

A PROGRAM FOR MANAGING THE
OCEAN AND TIDAL AREAS

A Program for Managing the
Ocean and Tidal Areas

Prepared Pursuant to the Legislative Directive Contained in the
Supplementary Report of the Committee on Conference Relating to
the 1970 Budget Act.

Under the Direction of:

State Lands Commission

State Controller..... Houston I. Flournoy, Chairman
Lieutenant Governor..... Ed Reinecke, Member
Director of Finance..... Verne Orr, Member

December 1, 1970

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LEGISLATIVE DIRECTIVE

In the Supplementary Report to the 1970 Budget Act the Conference Committee requested under Item 205, State Lands Division:

"That the State Lands Commission submit a report to the Legislature by December 1, 1970, outlining a program, including objectives, methods, and possible costs for managing the ocean and tidal areas under the Commission's jurisdiction."

SUMMARY

1. The State Lands Commission has an established program for ocean and tidal land management as follows:
 - (a) Administration of a comprehensive land use plan encouraging compatible multiple-use development of all ocean, tidal, and submerged areas under the Commission's jurisdiction while conserving, preserving, and protecting irreplaceable resources; allowing maximum utilization by all user segments consistent with overall State ocean area programs: coordination with and guidance of local jurisdictions in planning littoral developments which either influence, or are influenced by submerged land users.
 - (b) Location of the precise boundaries of all ocean, tidal and submerged areas under the jurisdiction of the Commission, and the conduct of continual surveillance necessary for effective management of such lands.
 - (c) Maintenance of records showing the location of ocean, tidal and submerged land, master land use indices of said lands and environmental inventory of both submerged lands and littoral area of mutual influence.

This program has been effectuated through assignment of all personnel and facilities pursuant to a schedule of priorities considering the major economic, environmental and legal impacts.

2. The increased level of effectiveness in operation required by the economic, environmental and legal impacts and required assignment of additional responsibilities by 1970 Statutes could be provided through implementation of the following proposals:

- (a) Establish an Environmental Coordination Unit within the State Lands Division. The primary responsibility would be coordination of land planning activities involving lands under the jurisdiction of the State Lands Commission.
- (b) Establish an Area Projects Unit within the State Lands Division, with the primary responsibility for establishing tide and submerged lands boundaries within an entire geographic area.
- (c) Establish a lease monitoring program to insure full compliance with all terms and conditions by lessees of tide and submerged lands.

- (d) Establish a task force to study special procedures for amicably, expeditiously, and effectively establishing confirmed boundaries between the tide and submerged and adjoining lands.
 - (e) Initiate a program of research to ascertain the head of navigation on all rivers and sloughs.
 - (f) Initiate a program for establishing the boundaries of all interior waterways.
 - (g) Establish a Unit for engineering in the ocean environment.
3. The methodology for accomplishment of existent and proposed program objectives follows:
- (a) Compilation of a land-use inventory recording every current use of all tide and submerged lands, including those already granted by the Legislature.
 - (b) Compilation of an environmental inventory which recognizes scenic, historic, natural and aesthetic values of Statewide interest.
 - (c) Determination of ownerships on a geographic area basis for efficient establishment of tide and submerged land boundaries.

- (d) Maintenance of a vigorous trespass identification program which will result in the total elimination of every inappropriate encroachment upon the tide and submerged lands.
- (e) Establishment of a continual surveillance program for all State lands under the jurisdiction of the State Lands Commission.
- (f) Development of an active public information program relative to the authorities and role of the State Lands Commission.
- (g) Maintenance of current service levels as the office of record for State lands, the level of support required by the office of the Attorney General involving litigation of State lands, processing leases, agreements, and other activities and statutory duties.

4. Estimated costs for the first five fiscal years are summarized below:

<u>1st Year</u>	<u>2nd Year</u>	<u>3rd Year</u>	<u>4th Year</u>	<u>5th Year</u>
\$302,500	\$539,500	\$568,000	\$568,000	\$597,000

Needed improvement in the effectiveness of on-going program elements and initiation of any new program concepts can be

implemented with 21 additional positions. Beyond this, annual allotments for services to be contracted to the private sector have been estimated to be \$10,000 the first year and \$250,000 for the next four years and have been included in the above figures.

INTRODUCTION

The public has traditionally enjoyed the common law right to use tide and submerged land for commerce, navigation and fisheries. The most succinct statement of these rights is found in Section 3 of the Act admitting California into the Union where it is noted that ". . . all the navigable waters within said State shall be common highways, and forever free." This right has been asserted as consistently as that of private property and eminent domain. It is unconceivable that the public would ever tolerate peacefully an abridgement of these rights, nor would any one in public service advocate such a course. However, in this day and age, most Californians are aware that certain rules or policies must be put into effect by Government to preclude individuals from abusing and wasting irreplaceable resources such as the tide and submerged lands. Consequently, certain powers are conferred upon the State which enable elected officials to oversee the wide use of these lands and to develop and execute plans for their effective management. This report recommends a plan which not only protects individual and public rights, but also provides a logical approach to further effective management.

The State of California, through the State Lands Commission, is the steward over the sovereign tide and submerged lands. The

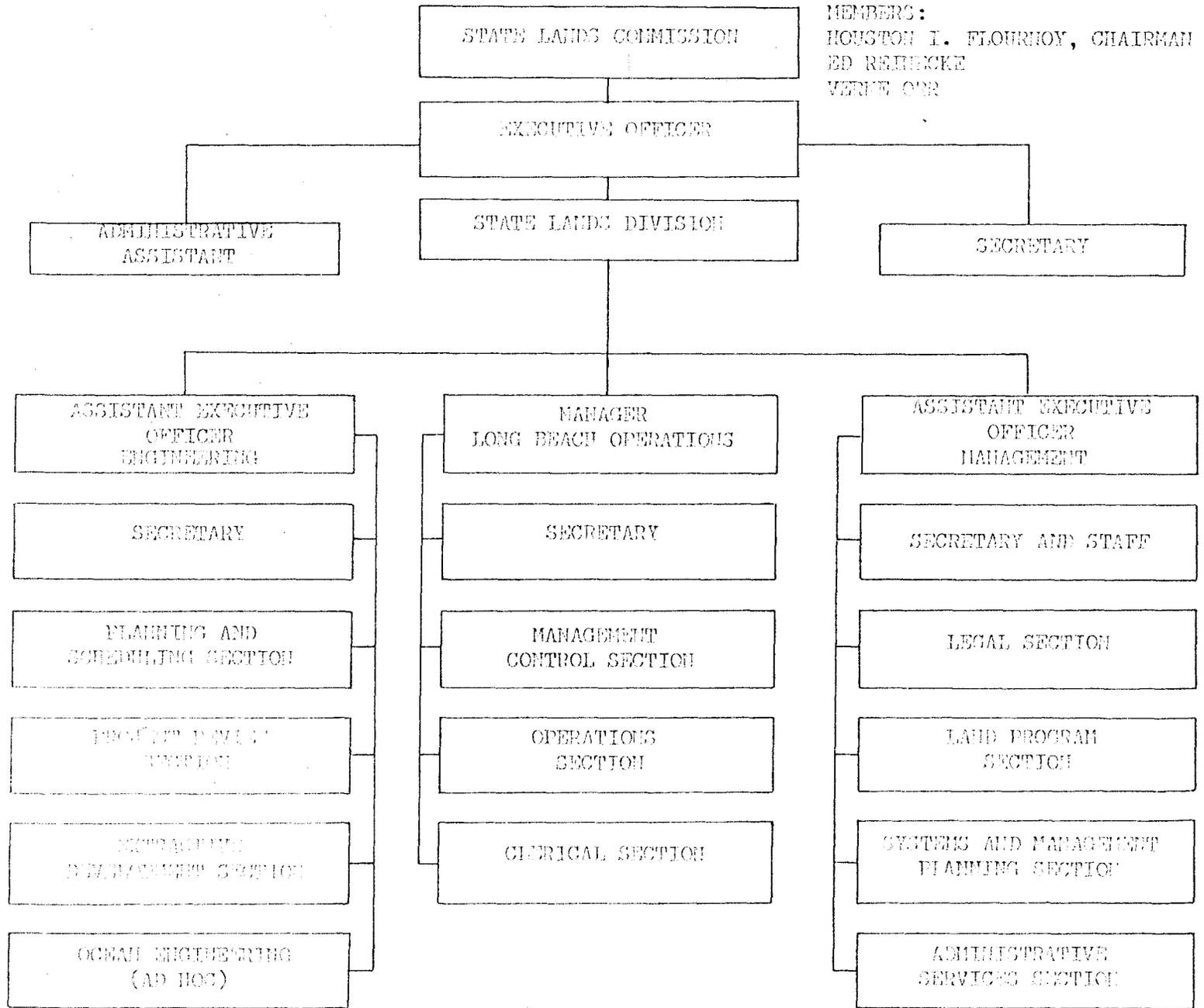
Commission was established by Chapter 5, Statutes of 1938, First Extraordinary Session, to administer this public trust and has been responding directly to the public needs of the State.

Two Commissioners, the Lieutenant Governor, and the State Controller, are elected directly by the voters of this State. The third member is the Director of Finance, who is the Governor's representative. The Commission is required by Statute to conduct all of its business in public meetings.

The Executive Officer, appointed by the Commission, directs the activities of the State Lands Division, which is composed largely of petroleum engineers, land agents, civil engineers, geologists, and surveyors whose average length of service to the Division exceeds 10 years. These people are in continual contact, throughout the State, with all citizens, on a person to person basis.

When the State Lands Commission was created in 1938, it acquired a stewardship over about 6,300 square miles of ungranted tidelands, submerged lands, navigable waterways, and "sovereign" lands. This domain, largely uncharted, is about the size of Connecticut and Delaware together. The lands themselves had belonged to the State since entry into the Union. The admission act specifically stated that navigable waterways

STATE LANDS COMMISSION ORGANIZATION CHART



should be "forever free". Until 1929 these "sovereign" lands were under the jurisdiction of the State Surveyor General.

Between 1929 and 1938 the Division of State Lands in the Department of Finance, placed a greater emphasis upon the leasing of these lands, but still practiced "laissez faire" economics toward the sovereign lands. This was, at that time, a perfectly logical policy. There was still really no pressure requiring attention to be focused on the water frontier. There was still plenty of room for everyone along the beaches, and uses of the submerged lands generally were still limited primarily to navigation and fishing.

The current State Lands Commission has required planning as a requisite step to sound governmental action. However, it is also essential that the Commission know how the plans of its dry-land neighbors will affect the tide and submerged lands under their stewardship. Uses in the coastal zone are inter-related with those of the submerged lands and all of those plans dealing with lands adjacent to or a part of the submerged lands require either dredging, filling, or some other alteration of the existing condition.

The Commission, from its Statewide vantage point, has seen a conflict of uses rapidly develop.

The objective of this report is to outline a management program, which will, through cooperation of all parties involved, provide the maximum social benefit at the minimum social cost.

MANAGEMENT OBJECTIVES

The State Lands Commission has established a program for ocean and tidal land management with the following objectives:

1. Establish and administer a comprehensive land use plan encouraging compatible multiple-use development of all ocean, tidal and submerged areas under the Commission's jurisdiction while conserving, preserving, and protecting irreplaceable resources; allow maximum utilization by all user segments consistent with overall State ocean area programs; coordinate and guide local jurisdictions in planning littoral developments which either influence, or are influenced by, submerged land users.
2. Locate the precise boundaries of all ocean, tidal and submerged areas under jurisdiction of the Commission, and conduct the continual surveillance necessary for effective management of such lands.
3. Maintain records showing the location of ocean, tidal and submerged lands, master land use indices of said lands, and an environmental inventory of both submerged lands and the littoral area of mutual influence.

This program has been effectuated through assignment of all personnel and facilities pursuant to a schedule of priorities considering the major environmental, economic and legal impacts. The increased level of effectiveness required by assignment of additional responsibilities by 1970 Statutes could be provided through implementation of the following proposals:

1. ESTABLISH AN ENVIRONMENTAL COORDINATION UNIT WITHIN THE STATE LANDS DIVISION. THE PRIMARY RESPONSIBILITY WOULD BE TO COORDINATE ALL LAND PLANNING ACTIVITIES INVOLVING LANDS UNDER THE JURISDICTION OF THE STATE LANDS COMMISSION.

Specific duties of this Unit would be:

- (a) Obtain and compile the land-use and environmental inventories as outlined in the preceding chapter. This work should commence at once and would comply with all the requirements of Chapter 1555, Statutes of 1970, which requires that all lands be inventoried and those with unique environmental values be identified. The Unit would coordinate all activities and be responsible for preparation of the required report by January 1, 1973. Detailed plans and costs for accomplishing this assignment would be presented to the State Lands Commission for approval 60 days after establishment of the Unit.

The Unit would be responsible for maintaining coordination with all other State agencies involved in planning for uses on the tide and submerged lands. Since many other agencies are involved in ocean planning, as the following chart indicates, it is essential that efforts be directed toward common goals and that duplication be abolished.

- (b) Review all land transactions prior to submission to the State Lands Commission, for environmental impact to both the immediately affected area and the surrounding environment.

During the leasing limitations established by Chapter 1555, the Unit would be responsible for preparing the environmental impact report required for any proposed exceptions, as set forth in Section 6371, Public Resources Code.

- (c) Review and report upon the plans submitted by the intended recipient of any State lands as set forth in Section 6373 of the Public Resources Code.
- (d) Review the use and development plans which all past grantees are required to submit in compliance with Section 6374 of the Public Resources Code, and to report any deviations from the original plans.

LEGISLATURE

LEGEND

GROUP A - PURE OCEAN PLANNING.

GROUP B - OCEAN PLANNING ESSENTIAL TO PROGRAM OBJECTIVES

GROUP C - OCEAN PLANNING INCIDENTAL TO PROGRAM OBJECTIVES

GOVERNOR

GROUP A
CALIFORNIA ADVISORY COMMISSION ON COASTAL AND MARINE RESOURCES

GROUP A
INTERAGENCY COUNCIL ON OCEAN RESOURCES

STATE CONSTITUTIONAL OFFICERS

LIEUTENANT GOVERNOR

SECRETARY FOR HUMAN RELATIONS

SECRETARY FOR BUSINESS AND TRANSPORTATION

SECRETARY FOR AGRICULTURE

CHAIRMAN STATE LANDS COMMISSION

SECRETARY FOR RESOURCES

HIGHWAYS - BUSINESS AND TRANSPORTATION

AGRICULTURE - AGRICULTURE

COORDINATING COUNCIL FOR HIGHER EDUCATION

PUBLIC HEALTH - HUMAN RELATIONS

GROUP C
STATE WATER RESOURCES CONTROL BOARD

GROUP C
AIR RESOURCES BOARD

GROUP C
FISH AND GAME

GROUP C
PARKS AND RECREATION

GROUP C
CONSERVATION

GROUP B
DEPARTMENT OF NAVIGATION & OCEAN DEVELOPMENT

GROUP B
STATE LANDS COMMISSION & DIVISION

STAFF

STAFF

STAFF

STAFF

STAFF

STAFF

STAFF
GROUP PLANNING
PLANNING TEAM

STAFF

PREPARED BY STATE LANDS DIVISION NOVEMBER 9, 1970
 State of California
 NOVEMBER 9, 1970 B. Volz

- (e) Advise all appropriate agencies of any intended disposition of State lands, and of all proposed land transactions. Evaluate replies or comments and incorporate into the Unit review of land transactions.
- (f) To inform local jurisdictions, private developers, and landowners of the unique values of the tide and submerged lands in their areas of interest, and upon request from the concerned parties, assist in planning complementary uses of the tide and submerged lands.
- (g) Establish "data sharing" channels with all segments of the Government and public so that specialized talent in such fields as oceanography, hydrology, geology, anthropology, and conservation can make their views known concerning present and future uses of the tide and submerged lands.

2. ESTABLISH AN AREA PROJECT UNIT, WITHIN THE STATE LANDS DIVISION, WITH THE PRIMARY RESPONSIBILITY FOR ESTABLISHING TIDE AND SUBMERGED LANDS BOUNDARIES WITHIN AN ENTIRE GEOGRAPHIC AREA.

Specific duties of this Unit would be:

- (a) To prepare and submit for Commission approval, an evaluation of various geographic areas which would be appropriate

for area boundary treatment. Included would be costs of research and claim determination in both time and dollars, suggested priority based upon annual revenue loss, rate of development, revenue potential, and current environmental condition of the area.

- (b) Gather, compile, analyze all relevant boundary data and prepare ownership maps showing the boundaries of tide and submerged lands.

This Unit would be especially charged with exploring new procedures for more efficiently determining ownership. Technical means would be explored in addition to means by which litigation can be minimized and public acceptance maximized.

By January 1, 1973 the land-use and environmental inventory will be completed. On that date the State Lands Commission will submit to the Legislature a report disclosing the inventory results, the procedures developed in ownership determination and regulations adopted, or to be adopted, as a result of these activities. Included will be an operational plan which will program the location of all remaining boundaries.

3. ESTABLISH A LEASE MONITORING PROGRAM TO INSURE FULL COMPLIANCE WITH ALL TERMS AND CONDITIONS BY LESSEES OF TIDE AND SUBMERGED LANDS.

The State Lands Division, to begin this program, would perform the following investigation of existing leases:

- (a) Ascertain if the leased area has been used as stated in the application.
- (b) Note if there are any unauthorized uses connected with the permit.
- (c) Note if there have been any unauthorized additions to the structures or use area.
- (d) Note if the facilities are in good condition, and that neither they nor any other uses, interfere with navigation or other public rights.
- (e) Report on each lease area with photo coverage and locative data to show all unauthorized encroachments and all hazards to navigation, fishing, recreation, or environment.
- (f) Attach date of inspection, lease number and expiration date to existing structures as a means of identification and public notice.

(g) Investigate all leases on a bi-annual basis as part of a continuous program.

4. ESTABLISH A TASK FORCE TO STUDY SPECIAL PROCEDURES FOR AMICABLY, EXPEDITIOUSLY AND EFFICIENTLY ESTABLISHING CONFIRMED BOUNDARIES BETWEEN THE TIDE AND SUBMERGED AND ADJOINING LANDS.

Boundary location is a complex business, especially where water boundaries are concerned. The procedures are often long and overly involved, leading frequently to litigation. Trials can linger in the courts for years. Consequently, if the boundaries of the tide and submerged lands are to be established more expeditiously and efficiently, new innovative procedures must be explored which will ensure the rights of all concerned, but which will speed boundary location.

5. INITIATE A PROGRAM OF RESEARCH TO ASCERTAIN THE HEAD OF NAVIGATION ON ALL RIVERS AND SLOUGHS.

The head of navigation is important, since this is where State Lands Commission jurisdiction terminates, and private ownership of the riverbed begins, but yet this location has

not been located on most of the 30 navigable rivers. The Legislature has attempted to help but most of the declarations were made years ago and recall names and places long since fallen into disuse.

6. INITIATE A PROGRAM FOR ESTABLISHING THE BOUNDARIES OF ALL INTERIOR WATERWAYS.

Thirty-seven natural lakes are under jurisdiction of the Commission and the limit of this jurisdiction is the low water line. At Lake Tahoe the elevation has been determined unilaterally to be 6,223 feet above sea level. At Eagle Lake, under study for the last 15 years, claims and counterclaims are spread from 5,096 to 5,119 feet above sea level, with the difference between the two claims amounting to 10 square miles, an area somewhat larger than all of downtown Sacramento. Continued acquiescence to such situations prejudice all future claims so that sometime in the next decade when the public demands a solution, the position of the State claims will be weakened, and enormous amounts of time will be required to arrive at a definitive boundary.

7. ESTABLISH A UNIT WITH THE PRIMARY RESPONSIBILITY FOR CONDUCTING A CONTINUING REVIEW OF ENGINEERING IN THE OCEAN ENVIRONMENT.

The State Lands Division would act as the coordinator of an Ad-Hoc group of specialists from other units within State Government who would respond to individual leasing and development proposals as required. No single agency currently has the broad technical or scientific capability necessary to fully understand and manage the ocean areas. Some of the special technologies involved are the dynamics of ocean environment, the physical processes which shape our coastlines and estuaries and the cause and effects of pollution, aesthetics, and economics.

As an example, applications will someday be received for industrial structures on the ocean floor. Engineering criteria of such a complex would differ widely from such requirements in an earth or air environment. Special precautions would be required for pollution control and safety.

The methodology for accomplishment of existent and proposed program objectives follows:

1. COMPILATION OF A LAND-USE INVENTORY RECORDING EVERY CURRENT USE OF ALL TIDE AND SUBMERGED LANDS, INCLUDING THOSE ALREADY GRANTED BY THE LEGISLATURE.

Protection, conservation, and preservation of the tide and submerged land resources must be coordinated with multiple-use development which will allow maximum utilization of the lands. It is equally important to obtain an inventory of all the uses of the shoreline neighbors since they are interrelated with the uses of the submerged lands.

For purposes of this inventory, there are two broad categories, the "nearshore" and "offshore". The nearshore is a strip of land lying parallel to the shoreline lying between the water line and an imaginary upland line including the shore facilities immediately adjacent to the shoreline, or those lands which are directly influenced by their proximity to the water. The offshore is the strip of tide and/or submerged land adjacent to the nearshore, and under jurisdiction of the State Lands Commission. The offshore islands are included in these categories.

Granted areas are to be included to assure a complete data bank which may be continually up-dated for the sole purpose of providing facts to use in making rational plans and decisions.

On the nearshore this inventory includes both structural improvements such as marinas and factories, as well as non-structural improvements such as drainage canals which affect lands.

All present uses of the offshore area, whether or not related to the immediate nearshore use, are to be inventoried.

2. COMPILATION OF AN ENVIRONMENTAL INVENTORY WHICH RECOGNIZES SCENIC, HISTORIC, NATURAL AND AESTHETIC VALUES OF STATEWIDE INTEREST.

This goal is based on the premise that there is a place for everything, whether it be an underwater park, a floating city, a marine terminal, or a wildfowl sanctuary. Achieving the goal demands acceptance of the premise that men are dependent upon their environment, and must work with nature, not against it. The uses of the tide and submerged land must be compatible with each other and complementary to natural processes.

The Legislature has recognized this need and has directed the Commission to prepare this inventory by enacting Chapter 1555, Statutes of 1970.

The environmental inventory is a tool designed to aid effective tide and submerged land-use planning by evaluating which lands are intrinsically suitable for commerce and industry, recreation, or conservation. It is an attempt to evaluate both the social benefits and social costs by recognizing all of the human and natural values, rather than merely cataloguing current uses, as is the case with a land-use inventory.

3. DETERMINATION OF OWNERSHIP ON A GEOGRAPHIC AREA BASIS.

Management of the tide and submerged lands requires an exact knowledge of State land boundaries. Leasing, exchanges, trespass investigations and land-use planning are all hampered by lack of knowledge about exactly what lands are involved.

The study area concept of ownership determination has been selected since it provides the most efficient and speedy means of defining tide and submerged land ownership throughout the State. Based on past experience, the boundary

problems for an area such as Tomales Bay, or the Colorado River, or Lake Tahoe, are similar. For example, it takes less effort per mile to attack and determine the entire 55 mile stretch of Colorado River between Topock and Headgate Rock Dam than it does to solve the isolated boundary problems as they blaze into brush fires. Research title services, field surveying, and office compilation could be performed at one time, on a team basis, and avoid the duplication of effort in research and field work. Volume production would take full advantage of modern techniques for aerial mapping and computations.

4. MAINTENANCE OF A VIGOROUS TRESPASS IDENTIFICATION PROGRAM WHICH WILL RESULT IN THE TOTAL ELIMINATION OF EVERY IN-APPROPRIATE ENCROACHMENT UPON THE TIDE AND SUBMERGED LANDS.

The trespass identification program is an absolute must if all of the tide and submerged lands are to be managed effectively. At the present time, one structure may be under lease, and the adjoining one in trespass. Such a situation is inequitable. When trespasses exist, the leasing program is crippled, revenues are down, and it is impossible to enhance, preserve, protect, and conserve the four million acre resource of the tide and submerged lands.

Land transactions and surveillance activities emphasize the restrictive effect of undetermined boundaries on these programs. As a result, the trespass identification and leasing program must be a follow-up activity one step behind and concurrent with the ownership determination for an area. The extent of known trespasses is a heavily weighed factor in selecting the areas for attack by the boundary determination teams.

5. ESTABLISHMENT OF A CONTINUAL SURVEILLANCE PROGRAM FOR ALL STATE LANDS UNDER THE JURISDICTION OF THE STATE LANDS COMMISSION.

When the ownership lines are determined and current trespasses eliminated, many of the management battles will be won. However, continual surveillance is necessary since there will always be unscrupulous developers, or innocent owners, who will try to utilize public property free of obligation. Oftentimes these uses will be incompatible with planned or proposed uses of the submerged lands; some may even be permanently damaging.

The surveillance program will also be responsible for compliance with terms of leases, grants, or any other type

of real estate contract to which the Commission is a party. This, of course, will eliminate many of the hazards on the navigable waters due to abandoned piers, pilings, or other objects.

Another important aspect is that possible pollution of the waters can be detected sooner, and the proper quality control agency can be informed.

6. DEVELOPMENT OF AN ACTIVE PUBLIC INFORMATION PROGRAM.

The State Lands Commission is responsible for managing the second largest block of public land in this State. Yet this is almost unknown outside a small circle of people with whom the Commission customarily has dealings. The program outlined in this report will provide for enlargement of this intimate circle. Unless all shoreline neighbors are completely and accurately informed, program implementation will be severely handicapped. This cooperation will play a significant role in the effectiveness of the ownership determination program, in the elimination of trespasses, and in maintaining an effective surveillance program.

7. MAINTENANCE OF CURRENT SERVICE LEVELS AS THE OFFICE OF RECORD FOR STATE LANDS, THE LEVEL OF SUPPORT REQUIRED BY THE OFFICE OF THE ATTORNEY GENERAL IN LITIGATION INVOLVING STATE LANDS, PROCESSING LEASES, AGREEMENTS, AND OTHER ACTIVITIES AND STATUTORY DUTIES.

THE REQUIRED IMPROVEMENT IN THE EFFECTIVENESS OF EXISTENT PROGRAM ELEMENTS AND INITIATION OF THE PRECEDING PROPOSALS COULD BE IMPLEMENTED AS FOLLOWS:

Existing Programs:

1. Additional staff to help overcome the existing backlog, and to assist in the increased workload due to an increased area projects output: Four positions.
2. Records Staff: Two typist positions.

New Programs:

1. Environmental Coordinating Unit: Three positions plus part-time help. College interns mastering in environmental science would be sought to fill the part-time positions.
2. Area Projects Unit: Two ownership determination teams, totaling eight positions.

3. It is anticipated that two positions would be needed to assist in the initial two-year activity of surveillance as outlined in this report. As boundary and trespass activity increases, additional staffing in this class would be required.

4. Engineering Unit for Ocean Environment: Two positions; one high level employee with an engineering or scientific background, and one technical assistant.

Manpower costs are summarized as follows:

5-YEAR COST ESTIMATE
FOR A PROGRAM FOR MANAGING THE
OCEAN AND TIDAL AREAS

	<u>1st Year</u>	<u>2nd Year</u>	<u>3rd Year</u>	<u>4th Year</u>	<u>5th Year</u>
Division Staff	\$250,000	\$250,000	\$275,000	\$275,000	\$300,000
General Expense	39,000	39,000	42,000	42,000	46,000
Equipment	<u>3,500</u>	<u>500</u>	<u>1,000</u>	<u>1,000</u>	<u>1,000</u>
SUBTOTAL	\$292,500	\$289,500	\$318,000	\$318,000	\$347,000
Contractual Services	<u>10,000</u>	<u>250,000</u>	<u>250,000</u>	<u>250,000</u>	<u>250,000</u>
TOTAL	\$302,500	\$539,500	\$568,000	\$568,000	\$597,000

Long-term cost estimating for the existing and proposed new programs is very difficult. Many factors beyond the control of the Commission will influence both the cost and time parameters. Legislation concerning shoreline boundaries has been proposed in past years, and if enacted into law will have a significant effect on time and cost estimates. In recent decisions the courts have leaned toward strengthening the inviolate provisions of the trusts for commerce, navigation and fisheries. On the other hand, some court opinions have also determined, in cases where the equities lie heavily in favor of the upland owner, that land areas may be lost to the public. However, assuming an initial five-year cost of approximately \$3,000,000, it can be seen that a 30-year program will cost approximately \$18,000,000.

The cost of doing nothing is both tangible and non-tangible. An effective program will conserve, protect, and preserve, for the public, a valuable and presently wasting land asset worth many millions of dollars.

DISCUSSION

It must be noted that the ocean and tidal area comprises 75% of the tide and submerged lands, but this accounts for only 49% of the shoreline boundary of the "wet" lands being managed by the Commission. Fifty-one percent, or 3,545 miles of shoreline, are classified as non-tidal. Water bodies such as Lake Tahoe and Clear Lake, and portions of waterways such as the Sacramento, San Joaquin and Russian Rivers are examples. Under Section 6301 of the Public Resources Code, the Commission has equal responsibility for these interior waterways.

The shoreline boundary is a line of demarcation between private upland ownership, and that of the tide and submerged lands. The area immediately waterward of this line is the most sought after by developers of all types, and it is along this line that a good management program can be most effective to enhance and encourage wise development and use of the tide and submerged lands.

The demand for boating and related facilities is increasing at a rapid rate. The State Department of Navigation and Ocean Development predicts that the number of small craft in the State will increase by 98% from 1962 to 1975.

One implication of this projected increase in the number of boats is the increased demand for boating facilities. There will be future deficiencies in launching, berthing and mooring facilities, and harbors, based on expectation of need and facilities which are now planned. Presently there are 32 small craft harbors along the coast. In 1975 there will be a need for 35 more harbors and improvements in 14 of the existing ones. In the coastal counties there will be a shortage of 12,600 berths or mooring facilities and a deficiency of 130 launching lanes. In nearly every case these facilities will be placed on tide and submerged lands under the Commission's jurisdiction.

Fishing on the tide and submerged lands is growing into big business. Over two million Californians bought annual licenses to sport fish in 1969. This is an increase of nearly 400,000 licenses in a five-year period.* These figures do not include license exempt ocean fishing from the 40 public piers along the California coast.

In 1965 Marineland of the Pacific was the only oceanarium in California, and it was located high and dry in the Palos Verdes Hills near Los Angeles. Now there are two more located

*Department of Fish and Game data.

on what was once tideland: Sea World in San Diego and Marine World in Redwood City. There will be more, each approaching the ocean waters even more closely, simply because public interest in the ocean and water frontier is growing. By 1980, the ever-steady beat of technological progress will make the submerged lands susceptible to public recreation, through submersibles and tanks, to everyone rather than only the skin and scuba diver. Of course, not every part of the ocean lands are satisfactory or desirable for this type of recreation, but sufficient suitable areas must be set aside or at least considered since the number of contenders for each portion of the submerged lands are increasing.

Skin and scuba diving, surfing, spear fishing, water skiing and swimming are enjoyed by millions of Californians yearly, with the beaches along the oceans, lakes and rivers becoming increasingly crowded springboards for this group of water-contact sports.

Californians were first introduced to surfing in 1907. Latest estimates are that now 500,000 people surf in California. Surfing takes place at most public beaches, and mostly along the southern California coastline in water less than 15 feet deep and, except on rare occasions, no farther than 1,300 feet from shore.

With these fairly definite use patterns established, the State Lands Commission and their shoreline neighbors working together must be able to provide a place for all of these users.

One good (and typical) example of current cooperation, has resulted in the establishment of a 750-acre underwater park called the Point Lobos State Reserve. Here the natural environment can be both studied and enjoyed by divers, whatever their objective. This project is still embryonic but its success, plus increasing public interest, requires plans to accommodate more of this type of use on the tide and submerged lands during the next decade. Water skiing and swimming are so universally enjoyed that little need be said in this portion of the report. These are traditionally enjoyed in the same areas as boating and the water-contact sports.

Sailing and motor boating are another impact on the recreation scene. About 65% of the boating activity in the State takes place on the ocean and on San Francisco Bay. Another 20% of the boaters use the Delta country and the remaining 15% are divided among the major lakes and the Colorado River. With the possible exception of the man-made lakes, such as Folsom and Shasta, all this activity is in tide and submerged lands under the jurisdiction of the State Lands Commission.

There is no question that there is a need for recreation, clean air, and clean water which are absolutely essential if man is to survive. Just as necessary, and less talked about, are healthy commercial-industrial sectors of the economy.

One out of every 18 jobs in California is linked to foreign trade. The 1967 cash receipts from this sector yielded five billion dollars, one billion dollars more than did agriculture in that year. By 1975, this figure should reach eleven billion dollars.*

Most of this increase will be due to new approaches which will require additional facilities on the tide and submerged lands.

The new super tankers will require, because of their size and draught, methods of loading and unloading at relatively great distances from shore. Another innovation is the LASH (lighter aboard ship) system of ocean freight transportation. Here the ship does not even enter port; it merely unloads containers, each lashed aboard its own lighter, and continues on to the next port of call.

*California Almanac, 1970, Chapter 19.

Use of offshore berthing facilities, and LASH will be prominent in the new concept of the land bridge presently being developed by the ocean and rail transportation system. Here the container is mechanically loaded piggy-back onto a rail car and electronically routed to the eastern ports for a continued ocean journey.

The petroleum industry has already made use of the offshore berthing facilities, at Morro Bay, Ventura, Huntington Beach and El Segundo, where the berthing facilities are more than a mile offshore.

While most of the older ports are established on tide and submerged lands no longer directly controlled by the State Lands Commission, this will not be the case with the offshore berthing facilities. For these, there must be a proper place reserved.

Salt harvesting is a relatively stable industry concentrated in the San Francisco Bay area. Because of its location, and because salt harvesting requires certain climatic and physiographic conditions, the industry is expected to decrease as the demands for the land presently occupied increase. Water pollution also affects the industry, since dirty water makes contaminated salt. If preserving the salt industry is desirable, then

cooperation among shoreline neighbors and other interested parties will be necessary.

Wildlife and bird sanctuaries to preserve natural environment, are located in estuaries, bays, and swamps. These are usually the areas most heavily sought after by development-planning organizations who are catering to a public demand for shoreline facilities.

Conservation uses of tide and submerged lands extend into the oceans, and some day possibly into the rivers. There are, already, marine reserves set aside for conservative purposes, scientific observations, and studies.

Insofar as the tide and submerged lands are concerned, the State Lands Commission will do its part in the conservation, preservation, and protection of irreplaceable natural resources through the administration of a comprehensive land-use plan which insures a place for everything.

Tide and submerged lands play a large role in U.S. Military activities in California. Between San Diego and the San Francisco Bay, every military service is represented and nearly every military function. San Diego, Long Beach and San Francisco are headquarters for scores of naval vessels; Vandenberg Air Force Base

is the location of the Air Force Western Test Range, Camp Pendleton trains marines in amphibious warfare techniques, and Fort Ord trains army recruits. All of them use ocean lands nominally under jurisdiction of the Commission.

These installations are permanent fixtures, and must be counted upon as such for all planning and management purposes in the next decade. There is the possibility that some of these uses will diminish and return lands to civilian use. The most recent example is the agreement between the U.S. Marines and the Division of Beaches and Parks which resulted in several miles of shoreline being opened as a State Beach.

With over a thousand miles of coastline, an excellent land climate, and an inquiring intellectual atmosphere, California has provided an environment for the sea-pioneer second to none with the result that it has carved a vital role for itself in oceanography. Educational institutions such as Scripps Institution of Oceanography, University of Southern California, Stanford University and the University of California have cooperated with the Navy Man-in-the-Sea and Sea-Lab programs. Industry, too, has contributed heavily, particularly the aerospace firms, with the result being a rapidly pyramiding bank of knowledge which, within the next decade, will be applied practically to the ocean areas under jurisdiction of the State Lands Commission.

One undersea land use that will probably increase greatly is that of mariculture, or farming the sea for food.

Mariculture, as used here, does not mean collecting natural resources already present; it means instead, the understanding and control of the undersea environment in order to obtain a greater yield of a desirable product from a given area. The California Department of Fish and Game has experimented with a series of artificial offshore reefs which demonstrated improvements in the development of sea life. Oysters are being planted artificially and harvested commercially. These projects and future developments all require State tide and submerged lands for operation.

Present levels of knowledge about the sea may be graded as follows:

Inter-tidal Zone: Adequate knowledge both theoretical and practical, with a record of successful farming going back two thousand years.

Continental Shelf: Increasing knowledge and direct penetration are some primitive attempts at farming in the shallower reaches. Much successful mining.

Continental Slope: Out of reach of direct penetration but some visual reconnaissance by means of research submarines, such as bathyscaphs, dredges and trolls. Even for the collection of minerals the abyss represents acute technical problems.

Obviously, the inter-tidal zone is manageable now. Future uses will not change materially in the next decade from what were discussed earlier.

The continental shelf, however, is where the management problems will be centered through the seventies. Oil, of course, has been extracted from the ocean bottom in California for 75 years. Mariculture can be expected to flourish. It will be the role of the State Lands Commission, through the administration of a land-use program, to insure that there is a place available for these activities.

The development of the continental slope is beyond the jurisdiction of the State Lands Commission. However, the Commission is interested in these activities since there will be some probable effects on the shelf lands.

The sea also contains riches of quite a different sort. Much of the raw material of history is preserved in wrecked ships.

In many cases the knowledge to be gained from them is unobtainable on land. It is unique to the sea bed. It is entirely possible that historic treasures exist on the lands under jurisdiction of the State Lands Commission. Sites such as these can be set aside as they are discovered under the rules and regulations of the State Lands Commission.

Other potential uses of the tide and submerged lands are for electric generating plants using tidal force as a source of power. Giant water conduits may someday transport fresh water from the northwest to the southwest. Residential areas, both floating and submerged, are currently on drawing boards.

EXTRACTIVE OPERATIONS

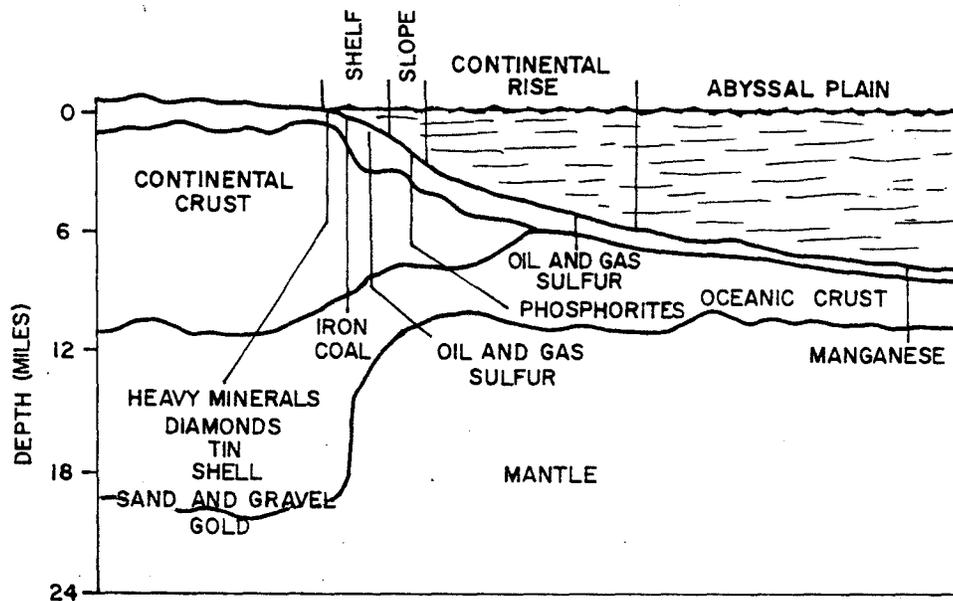
Extractive operations on tide and submerged lands under the jurisdiction of the State Lands Commission have been of little variety up until the present time. Of most economic importance, of course, has been oil and gas extraction, which has yielded a grand total of \$709,622,095 between July 1, 1955 and June 30, 1969. Most of this revenue has been produced from the three-mile offshore submerged lands and in the Suisun Bay-San Joaquin Delta area.

The offshore extractive operations have become typified by the self-contained drilling platform, although few realize that the State Lands Commission, in order to keep the offshore lands from becoming a forest of derricks, requires that each platform must provide for a minimum of 20 wells.

Mineral extraction operations, other than oil and gas, have been and are conducted for a variety of minerals, such as gold, sand and gravel, shells, titanium and other heavy minerals. Up to the present time the focus of such operations has been on navigable streams, lakes, bays, and other inland waters under the jurisdiction of the Commission, where current technology and economic considerations make them feasible. Recent years,

however, have witnessed a developing interest in an oceanic mineral industry for California. Considerable prospecting, for example, is presently being conducted in certain offshore areas of the State, mainly by the separation of heavy minerals from bottom sediments. If found to be in sufficient concentrations, as believed, the heavy minerals could have a significant impact on the California mineral industry.

Sodium chloride (salt), chlorine, bromine and magnesium have been commercially recovered from the sea water.



One probable future use of sea water will be the extraction of fresh water from the ocean. While possible now, the technology is not sufficiently advanced to permit desalination to be an economically competitive source of fresh water.

The future character of extractive uses in the water and on the tide and submerged lands is unpredictable. The mineral deposits are relatively untouched due to technological limitations. This handicap will be overcome, however, as the demand for new deposits is heightened by depleting dry land reserves. The State Lands Commission has the responsibility to keep abreast of extractive activities and to develop plans and policies which will enhance the total tide and submerged land environment, but still allow for the wise use of irreplaceable resources.

Thus far, oil and gas extractions have been the most significant developments on the tide and submerged lands. In 1896 the first tideland oil well was drilled near Santa Barbara. By 1906 tideland number 1 had been joined by 400 or so neighbors strung along the beach and from wooden piers extending out into the tidelands. Uncontrolled exploitation of the tidelands continued until 1921 at which time the Legislature adopted the first State mineral leasing law. Chapter 303, Statutes of 1921, reserved all minerals to the State and contained provisions for the issuance of prospecting permits and oil and gas production leases. Under the 1921 Act, offshore development continued at Summerland, Rincon in Ventura County, and at Elwood, in Santa Barbara County. Lease operations were conducted by drilling wells from piers with one notable exception. The first piling-supported drilling platform was built offshore from Rincon in 1932.

Adequate supervision of offshore operations was not provided for in the 1921 Act, and the ensuing developments served to foster public concern and resentment over the appearance and use of the coastline. The Surveyor General, administrator of the 1921 Act, deferred the issuance of several hundred tideland prospecting permits between 1926 and 1928 to protect the views of beachfront landowners from obstruction by drilling rigs. However, the applicants demanded issuance of the permits, and the dispute resulted in a State Supreme Court decision of Boone vs. Kingsbury, (206 Cal. 148) which required the Surveyor General to issue permits to the first qualified applicant for tide and submerged lands excluding only lands around cities and towns. The Legislature almost immediately enacted an urgency moratorium (Chapter 7, Statutes of 1929) which prohibited the Surveyor General from granting any lease or prospecting permit during the period January 17 to September 1, 1929.

Subsequently, the Legislature enacted Chapter 536, Statutes of 1929, which prohibited the issuance of leases for the production or extraction of any minerals from tide or submerged lands, and California's first tideland leasing program was over.

Petroleum continued to be extracted, though, either by intent or accident. Drilling in the City of Huntington Beach on

the uplands resulted in wells directed under the tidelands. This trespassing was discovered, and the State filed suit although leases with the trespassers were issued in 1934 in compromise of the litigation. As a result, the need for a more comprehensive law governing offshore oil and gas development became apparent, and on June 11, 1938, the State Lands Act became effective.

In 1938, with the enactment of Chapter 5, Statutes of 1938, First Extraordinary Session, the State Lands Commission was created and vested with all the powers and duties of the Department of Finance, as successor to the Surveyor General. Exclusive Commission jurisdiction over the tide and submerged lands was enunciated by the Legislature a year later in an amendment to the 1938 Act (Chapter 646, Statutes of 1939).

Tideland oil and gas leases could not be issued except in the very limited situations where the State's submerged lands were being drained by means of wells on adjacent lands not owned by the State.

In 1947, after nearly 100 years of unquestioned California ownership, the U.S. Supreme Court decreed that the Federal Government possessed paramount rights over lands and minerals within the three-mile belt of offshore submerged lands.

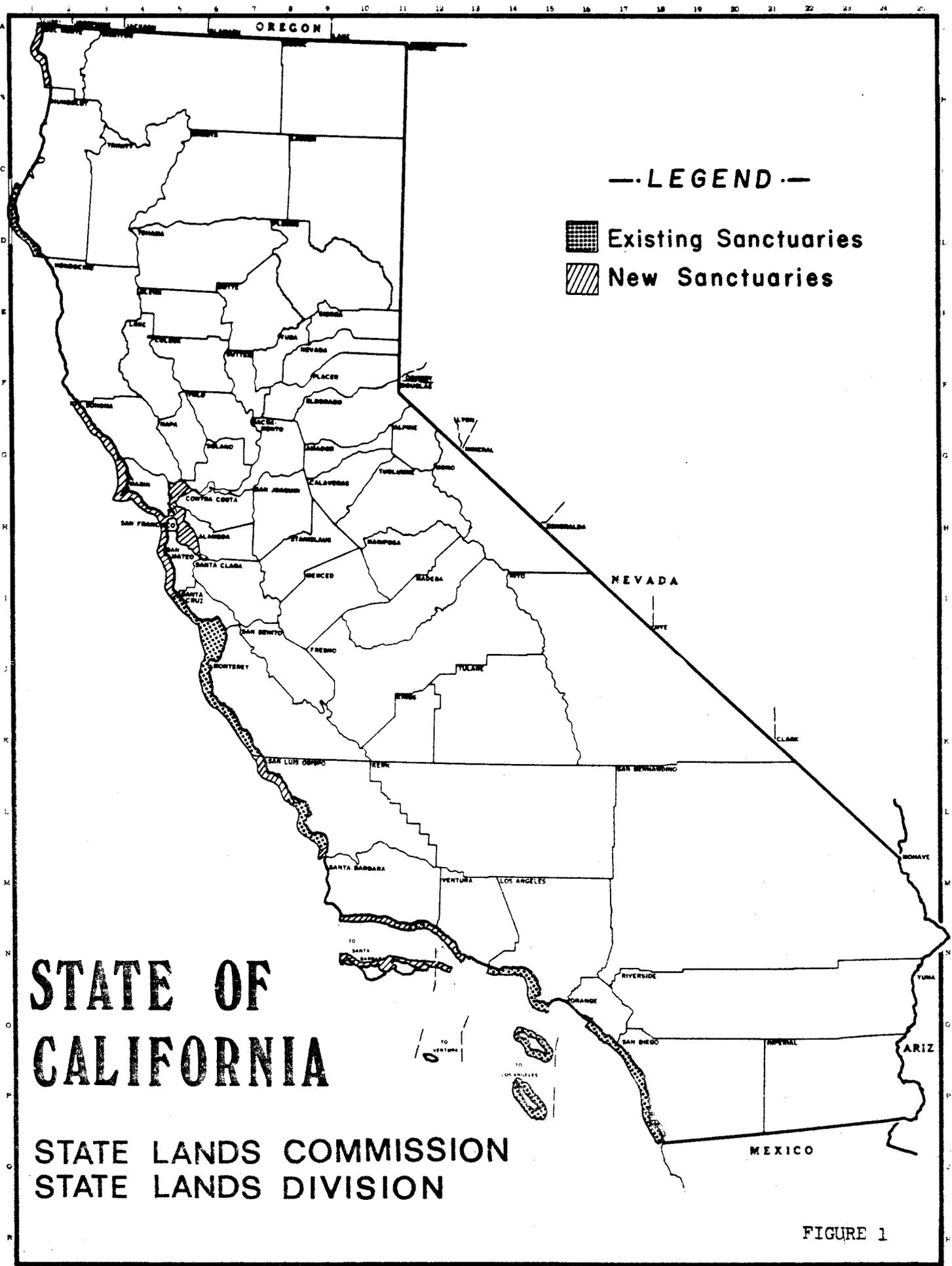
California fought the decision, and finally was successful in regaining the lost ground with the passage of the Submerged Lands Act in 1953.

Once again oil extractions came under control of the State Lands Commission, and again the Commission, the public, and beach-front landowners became concerned with the scenic shoreline. The Legislature responded, with the Cunningham-Shell Tidelands Act in 1955 which offered a compromise between the competing desires for unrestricted offshore development and the preservation of esthetic and property values in highly developed coastal areas. It permitted leasing of tide and submerged lands along the coast between the northerly limits of the City of Newport Beach in Orange County, and to a point six miles south of the Town of Oceano in San Luis Obispo County. The area of tidelands along the coast south of the northerly city limits of the City of Newport Beach to the southerly boundary of the State was required to be developed by wells slant-drilled from an upland or littoral drillsite wherever necessary to preserve and protect the highly developed recreational and residential areas. Certain scenic lands along the coast of Los Angeles, Santa Barbara and San Luis Obispo Counties, and the islands of San Clemente and Santa Catalina were excluded from leasing except

in very special circumstances. These sanctuaries, as well as later additions, are shown in Fig. 1.

The 1955 Act also permitted the use of offshore platforms to facilitate oil exploitation and development in deeper water farther from shore. In addition, the Commission was provided with adequate bases for protecting the more traditional uses of the coast during the development of petroleum resources in tidelands. Any specific method of exploration, development or operation which would result in interference or impairment of developed shoreline recreational or residential areas is prohibited unless modified in an acceptable manner.

The Commission was also directed to establish a framework of regulations that would protect the developed shoreline areas. Prior to leasing any lands pursuant to the 1955 Act, the Commission adopted a number of specific operating conditions for offshore and onshore drill sites, which, together with the statutes require removal of the derrick upon completion of operations, landscaping of permanent structures (at the discretion of the Commission); prohibition of pollution of waters and beaches; suitable sanitary facilities; conduct of operations to prevent dust, noise, vibrations, and noxious odors.



In March, 1961 the first ocean floor completion of a producing oil well in California was accomplished by Richfield Oil Corporation at a location 4,550 feet offshore from Rincon, Ventura County, in 55 feet of water. This method of development involves drilling with floating equipment and completing the wells on the ocean floor. The well head and control equipment are placed on the ocean bottom (completely submerged and out of sight) and connected to shore or an offshore production platform by submarine pipelines.

Because of the tragic oil spill of 1969 on the Federally controlled outer continental shelf, the State Lands Commission took several steps, in rapid succession, to insure against any similar spills on State controlled lands. In addition to reviewing the already stringent requirements, a moratorium was placed on all new well drilling on State offshore lands. After an extensive review, the Commission felt that the public interest could be best protected by continuing the moratorium until the overall environmental impact of petroleum extraction could be studied, and new and more effective containment techniques can be developed.

Among the major problems facing the State Lands Commission are reconciling the economic impact of oil extraction with environmental protection. Total State revenues, since 1955, have

been \$709,622,095. There are, at the present time, 39 studies being conducted by all involved parties in both the public and private sector, regarding all facets of oil spills, including their containment, but the results will not be available for some time in the future. Fragmentary reports on containment and removal devices are not encouraging since all of the static type containment booms which have been tested, have failed for one reason or another to contain oil under open sea conditions.

Hopefully, the technology of the future can provide means which will enable the continued economical development of new drill sites, with minimal impact on the environment.

Although oil and gas have been the minerals most widely sought after, leases have been issued on tide and submerged lands for a variety of minerals, including sand, gravel, and shells. With the current critical need to expand our resource base, more concerted attention is now being given to the development of these other minerals.

The State Lands Division has one of the most comprehensive information banks available in the State today on the composition and geology of California's offshore lands. Exploration activities under permit from the State Lands Commission provide

a continuous source of data covering the entire length of the State, from the Mexican border on the south to the Oregon border on the north. An intensive research program is underway to analyze and evaluate the voluminous data on hand. This program represents a major effort to locate and identify mineral deposits having potential commercial value and will be invaluable to the environmental planning of the future.

In general, the exploitation of mineral deposits (other than oil and gas) from tide and submerged land has progressed at a much slower rate than the development of petroleum resources. This is due primarily to the lack of existing subsea mining technology, and a lack of incentive resulting from the availability of more accessible onshore mineral deposits. Tide and submerged lands are currently under lease for the extraction of sand, gravel and oyster shells. Extraction methods are confined primarily to the drag-line bucket, clam-shell dredger, and suction dredge-- all of which are limited by water depth.

Prospecting permits covering tidelands have been issued for various minerals in past years but most of these have failed to produce a commercially valuable discovery. Developing technology, and demands for new sources should, however, increase this activity dramatically within the next decade.

One of the problems facing these non-petroleum operations, particularly on the tidelands and interior waters is the lack of definite lines of ownership. Trespass detection is even more difficult since, for example, a sand and gravel operation is often of limited duration, and the evidence has soon disappeared.

LAND TRANSACTIONS

Buying, selling, granting, leasing, and other land transactions have been the lifeblood of California's history. With statehood, California fell heir to millions of acres of tide and submerged lands. During the early years little thought was given to this limitless domain, resulting in haphazard land management. Needless to say, policies and procedures have changed over the years, as any living government procedure should. The present policy and procedures of the State Lands Commission regarding land transactions are stated in the Public Resources Code and the Administrative Code. The desired effect of this policy is:

1. MAINTAIN THE LAND IN A CONDITION COMPATIBLE WITH THE TRUSTS FOR COMMERCE, NAVIGATION, FISHERIES AND OTHER PUBLIC USES.
2. MANAGE THE LAND IN A MANNER WHICH PROVIDES THE GREATEST STATEWIDE BENEFIT.
3. LEASE LAND FOR FAIR RENTAL VALUE TO PRIVATE ENTREPRENEURS WHEN THERE IS NO CONFLICT WITH THE ABOVE.
4. PROTECT THE TITLE TO STATE LANDS BY MAINTAINING RECORDS OF LEASEHOLDS GRANTED.

The Commission recognizes that a land transaction is the tool of management, and, in an attempt to achieve a compatible balance between tangible and intangible benefits of land management, several types of transactions are commonly employed. These are discussed on the following pages:

LAND SALES

Half-way through the nineteenth century a host of land hungry settlers descended upon the fertile valleys and coastal regions of California. Their appetite knew no bounds, and those, including the State of California, who had salable land were able to do a good land office business.

Since 1853, the State has sold approximately 80,000 acres of tidelands into private ownership under 472 patents issued under various statutes. Since 1909, when the Political Code was amended to prohibit further sales, only about a half dozen statutes have authorized sales in special situations where it appeared the public interest would best be served.

Tideland sales have also been regulated directly by the California Constitution. In 1879 all sales were prohibited within two miles of any incorporated city, and in 1910 the Constitution reserved the public right to fish in all subsequent sovereign land sales.

Tideland sales have also been interwound with the disposition of swamp lands in some areas, notably San Francisco Bay, with the result that boundary disputes and litigation during

the last century fills several books which have been listed in the bibliography. For this report, it is sufficient to note that sales of wet lands are rare indeed. Remaining swamp and overflowed land is very scarce, and tideland sales are prohibited. Because of the complexity surrounding these sales, and because a public easement exists in certain cases, any problems in areas where these dispositions have occurred are extremely expensive to solve, in both manpower and time, because each case must be separately investigated, and requires coordination of a varied assortment of professional talent.

AGREEMENTS

Since the major portion of the State sovereign lands have been affected by avulsion or artificial alteration, establishment of the "last natural water line" is often impossible and the location is necessarily a matter of arbitration and, finally, agreement between the State and the upland owner. Land exchanges usually are a part of these boundary line agreements.

Boundary line agreements are consummated only in the areas where the last naturally fluctuating water boundary line cannot be located. They are extremely cumbersome and very expensive simply because of the large amounts of professional talent necessary to first determine whether the water line is fluctuating normally, and then to research and prepare maps which will indicate not only the compromise agreement line, but also will take into consideration legal precedents, title problems, constitutional prohibitions, and sometimes large amounts of conflicting survey data. Next, every affected shoreline neighbor must be a party to the agreement. This includes those on the opposite side of a river or channel, since that is the only way

the State can protect itself from extravagant claims which could leave no navigable remainder. Some of these agreements, such as one in South San Francisco Bay, required 14 years to consummate. Two years or more are common.

Boundary agreements are generally initiated by outside parties who are planning extensive shoreline developments but cannot arrange financing until they have acquired clear title to their lands. Title companies who are responsible for advising the developer of his title status are aware of the encumbering easements for public fishing and navigation, etc., which the State Lands Commission can exercise.

However, with all its shortcomings, the boundary line agreement process is necessary under certain conditions, and can be welded into an effective management tool. For example, farsighted efforts in the Point Pinole area have resulted in a fixed high and low water boundary, a happy shoreline developer, and through consolidation and exchange, the State was able to acquire 161 acres of land, with clear title, which will be turned into a public park. What the State had at the outset was an easement for fishing on some lands which the developer needed, but upon which no one could fish because it was dry!

GRANTS

For over 100 years it has been the practice of the California State Legislature to grant salt-marsh, tide, submerged, and re-claimed lands in trust to political subdivisions to promote harbor development for commerce and navigation, fishing and other public purposes, with the objective being the development of the tide and submerged lands. The State provides the physical area and the grantee provides the planning, investment and actual development. Oftentimes the anticipated development has not materialized. The Legislature has now begun to reappraise the wisdom of the grant program. Requests are now being analyzed to determine if specific grants would be beneficial to the whole State.

Since the first legislative grant to the City of Martinez in 1851, nearly 300 statutes granting over 180 specific areas of tidelands have been passed by the Legislature. Many of these areas were considered additions to the original grant.

Early grants appear to have been made without terms or conditions of any kind. Nevertheless, the courts imposed conditions to carry out the trust purposes of commerce, navigation and fishing. Recent statutes impose a duty to improve the granted lands, and the State Lands Commission has the responsibility to determine whether "substantial improvements" have been made, usually within a period of 10 years from the effective date of the grant.

LEASES

Land available for lease by the State Lands Commission is usually under water. Its appurtenant value to the shoreline neighbor is evidenced by the backlogged applications for its use.

There are two broad types of non-extractive leases, simply categorized as fee and no-fee.

No-fee leases have as their consideration the public benefit. This type of lease is limited to public agencies, such as the State Department of Parks and Recreation, and to benefactors of special legislation, such as specified public utilities. Fee leases have as their consideration 6% per year of the fair market value of the land leased. Such leases may be for a marina, a sugar refinery, a vessel moorage or any of the other uses previously discussed. These categories are broken down into classes, such as commercial, industrial, public agency, and recreational pier permits. Some of the classes require filing fees, minimum rental, and performance or construction bonds.

During fiscal 1969-70, the Commission issued new leases on 553.86 acres of land at a yearly rental of \$59,415.63. Continuing revenue also occurs from prior leases. During this same time, the Commission issued rent-free leases in consideration of the public benefit on 1950.92 acres of land which had a potential rental value of \$107,893. Typical of the rent-free lease is the

Gaviota Pier for which the Department of Parks and Recreation receives \$10,500 annually from various oil companies for transporting offshore oil crews and equipment.

Leasing as a management tool has been used effectively to help conserve and protect the environment. All leases issued by the State Lands Commission contain specific prohibitions concerning pollution and contamination of the waters and further prohibit all impairment of or interference with bathing, fishing, or navigation in the waters. In order to achieve a coordination of activity and to prevent the duplication of efforts between agencies where there may be overlapping statutory responsibilities, the State Lands Division has cooperated with the State Water Quality Control Board and with the Department of Fish and Game, and has adopted operational procedures for the control and prevention of water pollution on State lands.

To ensure that vested interests in the ocean and its resources are considered in their proper scope, the State Lands Commission has participated actively in the educational needs of California colleges and universities. The Commission, in cooperation and conjunction with the Coordinating Council on Higher Education, has helped compile information and make recommendations on a master plan for educational marine reserves. The Commission has been cooperative with numerous other educational institutions and State agencies to aid in the preservation, conservation, and protection of the resources in the tide and submerged lands and those belonging to the upland shoreline neighbor.

OWNERSHIP DETERMINATION

Homeowners, ranchers, farmers, businessmen, and other landowners customarily know the exact bounds of their property. This has been the time honored practice among landowners for centuries, and it has many advantages. Among them is the proper apportionment of liability and taxes. An agreeable boundary between two neighbors also enables development for the mutual benefit of both. The opposite is true if the boundaries are uncertain, and this happens to be the predicament of the State with respect to many of its lands.

Bounding the four million acres of State tide and submerged land are 6,939 miles of shoreline, a distance slightly longer than the trip from San Francisco to Boston and back. Of this distance, only 63 miles of boundary have been established legally, or about the distance between Sacramento and Vallejo.

A boundary line agreement, by its nature, requires a great deal of effort concentrated in a small length of shoreline, possibly only several hundred feet. By 1975 or 1980, the land development and population expansion will have altered the shoreline area to such a great extent that the boundary line agreement will be the only tool, and the backlog will be a

constant source of irritation to everyone concerned--citizens, legislators, developers, and members of the State Lands Commission.

The rate of ownership determination is affected by other factors which keep the output per man at a level lower than might be expected in other types of boundary location because tide and submerged lands are difficult to locate. Historical shoreline conditions, determination of the existence and extent of claims, unsnarling title problems caused by early day frauds, and the exact location of head of tide and navigation are but a few of these problems.

Other situations looming ever larger in the future are inequitable settlements resulting from unfavorable legal decisions and scattered agreements. Within the last decade, the economic value of lands in question has risen to make much of the tide and submerged land worth litigation. Increasing land values also force title companies to require a firmly established property line between the private lands and the tide and submerged lands as the basis for issuing insurance policies. Frequently the only means to accomplish this is through legal action. Every court case is decided on its own merits, and the presentation and interpretation of a set of similar conditions can

vary from court to court; even from negotiator to negotiator in the case of friendly boundary line agreements. Determination, for example, of the ordinary high tide line can cause one landowner to have his shoreline fixed much farther seaward than a nearby neighbor, which will wreak havoc with tide and submerged lands management in the next decade. Hopefully, the trend can be reversed by broadening activities to encompass broad areas rather than being forced to resolve these problems on a "firefighting" basis.

Along the 128 shoreline miles of Clear Lake, Donner Lake and Fallen Leaf Lake, there are about 775 trespassers. Also, at Clear Lake there is a high rate of development in the area. The exact number of encroachments on the remaining 6,811 miles of shoreline is as unknown as the extent of our boundaries. Conservative estimates by the State Lands Division place the Statewide total at 1,100.

At this point, the term trespasses should be discussed and defined. Trespasses are simply all encroachments, of any sort, occupying tide and submerged land without permission of the State Lands Commission.

Possibly 10% of these trespassers either do not know the State Lands Commission exists, or are indifferent, but would probably sign a lease if the Commission were able to contact them and assert a claim.

About 85% are those who would enter into a lease if the boundary was certain enough to show the exact extent of their encroachment, and the staff were available to investigate, negotiate, and process the leases or permits.

The remaining 5% probably would not enter into any lease or permit, short of litigation.

The continuing growth in the number of trespasses noted on lands under the jurisdiction of the Commission is of great concern. Not only does the toleration of these trespasses reduce revenues to the State and create inequities in treatment as between the individual who recognizes his responsibility to the State as landowner and the individual who does not, but it places the State in severe jeopardy as to its rights in the lands.

Passage of Chapter 1447, Statutes of 1969, is a prime example of the type of precedent-setting actions being taken which will ultimately divest the State of its ownership rights in tide and submerged lands. Inability of the Commission to obtain the necessary support to assert valid claims and settle the ownership issues on much of the land under its jurisdiction in a timely manner prohibits, in most instances, any effective action being taken against trespassers.

Up to 1969 it had been a relatively settled matter that adverse possession against the State was not possible. Whenever the State found the setting of a boundary to be in order, it could assert a claim based on title, engineering and historical data regardless of the time which had elapsed before the claim was made. Chapter 1447 changed this precept by stating that if an owner adjacent to tide and submerged lands has accretions to his property which occupy land which might be subject to State claim and pays taxes and uses this land for 30 years without adverse claim by the State, the adjoining landowner shall obtain ownership of these lands. Chapter 1447 has only a limited geographical impact at this time but even this limitation causes inequities. Additionally, the precedent against State protection from adverse possession can reasonably be expected to proliferate.

The trespass problem is dependent almost entirely on the determination of firm boundary lines for its solution.

When the inventory of tide and submerged lands, as directed by Chapter 1555, Statutes of 1970, is completed, and the environmental impact is determined, there will be a certain percentage, of encroachments, possibly 5%, which will be incompatible with the public interest. These will require complete

removal. This category includes structures which for one reason or another have fallen into disrepair and present a hazard to the public while using navigable waterways. Recent judicial decisions have held the State responsible for injuries and damages occurring as a result of such hazards. Claims have totaled well over \$3,000,000 in the last several years. Bonds and lease terms alleviate much of the problem with authorized structures, but those in trespass continue to create a hazard for which the State is responsible. Also included in this category are submerged piles and other debris.

The procedure in effect, when a probable trespasser is identified, is to establish contact by letter with an offer of lease and request for rental. If the trespasser is willing, the lease or permit is negotiated and approved by the State Lands Commission. Should the trespasser be unwilling to negotiate, the matter is referred to the legal section for ejectment proceedings as authorized in Section 6302 of the Public Resources Code as the workload permits.