2.60	.95	3.07	10.47	.93	2.48	.93	1.14	23.78
b. Receiving water surveys	.56	2.01	.56	.58	4.65	.56	.47	.19	1.05	10.63
c. Self-monitoring reports	.35	1.16	.21	1.45	1.05	.12	1.02	.22	.21	5.79
4. Enforcement	.16	1.50	.33	2.10	1.40	.23	.33	.42	.45	6.92
5. Review of Requests for Financial Assistance	.19	1.00	.16	.11	.56	.09	.09	.19	.05	2.44
6. Research and Special Investigations	1.12	1.26	1.12	1.49	1.12	.19	.19	.42	.30	7.21
7. Miscellaneous										
a. Participation in regional or basin planning programs	.19	1.45	.21	.56	1.12	1.12	.37	.19	.60	5.81
b. Water well standards	0	1.02	.12	.51	.56	.28	.19	.14	.39	3.21
c. Wastewater reclamation	0	.05	.12	.21	1.05	.05	.16	.05	.71	2.40
d. Public information	.23	.20	.34	.74	.37	.09	.09	.11	.31	2.48
e. Treatment plant operator training	.09	.06	.12	.05	1.12	.19	.19	.11	.09	2.02
Totals	6.34	32.49	8.24	20.17	38.57	5.58	8.99	6.11	8.02	134.51

A P P E N D I X E

ACKNOWLEDGMENTS

ACKNOWLEDGMENTS

Grateful appreciation is expressed to the many statewide organizations and state, regional, or other agencies whose representatives were members of or participated on subcommittees, and to those representatives themselves and other individuals who participated in the many subcommittee or special panel meetings whose deliberations lead to the formulation of Study Panel recommendations:

SUBCOMMITTEE MEMBERS
AND/OR PARTICIPANTS

Statewide Organization	Representative
American Society of Civil Engineers (4 Calif. Chapters)	Linden R. Burzell, 3 * Randolph H. Dewante John Harnett D. G. Larkin, 1 Gordon Laverty George Strudgeon, 2
American Water Works Assn.	Roy E. Dodson, Jr., 3 Alfred W. Jorgensen, 1
California Association of Sanitarians	Bill Anderman, 2 Albert Marino, 2 Leland Quillici
California Farm Bureau Federation	Carl Hobe, 4 Ray Hunter, 1 J. Dudley Stephens Ronald Stephenson, 2
Calif. Forest Protective Assn.	John Callaghan, 1, 4
Calif. Manufacturers Assn.	Robert E. Burt, 1, 2, 3, 4

* Indicates Subcommittee Membership by number, as follows:

1. Definitions and Policy
2. Enforcement and Implementation
3. Intergovernmental Relations
4. Organization and Administration

E-1

Statewide Organization	Representative
Calif. Sanitary and Sanitation Districts Association	Don Allen, 3 R. A. Boege, 1 Dr. L. H. Cook, 2 Gary Horstkotte, 3 Gail H. Stanton H. R. Vaughn, 3
Calif. State Chamber of Commerce	Larry Kiml, 1 Donald H. McCrea, 3 William Pettite, 2 J. Ron Pratt, 2
Calif. Water Pollution Control Assn.	E. E. Ross, 2
Calif. Wildlife Federation	Paul McKeehan
Canners League of California	Fredrick H. Hawkins, 1, 2 W. K. Kitchin, 2 Lawrence Taber, 2
Consulting Engineers of California	John H. Jenks, 2 Homer W. Jorgensen, 1 M. J. Shelton, 4
Co. Supervisors Assn. of Calif.	Edward R. Hanna, 3
Irrigation Districts Assn.	Robert T. Durbrow, 2, 4 Kenneth A. Kuney, 2 Gary L. Queale, 3 Evan Tisdale, 2
Calif. Water Resources Assn.	Doyle F. Boen
League of California Cities	Don Benninghoven, 1 Harry Tow, 2
League of Women Voters of Calif.	Mrs. Beverly Lane, 1, 2, 4 Mrs. Mary Lehman, 2
Planning and Conservation League	Frank Stead, 1, 4 Samuel Wood, 1, 3
Sierra Club	Stephen C. Jett, 1 Prof. James N. Luthin, 1 Angus McDonell, 2

Statewide Organization	Representative
Soil Conservation Society, California Chapter	C. E. Busby, 1
Western Oil and Gas Co. Assn.	Charles Barker J. R. Hanson, 3 R. T. Mapston, 4 Harry W. Wright

State and Regional Agencies	Representative
Attorney General, Office of	Bertram G. Buzzini, 1, 2 David Stanton, 2, 3
California Water Commission	William M. Carah Herbert W. Greydanus G. J. Nowack, 3
Colorado River Board	Sanford Galat, 1, 3 V. E. Valentine
Department of Agriculture	Allen B. Lemmon, 1, 3
Department of Conservation	Whitford B. Carter, 3 Edward N. Gladish, 3 F. Kaseline, 2
Department of Finance	Bob Dean Ike Dow, 1
Department of Fish and Game	Ray Dunham, 1, 3 B. E. Faist, 2, 3 Jack C. Fraser, 1, 2, 3, 4 E. C. Fullerton, 2, 3 Charles Hazel Robert Jones Walter Putman
Department of Parks and Recreation	F. C. Buchter, 3 Robert V. Hiller, 2 James B. Hommon, 3 Clark Muldavin, 3
Department of Public Health	H. B. Foster, Jr., 1, 3 W. F. Jopling, 2, 4 Henry J. Ongerth, 1, 2, 3, 4 Paul Ward, 2, 3

State and Regional Agencies

Representative

Department of Water Resources

W. R. Gianelli
 Robert G. Eiland, 3
 John R. Teerink
 Paul Dauer, 1
 Carl Harper, 1, 2, 3,
 4
 W. E. Steiner
 John Weeks, 2, 3, 4
 James Welsh, 1, 2, 3,
 4

Regional Water Quality Control
 Boards, Executive Officers
 and Staff

R. A. Bueermann, 3
 Charles T. Carnahan,
 1, 2, 3
 Frederick H. Dierker,
 2
 Raymond M. Hertel
 Kenneth R. Jones, 4
 Dr. David C. Joseph,
 2, 3
 John T. Leggett
 Dennis A. O'Leary, 1
 Arthur Swajian
 J. E. Henley
 Roger James
 Larry Trumbull

State Water Resources Control
 Board and Staff

Kerry W. Mulligan
 W. A. Alexander
 George B. Maul
 E. F. Dibble
 Ralph J. McGill
 Paul R. Bonderson, 1,
 2, 3
 Gavin M. Craig, 2
 Kenneth L. Woodward
 William Attwater 2, 4
 George P. Gribkoff, 2,
 3

Water Quality Advisory Committee
 to State Board

Robert Martin
 Herbert G. Osborne, 2, 4
 Donald Inman
 Ernie Smith, 3

Assembly Committee on Water,
 Consultant to

Ronald B. Robie, 1, 2,
 3, 4

State and Regional Agencies

Representative

Legislative Analyst, Office of The Resources Agency	Donald Benedict, 3 Gene Varanini, 3 John Tooker, 3
--	--

PARTICIPATION AND/OR ATTENDANCE
AT MEETING OF SPECIAL INTEREST

Organization

Representative

California Marine Parks and Harbors Association	Doug Bombard Neil Cunningham Harrison O. Daigh Don H. Morgan Mrs. Walter M. Shaw
Department of Harbors and Watercraft	Dr. Edmund P. Halley
Federal Water Pollution Control Administration	Howard Harris Richard O'Connell
Metropolitan Water District	William H. Fairbank, Jr.
Orange County Harbor District	Kenneth Sampson
Pacific American Steam Ship Association	Philip Steinberg
Pacific Inter-Club Yacht Association	Douglas Boswell
Santa Ana Watershed Planning Agency	Richard Hall (Chino Basin Municipal Water District) Langdon W. Owen (Orange Co. Municipal Water District)
Sacramento Boating Industry Association	Lachlan M. Richards
State Lands Commission	R. S. Golden
University of California Berkeley	Dr. Erman Pearson
Water Resources Egnineering, Inc.	M. R. Lindorf G. T. Orlob

ADVISERS TO SPECIAL TASK FORCES

Organization	Representative
California Fertilizer Assn.	Sid Bierly
Central Coastal Regional Water Quality Control Board	Thomas E. Bailey
City of San Diego	Roger Chung
Department of Agriculture	Van P. Entwistle John Hillis
Department of Fish and Game	Captain Donald E. Glass Eldridge Hunt Robert G. Kaneen
Department of Harbors and Watercraft	George A. Askelund
FMC Corporation	Milton Spiegel
Federal Water Pollution Control Administration	Arthur M. Caldwell John C. Merrell, Jr. Harold L. Scotten
Los Angeles County Health Dept.	Leonard Mushin
Monogram Industries	Fred Stone
Naval Facilities Engineering Command	Villi Jepsen
Operations Department, 11th Naval District	Commander H. A. Hill
Orange County Harbor District	James E. Ballinger
San Diego County Department of Public Health	John T. Melbourn William B. Walshe
San Diego Unified Port District	Carl F. Reupsch
Westlands Water District	Ralph Brody

Particular appreciation is expressed to all the persons who served on or acted as adviser to one or more of the special task forces that assisted the four subcommittees in studying in depth particular problems of importance or difficulty. Likewise, special panelists at Study Panel meetings made contributions that promise to have lasting importance.

Our sincere thanks to you all, and to the many unnamed organizations and individuals who directly or indirectly made constructive contributions to the Study Project.

E-7

S B A R - 0 0 2 3 3 2