



County of Santa Cruz

0223

PLANNING DEPARTMENT

701 OCEAN STREET, 4TH FLOOR, SANTA CRUZ, CA 95060
(831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123

ALVIN D. JAMES, DIRECTOR

November 13, 2000

AGENDA December 5, 2000

Board of Supervisors
County of Santa Cruz
701 Ocean Street
Santa Cruz, CA 95060

APPROVE ALLOCATION OF \$5,000 FROM COUNTY FISH AND GAME COMMISSION BUDGET TO FISHERMEN'S ALLIANCE

Members of the Board,

The Fish and Game Commission recommended allocation of \$5,000 to the Fishermen's Alliance for a grant that was approved by the commission on May 4, 2000. On June 27, 2000, your Board requested that this allocation be held until the Fishermen's Alliance submitted their report for the third year of the study (see attachment 1). Fishermen's Alliance has completed and submitted this report to the Fish and Game Commission (see attachment 2 - on file with the Clerk of the Board of Supervisors). Copies of this report have been distributed to Board members under separate cover.

The third-year report can be summarized as follows: The study continued investigation of competition between commercial fisheries and California sea lions in Monterey Bay. In the study, researchers estimated the percentages of hooked fish taken by sea lions in commercial and recreational salmon fisheries from 1997 to 1999, and sea lion seasonal food habits. The percentages of hooked fish taken varied between years and between the commercial, Commercial Passenger Fishing Vessel, and skiff fisheries. The study found that the highest predation rates occurred in 1998 and were most likely the result of the large El Nino Southern Oscillation (ENSO) event that occurred in 1997-98 which reduced prey availability in southern and central California. The study determined through onboard observation and dockside surveys that sea lions took an estimated 8.5% (1997), 28.6% (1998), and 8.9% (1999) of fish hooked in the commercial fishery, 8.4% (1997), 18.3% (1998) and 2.2% (1999) of fish hooked in the Commercial Passenger Vessel fishery, and 15.6% (1997), 17.5% (1998), and 4.0 % (1999) of fish hooked in the skiff fishery.

Sea lion diets were also analyzed as part of the study. The diet analysis indicated that sea lions consumed mostly schooling species such as market squid, Pacific sardine, northern anchovy and spiny dogfish sharks. Salmon occurred in the diet year-round, with the greatest frequency of occurrence in summer 1998. The report was completed in October 2000 and was discussed at the

Fish and Game Commission on November 2, 2000.

The Fish and Game Commission recommended an allocation of \$5,000 to Fishermen's Alliance to help fund four additional study projects (see attachment 3). The first will be a study of equipment and various methods needed to stop sea lions and harbor seals from foraging on adult fish and smolts in the mouths and estuaries of our coastal rivers and streams. The second study project will research various acoustic methods to keep sea lions away from fish hooked by commercial and sport fishermen. The third study project will continue to conduct aerial surveys every month to determine the location and numbers of sea lions and harbor seals, and any population changes. The fourth study project will be completing a comprehensive socio-economic study for presentation to the U.S. Congress during the Marine Mammal Protection Act hearings.

It is therefore recommended that your Board take the following action:

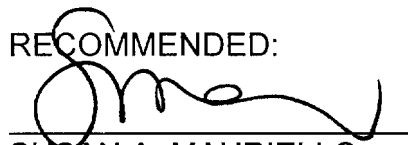
1. Accept the third-year report from the Fishermen's Alliance: California Sea Lion (*Zalophus californianus*) Impacts on Salmonid Fisheries in Monterey Bay, California During 1997, 1998, and 1999, and
2. Approve the Fish and Game Advisory Commission's recommended allocation of \$5,000 to the Fishermen's Alliance and authorize the Auditor-Controller to disburse the funds.

Yours truly,



ALVIN D. JAMES
Planning Director

RECOMMENDED:



SUSAN A. MAURIELLO
County Administrative Officer

- Attachments:
- 1) June 27, 2000 Minute order
 - 2) Report (on file with Clerk of the Board of Supervisors): California Sea Lion (*Zalophus californianus*) Impacts on Salmonid Fisheries in Monterey Bay, California During 1997, 1998, and 1999.
 - 3) Grant proposal from Fishermen's Alliance

cc: County of Santa Cruz Fish and Game Commission
Fishermen's Alliance

CC JNTY OF SANTA CRUZ
STATE OF CALIFORNIA



0225

AT THE BOARD OF SUPERVISORS MEETING

On the Date of June 27, 2000

REGULAR AGENDA Item No. 067.5

(APPROVED expenditure of **\$14,768.74** from County Fish and Game Commission budget to fund various projects; with an additional direction to delete budget for the Fishermen's Alliance of California to continue their study and return matter to the Board when the third year study has been completed and the Board has had a chance to evaluate it...

Upon the motion of Supervisor Symons, duly seconded by Supervisor **Beautz**, the Board, by unanimous vote, approved expenditure of **\$14,768.74** from County Fish and Game Commission budget to fund various projects; with an additional direction to delete budget for the **Fishermen's Alliance** of California to continue their study and return matter to the Board when the third year study has been completed and the Board has had a chance to evaluate it

cc:

CAO

Planning Department
Fish and Game Advisory Commission

State of California, County of Santa Cruz-ss.

I, *Susan A. Mauriello*, Ex-officio Clerk of the Board of Supervisors of the County of Santa Cruz, State of California, do hereby certify that the foregoing is a true and correct copy of the order made and entered in the Minutes of said Board of Supervisors. In witness thereof I have hereunto set my hand and affixed the seal of said Board of Supervisors.

by *Susan A. Mauriello*, Deputy Clerk, ON July 6, 2000.

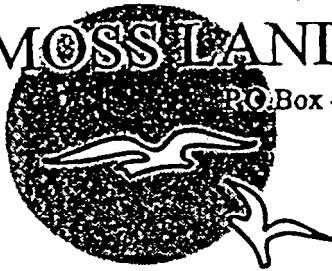
On file with Clerk

ATTACHMENT # 2

MOSS LANDING MARINE LABORATORIES

P.O. Box 450 Moss Landing, CA USA 95039-0450 (408)755-8650

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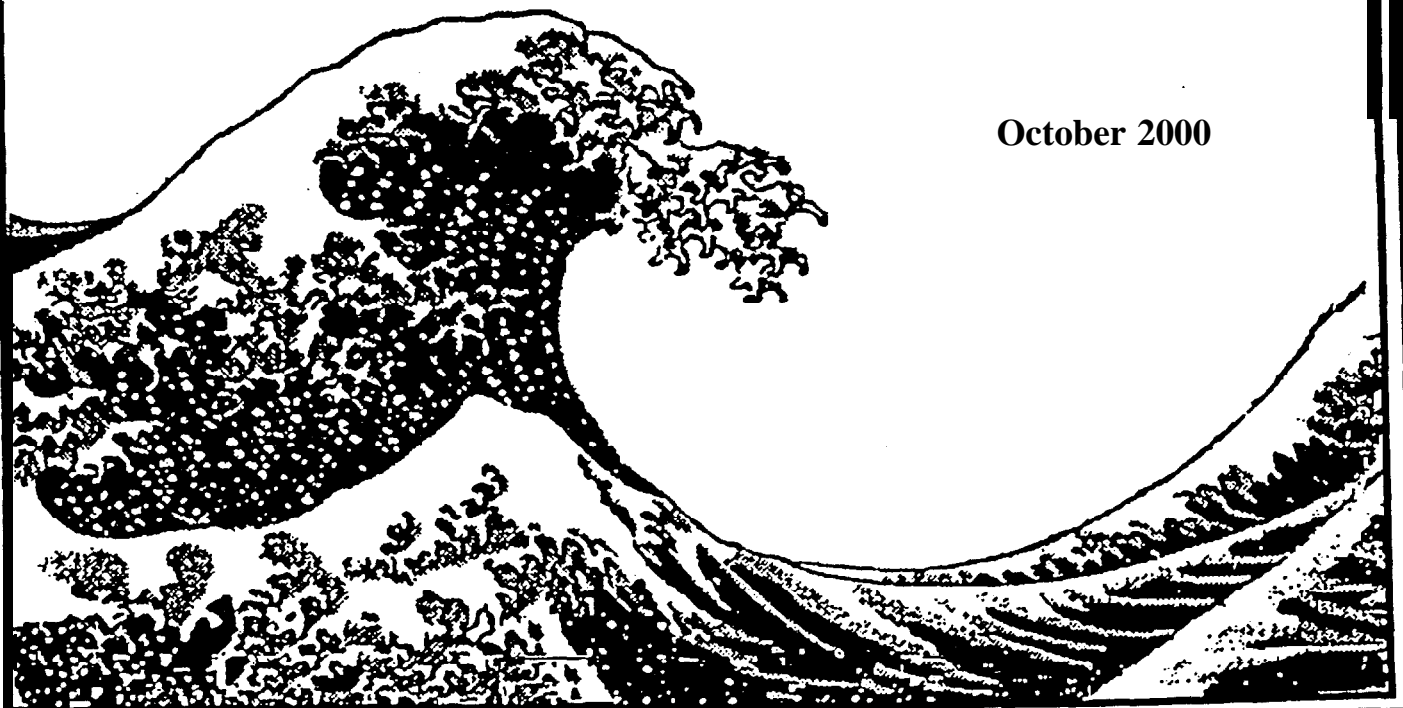
**California Sea Lion (*Zalophus californianus*) Impacts
On Salmonid Fisheries in Monterey Bay, California
During 1997, 1998, and 1999**

Michael J. Weise and Dr. James T. Harvey

Report Submitted to:

The Fishermen's Alliance of California
885 Abrego Street
Monterey, California

October 2000



FISHERMEN'S ALLIANCE OF CALIFORNIA

885 Abrego Street
Monterey, CA 93940

(831) 373-3720
Fax (831) 373-8098

SANTA CRUZ COUNTY FISH AND GAME ADVISORY COMMISSION FUNDING REQUEST

I. **Name of Group:** Fisherman's Alliance of California

II. **Amount of Funding Requested:** \$10,000.00

III. **Name, Address and Phone Number of Contact Persons:**

a. **Richard L. Hughett, 885 Abrego Street, Monterey, CA 93940**

Phone: 408/373-3720 FAX: 408/373-8098

b. **Russ Colwell, P.O. Box 55, Moss Landing, CA 95039**

Phone: 408/633-3359 FAX: 408/633-6279

IV. **Description of Proposed Project:**

Moss Landing Marine **Laboratories**, under the direct supervision of Dr. James T. Harvey, the noted professor of marine biology **from** the university, is presently completing all their study work from data gathered during the past three years. We have now determined that the **feeding** habits of California sea **lions** and Pacific harbor seals **are** a major cause for the demise of our endangered and **threatened** salmon and steelhead populations.

This **year** we will be undertaking four **study** projects. The first will be a study of equipment and various methods needed to stop sea lions and harbor seals from foraging on adult fish and **smolts** in the mouths and estuaries of our coastal **rivers** and streams. Our second study work will research **various** acoustic methods to keep sea lions away from fish hooked by commercial and sport fishermen. We will also continue to conduct aerial surveys every month during the study period to determine the location and **numbers** of sea lions and harbor **seals**, and any population changes. **Our** lead **research agency for all this** work will again be Moss Landing Marine Laboratories. In addition, we are also completing a comprehensive socio-economic study for presentation to the U.S. Congress during the Marine Mammal Protection **Act** hearings.

v. **Objective:**

We have four objectives with this work: 1) To stop sea lions and harbor seals from devastating the in-stream adult and **smolt** fish **populations, which must be** done if our dwindling **salmonid** fisheries are to survive; 2) To stop sea lions from preying on hooked fish, and help our sport and commercial fishing industries; 3) To measure the growth of sea lion and harbor seal populations along Central California and within the Monterey Bay National Marine Sanctuary; 4) And **to show** our political leaders how our fishing industry is being negatively affected by sea lion interaction.

VI. Background and History of your organization, and or of the problem:

The Fishermen's Alliance of California was founded in 1995 by a group of sport and commercial fishermen **who** are very concerned about the over-population of California Sea Lions in Monterey Bay in and areas up and down the Pacific Coast of the United States. Our mission statement is attached. The F.A.C. is an on-going organization and our efforts continue. Since our creation we have been working to educate the public and our governmental representatives and agencies about this disastrous situation, created by a sea lion population that grows between 7% and **10%** a year. Most of **the natural predators that** a one time kept the sea lion population at a much **smaller** growth rate are now gone, leaving the sea lion at the top of the food chain and creating a major problem in the balance of nature in our oceans. And, this problem does not only exist along **our** coastline, for sea lions have now expanded their area of hunting in search of food. **They now** travel miles up **our** coastal rivers and are also in the waterways of the Sacramento Delta. They have become more aggressive toward **humans**, and **have become a major** threat to the safety of anyone venturing out in the **ocean where fishing activities occur**.

VII. How will the project be accomplished?

The details for the interaction study were developed by Dr. Harvey of the Moss Landing Marine Laboratories. The plan of action and project timing **are** as follows:

- a) April through December **2000** - study equipment and **methods** to deter sea lions and harbor seals in selected central coast streams.
- b) April through December **2000** - research and study the effectiveness of various acoustic equipment as a deterrent to sea lion attacks **on** hooked fish. on vessels fishing the **Monterey Bay area**.
- c) April through **December 2000** - conduct aerial surveys **along our coastline** to determine sea lion and harbor seal populations.
- d) April through August **2000** - complete collection of data and development of **socio-economic** study. This work includes:
 - 1) Additional interviews with **harbormasters** and fishermen to gain information on the timing of fishing activities and observed **trends** relevant to the study.
 - 2) Analysis of the data collected and preparation of a **report** on the economic impacts concluded from the survey results and associated research, and their **effect** on the **commercial** and **sport** fishing industries, and the **local and** regional economies.

VIII. Budget to Include the precise use of grant monies. Attached is our organization's 2000 annual budget. The specific work budget for items a), b), and c) is being developed by Dr. Harvey, and will be available in early April- The working budget for the socioeconomic study is now being completed and will also be available in early April. 0229

The grant funds we received last year are being used to complete our third year of study, which will be available in the next two months. The report we will be sending you will also include new data from the scat samples collected during the past three years. These samples were originally studied to collect and count salmonid ear bones to determine the total eaten by sea lions and harbor seals. New technology, though, now allows the researcher to use fish vertebrae and rib bones to determine a fish species, and therefore, we should be able to submit much more accurate findings regarding the amount of salmonids eaten by sea lions and harbor seals. Dr. Harvey will also be developing a recommendation to be presented during the M.M.P.A. hearings, based on the total three years of study. All this remaining work has been funded by last year's grant, and we will distribute all the reports to you as soon as they become available, along with our socio-economic study, which is being funded through another source.

In summary, the F.A.C. views these studies as mandatory if we are going to save our dwindling salmonid populations. The grant from your association to help fund this very important work. Many local commercial fishermen fish our coastal water! and have been effected by the sea lion problem, and therefore, we hope you will approve our request. This year we will again be working with some of the finest marine biologists in the nation. Under the leadership of Dr. Harvey, we have formed a working consortium which includes many "veterans" of the sea lion wars, including California D.F.G. Senior Marine Biologist Doyle Hanan; Senior Research Scientist Steve Jefferies for the Washington Department of Fish and Wildlife; and staff members from both the northwest and southwest regions of National Marine Fisheries Service. We are all working together to develop these non-lethal deterrents. We all realize we must pool all our resources iff we are to save the few remaining salmon and steelhead that have been spawned in the coastal rivers and streams of California, Oregon and Washington.

We appreciate your consideration of this request, and hope you will grant us the funds needed to help make these important studies a reality.