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MARINE SANCTUARIES IN CALIFORNIA

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DOCUMENTS

AN 28 1972

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HEARINGS

BEFORE THE

SUBCOMMITTEE ON MINERALS, MATERIALS, AND FUELS

OF THE

COMMITTEE ON INTERIOR AND INSULAR AFFAIRS

UNITED STATES SENATE

NINETY-SECOND CONGRESS

FIRST SESSION

ON

S. 1446-S. 1452

BILLS TO CREATE MARINE SANCTUARIES FROM LEASING
PURSUANT TO THE OUTER CONTINENTAL SHELF LANDS ACT
IN AREAS OFF THE COAST OF CALIFORNIA ADJACENT TO
STATE-OWNED SUBMERGED LANDS IN WHICH SUCH STATE
HAS SUSPENDED LEASING FOR MINERAL PURPOSES

NOVEMBER 1 AND 4, 1971



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MARINE SANCTUARIES IN CALIFORNIA

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JAN 28 1913

HEARINGS

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(II)

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MARINE SANCTUARIES IN CALIFORNIA

MONDAY, NOVEMBER 1, 1971

U.S. SENATE,
SUBCOMMITTEE ON MINERALS, MATERIALS AND FUELS,
COMMITTEE ON INTERIOR AND INSULAR AFFAIRS,
Washington, D.C.

The subcommittee met, pursuant to notice, at 10 a.m., in room 3110, New Senate Office Building, Senator Frank E. Moss (chairman of the subcommittee) presiding.

Present: Senator Moss, presiding.

Also present: Mary Jane Due, staff counsel; and Charles Cook, minority counsel.

Senator Moss. The subcommittee will come to order.

The committee will hear this morning testimony directed to a group of seven bills, S. 1446 to S. 1452, to create marine sanctuaries in California OCS lands.

The purpose of the subject bills introduced by Senators Cranston and Tunney is to create seven marine sanctuaries along 250 miles of California Outer Continental Shelf lands, to suspend leasing activities over such lands and to establish a congressional policy with regard to such lands.

The OCS Act of 1953 grants to the President of the United States in section 12 the right to withdraw any area of unleased land of the Outer Continental Shelf. Secretary Udall wisely invoked this provision in 1967 when he established a "buffer zone" or "ecological preserve" in front of the Santa Barbara Sanctuary. Senator Hickel enlarged this buffer zone in 1970 to include additional unleased lands. See USGS professional paper 679, plate No. 2, for map of same.

Other provisions of section 12 of the OCS Act of 1953 grant to the President the right to suspend operations on leased areas of PCS for defense purposes, provided that lessees receive "just compensation" as required by the Constitution of the United States.

It is imperative that Congress review these proposed bills before the areas are leased. The Congress must be concerned with the energy crisis and petroleum reserves. It should be concerned with established property rights, and also selling leases to lessees, in good faith, for vast sums of money and then deciding that the area should not have been leased.

If the United States makes a contract in good faith, then it must live up to that contract or pay just compensation to its lessees after proper negotiations or judicial proceedings that establish their losses. Congress also must be gravely concerned about the safety regulations and protection for the environment as well as the beautiful coastline of this country.

I look for answers to some of these problems from the distinguished witnesses who are scheduled to appear.

Reports of the executive branch will be included in the record at this point, as will copies of each of the bills. Also included will be a brief staff memo outlining the thrust of these bills.

One of the underlying questions which we must face is just how should decisions be made with respect to obtaining a balance between the need to develop a specific resource—oil—and the need to protect the environment from undesirable accident or side effects that may result.

The creation of marine sanctuaries is one way. The Secretary of the Interior is now authorized, under Public Law 212 of the 83d Congress—Outer Continental Shelf Lands Act—to lease and to make rules and regulations for operations conducted under such lease.

In the first report of the President's Panel on Oil Spills prepared in 1969, the Panel said:

In a sense, the oil spill problem joins the larger set of environmental problems facing society today. Some of the elements of the oil spill question raise more general questions of resource use, economics and allocation, of alternative or conflicting resource use, of developing technology for pollution control, of environmental quality standards and of joint state-federal operations.

It is to these questions that we turn today.

I look for some of the answers to be offered by the distinguished witness that will appear before us.

At this point I will order that the text of the bills, and reports of the executive branch made on these bills be included in the record,

(The documents referred to follow:)

92D CONGRESS
1st Session

S. 1446

IN THE SENATE OF THE UNITED STATES

APRIL 1, 1971

Mr. CRANSTON (for himself, Mr. TUNNEY, Mr. MUSKIE, and Mr. NELSON) introduced the following bill; which was read twice and referred to the Committee on Interior and Insular Affairs

A BILL

To create marine sanctuaries from leasing pursuant to the Outer Continental Shelf Lands Act in areas off the coast of California adjacent to State-owned submerged lands in which such State has suspended leasing for mineral purposes.

- 1 *Be it enacted by the Senate and House of Representa-*
- 2 *tives of the United States of America in Congress assembled,*
- 3 That this Act may be cited as the "California Marine
- 4 Sanctuary Act of 1971".

1 SEC. 2. The Congress finds and declares that the shore-
2 line of the State of California, and the lands beneath navi-
3 gable waters and the Outer Continental Shelf off such shore-
4 line, are rich in a variety of natural, commercial, recreational,
5 and esthetic resources of immediate and potential value to
6 the present and future generations of Americans; that many
7 of these areas are in danger of damage or destruction by
8 commercial and industrial development; and that it is the
9 policy of Congress to preserve, protect, restore, make ac-
10 cessible for the benefit of all the people, and encourage
11 balanced use of selected portions of such areas.

12 SEC. 3. (a) The Secretary of the Interior shall, effec-
13 tive as of the date of enactment of this Act, suspend all
14 further leasing pursuant to the Outer Continental Shelf
15 Lands Act for the exploration for or extraction of oil, gas,
16 or any other mineral in any portion of the Outer Con-
17 tinental Shelf seaward of each of the areas described in
18 subsection (b) in all of which such State has provided by
19 law that leases will not be issued by such State for the
20 exploration for, or extract the production of any oil, gas, or
21 other mineral. The Secretary shall determine such seaward
22 portion by extending seaward the boundaries of each such
23 State area in a parallel manner adjusted as determined by
24 the Secretary to conform to lease tract boundaries.

25 (b) Such areas are as follows:

1 Area Numbered 1. The San Diego and Orange County
2 Sanctuary

3 Beginning at the point of the intersection of the ordi-
4 nary high-water mark of the Pacific Ocean with the southern
5 boundary of San Diego County; thence in a generally
6 northerly direction along said ordinary high-water mark to
7 the northerly city limits of the city of Newport Beach,
8 Orange County; thence southerly and westerly three nautical
9 miles to a point in the Pacific Ocean; thence in a generally
10 southerly direction parallel to said ordinary high-water mark
11 to a point in the Pacific three nautical miles west from the
12 point of beginning.

13 Area Numbered 2. The Los Angeles County Sanctuary

14 Beginning at the point of intersection of the ordinary
15 high-water mark of the Pacific Ocean with the southerly
16 point of Point Fermin; thence in a generally northerly and
17 westerly direction along said ordinary high-water mark to
18 the Ventura County line; thence due south three nautical
19 miles to a point in the Pacific Ocean; thence in a generally
20 easterly and southerly direction parallel to said ordinary
21 high-water mark to a point in the Pacific Ocean three
22 nautical miles due south from the point of beginning; thence
23 due north to the point of beginning.

1 Area Numbered 3. The Santa Catalina and San Clemente
2 Islands Sanctuary

3 The tide and submerged lands surrounding the Islands
4 of San Clemente and Santa Catalina waterward of the ordi-
5 nary high-water mark of the Pacific Ocean on such islands
6 to a distance three nautical miles therefrom.

7 Area Numbered 4. The San Luis Obispo County Sanctuary

8 All those tide and submerged lands being in the county of
9 San Luis Obispo and lying within an area beginning at a
10 point on the ordinary high-water mark of the Pacific Ocean
11 at the centerline of the pier at the Pismo Beach State Beach
12 Park; thence southerly along the ordinary high-water mark
13 of the Pacific Ocean to a point ten statute miles distant in a
14 direct line from said point of beginning; thence on a line
15 due west into the Pacific Ocean a distance of three nautical
16 miles to a point; thence northerly on a line parallel to the
17 ordinary high-water mark of the Pacific Ocean to a point
18 which lies due west a distance of three nautical miles from
19 a point on the ordinary high-water mark of the Pacific
20 Ocean, which point is distant in a direct line one statute mile
21 northerly from the intersection of the ordinary high-water
22 mark of the Pacific Ocean with the centerline of the pier
23 in the State Beach Park at Cayucos; thence southerly along
24 the ordinary high-water mark of the Pacific Ocean to the
25 point of beginning.

1 line of township 1 north, Humboldt base line; thence due
2 west to a point in the Pacific Ocean, said point being three
3 nautical miles from the ordinary high-water mark; thence
4 in a southerly and easterly direction, parallel to and three
5 nautical miles distant from said high-water mark to a point
6 due west from the point of beginning; thence due east to
7 the point of beginning.

8 SEC. 4. Any suspension of leasing in an area of the
9 Continental Shelf pursuant to section 3 shall be terminated
10 by the Secretary of the Interior if the State of California
11 revokes the law enacted by such State prohibiting explora-
12 tion for extraction of oil, gas, or other minerals in the entire
13 area of such State described in section 3 (b) which is ad-
14 jacent to such area of the Continental Shelf.

15 SEC. 5. Nothing in this Act shall be deemed—

16 (1) to authorize the Secretary of the Interior to
17 terminate any lease or to refuse to renew any lease
18 with a right of renewal; or

19 (2) to prohibit or limit any presently existing
20 power of the Secretary of the Interior to grant rights
21 of way; or

22 (3) to prohibit any exploration of the Outer Con-
23 tinental Shelf; or

24 (4) to grant to the State of California any title
25 or jurisdiction over any portion of the Outer Con-
26 tinental Shelf.

1 SEC. 6. In any case in which the State of California at
2 any time after the date of enactment of this Act suspends
3 or terminates all mineral leasing in any area of lands be-
4 neath navigable waters in such State in which no previous
5 production of minerals was allowed, the Secretary of the
6 Interior shall report to the President and the Congress his
7 recommendations with respect to any suspension of mineral
8 leasing in the area of the Outer Continental Shelf seaward
9 of such State area.

10 SEC. 7. The President is authorized to terminate any
11 suspension pursuant to section 3 during any national emer-
12 gency declared after the date of enactment of this Act.

13 SEC. 8. For the purposes of this Act—

14 (1) the term “lands beneath navigable waters”
15 has the meaning prescribed in the Submerged Lands
16 Act;

17 (2) the term “Outer Continental Shelf” has the
18 meaning prescribed in the Outer Continental Shelf Lands
19 Act;

20 (3) the term “coastline” means the line of ordinary
21 low water along that portion of the coast which is in
22 direct contact with the open sea and the line marking
23 the seaward limit of inland waters; and

24 (4) the term “lease” means any permit, contract
25 or any other form of authorization.

1 SEC. 9. If any provision of this Act, or any section,
2 subsection, sentence, clause, or circumstance is held invalid,
3 the validity of the remainder of the Act and of the applica-
4 tion of any such provision, section, subsection, sentence,
5 clause, phrase, or individual word to other persons and cir-
6 cumstances is not effected thereby.

92^d CONGRESS
1ST SESSION

S. 1447

IN THE SENATE OF THE UNITED STATES

APRIL 1, 1971

Mr. CRANSTON (for himself and Mr. TUNNEY) introduced the following bill; which was read twice and referred to the Committee on Interior and Insular Affairs

A BILL

To create a marine sanctuary from leasing pursuant to the Outer Continental Shelf Lands Act in an area off the coast of California adjacent to State owned submerged lands in which such State has suspended leasing for mineral purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That this Act may be cited as the "San Diego and Orange
4 County Marine Sanctuary Act".

5 SEC. 2. The Congress finds and declares that the shore-
6 line of the State of California, and the lands beneath navi-
7 gable waters and the Outer Continental Shelf off such shore-
8 line, are rich in a variety of natural, commercial, recrea-
9 tional, and esthetic resources of immediate and potential

1 value to the present and future generations of Americans;
2 that many of these areas are in danger of damage or destruc-
3 tion by commercial and industrial development; and that it
4 is the policy of Congress to preserve, protect, restore, make
5 accessible for the benefit of all the people, and encourage
6 balanced use of selected portions of such areas.

7 SEC. 3. (a) The Secretary of the Interior shall, effective
8 as of the date of enactment of this Act, suspend all further
9 leasing pursuant to the Outer Continental Shelf Lands Act
10 for the exploration for or extraction of oil, gas, or any other
11 mineral in the portion of the Outer Continental Shelf sea-
12 ward of the area described in subsection (b) in which such
13 State has provided by law that leases will not be issued by
14 such State for the exploration for or extraction of oil, gas,
15 or any other mineral; and has not previously allowed the
16 production of any oil, gas or other mineral. The Secretary
17 shall determine such seaward portion by extending seaward
18 the boundaries of such State area in a parallel manner
19 adjusted as determined by the Secretary to conform to lease
20 tract boundaries.

21 (b) Such area is as follows:

22 The San Diego and Orange County Sanctuary

23 Beginning at the point of the intersection of the ordi-
24 nary highwater mark of the Pacific Ocean with the southern
25 boundary of San Diego County; thence in a generally north-

1 erly direction along said ordinary high-water mark to the
2 northerly city limits of the city of Newport Beach, Orange
3 County; thence southerly and westerly three nautical miles
4 to a point in the Pacific Ocean; thence in a generally south-
5 erly direction parallel to said ordinary high-water mark to
6 a point in the Pacific three nautical miles west from the
7 point of beginning.

8 SEC. 4. Any suspension of leasing in the area of the con-
9 tinental shelf pursuant to section 3 shall be terminated by the
10 Secretary of the Interior if the State of California revokes
11 the law enacted by such State prohibiting exploration for
12 extraction of oil, gas, or other minerals in the entire area of
13 such State described in section 3 (b) which is adjacent to
14 such area of the Continental Shelf.

15 SEC. 5. Nothing in this Act shall be deemed—

16 (1) to authorize the Secretary of the Interior to
17 terminate any lease or to refuse to renew any lease
18 with a right of renewal; or

19 (2) to prohibit or limit any presently existing
20 power of the Secretary of the Interior to grant rights
21 of way; or

22 (3) to prohibit any exploration of the Outer Con-
23 tinental Shelf; or

24 (4) to grant to the State of California any title

1 or jurisdiction over any portion of the Outer Continental
2 Shelf.

3 SEC. 6. In any case in which the State of California at
4 any time after the date of enactment of this Act suspends or
5 terminates all mineral leasing in any area of lands beneath
6 navigable waters in such State in which no previous pro-
7 duction of minerals was allowed, the Secretary of the In-
8 terior shall report to the President and the Congress his
9 recommendations with respect to any suspension of mineral
10 leasing in the area of the Outer Continental Shelf seaward
11 of such State area.

12 SEC. 7. The President is authorized to terminate any
13 suspension pursuant to section 3 during any national
14 emergency declared after the date of enactment of this Act.

15 SEC. 8. For the purposes of this Act—

16 (1) the term "lands beneath navigable waters"
17 has the meaning prescribed in the Submerged Lands
18 Act;

19 (2) the term "Outer Continental Shelf" has the
20 meaning prescribed in the Outer Continental Shelf
21 Lands Act;

22 (3) the term "coastline" means the line of ordi-
23 nary low water along that portion of the coast which is
24 in direct contact with the open sea and the line marking
25 the seaward limit of inland waters; and

1 (4) the term "lease" means any permit, contract,
2 or any other form of authorization.

3 SEC. 9. If any provision of this Act, or any section, sub-
4 section, sentence, clause, or circumstance is held invalid, the
5 validity of the remainder of the Act and of the application
6 of any such provision, section, subsection, sentence, clause,
7 phrase, or individual word to other persons and circum-
8 stances is not affected thereby.

A BILL

92^D CONGRESS
1ST SESSION

S. 1448

IN THE SENATE OF THE UNITED STATES

APRIL 1, 1971

Mr. CRANSTON (for himself and Mr. TUNNEY) introduced the following bill; which was read twice and referred to the Committee on Interior and Insular Affairs

A BILL

To create a marine sanctuary from leasing pursuant to the Outer Continental Shelf Lands Act in an area off the coast of California adjacent to State owned submerged lands in which such State has suspended leasing for mineral purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That this Act may be cited as the "Los Angeles County
4 Marine Sanctuary Act".

5 SEC. 2. The Congress finds and declares that the shore-
6 line of the State of California, and the lands beneath navigable
7 waters and the Outer Continental Shelf off such shoreline, are
8 rich in a variety of natural, commercial, recreational, and
9 esthetic resources of immediate and potential value to the

1 present and future generations of Americans; that many of
2 these areas are in danger of damage or destruction by com-
3 mercial and industrial development; and that it is the policy
4 of Congress to preserve, protect, restore, make accessible for
5 the benefit of all the people, and encourage balanced use of
6 selected portions of such areas.

7 SEC. 3. (a) The Secretary of the Interior shall, effective
8 as of the date of enactment of this Act, suspend all further
9 leasing pursuant to the Outer Continental Shelf Lands Act
10 for the exploration for or extraction of oil, gas, or any other
11 mineral in the portion of the Outer Continental Shelf sea-
12 ward of the area described in subsection (b) in which such
13 State has provided by law that leases will not be issued by
14 such State for the exploration for or extraction of oil, gas,
15 or any other mineral; and has not previously allowed the
16 production of any oil, gas or other mineral. The Secretary
17 shall determine such seaward portion by extending seaward
18 the boundaries of such State area in a parallel manner
19 adjusted as determined by the Secretary to conform to lease
20 tract boundaries.

21 (b) Such area is as follows:

22 The Los Angeles County Sanctuary.

23 Beginning at the point of intersection of the ordinary
24 high-water mark of the Pacific Ocean with the southerly
25 point of Point Fermin; thence in a generally northerly and

1 westerly direction along said ordinary high-water mark to
2 the Ventura County line; thence due south three nautical
3 miles to a point in the Pacific Ocean; thence in a generally
4 easterly and southerly direction parallel to said ordinary
5 high-water mark to a point in the Pacific Ocean three nau-
6 tical miles due south from the point of beginning; thence
7 due north to the point of beginning.

8 SEC. 4. Any suspension of leasing in the area of the
9 Continental Shelf pursuant to section 3 shall be terminated
10 by the Secretary of the Interior if the State of California
11 revokes the law enacted by such State prohibiting explora-
12 tion for extraction of oil, gas, or other minerals in the entire
13 area of such State described in section 3 (b) which is
14 adjacent to such area of the Continental Shelf.

15 SEC. 5. Nothing in this Act shall be deemed—

16 (1) to authorize the Secretary of the Interior to
17 terminate any lease or to refuse to renew any lease with
18 a right of renewal; or

19 (2) to prohibit or limit any presently existing
20 power of the Secretary of the Interior to grant rights of
21 way; or

22 (3) to prohibit any exploration of the Outer Con-
23 tinental Shelf; or

24 (4) to grant to the State of California any title

1 or jurisdiction over any portion of the Outer Continental
2 Shelf.

3 SEC. 6. In any case in which the State of California at
4 any time after the date of enactment of this Act suspends
5 or terminates all mineral leasing in any area of lands beneath
6 navigable waters in such State in which no previous pro-
7 duction of minerals was allowed, the Secretary of the Interior
8 shall report to the President and the Congress his recom-
9 mendations with respect to any suspension of mineral leas-
10 ing in the area of the Outer Continental Shelf seaward of such
11 State area.

12 SEC. 7. The President is authorized to terminate any
13 suspension pursuant to section 3 during any national emer-
14 gency declared after the date of enactment of this Act.

15 SEC. 8. For the purposes of this Act—

16 (1) the term “lands beneath navigable waters”
17 has the meaning prescribed in the Submerged Lands
18 Act;

19 (2) the term “Outer Continental Shelf” has the
20 meaning prescribed in the Outer Continental Shelf
21 Lands Act;

22 (3) the term “coastline” means the line of ordi-
23 nary low water along that portion of the coast which is
24 in direct contact with the open sea and the line mark-
25 ing the seaward limit of inland waters; and

1 (4) the term "lease" means any permit, contract
2 or any other form of authorization.

3 SEC. 9. If any provision of this Act, or any section, sub-
4 section, sentence, clause, or circumstance is held invalid, the
5 validity of the remainder of the Act and of the application
6 of any such provision, section, subsection, sentence, clause,
7 phrase, or individual word to other persons and circum-
8 stances is not affected thereby.

92^D CONGRESS
1ST SESSION

S. 1449

IN THE SENATE OF THE UNITED STATES

APRIL 1, 1971

Mr. CRANSTON (for himself and Mr. TUNNEY) introduced the following bill; which was read twice and referred to the Committee on Interior and Insular Affairs

A BILL

To create a marine sanctuary from leasing pursuant to the Outer Continental Shelf Lands Act in an area off the coast of California adjacent to State owned submerged lands in which such State has suspended leasing for mineral purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 That this Act may be cited as the "Santa Catalina and San
4 Clemente Islands Marine Sanctuary Act".

5 SEC. 2. The Congress finds and declares that the shore-
6 line of the State of California, and the lands beneath navi-
7 gable waters and the Outer Continental Shelf off such
8 shoreline, are rich in a variety of natural, commercial, rec-
9 reational, and esthetic resources of immediate and potential

1 value to the present and future generations of Americans;
2 that many of these areas are in danger of damage or destruc-
3 tion by commercial and industrial development; and that it
4 is the policy of Congress to preserve, protect, restore, make
5 accessible for the benefit of all the people, and encourage
6 balanced use of selected portions of such areas.

7 SEC. 3. (a) The Secretary of the Interior shall, effec-
8 tive as of the date of enactment of this Act, suspend all
9 further leasing pursuant to the Outer Continental Shelf
10 Lands Act for the exploration for or extraction of oil, gas,
11 or any other mineral in the portion of the Outer Continental
12 Shelf seaward of the area described in subsection (b) in
13 which such State has provided by law that leases will not
14 be issued by such State for the exploration for or extrac-
15 tion of oil, gas, or any other mineral; and has not previously
16 allowed the production of any oil, gas or other mineral. The
17 Secretary shall determine such seaward portion by extending
18 seaward the boundaries of such State area in a parallel
19 manner adjusted as determined by the Secretary to con-
20 form to lease tract boundaries.

21 (b) Such area is as follows:

22 The Santa Catalina and San Clemente Islands Sanctuary
23 The tide and submerged lands surrounding the Islands
24 of San Clemente and Santa Catalina waterward of the ordi-

1 nary high-water mark of the Pacific Ocean on such islands
2 to a distance three nautical miles therefrom.

3 SEC. 4. Any suspension of leasing in the area of the
4 continental shelf pursuant to section 3 shall be terminated
5 by the Secretary of the Interior if the State of California
6 revokes the law enacted by such State prohibiting explora-
7 tion for extraction of oil, gas, or other minerals in the entire
8 area of such State described in section 3 (b) which is adja-
9 cent to such area of the continental shelf.

10 SEC. 5. Nothing in this Act shall be deemed—

11 (1) to authorize the Secretary of the Interior to
12 terminate any lease or to refuse to renew any lease with
13 a right of renewal; or

14 (2) to prohibit or limit any presently existing
15 power of the Secretary of the Interior to grant rights of
16 way; or

17 (3) to prohibit any exploration of the Outer Con-
18 tinental Shelf; or

19 (4) to grant to the State of California any title or
20 jurisdiction over any portion of the Outer Continental
21 Shelf.

22 SEC. 6. In any case in which the State of California at
23 any time after the date of enactment of this Act suspends or
24 terminates all mineral leasing in any area of lands beneath

4.

1 navigable waters in such State in which no previous produc-
2 tion of minerals was allowed, the Secretary of the Interior
3 shall report to the President and the Congress his recom-
4 mendations with respect to any suspension of mineral leasing
5 in the area of the Outer Continental Shelf seaward of such
6 State area.

7 SEC. 7. The President is authorized to terminate any sus-
8 pension pursuant to section 3 during any national emergency
9 declared after the date of enactment of this Act.

10 SEC. 8. For the purposes of this Act—

11 (1) the term "lands beneath navigable waters" has
12 the meaning prescribed in the Submerged Lands Act;

13 (2) the term "Outer Continental Shelf" has the
14 meaning prescribed in the Outer Continental Shelf Lands
15 Act;

16 (3) the term "coastline" means the line of ordinary
17 low water along that portion of the coast which is in
18 direct contact with the open sea and the line marking
19 the seaward limit of inland waters; and

20 (4) the term "lease" means any permit, contract or
21 any other form of authorization.

22 SEC. 9. If any provision of this Act, or any section,
23 subsection, sentence, clause, or circumstance is held invalid,

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1 the validity of the remainder of the Act and of the applica-
2 tion of any such provision, section, subsection, sentence,
3 clause, phrase, or individual word to other persons and
4 circumstances is not affected thereby.

92^d CONGRESS
1st SESSION

S. 1450

IN THE SENATE OF THE UNITED STATES

APRIL 1, 1971

Mr. CRANSTON (for himself and Mr. TUNNEY) introduced the following bill;
which was read twice and referred to the Committee on Interior and Insular
Affairs

A BILL

To create a marine sanctuary from leasing pursuant to the Outer Continental Shelf Lands Act in an area off the coast of California adjacent to State owned submerged lands in which such State has suspended leasing for mineral purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 That this Act may be cited as the "San Luis Obispo County
4 Marine Sanctuary Act".

5 SEC. 2. The Congress finds and declares that the shore-
6 line of the State of California, and the lands beneath naviga-
7 ble waters and the Outer Continental Shelf off such
8 shoreline, are rich in a variety of natural, commercial, recrea-
9 tional, and esthetic resources of immediate and potential

1 value to the present and future generations of Americans;
2 that many of these areas are in danger of damage or destruc-
3 tion by commercial and industrial development; and that it is
4 the policy of Congress to preserve, protect, restore, make
5 accessible for the benefit of all the people, and encourage
6 balanced use of selected portions of such areas.

7 SEC. 3. (a) The Secretary of the Interior shall, effective
8 as of the date of enactment of this Act, suspend all further
9 leasing pursuant to the Outer Continental Shelf Lands Act
10 for the exploration for or extraction of oil, gas, or any other
11 mineral in the portion of the Outer Continental Shelf sea-
12 ward of the area described in subsection (b) in which such
13 State has provided by law that leases will not be issued by
14 such State for the exploration for or extraction of oil, gas, or
15 any other mineral; and has not previously allowed the pro-
16 duction of any oil, gas or other mineral. The Secretary shall
17 determine such seaward portion by extending seaward the
18 boundaries of such State area in a parallel manner adjusted
19 as determined by the Secretary to conform to lease tract
20 boundaries.

21 (b) Such area is as follows:

22 The San Luis Obispo County Sanctuary

23 All those tide and submerged lands being in the County of
24 San Luis Obispo and lying within an area beginning at a
25 point on the ordinary high-water mark of the Pacific Ocean

1 at the center line of the pier at the Pismo Beach State Beach
2 Park; thence southerly along the ordinary high-water mark
3 of the Pacific Ocean to a point ten statute miles distant in
4 a direct line from said point of beginning; thence on a line
5 due west into the Pacific Ocean a distance of three nautical
6 miles to a point; thence northerly on a line parallel to the
7 ordinary high-water mark of the Pacific Ocean to a point
8 which lies due west a distance of three nautical miles from a
9 point on the ordinary high-water mark of the Pacific Ocean,
10 which point is distant in a direct line one statute mile north-
11 erly from the intersection of the ordinary high-water mark of
12 the Pacific Ocean with the center line of the pier in the State
13 Beach Park at Cayucos; thence southerly along the ordinary
14 high-water mark of the Pacific Ocean to the point of
15 beginning.

16 SEC. 4. Any suspension of leasing in the area of the
17 continental shelf pursuant to section 3 shall be terminated by
18 the Secretary of the Interior if the State of California revokes
19 the law enacted by such State prohibiting exploration for
20 extraction of oil, gas, or other minerals in the entire area of
21 such State described in section 3 (b) which is adjacent
22 to such area of the continental shelf.

23 SEC. 5. Nothing in this Act shall be deemed—

24 (1) to authorize the Secretary of the Interior to

4

1 terminate any lease or to refuse to renew any lease with
2 a right of renewal; or

3 (2) to prohibit or limit any presently existing
4 power of the Secretary of the Interior to grant rights
5 of way; or

6 (3) to prohibit any exploration of the Outer Con-
7 tinental Shelf; or

8 (4) to grant to the State of California any title or
9 jurisdiction over any portion of the Outer Continental
10 Shelf.

11 SEC. 6. In any case in which the State of California at
12 any time after the date of enactment of this Act suspends or
13 terminates all mineral leasing in any area of lands beneath
14 navigable waters in such State in which no previous produc-
15 tion of minerals was allowed, the Secretary of the Interior
16 shall report to the President and the Congress his recom-
17 mendations with respect to any suspension of mineral leasing
18 in the area of the Outer Continental Shelf seaward of such
19 State area.

20 SEC. 7. The President is authorized to terminate any
21 suspension pursuant to section 3 during any national emer-
22 gency declared after the date of enactment of this Act.

23 SEC. 8. For the purposes of this Act—

24 (1) the term "lands beneath navigable waters" has
25 the meaning prescribed in the Submerged Lands Act;

1 (2) the term "Outer Continental Shelf" has the
2 meaning prescribed in the Outer Continental Shelf
3 Lands Act;

4 (3) the term "coastline" means the line of
5 ordinary low water along that portion of the coast
6 which is in direct contact with the open sea and the line
7 marking the seaward limit of inland waters; and

8 (4) the term "lease" means any permit, contract
9 or any other form of authorization.

10 SEC. 9. If any provision of this Act, or any section, sub-
11 section, sentence, clause, or circumstance is held invalid, the
12 validity of the remainder of the Act and of the application
13 of any such provision, section, subsection, sentence, clause,
14 phrase, or individual word to other persons and circum-
15 stances is not affected thereby.

92D CONGRESS
1ST SESSION

S. 1451

IN THE SENATE OF THE UNITED STATES

APRIL 1, 1971

Mr. CRANSTON (for himself and Mr. TUNNEY) introduced the following bill; which was read twice and referred to the Committee on Interior and Insular Affairs

A BILL

To create a marine sanctuary from leasing pursuant to the Outer Continental Shelf Lands Act in an area off the coast of California adjacent to State owned submerged lands in which such State has suspended leasing for mineral purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That this Act may be cited as the "Monterey and Santa
4 Cruz Counties Marine Sanctuary Act".

5 SEC. 2. The Congress finds and declares that the shore-
6 line of the State of California, and the lands beneath navi-
7 gable waters and the Outer Continental Shelf off such
8 shoreline, are rich in a variety of natural, commercial, recre-
9 ational, and esthetic resources of immediate and potential

1 value to the present and future generations of Americans;
2 that many of these areas are in danger of damage or destruc-
3 tion by commercial and industrial development; and that it
4 is the policy of Congress to preserve, protect, restore, make
5 accessible for the benefit of all the people, and encourage
6 balanced use of selected portions of such areas.

7 SEC. 3. (a) The Secretary of the Interior shall, effective
8 as of the date of enactment of this Act, suspend all further
9 leasing pursuant to the Outer Continental Shelf Lands Act
10 for the exploration for or extraction of oil, gas, or any other
11 mineral in the portion of the Outer Continental Shelf seaward
12 of the area described in subsection (b) in which such State
13 has provided by law that leases will not be issued by such
14 State for the exploration for or extraction of oil, gas, or any
15 other mineral; and has not previously allowed the produc-
16 tion of any oil, gas or other mineral. The Secretary shall
17 determine such seaward portion by extending seaward the
18 boundaries of such State area in a parallel manner adjusted
19 as determined by the Secretary to conform to lease tract
20 boundaries.

21 (b) Such area is as follows:

22 The Monterey and Santa Cruz Counties Sanctuary

23 All those tide and submerged lands being in the County
24 of Monterey, and lying within an area beginning at the
25 intersection of the ordinary high-water mark of the Pacific

1 Ocean and the west line of section 32, township 24 south,
2 range 6 east, M.D.B. & M.; thence northerly and westerly
3 along the ordinary high-water mark of the Pacific Ocean
4 to a point on said ordinary high-water mark one-half mile
5 northerly of the south line of township 12 south, M.D.B.;
6 thence in a true southwesterly direction to a point in Mon-
7 terey Bay, said point being three nautical miles from the
8 ordinary high-water mark; thence southerly and easterly
9 on a line parallel to and three nautical miles distant from
10 said ordinary high-water mark of the Pacific Ocean to a
11 point due west from the point of beginning; thence due
12 east to the point of beginning.

13 SEC. 4. Any suspension of leasing in the area of the
14 continental shelf pursuant to section 3 shall be terminated
15 by the Secretary of the Interior if the State of California
16 revokes the law enacted by such State prohibiting explora-
17 tion for extraction of oil, gas, or other minerals in the entire
18 area of such State described in section 3 (b) which is adja-
19 cent to such area of the continental shelf.

20 SEC. 5. Nothing in this Act shall be deemed—

21 (1) to authorize the Secretary of the Interior to
22 terminate any lease or to refuse to renew any lease with
23 a right of renewal; or

24 (2) to prohibit or limit any presently existing

1 power of the Secretary of the Interior to grant rights
2 of way; or

3 (3) to prohibit any exploration of the Outer Con-
4 tinental Shelf; or

5 (4) to grant to the State of California any title
6 or jurisdiction over any portion of the Outer Continental
7 Shelf.

8 SEC. 6. In any case in which the State of California
9 at any time after the date of enactment of this Act suspends
10 or terminates all mineral leasing in any area of lands beneath
11 navigable waters in such State in which no previous pro-
12 duction of minerals was allowed, the Secretary of the Interior
13 shall report to the President and the Congress his recom-
14 mendations with respect to any suspension of mineral leasing
15 in the area of the Outer Continental Shelf seaward of such
16 State area.

17 SEC. 7. The President is authorized to terminate any
18 suspension pursuant to section 3 during any national emer-
19 gency declared after the date of enactment of this Act.

20 SEC. 8. For the purposes of this Act—

21 (1) the term "lands beneath navigable waters" has
22 the meaning prescribed in the Submerged Lands Act;

23 (2) the term "Outer Continental Shelf" has the
24 meaning prescribed in the Outer Continental Shelf Lands
25 Act;

1 (3) the term "coastline" means the line of ordi-
2 nary low water along that portion of the coast which
3 is in direct contact with the open sea and the line mark-
4 ing the seaward limit of inland waters; and

5 (4) the term "lease" means any permit, contract
6 or any other form of authorization.

7 SEC. 9. If any provision of this Act, or any section, sub-
8 section, sentence, clause, or circumstance is held invalid, the
9 validity of the remainder of the Act and of the application
10 of any such provision, section, subsection, sentence, clause,
11 phrase, or individual word to other persons and circum-
12 stances is not affected thereby.

92^D CONGRESS
1ST SESSION

S. 1452

IN THE SENATE OF THE UNITED STATES

APRIL 1, 1971

Mr. CRANSTON (for himself and Mr. TUNNEY) introduced the following bill; which was read twice and referred to the Committee on Interior and Insular Affairs

A BILL

To create a marine sanctuary from leasing pursuant to the Outer Continental Shelf Lands Act in an area off the coast of California adjacent to State owned submerged lands in which such State has suspended leasing for mineral purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That this Act may be cited as the "Humboldt and Mendo-
4 cino Counties Marine Sanctuary Act".

5 SEC. 2. The Congress finds and declares that the shore-
6 line of the State of California, and the lands beneath naviga-

1 ble waters and the Outer Continental Shelf off such shore-
2 line, are rich in a variety of natural, commercial, recreational,
3 and esthetic resources of immediate and potential value to
4 the present and future generations of Americans; that many
5 of these areas are in danger of damage or destruction by
6 commercial and industrial development; and that it is the
7 policy of Congress to preserve, protect, restore, make ac-
8 cessible for the benefit of all the people, and encourage bal-
9 anced use of selected portions of such areas.

10 SEC. 3. (a) The Secretary of the Interior shall, ef-
11 fective as of the date of enactment of this Act, suspend all
12 further leasing pursuant to the Outer Continental Shelf
13 Lands Act for the exploration for or extraction of oil, gas,
14 or any other mineral in the portion of the Outer Con-
15 tinental Shelf seaward of the area described in subsection
16 (b) in which such State has provided by law that leases
17 will not be issued by such State for the exploration for or
18 extraction of oil, gas, or any other mineral; and has not
19 previously allowed the production of any oil, gas, or any
20 other mineral. The Secretary shall determine such seaward
21 portion by extending seaward the boundaries of such State
22 area in a parallel manner adjusted as determined by the
23 Secretary to conform to lease tract boundaries.

24 (b) Such area is as follows:

25 The Humboldt and Mendocino Counties Sanctuary.

1 All those tide and submerged lands being in the Coun-
2 ties of Humboldt and Mendocino and lying within an area
3 beginning at the intersection of the ordinary high-water mark
4 of the Pacific Ocean and the south line of township 5 south,
5 Humboldt base line; thence northerly and westerly along
6 the ordinary high-water mark of the Pacific Ocean to the
7 intersection of said high-water mark and the north line of
8 township 1 north, Humboldt base line; thence due west to
9 a point in the Pacific Ocean, said point being three nautical
10 miles from the ordinary high-water mark; thence in a
11 southerly and easterly direction, parallel to and three
12 nautical miles distant from said high-water mark to a point
13 due west from the point of beginning; thence due east to
14 the point of beginning.

15 SEC. 4. Any suspension of leasing in the area of the
16 Continental Shelf pursuant to section 3 shall be terminated
17 by the Secretary of the Interior if the State of California
18 revokes the law enacted by such State prohibiting explora-
19 tion for extraction of oil, gas, or other minerals in the entire
20 area of such State described in section 3 (b) which is ad-
21 jacent to such area of the Continental Shelf.

22 SEC. 5. Nothing in this Act shall be deemed—

23 (1) to authorize the Secretary of the Interior to
24 terminate any lease or to refuse to renew any lease
25 with a right of renewal; or

1 (2) to prohibit or limit any presently existing
2 power of the Secretary of the Interior to grant rights-
3 of-way; or

4 (3) to prohibit any exploration of the Outer Con-
5 tinental Shelf; or

6 (4) to grant to the State of California any title or
7 jurisdiction over any portion of the Outer Continental
8 Shelf.

9 SEC. 6. In any case in which the State of California
10 at any time after the date of enactment of this Act suspends
11 or terminates all mineral leasing in any area of lands be-
12 neath navigable waters in such State in which no previous
13 production of minerals was allowed, the Secretary of the
14 Interior shall report to the President and the Congress his
15 recommendations with respect to any suspension of mineral
16 leasing in the area of the Outer Continental Shelf seaward
17 of such State area.

18 SEC. 7. The President is authorized to terminate any
19 suspension pursuant to section 3 during any national emer-
20 gency declared after the date of enactment of this Act.

21 SEC. 8. For the purposes of this Act—

22 (1) the term "lands beneath navigable waters"
23 has the meaning prescribed in the Submerged Lands
24 Act;

1 (2) the term "Outer Continental Shelf" has the
2 meaning prescribed in the Outer Continental Shelf Lands
3 Act;

4 (3) the term "coastline" means the line of ordinary
5 low water along that portion of the coast which is in
6 direct contact with the open sea and the line marking
7 the seaward limit of inland waters; and

8 (4) the term "lease" means any permit, contract
9 or any other form of authorization.

10 SEC. 9. If any provision of this Act, or any section,
11 subsection, sentence, clause, or circumstance is held invalid,
12 the validity of the remainder of the Act and of the applica-
13 tion of any such provision, section, subsection, sentence,
14 clause, phrase, or individual word to other persons and cir-
15 cumstances is not affected thereby.

U.S. DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D.C., November 1, 1971.

HON. HENRY M. JACKSON,
Chairman, Committee on Interior and Insular Affairs,
U.S. Senate, Washington, D.C.

DEAR MR. CHAIRMAN: This responds to the Committee's request of September 10, 1971, for this Department's comments on S. 1446, a bill "To create marine sanctuaries from leasing pursuant to the Outer Continental Shelf Lands Act in areas off the coast of California adjacent to State-owned submerged lands in which such State has suspended leasing for mineral purposes." Our comments herein apply as well to S. 1447 through S. 1452, identical bills to establish such marine sanctuaries seaward of San Diego and Orange Counties, Los Angeles County, Santa Catalina and San Clemente Islands, San Luis Obispo County, Monterey and Santa Cruz Counties, and Humboldt and Mendocino Counties, respectively.

The Department of the Interior recommends against enactment of these bills.

S. 1446 would direct that the Secretary of the Interior suspend further mineral leasing pursuant to the Outer Continental Shelf Lands Act (43 U.S.C. 1331 *et seq.*) in areas seaward of those within the territorial sea where leasing has, prior to the date of enactment, been proscribed by the State of California. Such suspension could be terminated by the President in the event of a declared national emergency and nothing in the Act would be deemed (1) to authorize the Secretary to terminate or refuse to renew any lease; (2) to limit any authority to grant rights-of-way; (3) to prohibit any exploration of the Outer Continental Shelf; or (4) to grant to the State of California any title or jurisdiction over any portion of the Outer Continental Shelf. Section 6 of the bills would require the Secretary to report to the President and the Congress his recommendations as to any suspension of mineral leasing in any area of the Outer Continental Shelf seaward of any State area in which, at any time after enactment, the State suspends mineral leasing and in which no previous production of minerals was allowed.

The many resource conservation programs of this Department in California, and in other coastal States, demonstrate our support of the objectives expressed in section 2 of S. 1446. There is, of course, a need to "preserve, protect, restore (and) make accessible for the benefit of all the people" the natural, commercial, recreational and esthetic resources of coastal California. There is also a need, as S. 1446 would have the Congress declare, to "encourage the *balanced use*" of these resources. We strongly believe that S. 1446 attempts to strike this difficult balance without due regard for continued development of the Nation's mineral resources, or for the discretion vested by Congress in the Secretary to regulate mineral leasing on the Outer Continental Shelf.

Section 12(a) of the Outer Continental Shelf Lands Act (43 U.S.C. 1341(a)) provides the Secretary with authority to withdraw from mineral leasing particular areas of the Outer Continental Shelf, or, in the exercise of his discretion, to withhold certain tracts within an area otherwise available for leasing. Both the National Environmental Policy Act of 1969 and regulations promulgated by this Department pursuant to the Outer Continental Shelf Lands Act require thorough consideration of environmental consequences prior to the issuance of mineral leases and during extraction, if a lease is issued. You will recall that on February 7, 1969 the Secretary exercised his discretion under the Outer Continental Shelf Lands Act and suspended drilling and production operations on six leases in the Santa Barbara Channel. In addition, in March 1969, he established the Santa Barbara Channel Ecological Preserve adjacent to a State sanctuary and withheld from mineral leasing an additional buffer zone. Regrettably, the Congress has not yet acted upon our proposal, pending before your Committee as S. 1853, that large areas of the Santa Barbara Channel be set aside as a National Energy Reserve.

The several agencies of this Department, with broad program responsibility for outdoor recreation, fish and wildlife, and natural esthetics, as well as resource development, are acutely aware that extractive activity must be conducted so as to avoid environmental degradation. We believe it important that the Secretary retain his discretionary authority to designate certain areas of the Outer Continental Shelf which, in his judgment, after consideration of all relevant factors, should be withdrawn or withheld from mineral leasing. S. 1446 would deprive the Secretary of that discretion, and require that he delegate to the State of California responsibility for management of a national resource. By the estab-

lishment of State sanctuaries in any or all of the areas described by section 3(b) of S. 1446, the State of California would have dictated which, if any, areas offshore California could be leased by the Federal Government.

The Office of Management and Budget has advised that there is no objection to the presentation of this report from the standpoint of the Administration's program.

Sincerely yours,

HOLLIS M. DOLE,
Assistant Secretary of the Interior.

EXECUTIVE OFFICE OF THE PRESIDENT,
OFFICE OF MANAGEMENT AND BUDGET,
Washington, D.C., November 1, 1971.

Hon. HENRY M. JACKSON,
*Chairman, Committee on Interior and Insular Affairs, U.S. Senate, New Senate
Office Building, Washington, D.C.*

DEAR MR. CHAIRMAN: This is in response to your request of September 10, 1971, for the views of the Office of Management and Budget on S. 1446, a bill "To create marine sanctuaries from leasing pursuant to the Outer Continental Shelf Lands Act in areas off the coast of California adjacent to State-owned submerged lands in which such State has suspended leasing for mineral purposes," and on S. 1447-1452, identical bills to establish such marine sanctuaries seaward of San Diego and Orange Counties, Los Angeles County, Santa Catalina and San Clemente Islands, San Luis Obispo County, Monterey and Santa Cruz Counties, and Humboldt and Mendocino Counties.

The Office of Management and Budget concurs in the views of the Department of the Interior in its report on S. 1446-1452, and accordingly recommends against enactment of these bills.

Sincerely,

WILFRED H. ROMMEL,
Assistant Director for Legislative Reference.

Senator Moss. Also ordered included will be a brief staff memorandum outlining the thrust of these bills.

(The documents referred to follow:)

To: Senator Frank E. Moss, chairman, Subcommittee on Minerals, Materials and Fuels, and members of the committee.

From: Mary Jane Due, staff counsel.

Subject: S. 1446, S. 1447, S. 1448, S. 1449, S. 1450, S. 1451, S. 1452, to create marine sanctuaries in separately described areas off the coast of California. Hearings scheduled for November 1 and 4.

PURPOSE OF THE LEGISLATION

The purpose of the subject bills introduced by Senators Cranston and Tunney is to create marine sanctuaries off the coast of California and to suspend leasing for oil and gas and other minerals.

BACKGROUND

Similar bills were introduced in the 91st Congress and extensive hearings held. The bills which were introduced in the 92d Congress attempt to meet objections raised to the earlier bills.

PROPOSED LEGISLATION

The bills:

(1) creates marine sanctuaries in seven separately described areas off the coast of California and adjacent to state-owned submerged lands in which the State of California has suspended mineral leasing activity;

BACKGROUND

(2) establishes a Congressional policy with regard to the shoreline of California and the lands beneath navigable waters:

(3) authorizes the Secretary of the Interior to suspend all further leasing for oil, gas or other minerals in the outer continental shelf seaward of each of the areas described in each of the bills, subject to the authority of the President to terminate such suspension during any national emergency.

The authority of the Secretary to suspend leasing is contingent upon the continued suspension from leasing by the State of California of the adjacent state-owned lands.

Valid existing rights are recognized and protected and there is a specific provision that jurisdiction or title of the United States over such lands is not granted to the State of California.

COMMENTS

I am informed that there are no existing leases on any of the lands described in the subject bills.

The Santa Barbara Channel area is encumbered with existing leases. The bills which are concerned specifically with Santa Barbara Channel (S. 373, S. 1853) are not included in the bills presently under consideration.

Senator Moss. Our first witness today will be the Honorable Alan Cranston, the senior Senator from the State of California and the author of the bills.

Senator Cranston.

STATEMENT OF HON. ALAN CRANSTON, U.S. SENATOR FROM THE STATE OF CALIFORNIA

Senator CRANSTON. Thank you, very much, Mr. Chairman; I deeply appreciate your arranging this hearing and the opportunity to appear before the committee.

During the 91st Congress, I introduced S. 3093, the California Marine Sanctuary Act of 1969. The bill grew out of one of the ironies of the Santa Barbara Channel oil disaster which began in January of 1969. The blowout of well 21 on platform A occurred on Union's leased Federal parcel, P-0241. That parcel lies directly seaward of the Santa Barbara oil sanctuary—a stretch of the State tidelands extending out to the 3-mile limit along 16 miles of the Santa Barbara coastline.

The people of Santa Barbara had long sought a ban on Federal drilling seaward of that sanctuary, which had been established by the State legislature, but the Federal Government refused to heed their pleas and in 1968 sold 18 leases for oil development directly south of the Santa Barbara sanctuary.

By this action, the Federal Government effectively thwarted the efforts of the people of California to keep oil from washing ashore on the beautiful beaches of Santa Barbara and otherwise polluting the channel environment with oil production platforms and oil spills.

While I do not wish to dwell on the Santa Barbara Channel controversy, I do want to point out that the legislation before you today was developed to prevent our making the same mistakes at other protected portions of the California coastline that we made in leasing the Santa Barbara Channel.

As it was originally introduced, S. 3093 provided that the Federal Government would not lease portions of the Outer Continental Shelf seaward of any State tidelands where the State has banned or will ban leasing for the exploration or extraction of oil, gas, or other minerals. This committee held 4 days of hearings on the bill in 1970 at the same time as its hearings on Santa Barbara Channel legislation—on March 13 and 14 in Santa Barbara and on July 21 and 22 in Washington. While there was substantial bipartisan support for the bill from California, members of this committee as well as administration witnesses expressed concern that the bill would constitute an erosion of Federal authority, since the State would in effect be given power to decide how Federal lands are to be administered.

In addition, there was concern about the absence of a provision to allow the sanctuaries to be terminated during a national emergency.

Finally, it was suggested that the bill too severely restricted scientific exploration on the Outer Continental Shelf.

Therefore, members of Senator Murphy's and my staff, working in consultation with staff members of this committee, developed an amended version of S. 3093. In the bill before you today, cosponsored by Senators Muskie and myself and Senator Tunney, I have incorporated those amendments as follows:

One. The provision for the automatic establishment of sanctuaries in Federal lands seaward of State oil-free zones has been eliminated. Instead, S. 1446 lists specifically each of the six existing State sanctuaries and provides for a suspension of leasing seaward of each. I have intentionally made no reference to the Santa Barbara Channel in this legislation. My proposal for the channel is before this committee in another bill, S. 373, on which I hope the committee will hold separate hearings in the near future.

To implement further the concept that each State sanctuary should be considered individually, I introduced along with S. 1446 a series of six bills—S. 1447 to S. 1452—each one dealing with one of the six specific sanctuaries. All these bills are otherwise identical with the provisions of S. 1446.

In June of 1971, California created another State sanctuary defined as follows:

All those tide and submerged lands surrounding the Islands of Anacapa, Santa Cruz, Santa Rosa, and San Miguel waterward of the ordinary high-water mark of the Pacific Ocean on such islands to a distance three nautical miles there-from.

I have not proposed to amend S. 1446 for two reasons. First, the islands are the south boundary of the Santa Barbara Channel. As I indicated earlier, I assume the committee will consider the future of the channel separately. Second, creation of the Los Angeles and Santa Catalina sanctuaries would effectively ban drilling to the south of the Channel Islands.

However, the committee may wish to consider this new sanctuary in its deliberation.

Two. In the case that the California State Legislature acts at some future time to create any additional State sanctuaries, S. 1446 provides that the Secretary of the Interior shall report to the Congress his recommendation about whether a Federal sanctuary should be established seaward of the new State sanctuary. Congress may then take any action it chooses. That is instead of the authority provisions in the Federal bill.

Three. The President is granted authority to terminate any Federal prohibition on leasing pursuant to this legislation in the case of national emergency.

Four. The bill explicitly provides that it does not prohibit any exploration on the Outer Continental Shelf.

These amendments attempt to resolve the practical and jurisdictional objections which have been raised to the bill in its earlier form.

They do not, however, change the basic philosophy of my proposal.

I believe the Federal Government—the Congress and the executive branch—have an ethical responsibility to take actions which imple-

ment or are compatible with actions of the States to protect their environment so long as such actions are consistent with the purpose and intent of the Constitution.

I have testified at length before this committee on this question in the past, so I wish here only to summarize my arguments.

The people of California have created a number of oil-free sanctuaries along its coastal tidelands. The areas vary. Some are highly populous and heavily used for recreational purposes. Others are solitary, magnificent reaches of California's rugged coastline.

California knows there may be oil in these areas. California knows that if the State tidelands are developed as they have been in the Santa Barbara Channel and at Long Beach, revenues would flow into the State treasury—revenues which could help relieve the burden on California's taxpayers.

In denying itself these revenues and the jobs which would accompany oil development, the people of California have decided that the protection of its coastline from the marine and beach pollution of inevitable oil spills and the scenic pollution of drilling platforms is simply more important than the economic advantages of oil production given present technology.

Mr. Chairman, you or the people of your States might not have made this same decision. So far as I am aware, California's coastal sanctuaries are unique.

But the question before you is not whether California should have created these oil-free zones. The question is whether the Federal Government should make California's law meaningless by allowing the erection of oil production platforms with their inevitable oil spills just beyond the 3-mile limit—as in the Santa Barbara Channel.

In this time of national debate on the ability of our democratic system to respond to our people's wishes, the citizen of California has every right to feel that the system isn't working when his self-denying efforts to protect his 1,000 mile coastline are ignored and foiled by the Federal Government's indifference to the values of environmental resources.

I would like to point out another way, Mr. Chairman, that Federal drilling would violate the State sanctuaries. If the Federal Government proceeds to drill seaward of State sanctuary, that sanctuary will be wiped out and destroyed if oil is struck in the Federal domain.

There has been ample evidence presented to this committee that California's coastline will be environmentally depreciated by oil development. The dangerous geological instability of California's coastline is well known. Earthquakes are a constant threat. Natural oil seeps are not unusual. The Outer Continental Shelf often plunges off abruptly to depths where our capacity to produce oil is untried and untested.

Any objective evaluation of the state of the art of oil production will point to the inevitability of oil spills. Oil spills on land are hardly a problem. But oil spills in the ocean are disasters we are as yet unable to control—a fact which has been underlined recently by spills at San Clemente and at San Francisco.

The state of the art is also limited by as yet untested techniques for underwater completion. In a few years we may have the ability to produce oil offshore without defacing our seascapes with the junkyard skeletons of oil platforms. But we can't do it today.

When new and improved techniques for off-shore oil production are developed that would permit the extraction of oil from the ocean in a manner which safeguards the environment, then there will be no need for such sanctuaries. But until that day comes, we—the Federal Government and the States—lose nothing by holding these possible oil reserves in the escrow-like protection of marine sanctuaries.

When S. 3093 was first introduced 2 years ago, there were no leases in any of the Federal lands proposed for sanctuary. Thus there was no cost involved in this legislation. That is still the case, Mr. Chairman. This legislation would involve no termination of oil or other leases and there is no expenditure of Federal moneys required.

In conclusion I wish to draw to the committee's attention two errors in the bill as drafted. I will simply submit that for the record, there are two descriptions in error on two of the sanctuaries. In the description of the Monterey and Santa Cruz Counties sanctuary, the northerly boundary should be the intersection of the ordinary high water mark and the San Mateo County line. The specific language needed to amend the language of the bill is included in a letter from Ralph Sanson, chairman of the Santa Cruz County Board of Supervisors. The letter also contains the board's strong endorsement of the bill and I would like to submit it as part of my testimony.

Secondly, the description of the San Luis Obispo sanctuary should be as follows:

All those tide and submerged lands being in the county of San Luis Obispo and lying within an area beginning at the intersection of the ordinary high water mark of the Pacific Ocean and the common boundary line between the counties of San Luis Obispo and Santa Barbara; thence northerly and westerly along the ordinary high water mark of the Pacific Ocean and San Luis Obispo Bay to a point at the intersection of the ordinary high water mark of the Pacific Ocean and the common boundary line between the counties of San Luis Obispo and Monterey; thence northwest along the prolongation of said common boundary line to a point in the Pacific Ocean, said point being the most westerly boundary line of the county of San Luis Obispo; thence in a southerly and easterly direction along the westerly boundary of the county of San Luis Obispo to a point in the Pacific Ocean where said westerly boundary of the county of San Luis Obispo intersects with the common boundary between the counties of San Luis Obispo and Santa Barbara; thence due east to the point of beginning.

Mr. Chairman, I deeply appreciate the committee's continuing interest in seeking a solution to the California marine sanctuary problem.

Senator MOSS. Thank you very much, Senator Cranston.

As you point out California was anxious to set up sanctuaries on lands that are owned and controlled by the State. Does that map there show the area where sanctuaries now exist?

Senator CRANSTON. Yes, each of those orange-colored portions are separate State sanctuaries.

Senator MOSS. How much of California's coast is now covered by sanctuaries?

Senator CRANSTON. I believe it is roughly half of the coast.

Senator MOSS. It would look to be about half of the coast.

Senator CRANSTON. Yes.

Senator Moss. This committee is concerned with the increasing demand for energy and the need for reserves, and that is the problem with which we must wrestle. I think I understand the rationale of your bills. California itself has created a sanctuary and you ask that it be respected.

I don't know that I have any other questions to ask you, Senator Cranston. You have appeared before this committee before on this problem and I think you have done an exceptional job. I commend you for your efforts to find a solution to a difficult problem.

Senator CRANSTON. I thank you very much, Mr. Chairman. I would like to point out my bill meets the need for reserves. It does not meet the current energy needs, but I do not feel these sanctuaries are necessary to meet those requirements. Thank you very much.

Senator Moss. Thank you very much.

Is Senator Tunney here? I don't see him in the room.

Senator Moss. Our next witness is Larry E. Moss, of the Sierra Club, southern California. We are very happy to have you with us, Mr. Moss.

STATEMENT OF LARRY E. MOSS, SIERRA CLUB, SOUTHERN CALIFORNIA CHAPTER

Mr. Moss. The club wishes to thank you, Senator, for the opportunity to testify today, and we are kind of glad to be testifying on this kind of issue that we can do something about the future, rather than addressing ourselves to a past and unfortunate mistake as far as oil leasing is concerned. Santa Barbara comes to mind immediately, as Senator Cranston categorized.

Mr. Chairman, my name is Larry E. Moss. I am the southern California representative of the Sierra Club on whose behalf I am testifying here today. The Sierra Club is a growing international environmental organization of 140,000 members with a deep concern about the issue before you.

It is fortunate that today we are discussing California oil legislation which is aimed at the prevention, rather than the alleviation, of a serious problem. When one thinks of oil and California, Santa Barbara immediately comes to mind. Certainly, the unhappy history of oil production in the Santa Barbara Channel is adequate justification for the passage of the legislation under consideration here.

The people of Santa Barbara have always expressed their unequivocal opposition to oil drilling and production, either onshore or offshore, on lands under control of the city of Santa Barbara. In 1955, they convinced the California State Legislature to enact the Shell-Cunningham Act which set up an offshore oil sanctuary in the State tidelands for 16 miles along the Santa Barbara coastline. The people living in this area were willing to forgo possible oil revenues in return for assurance that they would not be visited with the visual blight and possible pollution associated with oil production.

The Federal Government, despite citizen opposition and expert testimony that partially cataloged the geologic perils of the channel, opened the Federal tidelands adjacent to the State sanctuary to mineral leasing in 1968.

The leasing was by competitive bidding and led to a record bid of \$61 million by Union, Gulf, Mobil, and Texaco for tract 402. Less than

1 year later, oil gushed forth from tract 402 beneath the nefarious platform A operated by Union Oil, and the leakage has not been stopped to this day.

Our system of government is balanced on cooperation and respect between State and Federal authorities. The State of California has deemed the scenic and recreational value of certain stretches of its coastline to be paramount. We have our areas of coastline such as Huntington Beach and Rincon, which have been degraded by oil production, and Californians desire oil sanctuaries along certain stretches of the coast. The Federal Government should respond by extending State sanctuaries into the Federal lands.

The Outer Continental Shelf Lands Act specifically authorizes the Secretary of the Interior to cooperate with the adjacent States in their conservation efforts. Title IV of the Intergovernmental Cooperation Act of 1968 provides that the President "establish rules and regulations governing the formulation, evaluation, and review of Federal programs and projects having a significant impact on area and community development."

The implementing regulations issued by the Bureau of the Budget call for the establishment of procedures by Federal agencies to assure—

1. Consultation with Governors, regional and metropolitan comprehensive planning agencies, and local elected officials at the earliest practicable stage in project planning in the relationship of any project to the development plans and programs of the State, region, or locality.

2. Consistency and compatibility of any such Federal project with State, regional, and local development plans and programs.

Nowhere do we find evidence that the Outer Continental Shelf Act was designed to operate in a vacuum devoid of State input. Federal proration in relation to State allowables is one example of continuing cooperation.

The Public Resources Code of California requires that the State lease a sanctuary for oil and gas production if that sanctuary is being drained by oil production outside the sanctuary. We should assure that the Federal Government is not the agent causing the drainage.

Prior Secretaries of the Interior and President Nixon have stated that leasing in the Santa Barbara Channel was a serious mistake because of the existing State sanctuary. This legislation you are considering assures that particular mistake will not be repeated.

We feel that S. 1446-1452 are good legislation and should be enacted with an improved section 6 in each of the bills and the addition of a Federal sanctuary around the channel islands of Anacapa, Santa Barbara, Santa Cruz, Santa Rosa, and San Miguel.

Section 6 is unnecessarily restrictive and should be amended to read:

In any case in which the State of California at any time after the date of enactment of this Act suspends or terminates all mineral leasing in any area of lands beneath navigable waters in such state, the Secretary of Interior shall report to the President and the Congress his recommendations with respect to any suspension of mineral leasing in the area of the Outer Continental Shelf seaward of such state area.

Our restatement of section 6 simply deletes the words "in which no previous production of minerals was allowed" from the bill. These words appear on lines 4 and 5 of page 7 in S. 1446 and in a corresponding position in S. 1447-1452. There is no justification or need for the

prohibition of a Federal sanctuary adjacent to a State sanctuary from which minerals were produced at an earlier point in time. There is built-in protection for the Federal Government in our amended wording.

The legislation under consideration would not mandate that a new Federal sanctuary be established if the conditions in section 6 were met. Rather, the legislation merely requires that the Secretary of the Interior report his recommendations with respect to a Federal sanctuary to the President and Congress. His recommendations do not have to be positive. He retains complete discretion as to the substance of the case.

We also urge that a Federal sanctuary relative to the channel islands of Santa Barbara, Anacapa, Santa Cruz, Santa Rosa, and San Miguel be established.

In 1971, the California Legislature passed and the Governor signed S.B. 287, which established a State sanctuary from mineral leasing in the State tidelands around those five islands. The same logic that necessitates the extension of State sanctuaries elsewhere applies to these channel islands.

I believe the only reason the five islands were not included in the original bill was the absence of a State sanctuary at the time S. 1446 to S. 1452 were submitted to the Senate.

The logic is clear and the matter urgent. The interests of both California and the Nation will be served by the prompt enactment of S. 1446 to S. 1452 with the change and addition we have suggested. The argument is sometimes made that oil is where you find it. That is true, but I believe most men and women place certain things much higher on their scale of personal values than they place oil.

A local Pacific Palisades organization, No-Oil, Inc., of which I am president, has worked most diligently to protect the Los Angeles County sanctuary from drilling.

Innumerable Californians have expended great effort to establish and maintain the California sanctuaries. It is only just that the Federal Government cooperate with the State and legally codify their respect for these sanctuaries.

We appreciate the opportunity to testify, and anticipate early action on this matter.

I have children, and so do most of the people here. There is still need, fossil fuel for energy requirements in the future. Here is one possibility for it. We are very much concerned with this consumption now and lack of concern for the future that we feel is shown by so much of the oil industry's work today.

The programs today, we need to be looking at what is going to happen in 50 years, not just the next 5 years in our country.

I live in the Pacific Palisades, which is just adjacent to this sanctuary here on the map, on Santa Monica Bay, as we call it. It runs from Point Fermin to the Ventura County line.

I am president of No-Oil, Inc., a group of local citizens of about 2,000. We have been very active in protecting this sanctuary from drilling offshore. Occidental Petroleum has put in a campaign to drill on the offshore line. So far, there has been a great effort by the community and we have been successful in stopping Occidental Petroleum.

We would certainly hate to see the Federal Government lease from the other side, after our efforts in this.

Senator Moss. Have your efforts been to deny leases to the oil companies to drill offshore?

Mr. Moss. Yes; our effort has been twofold, both to keep them from getting leases giving onshore right, and also to prevent core hole drilling, to look to see if they do have a resource there.

The Pacific Palisades is famous for its land sights. Many people in Washington are familiar with this. We feel it is unsuitable. There is no industrial development in the Pacific Palisades at the present time, so there are several issues here that make it particularly inappropriate.

We feel it is ungracious for Occidental Petroleum to be making the attempt in this area. The citizenry are overwhelmingly against this oil drilling scheme of theirs and that is the reason we have been able to stop them.

We treasure Los Angeles in many ways. The smog and environmental problems are grave, but there is still beauty in the coastline and in the bay. It is the greatest esthetic thing, I feel, in the Los Angeles County area. I feel it would set a good example. I think the Californians would appreciate it very much, for this action in the Government.

Senator Moss. Thank you very much, Mr. Moss, for your presentation. It will be printed in full in the record.

I take it that your position and the position of the Sierra Club is that there are other adequate sources of energy so that we needn't be dipping now into the Continental Shelf area or the immediate shore area of the State of California in those places where those red lines appear on Senator Cranston's map. Is that correct?

Mr. Moss. We feel there is no need to dip into the sanctuaries at the present time. Now, the question of energy needs, as you are more aware than I, probably, is a very complex issue; where our society is going; what we want from our society and the Sierra Club is very concerned with, you know, an overuse of something.

We feel perhaps that our use of energy today—we need ways to conserve it, and yet looking to maintain our standards of living. I don't think in any way the sanctuaries we are speaking of here off the coast are really relevant to this equation. The amount of oil we are speaking about is so great and this is so small in relation to it.

Senator Moss. Has the Long Beach area been the most productive for oil on the California coast?

Mr. Moss. Yes; the Wilmington field has by far the most production. If we can use that to delineate a couple of problems for oil drilling on the coast, Terminal Island has subsided 29 feet in one spot in relation to oil drilling in the Wilmington field. It comes to the question: Is the oil worth more or the use of the people?

Perhaps some other areas of those we can keep for their highlights. Some of these coastlines are magnificent. It is one of the most beautiful parts of our country, and we certainly feel it should be kept this way.

Senator Moss. Thank you very much. We appreciate your statement.

I see Senator Tunney was able to join us.

Would you like to be heard at this point, Senator Tunney?

Senator TUNNEY. Yes, Mr. Chairman.

Senator Moss. All right.

Senator TUNNEY. I certainly appreciate the opportunity to appear before your committee once again, Mr. Chairman, on a bill which I consider to be of very great importance to the citizens of this country, let alone the citizens of California.

I know that you have testimony from Senator Cranston, who is the main sponsor of the legislation I may cosponsor, and I would like to have my statement introduced in the record as if read in order to save the committee's time.

Senator Moss. That will be done, included in full as though read, and you may highlight or emphasize any part of it you would like to bring to our attention.

**STATEMENT OF HON. JOHN V. TUNNEY, A U.S. SENATOR
FROM THE STATE OF CALIFORNIA**

Mr. Chairman, I appreciate the opportunity to appear in support of S. 1446 through S. 1452, a series of bills designed to create marine sanctuaries in areas off the coast of California which are adjacent to State-owned submerged lands where the State has suspended leasing for exploitation of mineral resources.

The overall intent of this body of legislation is to stop the continuing destruction of California's coastal area from pollution caused by oil exploration and production. The Environmental Protection Agency in its comments on the Department of Interior's environmental impact statement describing its offshore oil drilling program off the Santa Barbara coast said the following:

Oil despoilation from off-shore drilling is a possibility, as you recognize. The state-of-the-art for containing and clearing spills on the high seas is limited and any accidental spill is likely to preclude recreational or other uses of the area.

The Agency further concludes that the effects of oil on plant and animal life should recognize that damage to the environment does not have to be widespread and obvious to be harmful. The harm need not be catastrophic or classified as a major disaster to deserve attention and concern. Damage can be deceptive, persistent, or cumulative.

The EPA poses the possibility of changes in the biology of the area passing up through the food chain to man.

The California Marine Sanctuary Act would require the Secretary of the Interior to suspend further leasing pursuant to the Outer Continental Shelf Lands Act for the exploration or extraction of oil, gas, or any other mineral in any portion of the shelf seaward of the existing sanctuaries established by the State of California in those submerged lands over which the State holds jurisdiction. The areas are: The San Diego and Orange County Sanctuary; The Los Angeles County Sanctuary; The Santa Catalina and San Clemente Islands Sanctuary; The San Luis Obispo County Sanctuary; The Monterey and Santa Cruz Counties Sanctuary; and The Humboldt and Mendocino Counties Sanctuary.

Provision is made in the bill for the Secretary to terminate this leasing suspension if the State of California revokes the law establishing the various sanctuaries. It further provides that if the State of California terminates mineral leases in any other land areas beneath navigable waters over which it holds jurisdiction, the Secretary will send to the President and the Congress appropriate recommendations with respect to the suspension of mineral leasing in the area of the adjacent Outer Continental Shelf. And the President, of course, would have the authority to terminate any of these suspensions during national emergencies which would require maximum exploitation of oil, gas, and other mineral resources.

In brief, this bill requires that the United States strengthen the rights of the people of California to protect their coastal environment from further oil pollution. California has already done what it could in prohibiting oil development which causes environmental destruction in those areas where it holds legal authority. In so doing, they have voted to deny themselves the substantial bonuses, rents, and royalties which would accrue to the State treasury from such leases. The people of the State have also voted to deny themselves the State income and property taxes which oil development would produce. Moreover, the State will be denied the jobs which this potential, major industrial development would provide.

Mr. Chairman, the people of California have chosen to make this sacrifice and they should receive the support of the Federal Government in their choice of priorities.

Prevention of the development of oil in these particular areas is not a simplistic, negative action. It has been demonstrated and acknowledged by the President's panel on oil spills that "the United States has neither the technical nor the operational capability to cope satisfactorily with a large-scale petroleum spill in the marine environment. The technology does not exist to prevent virtually all of the oil in a massive spill from being deposited on shore." Unfortunately, the coast of California has been the victim of these spills many times. This coupled with the fact that there is no pressing real need to develop the suspected oil preserves in the areas which would become sanctuaries makes it almost impossible to morally reject swift passage of this package of bills.

We, in California, with the world community watching our actions, recently experienced the dire consequences of oil development. I am, of course, referring to the disaster at Santa Barbara in January of 1969. On the 28th, an oil well being drilled offshore in the Santa Barbara Channel by the Union Oil Co. blew out. Oil bubbled up from the sea floor at the rate of thousands of barrels daily. More than 100 miles of beach and recreation area were covered by thick, foul-smelling, toxic crude oil, causing considerable damage to property and aquatic life, not to mention the recreational and other benefits lost by this pollution. Efforts to control the spill were not very successful, and oil was still being seen on the ocean surface months after the blowout. Massive efforts were undertaken, and numerous methods were employed to contain and control the slick. Cleanup operations involved the Union Oil Co., the Coast Guard and other Federal agencies, and numerous citizen groups and organizations.

Within a few months, miles of beaches were covered by oil, resort and recreation areas were damaged, marine life in the form of birds, fish and bottom organisms were affected. No final damage figures of detailed accuracy ever became available, and whatever was documented constitutes conflicting and widely varying data. Informed estimates put the total oil discharged by the end of May at 3,250,000 gallons.

As would be expected, the public and official reactions were swift and critical. Although natural oil slicks are common in the Santa Barbara Channel area, the magnitude of this blowout caused strong public outrage and determination to prevent recurrences. As more information became available it was evident that this area was known to be geologically unstable and thus particularly susceptible to this sort of accident.

And this, of course, is the whole point of these sanctuaries. Californians have known about this geological instability for some time and being aware of the great value of their coastal resource, had established State sanctuaries from oil exploitation back in 1955. The disaster at Santa Barbara could have been avoided had the Department of Interior heeded the advice of its geological survey and given some consideration to the earlier protective actions taken by the State of California, by withholding leases from the Union Oil Co. It is especially ironic that this avoidable blowout occurred just outside one of the established State sanctuaries and voided all of the efforts and sacrifices made by Californians to preserve their valuable beaches.

One needs only to recall this past September when the Interior Department was going to grant two additional leases for drilling in Santa Barbara Channel. At that time, Senator Cranston and I spoke out strongly against those leases because we felt the citizens of Santa Barbara were in no mood to allow an oil company and the Federal Government to gamble with their beaches and shores again. When the permits were finally denied and the reason cited as "overriding environmental consideration" I stated that it seemed the Department of the Interior, at long last, might be entering the last half of the 20th century.

I feel that it would be far better if these areas of great natural beauty and recreational value were to be given the protection from Federal management that they are given by State legislation. If the overriding environmental considerations exist now, they should be legislatively recognized and written into law.

I am convinced that it is for the benefit of the Nation and for the citizens of all States, and essential to the environmental well-being of the State of California that the bills under consideration here today, S. 1446 through S. 1452 be favorably acted upon and reported out to the full Senate with the strongest advocacy for passage.

Thank you, Mr. Chairman. I would like to make a statement in general terms in support of the legislation.

I think that it is excellent legislation because it gives to the State of California and to the people of California an opportunity to maximize the park resources that we have available along the coast.

California has, I believe, for the most part a futuristic view of the need to maintain certain areas of the coast for the purpose of the enjoyment of the public as a whole, and they have been willing to create sanctuaries in areas where there is great potential riches from the minerals that are underneath the water that are in the Continental Shelf.

If California is willing to forego the opportunity to develop these resources because it feels it is necessary to give to the public an opportunity to have areas where they can go to enjoy the environment, natural environment, then I don't see any reason at all why the Federal Government shouldn't be prepared to give to the people of the country an opportunity to more fully enjoy those sanctuaries, by extending out on the Continental Shelf those sanctuaries that are included in the State plan.

I fully recognize that the time may come when we have such energy crises in this country that it is going to be a fact of life that even in the most beautiful areas, as Alaska, California, other areas of the

country, that we may have to develop the oil and gas resources and that we are going to have to forego the esthetic pleasures that are there. But that time has not arrived yet.

I think, if anything, we have to recognize we have got to develop alternative sources of energy and I don't see any reason at all why we should despoil, through development, these areas which the State has determined to be ideal in the way of esthetic values for the good of the people of our State and the Nation.

So, it would be my hope that this bill would quickly pass through this committee so that the areas of San Diego, Orange County, Los Angeles County sanctuary, San Luis Obispo County sanctuary, the Humboldt and Mendicino sanctuaries, all of these sanctuaries could be preserved to the highest recreational use, by extending the protection.

I want to thank you, Mr. Chairman, for giving me a chance to express that viewpoint. A more detailed statement is contained in my prepared remarks.

Senator Moss. Thank you very much, Senator Tunney.

You make the point that Senator Cranston and Mr. Moss have made, that the effect is drained because they are not in this area. It is hardly a reserve until we know the mineral is there, isn't that right?

Senator TUNNEY. I think in one sense, that is true, that if it is not known to be there then you can't include in any listing of oil and gas reserves a specific amount of oil and gas that would be located potentially in this area.

On the other hand, I do not feel that we have arrived at the point in time where it is absolutely necessary to our national security interest to determine whether or not those resources do, in fact, exist in these sanctuary areas. I think there may be a time when this will be true. God forbid it will be true, but there may be a time it will be true, when the breeder reactor is not accurate, we are not able to develop nuclear reactors and we are going to have to develop every bit of gas, every bit of oil, and every bit of coal that this country has.

I don't think we are at that point now, and I think that to allow the exploration for gas and oil in these areas would only encourage the development of the reserve once it is found.

I think the perfect example was Santa Barbara. Once it was known it was there, and the oil was there in large quantities, it was almost irresistible to allow the development of it, particularly the time when the county was suffering a substantial budget deficit, and it was felt that this would be a good way of reducing that deficit by selling off this land or releasing it to the oil companies so there would be a significant infusion of private dollars to the Federal Treasury.

Senator Moss. Thank you very much.

This committee, of course, is conducting an energy study which would tie in with the things you have been talking about. When we come to some general conclusions there we should be able to measure more accurately what should be done with this series of bills.

Senator TUNNEY. Thank you very much, Mr. Chairman.

Senator Moss. Thank you.

Dr. Wilson M. Laird is our next witness.

STATEMENT OF DR. WILSON M. LAIRD, DIRECTOR OF
EXPLORATION, AMERICAN PETROLEUM INSTITUTE

Dr. LAIRD. Thank you, Mr. Chairman.

I am Wilson M. Laird, director of exploration of the American Petroleum Institute.

I appreciate the opportunity to appear before this committee to discuss S. 1446, which would establish marine sanctuaries in certain areas off the coast of California.

We believe that the issue involved in this legislation is far broader than the establishment of a limited number of marine sanctuaries. The real issue is the future of the resources of the Outer Continental Shelf, resources which we regard as critical to the solution of America's energy problems.

This Nation's history is one of record growth. Just within the last two decades, population has soared, industry has rapidly expanded, technology has given birth to a host of new products, and the economy—as measured by the gross national product—has nearly quadrupled.

No nation approaches the industrial strength of the United States, and no society in the history of the world has reached its degree of prosperity.

Energy, readily available at a reasonable cost, has been the key to much of this progress. A worldwide comparison of per capita energy consumption and real income points out the close correlation between the two. The higher a nation's per capita use of energy—as is the case in the United States and Canada—the higher its per capita real income. Conversely, nations with low rates of energy consumption—Brazil and India are two examples—have low positions on the per capita income scale.

Because of the reliability of oil and gas supplies—and their low cost—the general public has given little thought to the national energy situation. It has been inconceivable to the average citizen that supplies of energy resources could be depleted. A recent American Forest Institute-Newsweek survey shows that nearly twice as many Americans are concerned that our timber lands may be nearing exhaustion than are concerned about the adequacy of oil and natural gas. Yet, we are on a collision course with fuel shortages.

We have drawn heavily on our resources to meet our energy needs, and will continue to draw upon them. Today, around 75 percent of American energy demand is met by petroleum—oil and natural gas. Tremendous amounts of these fuels are consumed annually, and the U.S. Department of the Interior expects that demand for both oil and natural gas will about double by the end of the century. These forecasts mean that the United States will consume more than twice as much oil between now and the year 2000 as it has in the entire 112-year history of the oil industry.

Alternatives to increasing petroleum use are inadequate. Coal consumption has been restricted in the past 2 years due to its inability to meet today's stringent air pollution control standards and lack of investment in new facilities.

Construction of nuclear powerplants is running years behind schedule. An actual count of nuclear plants that have been built, contracted

for, ordered or tentatively planned indicates that nuclear capacity in the next decade may be as much as a third less than had been predicted earlier. Even further delays may follow recent court rulings requiring environmental evaluations of about 100 operating and planned facilities.

Hydroelectric power has almost reached its peak, as fewer and fewer sites suitable for hydroelectric development remain. Its share of the energy market—currently about 4 percent—is expected to decline slowly.

Synthetic fuels will ultimately be an important source of energy, but they are unlikely to provide a significant share of our energy needs for many years to come. Technical feasibility has been proven in some cases, but a substantial research effort lies ahead before large-scale production of these fuels becomes economically viable. There are also environmental problems which must be resolved.

This dim outlook for rapid increases in output of other energy fuels has placed the burden on the shoulders of oil and natural gas. And domestic reserves of these fuels relative to demand have been declining for a number of years.

In 1957, we had a 12-year supply of crude oil in the lower 48 States based on then-current production rates. Today, we have less than a 9-year supply. In 1957, we had more than a 21-year supply of proven natural gas reserves. We now have only a 12-year supply. Exploration for new reserves is at the lowest level in 23 years. In effect, we have been living off reserves discovered years ago, while making few new discoveries.

Total U.S. demand for oil in 1970 was 5.4 billion barrels. Of this, 1.2 billion barrels—nearly one-fourth—was imported. We are becoming increasingly dependent upon foreign oil. A shortage situation already exists in the case of natural gas, with supplies inadequate to meet new demands by industrial customers.

These factors do not spell out an immediate energy crisis. They do indicate a rapidly developing energy gap, with demand threatening to outrun available supplies by larger and larger margins.

Unless there is an immediate change in Government policies affecting development of our energy resources, this situation is unlikely to improve. From 5 to 10 years are required from the time a prospect is considered until its oil is available to consumers. Unless action is taken to speed up the pace of domestic exploration and development, more and more of our supplies will have to be imported.

Mr. Chairman, I would like to depart from my statement to emphasize this particular point; to say that these reserves exist off California or any other place where drilling has not been done, is a fallacy. This is not a reserve until it is actually proven to be there.

It is a well-known fact that only one well out of 10 produces oil, and only one out of 50 produces oil in economic quantities. Therefore, the risk is very high, as you can see.

There is ample evidence that the path of importation is lined with dangers. Many of the oil-producing countries of the world are located in areas of great turmoil and political instability. Supplies of oil from the Middle East and north Africa, for example, have been curtailed at least 10 times since World War II by wars, revolutions or deliberate acts by individual governments.

As recently as October 17, of this year, the Trans-Arabian Pipeline, which carries Saudi Arabian oil to the Mediterranean port of Sidon, was again broken. A cost factor is also involved. In the case of liquefied natural gas, there is a growing interest in imports even though prices are three to four times as high as that for domestic natural gas. Foreign oil is expected to become more costly as producing nations band together to demand higher prices and taxes.

In light of these experiences, it would be most unwise to rely too heavily on overseas sources for a commodity so vital to our national and economic security.

Our only rational alternative is to assure adequate domestic sources of energy.

Despite the decline in proved oil and gas reserves, there is still sufficient oil and natural gas in this country to meet our needs for many years. The difficulties arise in the exploration for and development of these supplies.

Most of the so-called easy oil, oil which is located close to the surface and is easily found and extracted, has long since been developed. The search must now turn to other locations where new reserves may be found, but which are more difficult and expensive to develop.

The area which appears to offer the greatest promise for supplying our projected petroleum needs is the submerged portion of this continent—the U.S. continental margin.

No one can say at this point precisely what the petroleum potential of the entire seabed under this Nation's jurisdiction may be. Our knowledge of this area is far too limited.

However, estimates of the U.S. Geological Survey indicate that the total potential resource base of the continental margin may range from 1,580 to 2,080 billion barrels of oil and from 4,450 to 5,190 trillion cubic feet of natural gas.

Not all of this potential is currently recoverable, due to the limitations of present technology and economics. These resources now categorized by the Geological Survey as recoverable, however, are thought to range from 160 to 190 billion barrels of oil and 820 to 1,110 trillion cubic feet of natural gas.

Further advances in technology and changing economic conditions could substantially increase this offshore potential. Thus, vast resources of oil and gas—which are of essential value to the security and economic well-being of the United States—are available offshore.

Indeed, offshore oil and natural gas production is already supplying a significant portion of our energy needs. Currently, some 16.4 percent of our crude oil production comes from offshore areas, as does 14.7 percent of our natural gas production.

We would like to take a moment to discuss the safety record of offshore petroleum operations. Much has been said regarding the most significant of the accidents involving offshore oil production, the spill in the Santa Barbara Channel. We are now in an excellent position to review that accident in its proper perspective.

Some 14,000 wells have been drilled offshore in the United States and, of these, only three produced spills that posed any serious pollution threat. Three major fires have occurred offshore, all of which were very costly, but involved little or no pollution. This reflects an accident rate of 0.0004—a record which would be hard to match in any other human endeavor.

Nevertheless, we recognize that serious environmental questions were raised by the Santa Barbara spill, and we must respond to them.

As soon as the oil began to spread, it was charged that irreparable harm had been wreaked upon ocean life forms. Environmental studies in the period after the spill prove this allegation to be false.

While the spill was indeed serious, and we do not wish to minimize its effects, it did no irreparable damage to sea life. True, many aquatic birds were killed, but these species have recovered their numbers. Ocean fish and mammals suffered no lasting effects. Dr. Wheeler J. North of the California Institute of Technology reported that the spill was a "cause for concern, but not a cause for hysteria." He indicated there was every likelihood that the channel would remain * * * "as luxurious as it ever was."

Other environmental researchers, including private groups and teams of Government experts, reached similar conclusions. It was a serious accident and steps must be taken to prevent future accidents, but it did not cause permanent damage. The ecology of the region has been restored.

Even though its safety record in offshore oil and gas operations is excellent, the petroleum industry remains ever mindful of its responsibility to protect the ocean environment. Millions of dollars are spent each year both by the American Petroleum Institute and by individual oil companies in the search for more effective means to control oil spills. The industry has been working closely with the Environmental Protection Agency and the U.S. Coast Guard to develop effective cleanup technologies.

A number of significant advances have been achieved. One major breakthrough in the form of a chemical coagulant agent was approved for use by the Environmental Protection Agency on September 27, subject of course to the normal restrictions on the amount of chemical used. Although accidents cannot be entirely avoided, we pledge now, as we have in the past, to continue to devote ourselves toward solutions to the problems posed by spills.

Today, this committee is faced with the question of the future of the resources of the Outer Continental Shelf as a whole—resources which are desperately needed and which belong to all of the people of the United States.

To help assure adequate and dependable supplies of energy for the United States, the petroleum industry must be permitted to develop those offshore resources. Yet, no matter which way we turn, we are met by conflicting proposals and regulations which block orderly progress toward this goal.

For example, in his June 14 message to the Congress, the President emphasized the necessity of continued development of offshore oil and gas resources. He specifically urged that the pace of offshore leasing be accelerated and that incentives be provided for new exploration.

Yet, the administration continues to support its request to the Congress that 35 Federal leases in the Santa Barbara Channel be terminated. A major argument advanced in support of the cancellation is that the leases in question lie seaward of the Santa Barbara State sanctuary, a sanctuary created by the same State law which created the sanctuaries named in S. 1446 and related bills.

If the Federal Government will not permit oil and gas operations adjacent to the Santa Barbara State sanctuary, it can be expected to take the same position with respect to the other State sanctuaries along the California coast.

In one sense, the Federal Government has already taken that position. This was done when, a few months ago, the Department of the Interior announced—in response to the President's "energy" message—a 5-year program of OCS oil and gas leasing. That schedule calls for possible lease sales in the Gulf of Mexico, the Gulf of Alaska and the Atlantic seaboard. Nothing so far has been scheduled for California OCS lands.

If this view continues to prevail, the loss of California offshore oil to the Nation would be extremely serious. In a recent study of the future petroleum provinces of the United States, the National Petroleum Council and the American Association of Petroleum Geologists noted that the offshore areas of California offer the greatest potential for future reserves in that region. According to the study, these reserves are estimated to approach 75 billion barrels. If a recovery factor of 50 percent is applied to this figure, it would mean that there are over 35 billion barrels of oil waiting to be found and developed.

I will make a distinction here. I make a distinction between oil in place and oil which is recoverable, because there is a certain factor there that cannot be assumed to be entirely recoverable.

The potential loss would be especially serious in California, the largest oil-consuming area in the United States. I emphasize oil-consuming area.

The ultimate consequences of the restrictive Federal policy proposed in this bill are likewise clear. Other sections of the Outer Continental Shelf adjacent to our coasts could be closed to leasing. The result would be the loss of uncounted billions of barrels of petroleum reserves which will be desperately needed in the years ahead.

This monumental lockup would develop if other States were to establish the same kind of sanctuaries that cover most of the California coast, and were then to call upon the Federal Government to extend this same policy to Federal offshore lands beyond their sanctuaries.

This could potentially lead to a situation on a broad scale similar to that now prevailing in the one area of California where this Federal policy is presently operating. The ultimate result could be that consumers would be deprived of a great national resource which they and the economy urgently require.

The ambivalence of the Federal Government with regard to the development of the Outer Continental Shelf is just another in a long series of contradictory and confusing actions which have thwarted the industry's efforts to develop adequate domestic supplies of petroleum. It is another clear demonstration of the desperate need for a rational and balanced national energy policy.

We urge you to reject this fragmented and shortsighted approach to regulation of our offshore energy resources.

It is not in harmony with the expressed views of the President.

It is not in harmony with the Public Land Law Review Commission's report, "One Third of Our Nation's Land," which recommends that "public land mineral policy should encourage exploration, development, and production of minerals on the public lands."

It is not in harmony with the Minerals and Mining Policy Act of 1970, legislation developed in this committee, which states that " * * * it is in the national interest to foster and encourage private enterprise in the orderly and economic development of domestic mineral resources and reserves * * * ."

We strongly urge this committee to press, instead, for a comprehensive, coordinated and balanced approach to land use, public land management and energy policies which take full account of our Nation's critical economic, environmental, and national security needs. This would assure that our invaluable offshore resources would be dedicated to the benefit of all our people.

Thank you for this opportunity to present our views.

Senator Moss. Thank you, Dr. Laird, for a very fine statement outlining the position of the American Petroleum Institute.

Senator Tunney said there might be a time that we would need these resources, but he didn't think we needed them now. What is your reply to that argument?

Mr. LAIRD. Senator, in view of the great time lag that is needed between the time when a new oil field, let's say, is the idea in the mind of some geologist, to the time it becomes an actuality, if it becomes one, is 10 years. It depends on the economic situation, the tax situation, and so forth.

Therefore, in view of our decreasing reserve picture in this country and in view of our increasing dependence upon foreign reserves, I feel it cannot wait. It has to be done now.

Senator Moss. This committee has been concerning itself with the process of creating natural gas out of coal, coal gasification. It seems we might be getting close to where that can now be done economically and competitively. Does that change appreciably your discussion of the energy demands and potential shortages?

Dr. LAIRD. Well, sir, in the first place, in answer to your question, I feel there is there, too, a considerable time lag into the future before this can be an economically viable situation. It is true there are processes which are presently being worked on and being put into effect which will assist us. However, our gas demands are so great that I think we will not only need that, but all of the natural gas we can get anywhere else, also. This is particularly pertinent in connection with the demands of the Environmental Protection Agency to improve the air. There is simply not the natural gas available now to take care of these demands.

Senator Moss. Do you think it is feasible for us to change our focus and demands for energy? I think Mr. Moss raised this point, that perhaps we are profligate in our use of energy, using much more than we ought to be using.

Is there any way we can slow that down?

Dr. LAIRD. Senator, I won't question Mr. Moss' statement too much. I think possibly we are overusing some of our energy sources for less desirable uses. This goes again into the problem of an initial energy policy, which has not been established. I do take issue with his statement that you can maintain our present standards of living and decline our uses of energy.

Senator Moss. Where you have a high standard of living and you also have a high energy consumption, then the reverse is true?

Dr. LAIRD. Yes, sir. If you can get the American public to have a lesser standard of living, perhaps when he says would be possible.

Senator Moss. Is the petroleum industry carrying out programs to improve the safety and technology for the exploration and production of oil and gas?

Dr. LAIRD. Yes, sir, and we have had programs of this kind going on for many years, and do at the present time.

Senator Moss. Have there been any appreciable breakthroughs or changes in the last 2 or 3 years to make it safer from the standpoint of pollution to drill?

Dr. LAIRD. Senator, these developments are constantly taking place. I can't say positively that you have got the solution to the problem, but I feel we are making progress on it. There is a long way to go.

Senator Moss. Does the institute, or do the petroleum companies set aside any given amount of revenues to pursue this sort of program?

Dr. LAIRD. Sir, I can't give you a statement at this time for lack of knowledge as to the amount that the American Petroleum Institute is devoting to this. I would say we are devoting some money to research along this line. I know that companies individually are, but just how much, I couldn't say.

Senator Moss. We do appreciate your testimony and, of course, since you are directly in the field of producing oil and gas and meeting the energy demands, it is valuable to us to have you before the committee.

We thank you, sir.

Dr. LAIRD. Thank you, sir.

Senator Moss. Our next witness is Dr. Roger F. Honberger, county of San Diego.

STATEMENT OF ROGER F. HONBERGER, COUNTY OF SAN DIEGO

Mr. HONBERGER. Thank you, Mr. Chairman. It is a pleasure to come before you today and testify in behalf of this very important legislation.

This legislation is limited to the California coastline. It was prepared in response to a very specific need in a national sense, directed toward California.

We, in San Diego County, feel that if it is enacted in law, it may well point the way to safeguarding our Nation from pollution.

Too long we have abused our national environment. The time has come when we can wait no longer to repair the damage already done. The consequences that our environment has suffered result not so much from the choices made, as from the choices neglected. These sentiments are from an address by President Nixon to the 91st Congress, but they are also reflective of the people who work, live, and play in San Diego County. That is why San Diegans laud the Congress for passage of the National Environmental Policy Act of 1969, the declaration of which was:

To declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment.

Thus, the Government has stated its intentions—now it must act with affirmative action to assure a better environment and a higher quality of life.

The record of last year's hearings on S. 3093 reveals that the presence of oil and gas off the immediate coast of San Diego County appears to be remote. However, the "Tanner Bank area in the seaward extension of this zone is presently considered to be a promising area for exploration." Even though this is some 90 miles away, we have moving currents and tides, as well as wind conditions that could deposit oil upon our beaches and in our harbors.

The Santa Barbara blowout taught us that our beaches run the risk of being ruined; our marine life threatened; and our waters polluted by the resultant effects of oil drilling operations. These effects include six general hazards which concern us. They are:

One, blowout hazard.—Blowouts are occurrences over which an oil company has only partial control. In reviewing offshore drilling experience in Louisiana, Texas, and California, occasional blowouts seem to be an inevitable part of those operations. The Santa Barbara experience with blowouts illustrates the great harm that can be done to beaches and recreation resources.

Two, oil spill hazard.—Oil drilling operations usually result in oil spills caused by human error. Although these normally do not result in as much oil in the water as blowouts, they still pose a serious problem in the aggregate amount of oil that will contaminate the waters. Included in this category is the very basic operation of drilling. Quite a bit of drilling mud and silt and some oil is dumped when bringing in a new well. When this material collects on the production deck, it is flushed over the side. The acids which are used to increase the flows and formations have also been known to be thrown overboard. In addition, I should like to stress that there are no effective containment systems to prevent the spread of oil pollution.

Further evidence as to the ills of oil spills may be found in the record of last year's hearings when Mrs. Carl Aue, a member of the California Regional Water Quality Control Board said:

Heavy biological damage to surf grass and barnacle populations has resulted from oil pollution. Surf grass is still being damaged by the continuing spill. Cleaning of rocks with water-sand mixture under high pressure removed an extensive community of limpets, snails, crabs and algae along with dried oil. Not only were the organisms damaged, but the oil removed ran down to pollute lower intertidal areas.

Three, oil associated land installations.—Plants and equipment which an offshore oil industry would require on land are probably undesirable to most people. Pumping stations, tank farms, pipelines, and refineries tend to lower environmental quality in areas, both in terms of air quality and esthetics. As for air quality, our county faces such a serious problem because of natural occurrence of inversion conditions and the area's reliance on an automobile transportation system, that the addition of another major pollutant source would deteriorate air quality to even more unacceptable levels.

Four, esthetics.—Many people feel that offshore drilling structures are a blight on ocean views. This is true in Santa Barbara and Ventura Counties. For an area in which people value their vistas and visual surroundings, such structures would be detrimental to visual environmental quality.

Five, navigational hazards.—The introduction of fixed drilling platforms in water areas where there have been none previously could

result in collisions. The ocean off San Diego is heavily traveled by Navy, commercial, and private ships and boats. In addition, fog conditions are common in these areas. Because of these factors, the placement of drilling platforms would be especially hazardous.

Six, geologic hazard.—Some people speculate that drilling operations in the area may increase the likelihood of earthquake activity. There is so little known about submarine geologic conditions that great caution is required in this matter.

The foregoing has been but a few of the arguments against offshore drilling. San Diego County is home to almost 1½ million people, and it is still growing. Our public beaches were used by approximately 1 million persons in 1970. Our 70 miles of sea coast is the berthing place for 35,000 boats. Our harbors serve as a port-of-call for thousands of boating enthusiasts. The people of our county place a high value on environmental quality. That is why the adverse effects of offshore drilling is unacceptable to us.

On August 5, 1971, the Board of Supervisors of San Diego County unanimously adopted a resolution of support for S. 1447. In that resolution, we did support the accompanying bills being considered this morning.

Thank you very much, Mr. Chairman.

That is the extent of my statement.

Senator Moss. Thank you, Mr. Honberger, we appreciate your statement.

Do you subscribe to Senator Tunney's statement that there may be a time when we do have to produce these reserves that may exist off the coast of California?

Mr. HONBERGER. I don't have anything to base such an estimate on, and I haven't seen those figures, but I would say, however you look at it, it is a matter of priorities. I believe if we have a problem of scarce resources we have to weigh that against the ever-present problem of environmental pollution which faces us today.

In Santa Barbara County, we have had repercussions nationwide. But as far as the actual figure, I don't know.

Senator Moss. Something was said about the high rate of consumption of petroleum products in California. Is California an importer of petroleum products, do you know, or does it produce enough for its own needs?

Mr. HONBERGER. I couldn't say. I guess we probably are an importer, but I am not sure.

Senator Moss. I take it you subscribe to the Senator's statement that there is no reason to develop the areas now, although there might be at a future time?

Mr. HONBERGER. Yes. I think we have to subscribe to that, because if there were a crisis and scarcity of national resources, I believe there would be much louder screaming at that point of time. It gets back to my point about priorities.

Senator Moss. Thank you very much. I appreciate your statement and the resolution that was adopted by the Board of Supervisors of San Diego County. We will have this in the record.

Thank you.

(The document referred to follows:)

RESOLUTION—BOARD OF SUPERVISORS OF THE COUNTY OF SAN DIEGO SUPPORTING
THE SAN DIEGO AND ORANGE COUNTIES MARINE SANCTUARY ACT

On motion of Scheidle, seconded by Bear, the following resolution is adopted:
Whereas, the State of California has established marine sanctuaries in tidal and submerged lands within the jurisdiction in which the development of oil, gas, and other mineral resources is prohibited or controlled; and

Whereas, the preservation of these and adjacent coastal lands are of direct recreational, esthetic, and economic value to the citizens of the County of San Diego, the State of California, and the Nation; and

Whereas, these sanctuaries and coastal lands are, at present, threatened by pollution of disastrous proportions if leasing were granted for oil, gas, or other mineral exploration or exploitation in Federal submerged lands seaward of existing State sanctuaries; and

Whereas, the President's panel on oil spills (the Du Bridge Panel) stated, "as a general practice, it would seem advisable that the Federal standards for safety and possible environmental damage should be at least as strict as the standards in the state whose waters are contiguous to the Federal water"; and

Whereas, there is presently pending before the Congress of the United States legislation which would preclude the exploration for or extraction of oil, gas, or any other minerals on Federal submerged lands adjacent to the following tide and submerged lands established by the State as sanctuaries: the San Diego and Orange Counties Sanctuary; the Los Angeles County Sanctuary, the Santa Catalina and San Clemente Islands Sanctuary; the San Luis Obispo County Sanctuary; the Monterey and Santa Cruz Counties Sanctuary; and the Humboldt and Mendocino Counties Sanctuary; and

Whereas, the Board of Supervisors of the County of San Diego has previously adopted a position of support of S. 373, "The Santa Barbara Channel Moratorium and Ecological Preserve Act of 1971", which seeks to reduce the potential for a reoccurrence of the Santa Barbara blowout while at the same time to preserve equity between public and private interests: Now, therefore, be it

Resolved, That the Board of Supervisors of the County of San Diego expresses its support of the "San Diego and Orange Counties Marine Sanctuary Act" (H.R. 8867 and S. 1447) and other legislation supporting the provisions of that act, and urges the Congress of the United States to enact the legislation into law.

Passed and adopted by the Board of Supervisors of the County of San Diego, State of California, this 3rd day of August, 1971, by the following vote:

Ayes: Supervisors Scheidle, Bear and Craven

Noes: Supervisors None

Absent: Supervisors Walsh and Boney

State of California } ss.

County of San Diego }

I, Porter D. Cremans, Clerk of the Board of Supervisors of the County of San Diego, State of California, hereby certify that I have compared the foregoing copy with the original resolution passed and adopted by said Board, at a regular meeting thereof, at the time and by the vote therein stated, which original resolution is now on file in my office; that the same contains a full, true and correct transcript therefrom and of the whole thereof.

Witness my hand and the seal of said Board of Supervisors, this 5th day of August, 1971.

PORTER D. CREMANS,
Clerk of the Board of Supervisors.

By LENELE DOYLE, *Deputy.*

Senator Moss. Next we will hear from Assemblyman John Dunlap of Napa and Solano Counties. I understand you will be representing the Speaker of the Assembly in your testimony.

Mr. DUNLAP. Yes.

STATEMENT OF ASSEMBLYMAN JOHN DUNLAP, NAPA AND SOLANO
COUNTIES, REPRESENTING THE SPEAKER OF THE ASSEMBLY

Mr. DUNLAP. I will not review or read the entire text of my statement. Part of it is repetitious of things you have heard. I may deviate from it to some extent to comment on some of the other things I heard this morning.

Senator Moss. Thank you. The entire statement will be in the record in full.

Mr. DUNLAP. Thank you. Let me say clearly I support S. 1446 and hope to see it adopted and become the law of the United States. Should you in your judgment, on the other hand, see fit to only buy part of the package, why, we support each one of the individual bills that go along with it.

I think there is a reason why California has from 1955 to the present time established seven oil sanctuaries along its coast. I think that reason involves a changing philosophy. During most of my life, I think the philosophy has been one of perhaps the destiny of man, to conquer nature. I think I have learned that it is our destiny to learn to live as an adjunct of nature. One major purpose, of course, has been to prevent, on our part, the desecration of our coast. Obviously, I think I don't have to repeat that the oil on the water doesn't know the 2-mile limit and as the disaster of platform A and Santa Barbara in 1969 will bring out, the coastal drift of our waters brought the oils directly to us.

We can't succeed in protecting our coastline without your help. Speaking briefly about platform A for a minute, deviating from what I intended to say, I was interested in Dr. Laird, from the Petroleum Institute, indicating there was no permanent damage.

I am a politician, legislator and lawyer. I am not a scientist, so when I hear somebody speak as a scientist, the best thing I can do is go to another scientist.

I was reading last night the hearings of this committee of July 22 and 21 of last year. I noticed on pages 331, 332, and 333, of that statement of Dr. Max Plumber of the Woods Hole Oceanographic Institute, he very clearly indicates there that whether there is damage or not is something that has to be looked at rather thoroughly, and it takes more than a visual inspection. He refers to the fact that within months after the *Tory Canyon* disaster—he says, however, chemical analysis reveals it is present and biological studies measure its toxicity.

Although there may be studies that come from one source and say in one way or the other there is no danger, this may be visual damage observed from the shoreline. Dr. Plumber goes on to say, the breakdown of the oil is very slow as compared to gasoline, which has a high immediate toxicity but dissipates very rapidly. He points out, with regard to that particular kill that the kill of bottom plants and animals has increased erosion results and may be responsible for the spread of sludge along the bottom of the sea to increase erosion.

So I think it is obvious that thorough studies over a long period of time sometimes have to be made and actually probably now a little over 2 years after Santa Barbara, it is too early to tell what the total effects of that may be.

I might be tempted in talking here to say that the purpose of California in establishing oil sanctuaries is just an altruistic one, that we do this because it is a good thing to do, to save our environment for posterity. On the other hand, although that may be a major motive on the part of many of our establishments, I believe the establishment of marine sanctuaries for the State of California has not only been a step in the right direction, I think that by now, placing people ahead of domestic petroleum in other environmentally damaging activities will in the long run maintain and increase the high value of our coastal land. It will preserve the California coast as a prime recreation area.

The revenues to the State and its applicable subdivisions will also be increased. Similarly, I think, revenues of the United States in the long run will be benefited most from our continued prospect, too.

Many of us recognize that pollution, as a result of mineral products in the coastal zone, is not the only problem with regard to coastal pollution. Bearing this in mind, I have included with my statement copies of assembly bill 1471 which sets up in California a State coastline conservation commission. This bill provides—it is a fairly complicated bill—it provides for a planning procedure for the conservation of the coast, and it also provides for an interim period, a three-year permit authority, to prevent any unwarranted rapid overdevelopment during the planning period. This includes everything from oil to power to residential.

Should anyone think this bill is just another bill in the legislative hopper, I would like to indicate that it represents a major practical, realistic effort to do something to preserve the California coast.

This year, assembly bill 1471 has already passed the California State Assembly with the two-thirds vote necessary for financing appropriate bills under our constitution. It has the wholehearted support of Assembly Speaker Bob Moretti, one of its strongest proponents. As a matter of interest, its hearing before the crucial senate natural resources and wildlife committees, will take place a few hours from now this afternoon in Sacramento. The bill has the support of major conservation organizations.

It is not just an idle thing we are thinking about. I departed from speaking strictly about Senator Cranston's marine sanctuary bill, only to emphasize another aspect of this legislation to California. We have gone a long way toward protecting our coast from oil pollution. Your encouragement, by favorable action on S. 1446, would help to assure this further forward step on our part.

In closing I would like to make two final points. One involves what I consider to be a first maxim of conservation; that is, when in doubt, preserve. We know when oil drilling takes place along the fragile California coast, oil spillages may take place. It is possible sometime in the future, scientific techniques may be developed to permit the production of oil without the present dangers. Should this occur, we could only reverse the process. Reversing the process of damage done is impossible. This is the reason I say when in doubt, preserve.

I would like to comment briefly on the questions that have come forth relative to energy. Once again I am not a scientist and as a legislator my greatest interest has been in the field of conservation rather than in the development of energy. On the other hand, anybody who would tend to tinker with oil exploration and other things that involve energy and conservation, I think must be aware of the realities of the significance and do something about it. For this reason, I think it is important that we do bear in mind that, as I have said, that techniques may improve, so it will be safer in the future. I think there is doubt about the safeness.

Secondly, I think there are other types of energy that we perhaps will be spending a great deal more money in reserve on than we are at the present time. I think in terms of degree on thermal energy, this too may have its disadvantages. On the other hand, it take place in the areas of the country which do not involve the very fragile coastal zone. We also have atomic fusion as opposed to fission, which is a relative safe thing.

Finally, I would like to say something about the idea of whether we have an oil reserve and we don't know whether it is there or not. In other words, it's there but you can't count it as a measured reserve unless you have counted it and have some inventory of what is there. That is true. You can't say what is there, if you don't know what is there. On the other hand, it is still there. In California the State game and fish commission said we want to keep hunting California mountain lions because we don't know how many there are, and by counting dead lions we will get some idea of how many there are. In my way of thinking determining how many lions there are by counting those killed, we might find out that is all there is some day, and we have been had and so have the lions.

At last, let me say, if we are willing to give up a major portion of our tideland oil revenue and if we are willing to go farther than that in protecting our coast, we do this for our own benefit. Really, I think that California and other coastal States hold the shoreline not only for their benefit and the benefit of our citizens, but in trust for the use and benefit of all of the people in the United States. If we are willing to forego our revenue for everyone's benefit, I think the U.S. Government should be willing to help.

Senator Moss. Thank you very much, Mr. Dunlap. You outlined very well your point of view and that of a large number of your fellow legislators in California, including the speaker. You make a very good case for it. The collision point, if there is one, of course, is what are the needs for energy and have we or are we approaching or have we already arrived at the point where we need further exploration and development in order to maintain our present living standards. Your conclusion is—apparently is—we have not and there are other ways of getting energy that we should be developing and perhaps in ordering the priorities you want to find other types of energy and prevent exploitation of the shoreline area of California.

Mr. DUNLAP. Yes; I hope it is not a collision course, and because, as I say, if I have doubt, I would much rather preserve if there is any doubt, however.

Senator Moss. That is a pretty good rule to follow. Thank you very much.

(Mr. Dunlap's prepared statement follows:)

STATEMENT OF ASSEMBLYMAN JOHN DUNLAP, NAPA AND SOLANO COUNTIES,
REPRESENTING THE SPEAKER OF THE ASSEMBLY

Mr. Chairman, as a California legislator, it is a pleasure for me to appear before you and give my complete and unqualified endorsement to S. 1446 introduced by Senator Cranston. I would also like to compliment Senators Tunney, Muskie, and Nelson for co-sponsoring this legislative package which I consider vital to the best interests of the State of California and the United States. Last year I followed with interest and supported Senator Cranston's S. 3093 and would be happy to support it again. On the other hand, I consider the legislative proposals now before us an excellent alternative. Needless to say, should the package of S. 1446 be unacceptable in its entirety, I also support each of its component parts, S. 1447 through S. 1452.

As Senator Cranston has indicated, the State of California has seen fit to establish seven oil sanctuaries within the territorial jurisdiction of our three mile limit. In doing this, we have for the time at least, limited our own revenue producing capacity. Obviously, there is a reason for this.

During the major portion of my life, the prevailing attitude with regard to the role of man has been that of the "conquest of nature." In recent years, we have come to question that role. I believe that we now recognize the earth is not ours to do with as we see fit—to exploit its resources; but rather our position is to learn to live in unity with nature.

In response to this new role, California, between 1955 and 1969, has adopted legislation prohibiting mineral development on seven separate stretches on our coastal tidelands. Our major purpose has been to prevent the desecration of our coast from the damage of oil pollution. Not only have we sought to prevent catastrophic events such as the "Platform A" disaster of January, 1969, but also we seek to limit and eventually eliminate the countless small but accumulatively destructive spills that must necessarily be involved with the production and transportation of oil in and about our coastal waters.

Our efforts cannot be totally effective when the United States authorizes drilling beyond the three mile limit immediately adjacent to the areas we have sought to protect. Oil on the waters has no respect for the three mile limit. The coastal drift of our currents was tragically demonstrated by the Santa Barbara Channel disaster of 1969. We ask that you help us complete the job of protecting the California coast. Without your help, we cannot succeed.

I might be tempted to indicate that our only purpose is an altruistic one—the desire to preserve and protect our priceless coastal heritage for posterity. Certainly this is a major motive on the part of many of our citizens.

On the other hand, I believe that the establishment of marine sanctuaries for the State of California has not only been a great environmental accomplishment but also has been a step calculated to be in our long run self interest from an economic standpoint.

If development of the California coast is allowed to continue at its current rate, I can envisage the spectre of polluted coastal ghost towns along our shoreline. The time could come when our coastal cities are ultimately abandoned by all but industrial development. Placing people ahead of domestic petroleum production and other environmentally damaging activities will in the long run maintain and increase the high value of coastal land. It will preserve the California coast as a prime recreation area with high aesthetic, scientific and economic returns to the people of California. The revenues of the State and its political subdivisions will also be increased. Similarly, the revenues of the United States will, in the long run, benefit most from our continued prosperity.

Many of us recognize that pollution, as the result of mineral production in the coastal zone, is not the only problem. Bearing this in mind, I have brought with me copies of AB 1471 which sets up a state coastline conservation commission. This bill provides for a planning procedure to conserve our coast for future generations. It also provides for a permit authority to prevent overdevelopment during the planning period.

Should anyone think that this legislation is just another bill in the legislative hopper, let me indicate that AB 1471 represents a major practical and realistic effort to do something to preserve the California coast. It is the successor of AB 730 introduced by Assemblyman Alan Sieroty and me last year. Assembly Bill 730 died in the first Assembly committee. This year AB 1471 has passed the Assembly with the two-thirds vote necessary for appropriation bills. It is co-authored by a bipartisan group including Assembly Speaker Bob Moretti, one of its strongest proponents. Its hearing before the crucial Natural Resources and Wildlife Committee of the State Senate will take place in Sacramento this afternoon. I also attach a list of a group of organizations known as the California Coastal Alliance in order that you know of the major support behind this coastal legislation.

I have departed from speaking solely on Senator Cranston's marine sanctuary bills only to emphasize another aspect of their importance to California. We have gone a long way toward protecting our coast from oil pollution. We are hopefully ready to go farther. Your encouragement by favorable action on S 1446 would help to assure this further forward step on our part.

I close by making two final points. One involves what I consider to be the first maxim of conservation: "When in doubt, preserve." We know now that when oil drilling takes place along the geographically fragile California coast, oil spillages are likely to take place. It is possible that sometime in the future, scientific techniques may be developed to permit the production of oil without the present dangers. Should this occur, we can always reverse the process and permit drilling. Should we fail to prohibit when we know there is doubt, reversing the process of damage done is impossible. For this reason, I say, "When in doubt, preserve."

Finally, if California is willing to give up a major portion of its tidelands oil revenue to protect its coast, certainly the United States should be willing to forego drilling within a similar area. The vast financial revenue resources of this country are supported not only by coastal states but by many others including that majority of states which do not have ocean coastlines. If California is willing to preserve its shoreline for not only its own benefit but in trust for the use and benefit of all the citizens of the United States now and in the future, then certainly the government of the United States should be willing to help.

AMENDED IN SENATE OCTOBER 22, 1971

AMENDED IN ASSEMBLY JULY 30, 1971

AMENDED IN ASSEMBLY JULY 26, 1971

AMENDED IN ASSEMBLY JULY 1, 1971

AMENDED IN ASSEMBLY JUNE 21, 1971

CALIFORNIA LEGISLATURE—1971 REGULAR SESSION

ASSEMBLY BILL

No. 1471

Introduced by Assemblymen Sieroty, Dunlap, Moretti, Z'berg, Knox, Wilson, Brathwaite, Brown, Burton, Crown, Fenton, Foran, Garcia, Gonsalves, Bill Greene, LaCoste, McAlister, McCarthy, Meade, Miller, Pierson, Powers, Quimby, Ralph, Roberti, Townsend, Vasconcellos, Warren, Waxman, Karabian, and Ryan Chacon, Cory, Deddeh, Keysor, MacDonald, Duffy, Fong, Leroy F. Greene, and Ryan (Coauthors: Senators Alquist, Behr, Beilenson, Dymally, Gregorio, Marks, Moscone, Nejedly, Petris, and ~~Rodda~~ Rodda, and Grunsky)

April 1, 1971

REFERRED TO COMMITTEE ON PLANNING AND LAND USE

An act to add Division 18 (commencing with Section 27000) to the Public Resources Code, and to add Section 11528.2 to the Business and Professions Code, relating to the California coastal zone, and making an appropriation therefor.

LEGISLATIVE COUNSEL'S DIGEST

AB 1471, as amended, Sieroty (P. & L.U.). Coastline conservation and development.

Adds Div. 18 (commencing with Sec. 27000), P.R.C., and Sec. 11528.2, B. & P.C.

Creates the California Coastal Zone Conservation Commission and prescribes its membership, powers, and duties. Requires such commission to develop, adopt, and submit to the Legislature the California Coastal Zone Conservation Plan, as prescribed, for the coastal zone, as defined, and requires it to submit to the Governor and Legislature designated reports.

Creates six regional commissions of the commission, with described jurisdiction, and prescribes their membership, powers, and duties.

Prohibits, with prescribed exceptions, development, as defined, in permit area, as defined, without obtaining a permit from a regional commission or the commission on appeal.

Appropriates \$600,000 to the commission for expenditure, without regard to fiscal year, for purposes of the act.

To be operative only until the 91st day after the final adjournment of the 1975 Regular Session of the Legislature and as of that date is repealed.

Vote— $\frac{2}{3}$; Appropriation—Yes; Fiscal Committee—Yes.

The people of the State of California do enact as follows:

1 SECTION 1. Division 18 (commencing with Section 27000)
2 is added to the Public Resources Code, to read:

3
4 DIVISION 18. CALIFORNIA COASTAL ZONE
5 CONSERVATION COMMISSION

6
7 CHAPTER 1. GENERAL PROVISIONS AND FINDINGS
8 AND DECLARATIONS OF POLICY

9
10 27000. This division shall be known and may be cited as
11 the California Coastal Zone Conservation Act of 1971.

12 27001. The Legislature hereby finds and declares that the
13 California coastal zone is a distinct and valuable natural re-
14 source existing as a delicately balanced ecosystem; that the
15 permanent protection of the remaining natural and scenic
16 resources of the California coastal zone is of paramount con-
17 cern to present and future residents of the state and nation;
18 and that it is the policy of the state to preserve, protect, and
19 where possible restore the resources of the coastal zone for the
20 enjoyment of the current generation and succeeding genera-
21 tions.

22 27002. The Legislature further finds and declares that the
23 present uncoordinated, piecemeal development is leading to
24 the permanent loss of irreplaceable coastal zone resources and
25 to a pattern of use which does not properly balance conser-
26 vation and development needs of competing demands and is
27 therefore inimical to the welfare of present and future resi-
28 dents of the state and nation; that while some individual de-
29 velopment projects may be necessary and desirable, and while
30 some cities and counties may have prepared detailed master
31 plans for their own coastal lands, no governmental mechanism
32 exists for evaluating individual projects as to their effect on
33 the resources of the entire coastal zone; and that further piece-
34 meal development may result in further reduction of physical
35 and visual access to the coastline, further loss of remaining
36 public coastline to development inconsistent with the total
37 public interest, and further general deterioration in the quality
38 of life in the California coastal zone.

39 27003. The Legislature further finds and declares that in
40 order to protect the coastal zone, there is a need for all of the
41 following:

42 (a) To study the coastal zone, and each ecological unit
43 therein, to determine the ecological planning principles and

1 assumptions needed to ensure conservation of coastal zone
2 resources.

3 (b) To prepare, based upon such study and in full consul-
4 tation with all affected governmental agencies, private inter-
5 ests, and the general public, a comprehensive, coordinated,
6 enforceable plan for the orderly, long-range conservation and
7 management of the natural resources of the California coastal
8 zone, to be known as the California Coastal Zone Conservation
9 Plan.

10 (c) To ensure that no development in the permit area oc-
11 curs during the study and planning period which will be in-
12 consistent with objectives of this division.

13 (d) To create the California Coastal Zone Conservation
14 Commission, and six Regional Coastal Zone Conservation Com-
15 missions, to implement the provisions of this division.

17 CHAPTER 2. DEFINITIONS

18
19 27100. Unless the context otherwise requires, the definitions
20 set forth in this chapter shall govern the construction of this
21 division.

22 27101. "Coastal zone" means that land and water area of
23 the State of California from the border of the State of Oregon
24 to the border of the Republic of Mexico, extending seaward to
25 the outer limit of state jurisdiction, including all islands
26 within the jurisdiction of the state, and extending inland to the
27 highest elevation of the nearest coastal mountain range. How-
28 ever, the commission shall, within 30 days after its first meet-
29 ing, establish the inland boundaries of the coastal zone in Los
30 Angeles, Orange, and San Diego Counties at any distance, but
31 such inland boundaries shall not extend beyond the highest
32 elevation of the nearest coastal mountain range or five miles
33 from the mean high tide line, whichever is the shortest dis-
34 tance. The inland boundaries of the coastal zone in Los Angeles,
35 Orange, and San Diego Counties shall be submitted to the ap-
36 propriate regional commission for inclusion in the coastal zone
37 boundary map.

38 Each regional commission, after consulting with appropri-
39 ate county and city officials, shall recommend to the commis-
40 sion for its adoption a map delineating the precise boundaries
41 of the coastal zone within its jurisdiction within 60 days after
42 its first meeting and the commission shall adopt a map deline-
43 ating the precise boundaries of the coastal zone within 60 days
44 after the regional commission makes such recommendations.
45 The commission shall, after it adopts the coastal zone boundary
46 map, file a copy of such map in the office of the county clerk
47 of each coastal county.

48 27102. "Coastal zone plan" means the California Coastal
49 Zone Conservation Plan.

50 27103. (a) "Commission" means the California Coastal
51 Zone Conservation Commission.

AB 1471

1 (b) "Regional commission" means any regional coastal zone
2 conservation commission for a region as specified in Section
3 27201.

4 27104. "Development" means, on land, in or under water,
5 the placement or erection of any solid material or structure;
6 discharge or disposal of *any dredged material* or of any gas-
7 eous, liquid, solid, or thermal waste; grading, removing, dredg-
8 ing, mining, or extraction of any materials; change in the
9 density or intensity of use of land including, but not limited
10 to, subdivision of land pursuant to the Subdivision Map Act
11 (Chapter 2 (commencing with Section 11500) of Part 2 of
12 Division 4 of the Business and Professions Code) and any
13 other division of land such as lot splits; change in the intensity
14 of use of water, ecology related thereto, or of access thereto;
15 construction, reconstruction, demolition, or alteration of the
16 size of any structure, including, but not limited to, any facility
17 of any private, public, or municipal utility, and the removal
18 or logging of major vegetation. As used in this section, "struc-
19 ture" includes, but is not limited to, any building, road, pipe,
20 flume, conduit, siphon, aqueduct, telephone line, and electrical
21 power transmission and distribution line.

22 27105. "Permit area" means that portion of the coastal
23 zone lying between the seaward limit of the jurisdiction of the
24 state and 1,000 yards landward from the mean high tide line
25 of the sea subject to the following provisions:

26 (a) The area of jurisdiction of the San Francisco Bay Con-
27 servation and Development Commission as defined in Section
28 66610 of the Government Code, *together with all contiguous*
29 *areas 2,900 feet landward thereof*, is excluded.

30 (b) Any portion of the permit area lying more than 500
31 feet inland from the mean high tide line may be excluded
32 therefrom by the commission upon recommendation of a re-
33 gional commission and after a public hearing or hearings, upon
34 a specific finding that there is no need to exercise the powers
35 granted pursuant to this division in such portion in order to
36 carry out the objectives of this division. However, any such
37 exclusion shall terminate when there is a change in zoning or
38 granting of variance or it may be revoked by the commission,
39 after a public hearing or hearings, when the commission deems
40 it is necessary to exercise the powers granted pursuant to this
41 division in such excluded area in order to carry out the pur-
42 poses of this division.

43 (c) If any segment of any scenic highway lies within a
44 permit area, the area extending 660 feet from each side of such
45 highway for a distance of three miles in both directions from
46 any point at which such highway crosses the boundary line of
47 the permit area is included within the permit area.

48 As used in this subdivision, "scenic highway" means any
49 highway which was recommended by the Scenic Highway Ad-
50 visory Committee for designation as a scenic highway pursuant
51 to Article 2.5 (commencing with Section 260) of Chapter 2
52 of Division 1 of the Streets and Highways Code.

1 (d) If any portion of any body of water which is not sub-
2 ject to tidal action lies within the permit area, there shall also
3 be included within the permit area the entire area of such
4 body of water together with a strip of land 1,000 feet wide
5 surrounding such body of water.

6 (e) Any portion of the permit area which is a residential
7 area zoned and developed to a density of four or more dwelling
8 units per acre on or before July 1, 1971, or any commercial or
9 industrial area, commercial or industrial harbor area, or
10 marina, which is zoned and developed for such use on or before
11 July 1, 1971, shall be excluded from the permit area at the
12 request of a city or county within which such area is located.
13 Such request may be made at any time. The regional commis-
14 sion may refuse to grant such a request for exclusion upon a
15 finding that such area should be included in the permit area
16 in order to carry out the purposes of this division. The order
17 of the regional commission for exclusion of any area shall pro-
18 vide that such exclusion shall terminate upon any redevelop-
19 ment, change in zoning, or proposed significant change in the
20 density, height, or nature of uses within such excluded area.
21 Such exclusion may be revoked by the regional commission
22 or commission, after a public hearing, when the regional com-
23 mission or commission deems it necessary to exercise the pow-
24 ers granted pursuant to this division in such excluded area to
25 carry out the purposes of this division.

26 Each regional commission, after consulting with appropriate
27 county and city officials, shall recommend to the commission
28 for its adoption a map delineating the precise boundaries
29 of the permit area in its jurisdiction within 60 days after its
30 first meeting and the commission shall adopt a map delineat-
31 ing the precise boundaries of the permit area within 60 days
32 after the regional commission makes such recommendation.
33 The commission shall, after it adopts the permit area boundary
34 map, file a copy of such map in the office of the county clerk
35 of each coastal county.

36 27106. *“Sea” means the Pacific Ocean and all the harbors,*
37 *bays, channels, estuaries, salt marshes, sloughs, and other areas*
38 *subject to tidal action through a connection with the sea, ex-*
39 *cluding nonestuarine rivers and creeks.*

40 27106

41 27107. “Person” includes, to the maximum extent possi-
42 ble under the Constitution of the United States and of Cali-
43 fornia, any private individual, organization, partnership, and
44 corporation, including private, public, municipal utilities, and
45 any agency of federal, state, and local government.

1 CHAPTER 3. CREATION, MEMBERSHIP, AND POWERS OF
2 COMMISSION AND REGIONAL COMMISSIONS
3

4 Article 1. Creation and Membership of Commissions
5 and Regional Commissions
6

7 27200. The California Coastal Zone Conservation Commis-
8 sion is hereby created. The commission shall consist of the fol-
9 lowing members:

10 (a) Six representatives from the regional commissions, one
11 member selected by each regional commission from among its
12 members.

13 (b) Two representatives of the public appointed by the Gov-
14 ernor.

15 (c) Two representatives of the public appointed by the Sen-
16 ate Rules Committee.

17 (d) Two representatives of the public appointed by the
18 Speaker of the Assembly.

19 No member appointed pursuant to subdivision (b), (c), or
20 (d) shall be a member of a regional commission.

21 27201. The coastal zone is hereby divided into the follow-
22 ing six regions, and a regional commission is hereby created
23 for each region, consisting of the following members:

24 (a) The North Coast Region shall include the coastal zone
25 in Del Norte, Humboldt, and Mendocino Counties, and the
26 North Coast Regional Commission shall consist of the follow-
27 ing members:

28 (1) One county supervisor from each county in the region,
29 selected by the county board of supervisors of each such
30 county, and one city councilman from each county in the re-
31 gion, selected by the city selection committee of each such
32 county.

33 (2) One city councilman from a city *which lies, in whole or*
34 *in part*, within the permit area, as defined by Section 27105,
35 ~~appointed by the Governor~~ *selected by two-thirds vote of the*
36 *total membership of the regional commission selected or ap-*
37 *pointed pursuant to paragraphs (1) and (3) of this subdivi-*
38 *sion.*

39 (3) Six representatives of the public, two to be appointed
40 by the Governor, two to be appointed by the Senate Rules
41 Committee, and two to be appointed by the Speaker of the
42 Assembly.

43 (b) The North Central Coast Region shall include the
44 coastal zone in Sonoma, Marin, and San Francisco Counties,
45 and the North Central Coast Regional Commission shall con-
46 sist of the following members:

47 (1) One county supervisor from Sonoma County and one
48 from Marin County, selected by the county board of super-
49 visors of each such county, respectively, and one city council-
50 man from Sonoma County and one from Marin County,
51 selected by the city selection committee of each county, respec-
52 tively.

- 1 (2) Two county supervisors, selected by the County Board
 2 of Supervisors of the City and County of San Francisco.
- 3 (3) One delegate to the Association of Bay Area Govern-
 4 ments, selected by such association.
- 5 (4) One city councilman from a city *which lies, in whole or*
 6 *in part*, within the permit area, as defined by Section 27105,
 7 ~~appointed by the Governor~~ *selected by two-thirds vote of the*
 8 *total membership of the regional commission selected or ap-*
 9 *pointed pursuant to paragraphs (1), (2), (3), and (5) of this*
 10 *subdivision.*
- 11 (5) Seven representatives of the public, three to be ap-
 12 pointed by the Governor, two to be appointed by the Senate
 13 Rules Committee, and two to be appointed by the Speaker of
 14 the Assembly.
- 15 (c) The Central Coast Region shall include the coastal zone
 16 in San Mateo, Santa Cruz, and Monterey Counties, and the
 17 Central Coast Regional Commission shall consist of the follow-
 18 ing members:
- 19 (1) One county supervisor from each county in the region,
 20 selected by the county board of supervisors of each such
 21 county, and one city councilman from each county in the
 22 region, selected by the city selection committee of each such
 23 county.
- 24 (2) One delegate to the Association of Bay Area Govern-
 25 ments, selected by such association.
- 26 (3) One delegate to the Association of Monterey Bay Area
 27 Governments, selected by such association.
- 28 (4) One city councilman from a city *which lies, in whole or*
 29 *in part*, within the permit area, as defined by Section 27105,
 30 ~~appointed by the Governor~~ *selected by two-thirds vote of the*
 31 *total membership of the regional commission selected or ap-*
 32 *pointed pursuant to paragraphs (1), (2), (3), and (5) of this*
 33 *subdivision.*
- 34 (5) Eight representatives of the public, four to be ap-
 35 pointed by the Governor, two to be appointed by the Senate
 36 Rules Committee, and two to be appointed by the Speaker of
 37 the Assembly.
- 38 (d) The South Central Coast Region shall include the
 39 coastal zone in San Luis Obispo, Santa Barbara, and Ventura
 40 Counties, and the South Central Coast Regional Commission
 41 shall consist of the following members:
- 42 (1) One county supervisor from each county in the region
 43 selected by the county board of supervisors of each such
 44 county, and one city councilman from each county in the
 45 region, selected by the city selection committee of each such
 46 county.
- 47 (2) One city councilman from a city *which lies, in whole*
 48 *or in part*, within the permit area, as defined by Section 27105,
 49 ~~appointed by the Governor~~ *selected by two-thirds vote of the*
 50 *total membership of the regional commission selected or ap-*
 51 *pointed pursuant to paragraphs (1) and (3) of this subdivi-*
 52 *sion.*

1 (3) Six representatives of the public, two to be appointed
2 by the Governor, two to be appointed by the Senate Rules
3 Committee, and two to be appointed by the Speaker of the
4 Assembly.

5 (e) The South Coast Region shall include the coastal zone
6 in Los Angeles and Orange Counties, and the South Coast
7 Regional Commission shall consist of the following members:

8 (1) One county supervisor from each county in the region,
9 selected by the county board of supervisors of each such
10 county.

11 (2) One city councilman from the City of Los Angeles, se-
12 lected by *the president* of such city council.

13 (3) One city councilman from Los Angeles County, selected
14 by the city selection committee of Los Angeles County, from
15 cities in such county other than the City of Los Angeles.

16 (4) One city councilman from Orange County, selected by
17 the city selection committee of such county.

18 (5) One delegate to the Southern California Association of
19 Governments, selected by such association.

20 (6) One city councilman from a city *which lies, in whole or*
21 *in part*, within the permit area, as defined by Section 27105,
22 ~~appointed by the Governor~~ *selected by two-thirds vote of the*
23 *total membership of the regional commission selected or ap-*
24 *pointed pursuant to paragraphs (1), (2), (3), (4), (5), and*
25 *(7) of this subdivision.*

26 (7) Six representatives of the public, two to be appointed
27 by the Governor, two to be appointed by the Senate Rules
28 Committee, and two to be appointed by the Speaker of the
29 Assembly.

30 (f) The San Diego Coast Region shall include the coastal
31 zone in San Diego County, and the San Diego Coast Regional
32 Commission shall consist of the following members:

33 (1) Two county supervisors from San Diego County, se-
34 lected by the county board of supervisors, and two city coun-
35 cilmen from San Diego County, at least one of whom shall be
36 from a city which lies, in whole or in part, within the permit
37 area, selected by the city selection committee of such county.

38 (2) One city councilman from the City of San Diego, se-
39 lected by the city council of such city.

40 (3) One member of the San Diego Comprehensive Planning
41 Organization, selected by such organization.

42 (4) One city councilman from a city *which lies, in whole or*
43 *in part*, within the permit area, as defined by Section 27105,
44 ~~appointed by the Governor~~ *selected by two-thirds vote of the*
45 *total membership of the regional commission selected or ap-*
46 *pointed pursuant to paragraphs (1), (2), (3), and (5) of this*
47 *subdivision.*

48 (5) Six representatives of the public, two to be appointed
49 by the Governor, two to be appointed by the Senate Rules
50 Committee, and two to be appointed by the Speaker of the
51 Assembly.

Article 2. Organization

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27220. All members of the commission and each regional commission shall be residents of the state. Each member appointed to a regional commission shall be a resident of such region.

27221. Each public member of the commission or of regional commission shall be a person who, as a result of his training, experience, and attainments, is exceptionally well qualified to analyze and interpret environmental trends and information, to appraise resource uses in the light of the policies set forth in this division, to be responsive to the scientific, social, esthetic, and cultural needs of the state, and to formulate and recommend a coastal zone plan to promote the improvement of the quality of the coastal environment. The Governor, the Senate Rules Committee and the Speaker of the Assembly shall, in making such appointments, seek to assure that expertise in conservation, recreation, ecological sciences, planning, and education will be represented on the commission and regional commissions.

27222. Each member of the commission and each regional commission shall be appointed or selected not later than January 1, 1972.

Each member of the commission and each regional commission appointed by the Governor, the Senate Rules Committee, and the Speaker of the Assembly shall be subject to the confirmation by the Senate and Assembly; however, such member shall have, and be able to exercise, all the powers, duties, and responsibilities as are prescribed by this division prior to his confirmation. Such confirmation shall be made not earlier than 30 days and not later than 90 days after such appointment. If any person is not confirmed within such period, a vacancy is created in his office as a member of the commission or regional commission on the 91st day after such appointment.

27223. The members of the commission and each regional commission shall serve until the 91st day after the final adjournment of the 1975 Regular Session of the Legislature, except that no member shall serve for a term in excess of four years without being reappointed or reselected, and, if required, confirmed, by the Senate and Assembly. In the case of persons qualified for membership because they hold a specified office, such membership ceases when their term of office ceases. Vacancies of office which occur on the commission or any regional commission shall be filled in the same manner in which the original member was selected or appointed.

27224. The members of the commission or any regional commission shall serve without compensation, but each such member shall be reimbursed for the actual and necessary expenses incurred in the performance of his duties, including travel expenses, to the extent that reimbursement for expenses

1 is not otherwise provided by another public agency. In addi-
2 tion, members who are not employees of other public agencies
3 shall receive fifty dollars (\$50) for each day attending meet-
4 ings of the commission or of any regional commission.

5 27225. The commission and each regional commission shall
6 meet no less than once during each month at a place reasonably
7 convenient to the public. No decision on permit applications or
8 on the adoption of the coastal zone plan shall be made without
9 a prior public hearing. Prior to the adoption of the coastal
10 zone plan, the commission shall hold public hearings on the
11 proposed coastal zone plan in different parts of the state. All
12 meetings of the commission and each regional commission shall
13 be open to the public in accordance with Article 9 (commenc-
14 ing with Section 11120) of Chapter 1 of Part 1 of Division 3
15 of Title 2 of the Government Code. A majority affirmative
16 vote of the total authorized membership of the commission or
17 of the regional commissions shall be necessary to approve any
18 action required or permitted by this division, unless otherwise
19 provided in this division.

20 27226. The commission and each regional commission shall
21 elect a chairman and vice chairman from among its members.

22 27227. The time and place of the first meeting of the com-
23 mission shall be prescribed by the Governor, but in no event
24 shall it be scheduled for a date later than February 15, 1972.
25 The time and place of the first meeting of the regional com-
26 missions shall be prescribed by the Governor, but in no event
27 shall it be scheduled for a date later than February 1, 1972.

28 27228. The headquarters of the commission shall be in a
29 city determined by the commission; however, such city shall
30 be located within the coastal zone. The headquarters of each
31 regional commission shall be determined by each regional com-
32 mission.

33 Article 2.5. Conflicts of Interests

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35
36 27230. No person who has been a member or employee of
37 the commission or a regional commission, after his employment
38 or term of office has ceased, shall knowingly act as an attor-
39 ney, agent, or employee for anyone other than the state in
40 connection with any judicial or other proceeding, hearing, ap-
41 plication, request for a ruling, or other determination, contract,
42 claim, controversy, study, plan, or other particular matter in
43 which the commission or a regional commission is a party or
44 has a direct and substantial interest and in which he partici-
45 pated personally and substantially as a member or employee,
46 through decision, approval, disapproval, recommendation, the
47 rendering of advice, investigation, or otherwise, while so em-
48 ployed.

49 No person during his term as a member or employee of the
50 commission or any regional commission, or for one year after
51 his membership or employment with the commission or any
52 regional commission has ceased, shall appear personally before

1 or communicate with the commission or any regional commis-
2 sion, any court or governmental agency, as an attorney, agent,
3 or employee for anyone other than the state in connection with
4 any proceeding, hearing, application, request for a ruling, or
5 other determination, contract, claim, controversy, study, plan,
6 or other particular matter in which the commission or a re-
7 gional commission is a party or has a direct and substantial
8 interest and which was under his official responsibility as a
9 member or employee at any time within a period of one year
10 prior to the termination of such responsibility.

11 Nothing in this section shall prevent a former member or
12 employee of the commission or any regional commission, with
13 outstanding scientific or technological qualifications from act-
14 ing as an attorney, agent, or employee or appearing personally
15 in connection with a particular scientific or technological
16 matter if the chairman of the commission makes a written de-
17 termination in advance that the purposes of this division shall
18 be promoted by such action or appearance by the former mem-
19 ber or employee.

20 Any person who violates any provision of this section is
21 guilty of a felony and shall be subject to a fine of not to ex-
22 ceed ten thousand dollars (\$10,000) or imprisonment in the
23 state prison for not to exceed two years, or both.

24 27231. No person who is a partner, employer, or employee
25 of a member or employee of the commission or a regional com-
26 mission shall act as an attorney, agent, or employee for any-
27 one other than the state in connection with any judicial or
28 other proceeding, hearing, application, request for a ruling, or
29 other determination, contract, claim, controversy, study, plan,
30 or other particular matter in which the commission or a re-
31 gional commission is a party or has a direct and substantial
32 interest and in which such commission member or employee
33 participates or has participated personally and substantially
34 as a commission member or employee through decision, ap-
35 proval, disapproval, recommendation, the rendering of advice,
36 investigation or otherwise, or which is the subject of his official
37 responsibility.

38 Any person who violates any provision of this section is
39 guilty of a misdemeanor and shall be subject to a fine of not
40 to exceed five thousand dollars (\$5,000) or imprisonment in
41 the county jail for not to exceed one year, or both.

42 27232. No person who is a member or employee of the com-
43 mission or a regional commission shall participate personally
44 and substantially as a member of the commission or any re-
45 gional commission or employee, through decision, approval,
46 disapproval, recommendation, the rendering of advice, investi-
47 gation, or otherwise, in a judicial or other proceeding, hearing,
48 application, request for a ruling, or other determination, con-
49 tract, claim, controversy, study, plan, or other particular mat-
50 ter in which, to his knowledge, he, his spouse, minor child,
51 partner, or any organization in which he is serving; or has
52 served as officer, director, trustee, partner, or employee within

1 two years prior to his appointment as a member of the com-
2 mission or any regional commission or employee or any per-
3 sion or organization with whom he is negotiating or has any
4 arrangement concerning prospective employment, has a finan-
5 cial interest.

6 The provisions of this section shall not apply (1) if the
7 member of the commission or any regional commission or
8 employee first advises the chairman of the commission of the
9 nature and circumstances of the judicial or other proceeding,
10 hearing, application, request for a ruling, or other determina-
11 tion, contract, claim, controversy, study, plan, or other particu-
12 lar matter and makes full disclosure of the financial interest
13 and receives in advance a written determination of the chair-
14 man of the commission that the interest is not so substantial
15 as to be deemed likely to affect the integrity of the services
16 which the state may expect from such member or employee or
17 (2) if, by general rule or regulation adopted by the commis-
18 sion the financial interest has been exempted from the require-
19 ments of this section as being too remote or too inconsequential
20 to affect the integrity of the members of the commission or any
21 regional commission or its employees services.

22 Any person who violates any provision of this section is
23 guilty of a felony and shall be subject to a fine of not to
24 exceed ten thousand dollars (\$10,000) or imprisonment in the
25 state prison for not to exceed two years, or both.

26
27

Article 3. Powers and Duties

28

29 27240. The commission and each regional commission, pur-
30 suant to regulations established by the commission, may:

31 (a) Accept grants, contributions, and appropriations from
32 any public agency, private source, or individual for the pur-
33 poses of this division.

34 (b) Appoint hearing panels or other committees from their
35 membership and appoint advisory committees from other in-
36 terested public and private groups.

37 (c) Contract for, or employ, any professional services when
38 they determine that such work or services cannot satisfactorily
39 be performed by their officers and employees.

40 (d) Sue and be sued in all actions and proceedings and in
41 all courts and tribunals of competent jurisdiction to obtain
42 remedy, including prohibitory and mandatory injunctions
43 to restrain violations of the provisions of this division. Upon
44 request of the commission or any regional commission, the
45 State Attorney General shall provide necessary legal repre-
46 sentation.

47 (e) Pursue cooperative coastal zone planning and manage-
48 ment with the States of Oregon, Washington, and Alaska, the
49 Dominion of Canada, and the Republic of Mexico.

50 (f) In addition to those specifically required or authorized
51 by this division, adopt any regulations they deem reasonable
52 and necessary to carry out the provisions of this division, but

1 no regulations shall be adopted without a prior public hearing
 2 on the proposed regulations in accordance with Article 4 (com-
 3 mencing with Section 11420) of Chapter 4.5 of Part 1 of Divi-
 4 sion 3 of Title 2 of the Government Code.

5 27241. In preparing its required studies the commission
 6 shall utilize the advice and services of all appropriate federal,
 7 state, and local agencies, including, but not limited to, the
 8 California Advisory Commission on Marine and Coastal Re-
 9 sources.

10 *The rights, responsibilities, and funding in respect to the*
 11 *Comprehensive Ocean Area Plan are hereby transferred to*
 12 *the commission.*

13 27243. The commission and each regional commission shall
 14 each appoint an executive director, who shall be charged with
 15 administering the responsibilities of the commission and each
 16 regional commission, respectively. *Each executive director shall*
 17 *be exempt from civil service pursuant to subdivision (e) of*
 18 *Section 4 of Article XXIV of the California Constitution.* Each
 19 of the executive directors, subject to commission approval, shall
 20 appoint such additional employees as may be necessary to
 21 carry out commission or regional commission responsibilities.

22 27244. Each regional commission may, to the extent it
 23 deems desirable, utilize the staff of any existing federally recog-
 24 nized regional planning agency within its region and, upon
 25 request of the regional commission, such agency shall provide
 26 the requested staff assistance *insofar as its resources permit.*

27
 28 CHAPTER 4. CALIFORNIA COASTAL ZONE
 29 CONSERVATION PLAN

30
 31 Article 1. Generally

32
 33 27300. The commission shall prepare, adopt, and submit
 34 to the Legislature for implementation the California Coastal
 35 Zone Conservation Plan.

36 27301. The coastal zone plan shall be based upon detailed
 37 studies of all the factors that significantly affect the present
 38 and future condition of the coastal zone. The studies con-
 39 ducted pursuant to this section are intended to provide com-
 40 prehensive scientific and technological support for the compo-
 41 nents of the plan required by Section 27303.

42 27302. The coastal zone plan shall be consistent with all of
 43 the following objectives:

44 (a) The maintenance, restoration, and enhancement of the
 45 overall quality of the coastal zone environment, including, but
 46 not limited to, its amenities and aesthetic values.

47 (b) The continued existence of optimum populations of all
 48 species of living organisms for natural, scientific, recreational,
 49 educational, and economic purposes.

50 (c) The orderly, balanced use or nonuse, consistent with
 51 sound conservation principles, of all living and nonliving
 52 coastal zone resources.

1 (d) Avoidance of irreversible and irretrievable commit-
2 ments of coastal zone resources.

3 27303. The coastal zone plan shall consist of such maps,
4 text, and statements of policies and objectives as the commis-
5 sion determines are necessary to meet the requirements of this
6 division for the long-term management of the coastal zone.
7 The plan shall contain, but is not necessarily limited to, the
8 following specific items:

9 (a) A precise, comprehensive definition of the public in-
10 terest in the coastal zone.

11 (b) Ecological planning principles and assumptions to be
12 used in determining the suitability and extent of allowable
13 development.

14 (c) The following individual, but integrated, elements:

15 (1) A land-use element for the integrated arrangement and
16 general location and extent of, and the criteria and standards
17 for, the uses of land, water, air, space, and other natural re-
18 sources within the coastal zone, including, but not limited to,
19 establishment of maximum allowable population densities.

20 (2) A transportation element for the integrated develop-
21 ment of the coastal zone, including, but not limited to, mass
22 transit corridors, freeways, highways, scenic highways, park-
23 ways, waterways, navigation and aviation aids and facilities,
24 and appurtenant terminals and facilities for the movement
25 of people and goods in the most efficient and least environ-
26 mentally destructive manner within the coastal zone.

27 (3) A conservation element for the preservation and man-
28 agement of the scenic and other natural resources within the
29 coastal zone, including, but not limited to, soils, estuaries,
30 natural preserves, shoreline, tide and submerged lands, scenic
31 corridors along transportation routes, open spaces, breeding
32 grounds of fish and wildlife, living and nonliving resources,
33 and recreational and historical facilities.

34 (4) A public access element for maximum visual and physi-
35 cal use and enjoyment of the coastal zone by the public.

36 (5) A recreation element for the preservation, development,
37 utilization, and management of the recreational resources of
38 the coastal zone, including, but not limited to, wilderness and
39 forested lands, parks, ecological preserves, parkways, bicycle
40 ways, riding and hiking trails, marinas, and other recreational
41 facilities.

42 (6) A public services and facilities element for the general
43 location, scale, and provision of public services and facilities
44 within the coastal zone, including, but not limited to, public
45 utilities, powerplants, desalinization plants, telephone and
46 power transmission and distribution lines, water transport and
47 distribution facilities, and sewage and solid waste disposal
48 facilities. Within this element there shall be a specific study
49 of powerplant siting within the coastal zone, which shall con-
50 tain, but is not limited to, all of the following items which
51 shall be consistent with the objectives of this section:

- 1 (i) Environmental impact of powerplant siting within the
2 coastal zone.
- 3 (ii) Methods and probability of total mitigation of such im-
4 pact.
- 5 (iii) Problems in aesthetics of powerplants.
- 6 (iiii) Potential for siting powerplants and primary trans-
7 mission facilities underground.
- 8 (iiiii) Alternatives to locating the powerplants in the coastal
9 zone and costs thereof.
- 10 Such study shall be conducted in cooperation with any fed-
11 eral, state, and local agency having authority to conduct
12 studies relative to powerplant siting within the coastal zone.
- 13 (d) Reservations of land or water in the coastal zone for
14 certain uses, or the prohibition of certain uses in specified areas
15 as may be required to implement the policies and objectives of
16 the coastal zone plan, including, but not limited to, a designa-
17 tion of any areas in addition to existing oil sanctuaries in
18 which there should exist a permanent prohibition of any off-
19 shore extraction of oil, gas, or other minerals within the
20 coastal zone.
- 21 (e) Recommendations for the legislative, administrative,
22 and private actions needed to implement the policies and ob-
23 jectives of the coastal zone plan and this division, including,
24 but not limited to, the following:
- 25 (1) The governmental policies and powers required to
26 achieve the legislative intent and objectives provided in this
27 division.
- 28 (2) The organization, responsibilities, and authority of the
29 governmental agency or agencies which should assume per-
30 manent responsibility and authority for implementation and
31 enforcement of the adopted coastal zone plan, and the feasi-
32 bility of providing for direct election of the members of such
33 agency or agencies.
- 34 (3) An estimate of the funds required to support the imple-
35 mentation and enforcement of the coastal zone plan by a
36 permanent agency, including, but not limited to, estimated
37 funds required to purchase real property deemed essential
38 for public use in the coastal zone, construction of waste treat-
39 ment and disposal facilities, and recreational development.
- 40 (4) Funding sources which may be available to carry out
41 the coastal zone plan.

42 43 Article 2. Planning Procedure

- 44
45 27320. (a) The commission shall, within six months after
46 its first meeting, publish objectives, guidelines, and criteria for
47 the collection of data, the conduct of studies, and the prepara-
48 tion of local and regional recommendations for inclusion in
49 the coastal zone plan.
- 50 (b) Every city and county lying within the coastal zone
51 shall, within six months after the commission has published the
52 objectives, guidelines, and criteria pursuant to subdivision (a),

1 submit to the regional commission within whose region such
2 city or county lies, its general plan, its local coastal element
3 comprising its recommendation for inclusion in the coastal
4 zone plan, and its local coastal zoning ordinances in effect.

5 (c) Each regional commission shall prepare tentative recom-
6 mendations for submission to the commission pursuant to sub-
7 division (e) and shall, within six months after the date on
8 which the data described in subdivision (b) shall be submit-
9 ted to it, submit such tentative recommendations to each city
10 and county within its region, and shall hold a public hearing
11 or hearings in each county within its region at any time before
12 it adopts any recommendations for submission to the com-
13 mission pursuant to subdivision (e).

14 (d) Each city and county lying within the coastal zone may
15 comment, in writing, upon the tentative recommendations de-
16 scribed in subdivision (c) and may submit such written com-
17 ments to the regional commission no later than three months
18 after the date on which the regional commissions shall have
19 submitted their tentative recommendations to each city and
20 county within its region pursuant to subdivision (c).

21 (e) Each regional commission shall, after the last date on
22 which each city and county may submit its comments pursu-
23 ant to subdivision (d), except, however, in no event later than
24 April 1, 1974, prepare, adopt, and submit to the commission all
25 of the following:

26 (1) Its definitive conclusions and recommendations, includ-
27 ing, but not limited to, recommendations to the commission
28 which set forth the specific areas of land and water in the
29 coastal zone within its jurisdiction that should be reserved
30 for a specific use or uses, or within which specific uses should
31 be prohibited.

32 (2) Summaries of transcripts of public hearings held by the
33 regional commission.

34 (3) The written comments submitted to it by any city or
35 county within its region pursuant to subdivision (d).

36 27321. (a) The commission shall prepare and adopt the
37 coastal zone plan on or before December 1, 1974, and submit
38 it to the Legislature for its adoption and implementation.

39 (b) To ensure maximum consideration and coordination of
40 the interests of all affected parties and levels of government,
41 and to avoid the duplication of work wherever possible, the
42 commission shall consult with appropriate local, regional, state,
43 and federal governmental agencies, educational institutions,
44 civil and public interest organizations, and private organiza-
45 tions and individuals having jurisdiction, relevant information,
46 or policy recommendations to offer, and shall make maximum
47 use of relevant information available from, any source, public
48 or private.

49 (c) The commission may require any regional commission to
50 make any studies and submit to it any data to carry out the
51 purposes of this chapter.

CHAPTER 5. INTERIM PERMIT CONTROL

Article 1. General Provisions

27400. During the period between the effective date of this division and the 91st day after the final adjournment of the 1975 Regular Session of the Legislature, there will exist such a high degree of threat of adverse use of the coastal zone that, in order to prevent immediate and permanent damage to the resources of the coastal zone, every proposed development in the permit area shall be subject to a permit.

27401. On or after the effective date of this division any person wishing to perform any development within the permit area shall obtain a permit from the regional commission and, if required by law or ordinance, from any city, county, or other state, regional, or local agency authorizing such development. All such permits shall be granted or denied in accordance with the standards set forth in this chapter.

The regional commission, or the commission on appeal, shall not issue a permit for any development, if any city, county, or other federal, state, regional, or local agency has denied a permit for any such development. No work shall commence under a permit from a regional commission or the commission until all required local, state, and federal permits have been obtained.

Except as provided in Section 27402, no permit shall be issued for any development without the affirmative vote of the majority of the total authorized membership of the regional commission, or of the commission on appeal.

In the absence of a commission or regional commission empowered to act, the Secretary of the Resources Agency shall have the power to grant emergency permits subject to the standards set forth in Sections 27403 and 27404.

27402. No permit shall be issued for any of the following types of development without the affirmative vote of two-thirds of the total authorized membership of the regional commission, or of the commission on appeal:

(a) Dredging, filling, or otherwise altering any bay, estuary, salt marsh, river mouth, slough, or lagoon.

(b) Any development which would reduce the size of any public beach or other area legally usable for public recreation, including, but not limited to, privately owned or operated facilities held open to the public.

(c) Any development which would reduce or impose restrictions upon public access to public coastal lands and waters.

(d) Any development which would substantially interfere with the line of sight toward the sea from the state highway nearest the coast and from all existing roads and trails seaward of that highway.

1 For purposes of this section, any development that by height,
2 breadth, materials, or location significantly blocks, impedes,
3 or detracts from the line of sight shall be deemed to "sub-
4 stantially interfere with the line of sight."

5 (e) Any development which would substantially adversely
6 affect water quality, existing areas of open water free of
7 visible structures, existing and potential commercial and sport
8 fisheries, or agricultural uses of land which are existing on
9 the effective date of this division.

10 27403. No permit shall be issued unless the regional com-
11 mission has first found, after a consideration of the impact
12 of the proposed development upon the natural resources of
13 the coastal zone, both of the following:

14 (a) That it will not have any substantial adverse environ-
15 mental or ecological effect.

16 (b) That the development is consistent with the planning
17 objectives set forth in Section 27302 and with the objectives,
18 guidelines, and criteria published pursuant to subdivision (a)
19 of Section 27320.

20 The applicant for a permit shall have the burden of pro-
21 ducing evidence and the burden of proof, as defined in Section
22 550 of the Evidence Code, on all issues relevant to its appli-
23 cation.

24 27404. The regional commissions may grant permits subject
25 to reasonable terms and conditions in order to ensure that:

26 (a) Access to publicly owned or used beaches, recreation
27 areas, and natural reserves is increased to the maximum extent
28 possible by appropriate dedication, including dedications of
29 access corridors, particularly along water courses leading to
30 the sea.

31 (b) Adequate and properly located public recreation areas
32 and wildlife preserves are reserved.

33 (c) Provisions are made for solid and liquid waste treat-
34 ment, disposition, and management which will minimize adverse
35 effects upon the land, water, fish, wildlife, vegetable, mineral,
36 scenic, and other coastal zone resources.

37 (d) Alterations to existing land forms and vegetation, and
38 construction of structures shall cause minimum possible adverse
39 effect to scenic resources and minimum possible danger of
40 floods, landslides, erosion, siltation, or failure in the event of
41 earthquake.

42 27406. If, prior to the effective date of this division any
43 ~~city or county has adopted an ordinance or issued a permit~~
44 *city or county has issued a building permit* authorizing a par-
45 ticular development within the permit area, no person who has
46 obtained a vested right thereunder shall be required to secure
47 a permit from the commission, providing, that no substantial
48 changes may be made in any such development, except in
49 accordance with this division. Any such person shall be deemed
50 to have such vested rights if, prior to ~~the effective date of this~~
51 ~~division~~ *January 1, 1972*, he has in good faith and in reliance
52 upon the ~~ordinance or permit~~ *commenced building permit dili-*

1 gently commenced construction and performed substantial
2 work on the development authorized and incurred substantial
3 liabilities for work and materials necessary therefor. Expenses
4 incurred in obtaining the enactment of an ordinance in rela-
5 tion to the particular development or the issuance of a permit
6 shall not be deemed liabilities for work or material.

7 27407. Notwithstanding any provision in this chapter to
8 the contrary, no permit shall be required for the following
9 types of development:

10 (a) Maintenance dredging of existing navigation channels
11 or moving dredged material from such channels to a disposal
12 area outside the permit area, pursuant to a permit from the
13 United States Army Corps of Engineers.

14 (b) Subsidence control activities in the City of Long Beach
15 which are regulated and approved by the State Lands Com-
16 mission.

17 (c) Regular maintenance or emergency repair of existing
18 facilities by a telephone company subject to the jurisdiction of
19 the Public Utilities Commission of this state.

20 27408. To the extent that any waste discharge in the per-
21 mit area affects water quality, nothing in this division shall
22 modify the exclusive authority of the State Water Resources
23 Control Board or the California regional water quality control
24 boards to regulate the water quality aspects of the waste dis-
25 charge, except both of the following:

26 (a) The regional commissions, or commission, shall have the
27 authority to require, as a condition for approval of permits,
28 that developments comply with any standards or conditions
29 set by any California regional water quality control board or
30 the State Water Resources Control Board.

31 (b) The regional commissions or commission shall have au-
32 thority to consider the effects on water quality which are likely
33 to result from erosion, sedimentation, and other alterations in
34 land or hydrology which may result from a proposed develop-
35 ment.

36 Article 2. Permit Procedure

37
38 27420. (a) The commission shall prescribe the form and
39 contents of the applications for permits and shall specify the
40 information it deems necessary to properly evaluate an appli-
41 cation.

42 (b) The commission may require from any person, except
43 any city, county, or city and county or agency thereof, a rea-
44 sonable filing fee and reimbursement of expenses for process-
45 ing and investigating a permit application.

46 (c) The regional commission shall set a date for a public
47 hearing on the application which is no less than 21 nor more
48 than 90 days after the date on which the application is filed.
49 The regional commission shall give written notice of the nature

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1 of the proposed development and the date and place of hearing
2 to the applicant and shall publish such notice in a newspaper
3 of general circulation within the region at least 10 days prior
4 to such hearing.

5 27421. (a) The commission shall by regulation provide a
6 procedure by which the regional commission will advise each
7 affected local governmental body of the filing of permit appli-
8 cations for development in an area within the jurisdiction of
9 such body.

10 (b) Upon request of an affected local governmental body,
11 the regional commission may postpone any hearing or other
12 action on a permit application until such local governmental
13 body shall have acted upon any application pending before it
14 in connection with the same development. The time periods
15 specified in Sections 27420 and 27423 shall be extended by
16 the length of any such postponement.

17 (c) Upon request of an affected local governmental body
18 made prior to any public hearing held upon such application,
19 such body shall be given an opportunity to investigate the pro-
20 posed development and to file a report thereon with the re-
21 gional commission within not more than 60 days after the filing
22 of the application. The time periods specified in Sections 27420
23 and 27423 shall be extended by the length of any such post-
24 ponement.

25 27422. The regional commission shall hold a public hear-
26 ing on the application and shall conduct such further investi-
27 gation as it deems necessary. The regional commission shall
28 give full consideration to the report of any local governmental
29 body.

30 27423. The regional commission shall take action upon an
31 application for a permit, either denying or granting the per-
32 mit within 60 days after the conclusion of the hearing on such
33 application.

34 27424. The commission may provide, by regulation, for the
35 issuance of permits by the executive directors, without com-
36 pliance with the procedure specified in this article, in cases of
37 emergency or for minor repairs or improvements not in excess
38 of five thousand dollars (~~\$5,000~~) to existing structures: emer-
39 gency or for repairs or improvements to existing structures
40 not in excess of fifty thousand dollars (\$50,000) and other de-
41 velopments not in excess of ten thousand dollars (\$10,000).
42 Such regulations shall provide that nonemergency permits shall
43 not be effective until reasonable notice of the approval of the
44 proposed development has been provided the public and the
45 regional commission, and that adequate time has been provided
46 for review of such approval. Such regulations shall also pro-
47 vide that if any two members of the regional commission so re-
48 quest at the first meeting of the regional commission following
49 the approval of the permit for such a development by the exec-

1 *utive director, such approval shall not become effective and*
2 *instead the application for a permit for such a development*
3 *shall be set for a public hearing before the regional commission*
4 *pursuant to the provisions of Section 27420.*

5 27425. (a) Approval or denial of an application by a re-
6 gional commission shall become final at the close of business on
7 the tenth working day following its action unless an appeal is
8 filed with the commission within that time.

9 (b) An applicant whose permit application has been de-
10 nied, or approved upon conditions that the applicant wishes
11 to challenge, or any person aggrieved by approval of a permit
12 application by a regional commission, may appeal the regional
13 commission's action to the commission. Such appeal shall be
14 made by filing a notice of appeal with the commission in such
15 form and subject to such additional requirements, including
16 fees and reimbursement of expenses, as the commission shall
17 provide by regulation.

18 (c) The commission may by regulation establish procedures
19 for declining to hear appeals that it determines raise no sub-
20 stantial issues. When the commission shall decline to hear an
21 appeal, the regional commission's action appealed from shall
22 thereupon become final.

23 (d) Appeals that the commission does not decline to hear
24 shall be scheduled for a de novo public hearing and shall be
25 decided by the commission in the same manner and by the
26 same vote as provided for decisions by the regional commis-
27 sions. Such decisions shall become final at the close of business
28 on the 10th working day following its action.

29 (e) On appeal, the commission may affirm, reverse, or mod-
30 ify in any respect the decision of a regional commission on a
31 permit application, but such action must be taken within 60
32 days after the appeal has been filed with the commission. If
33 the commission fails to act within such period, the decision of
34 the regional commission shall thereupon become final.

35 27426. Any person, including an applicant for a permit,
36 aggrieved by the decision of the commission or regional com-
37 mission shall have a right to a judicial review of a decision of
38 the commission, or of a decision of a regional commission from
39 which an appeal has been filed if the commission has declined
40 to hear the appeal pursuant to subdivision (c) of Section
41 27425 or has failed to act on the appeal within 60 days pur-
42 suant to subdivision (e) of Section 27425. Such review may be
43 had by filing a petition for a writ of mandate in accordance
44 with the provisions of Chapter 2 (commencing with Section
45 1084) of Title 1 of Part 3 of the Code of Civil Procedure.
46 Such petition shall be filed within 60 days after the decision
47 for which judicial review is sought has become final.

48 27427. Any person may maintain an action, on his own
49 behalf or on behalf of a class of persons similarly situated, for

1 declaratory and equitable relief, against any person perform-
 2 ing any development in violation of the provisions of this divi-
 3 sion. No bond shall be required by the court of any person
 4 maintaining an action under this section.

5 27428. Any person may maintain an action to recover civil
 6 penalties pursuant to Sections 27500 and 27501 and shall be
 7 entitled to receive one-third of any penalty imposed upon the
 8 defendant. Such person, however, shall first give 60 days writ-
 9 ten notice to the Attorney General and the chairman of the
 10 commission of his intention to commence such an action, stat-
 11 ing with particularity the identity of the defendant or de-
 12 fendants and the ground or grounds for such action.

13 14 CHAPTER 6. PENALTIES

15
16 27500. Any person who knowingly violates any provision
 17 of this division shall be subject to a civil fine of not to exceed
 18 ten thousand dollars (\$10,000).

19 27501. In addition to any other penalties, any person who
 20 knowingly performs any development in violation of this divi-
 21 sion shall be subject to a civil fine of not to exceed five hundred
 22 dollars (\$500) per day for each day in which such violation
 23 persists.

24 CHAPTER 7. REPORTS

25
26 27600. (a) The commission shall file annual progress re-
 27 ports with the Governor and the Legislature not later than the
 28 fifth calendar day of the 1973 and 1974 Regular Sessions of
 29 the Legislature, and shall file its final report with the Gover-
 30 nor and the Legislature not later than the fifth calendar day
 31 of the 1975 Regular Session of the Legislature.

32 (b) The progress reports shall outline the progress to date,
 33 insofar as is practical and feasible, relative to the specific pro-
 34 visions of Chapter 4 (commencing with Section 27300), to-
 35 gether with a summary of the permits approved and disap-
 36 proved, and the significance thereof to the objectives of the
 37 coastal zone plan, pursuant to the provisions of Chapter 5
 38 (commencing with Section 27400).

39 (c) The final report shall contain the coastal zone plan re-
 40 quired to be adopted by the commission and submitted to the
 41 Legislature for its review, adoption, and implementation under
 42 the provisions of Chapter 4 (commencing with Section 27300).

43 27601. The commission shall file a special report with the
 44 Governor and the Legislature on or before the fifth calendar
 45 day of the 1973 Regular Session of the Legislature. Such re-
 46 port shall contain studies and recommendations for financing
 47 the activities required pursuant to this division.

48 SEC. 2. Section 11528.2 is added to the Business and Pro-
 49 fessions Code, to read:

50 11528.2. The clerk of the governing body or the advisory
 51 agency of each city or county having jurisdiction over any
 52 part of the coastal zone as defined in Section 27101 of the

1 Public Resources Code, shall transmit to the office of the Cali-
2 fornia Coastal Conservation Commission, within three days
3 after the receipt thereof, one copy of each tentative map of
4 any subdivision located wholly or partly within the coastal
5 zone.

6 The commission, upon receiving a copy of the tentative map,
7 may, within 15 days after receipt thereof, make recommenda-
8 tions to the appropriate agency of the city or county regarding
9 the effect of the proposed subdivision upon the comprehensive
10 coastal zone plan. This section does not exempt any such sub-
11 division from the permit requirements of Chapter 5 (commenc-
12 ing with Section 27400) of Division 18 of the Public Resources
13 Code.

14 SEC. 3. If any provision of this act or the application
15 thereof to any person or circumstances is held invalid, such
16 invalidity shall not affect other provisions or applications of
17 the act which can be given effect without the invalid provision
18 or application, and to this end the provisions of this act are
19 severable.

20 SEC. 4. *No provision of this act shall impair any existing*
21 *oil or gas lease or contract entered into with the state or any*
22 *county or city.*

23 SEC. 5. There is hereby appropriated from the General
24 Fund to the California Coastal Zone Conservation Commission
25 the sum of six hundred thousand dollars (\$600,000) for ex-
26 penditure, without regard to fiscal year, pursuant to the provi-
27 sions of Division 18 (commencing with Section 27000) of the
28 Public Resources Code.

29 SEC. 6. The provisions of this act shall remain in effect
30 until the 91st day after the final adjournment of the 1975
31 Regular Session of the Legislature and as of that date are
32 repealed.

Senator Moss. Mr. Philip Douglas, National Wildlife Federation?

(No response.)

Is Mr. Douglas here or anybody representing him?

(No response.)

His statement, if submitted, will be put into the record.

I have a statement here submitted by the Gulf Oil Co. of the United States, signed by Mr. E. L. Petree, that will be included in the record at this point.

(The documents referred to follow:)

STATEMENT OF PHILIP A. DOUGLAS, ASSISTANT TO THE EXECUTIVE DIRECTOR,
NATIONAL WILDLIFE FEDERATION

Mr. Chairman, I am Philip A. Douglas, Assistant to the Executive Director of the National Wildlife Federation, Washington, D.C., recognized to be the largest private conservation organization in the world, numbering some three million members, with affiliations and representation in the fifty states, and some U.S. territories. The Federation seeks to work for solutions to problems confronting man, wildlife and the environment. It achieves its goals through educating people about resource and environment problems—suggesting ways all persons can participate in the work of solving those problems. It is not a newcomer to the field of conservation, having been established in 1936.

The National Wildlife Federation supports the efforts of the Congress to provide for conservation of our renewable natural resources. The term "conservation" denotes wise use based on proper management, dependent on sound scientific research. In other words, the conservation of our marine offshore resources must be commensurate with biologically sound principles. When a living natural resource becomes endangered because of improper techniques or hazardous operations in the extraction of an inorganic resource, there must be a weighing of one value against another. In this regard it is significant to note that California did vote in favor of protecting the living marine resources by establishing State sanctuaries inside the six specific areas covered by the proposed legislation in S. 1447 thru S. 1452. The citizenry of California has thereby spoken out against the seemingly inevitable oil spills offshore and assigned higher values to the scenic and recreational benefits of clean water and beach. Passage of these seven bills being considered here today would help protect the seaward resources and augment the State sanctuaries.

We recognize that there are very considerable values inherent in the marine ecosystems and that they should be carefully protected to assure continued availability to future generations. Loss of these values because of commercial and domestic conflicts could be most detrimental. Balanced uses can be realized in these areas if there is adequate provision for the retention of their natural character.

The President's Science Advisory Committee recommended the creation of marine sanctuaries as a means of preserving as much as possible the unmodified quality of the marine environment. It also recommended an effort to restore as much as possible the damaged environment. These are similar to the many efforts made to establish a good many terrestrial wilderness and primitive areas that have an obviously important place in our modest society. However, we would not wish to see such a philosophy applied so universally as to preclude legitimate accommodation of the burgeoning needs of Americans for healthful outdoor recreation, particularly sport fishing (well documented as among the most desired by Americans). I am not as intimately acquainted with the six specific sanctuaries proposed as I am with the one reserved by Senator Cranston for the Santa Barbara Channel Moratorium and Ecological Preserve Act (S. 373). However, the values are comparable and I will relate observations here regarding the Channel Islands.

I was privileged to serve as field agent for the Wildlife Conservation Board, California Department of Fish and Game for a number of years. (The Wildlife Conservation Board administers an annual allocation of funds derived from the state's primumutuel race track taxes. Capital investments only are made by this Board in conservation, with operations of areas and facilities financed by local, county and other concerned public agencies.) About a dozen years ago, I organized an inspection tour of the various islands encompassed in the Channel Island group for the Wildlife Conservation Board. Proceeding by Fish and Game marine patrol vessel from Santa Barbara, a party of county supervisors, various state officials and a few interested citizens, were guided across the 30 miles of ocean to Santa Cruz Island, one of the larger and more closely located of the islands. Two natural

harbors, Pirates Cove and Smugglers Cove were inspected in some detail, with offshore cruising of other islands in the group sufficing for this initial inspection.

All aboard were tremendously impressed with the potentials of developing another Catalina Island recreational area. Abalone, lobsters, and many varieties of Pacific Ocean sport fish abound in the waters adjacent to these islands. With natural harbors of refuge lying off the most heavily populated Southern California counties of Santa Barbara, Ventura and Los Angeles, this group of islands could provide a greatly expanded boat-fishing recreational opportunity for many, many people. It is used for just this apparently, but the people so fishing and recreating there are trespassing on private property whenever they set foot ashore.

The oft quoted Outdoor Recreation Resources Review Commission's reports to the late President Kennedy emphasize the very great need for recreational areas close to urban areas. A quality natural reserve in this locale certainly fulfills this requisite. While the population of the U.S. is prophesized to double by the year 2000, the number of anglers will triple! We will need a greatly expanded area to fulfill this vital need in the outdoor recreational plan. The Channel Islands of Southern California could provide an ideal outlet for much of this fishing boat population, not only for this one state with its 1,200 miles of practically barren coastline, but for the many across this nation who yearly avail themselves of recreation on the West Coast.

Mr. Chairman, I appreciate the opportunity to present these brief remarks to your committee.

Thank you.

STATEMENT OF E. L. PETREE, VICE PRESIDENT, GULF OIL COMPANY-
UNITED STATES

I represent Gulf Oil Corporation in the capacity of Vice President of Exploration and Production for Gulf Oil Company-U.S. This statement is presented in opposition to S. 1446 and similar proposed legislation (S. 1447, S. 1448, S. 1449, S. 1450, S. 1451 and S. 1452) to suspend from leasing and to create marine sanctuaries, pursuant to the Outer Continental Shelf Lands Act, in areas off the coast of California adjacent to state owned submerged lands in which the State of California has suspended leasing for mineral purposes.

It is Gulf's position that this proposed legislation is unnecessary and is contrary and in fact detrimental to the interests of the nation as a whole.

The sponsors of these various bills say that they are needed to protect the natural, commercial, recreational and aesthetic resources of immediate and potential value to the present and future generations of America and that many of these areas are in danger of damage or destruction by commercial and industrial development. The sponsors also refer to the need to protect the environmental treasures of the California coast line from repetitions of the oil leakage which occurred in the Santa Barbara Channel in January of 1969.

The Santa Barbara Channel incident has been the subject of much exaggerated and distorted publicity. The investigation and study by scientists from the California Institute of Technology, the University of Southern California, and the University of California at Berkeley show that ecological damage from that oil spill was minimal and that it did little or no permanent damage to the wild life or living organisms in the Santa Barbara area. It was a rare, unfortunate accident. While no one can provide assurance that such an incident or other accident will not occur in the future, this does not provide any basis whatsoever for withdrawing offshore areas from future leasing.

Gulf agrees with and supports what President Nixon has described as "our strong commitment to use offshore lands in a balanced and reasonable manner." However, it disagrees that this proposed legislation represents such a use.

The petroleum industry is working closely with federal, state and local government agencies in improving techniques and equipment designed to minimize the occurrence and the adverse effect of oil leaks or spills in the offshore areas. This industry has for years been in the forefront in developing technological capability to explore and develop the resources of the offshore area, and its efforts have contributed substantially to the scientific knowledge of that area. We are confident that the industry can and will continue to perfect the technology of offshore drilling and related activities to assure that these activities will be conducted with a minimum of interference with other uses and values and with minimum danger to the surrounding natural environment and ecology. Also, the industry has developed cooperative plans and more efficient equipment to control any oil spill so as to prevent material damage to the environment.

There are many reasons why this proposed legislation is contrary to and in fact detrimental to the interests of the United States. It would remove from the

offshore area of California many hundreds of thousands of acres regarded by geological experts as highly prospective for finding additional reserves of oil and gas needed to meet our increasing energy requirements. It will deprive the federal government and the people of substantial future revenues from the production of oil and gas from the potentially productive offshore areas off the coast of California. Further, the withdrawal of these areas from leasing simply means that the petroleum needs of California, and of the country as a whole, must be met, to the extent possible, by increased drilling in some other part of this country or in some other country.

President Nixon, on June 4, 1971, sent a message to Congress which, among other things, directed the Secretary of the Interior to accelerate oil and gas leasing on the Outer Continental Shelf, both in the Gulf of Mexico and other "promising" areas. The President's message recognized the accelerated demand for gas, as well as a "limited" present supply. Further, at a hearing on August 2, 1971, the Joint Congressional Committee on Defense Production held hearings to receive testimony by Interior Department officials on the degree of self sufficiency of the United States to meet its further requirements for energy and minerals. At the outset, the Chairman of the Joint Committee called attention to the fact that, despite the increasing demand for mineral output, the rate of new discoveries and development of reserves is declining. In testimony before that Committee, the Assistant Secretary of the Interior, Hollis M. Dole, testified that domestic oil production currently supplies about 77% of the U.S. petroleum products, but may supply only 55% of the country's needs by 1985.

This Committee is undoubtedly aware of the many statements made by Wilson Laird, former Director of the Office of Oil and Gas, in which he has pointed out the danger in our increasing dependence upon foreign crude and gas. Mr. Laird stated on April 18 of this year that in the next few years the United States has "literally no choice, except to go on increasing the degree of this dependency. But over the longer term we do have a choice, if we are wise enough and courageous enough to make it." The most promising areas in which to discover the needed supplies of oil and gas in order to increase our national security and decrease our dependency on foreign oil and gas are in the offshore areas of the United States. There can be no doubt that the future petroleum needs of this country and of the world must be met in large part from offshore drilling.

The Department of Interior conducted hearings on July 14-16, 1970 and September 8-9, 1971 in New Orleans to determine the need for leasing federal acreage offshore of Louisiana. There was overwhelming support for the sale of prospective oil and gas leases in that area, including support by the Federal Power Commission, state and local governments, public utilities commissions, natural gas distributors and pipelines, trade associations, and many others. In connection with various impact statements issued with reference to the Santa Barbara Channel off the coast of California, there has been a strong numerical majority in favor of continued operations. The reason for this support is obvious—all realize that the offshore areas offer the greatest promise for the additional supplies of oil and gas this country so greatly needs. It also indicates a confidence in the technological capability of the petroleum industry to carry on offshore drilling in a manner that will not harm the ecology of the area and will protect the areas for other uses and values.

The technological capability which the petroleum industry has developed and is developing in the exploration for and production of oil and gas in the shallower offshore areas will permit it to move to progressively deeper waters to find and recover these valuable and essential resources. The industry must be granted access to these offshore areas on a continuing and regular basis if it is to find and develop the oil and gas. The finding of oil and gas and the construction of the facilities required to produce, refine or process, and transport oil and gas require a long lead time.

Gulf Oil Corporation therefore urges that this proposed legislation not be passed, and in doing so, commits itself to a continued program of searching for and developing hydrocarbons, whether onshore or offshore, in a manner that will assure a minimum of interference with other uses and values and minimum danger to the surrounding natural environment and ecology.

Senator Moss. This completes the list of witnesses we expect to hear this morning. Unless there is something that was overlooked, we will have a recess and the hearings will be continued in this room on the 4th day of November, this coming Thursday, at 10 a.m.

(Whereupon, at 11:50 a.m., the hearing was recessed, to reconvene at 10 a.m., Thursday, November 4, 1971.)

MARINE SANCTUARIES IN CALIFORNIA

THURSDAY, NOVEMBER 4, 1971

U.S. SENATE,
SUBCOMMITTEE ON MINERALS, MATERIALS, AND FUELS,
COMMITTEE ON INTERIOR AND INSULAR AFFAIRS,
Washington, D.C.

The subcommittee met, pursuant to notice, in room 3110, at 10 a.m., Senator Gordon Allott presiding.

Present: Senators Allott and Bellmon.

Also present: Thomas Nelson, assistant minority counsel; Charles Cook, minority counsel; and Mary Jane Due, staff counsel.

Senator ALLOTT. The committee will come to order.

This is the second day of hearings directed to a group of seven bills, S. 1446-1452 to create marine sanctuaries in California OCS lands.

The purpose of the bills is to create marine sanctuaries, to suspend leasing activities over such lands, and to establish a congressional policy with regard to such lands.

Subsequent to the first day's hearing the report of the Department of the Interior was received and it will be included in the record at this point. The Department of the Interior recommends against enactment of these bills.

Also to be included in the record is a resolution of the Los Angeles Area Chamber of Commerce registering opposition to S. 1446 and related bills, and also include in the record three letters of endorsement of the bills from the Board of Supervisors of the County of Los Angeles, Board of Supervisors of Monterey County, Board of Supervisors of the County of Santa Clara, and there are other incidental letters that will be included in the record at this point.

(The documents referred to follow:)

RESOLUTION—LOS ANGELES AREA CHAMBER OF COMMERCE

On October 28, 1971, the Board of Directors of the Los Angeles Area Chamber of Commerce adopted the following resolution:

"The Water and Power Committee of the Los Angeles Area Chamber of Commerce recommends

"THAT the Board of Directors of the Los Angeles Area Chamber of Commerce OPPOSE the California Marine Sanctuary Act of 1971."

This action followed a study of S. 1446 and review of some of the evidence both for and against the measure. Considering the substantial impact for a prohibition on all oil and gas development on the Outer Continental Shelf outside the 3-mile limit would have on the economy and business of this country as it now exists, there is no alternative but to oppose this legislation. The following consequences are of particular importance:

1. The growing shortage of fuel in this country and particularly in California threatens our fuel supply generally and continues to force up the present price of petroleum products.

2. If offshore oil and gas exploration is prohibited, there will be a growing development on foreign imports with the attendant uncertainty that accompanies foreign trade particularly in a time of international tension.

3. Increased oil imports requires more tankers and the petroleum industry believes that there is a greater chance of oil spills due to vessel collisions than there would be from increased offshore drilling.

4. Unemployment, already a great problem in California, would be made even greater by reason of curtailed exploration of development of offshore gas and oil resources.

5. Limitations imposed on any industry in California would further hamper the state's economy and reduce anticipated revenues from a variety of taxes with a corresponding penalty to local and state government.

6. Safety measures and practices designed to protect the ocean and shores from well ruptures and oil spills is rapidly being perfected.

In summary, the Los Angeles Area Chamber of Commerce, representing industrial interests in all of the 5 counties of Southern California believes that it is unwise and imprudent to penalize one sector of business when in fact much broader considerations are at stake. We are well aware of the need for a National Energy Policy and urge this committee, Congress and the President to formulate a policy which will embrace, among other things, the accelerating demand for fuels of all kinds including oil, gas, coal and nuclear. In the process of an overall evaluation for the demand for energy against the resources available to meet its demands, there must emerge a balance which will penalize no segment of the economy without a corresponding benefit to the people as a whole. For these reasons, S. 1446 and the related bills should be rejected and the concern for environmental protection included along with an evaluation of energy demands in a long range National Energy Policy.

BOARD OF SUPERVISORS, COUNTY OF LOS ANGELES,
Los Angeles, Calif., October 28, 1971.

HON. HENRY M. JACKSON,
*Senate Office Building,
Washington, D.C.*

DEAR SENATOR JACKSON: At its meeting held October 26, 1971, on motion of Supervisor Burton W. Chace, the Board of Supervisors went on record as supporting Senate Bills 1446 through 1452 which would provide for the establishment of marine sanctuaries in six California offshore areas, and the suspension of further leasing of Federal tidelands for oil development until technological advances insure adequate protection against coastal environmental pollution.

In 1970 the Board endorsed a similar bill which did not pass the Senate, and respectfully urges that every effort be made to have these current measures passed and thereby provide present and future generations of Californians with some defense against the pollutants which are destroying wildlife and their food source, as well as the natural beauty of the coast itself.

Very truly yours,

RICHARD A. SCHOENI,
Assistant Executive Officer.

BOARD OF SUPERVISORS, MONTEREY COUNTY,
Salinas, Calif., October 28, 1971.

SENATOR ALAN CRANSTON,
*Senate Office Building,
Washington, D.C.*

MY DEAR SENATOR CRANSTON: This is to notify you that the Monterey County Board of Supervisors supports S. 1446, thereby reaffirming its position and continuous support of legislation to protect California Coastal waters and beaches from the danger of oil spills, blowouts and seepage by prohibiting oil and mineral leases on Federal Outer Continental Shelf lands seaward of existing California State Marine Sanctuaries.

Monterey County is convinced that it will be to the long-range economic benefit of not only Monterey County but the State and nation as well to have an unpolluted water condition. We are further convinced that the highest and best use of the off shore waters of Monterey and Santa Cruz counties is a living biological laboratory and marine science center. This is based on its unique character-

istics, particularly Monterey Bay which has the only major submarine valley on the Pacific Coast and one of the few in the world (depth of 6,000 feet within 7 miles and 12,000 feet within 75-miles off shore.) Because of their great natural beauty and special ecological significance, the waters and related land segments are an invaluable water source on the Central California coast.

In 1969, we were successful in having all of the county's off shore waters under state control included in an area in which submerged lands may not be leased for oil or gas purposes. State control is not enough to successfully protect our coastline. We *must* have companion action in Federally controlled waters; therefore, Monterey County stands wholeheartedly behind S. 1446.

Sincerely,

ARTHUR ATTERIDGE, *Chairman.*

BOARD OF SUPERVISORS,
COUNTY OF SANTA CLARA,
San Jose, Calif., October 27, 1971.

HON. ALAN CRANSTON,
*U.S. Senator, Committee on Labor and Public Welfare, Senate Office Building,
Washington, D.C.*

DEAR ALAN: Pursuant to the information you so thoughtfully provided, the Board of Supervisors of Santa Clara County has voted support of the proposed California Marine Sanctuary Act of 1971.

This Board fully agrees with you, and with Senator Tunney, the co-author of S. 1446, that stringent steps must be taken to protect California's coastal environment from oil pollution.

The recreational, scenic, and economic resources of our coastline is of far greater value than any revenue return which may accrue to California from oil developments. We must protect our coastal waters and beaches from the danger of oil spills, blowouts and seepage.

We hope the support of Santa Clara County will be of assistance in passage of this vital legislation.

Sincerely,

DOMINIC L. CORTESE,
Chairman of the Board.

CONGRESS OF THE UNITED STATES,
HOUSE OF REPRESENTATIVES,
Washington, D.C., November 3, 1971.

HON. HENRY M. JACKSON,
*Chairman, Committee on Interior and Insular Affairs,
U.S. Senate, Washington, D.C.*

DEAR SENATOR JACKSON: For inclusion in the record of the hearings being held on S. 1447, of which my bill H.R. 8867 is a companion in the House, the following is a statement of my support:

While recognizing the possible future need, in the event of a declared national emergency, of mineral exploration, it is important that until and unless such an emergency exists the shoreline of Orange and San Diego Counties, with my Congressional District, must be maintained free of pollution and contamination particularly such as is a possibility as a result of mineral exploration. The desirable climate of Southern California, coupled with the many miles of exceptionally fine beaches available to the public, draws millions of visitors annually and their rights to the recreational advantages of the shoreline must take precedence over mineral needs which can be filled elsewhere.

It is to be noted that the bill will not give the State of California any preemptive rights over the Federal government. The measure will simply complement the provisions of the Shell-Cunningham Act, enacted by the California State Legislature in 1955. It is also to be noted that there are presently no operating gas or oil wells or other mineral leases within the area encompassed by S. 1447, so that the passage of this legislation will not result in any conflict with existing operations. The bill further provides that the Secretary of the Interior shall terminate the suspension of leasing encompassed by Section 3 in the event that the State of California at some time in the future revokes the provisions of the Shell-Cunningham Act. This further protects the Federal government against any surrender of rights to the State.

S. 1447 would not interfere with present operations off the coast of Orange County which are northwest of the mouth of the Santa Ana River, and in this respect differs from other legislation of a similar nature now the subject of hearings by your committee. I urge the passage of S. 1447 without delay.

Respectfully submitted,

JOHN G. SCHMITZ,
Member of Congress.

LOS ANGELES, CALIF., *November 2, 1971.*

HEARING OFFICER,
*Interior Subcommittee on Minerals, Materials, and Fuels,
New Senate Office Building.*

MR. CHAIRMAN: As one who has witnessed the aftermath of the Santa Barbara and the San Francisco oil spills first-hand and personally watched the "saved" birds die a long lingering death; and one who has walked the beaches after they were supposedly "cleaned"; and over the period of years noted the growing hazard of small, unheralded oil contamination; I add my whole-hearted support to S. 1446-1452.

From the environmental standpoint, these measures are the bare bones minimum protection utterly-essential. Indeed, only the urgency of immediate establishment of these six oil-free federal zones seaward of existing state sanctuaries off the California coast justifies the modesty of these measures.

I urge the immediate adoption of S. 1446-1452 to halt the continual hazard to the Nation's Pacific California coastline.

Sincerely,

BEULA EDMISTON.

BOARD OF SUPERVISORS,
HUMBOLDT COUNTY,
Eureka Calif., November 1, 1971.

HON. ALAN CRANSTON,
*Senator,
Washington, D.C.*

The Humboldt County Board of Supervisors has voted unanimously to support S. 1446, the California Marine Sanctuary Act of 1971. We believe the extra protection afforded the existing California State marine sanctuaries through the implementation of this bill is needed. Thank you for notifying us of the hearings on this bill. We think it is important legislation and we do want the subcommittee members to know our whole-hearted support.

DONALD F. PETERSON, *Chairman.*

Senator ALLOTT. The first witness this morning is Mr. Hollis M. Dole, Assistant Secretary of the Interior for Mineral Resources. Mr. Dole, we are happy to have you, and bring anyone to the table you may wish.

Mr. DOLE. Thank you, Mr. Chairman. I would like to have with me Mr. Frank Cotter, a member of the staff or our solicitor's office.

Senator ALLOTT. Have him take a seat at the table.

Mr. DOLE. Mr. Chairman, may I proceed?

Senator ALLOT. Proceed.

Mr. DOLE. Thank you, Mr. Chairman.

STATEMENT BY HOLLIS M. DOLE, ASSISTANT SECRETARY, MINERAL RESOURCES, DEPARTMENT OF THE INTERIOR, ACCOMPANIED BY FRANCIS A. COTTER

Mr. DOLE. I appreciate this opportunity to present the views of the Department of the Interior on S. 1446 and related bills to establish marine sanctuaries seaward of State owned lands in California.

As all of you are well aware, our department has broad program responsibilities for outdoor recreation, fish and wildlife, the preserva-

tion of natural esthetic values, and for mineral resource management and development. The subject of sanctuaries and their location is of great importance to us, for they can provide a means of preserving natural values. In some places, they also help to assure the availability of resources for future generations. The National Energy Reserve that Secretary Morton proposed be established in Santa Barbara Channel, which has been introduced as S. 1853, is an example of a sanctuary that would serve this dual purpose. We note that Congress has not yet acted on this proposal.

Although we attach great importance to preservation of the natural environment we must also consider current and prospective needs for resource development to assure that the material needs of our people are met. Our goal is to achieve both a desirable and practical balance between the preservation and development of the resource values that constitute our national heritage and legacy to future generations.

I wish to emphasize the national scope of our concern, for I believe it represents the crux of the problem raised by the Outer Continental Shelf sanctuary bills now under consideration. Let me amplify these thoughts briefly.

Minerals and mineral fuels are the physical basis of an industrial society. Our economy, our security and our ability to realize the vital social goals we have set for ourselves depend on the availability and use of these vital resources. The Federal Government must see to it that mineral raw materials are supplied in the amounts necessary to achieve these purposes.

It does this in a variety of ways, which include regulating imports of raw materials as well as policies that affect the development of domestic resources on both public and private lands.

Among the possible ways of contributing toward resource availability and development, the management of Federal lands is one of the most important. The Outer Continental Shelf Lands Act, and policies and regulations developed pursuant to it, have led to the development of substantial oil and gas production from the Outer Continental Shelf which has contributed significantly to national security and economic development. The President's announcement, in his June 4 energy message, of his intention to accelerate leasing on the Outer Continental Shelf to help relieve the pending energy shortage is a recognition of the importance of the Outer Continental Shelf as a large, near-term source of needed liquid and gaseous fuels.

In meeting its responsibility toward national economic needs, the Federal Government must balance the requirements of the Nation as a whole against local preferences in resource development. On occasions, therefore, the national interest may call for developmental activities that for a time, at least, may appear to conflict with the expressed desires of certain groups to preserve other important resource values. I am sure you will recognize the paramount importance of the national need and would wish to see the Federal Government retain its flexibility to respond to it.

The Federal Government, of course, has the same kind of responsibility to the Nation in seeing that the environment is protected from needless or excessive damage stemming from developmental activities. Indeed, the weight of this responsibility and its importance to the Nation is equal to that of assuring a continuing supply of minerals and

fuels. It is wrong to suppose that we must choose between the two. We do not have such a choice. We must have both resource development and environmental protection.

Plainly, therefore, decisions to develop or to preserve must also be based on an evaluation both of the need for the resources and the effects of their development upon the area in which it would take place. I am sure you recognize that as the one responsible for such decisions, the Secretary of the Interior exercises his responsibilities in these decisions with full concern for the protection of other resource and environmental values.

The Outer Continental Shelf Lands Act provides the Secretary with authority to withdraw from mineral leasing areas of the Outer Continental Shelf, or in the exercise of his discretion, to withhold certain tracts otherwise available for leasing. Both the National Environmental Policy Act of 1969 and regulations issued by this department, pursuant to the Outer Continental Shelf Lands Act, require thorough consideration of environmental impact prior to the issuance of mineral leases and during production if a lease is issued. You will recall that on February 7, 1969, the Secretary exercised this discretion and suspended drilling and production operations on six leases in the Santa Barbara Channel. In addition, in March 1969, he established the Santa Barbara Channel ecological preserve adjacent to a State sanctuary, and thus withheld from mineral leasing an additional buffer zone.

The Secretary and the several agencies of this department with broad program responsibility for resource development, conservation and management, are acutely aware that extractive activities must be conducted so as to avoid environmental degradation. But we believe it is important that the Secretary retain his discretionary authority to withhold or to advance development activities in individual areas in the light of careful evaluation of both national and local needs. S. 1446 would deprive the Secretary of that discretion for a large part of the California outer continental shelf and would, in effect, delegate to the State of California the Federal responsibility for management of a national resource. By the establishment of a State sanctuary in any or all of the areas described by section 3(b) of S. 1446 the State of California would have the right to dictate which, if any, areas offshore California could be leased by Federal Government. Six such sanctuary areas already exist.

If enacted, the bill would set a precedent under which all other coastal States could be expected to seek this type of legislation for application along their coastline. In that event, the Federal Government might well lose effective control over the resources of its entire Outer Continental Shelf. Such a result would be clearly contrary to the vital interests of this Nation, and its citizens, in these valuable resources.

For these reasons we recommend that this bill and the others related to it not be enacted.

Thank you very much.

Senator ALLOTT. Thank you, Mr. Dole. I want to get into this matter first by referring to the first paragraph on the third page of your statement.

You say by the establishment of a State sanctuary in any or all of the areas described in such section, the State of California would have the right to dictate which, if any, offshore areas of the State would be

leased by the Federal Government. I don't know whether those were established by California or are you referring to the ones the Secretary established?

Mr. DOLE. Mr. Chairman, I am sorry for the lack of clarity in that statement. These are sanctuaries that the State of California has already established and they are displayed both on the map and—

Senator ALLOTT. I wonder if we can have someone point this out on one or the other of these maps?

Mr. DOLE. I would be glad to, Mr. Chairman. These are the areas. This is the State of California as shown in this complete map. This would be about the median point in the State of California, and four of these areas are in the southern part of the State, and, as you will see, these sanctuaries already established by the State make up more than half of that coastal area. The sixth one is in the northern part of the State and also embraces a great many miles.

Senator BELLMON. Where would the Federal sanctuaries be in relation to the State?

Mr. DOLE. We have requested in the one bill we have before you, Senator, that the sanctuary opposite the channel island of Santa Barbara, we have requested 35 leases there be recalled and a sanctuary be established at that point. If you will recall also, the Secretary of the Interior has established in some unleased land there a buffer zone opposite the State sanctuary.

Senator BELLMON. What about the sanctuaries covered in the bill, where would they be, opposite all these States?

Mr. DOLE. The bill asks Congress to pass legislation that would give authority to the State of California for the management of Federal lands of these areas noted in red.

Senator ALLOTT. The effect would be just to effect the buffer zone south of the State buffer zone, extend them into the sea and just take the jurisdiction of the Secretary of the Interior.

Mr. DOLE. We would have to abrogate our authority in this area in deference to the State of California.

Senator BELLMON. Are these sanctuaries 3 miles deep?

Mr. DOLE. Yes; the State sanctuary follows the 3-mile limit, 3 nautical miles.

Senator ALLOTT. I think that is sufficient for the map, Mr. Secretary. I suppose that in this area we are up against the internal problem of the energy crisis, which a lot of people claim does not exist, but I don't see very well how anyone can do much studying about—and the difficulty is that everybody wants to develop everybody else's problem and not their own.

Mr. DOLE. Mr. Chairman, when you refer to the energy problem we are in, it is certainly a true one, which embraces the States of California, Oregon, Washington, and Nevada. That area is shy of oil at the rate of about 500,000 barrels a day from domestic sources, and this rate is increasing at the rate of about 100,000 barrels a day per year. This is an area where energy is approaching a very critical stage and probably will be greater as the years continue unless certain actions are taken.

Senator ALLOTT. Just for the sake of the record—I know the answer—does the United States have assurance that it has oil and gas in these areas, without exploring the area by drilling?

Mr. DOLE. No, Mr. Chairman. There is only one way you can find oil and gas, and that is with a drill. In the geological exploration we can determine structures in which we feel oil and gas may have a chance of occurring, but the only way that oil and gas can be found and developed is through drilling and this is the very difficult and expensive process.

Senator ALLOTT. Now, again for the sake of the record, what, in the offshore areas in California, would be the normal time lag between—assuming you just proceed with due caution—can you hear me all right?

Mr. DOLE. Yes.

Senator ALLOTT. What would be the normal time lag between the identification of the structure and the drilling and actual production of the well?

Mr. DOLE. Starting from scratch, Mr. Chairman—

Senator ALLOTT. Is scratch the identification of the structure? Assuming you have identified the structure, then where do you go?

Mr. DOLE. If we were to start in a virgin area where there has been no exploration, there would be a period of 4 or 5 years in which exploration would determine whether or not a structure would be present that would be attractive for drilling. Then there would be a period of a year or so involved in the leasing procedure. Once the rigs got in the area, the successful leaseholder may not be successful in finding oil; and this, of course, is mighty risky.

Let us say he is successful and does find a commercial deposit, and finding oil and finding a commercial deposit are two different things. Once he found the oil it would be on the order of 4 to 6 years to bring this onshore. So, in summary, from the initial work it would be about 10 years.

Senator ALLOTT. Mr. Wilson Laird testified on Monday that the accident spill rate in the wells drilled offshore, is only 0.4. Do you have any information on that?

Mr. DOLE. Yes; we have something on that. I think of the 14,000 wells drilled offshore, it is something on the order of 25 to 30 in which we have had some kind of problem. I would assume that the proportion he worked out could very well be correct.

Senator ALLOTT. Do you believe that these bills would establish precedents for the entire United States? In other words, if we take these bills, we were to pass these bills, then how do we deal with other offshore areas in the United States?

Mr. DOLE. Mr. Chairman, as you know, these bills refer only to sanctuaries established by the State of California and refer only to the offshore lands of the State of California.

Senator ALLOTT. Yes; I realize this, but as a precedent?

Mr. DOLE. This being the case, I think it quite likely other States will follow with similar bills and this would establish the precedent of the State, in effect, controlling the Federal lands offshore.

Senator ALLOTT. I think this is very much pointed out by an article in the Washington Post of this morning, which says 60 Eastern Congressmen commanded yesterday that Secretary of Interior Morton, halt Government planning to lease offshore drilling sites along the Atlantic coast. I will insert this in the record at this point because it points up, I think, the problem while the bills we are talking about here deal with California.

(The document referred to follows:)

[From the Washington Post, Nov. 4, 1971]

60 CONGRESSMEN DEMAND HALT TO LEASING OFFSHORE OIL SITES

A group of 60 Eastern congressmen demanded yesterday that Secretary of the Interior Rogers C. B. Morton halt government plans to lease offshore drilling sites along the Atlantic Coast.

The congressmen, representing every Atlantic seaboard state, told Morton in a letter that they fear an ecological catastrophe if a well should accidentally dump oil into the ocean.

"The lessons of previous spills and blowouts in relatively unpopulated areas would be magnified many times were they to occur in the Atlantic," the letter warned. "Thousands of priceless East Coast areas could be dealt a stunning blow if an oil slick were loosed anywhere off the Atlantic Coast."

Slicks from faulty offshore wells or from tankers dumping oil into the Pacific Ocean have fouled beaches and killed thousands of fish and birds.

An Interior Department source said Tuesday public hearings on the idea of oil leasing off the resort beaches of New Jersey, Delaware and Maryland are tentatively scheduled for late 1972 or early 1973. The department announced last summer its intention to sell leases off the Atlantic Coast, but it was believed the hearings would not start until late in 1972.

Rep. Norman F. Lent (R-N.Y.), who represents a beach from district on Long Island, spearheaded the effort to write the letter. He said the congressional turnout of signers is the "clearest mandate yet" that Easterners don't want their shoreline subjected to the environmental dangers of oil drilling.

It is the announced policy of the Administration to encourage the development of new sources of oil and natural gas. But, Lent said, "The Interior Department just cannot ram this thing down people's throats. This letter ought to give them something at Interior to chew on."

Among the letter signers were Rep. John Saylor, (R-Pa.) ranking minority member of the House Interior Committee, and six members of the House Merchant Marine and Fisheries Committee. Both House bodies share jurisdiction over coastal development.

The Maryland congressmen who joined Lent's protest were Clarence Long, Gilbert Gude, Goodloe Byron, Parren Mitchell and Paul Sarbanes. From Virginia, Reps. Thomas Downing and G. William Whitehurst also signed.

Sen. Edward M. Kennedy (D-Mass.) also objected to the drilling plans, calling for a halt until the Environmental Protection Agency and the National Academy of Sciences could study the potential environmental hazards.

Senator ALLOTT. We are now saying immediately an extrapolation of this problem in the future, in the future development of all energy of the Continental Shelf, and I believe that as far as I am aware, that only really big resources of oil that we have identified that can be developed in the continental United States, lie in the offshore areas. So the article which I have referred to is really an extension of the same concept which is contained in these bills as applied to other States; is it not?

Mr. DOLE. Yes, Mr. Chairman. With your permission, I would like to comment on that article that appeared in the Post this morning.

We have been receiving a great many inquiries, as you might imagine, in the Department of Interior, concerning the announcements that appeared in recent news articles. I would like to set the record clear, Mr. Chairman, in stating it is incumbent upon the Department of Interior to find out what the resources of the United States are in order that we can more orderly develop the various resources, not only oil and gas, but the other oil and mineral resources of our country.

This is one of the responsibilities of our Department. This is the beginning of our information collecting process in which we will determine what the resources are, if any; if they have any potential,

and we will proceed through orderly process of environmental process, public hearings and the like so everyone will have an opportunity to express themselves.

As for the possible leasing, we are so far away from that now, for a conclusion to be drawn like that, I think is erroneous. It is true, as you pointed out, that this would certainly establish a precedent for other areas.

Senator ALLOTT. I was just thinking, as you were speaking of the position the Department would be in say 5 years from now if it were not trying to or working to try to identify these areas and has to come up and face this committee and answer the question: What have you been doing in the last 5 years, while we have been getting in all of these troubles with the Department. They would be pretty hard pressed to answer that question; would they not?

Mr. DOLE. Yes, indeed, Mr. Chairman. I was before one of your colleagues just recently, Senator McIntyre, where he was inquiring as to the fuel shortage in the New England area. As you know, the New England area is at the end of the pipeline as far as oil and gas energy resources are concerned. I think this shows a responsibility of the Department of Interior in order to try to answer one of the problems that the New England area has.

I think it is incumbent upon us to look into this. And we show true responsibility when we try to evaluate resources here in this country.

Senator ALLOTT. Senator Bellmon.

Senator BELLMON. Thank you, Mr. Chairman.

I am curious, Mr. Secretary, about the particular areas that have been chosen. Are these the most scenic areas along the coast? What causes these particular areas to be set aside as sanctuaries?

Mr. DOLE. I cannot answer that with any definite figures, Mr. Bellmon, but it is my understanding that the counties and State set these aside because they have high recreational values. Why the State set these aside, I cannot answer you.

Senator BELLMON. Would there be prospective drilling permitted on the other areas of the coast?

Mr. DOLE. In the first place, Senator Bellmon, the State of California is in a mature state of development on its own lands. On lands off Long Beach, Santa Barbara, Los Angeles, there are many drillings, and one of the reasons why California has been a principal producer of oil and gas in the States is that the State of California has developed a good many of their lands.

On the other hand, because of legal problems, the Federal lands off the State of California—all through the State, have not received nearly as much exploratory drilling as the State land has. I think there have been explorations that have been done in the offshore of California on the OCS lands.

Senator BELLMON. What you are saying is that the areas that the State designated as sanctuaries, the State has developed their oil holdings; is that correct?

Mr. DOLE. In the Santa Barbara area they have not allowed drilling there for sometime. I do know there is considerable drilling on State lands in those areas outside of the sanctuaries.

Senator BELLMON. Outside of the present sanctuaries?

Mr. DOLE. Yes.

Senator BELLMON. These areas designated sanctuaries, do they have oil wells in them?

Mr. DOLE. I don't think so, Senator Bellmon. I cannot answer that definitely. Perhaps you will have people here from California that can answer that better than I can.

Senator BELLMON. Do other States have sanctuaries similar to these, to your knowledge?

Mr. DOLE. I know the State of Oregon does not. I know the State of Washington does not. I believe the State of Texas does in one area.

Senator BELLMON. There are a lot of public lands in the offshore, some of these are scenic. There is Wyoming, where half the acreage of the State is in the public domain. If we pass these bills do you see any possibility that some day some of our citizens may object to drilling on sublands in the State of Wyoming, for reasons it might damage the scenic beauty of some of these lands?

Mr. DOLE. Yes. I foresee this, Senator Bellmon. This is taking place at the present time. There are objections by some that we do no more drilling in the United States at all. This points out the difficult problem that the Department of Interior has.

We are responsible for assuring the Federal Government and the people of the country that they do have a sufficient energy base suitable for their needs, and yet we are responsible for the environmental protection and as noted in my statement, in our fish and wild-life areas, in our national parks areas, in our bureau of outdoor recreation areas, we try to strike this very difficult balance.

Senator BELLMON. Of the remaining petroleum resources in this country, what percentage of those are on public land, offshore and continental?

Mr. DOLE. Let me try to answer it this way, Senator Bellmon. On shore, in the lower 48 States, I think we should classify that as a maturely developed oil area. In other words, I feel we have found all of our giant fields and statistics prove that our production on shore is declining at a very rapid rate. On the offshore areas, the offshore areas are still in very much of a juvenile stage of development and certainly, as the chairman brought out earlier, the offshore areas are the big hope of the country in assuring a more firm energy basis than we have at the present time.

The third area is in the State of Alaska. The State of Alaska, which is about 90 percent Federal land, does still have virgin areas in which to look. By and large, the United States just about has to put their oil and gas energy resource bets on the offshores in Alaska.

Senator BELLMON. You are saying if this committee stops drilling in the offshore areas, for all practical purposes we stop the development of further energy sources as far as petroleum is concerned.

Mr. DOLE. I think if the Federal lands offshore were prevented from being developed for oil and gas, that it would do considerable damage to the country's ability to furnish a large measure of its very basic energy resources.

Senator BELLMON. Just one final question. I think most of us will agree there is no way to get the citizens of this country to do without oil and gas, at least not for 20 years or more. Is there any substitute for oil and gas in our energy requirements for the next two decades?

Mr. DOLE. As you know, Mr. Bellmon, oil and gas furnish about

75 percent of our energy requirements. To be specific, gas about 32½ percent, and oil about 44 percent. Coal furnishes about 20 percent of our energy requirements, hydropower about 4 percent and nuclear less than 1 percent.

The President, in the energy message of June 4, has asked that certain measures be taken. We are in irons, at the present time, as far as our shortage of energy goes, and we must have reliance on oil and gas at least in the next 15 years and as far as we can see in the future. As a matter of fact the forecast for energy use into the year 2000 break out to something like 40 percent for nuclear and 15 or 20 percent for coal and practically all of the remainder for oil and gas.

Senator BELLMON. Would you go over those figures again?

Mr. DOLE. Yes; 40 percent for nuclear.

Senator BELLMON. This is the year—

Mr. DOLE. 2000. A little less than 20 percent for coal. Still around 3 to 4 percent for hydrogen, and that would make the remainder about 36 or 37 percent for oil and gas.

I hasten here, Mr. Bellmon, to point out that our needs for energy are going to be about three times what they are now in the year 2000. We were talking quantity. We are going to need a lot more oil and gas by the year 2000 than we do at the present time, and the success rates we have had in recent years on the discovery of oil and gas makes it a difficult goal to achieve.

Senator BELLMON. We have to have oil and gas, and there are only a few ways to get it. One way is to find it offshore, and on the continent, and the other way is to bring it in by tankers. I would like to know what your opinion is of the danger between bringing by tankers—pollutionwise—and drilling?

Mr. DOLE. Mr. Chairman, as you know Japan is about 99 percent dependent upon offshore oil areas. They bring in about 95 percent of their oil. If this oil was brought in a T-2 tanker, which is the general measure of carrying oil, there would have to be a tanker every 35 miles from the Gulf of Tokyo to the Persian Gulf in the southeast.

You can see the difficulty that this tremendous amount of oil transportation can cause as far as pollution is concerned. In my opinion, the safest oil that the country can have both from a security standpoint and pollution standpoint is that oil found on shore or adjacent to the coast. In other words, in my opinion, and I think this was brought out by statistics, there is greater danger from tanker collision than there is from the development of your own oil resource.

Senator BELLMON. That is all, Mr. Chairman.

Senator ALLOT. Thank you, Senator. I particularly wanted to underscore that portion of your statement where you said both the Environmental Policy Act of 1969 and regulations issued by this Department, environmental impact prior to the issuance of mineral leases.

There is no secret in this committee that many of the problems and discussions that have gone on in this committee in the last 2 days have been involved with the section 102 statement of the Coal Environmental Policy Act. Follow up one thing, we in the West, who as a whole have a great portion of our States devoted to the public land, and we are reminded by the people all over the United States that these lands belong to all of us. Is the same criteria not true with

the Outer Continental Shelf lands, that the resources of those Outer Continental Shelf lands belong to all of the people of the United States?

Mr. DOLE. Yes, Mr. Chairman, I think that is the issue as far as these bills are concerned.

Senator ALLOTT. That is all I have, Mr. Secretary. Thank you.

Mr. DOLE. Thank you very much, Mr. Chairman. It is always a pleasure to appear before you.

Senator ALLOTT. It is always nice to have you here. You always have a nice statement and your competence in this field has been recognized by all of us.

Senator Cranston has asked that he be permitted to make a short statement on the statements made on these bills on Monday of this week. I do not want to get this matter, particularly, since none of the majority members of the committee are here, into adversary proceedings in the sense we did and did not at this time. I am happy to have Senator Cranston here.

Mr. DOLE. Am I excused, Mr. Chairman?

Senator ALLOTT. You are excused as far as this is concerned. You might wish to hear what Senator Cranston has to say.

STATEMENT OF HON. ALAN CRANSTON, A U.S. SENATOR FROM THE STATE OF CALIFORNIA

Senator CRANSTON. On October 29, 1969, I introduced the California Marine Sanctuary Act of 1961, S. 3093. The purpose of the bill was to create Federal oil-free sanctuaries seaward of tideland oil-free sanctuaries created by the State of California. The bill provided specifically that the Secretary of the Interior would not issue leases for the exploration for or extraction of oil, gas, or any other minerals seaward of all present and future State sanctuaries.

In its formal comment on S. 3093, in a letter to the chairman of the Senate Interior Committee, dated July 20, 1971, the Under Secretary of the Interior commented as follows:

While opposing S. 3093, we wish to make it clear that we are not opposed to the creation of sanctuaries on Federal land on the Outer Continental Shelf . . . We, however, do not believe that the Federal Government should abdicate its authority to decide the need for such areas to the States, as we would abdicate it to the State of California under the provisions of S. 3093. We will examine each proposal to create a sanctuary free of mineral operations on the Outer Continental Shelf as it is presented to us and make our decision based upon the evidence available to this Department.

On July 22, 1971, Secretary of the Interior Hickel appeared before the Subcommittee on Minerals, Materials, and Fuels. I was given the privilege of asking him to reiterate the Department's position on S. 3093. He responded to my question by saying: "I don't think we should tie the Federal Government's hands unless we look at each one as I mentioned on an individual basis." Later in his testimony he responded: "I still say again that it would have to be on a case by case basis."

In an attempt to respond to the administration's criticisms with an acceptable alternative, my staff, in cooperation with Senator Murphy, and working in consultation with staff members of the majority and minority of the Interior Committee, developed what we hoped to be

an acceptable compromise. This compromise is embodied in S. 1446, and the subsequent bills cosponsored by my colleague Senator Tunney and others.

These bills propose that the Congress consider each of the sanctuaries individually. In S. 1446, each sanctuary is listed. To implement more fully Congress sanctuary-by-sanctuary review, I have introduced a separate bill for each sanctuary. By this action I hoped to make clear that the decision to create a sanctuary in one area would be desirable even if the committee chose not to create a sanctuary seaward of some other sanctuary. In addition, I gave the exact legal description of each sanctuary so that this committee might consider banning drilling seaward of a portion of the State sanctuary if it chose not to prohibit drilling seaward of all or one of the State sanctuaries.

It was my intent to assure that Congress would have absolute and total discretion in deciding to prohibit Federal leasing over any or all portions of the Outer Continental Shelf.

Two other changes were made by the administration and by members of the committee. The President is granted authority to terminate any Federal prohibition on leasing pursuant to this legislation in the case of national emergency. The bill explicitly provides that it does not prohibit any exploration on the Outer Continental Shelf.

I want to reiterate that S. 1446 in no way delegates any authority to the State of California to create any kind of sanctuary along California's coastline. Consideration of S. 1446 constitutes a congressional review of each specific stretch of Federal land seaward of existing State sanctuaries and a decision of whether or not the Federal Government should create a sanctuary. In view of the Department of the Interior's specific request that it review each of these proposed sanctuaries individually to decide whether the environmental values outweigh the possible advantage of oil exploration and development, I anticipated that the Interior Department would comment on each of the sanctuary proposals individually.

I specifically stated on April 1, 1971, on the floor of the U.S. Senate, when I introduced these bills, that I was doing so to implement the administration's review of each area. I was therefore astounded to read Assistant Secretary Hollis Dole's letter to the chairman of the Interior Committee of November 1, 1971 in which he first repeats the administration's prior objection to S. 3093—without taking cognizance of the substantially different approach involved in S. 1446.

I was startled to find that the Secretary failed to comment on the merits of each of the sanctuaries proposed, despite Department testimony last year that it wanted the right to do exactly that. Mr. Dole stated the administration's position as follows: S. 1446 would deprive the Secretary of that discretion, and require that he delegate to the State of California responsibility for management of a national resource. By the establishment of State sanctuaries in any or all of the areas described by section 3(b) of S. 1446, the State of California would have dictated which, if any, areas offshore California could be leased by the Federal Government. As a result, he said, the Department of the Interior recommends against enactment of these bills.

Since it was clear to me that the Interior Department had failed to take into account the changes I made from S. 3093 in preparing its report, I called Secretary Dole yesterday to ask him if the Department

had noticed that I had a new approach designed to meet the Department's objections to my original bill. Secretary Dole said he would check on this. He called me back later in the day to repeat the Department's assertion that S. 1446 involved a delegation of authority to the State of California.

Obviously, the Interior Department has misunderstood my bill—either deliberately or, and I must say I find this very hard to understand, they don't know how to read legislation. Secretary Dole's distortion of the true intent of S. 1446 demeans the legislative process.

There is no way in which the process of congressional review of each of these stretches of California coastline could be considered a delegation of authority to the State of California.

In its deliberations on S. 1446 to S. 1452, this Congress will have the opportunity to review each sanctuary proposal individually—to decide what to accept or reject—to decide what its specific boundaries are. In what sense does this constitute a delegation of authority to the State of California? How can Mr. Dole say that California has been given the authority to dictate to the Congress?

The administration has recognized the principle of Federal recognition of State sanctuaries in its own bill, S. 1853. That bill would declare a Federal sanctuary seaward of the State sanctuary in Santa Barbara Channel.

It would create a buffer zone where no drilling or oil production would be permitted. Former Interior Secretary Walter J. Hickel on June 11, 1970, pointed out that: the buffer will help protect the Santa Barbara ecological preserve and maintain the sanctuary concept of the State of California.

All that my bill tries to do is to protect the shoreline of my State of California. Yet the administration has refused to give California the courtesy of seriously discussing that proposal on its own merits. Instead, the administration has chosen to resurrect the red herring of Federal jurisdiction and has tried to apply that issue to a bill where it simply doesn't fit.

No amount of bureaucratic double talk can disguise the Interior Department's obvious unwillingness to give any consideration to environmental values when environmental values conflict with the production of oil.

No administration concerned with protecting our coastline from oil pollution would so brazenly refuse to discuss with the Senate Interior Committee the environmental values of these stretches of California coastline.

No administration concerned with establishing public confidence in our Government's responsiveness to environmental problems would put its stamp of approval on so blatant a distortion of a simple effort to protect the environment.

Since the Interior Department has chosen not to present testimony that is relevant to the contents of my bill, I urge the committee to ignore Mr. Dole's presentation today as immaterial and nongermane and to evaluate my bill on its merits.

I thank you for this opportunity, Mr. Chairman.

Senator ALLOTT. I am happy to have you, Senator, although I cannot agree with all that you said. Has the State allowed core drilling on all of its sanctuaries?

Senator CRANSTON. It has in some of the State sanctuaries, I believe. I was very much involved in the State production of oil in places where it serves a beneficial purpose and does not threaten the environment and I favor that.

Senator ALLOTT. Do you know what the proven resources are on the State sanctuary lands?

Senator CRANSTON. No; I do not.

Senator ALLOTT. Is that readily available to you, do you know?

Senator CRANSTON. I will get that information for the committee.

Senator ALLOTT. I wonder if you would, please.

Senator CRANSTON. I would be delighted to.

(The information referred to follows:)

STATE OF CALIFORNIA,
STATE LANDS COMMISSION,
STATE LANDS DIVISION,
Los Angeles, Calif., November 9, 1971.

MR. ROY GREENAWAY,
*Administrative Assistant, Office of Senator Alan Cranston,
Old Senate Office Building, Washington, D.C.*

DEAR SIR: This is in response to your request for information relative to State of California offshore oil and gas sanctuary areas and oil reserves contained therein.

Unfortunately there are no available data depicting oil reserves in the currently codified State offshore oil and gas sanctuaries per se, however; the following data should define the relationship between State of California offshore sanctuaries and offshore petroleum provinces.

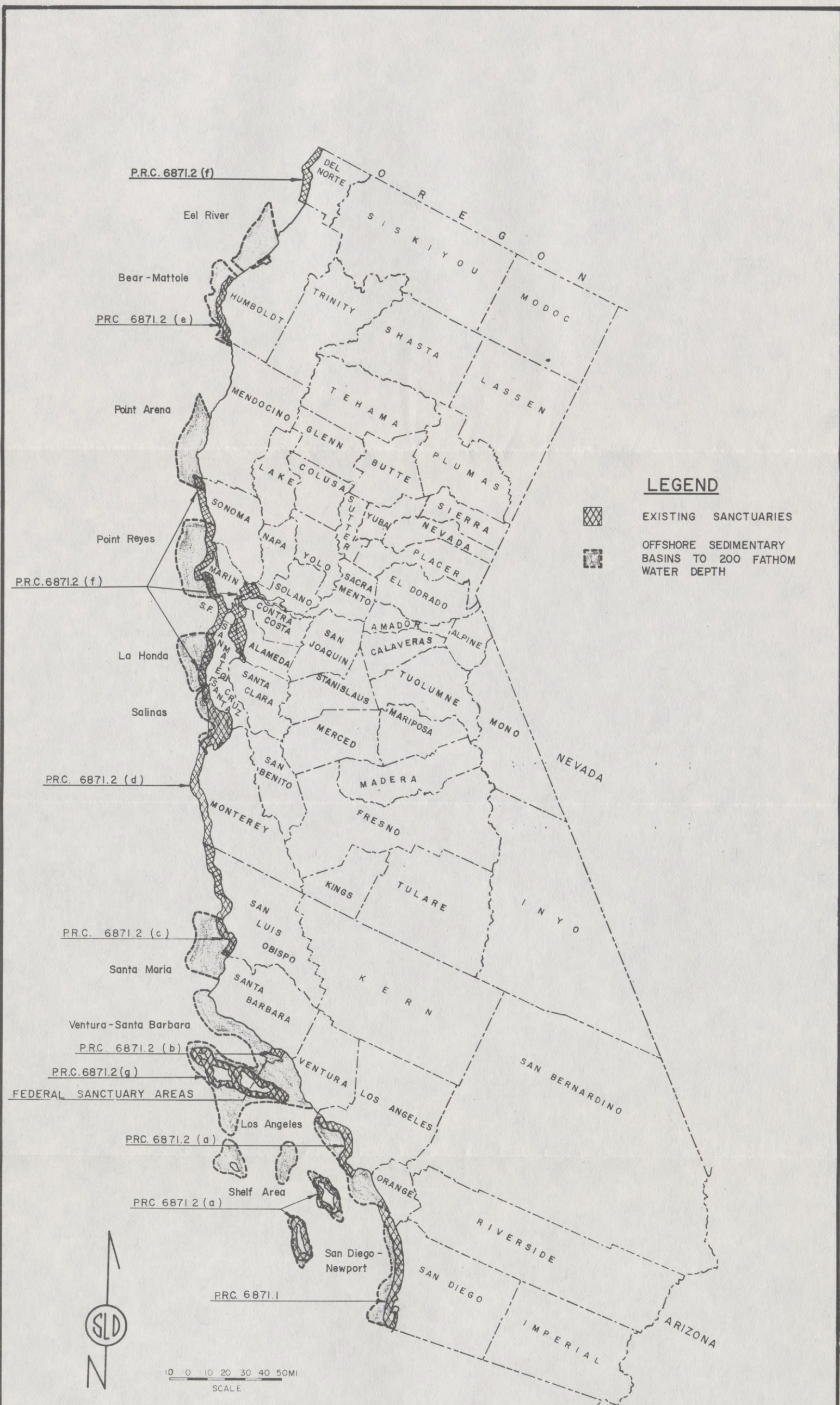
The Resources Agency of the State of California in 1970 published a comprehensive white paper on The Offshore Petroleum Resource. The offshore petroleum resource in this white paper is shown to be associated with a series of sedimentary basins that are projected into the offshore area. The attached map depicts the offshore areal extent of these basins to a water depth of 200 fathoms, and the relationship with the codified sanctuary areas established pursuant to the Cunningham-Shell Act.

Chapter 1724, Statutes of 1955, commonly known as the Cunningham-Shell Tidelands Act, added Sections 6871.1 and 6871.2 among others to the Public Resources Code, relating to oil, gas, and mineral leases of State lands.

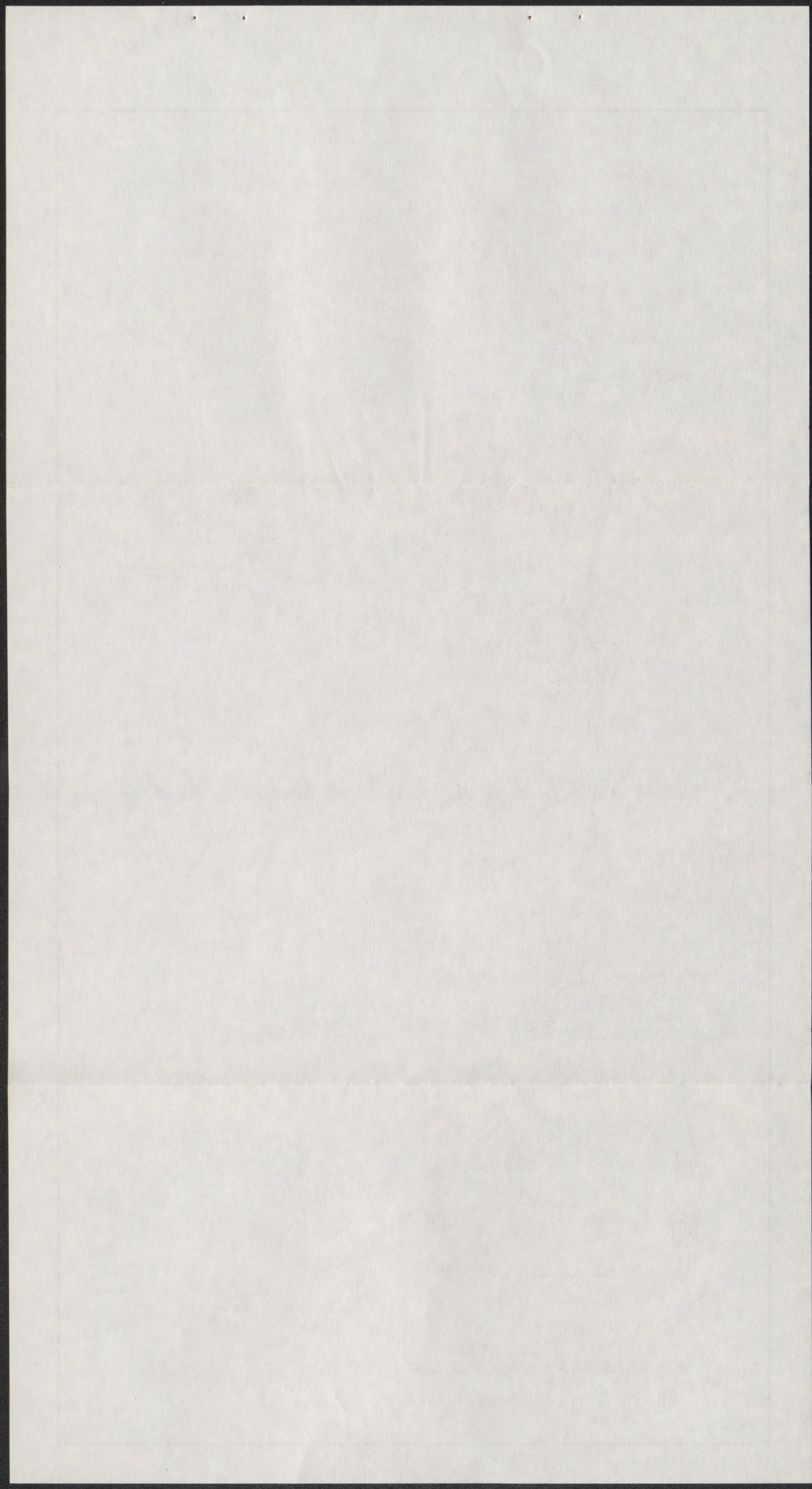
Section 6871.1 restricts for oil and gas leasing purposes those State-owned tide and submerged lands extending northerly from the Mexican Border to the north city limits of the City of Newport Beach in Orange County. Section 6871.2 further restricts from leasing the following additional areas:

1. 6871.2(a)—Those State-owned tide and submerged lands in Los Angeles County northerly and westerly from Point Fermin to the Ventura County line, and those State-owned tide and submerged lands surrounding the Islands of San Clemente and Santa Catalina.
2. 6871.2(b)—Those State-owned tide and submerged lands situate in an area seaward from the City of Santa Barbara in Santa Barbara County.
3. 6871.2(c)—Those State-owned Tide and submerged lands between Cayucos and Guadalupe in San Luis Obispo County.

The State-owned tide and submerged lands described in Section 6871.1 of the Public Resources Code between the Mexican border and the north city limits of the City of Newport Beach are largely located within the offshore basinal area listed in the white paper as the San Diego-Newport Offshore Area, which is projected to contain potential oil reserves of 50 million barrels. Those State-owned tide and submerged lands described in Section 6871.2(a) are located within the highly petroliferous Los Angeles Basin along the coastline, and in the Shelf Area with respect to the islands. These offshore basinal areas are projected to contain 2.2 billion and 550 million barrels of potential oil reserves respectively. The Santa Barbara sanctuary described in Section 6871.2(b) is entirely located in the Ventura-Santa Barbara Basin, which is conservatively projected at 1.4 billion barrels of potential oil reserves. A portion of those State-owned tide and submerged lands described in Section 6871.2(c) are located within the Santa Maria Basin, with estimated offshore basin potential reserves of 300 million barrels.



STATE of CALIFORNIA
 STATE LANDS COMMISSION DIVISION of STATE LANDS
 Oil and Gas Sanctuary Areas



Subsequent to the enactment of the Cunningham-Shell Act in 1955, Section 6871.2 was amended on several occasions to increase the acreage restricted from oil and gas leasing as follows:

4. 6871.2(c)—The previously codified area in San Luis Obispo County was expanded pursuant to Chapters 1375 and 1383, Statutes of 1970, to include the entire State-owned offshore area in the County.

5. 6871.2(d)—All those State-owned tide and submerged lands in Monterey and Santa Cruz Counties.

6. 6871.2(e)—All those State-owned tide and submerged lands in Humboldt and Mendocino Counties between the south line of Township 5 South and the north line of Township 1 North, Humboldt Base Line, amended by Chapter 1430, Statutes of 1969.

7. 6871.2(f)—All those State-owned tide and submerged lands in San Mateo, San Francisco, Marin, Sonoma, Napa, Alameda, Santa Clara, and Del Norte Counties, along with those situated in Solano and Contra Costa Counties westerly from the parallel Carquinez bridges (Interstate 80), until March 1, 1975, added by Chapters 1375 and 1383, Statutes of 1970.

8. 6871.2(g)—All those State-owned tide and submerged lands surrounding the Islands of Anacapa, Santa Cruz, Santa Rosa, and San Miguel, introduced as Senate Bill No. 287, and enacted during the 1971 session.

These added sanctuary areas are largely located in offshore sedimentary basins along the central and northern California coastline which are considered in the aforementioned Resources Agency white paper to be potential petroleum provinces. The attached table from the white paper relates potential oil reserves in the known offshore sedimentary basins correlative to existing State of California offshore oil and gas sanctuary areas.

Sincerely,

C. F. EATON,

Supervising Mineral Resources Engineer.

TABLE I-1*

Potential oil reserves in offshore basins to 200 fathoms

	<i>Oil (bbbls)</i>
Offshore Basin:	
1. Los Angeles.....	2, 200, 000, 000
2. Ventura-Santa Barbara.....	1, 400, 000, 000
3. Santa Maria.....	300, 000, 000
4. Salinas.....	180, 000, 000
5. La Honda.....	450, 000, 000
6. Point Reyes.....	320, 000, 000
7. Point Arena.....	40, 000, 000
8. Bear-Mattole.....	90, 000, 000
9. Eel River.....	140, 000, 000
Other:	
1. San Diego-Newport.....	50, 000, 000
2. Shelf Area.....	550, 000, 000
Total.....	5, 720, 000, 000

*Figures from State Lands Division.

Senator ALLOTT. Your S. 1446 says the Secretary must suspend all further leasing. This exploratory work is also ordinarily accomplished under leasing. I think you are a little bit harsh in your judgment of the Secretary on the basis of that.

Senator CRANSTON. Let me point out on page 6, section 5, line 22, nothing in this act shall be deemed to prohibit any exploration of the Outer Continental Shelf.

Senator ALLOTT. S. 1853 was introduced by myself and when I got that bill from the administration I sent a letter to each Member of the Senate, and I said here enclosed is the bill proposed by the administration which would authorize the Secretary of Interior to terminate 35 leases necessary to the Santa Barbara Channel in California. I am abbreviating my letter, but it also provided that the revenue be placed in special accounts, and so forth. You are acquainted with that bill?

Senator CRANSTON. Yes.

Senator ALLOTT. I think the peculiar thing about that bill, that after the circulation of that bill, which I now have before me, which was introduced May 12, 1971, the only Senators who did join in that determination of 35 leases, is Senator Bennett of Utah, Javits of New York, and Stevens of Alaska. So that there has been, I think, very little—there is apparently very little interest in California in that bill. I think perhaps I will insert into the record at this time a copy of my letter requesting cosponsorship of that bill and also a copy of S. 1853, so it will speak for itself.

(The documents referred to follow:)

U.S. SENATE,
COMMITTEE ON INTERIOR AND INSULAR AFFAIRS,
Washington, D.C., April 30, 1971.

DEAR COLLEAGUE: Enclosed is a bill proposed by the administration which would authorize the Secretary of the Interior to terminate 35 leases in the Santa Barbara Channel, California. It would also authorize increased production from Naval Petroleum Reserve Numbered 1 (Elk Hills), and provides that the revenues therefrom be placed in a special account to be used to defray the costs of termination of the subject leases and to finance further exploration of Naval Petroleum Reserve Numbered 4, on the North Slope of Alaska.

The leases to be terminated are generally in a direct line with the existing State sanctuary and Federal buffer zone and extend across the Channel. In addition, some other leases in the vicinity of the Channel Islands would be terminated, in light of proposals to establish a Channel Islands National Park or Monument.

Enclosed is a copy of the letter of transmittal, a copy of the draft bill, and a copy of the environmental statement for your information and review.

If you would be interested in cosponsoring this measure, please contact Charles F. Cook, Minority Counsel, Senate Interior Committee (X53221), by May 10, 1971.

Sincerely yours,

GORDON ALLOTT,
U.S. Senator.

U.S. DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D.C., April 20, 1971.

Hon. SPIRO T. AGNEW,
President of the Senate,
Washington, D.C.

DEAR MR. PRESIDENT: Enclosed is a draft of a proposed bill "To terminate and to direct the Secretary of the Interior and the Secretary of the Navy to take action with respect to certain leases issued pursuant to the Outer Continental Shelf Lands Act in the Santa Barbara Channel, offshore of the State of California; to explore Naval Petroleum Reserve Numbered 4, and for other purposes."

We recommend that the proposed bill be referred to the appropriate committee for consideration and that it be enacted.

The oil blowout which occurred in January 1969 on one of the Federal leases in the Santa Barbara Channel brought into focus the vulnerability of the Marine environment to oil pollution, and the problem of extracting this needed natural resource while at the same time preserving the beauty and quality of our environment in this area.

When it was realized that the lands beneath the Santa Barbara Channel contained rich oil deposits, concern for the environment led the State of California, in 1955, to declare 16 miles of scenic coastline a sanctuary, closed to all oil exploration and development. The State waters on either side were open to petroleum development.

About a decade later, the Federal government opened the Federal waters seaward of the State Sanctuary to leasing for petroleum development, leaving a two-mile buffer zone between the leased area and the State Sanctuary. A total of 72 Federal leases had been issued when the blowout occurred in January 1969.

Following that environmental misfortune, the Interior Department, with concurrence by the President and the Department of Justice, ordered all wells closed and drilling halted by all the companies operating under Federal jurisdiction in the Santa Barbara Channel.

The Secretary immediately initiated a broad safety review of all Outer Continental Shelf regulations. Department engineers began studying drilling procedures and revising the rules and regulations which were in effect in the Santa Barbara Channel at the time of the blowout. Oil companies were invited to look at a draft of the Departmental proposals to see if the industry itself could suggest ways of improving the regulations—and they did in fact propose some tougher guidelines and rules. The State of California likewise commented.

The Secretary ordered a moratorium on all scheduled oil leasing on the Outer Continental Shelf, and a review of the criteria upon which decisions to lease offshore land are made.

At the same time, a second major action was taken. An order was signed which converted the existing two-mile buffer opposite the Santa Barbara State Oil Sanctuary into a permanent ecological preserve. Until this order was signed, the area which covers 21,000 acres, had no special legal status.

The enclosed bill proposes a more permanent solution to the problem. It would terminate 35 of the Federal leases and place the area covered by them, as well as certain other adjacent areas, into a National Energy Reserve. The reserve shall be available for lease only as determined by the President.

The Act authorizes the Secretary to unitize three producing oil leases in the same area when he finds that such unitization is necessary or desirable in the interest of good conservation and to prevent or minimize oil spillage, leaks, or other pollution.

The bill provides a method for payment of compensation to the holders of the leases terminated by this Act. The amount of compensation will be determined by the United States District Court for the Central District of California in suits initiated by the lessees. To pay the judgments, upon certification of the Department of Justice, a Petroleum Reserve account will be created and funded with proceeds from the sale of oil extracted from the Naval Petroleum Reserve Numbered 1, California. In the event the Petroleum Reserve account is insufficient to satisfy outstanding judgment and compromise settlements, the bill authorizes an appropriation to enable the Secretary of the Treasury to advance funds to satisfy such judgment and compromise settlements, with the Petroleum Reserve account subsequently reimbursing the Treasury for such advances.

The bill authorizes the Secretary of the Navy to sell sufficient oil from Naval Petroleum Reserve Numbered 1, California, to provide funds to pay the claims arising from the terminated leases as well as certain related expenses. Also, as a means of exploring the potential oil deposits on Naval Petroleum Reserve Numbered 4, the bill further authorizes the Secretary of the Navy to sell sufficient oil from Naval Petroleum Reserve Numbered 1 to provide funds to pay for such exploration.

We believe that the proposed bill offers an equitable solution to the problem created by the "blowout" in the Santa Barbara Channel area of the Outer Continental Shelf. It recognizes and protects the important environmental values of the Santa Barbara Channel, offers a mechanism for determining and paying just compensation to the lessees and preserves the resources.

In support of a similar Departmental proposal introduced in the 91st Congress, President Nixon stated:

" . . . This proposal for Santa Barbara illustrates our strong commitment of use of offshore lands in a balanced and responsible manner. . . . This recommendation is based on the belief that immediate economic gains are not the only, or even the major, way of measuring the value of a geographic area. The ability of that area to sustain wildlife and its capacity to delight and inspire those who visit it for recreation can be far more important characteristics. This proposal recognizes that technology alone cannot bring national greatness, and that we must never pursue prosperity in a way that mortgages that nation's prosperity."

The Office of Management and Budget has advised that the enactment of this proposed legislation would be in accord with the program of the President.

Sincerely yours,

ROGERS C. B. MORTON,
Secretary of the Interior.

92^D CONGRESS
1ST SESSION

S. 1853

IN THE SENATE OF THE UNITED STATES

MAY 12, 1971

Mr. ALLOTT (for himself, Mr. BENNETT, Mr. JAVITS, and Mr. STEVENS) introduced the following bill; which was read twice and referred to the Committee on Interior and Insular Affairs

A BILL

To terminate, and to direct the Secretary of the Interior and the Secretary of the Navy to take action with respect to, certain leases issued pursuant to the Outer Continental Shelf Lands Act in the Santa Barbara Channel, offshore of the State of California, to explore Naval Petroleum Reserve Numbered 4, and for other purposes.

- 1 *Be it enacted by the Senate and House of Representa-*
- 2 *tives of the United States of America in Congress assembled,*
- 3 That, effective on the date of enactment of this Act, all of
- 4 the following described leases, and all rights thereunder,
- 5 issued pursuant to the Outer Continental Shelf Lands
- 6 Act in the Santa Barbara Channel, offshore of the State of

1 California, shall terminate and the United States shall be
 2 vested with all of the right, title, and interest in said leases:

P-0179	P-0174	P-0171	P-0238	P-0230	P-0213	P-0219
P-0176	P-0173	P-0169	P-0232	P-0222	P-0201	P-0211
P-0178	P-0170	P-0167	P-0237	P-0206	P-0228	P-0220
P-0175	P-0172	P-0199	P-0231	P-0229	P-0234	P-0212
P-0177	P-0168	P-0198	P-0223	P-0221	P-0227	P-0200

3 SEC. 2. The Secretary of the Interior is authorized
 4 under such terms and conditions as he may prescribe to unit-
 5 ize all or any part of the following described leases issued
 6 pursuant to the Outer Continental Shelf Lands Act in the
 7 Santa Barbara Channel, offshore of the State of California,
 8 if he finds such action is necessary or desirable to prevent
 9 or minimize oil spillage, leaks, or other pollution:

P-0241 P-0240 P-0166

10 SEC. 3. (a) The holder of any lease terminated pur-
 11 suant to this Act shall be entitled as the sole method for
 12 the recovery of just compensation for the lease or leases so
 13 terminated to bring an action against the United States in
 14 the United States District Court for the Central District of
 15 California within one year after the date of enactment of this
 16 Act. Said court is expressly vested with jurisdiction of any
 17 action so brought without regard to the amount of the claim
 18 therein. Trial of any such action shall be to the court, with-
 19 out a jury.

20 (b) The amount of any judgment in any such action or
 21 of any compromise settlement of such action and any inter-

1 est accruing thereon shall be certified to the Secretary of the
2 Interior by the Department of Justice.

3 SEC. 4. (a) There is hereby created in the Treasury
4 of the United States a special account which shall be known
5 as the Petroleum Reserve account from which payments
6 shall be made in accordance with the provisions of this Act.
7 In order to provide the funds for the Petroleum Reserve
8 account, the Secretary of the Navy is directed to offer for
9 sale on the open market under such competitive bidding
10 procedures as he may establish, the United States share of
11 the oil extracted from Naval Petroleum Reserve Numbered
12 1 pursuant to the provisions of this Act and to pay the
13 funds realized from such sale into the United States Treasury.
14 In each year, sales proceeds equal to the Government's
15 receipts from Naval Petroleum Reserve Numbered 1 during
16 the twelve calendar months immediately preceding enact-
17 ment of this Act shall be credited to the general fund and
18 the remaining sales proceeds shall be credited to the Petro-
19 leum Reserve account. Any sums remaining in the Petroleum
20 Reserve account after the payments authorized by subsec-
21 tion (b) have been made shall be transferred to miscellane-
22 ous receipts of the Treasury, and thereafter the funds realized
23 under this subsection shall be paid into miscellaneous receipts
24 of the Treasury.

1 (b) There is hereby authorized to be appropriated out
2 of the Petroleum Reserve account to the Secretary of the
3 Interior, the Secretary of the Navy, the Secretary of the
4 Treasury, and the Attorney General, to remain available
5 until expended when so authorized in appropriation Acts,
6 such sums as may be necessary to —

7 (1) enable the Secretary of the Interior to pay
8 judgments, compromise settlements, and interest thereon,
9 as certified by the Attorney General under section 3 hereof;

10 (2) enable the Secretary of the Navy to carry out
11 petroleum exploration on Naval Petroleum Reserve
12 Numbered 4, Arctic North Slope, Alaska;

13 (3) reimburse the general funds of the Treasury
14 for any lost royalties, as determined by the Secretary of
15 the Interior, resulting from a reduction of existing pro-
16 duction from existing oil leases on Federal lands caused
17 by production of oil from Naval Petroleum Reserve
18 Numbered 1 under the provisions of this Act; and

19 (4) carry out the functions and responsibilities
20 required of the Secretary of the Interior, the Secretary
21 of the Navy, and the Attorney General under the provi-
22 sions of this Act.

23 (c) In the event the funds in the Petroleum Reserve
24 account are not sufficient to pay any amount so appropriated
25 there is authorized to be appropriated to the Secretary of the

1 Treasury for advance to the Petroleum Reserve account out
2 of any money in the Treasury not otherwise appropriated,
3 such funds as may be necessary for such payments. The
4 Secretary of the Treasury shall be reimbursed for such
5 advances from funds paid into the Petroleum Reserve
6 account in accordance with this Act, with interest thereon,
7 at such rates as may be determined from time to time by the
8 Secretary of the Treasury.

9 SEC. 5. Without regard to the provisions of chapter 641,
10 title 10, United States Code, the Secretary of the Navy is
11 authorized and directed to produce by whatever means he
12 deems necessary sufficient oil from Naval Petroleum Reserve
13 Numbered 1 to fulfill the requirements of section 4 hereof.
14 The Secretary of the Navy is also authorized to renegotiate
15 and modify existing contracts relating to production of oil
16 from said reserve in such manner as may in his judgment be
17 necessary or advisable to enable such increased production.

18 SEC. 6. There is hereby created a national energy re-
19 serve on the Outer Continental Shelf in the Santa Barbara
20 Channel, offshore of the State of California, under the juris-
21 diction and control of the Secretary of the Interior. The said
22 national energy reserve shall be made up of the land subject
23 to the leases terminated pursuant to this Act, plus the land
24 subject to waived lease P-0235 and the following described
25 land as shown on the official Outer Continental Shelf Leasing

1 Map, Channel Islands Area Map Numbered 6B, approved
 2 August 8, 1966, and revised July 24, 1967, as:

3 CALIFORNIA

4 OFFICIAL LEASING MAP, CHANNEL ISLANDS AREA MAP

5 NUMBERED 6B

Block	Description
50 north 66 west.....	All.
50 north 67 west.....	All.
51 north 65 west.....	Northwest quarter of the northwest quarter.
51 north 66 west.....	All.
51 north 67 west.....	All.
51 north 68 west.....	All.
51 north 69 west.....	All.
51 north 70 west.....	East half and east half west half.
52 north 64 west.....	All Federal portion thereof.
52 north 65 west.....	All Federal portion thereof.
52 north 66 west.....	All Federal portion thereof.
52 north 67 west.....	All Federal portion thereof.
52 north 68 west.....	All Federal portion thereof.
52 north 69 west.....	All Federal portion thereof.
52 north 70 west.....	All Federal portion of east half and east half west half.
48 north 69 west.....	All.
47 north 69 west.....	All Federal portion thereof.
46 north 69 west.....	All Federal portion thereof.
47 north 68 west.....	All.
46 north 68 west.....	All Federal portion thereof.
47 north 67 west.....	All.
46 north 64 west.....	All Federal portion thereof.

6 The national energy reserve shall be available for lease only
 7 as determined by the President and under such terms and
 8 conditions as he may prescribe in accordance with existing
 9 law.

STATEMENT ON ENVIRONMENTAL IMPACT

The following statement supplements the Department of the Interior's proposal "To terminate and to direct the Secretary of the Interior and the Secretary of the Navy to take action with respect to certain leases issued pursuant to the Outer Continental Shelf Lands Act in the Santa Barbara Channel, offshore of the State of California; to explore Naval Petroleum Reserve Numbered 4, and for other purposes," and is submitted in conformance with section 102(2)(C) of the National Environmental Policy Act of 1969. The proposal, prior to its being submitted to Congress, was transmitted to the interested Federal agencies for their review. No adverse comments relating to the impact of the proposal on the environment were received. Our findings as to the impact of the proposal may be stated as follows:

1. *Impact on the Environment*—The proposed termination of the 35 Federal leases and the creation of the National Energy Reserve would enhance the environment in the area of Santa Barbara, especially that 16-mile area bordering the State Sanctuary extending from that Sanctuary across Santa Barbara Channel to the vicinity of Santa Cruz Island, California. A group of leases in the vicinity of San Miguel Island would also be terminated. The principal environmental impact would result from the stopping of all oil and gas exploration and drilling activities within that area, except for those leases which the Secretary is authorized to unitize. The creation of the National Energy Reserve would prohibit oil exploration and development activities, but at the same time assure the availability of oil and gas to meet a National emergency.

2. *Adverse Environmental Effects*—We know of no adverse environmental effects that would result from the enactment of this legislation.

3. *Alternatives to Proposed Action*—One alternative would be no proposal at all. This could have serious adverse environmental effect in that at some point in the future there would be oil exploration and drilling activity on most of the 35 leases terminated by this proposal. If oil discoveries were made, this activity would cause the erection of additional drilling platforms which would adversely affect the scenic qualities of the area. The exploration and drilling activity could have an adverse effect on the marine life in the area.

Another alternative is to terminate the three producing leases as well as the other 35 leases. We are certain that this alternative, involving the termination of activity on the damaged geological structure would assure continued and increased oil seepage from the structure, thereby causing pollution of the water and beach in the area and endangering the marine life.

A third alternative is to terminate all 72 leases in the Santa Barbara Channel. We believe that this alternative besides being very expensive is not necessary. We believe that the proposal honors the commitment to the people of California by extending the State created Sanctuary across the Federal portion of the Santa Barbara Channel while at the same time allowing the development of the petroleum resources in other portions of the Santa Barbara Channel.

4. *Relationship of Short-term Uses vs. Long-term Needs*.—The objective of the proposal is to provide both a short-term and long-term solution to the possibility of environment pollution caused by the leasing of this area of the Santa Barbara Channel for oil exploration and development. The short-term use is that the Government agrees with the State of California in the need for a Sanctuary free of oil operation in the Santa Barbara Channel off California. The long-term needs are that the Sanctuary will be kept development-free except for the leases on which production must be maintained by the creation of the National Energy Reserve. At the same time the need of the Nation to develop its petroleum resources in the event of a National emergency requiring such development will be met through the provision that the President may, in the event of an emergency, open this area for leasing. In the absence of exploratory drilling at this time needed information will not be available in case of emergency.

5. *Irreversible Commitment of Resources*—Commitment of this area as a Sanctuary free of oil operation is an illustration of a commitment by this Government toward a balanced use of our offshore land. This bill extends the earlier decision of the people of California to set aside part of our coastline as a Sanctuary by extending that Sanctuary across the Santa Barbara Channel to Santa Cruz Island, at the same time allowing an efficient method of relieving the pressure in the damaged structure to prevent further oil leaks that will pollute the area. The bill also provides a method for allowing the exploitation of petroleum resources in the area in the event of a National emergency requiring such exploitation.

Senator ALLOTT. Next, Mr. Harry Morrison, who I understand will be accompanied by Mr. William Silcox of Standard Oil Co., of California, Mr. George Ketchum of Mobil Oil, and Mr. Forrest Smith of Clean Bay, Inc.

STATEMENT OF HARRY MORRISON, WESTERN OIL & GAS ASSOCIATION; ACCOMPANIED BY WILLIAM SILCOX, STANDARD OIL CO. OF CALIFORNIA; GEORGE KETCHUM, MOBIL OIL CORP.; AND FORREST SMITH, EXECUTIVE VICE PRESIDENT AND MANAGER, CLEAN BAY, INC.

Mr. MORRISON. Thank you, Senator.

May I proceed?

Senator ALLOTT. Yes; proceed in your own way.

Mr. MORRISON. My name is Harry Morrison and I appear on behalf of the Western Oil & Gas Association, of which I am vice president and general manager.

The Western Oil & Gas Association is a petroleum trade association whose members are engaged in the production, refining, and marketing of petroleum and petroleum products in the six Far West States of California, Arizona, Nevada, Oregon, Washington, and Alaska. Its members account for approximately 85 percent of the production and 90 percent of the refining and marketing in those States.

You have already introduced the people at the table here, sir. I appreciate that very much. We will confine our remarks referring to S. 1446.

We recognize that S. 1446 is a composite bill and includes the provisions found in individual Senate bills 1447 through 1452. For ease of reference, we will confine our remarks to S. 1446.

We have this map here, prepared by George Ketchum so we could give you a pretty good idea of what we were talking about.

The bill would extend six existing State sanctuaries an indefinite distance seaward across the Outer Continental Shelf adjacent to the State of California. The Outer Continental Shelf off California is a submerged portion of the continent comprising an area of 35,000 square miles. It is 15 to 30 miles wide north of San Francisco, fans out to more than 160 miles at the Mexican border, and includes the offshore islands.

By a decision of the Supreme Court, that portion of the shelf under State control extends 3 nautical miles out from the coast. It is from the seaward margin of this area that the six so-called sanctuaries mentioned in S. 1446 are extended. That is the little tiny line next to the coast all the way down.

If enacted, S. 1446 would remove something in excess of 15,000 square miles of the Outer Continental Shelf from mineral exploration and development off southern California. Other proposed Federal sanctuaries to the north would add at least an additional 3,000 square miles, making the total area closed to mineral exploration by this bill at least 18,000 square miles.

Senator ALLOTT. Do you mind if I interrupt you? Sometimes I think we make a little more speed by interrupting, although I hate to interrupt.

Do you know whether the State is engaged in any exploration, the State of California, in any of these sanctuaries?

Mr. MORRISON. I don't believe so. I believe I can say "No" to that question.

Senator ALLOTT. How would you go about, in general, in your off-shore areas, exploring it without an exploratory lease? How would you produce without having a production lease?

Mr. MORRISON. If I understand the sense of your question, sir, if there is any place where there is a law which says you can't produce oil, I don't know of any oil company that is going to go out and explore it. So, the answer to your question is, there would not be any exploration under the conditions of S. 1446, if that is the sense of your question, sir.

Senator ALLOTT. That is the sense of it, and it seems to me it is the inconsistency of the bill, S. 1446, perhaps. Do you get that reaction to it?

Mr. MORRISON. Yes, sir. Listen to Senator Cranston, our Senator from California. He pointed out his bill will permit exploration. The fact is there wouldn't be any. You don't explore and spend a lot of money on the speculation that maybe you are going to be permitted sometime to produce. You have to have the knowledge you can produce and then go out and explore.

Senator ALLOTT. I don't mean anything by any of my questions, and I am sure no one who reads these hearing will interpret it that way, we all appreciate the beauty of our country, in California, Texas, or anywhere. I think this environmental concern has been really expressed and reexpressed by the Interior Department so many times I know in some instances it has been a bane to the oil company. I want to get this in order. Go ahead with your statement.

Mr. MORRISON. Thank you, sir.

We oppose S. 1446 and its companion bills for the following reasons, which we shall expand on later in this presentation.

First and most importantly, we believe this bill has great significance in that it would effectively close off the Pacific Outer Continental Shelf to drilling and production at a time when every serious study shows that the United States will, through the close of this century, require more oil, rather than less, and will be increasingly dependent upon foreign crude; to meet its requirements unless domestic production is increased rather than simply maintained or reduced.

The Interior Department has announced its intentions to conduct environmental impact hearings in at least three major Outer Continental Shelf areas of the United States during the next 2 years. These are the eastern area of the Gulf of Mexico, the mid-north Atlantic, and the Gulf of Alaska.

If the Congress were to approve S. 1446, it would close off most of the Continental Shelf in California. In addition, it would establish a precedent and indeed a policy to close off all of the unleased Outer Continental Shelf, including the eastern Gulf of Mexico, the Atlantic, and the Gulf of Alaska. We believe that this would be a dangerous blow to the economy and security of the United States.

Digressing from my statement, if the Congress were to see fit to pass this bill, I would say the people in California, in those areas, deserve something. This same deserve would apply to people of Florida, the people on the east coast of the United States, wherever. That is the reason we think it would indeed establish a precedent.

In this regard, we feel it is important to clarify and define what I am sure we all regard as extremely important, and that is the national security. In stating that the continued increased production of oil and gas is important to the national security it is not meant to imply, nor should it be inferred that we are speaking only of petroleum product requirements of the Armed Forces. Rather, in a much larger and more important sense the national security involves the ability of the Nation to supply to itself energy for the conduct of the Nation's internal economy—the ability to maintain and increase our standard of living for all of our citizens; that is, to provide energy that is transformed, economically, into food, clothing, housing, transportation, recreation, and all those necessities of life that we all seek for the citizens of the United States. That is what we consider to be the national security.

Second, the enactment of S. 1446 would be in direct conflict with recommendations of the Public Land Law Review Commission and with the basic intent of the Outer Continental Shelf Lands Act. We note your committee, sir, is in the process of developing a report on a national energy policy. The passage of this bill involves a matter which is an integral part of a national energy policy; that is whether to utilize the resources of the Outer Continental Shelf to add to the energy potential of the Nation.

It does not seem reasonable to us that such an action be taken prior to the conclusion of your study and the development of a considered national energy policy.

In this regard, sir, the representative of the American Petroleum Institute at your meeting Monday presented certain figures and his figures are better than mine, so I am changing my statement to say we have a record of 30 offshore incidents, some of which have resulted in oil spills, out of a total of approximately 14,000 wells, whereas my statement states 11,000. I have been corrected in that.

Now, the API statement referred to six incidents and these were major. We have listed 30, most of which did not result in actual oil on the shore, but we introduced the figure of 30, so I am standing on that to be sure there is no misunderstanding of the difference of figures.

Third, proponents of this legislation, we believe, assume facts not in evidence and that is that the oil industry has a bad safety record. Industry's record shows 30 offshore incidents, some of which have resulted in oil spills, out of a total of approximately 14,000 wells drilled in State submerged lands and the Outer Continental Shelf. Statistically, this shows a safety record of 99.73 percent.

In this regard, we offer the point of view that a distinction be made between the polluting effects on the environment of the daily pursuits of all people and industry and, on the other hand, the effect of accidental pollution, which is almost always caused by human error or beyond the control of reasonable people doing their best possible job.

In previous testimony before your committee, which I believe was in May 1970, we said we could never promise that there would be no accidents. We would like to point out that accidents will occur. The great transportation systems of our Nation—airplanes, trains, automobiles, subways—continue to operate because they are a necessity to our lives, even though unfortunately human error results in accidents.

The emphasis that all of the community places on this problem is the requirement of the highest degree of training in prevention but never

the elimination of the service. We feel we are in this category and we feel we have a high degree of responsibility to meet the highest requirements for safe, efficient operation. But we do not believe that the production of a vital commodity should be proscribed, as is contemplated in S. 1446.

Fourth, we have instituted training schools which simulate potential blowouts and train our personnel in the prevention of these blowouts.

Fifth, we have established an increased capability for containment and cleanup, not on paper but in the actual development of corporations and cooperatives that now cover the west coast of the United States with personnel and equipment.

Sixth, and certainly of no little importance as an incentive to the best possible operation, the industry is faced with harsh and compelling liabilities in the event of spills that could be harmful to the environment.

Lastly, we share the common concern as to the effect of our activities on the environment. We deplore any spill. We don't like spills. Many of the outlined points I have listed above will reduce the possibility of pollution. I have personally worked with oil industry personnel for almost 17 years and I know the real concern and the real effort that is going into the oil industry's efforts to meet its dual responsibilities—to produce oil for the Nation and to do it cleanly.

In our opinion the bill has two major defects. It violates the concept of multiple use and it eliminates any incentive for mineral exploration on the Outer Continental Shelf, any incentive for mineral exploration.

Other legislation before your committee, specifically, S. 2450, "The Public Lands Policy Act of 1971," and S. 921, "The Public Domain Lands Organic Act of 1971," both restate an existing and accepted definition of multiple use found in the Classification and Multiple Use Act. This definition provides for the management of the various surface and subsurface resources of the public lands so that they are utilized to best meet the present and future needs of the American people. Closing thousands of square miles of the Outer Continental Shelf to oil and gas exploration and development, as proposed in S. 1446, does not meet this test. Nor does the bill provide, as does S. 2450, that:

* * * incentives be furnished for the discovery and development of additional domestic sources of mineral supply, including offshore sources.

It appears to us that before action is taken on bills that would close Federal lands to oil and gas exploration and development, we must first develop a National Energy Policy. We are pleased that your committee is giving this matter very serious consideration.

So, we should now like to comment in some greater detail on some of these points.

In our opinion, enactment of S. 1446 would be in direct conflict with recommendations of the Public Lands Law Review Commission and with the basic intent of the Outer Continental Shelf Lands Act itself. The Public Land Law Review Commission, in its report "One-Third of the Nation's Land," stated that:

Our industrial dependency on the production of fuel and nonfuel minerals is more significant than the substantial monetary values they contribute. Many of the factors we take for granted in our standard of living would be impossible with-

out reliable and economic supplies of minerals. Likewise, our survival as a leading nation depends on our minerals supply. The close relation between minerals and our national security is too apparent to require detailed explanation.

Senator ALLOTT. I wonder if you can suspend for just a moment since I am the only member of the committee here.

(Recess.)

Senator ALLOTT. OK, Mr. Morrison.

Mr. MORRISON. The commission report continued by recommending that "Public Land mineral policy should encourage exploration, development, and production of minerals on the public lands" and that, "mineral exploration and development should have a preference over some or all other uses on much of our public lands."

In 1953, the report of the Committee on the Judiciary of the House of Representatives which accompanied the bill which became the Outer Continental Shelf Act explained the purpose of the bill and the necessity for the enactment of legislation enabling the Federal Government to lease for oil and gas operations the vast area of the Continental Shelf outside of State boundaries. The representatives of the Federal departments, the States, and the offshore operators were unanimously of the opinion, in which this committee agrees, that no law now exists whereby the Federal Government can lease those submerged lands, the development and operation of which are vital to our Nation's economy and security. It is, therefore, the duty of Congress to enact promptly a leasing policy for the purpose of encouraging the discovery and development of the oil potential of the Continental Shelf.

It was the intent of Congress in 1953 to encourage exploration for oil and gas on the Outer Continental Shelf and the leasing of those lands for that purpose. Today, it is the recommendation of the Public Land Law Review Commission that we continue to encourage exploration and development of oil and gas. Clearly, the enactment of S. 1446 is contrary to those two objectives.

Senator ALLOTT. May I call your attention to the fact the same principle which you have referred to in the reports of the Public Land Law Review Commission, which took 5 years and \$5 to \$6 million, I believe, is also contained in the Public Law 91-631, which identifies the measure of introducing, which says specifically that it shall be the policy of the Government. This was to foster and encourage the economic health, not only of the minerals industry, but also the petroleum and energy portion of it.

You will recall that the House of Representatives did include oil and gas in this, as well as other energy minerals, in this particular bill. So that we not only have the Outer Continental Shelf, we have the Public Land Law Review Commission. You have the policies, the Mineral Policy Act of 1970, all of which go to the same cause and effect.

Mr. MORRISON. Thank you, sir. Thank you for calling that to my attention.

On the domestic scene we have a growing demand for energy and a dwindling supply. Conservative forecasts of future U.S. mineral supply and demand projected to 1985 indicate that in 1975, U.S. demand will be 18.5 million barrels daily for petroleum liquids. Of this amount, 11.2 million barrels daily will be provided by domestic sources, 7.3

million barrels daily from foreign sources, and of this latter figure, more than half will be supplied from the Eastern Hemisphere, that is, the Middle East or North Africa.

In 1985, demand will be 26.4 million barrels daily but only 11.6 million of these will be supplied from domestic sources, while 14.8 million barrels daily will come from the foreign imports, of which 10.95 million will be from the Middle East and North Africa.

It is clear to us that we are headed toward an increased dependence upon politically unstable emerging nations for an ever-increasing portion of our energy needs. If one of our national goals is indeed to avoid overdependency on foreign supplies of all goods, including petroleum energy, then Federal policies should be adopted to stimulate exploration.

Such an action is indispensable if the United States is to forestall a further decline in its alarmingly low reserves and avert excessive dependence on foreign sources. The domestic resource potential exists and it is well worth an intensified exploratory effort. But this effort cannot be generated spontaneously. It must be stimulated by economic, political, and governmental policies that favorably influence and enhance incentives to private investment in exploration.

Legislation such as S. 1446 ignores our national needs and interests, and urges a short-term solution to a problem which may not exist. It prohibits private investment in the critical search for new domestic supplies of oil and gas. The Federal sanctuaries proposed in S. 1446 would prohibit exploration for and development of oil and gas and other minerals on the Outer Continental Shelf lands involved. We note there no seaward limits for the proposed sanctuaries, thus leading us to believe that the actual Outer Continental Shelf are to be withdrawn from leasing might well be greater than the 18,000 square mile figure mentioned earlier.

In section 5, the bill indicates that exploration of the Outer Continental Shelf may be continued despite the proposed creation of Federal sanctuaries. We have covered that in answer to your earlier question, sir.

I am certain you recognize that there would be little, if any, exploration in areas which could not be obtained subsequently for development by leasing. And finally, in section 4, we note an unusual delegation of Federal authority to the State. This section provides that at such time as the State of California eliminates an individual sanctuary by legislative action, the Federal sanctuary adjacent to it would automatically be lifted. In essence, this bill would give local populations what amounts to veto authority over the development and use of natural resources that belong to all the people.

Despite assertions to the contrary, California has not completely precluded oil and gas leasing and development by creating sanctuaries, since much of the coastline has not been included in sanctuaries. The coastline not included is the white area you see on that map.

Why then, at a time when there is greater need for more intensive offshore oil exploration and development, should any action be taken by the Federal Government to close Outer Continental Shelf lands, particularly those adjacent to a petroleum-short State such as California?

Oil production in California reached a peak of 380 million barrels per year in 1969, but declined rapidly to 347.2 million barrels in 1970. We are under the million barrel a day, about a 4-percent drop, and we expect a similar drop in 1971.

Production in the State now falls 82 million barrels per year short of meeting current demand, and district V is running 202 million barrels short per year. It had been hoped that the California Outer Continental Shelf would bring California's supply and demand picture back into balance and reduce the district V deficit. Certainly, the potential reserves are there.

In a report of July 1970, prepared for the Department of the Interior by the National Petroleum Council, the Council estimates undiscovered oil and gas equivalent in the offshore basin of southern California at 75 billion barrels, excluding the Santa Barbara Channel. I note the American Oil Institute testimony referring to this said if you can recover half of that, it would be a reasonable figure, so about 38 billion barrels will be recoverable.

The report also says that offshore basins on the California Outer Continental Shelf are foremost among the prospective Outer Continental Shelf areas in the Nation. Delays stemming from environmental and political considerations have thus far made access to these reserves impossible.

Support for S. 1446 gives the impression that California's sanctuaries were created to save the State's coastline from esthetic despoilment and oil pollution. The impression left is that the State erected a 3-mile wide barrier along its coastline to protect itself exclusively from ocean drilling operations. This is not quite the case. The development of offshore oil and gas deposits on State-owned tide and submerged lands has been going on since 1896 and has provided significant revenue to the State of California. Oil and gas leasing activities since 1955 alone have yielded in excess of \$709 million.

Currently, there are 178,744 acres of tide and submerged land which encompasses 135 State oil and gas leases along slightly less than 100 miles of southern California coastline. While the State does have a moratorium on new leasing and chooses to examine individually each new application to drill on existing leases, it is apparent that the State presumes future operations since they estimate additional future oil and gas income from the 135 existing leases at \$258 million, and an additional \$1 billion in bonuses from new offshore leasing of its lands.

In Orange, Los Angeles, Ventura, and Santa Barbara Counties, offshore oil operations on State lands accounted for total ad valorem tax revenues of \$17.7 million for fiscal year 1969-70, based on assessed valuations of \$188 million. These funds support county governmental programs. If the State should terminate offshore leasing and drilling operations, it would render these lands virtually worthless and local jurisdictions would have to replace this revenue from other sources.

The oil industry in California employs 172,000 people with an annual payroll of \$1,340,765,000. In 1968-69, 27,400 people were directly engaged in onshore and offshore oil and gas extraction and related activities in California's eight principal producing counties. Their annual salary was \$255.8 million. Unfortunately, this figure is down sharply to the present employment level of approximately 20,000 people. This drop in employment is directly related to the slowdown

in Outer Continental Shelf and State tide and submerged lands operations and contributes to California's present 7 percent level of unemployment.

We have been told that, on a conservative basis, between Ventura and the United States-Mexican border there are 10 areas aggregating 5 million Outer Continental Shelf acres which are of prime geologic interest. We are told this by our companies. Assuming that this acreage would be offered for lease in 500,000 acre amounts and that 70 to 71 Outer Continental Shelf tracts were sold in each sale, 5,390 new jobs would be created by each sale. Within this area is found the so-called far offshore, an area of major geological interest more than 150 miles from the California coast. Opening this area to leasing and development would be a major stimulus to new employment in San Diego, Orange, and Los Angeles Counties.

Far from erecting a barrier to offshore oil operations, the State of California takes pride in one of its major industries. This is best explained in the words of the State's Lieutenant Governor, the Honorable Ed Reinecke, who said on May 4 of this year:

This state very definitely considers the petroleum industry as one of its greatest assets and we have no intentions whatsoever of allowing administrative or legislative policy, to the extent that we can control it, to require or to force the oil industry to leave this state. . . . in spite of local public responses and tremendous media publicity I do not see oil drilling as the greatest environmental danger that the nation now faces.

It is clear to us, at least, that the State of California—the Nation's largest energy market—wants a viable oil industry, be it located on State submerged lands or on the federally controlled Outer Continental Shelf. We do not see how State and National energy needs can be met by closing 18,000 square miles of Outer Continental Shelf.

Arguments made for the legislation set out two major environmental objections to offshore drilling:

. . . The danger of oil spills and blowouts and the ugliness of the drilling platforms which are totally incompatible with the mountains, cliffs, beaches, surf and ocean of California's shore.

California, which pioneered ocean drilling in 1896, is now the scene of 20th century pioneer work involving the development and use of subsurface well completion techniques—particularly in deeper coastal waters.

Sir, this is an important point I would like to make. At no time would we be saying we could do something like ocean floor development. I want to call your attention to this following statement.

While the need for platforms cannot be eliminated in the near future, there will ultimately be a lessening of esthetic objections to ocean drilling along the California coast.

The pollution mentioned as a prime reason for enacting S. 1446 is, of course, the Santa Barbara well blowout and oil spill of 1969. This was a major oil spillage. It has long since been completely cleaned up. The minute residual seepage—less than five barrels a day—is substantially trapped by underwater tents. That comes from seeps opened up on the floor.

The channel is not now polluted with oil. Commercial and sport fishing were never seriously impaired and are enjoying normal prosperity. A long, objective look at the effects of the Santa Barbara spill was taken by the Allan Hancock Foundation of the University of Southern California. Their finding:

Damage to the biota was not widespread but was limited to several species and . . . the area is recovering.

I think, sir, you know this study was paid for by the Western Oil & Gas Association, and in many cases there has been criticism of that study on the grounds that the people who did it were bought by the Western Oil & Gas Association. We put up \$245,000 for the study. I personally was involved in every part of it.

I went to the University of Southern California and asked them to do the study, told them there were only two things I wanted. One, I didn't want to have anything to do with the study and anything to say as to how it should be done, and we didn't want any review of it prior to its publication.

This study was made by competent scientists without any interference of any kind by the oil industry. I know that is a true statement because I was the man involved and I think everybody should understand that.

In discussing pollution from oil production activities, one would, if he were to take some views at face value, be convinced that blowouts and other failures are a common every day occurrence. This is not the case, and calls for a review of the industry's safety record. As I noted earlier, over 14,000 wells have been drilled on Federal and State submerged lands along the gulf and Pacific coast. More than 99.7 percent were drilled without incident. The State of California noted in a 1970 report:

From 1957 through 1968, 682 wells were drilled on state offshore leases under state regulations and jurisdiction; other wells were slant-drilled into offshore lands from upland drill sites. In addition, 708 offshore core holes were drilled under state regulation and supervision, 465 of which were on what is now designated federal OCS lands. No significant oil spill resulted from the drilling of any of these wells.

Despite the fact that oil operations today are conducted with an absolute regard for safety and prevention of oil spillage, we cannot assure you that our oil spill prevention record will ever reach 100 percent. We are, however, proud of our drilling and production record, both offshore and onshore.

I would like to expand on the work that our industry is doing in training our personnel to recognize and control potential blowouts.

A well control training facility has been established as a joint interest venture by the seven major companies operating on the California Outer Continental Shelf. This facility, which is in Ventura County, provides training for both operator and contractor personnel in the proper well control technique using actual rig equipment to prevent a simulated potential blowout, using nitrogen in place of the gas that could cause a real blowout. The facility is open for use by all producers and contractors.

Training has been given to engineers from the California Division of Oil and Gas and an invitation has been extended to the U.S. Geological Survey to send their engineers through the course. Drillers and tool pushers from all drilling contractors as well as company rig supervisors are schooled twice each year for reemphasis.

Typical training consists of a classroom session followed by a visit to the facility for practice in controlling a simulated potential blowout. Each student is required to prevent the blowout on both

the hydraulically operated choke and the manually adjustable choke. The operation is similar to closing a rig blowout preventor and a choke manifold.

Those completing the course have had a realistic experience and leave with a sound understanding of what it takes to properly control a well during drilling operations. This school goes far toward reducing the possibility of human error.

I also discussed earlier our efforts in developing effective means of controlling and recovering oil spills when they occur. Two things are needed to achieve these goals: suitable and available equipment plus prompt response to a spill situation.

There have been some statements made over the past few days there is no ability to contain a cleanup, and this, sir, we believe is not true.

Acting on its own initiative, the west coast petroleum industry has created eight oil spill cleanup organizations whose operations blanket the entire coastline from the Mexican border on the south to the Cook Inlet in Alaska on the north. The member oil companies of these cleanup organizations are those who refine, produce, transport and market oil and gas products on or adjacent to the Pacific coast. Oil containment and recovery equipment of the member companies is augmented by that available from established oil cleanup contractors. In other words, there are some cases where the corporation may have its own equipment. There are other cases where that equipment is already available in the hands of the contractors and the organization makes sure that equipment is available when needed.

In addition, specialized equipment particularly for open sea containment and recovery is being developed by the individual cleanup organization. Each of these organizations has adopted an implementation plan for immediate action in case of an oil spill.

The cleanup organizations will assist a member company in cleaning up a spill, and in the cleanup of unidentified spills, or spills from non-member companies when the organizations are requested to act by the U.S. Coast Guard. I repeat, they will clean up any spill. If there is an unidentified spill, we just want the Coast Guard to ask us and we will do it.

Liaison between all of our cleanup organizations and the U.S. Coast Guard is excellent. There is a viable federal-industry effort directed to immediate response, containment and cleanup of oil spillage in our harbors and coastal waters along the Pacific coast.

Two of the best examples of our cleanup organizations are Clean Seas, Inc., covering the coastal area which includes the Santa Barbara Channel, and Clean Bay, Inc., which covers San Francisco Bay and the coastal area north and south of the Golden Gate.

Clean Seas, Inc., which is a Santa Barbara corporation, has established its own cleanup capability. They have completed construction of a 45-foot-by-17-foot skimming barge capable of working in the open ocean. The barge is the major component of a full containment and recovery system designed to operate in an open sea with 5- to 6-foot waves. They are also preparing to sea-test a new concept known as a bottom-tension boom. The State of California has praised the creation of Clean Seas, noting: "The companies that have gone together to form Clean Seas are on the right track and we are delighted to see this."

Clean Bay, Inc.—that is the San Francisco organization—performs a function similar to that of Clean Seas. Its equipment augments skimmers and booms already available from member companies. It has demonstrated within the last few weeks it can respond effectively to significant oil spillage and clean it up within a few days.

In August, the manager of Clean Bay, Inc., Mr. Smith here on my right, was loaned to the U.S. Navy and successfully directed their containment and cleanup operations following a 229,000-gallon fuel oil spill from a Navy tanker 30 miles offshore San Diego County during Navy refueling operations.

Our other cleanup organizations are located at Los Angeles-Long Beach, with a subgroup at San Diego, at Eureka, Calif., at Portland, Oreg., covering the harbor there and the coastline of Oregon, at Seattle, covering the Washington coast, and the entire Puget Sound area, and at Anchorage, Alaska, covering the Cook Inlet. A similar co-op is also operative in Honolulu. They have the capability, today, of containing and recovering any size of harbor or near-shore oil spill and are getting closer and closer to being capable of cleaning up or effectively minimizing any damage that might occur from an open ocean spill.

To sum up, sir, we oppose S. 1446 and its companion bills for the following reasons:

One, passage of the bill would shut off the Outer Continental Shelf along the Pacific coast of the United States. It would establish a precedent for shutting off the rest of the Outer Continental Shelf surrounding the United States. This would go a long way toward making the United States even more dependent upon foreign sources of oil.

Two, corollary to the first point, without some degree of self-sufficiency in oil, our national security will suffer. National security means not just oil for defense, but it means oil for energy to maintain a strong economy and maintain a reasonable standard of living for all of our people.

Three, a national energy policy should be adopted prior to consideration of S. 1446.

Four, our industry is deeply concerned with environmental problems. We have a good safety record—30 incidents out of 14,000 wells drilled in the Outer Continental Shelf—and we should not be proscribed from operating.

Five, the enactment of S. 1446 would be in direct conflict with recommendations of the Public Land Law Review Commission and with the basic intent of the Outer Continental Lands Act itself.

Six, we have set up a training school to teach proper well-control techniques.

Seven, we have established oil spill cleanup organizations along the entire coast—not just paper organizations, but real men and real equipment trained and ready to contain and recover any spilled oil.

In the light of the record and the light of the need, and in the light of our demonstrated concern, we believe S. 1446 should not be passed.

Thank you.

Senator Allott. Thank you, Mr. Morrison, for a very well-organized and detailed statement.

On page 4 you mention the establishment of training schools and new equipment for cleanup, and you have gone into that in a rather cursory way in your statement.

I wonder if it would be possible for you to provide for the record a little more detailed information on the actual operation of the school and what new equipment that you have for cleanup, equipment that obviously was not available at the time of the Santa Barbara spill?

I think all of us could use a little additional education in this respect, and then would you also provide the committee with the summary and data on the status of new blowout prevention equipment and other preventive equipment?

These two areas, there has been great progress in each of them in the past 3 years, and I think a little expansion of your very fine statement—I am not critical of your statement in any way with respect to its organization or anything of that sort, but I think a little expansion of these two areas, if you could produce those, would be of help to the committee.

Mr. MORRISON. We would be happy to do that, sir. For what period of time would you keep the record open?

Senator ALLOTT. Thirty days; would that be enough?

Mr. MORRISON. That would be fine, sir.

(The material referred is in the appendix.)

Senator ALLOTT. Now, you have with you Mr. Silcox, Mr. Ket-chum and Mr. Smith. Do you have any comments, any of you gentlemen?

Mr. MORRISON. I asked these gentlemen to be with me, Senator, in the event that some questions would be put to me. They are accompanying me today solely for the purpose of answering questions, if necessary.

Senator ALLOTT. Do they have any comments?

Mr. MORRISON. No.

Senator ALLOTT. I appreciate your fine statement. I think the basic elements of the questions involved in this are very apparent in yours and the other statements and that is a question of what happens to our total Continental Shelf in the United States and what happens to our energy requirements as far as future oil is concerned in the United States if we start on the policy of shutting out areas opposite any one State.

It was pointed out by, I believe, Senator Bellmon, very obviously, and I put the clipping in the record, that everybody wants to have hot water, they want to have air conditioning, and they want to have radios and TV and all of the rest of the things we ordinarily associate with the good life, all of which require energy, even sewage plants require energy, and they are what everybody wants, but to get it from somebody else.

One other thing, Mr. Morrison, that the staff has reminded me of, it might be of help to us if you can provide the committee for its files with a copy of the study that was made by the foundation at the university.

Mr. MORRISON. Yes, sir, we would be happy to do that, yes, sir.

(The study referred to is in the appendix.)

Senator ALLOTT. All right. Thank you very much, sir, and thank you, gentlemen, for coming this morning.

Mr. MORRISON. Thank you, Senator. We appreciate the opportunity for coming very, very much.

Senator ALLOTT. The next and last witness this morning will be Mr. Ronald H. Casper, supervisor of Orange County.

STATEMENT OF RONALD H. CASPER, SUPERVISOR, ORANGE COUNTY, CALIF.

Mr. CASPER. Thank you, Senator.

Senator ALLOTT. Is the supervisor of Orange County sort of a county manager?

Mr. CASPER. We have five supervisors in the county. I happen to be new in the business, having left the savings and loan and banking industry, which I was born and raised in trying to enter into government, trying to make this a fair place to live for all our citizens.

Senator ALLOTT. I am glad you are here, representing another esthetically beautiful State. Hopefully, if we are all successful in the public transportation that I know you are undertaking, there won't be as much a need for petroleum.

Mr. CASPER. I feel a physical responsibility being here representing one and a half million Orange Countians, Now, to protect this we are asking and supporting Senator Cranston's bill, to have a matching preserve beyond the 3-mile range.

I have not been working on this for 17 years like Mr. Morrison, and I don't represent any corporations or stockholders or barrels. Instead, I do represent one and a half million people.

I have a particular strong feeling about this issue, having been raised on the beaches of southern California for 40 years, and starting in a baby crib at the Carpenter Rio, which is south of Santa Barbara. When I go back to Carpenter Rio, I see the wells that have cropped up across the beach.

I don't happen to like billboards and flashing neon signs. However, my personal interest about what we are talking about here, our county government feels the pulse of our local citizens and our policies go something like that, that the general scenic quality of California's coastline is a major environmental asset to the Nation.

Senator ALLOTT. Are you following a statement?

Mr. CASPER. No, I am not, sir.

Senator ALLOTT. I have here in my hand a preservation of an environmental heritage, through the enactment of the San Diego and Orange County Marine Sanctuary Act

Mr. CASPER. That is correct. That is my official statement.

Senator ALLOTT. All right. The official statement will be inserted in the record in full.

(The statement and other material by Mr. Casper is in the appendix.)

Senator ALLOTT. If you can proceed to comment on it, I would appreciate any time you can save in doing this, although I don't want to foreclose you in any way. It is our policy to give each side 5 minutes and call it quits.

Mr. CASPER. We also believe as to this natural asset that every level of government has a responsibility to maintain that quality. I only happen to be here addressing myself to 1447, which is the Orange County-San Diego coastline, representing some 81 miles.

You say, why is this unique? We think it is unique because in Orange County alone we had 15 million user-days last year, and it is expected that will reach 20 million by 1980. Granted, this is not barrels, but it is people enjoying a day on the coastline.

Along these lines the State of California did establish the preserve in 1965 and has protected our particular area since that time. Only last week the State of California issued a 123-page report about the preservation and recreation plan of the California coastline and it is supported by Governor Reagan and the State administration, where they identify the needs to establish and acquire historic environmental and recreational assets to the coast of somewhat in excess of \$1 million.

It is not my understanding—maybe I am wrong—that the Federal Government has been urging stronger local leadership in local government. So, what are we doing locally—last week the State consummated a purchase of another 1,500 feet of available beach, in the Capistrano-San Clemente area.

Our own Orange County just recently consummated the purchase of 1 mile in the south Laguna area at a cost of two and a half million, which is a lot of money for a local government to come up with.

The city of Laguna spent a lot of money to purchase their main beach. Only last week I called together State and local officials, the airline company, the largest landowner in our county, who owns the last 300 miles of the beach, and we came out of the meeting with the philosophical agreement that the company will guarantee the public elements, that is the parks and beaches of this stretch.

The county has established the beach recreation development over the entire coastline of our county, which prohibits unsightly construction or poorly placed high rise or overhead utilities. These are some of the things we are doing locally and I realize the conflict here is between resources, oil as a resource versus recreation.

I can see the quantity that the department has, and I certainly don't want to criticize them because they are working with me in my wildlife division excellently.

We believe the prime interest of the public here is esthetic and recreational. Therefore, what we are asking for is your cooperation. We are not trying to usurp any authority, just your cooperation and support in protecting this national resource from oil spills.

We have a saying out our way, because of the smog, on a clear day you can see Catalina, and we don't want to look at it through these platforms, and by the time the industry perfects its drilling beneath the surface, although it is a very long period, I wonder how many volcanoes have erupted in the last 100 years.

I don't think anybody in their right mind would want to see an oil rig on the ski slopes.

Senator ALLOTT. Did you ever stop to think that the installation of the ski slope itself is a violation of a natural environment?

Mr. CASPER. I am aware of the arguments of the Sierra Club and the ski slope. Skiing is a very popular sport so there has to be compatibility in the meeting ground and so we are not trying to take a hard line and ban all oil drilling in the United States, or up and down the coast.

We feel this area is very unique, due to its high recreation use. Thank you.

Senator ALLOTT. I would like to make a remark or two.

No. 1, I don't think that the question here is whether or not California's beaches are beautiful or shoreline is beautiful. Nobody can

question this. I am acquainted with the San Diego area and a good portion of the California coastline. I don't think that is the question here at all.

I don't think the value of it as a recreational area is the question. There can be no doubt of that value. The real basic question before this committee which it has to face is an emergency energy crisis, which is upon us today.

Your own preceding witness, Mr. Morrison, pointed out the shortage of oil in California alone. District V happens to also embrace my State.

I see a man shaking his head back there. What district are we in? Four. We are in four. We have shortages. We are hard pressed to find oil in our area to just run our relatively small number of refineries. Yet, wouldn't you agree that if the position you have taken is logical as it seems to you, is pursued and enacted, than that it is just as logical for Oregon and Washington and Texas and Louisiana and Mississippi and Alabama and Georgia and Florida and North and South Carolina, and all of the States clear up to Maine to take exactly the same position?

Mr. CASPER. No. I believe it must be taken on a case basis. Use Wakiki Beach as a prime example. I don't believe oil should be drilled off there. There is a difference. I realize it opens a Pandora's box for your organization to listen to every group to tell their story.

Senator ALLOTT. I would agree that there are some areas that are more desirable, but when you get this element of State pride—for example, you would have a hard time convincing a Texan that he was not entitled to exactly the same privileges with respect to limitations as are contained in the chief bill, the one that covers S.1447, covers all of the six areas in California. You would have a hard time convincing a Texan that that coastline of his, even though you don't think so, is just as beautiful as yours, and therefore, the same proscription against leasing should obtain in Texas as it does in California.

If we go clear around the whole boundaries of the United States, how do we ever develop offshore leasing and how do we meet the energy crisis? We have 25 percent of the oil now in the country being imported and it will be, according to recent estimates, somewhere around 75 to 80 percent by the latter time of the century, provided we can depend upon people like the Near East and other places to sell in a constant supply at a price commensurate with what we are willing to pay. This is the one thing that bothers me.

I say the question is not environmental. Environmental and recreational value is self evident. No one can quarrel with that. The question is if we enact this bill, are not we obliged as a matter of policy to treat every other State exactly alike, and then where do we develop our oil in the continental United States?

Mr. CASPER. I think we can't be categorically for or against either, and as Senator Cranston stated, people in certain areas have chosen to have oil drilling. The State of California is presently deluged with coastal shoreline legislation. The one that has passed is the bill which creates five zones.

One zone would be lesser populated and have less recreational use. In the north and south we have the heavy beach use and I think this is the proper approach.

Perhaps the whole Nation should be invited into coastal zones.

Senator ALLOTT. Who would divide it?

Mr. CASPER. The Department of Interior, probably. This is the national level and put some local representation on it and Federal representations on it.

Senator ALLOTT. I am not trying to argue with you, Mr. Casper, you know that. I am simply trying to underscore some of the problems that this whole thing, that this committee has to deal with.

Mr. CASPER. The resource will still be there. It is not going away. I know it takes a startup time, and in an emergency offshore drilling looks like a pretty good target. In the event of a conflict off our coast, I think those wells would go rapidly as targets.

Senator ALLOTT. Thank you very much, Mr. Casper. We are happy to have your thoughts.

Mr. Sampson?

Mr. SAMPSON. Mr. Chairman, you referred to Mr. Morrison earlier in the statement when you said I made a statement.

Senator ALLOTT. Did I refer to you? I was referring to Mr. Morrison. I am sure our reporter will make that correction. They cover a lot of our errors. If there are no other witnesses, this committee will be adjourned, subject to further call of the Chair.

(Whereupon, at 12:10 p.m., the hearing was adjourned, subject to the call of the Chair.)

APPENDIX

(Under authority previously granted, the following statements and communications were ordered printed:)

LOS ANGELES AREA CHAMBER OF COMMERCE,
Los Angeles, Calif., October 29, 1971.

HON. FRANK EDWARD MOSS,
*Chairman, Subcommittee on Minerals, Materials and Fuels,
Senate Office Building,
Washington, D.C.*

Re S. 1446 (California Marine Sanctuary Act of 1971).

DEAR SENATOR MOSS: Enclosed is a statement of the Los Angeles Area Chamber of Commerce registering opposition to S. 1446 and related bills. We have included in the statement our reasons for the opposition and expressed the genuine wish that your committee will assist in the formulation of a National Energy Policy which will include a review of energy demands as well as an intelligent concern for the environment.

We would appreciate this statement being included in the record of the committee proceedings.

Sincerely,

PHILIP F. WALSH, *President.*

CALIFORNIA GAS PRODUCERS ASSOCIATION,
Los Angeles, Calif., November 16, 1971.

Re California Marine Sanctuary Act, Senate bill No. 1446.

Senator FRANK E. MOSS,
Chairman, Senate Interior Subcommittee, U.S. Capitol, Washington, D.C.

MY DEAR SENATOR MOSS: I am writing to you on behalf of the California Gas Producers Association to express the Association's opposition to the California Marine Sanctuary Act of 1971 now before your Subcommittee (S.B. No. 1446).

Today, as a result of the Sierra Club's determined opposition to offshore drilling for oil and gas in the Ventura Channel, the people of southern California will soon be paying over \$13 million a year in additional costs for their electric utility service. As recently as three years ago, it was estimated that up to 120,000 Mcf per day of natural gas supplies would be available next year from Federal offshore sources outside of the 3-mile limit in the Santa Barbara Channel area. Today, the estimates have been cut in half, with a loss of nearly 60,000 Mcf per day from this source. Two years from now, in 1974, the loss of this gas supply will be doubled, with only 60,000 Mcf per day expected from this source, instead of 180,000 Mcf per day previously estimated.

The impact of this loss of natural gas supply—largely as a result of action by the Sierra Club and other "conservationists"—is immediate and direct on the "ghetto resident" and someone having to "scratch" for a living. Natural gas from this offshore source can be purchased at 27¢-35¢ per Mcf, delivered onshore in southern California. The alternative to this loss, however, is the purchase of low-sulphur residual fuel oil, principally from Indonesian sources. Delivered in Los Angeles to the Los Angeles Department of Water and Power, recent supplies of such low-sulphur fuel oil secured by competitive bid have been 75¢-79¢ per Mcf, or about twice the cost of the available supplies of natural gas after taking delivery costs into account. Thus, a loss of 60,000 Mcf per day of natural gas from Santa Barbara offshore sources, at an additional cost of over 40¢ per Mcf means an additional cost of about \$25,000 a day, or over \$9 million a year. This loss will double within about two years, to a loss of close to \$20 million a year—based upon present prices and delivery volumes.

This is, actually, only part of the story. At the present time, in addition to Federal offshore sources of gas outside of the 3-mile limit, southern California has relied upon supplies of natural gas to be produced from California State offshore lands, within the 3-mile limit. While the "shortfall" from the elimination of additional oil and gas drilling from this source is about half that from Federal offshore sources there is another next-year added cost of nearly \$5 million, rising to about \$10 million within two more years.

Thus, the Sierra Club's action will cost the southern California user of electricity over \$13 million next year, and more than twice that, or over \$25 million, within the next two years' time.

In order to make up this loss, large scale increased tanker deliveries of Indonesian residual fuel have had to be made into the Los Angeles area—with oil spill risks certainly no less, and perhaps greater, than those which might result from Ventura Channel offshore drilling operations.

This lack of available low-cost oil and gas supplies in southern California has meant a shift of industry to Texas, where Texas and Louisiana State and Federal offshore areas are being developed. In addition, at the same time, the United States faces the loss of well over \$25 million in its foreign trade balance just because the Sierra Club, and others, refuse to let California's own available supply of oil and gas be produced.

Yours very truly,

HENRY F. LIPPITT, 2ND.,
Executive Secretary.

UNIVERSITY OF SOUTHERN CALIFORNIA—CAMPUS MEMO

To: Mr. Duniway & Mr. Linsky
From: Dr. Dale Straughan
Date: January 18, 1971.
Subject: News Release of January 15, 1971.

I have just been acquainted with the preface added by the News Bureau to a paper summarizing some of the biological research carried out on the oil pollution grant.

I feel that this preference has misled the news media in the following ways:

1. The paper was available in Rome on December 9, and discussed on December 14. By putting a release date of January 19, the press has assumed that this is a new release—not a paper a month old which they had overlooked.
2. By your reference to "summary" in the introductory paragraph, the press is led to believe that this covers the work of the entire program, instead of less than 50%.

While I still believe than any scientific paper is public property after it has been presented, I feel that the handling of this has been both poor and misleading.

UNIVERSITY OF SOUTHERN CALIFORNIA

MEMO TO EDITORS

Because a premature story on USC's research into the effects of the Santa Barbara Oil Spill has been published in a limited-circulation professional magazine, the attached summary is being distributed at this time.

The final published report of the work of Dr. Dale Straughan and her associates, a 900-page, two-volume work, will probably not be off the press before late January or early February.

All further inquiries should be made through the office of Ronald B. Linsky, Co-ordinator of Advisory Services, Office of the Sea Grant Programs at USC. Phone 746-6164.

BIOLOGICAL EFFECTS OF OIL POLLUTION IN THE SANTA BARBARA CHANNEL

(By Dr. Dale Straughan)

1. INTRODUCTION

Santa Barbara Channel runs in an east-west direction approximately 34°N on the west coast of the United States of America (Fig. 1). It lies near the northern extreme of the northward flowing currents from the equator and the southern extreme of the southward flowing cold coastal currents. As a result there is a mixture of northern and southern floral and faunal components in the Santa Barbara Channel. However, Point Conception at the northern end of the Santa Barbara Channel is usually regarded as the break between the northern and southern faunas.

The mainland shores are sheltered by the islands from the direct forces of the Pacific Ocean. However, the sandy beaches have a somewhat seasonal cycle of cut and fill—very little sand being present during the winter months with a build-up of beaches during the summer. The area is one of low rainfall—most of which originates from winter storms.

Probably the most unusual characteristic of the area is the presence of natural oil seeps (Fig. 1). These have been recorded from the area for over 200 years (Ventura and Wintz, 1970). While the actual age of these seeps is unknown, La Brea Tar Pits in the Los Angeles area contain Pleistocene fossils. Merz (1959) studied the deposition and chemical composition of tar on southern California beaches. Coal Oil Point had the highest rate of tar deposition. On a given day, a maximum of 1,520 ozs. per 500 sq. ft. was collected. The average amount of tarry material deposited per day per 500 sq. ft. was 344 ozs. 69% of the beaches examined contained either no tar or just a trace.

Emery (1960, p. 321, fig. 244) plotted the positions of known offshore oil seeps and tar mounds in the Santa Barbara Channel. Scott (1969, p. 22) updated this work. Notable among the new records was a seep in the vicinity of Platform A.¹ This was recorded while the platform was being installed but had ceased activity prior to the commencement of drilling. Emery (1960) also recorded inactive tar mounds off Carpinteria. Divers from Ocean Systems, Inc., in Santa Barbara reported that these tar mounds were seeping oil during April 1969 (personal communication, W. Stephens). When this activity commenced and when, or if, it ceased is unknown.

One of the problems of plotting the position of natural seeps and calculating the volume of oil they produce is caused by their variable activity. Allen (1969) reported an average loss of 50 to 70 barrels of oil a day for October, 1969 from Coal Oil Point. Maximum and minimum figures of 160 and 11 barrels per day respectively, are indicative of the variable nature of seepage.

Drilling began on the A-21 well, the fifth well drilled from Platform A, on January 14, 1969. At mid-morning on January 28, mud began to flow from the drill pipe while it was being removed from the hole preparatory to running electric logs and later setting production casing. The events which followed are detailed in a Battelle-Northwest Report (1969). Briefly stated, the blowout which occurred on January 28 was not stopped until 11 days later. However, seepage was continuous and by February 12, had increased to the extent that an oil slick formed 30 to 150 feet wide and 2 miles long. After February 23 the seepage continued at rates estimated up to 50 barrels per day (1 barrel=42 gallons oil). Seepage rates by April 1970 still varied up to 10 barrels per day.

¹ Fixed drilling Platform A is located approximately 9 km south of Santa Barbara, on Federal Lease Parcel No. 402. While the lease is jointly owned by Union Oil, Gulf Oil Corporation, Mobile Oil Corporation, and Texaco, well A-21 is operated by Union Oil.

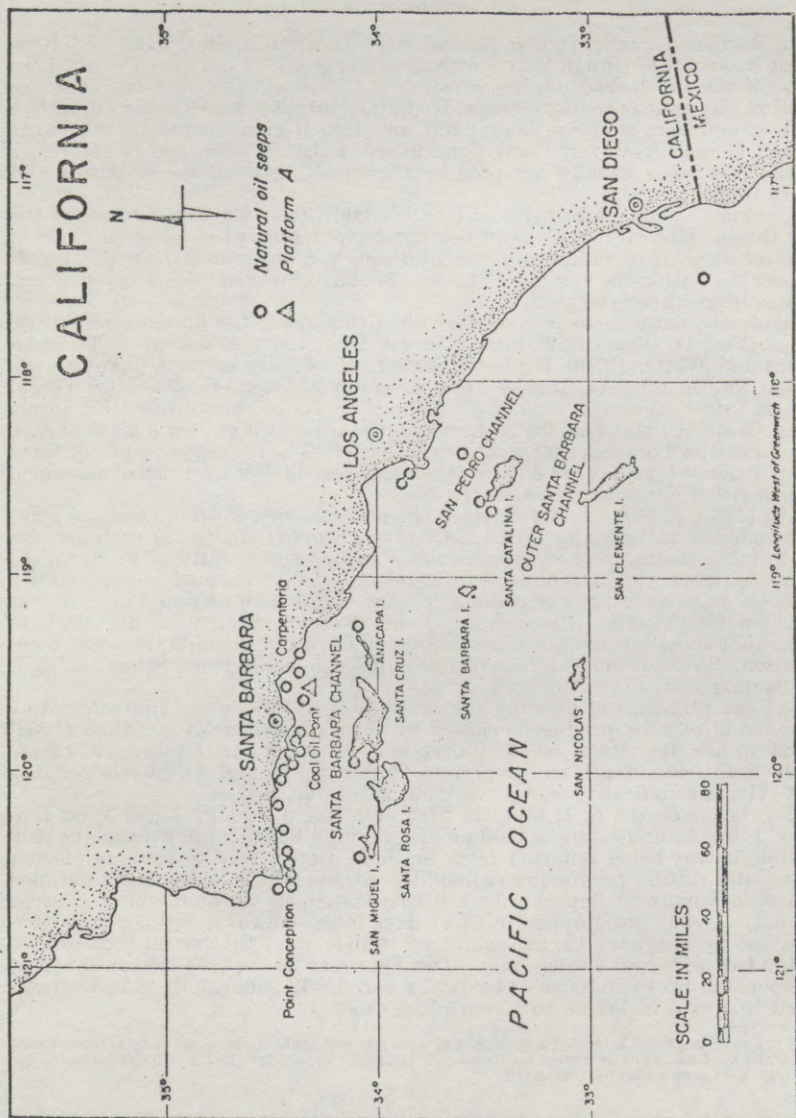


Fig. 1 Map of Southern California showing the position of natural oil seeps

Estimates on the amount of oil spilled varied. Alan A. Allen of General Research Corporation computed that 8 1/3 million litres (2.2 million gallons) of crude petroleum poured into the Santa Barbara Channel during the first 10 days and that spillage during the spills first year was 12 1/2 million litres (3.3 million gallons). This estimate of spill during the first 10 days is ten times that of estimates made by Union Oil. Estes and Golomb (1970) state that in May 1970, both Allen and Union Oil Company agree that current flow rates averaged about 30 barrels per day. The extreme diversity of the estimates tends to accentuate the difficulties of calculating accurately the size of an oil spill from an uncontrolled source.

After the spill, oil accumulated at sea under the influence of the prevailing north-northwest winds. A storm commencing on February 4 and continuing through February 7 shifted the winds from a south-easterly direction to the west. Thus, on the night of February 4, large quantities of oil entered Santa Barbara Harbor and heavy pollution of the mainland beaches began. As far as is known, no beaches on the mainland shores of the Santa Barbara Channel were completely unaffected by oil. Anacapa Island, the eastern end of Santa Cruz Island and the western tip of San Miguel Island received some oil. Doses of oil on the mainland beaches varied—oil was washed on and off beaches by the tide. In some cases it was buried by sand. This meant that contamination varied almost continuously and it was impossible to determine accurately the amount of oil that any one area received.

Booms were used in an attempt to control the spread of the oil. Some of these broke up while the others even when intact proved ineffective in the heavy sea. Mooring the booms was also difficult.

Methods used to abate pollution were many and varied. Some rocky shore areas were sandblasted to remove the oil while others were steam cleaned. Straw was the most widely used sorbant—it can absorb from five to forty times its own weight in oil. "Limited" use was made of dispersants at sea. Correx 7664, Polycomplex A-11, and Ara Chem were the most abundantly used dispersants. A total of 1367 drums (1 drum—55 gallons) of dispersant were used outside the one mile limit to the end of February 1970. On February 4, 1969, 20 drums of Polycomplex A-11 were used to mitigate the fire hazard inside the Santa Barbara Harbor and an equal volume of Corexit 7664 was used in the vicinity of the Sterns Wharf and undersea Garden Aquarium. By and large, however, these particular dispersants were ineffective in the cleanup operations (Gaines, 1970).

In December, 1969, a second spill occurred on Platform A. On December 15, a small leak was found on the collection pipeline from the hoods at Platform A. This was reported. Next day there was still oil in the water and a drop in shipping line pressure. Platforms A and B were shut down to repair the shipping line leak. The spill estimate was 400 barrels. The repair was completed on December 19. On December 20, production resumed. Seepage from the sand increased due to pressure buildup but no estimate of this loss is available (personal communication, H. Morrison).

Unusually heavy winter rains in January and February 1969 caused flooding in southern California. Peak flooding occurred on January 25 and February 25, 1969. This resulted in lowered salinities in inshore waters. Minimum salinity of 15.26‰ was recorded at the Ventura Marina by the Scripps Institute of Oceanography. In January and February 1968, salinities recorded at the Ventura Marina did not drop below 30‰ while in January–February 1967 there is only one record (23.73‰) below 30‰. There was also an increased rate of sedimentation in the Channel. In sections of the eastern end of the Santa Barbara Channel where the normal annual sedimentation is 0.5 cm, up to 20 cm of sediment were deposited after the winter rains. This sediment is subsequently being reworked and redistributed in the Channel.

The storm rains also occurred soon after the citrus orchards had been sprayed with pesticides. As large numbers of oranges were washed onto Channel shores, it is possible that there was an increase in pesticide concentration during this period.

There is a marked lack of background data on marine flora and fauna prior to Santa Barbara Spill. This fact, combined with the increased fresh water runoff, possible increase in pesticide levels and the increased sedimentation in the area mentioned above, make it extremely difficult to isolate the biological effects of the spill from damage from other causes. In an attempt to clarify the situation, however, the results of work undertaken on different components of the ecosystem will be considered separately and then summarized collectively.

2. PLANKTONIC INVESTIGATIONS

A 12 month study of the zooplankton in the upper 5 metres in the eastern end of the Santa Barbara Channel failed to reveal any effects of oil pollution. Peak productivity occurred in January 1970 and the minimum in productivity occurred in September 1969 (See McGinnis, 1970). The chosen indicator species *Labidocera trispinosa* were breeding; blooms of two species; *Doliolum denticulatum* and *Penelia avirostris* were recorded. A survey by the U.S. Bureau of Commercial Fisheries February 11, 1969 revealed no significant deviation from the expected kinds and abundance of fish eggs and larvae in the area (U.S. Bureau of Commercial Fisheries, 1969). Similarly the phytoplankton study has not revealed any immediate effects of oil pollution but the productivity pattern parallels that of the nutrient pattern (see Oguri, 1970; Kolpack, 1970).

3. BENTHIC INVESTIGATIONS

Background data for this study was obtained from an examination of the shelf areas of the Santa Barbara region between 1956 and 1959. In the ten years to May 1969, there was a decrease in biomass in the area. The volume of biomass and its distribution did not change significantly between May and October 1969. The major part of the earlier decrease in biomass was due to a decrease in the dominant species in the area, an echuroid worm, *Listriolobus peliodes*. Fauchald (1970) suggests that this decrease in population may be associated with oil exploration and drilling in the Channel. The areas of population decrease, however, are also associated with a fault line and an area of suspected increase in oil seepage over recent years.

4. INTERTIDAL INVESTIGATIONS

A survey of sandy beaches over a twelve month period following the oil spill failed to pinpoint any damage due to oil pollution. Fewer species and fewer animals were recorded during winter than summer. In fact, in January 1970, only one specimen was recorded on Carpinteria Beach. However, it must also be remembered that there was very little sand on the beaches in the winter. A further important fact is that some of the samples were collected during the January rain. As might be expected, a few animals were found in these samples (Trask, 1970).

Anderson, North *et al* (1969) surveyed intertidal and subtidal stations on the mainland and Channel Islands between February 14 and 19, 1969. They reported that the vast majority of organisms appeared healthy and that moribund and/or dead creatures were so rare that they could be described individually.

Nicholson and Cimberg (1970) resurveyed rocky shores within and to the south of the Santa Barbara Channel that had been surveyed by Dawson between 1956 and 1959, as did Neushal and students in 1967 and Widdowson and students in 1968 and 1969. They reported an overall decrease in number and abundance of algal species. This decrease was not associated with oil pollution but generally with increased human activity on some beaches and increased amounts of chronic pollution of other than oil. The California Department of Fish and Game reported that the marine grass *Phyllospadix* spp. and the algae *Hesperophycus harveyanus* were killed in some areas when exposed to heavy oil pollution. These areas had almost recovered by August 1969. It should be pointed out that *Phyllospadix* is abundant on rocky shores exposed to natural seepage and therefore appears tolerant of continuous exposure to small amounts of oil.

Chthamalus fissus in the upper intertidal areas was smothered by a thick layer of oil in some areas while *Balanus glandula*, a larger barnacle, was able to project above the oil (Nicholson and Cimberg, 1970). Straughan (1970a) was unable to detect any effects in breeding in either of these species. *B. glandula* settled on oil from the January 1969 spill prior to March 18, 1969 but *C. fissus* was not recorded settling on oil from the January 1969 spill until the fall of 1969. Although Straughan (1970a) was unable to find any effects on breeding in barnacle species in the upper intertidal, she found that breeding in *Pollicipes polymerus*, a stalked barnacle found in lower intertidal areas, was reduced (1) by pollution from the January 1969 oil spill, (2) in areas of natural seepage, and (3) at localities south of the Santa Barbara Channel. These latter localities are nearing the southern extremes of the distribution. *Pollicipes polymerus* larvae, which normally settles on the stalks of adults, did not settle on moderately or heavily oiled stalks. It was recorded on lightly oiled stalks but it was impossible to determine if these stalks were oiled before or after larval settlement.

5. FISHERIES ANALYSIS

California Department of Fish and Game (1969) surveyed the Santa Barbara Channel to assess the effect of oil contamination on pelagic school fishes. These surveys were identical with routine sea surveys conducted by the Department since 1965 which were designed to determine the abundance and distribution of the important pelagic species. They reported that all fish appeared healthy and were unable to find any indications of impairment in the food chains or damage to the fish populations.

The Commercial landings of fishery products were lower in each month for the period February-July 1969 than in the years 1965-68 in Santa Barbara Harbor. The greatest decline in landings occurred during February when the Santa Barbara Harbor was closed at times because of the spill. Comparison of the total commercial fish catch from the Santa Barbara Channel and Channel Islands for these six months in 1969 (2,337,931 pounds) with the same six months in 1968 (2,124,820 pounds) shows no decrease in catch for the area. On a monthly basis there was a decrease in catch for February and March 1969 when compared with previous years. Fish spotting data, apart from February 1969 when it was difficult to see because of the oil, does not indicate a decline in the major species of fish in the Channel (Straughan, 1970b).

BIRD SURVEYS

In the period February to March 1969, the living bird population in the Santa Barbara Channel was 12,000. In the next two months, due to seasonal migration, the population rose to 85,000. The estimated mortality from all causes, including oiling, was between 3,500 and 4,000 birds (California Department of Fish and Game, 1969).

At the time of writing, data as to the species composition is available for only 432 birds. Of these 253 were grebes and loons. The majority of birds killed were those which lead a pelagic existence. The most abundant species in the area, the gulls and terns, did not suffer the highest mortality (Straughan, 1970c). The relative immunity of such birds is in line with findings elsewhere (Bourne, 1968).

7. MAMMALIAN SURVEYS

Grey whales migrated northwards through and to the west of the Santa Barbara Channel following the January 1969 oil spill. These animals do not feed when migrating (Brownell, 1970). Grey whale strandings were not significantly higher in California than in the preceding nine years. In an autopsy on one dead animal, Federal Government Agencies were unable to find any trace of oil (Brownell, 1970).

A small area of the seal colony on San Miguel Island was contaminated by oil about March 17, 1969. This was after the elephant seal pups had stopped suckling their mothers. Although many of these animals were completely covered with oil, data from recapture of tagged oiled and unoled seals twelve months later—indicated no increase in mortality in the oiled animals (Le Boeuf, 1970).

California Sea Lions gave birth to pups after the area received oil March, 1969. Data available do not indicate whether mortality rate was affected by the presence of oil.

8. DISCUSSION

The data presented would suggest that there was very little mortality in the Santa Barbara Channel due to the direct toxic effects of the spilled oil. This is perhaps not as surprising as might appear at first sight. The most toxic components of crude oil are the lighter, volatile fractions. These evaporate rapidly when exposed to the elements so that oil which has been floating on the sea for several days becomes relatively innocuous. It is true that the volatile components are also the most soluble in water but again, at sea, traces of dissolved oil become rapidly diluted and lost in the body of the ocean. The relative insolubility of oil in general is well known and is clearly illustrated, for example, by the work of Kolpack (1970) who studied the properties of water in natural seep areas.

The marked lack of toxicity of crude oil in open sea conditions contrasts vividly with the effects of spills of refined products on or very close to shore. In such instances these volatile oils do not have a chance to dissipate by evaporation and dilution prior to reaching the environment of the marine life of the area. Blumer (1969) reports on the high mortality following such a spill.

Plankton might be expected to be affected by crude oil at sea whilst it is still in its toxic condition. That plankton did not appear to be affected by the Santa

Barbara spill is probably accounted for by the fact that oil, influenced by wind as well as currents, moves at a different rate than plankton. The later would be unlikely, therefore, to be exposed to oil for long periods.

Chthamalus fissus was the only marine species badly affected by the oil spill and, in this case, mortality was due to smothering by oil rather than any toxic effects. *Balanus glandula*, which was able to protrude through the oil layer, was not so badly affected.

It is also possible that organisms living in the Santa Barbara Channel that have been continually exposed to small doses of oil over long periods, have a higher tolerance to oil than organisms never exposed to oil. Areas such as Coal Oil Point which are continually receiving oil from natural seeps at sea have abundant intertidal flora and fauna. Fewer species are found in oil seep than non-oil seep areas but these species are more abundant so that intertidal areas are well populated.

Data on *Pollicipes polymerus* suggests that while individuals of these species can survive in the presence of oil their reproductive capacity may be impaired. Considering the entire range of this particular species (Alaska to northern Mexico), only very small populations of the entire species are exposed to oil pollution, and, in such a situation, while isolated populations may suffer periodically as a result of oil pollution, the species as a whole is not endangered. The situation may be different for a species with a more limited distribution.

While the freshwater flooding probably placed intertidal species under stress by lowering the salinity, it may also have prevented some of the oil from reaching the shore. The increased amount of sediment in the water may have had the effect of a sinking agent on the oil. Geologists are at present investigating the latter.

Following the oil spill many people were disturbed because "nothing moved on the sandy beaches." Trask's data indicates that during the winter months sandy beach populations are very low. The fact that Trask collected fewer animals in the rain would suggest that the rains in January, February 1969 may have contributed to, if not caused, the low sandy beach populations.

While the commercial fishery landings at Santa Barbara were low during the six months following the January 1969 spill, much of this can be attributed to the reluctance of fishermen to work in oily waters. The overall fish catch from the Santa Barbara Channel for the same period was similar to that recorded in 1968. This indicates that the fish populations were probably not affected by the oil spill. Similarly, there is no evidence to suggest increased mortality in marine mammal populations in the area. As with the "Torrey Canyon" disaster (Bourne, 1968), high mortality was recorded among pelagic species of birds. These spend most of their time swimming and diving thus increasing their contamination by oil. It is important to deal with oil as soon as possible at sea to minimize damage to these species. Such action would also incidentally reduce beach pollution and make easier the task of returning the coastline to a clean condition.

The main finding of this study of the effects of oil pollution on marine life in the Santa Barbara Channel is thus that only *C. fissus* and pelagic birds were badly affected by the oil. This is not to say, of course, that other species were not affected to some degree. It is difficult however to isolate minor effects in such a study, particularly when detailed background information for the period immediately preceding the spill is not available for comparison.

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STATEMENT BY DR. DALE STRAUGHAN FOR SUBCOMMITTEE ON MINERALS AND FUELS OF THE SENATE OF THE UNITED STATES

My name is Dale Straughan. I am an assistant professor at the University of Southern California. I am a marine biologist with experience in the field of marine oil pollution dating back to the early 1960s. In the United States I have worked on problems of oil pollution sponsored by both Government and Industry. This included the Western Oil and Gas study following the Santa Barbara oil spill, laboratory and field studies on the effects of Santa Barbara crude oil on survival and larval settlement of intertidal invertebrates sponsored by Sea Grant, and the temperature effects of Santa Barbara crude oil in the upper intertidal zone sponsored by the Environmental Protection Agency. The government grants are ongoing projects.

I also have experience in the establishment of marine preserves being instrumental in the establishment of the only marine preserve on the east coast of Central America. This is to protect the only known area of coral reef on the Caribbean shores of Coats Rica.

Section 2 of the bill S1466 sets forth very commendable objectives. However from a biological aspect, the bills seem unwarranted and could actually cause, more harm than good. I also doubt that these Federal buffer zones would provide protection for the State areas where petroleum drilling and exploration is already prohibited. Let me tell you why.

First of all, to date offshore drilling in Federal waters at these depths causes minimal change in the environment. In fact, there is some evidence that drilling structures are beneficial in that they act as artificial reefs and increase species

diversity and abundance in an area. This appears the case in the Gulf of Mexico. Recent work on artificial reefs in Hawaii (1) and California (2) also support the contention that artificial reefs increase the diversity and abundance of species in an area. This, combined with operations which adhere to regulations for the disposal of production brines and the piping of sewage and other wastes to the shoreline, does not constitute a biological danger to the area.

Here, I think I should comment that man cannot exist without changing his environment. This is a fact which I think is not accepted by the public at large. Also, in the public eye, "damage to the environment" is frequently in the eye of the beholder with little or no biological basis in the area.

The current fear is of oil spills. First I should point out that most oil spills occur as a result of shipping mishaps rather than from exploration of production mishaps (3). By preventing exploration and production in the area, one could actually increase the chances of an oil spill by inadvertently increasing the shipment of oil through the area. It should be pointed out that environmental damage is greater after spills of many types of refined products than after spills of crude such as Santa Barbara crude oil. (e.g. "Florida" spill (4)).

What happens if there is an oil spill during exploration or production? After the Santa Barbara oil spill, high mortalities were recorded in some species of birds and some intertidal organisms. *Balanus glandula*, an intertidal barnacle, commenced to settle on hard oil within seven weeks of the oil spill (5). Recovery of the area had commenced!

What are the long term sublethal effects? These can best be gauged by examining areas in the Santa Barbara Channel where natural seepage is occurring. These intertidal and subtidal areas support numerous species.

The movement of floating oil at sea is governed by wind and surface currents. In general, most currents run parallel with the California coast. This means that oil spilled further along the coast from both Federal and State reserves could be washed into these areas. In fact, oil is probably more likely to be washed into a State reserve from a spill further up and/or down the coast, than a spill in the seaward side of the reserve.

To sum up I do not think establishment of the preserves is warranted biologically for the following reasons:

1. Well managed operations need not have a detrimental effect on the environment.
2. The Federal reserves would probably not protect the State reserves from most oil spills.
3. Research, including our own at the Hancock Foundation, points to recovery of areas after a spill of crude oil. Spills of refined oils shipped through an area appear to have more lasting effects.

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WESTERN OIL AND GAS ASSOCIATION,
Los Angeles, Calif., November 30, 1971.

Hon. FRANK E. MOSS,
Chairman, Senate Interior and Insular Affairs Subcommittee on Minerals, Materials and Fuels, Senate Office Building, Washington, D.C.

DEAR SENATOR MOSS: At the conclusion of my testimony on the above bills Senator Gordon Allott, who was presiding at the time, asked me to submit additional information on the actual operation of our industry's "Well Control School" (which was referred to in my statement) and to provide any information available on new oil spill containment and cleanup equipment not available at the time of the Santa Barbara spill.

In accordance with that request the following information is enclosed. Please note that all enclosures are also being sent to Senator Allott with a copy of this letter. I request that this material be added to the hearing record which is being held open until December 4.

(1) Descriptive material covering sea-test of the "Clean Seas Skimmer" and the "bottom-tension boom system." Clean Seas Incorporated is one of eight oil spill cleanup organizations formed by the West Coast petroleum industry. These organizations blanket the West Coast, including Cook Inlet, Alaska and the Port of Honolulu. All of these organizations have been formed since the 1969 oil spill. Clean Seas Incorporated, within whose jurisdiction lies the Santa Barbara Channel, has conducted an aggressive research and development program, the aim of which is to perfect an open-ocean skimming vessel which can physically remove spilled oil from the open ocean in advanced sea states. The material provided is self-explanatory and current as of November 15, 1971. The bottom-tension boom system is also designed for use in the open ocean. Tests indicate that this equipment is the first boom system capable of withstanding open-ocean stresses. It will be used in conjunction with the Clean Seas Skimmer to direct oil to the skimming vessel using currents and wind to drive the oil to the pickup point while preventing its spread in a lateral direction.

(2) There is provided a brief description of sub-surface well control devices including "storm chokes", sub-surface safety valves-back pressure control, and sub-surface safety valve-surface control. Descriptive engineering drawings covering each type of control device are also enclosed.

(3) A descriptive text accompanied by diagrams and illustrations covering the industry's well control training facility here on the West Coast is enclosed. This is a specific response to Senator Allott's request for more information about the school [materials contained in committee files].

(4) Following the 1969 Santa Barbara Channel oil spill, an unrestricted grant of \$220,000 was made by Western Oil and Gas Association to the Allan Hancock Foundation, University of Southern California, for the conduct of a study concerning the biological effects of oil pollution in the Santa Barbara Channel. The study was completed earlier this year and a two-volume report issued. Enclosed is a summary of the study prepared by Dr. Dale Straughan, who headed the effort and the two volumes of the final report.

(5) At the request of Senator Allott, a statement from Dr. Dale Straughan on S. 1446-52 for the hearing record is enclosed.

If there is additional information we can provide, please advise us. Thank you for this opportunity to supplement our November 4 statement on S. 1446-52.

Very truly yours,

HARRY MORRISON,
Vice President and General Manager.

SUBSURFACE "STORM CHOKES"

LA HABRA, CALIF., July 13, 1970.

"Storm chokes" are designed to be sensitive to the velocity, hence volume, of oil, gas, or oil-gas mixtures flowing through them. "Storm chokes" are installed inside the tubing near the bottom of the well. Normal method of installation is by wireline means.

The "storm choke" is a normally open valve, held open by spring (A). It is fitted with an orifice (B) which is sized for the desired volume of fluid to be produced. When a volume of fluid in excess of the desired volume attempts to flow through the "storm choke", the pressure drop across this orifice results in an upward force being generated on valve (C) which exceeds the force being exerted by the spring, closing the "storm choke" and sealing the well at seat (D). Well pressure then builds up below the "storm choke" maintaining the valve in the closed position. The well will remain shut in until that time at which the well is re-entered and the "storm choke" is intentionally opened.

If, as in the Calco fire, damage occurs to the wellhead which causes fluid to flow at some lesser rate than the maximum design rate of the "storm choke", the "storm choke" will not close and fluid will continually flow from the well.

If the wellhead is completely severed allowing the flow rate to increase above the flow rate, the "storm choke" will close, shutting in the well.

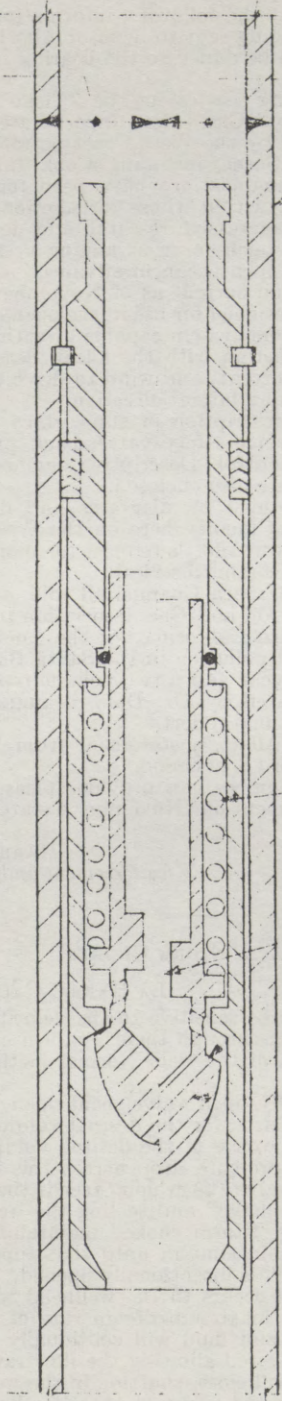
NOTE: "Storm choke" is a patented name of the Otis Engineering Corp. All subsurface valves in wells are not necessarily "storm chokes".

W. H. SILCOX.

STORM CHOKE
CLOSED

STORM CHOKE
OPEN

TUBING



A

B

C

D

SUBSURFACE
STORM CHOKE
ELECTRICALLY
CONTROLLED

SUBSURFACE SAFETY VALVE, BACK PRESSURE CONTROLLED

LA HABRA, CALIF., *July 13, 1970.*

Subsurface safety valves, back pressure controlled, are installed in the well tubing by wireline means approximately 90' below the ocean floor or ground level in case of wells completed on dry land.

These valves are normally closed and are held in the closed position by spring (A). Well pressure enters chamber (B) through port (C) and as long as this pressure is maintained above some preset minimum value, this pressure forces sliding sleeve (D) downward, overcoming the force exerted by the spring, holding ball valve (E) in the open position.

If damage occurs at the wellhead or in the pipeline taking oil away from the well, a drop in tubing pressure will result. This drop in tubing pressure will reduce the pressure in the chamber, allowing the spring to move the sliding sleeve upward which in turn will rotate the ball valve to the closed position.

After the tubing to the wellhead or pipeline has been repaired, the ball valve can once again be reopened simply by building up pressure back through the pipeline and well tubing to pressure the well once again forcing the sliding sleeve downward opening the ball valve.

Safety valves of this type are used in the subsea completed wells off the coast of California.

W. H. SILCOX.

SUBSURFACE SAFETY VALVE, SURFACE CONTROLLED

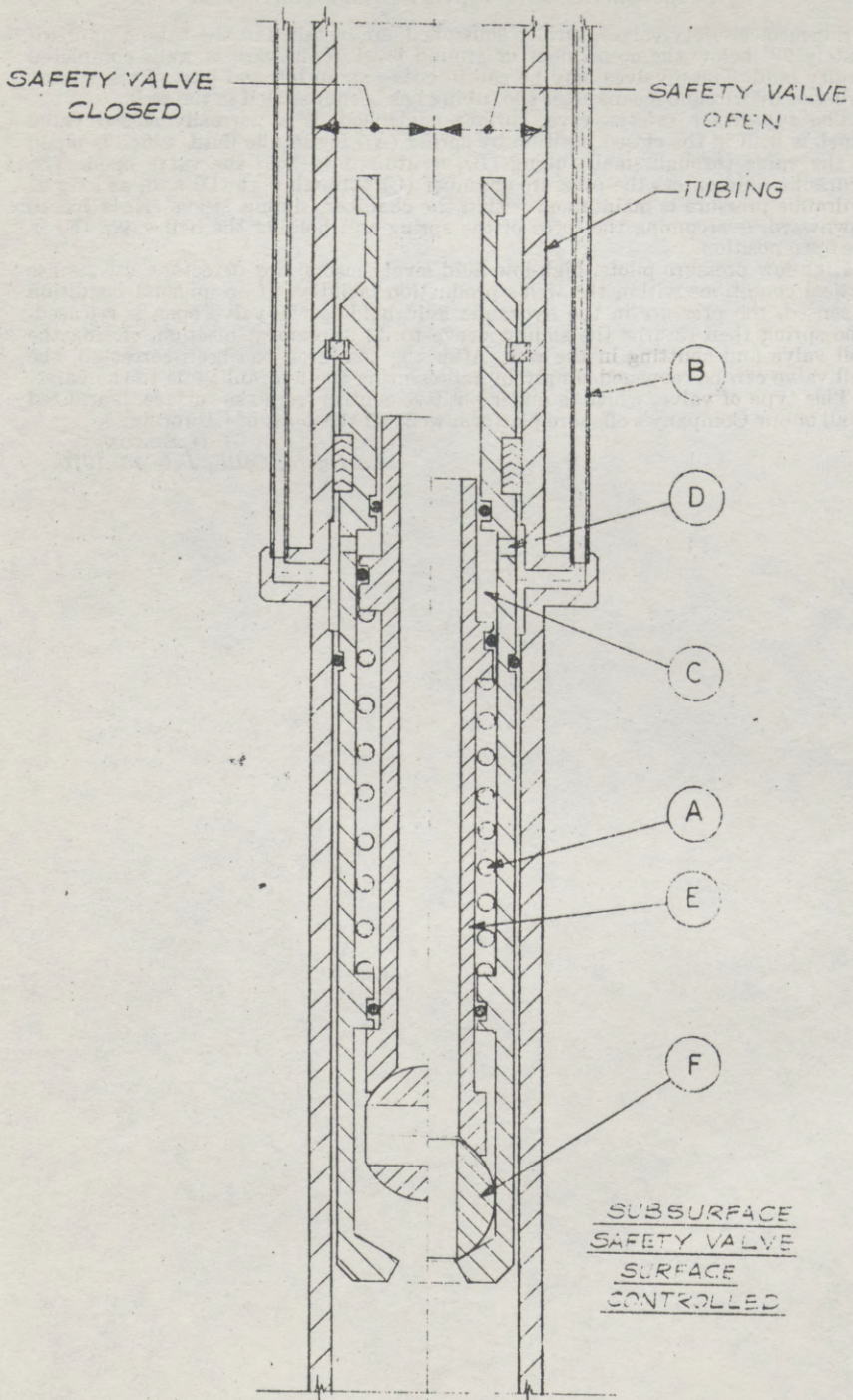
Subsurface safety valves, surface controlled, are installed in the tubing approximately 90' below the ocean floor or ground level in the case of wells completed on dry land. These valves may be run in either as an integral part of the tubing string or by wireline means after the tubing has been installed in the well.

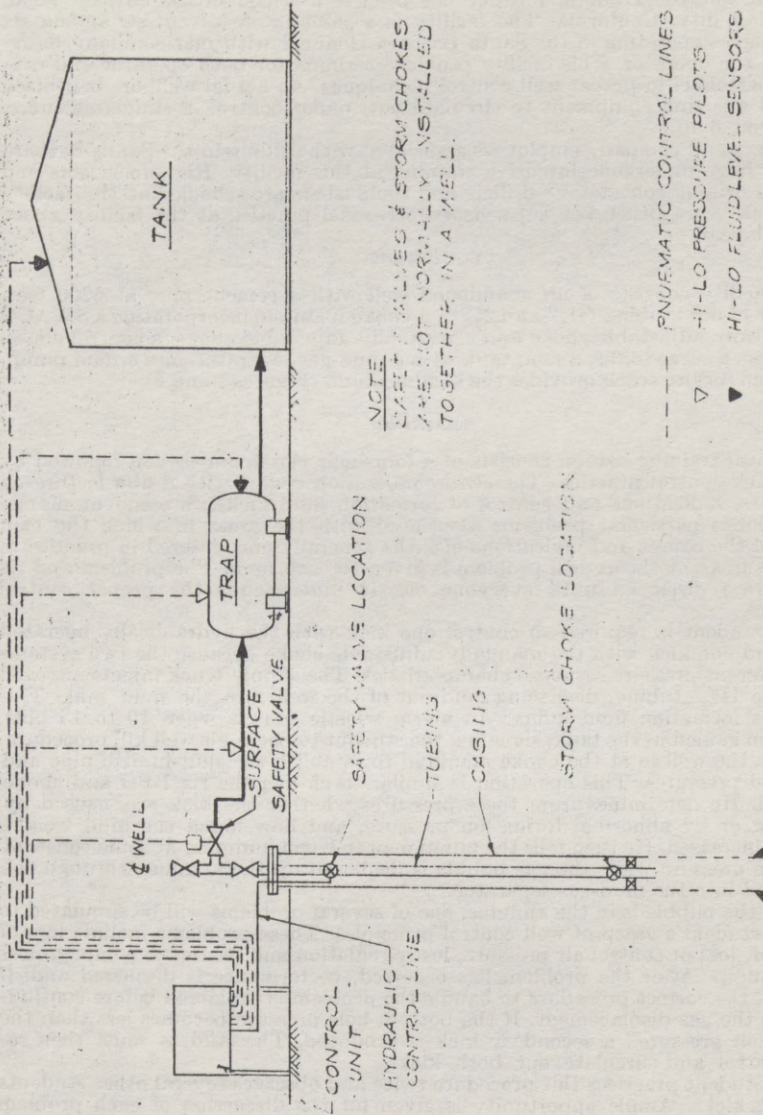
The subsurface safety valve, surface controlled, is a normally closed valve which is held in the closed position by spring (A). Hydraulic fluid, which is piped to the valve through small tubing (B), is utilized to hold the valve open. The hydraulic fluid enters the pressure chamber (C) through port (D) and, as long as hydraulic pressure is maintained within the chamber, sliding sleeve (E) is forced downward, overcoming the force of the spring and holding the ball valve (F) in the open position.

High-low pressure pilots, high-low fluid level sensors, fire detectors, etc., sense critical conditions within the well's production facilities. If an unusual condition is sensed, the pressure in the hydraulic fluid holding the valve open is released. The spring then returns the sliding sleeve to its uppermost position, closing the ball valve and shutting in the well. After the condition has been corrected, the ball valve can be reopened simply by repressuring the hydraulic line to the valve.

This type of valve, which is under positive control from the surface, is utilized in all of our Company's offshore platform wells off the coast of California.

W. H. SILCOX,
La Habra, Calif., July 13, 1970.





NOTE
 SAFETY VALVES & STORM CHOKES
 ARE NOT NORMALLY INSTALLED
 TOGETHER IN A WELL.

- PNEUMATIC CONTROL LINES
- ▽ HI-LO PRESSURE PILOTS
- ▼ HI-LO FLUID LEVEL SENSOR

SURFACE SAFETY CONTROL SYSTEM

WESTERN OIL AND GAS ASSOCIATION,
Los Angeles, Calif.
WELL CONTROL TRAINING

A Well Control Training Facility has been established in the Saticoy Field, Ventura County, California. The facility is a joint interest venture among six oil companies operating in the Santa Barbara Channel with one company designated as the operator. This facility provides training for both operator and contractor personnel in proper well control techniques. An actual wellbore is utilized with full size ring equipment to circulate out, under control, a simulated influx of reservoir fluid.

Contract and company employees associated with drilling in the Santa Barbara Channel have undergone intensive training at this facility. Rig supervisors and all of the drilling contractor's drillers and toolpushers are schooled at the facility twice each year. Other key supervisory personnel practice at the facility about once each year.

EQUIPMENT

The facility consists of an abandoned well with a cement plug at 6200 feet, 6000 feet of dual tubing (1¼" and 2⅞"), a choke manifold incorporating a SWACO hydraulically adjustable choke and a manually adjustable choke, a control house, two nitrogen surge tanks, a mud tank with a mud-gas separator, and a mud pump. A nitrogen service truck provides the kick medium. (Figures 1 and 2)

TRAINING

A typical training session consists of a four-hour classroom session followed by actual kick control practice. The classroom session begins with a film lecture on the causes, indications and control of formation fluid kicks. Subsequent discussion includes particular problems associated with the areas in which the men drill and the causes and indications of kicks generally encountered in practice in different areas. A theoretical problem is given to each man. The problem and its answers are discussed until everyone clearly understands the proper control procedure.

Each student is required to control one kick with the hydraulically operated choke and one kick with the manually adjustable choke because the two systems have different pressure response characteristics. The supply truck injects nitrogen down the 1¼" tubing, displacing mud out of the well into the mud tank. This simulates formation fluid influx. An alarm whistle sounds when 10 to 15 bbls. have been gained in the tank, signaling the student to begin his well kill procedure. He shuts the well in at the choke manifold to establish the shut-in drill pipe and well head pressures. This operation is similar to closing the rig BPO and choke manifold. He determines from these pressures whether the kick was caused by swabbing or by abnormal formation pressure, and how much the mud weight must be increased. He then tells the pump man to begin pumping at some constant drill pipe pressure while the gas bubble is displaced up the annulus, through the choke and into the mud-gas separator.

While the bubble is in the annulus, one of several problems will be simulated to test the student's grasp of well control principles. These problems include loss of rig power, loss of control air pressure, lost circulation and partial or complete loss of the pump. After the problem has occurred, performance is discussed and, if required, the correct procedure to handle the problem is explained before continuing with the gas displacement. If the bottom hole pressure becomes less than the "formation pressure" a secondary kick is produced. The student must then regain control and circulate out both kicks.

Each student practices this procedure twice and observes several other students handling kicks. Ample opportunity is given for the discussion of each problem that arises during the day and the correct procedure to correct time.

SCHEMATIC OF THE SURFACE EQUIPMENT
TO INJECT & DISPLACE A NITROGEN KICK UNDER CONTROL

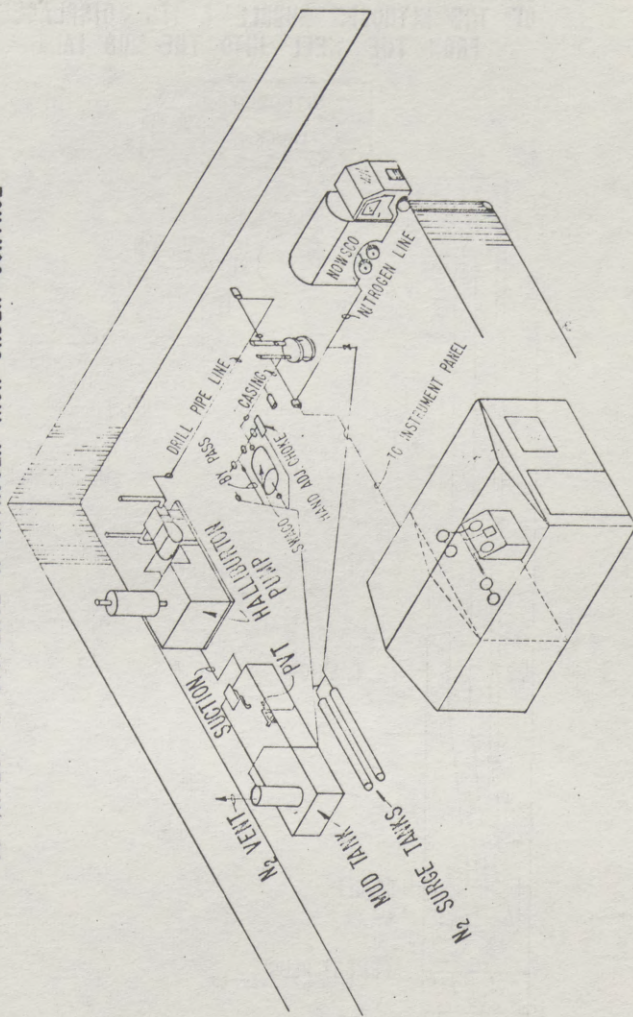


Figure 1

SCHEMATIC OF EQUIPMENT SHOWING THE INJECTION
OF THE NITROGEN BUDDLE & ITS DISPLACEMENT
FROM THE WELL INTO THE MUD TANK

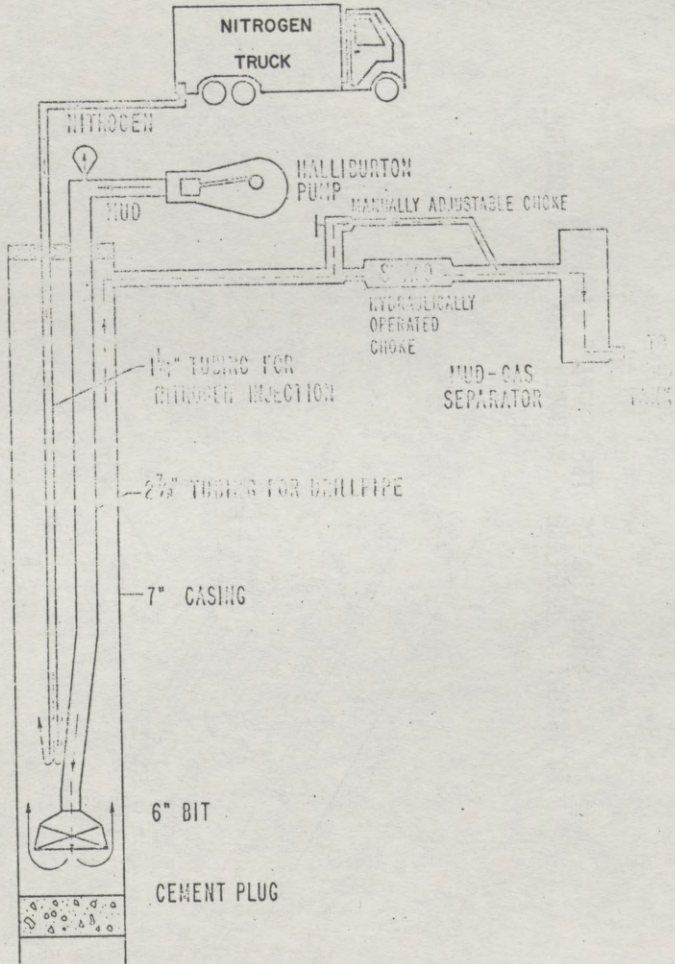
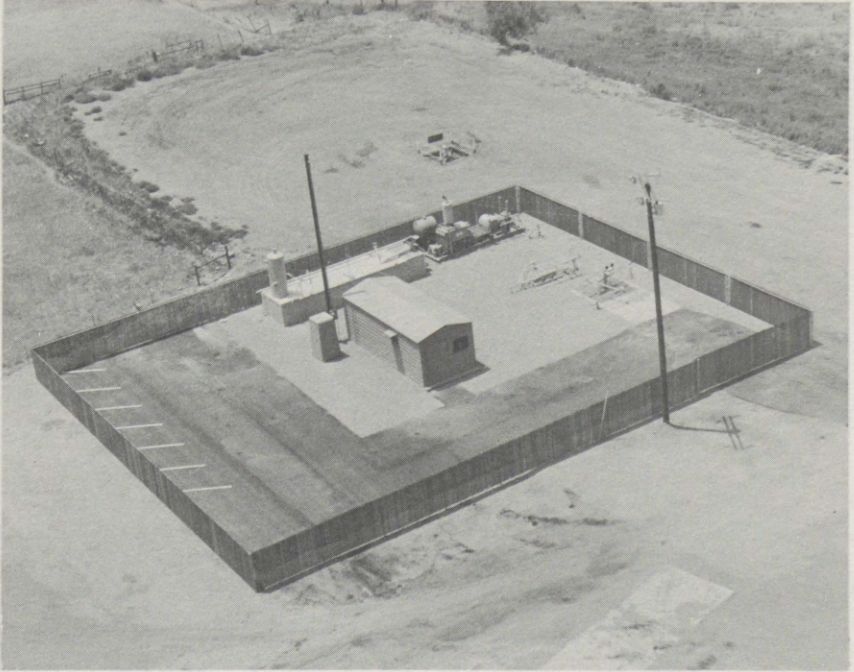
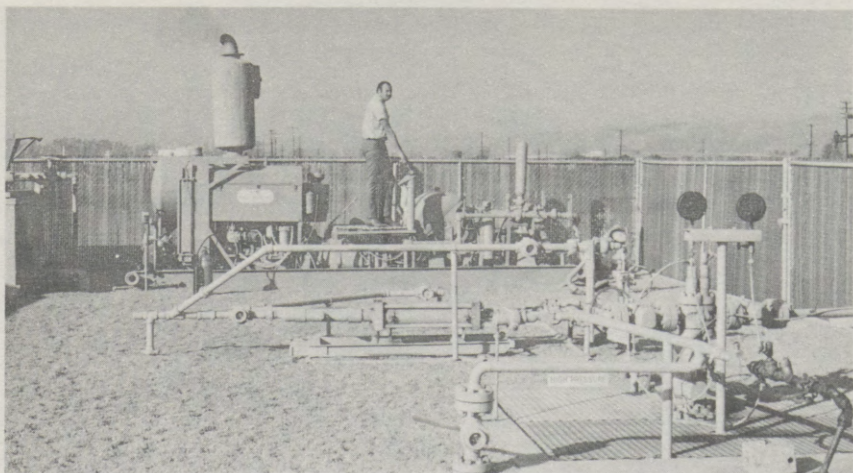


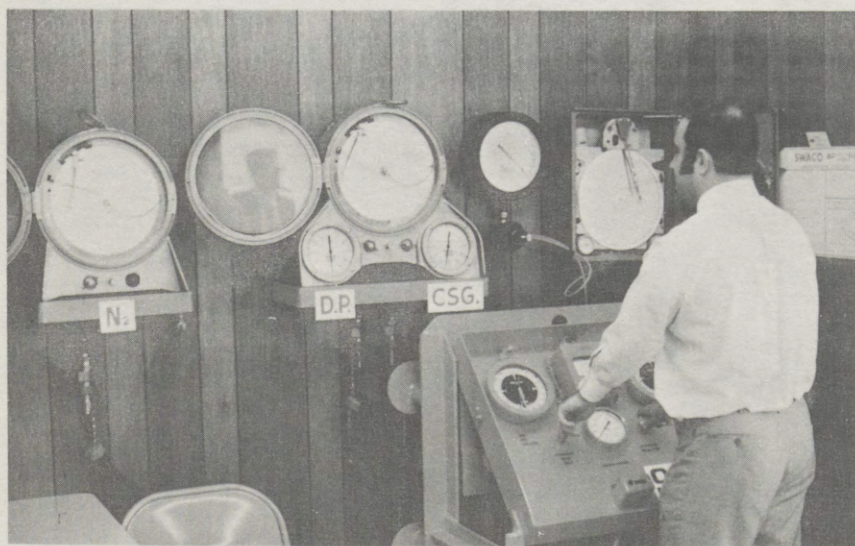
Figure 2



AERIAL VIEW — WELL CONTROL TRAINING FACILITY



WELL CONTROL TRAINING FACILITY
(PRACTICE WELL, CHOKE MANIFOLD & MUD PUMP)



WELL CONTROL INSTRUMENT PANEL

PRESERVATION OF AN ENVIRONMENTAL HERITAGE THROUGH THE ENACTMENT
OF THE SAN DIEGO AND ORANGE COUNTY MARINE SANCTUARY ACT

INTRODUCTION

This testimony was presented in November, 1971, by Supervisor Ronald W. Caspers from the 5th District of Orange County, California, before United States Senate and United States House of Representatives Committees in Washington, D.C. The purpose of the testimony is to urge the passage of the "San Diego and Orange County Marine Sanctuary Act." This proposed federal legislation is known as S-1447 in the Senate, and H.R.-8867 in the House of Representatives.

This legislation, if enacted, would prohibit granting of leases by the Federal government for the exploration or extraction of oil, gas, or other minerals on Federal tidelands from the northerly city limits of Newport Beach, south to the Mexican border. This legislation is supported by the County of Orange, the cities of Laguna Beach and Newport Beach, and the Coastal Area Protective League.

TESTIMONY

Orange County has, for the past decade, been the fastest-growing metropolitan area in the nation, in terms of population growth. From a 1960 population of 688,922, the County has grown to a population of 1,500,000. One of the assets attracting this influx, as well as the millions of tourists who visit the area, has been the scenic coastline with its sandy swimming beaches.

The State of California, the County of Orange, and the Coastal cities of the County have made concerted efforts to acquire beaches for the public. This effort has been fruitful, as the public ownership of the 42-mile Orange County coastline has increased from 12.5 miles in 1941 to 23.3 miles today. The current status of shoreline ownership is illustrated in Exhibit No. 1. This exhibit includes the fact that the County of Orange has just entered into a purchase agreement to acquire an additional 5,000 feet of beach in South Laguna at a cost of \$2.6 million, and the State of California has also just acquired 1,500 feet in Capistrano Beach at a cost of \$1.6 million. In the City of San Diego, public ownership of the shoreline is at an admirably high level. Of the city's 20.5 miles of shoreline, only 2.6 miles are not publicly owned.

In the areas of the unincorporated Orange County Coast where private ownership of the shoreline exists, the Orange County Ordinance known as the Beach Conservation and Recreation District (BCRD) is applied to insure public access to the state tidelands below the mean high tide line. The BCRD requires developers to provide public access to these tidelands every 1,000 feet, and assures that no developer will erect any structure which prohibits public access.

It is this aggressive acquisition, development, and public access activity by Orange County, its coastal cities, the State of California, and the Federal Government that is preserving and enhancing the shoreline for the benefit of all the citizens of the County. The fact that public beaches in Orange County were visited by 14.6 million users in 1969 is testimony to the importance of the shoreline. The State of California Parks Department projects an expansion to 19.5 million annual users by 1980.

It is imperative that all levels of government take the necessary measures to protect the nation's shoreline and tidelands from visual and physical pollution. The public is demanding this action, and nowhere is this need more critical than the shoreline of Orange and San Diego Counties. In recognition of this, the State of California, in 1955, established an oil drilling sanctuary along the Orange County and San Diego County shoreline. This sanctuary encompassed all State tide and submerged lands to the 3-mile limit along the coast of the Pacific Ocean, south of the northerly limits of the City of Newport Beach in Orange County, to the southerly boundary of the State, and was established through the Shell-Cunningham Act. Likewise, the County of Orange and the cities adjacent to this sanctuary adopted oil codes and zoning ordinances prohibiting oil production on the uplands along this coastline.

Through the State-enacted Shell-Cunningham Act, excerpts of which are attached as Exhibit 2, and the cooperative action of Orange County and its coastal cities, not a single oil well has been drilled within this area since 1958. This is particularly significant because the Shell-Cunningham Act allows the State of California Lands Commission to authorize oil or gas exploration on the State-owned tide and submerged lands, if the oil or gas is threatened due to drainage from wells sunk on adjacent lands. *If Federal leases were permitted offshore of the State-owned tide and submerged lands which cause drainage within this State*

sanctuary area, under present conditions, the State Lands Commission could protect its lands by granting leases thereon. Thus, it could result that without the enactment of the "San Diego and Orange County Marine Sanctuary Act", this entire coastal scenic and recreational resource could be impaired and its environment ruined. This would mean that one of the most unique areas in the United States, planned and protected for human habitation, could be destroyed.

The regional and national significance of the Orange and San Diego County coastlines that would be protected by the passage of S-1447 cannot be over-emphasized. The millions of people that annually enjoy the Mediterranean and recreational aspects of the shoreline come, not only from Orange or San Diego Counties, but from throughout the State of California, and, in fact, throughout the nation.

The concern for the shoreline is the mutual concern of local, State, and Federal governments, as well as the citizens of our nation. Indeed, the Orange County coastal cities of Newport Beach and Laguna Beach have joined with the County of Orange and the Coastal Area Protective League to support passage of S-1447. The Coastal Area Protective League is a long-standing civic group, interested in the protection and beautification of our coastline on a long-term basis, not a newly-formed emotional environmental group.

To illustrate what we are talking about when we urge protection of the Orange and San Diego County Shoreline, let's take a verbal trip down the coastline affected by this bill.

1. We start at the mouth of the Santa Ana River, also the northerly boundary of the City of Newport Beach. We go south along some of the most beautiful and heavily-used public beaches in the United States. This stretch of beach was used by more than eight million people in the 1970-1971 fiscal year.

2. Next is the entrance to Newport Harbor, a beautiful and world-famous small craft harbor. This harbor is the home of over 9,000 small craft, a large portion of the 33,664 non-commercial boats in Orange County, with market value of close to \$100,000,000.

3. South of the Harbor Entrance is Corona del Mar State Beach, a fine swimming beach with scenic cliffs, topped by residential areas. Through locally sponsored State Legislation, the southerly portion of this beach is a protected Marine Life Refuge.

A Marine Life Refuge is an area of the coast, usually encompassing several tide pool areas, protected by State Legislation. The Legislation prohibits the taking or disturbing of marine animals and plant life, as well as the natural rocks and soil itself. The establishment of these refuges along the Orange County coast has seen the beginning of restoration of endangered species in our tidal pools.

4. Next is a basically natural stretch of privately-owned coastline, leading approximately 3 miles to the City of Laguna Beach. This area is in the planning process by the landowner, and State, County, and local officials are negotiating with the landowner to assure that any development will provide for public utilization and access of the beach areas. We are pleased to report that the landowner is in complete agreement with this philosophy, and public use of this area seems assured. At present, this area does receive some public recreational use, and it, too, is protected by Marine Life Refuge designation.

The City of Laguna Beach, a world-famous art colony and resort city, is next. The sandy beaches, rocky prominences with tidepools and marine life, and residential areas with ocean views are unsurpassed as an example of California's Mediterranean geography and climate. The City of Laguna Beach has recently acquired a large expanse of sandy beach for the public. A portion of Laguna Beach, too, is protected by Marine Life Refuge status.

6. The area immediately south of Laguna Beach, a generally unincorporated area, is—interestingly enough—called South Laguna. The County of Orange Harbor District has purchased a beach area called Aliso Beach at a total cost of \$806,000. This facility received improvements of equal value, including paved parking lots, landscaping, restrooms, and a public fishing pier. The improvements have been financed by use of Harbour District funds, State of California Department of Fish and Game funds, and Federal funds from the Land and Water Conservation Fund Program of the Department of Interior. This area, too, is a Marine Life Refuge.

7. On south to the area of Dana Point is an alternating panorama of pocket beaches and rocky vistas, interspersed with public and private facilities.

It is in this area that the Orange County Harbor District is now purchasing the previously-mentioned expanse of beach and area for inland parking at a cost of \$2.6 million.

8. The Dana Point area is one of both historical and current significance. Vividly described by Richard Henry Dana in his "Two Years Before The Mast", the area is the site of a \$30 million County and Federal small craft harbor. This facility, which began operation last spring, and the final construction of which is nearing completion, is not just a yachtman's facility. In addition to slips for approximately 2,400 vessels, there will be a swimming beach, 20 acres of picnic facilities, public fishing piers, shops, restaurants, and a Marine Studies institute. The latter facility is particularly appropriate, as the upcoast area of approximately three miles is protected by Marine Life Refuge status.

9. South of Dana Point is the area known as Capistrano Beach, adjacent to the City of San Juan Capistrano and its famous mission. As previously mentioned, recent legislation by the State has provided \$1.6 million for the purchase of 1,500 feet of beach in this area by the State of California. This purchase is to provide an additional quarter mile of beach for Doheny Beach State Park.

10. Next, the City of San Clemente, with its early California atmosphere, City and State Beaches, and majestic hillside backdrop. This city has received recent world-wide prominence as the home of the Western White House.

At this point, we reach the Orange-San Diego County line. San Diego County has a population only slightly smaller than that of Orange County, and almost the exact same number of small craft, 35,000. The northerly coast of San Diego County, stretching from San Clemente several miles to the City of Oceanside, is the Camp Pendleton Marine Base. Just recently, the Federal government has leased the State of California almost 5 miles of beach, plus upland areas for development of a major public recreational facility.

South of the City of Oceanside lie several natural lagoons and estuaries which are visited by many species of waterfowl and are the habitat and breeding grounds of several species of ocean fish.

Next lies the community of La Jolla with its rugged coast, the home of Scripps Institute of Oceanography. Beyond La Jolla is Mission Bay with its massive areas of public beaches and parks totaling 4,600 acres and harboring 1,500 small craft. This facility is the largest recreation-oriented coastal facility on the West Coast. Immediately adjacent to Mission Bay lies the beautiful city of San Diego with its graceful and strategic harbor. On south of San Diego harbor, approximately 10 miles away, lies the Mexican border.

At the border is the site of the new State of California International Border Park. This shoreline facility, which was recently acquired by the State, is presently in an undeveloped condition. Even so, it is receiving considerable public use.

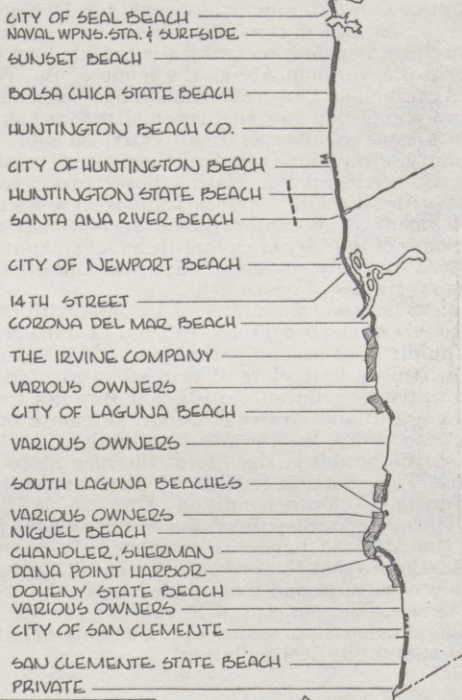
Thus, our journey down the coast from the Santa Ana River in Orange County to the Mexican border is complete. We have traveled approximately 81 miles.

It is hoped that this presentation has illustrated the importance and stature of this chain of natural and man-made beauty that requires the protective assistance of Congress. The passage of S-1447 will create a partnership of Local, State, and Federal agencies to assure that this national asset is protected from the threat of visual and physical pollution.

EXHIBIT NO. 1

COASTLINE OWNERSHIP ORANGE COUNTY, CALIFORNIA

BEACH OWNERSHIP (MILES)			
PRIVATE	PUBLICLY OWNED		
	STATE	COUNTY & HARBOR DIST.	CITY
1.4		1.2	1.1
	2.9		
2.8			1.1
	2.1	0.2	
			5.2
	0.2		
	0.6		
4.6			
1.0			1.1
2.8			
		0.9	
2.5		0.9	
1.1		1.3	
	1.5		
1.5			1.9
	1.1		
1.0			
18.7	8.4	4.5	10.4
TOTALS			



TOTAL PUBLIC OCEAN FRONTAGE 23.3 MILES
 TOTAL PRIVATE OCEAN FRONTAGE 18.7
 TOTAL OCEAN FRONTAGE 42.0 MILES

LEGEND

MAZINE LIFE REFUGE AREA
 ARTIFICIAL FISHING REEF

PREPARED BY:
 ORANGE COUNTY HARBOR DISTRICT
 OCTOBER 1971

EXHIBIT No. 2

EXCERPTS FROM SHELL-CUNNINGHAM ACT—STATE OF CALIFORNIA, PUBLIC RESOURCES CODE

SEC. 6872.1 Drain-off from certain excluded lands.

Whenever it appears to the commission that oil and gas deposits are known or believed to be contained in any such lands as are described in Section 6871.2, subdivision (b), of this code or *in tide and submerged lands along the coast of the Pacific Ocean south of the northerly city limits of the City of Newport Beach in Orange County to the southerly boundary of the state*, and are being drained by means of wells upon adjacent lands owned by others than the state, the commission shall thereupon be authorized and empowered to lease state-owned tide and submerged lands adjacent to any such wells for the production of oil and gas therefrom, either as a tract or in parcels of such size and shape as the commission shall determine but only within an area and to an extent necessary to offset such drainage of state-owned tide and submerged lands by any such wells upon adjacent lands owned by others.

SEC. 6872.2 Slant drilling.

If the commission determines that any tide and submerged lands belonging to the state in the area hereinafter referred to should be drilled pursuant to the terms of *Section 6872.1* of this code, then, notwithstanding the provisions of Section 6874 of this code, in order to preserve and protect the highly developed recreational and residential area now referred to, the commission shall require that any well or wells drilled pursuant to the terms of any lease issued with respect to any part of the hereinafter described area be slant-drilled from an upland or littoral site into the subsurface of the tide or submerged lands covered by the lease. The area to which this section is applicable is the tide and submerged lands along the coast of the Pacific Ocean south of the northerly city limits of the City of Newport Beach in Orange County to the southerly boundary of the state.



