



COUNTY OF SANTA CRUZ⁰⁵⁵¹

PLANNING DEPARTMENT

701 OCEAN STREET, SUITE 310, SANTA CRUZ, CA 95060
(831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123
ALVIN JAMES, DIRECTOR

May 31, 2001

AGENDA DATE: June 12, 2001

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

APPROVE ALLOCATIONS OF FUNDS AS RECOMMENDED BY THE FISH AND GAME COMMISSION

Members of the Board,

The Fish and Game Commission recommends allocations to five entities, including \$8,000 to the Monterey Bay Salmon and Trout Project (MBSTP), \$5,975.47 to the California Department of Fish and Game (CDFG), and \$5,000 to three public grants program projects.

\$8,000 Allocation to Monterey Bay Salmon and Trout Project

The Fish and Game Advisory Commission recommends funding in the amount of \$8,000 to the Monterey Bay Salmon and Trout Project (MBSTP). The request is included as Attachment 1. This funding was considered at the December 7, 2000 and the March 1, 2001 meetings, and is partial funding for the original \$15,000 request. This allocation will be used to purchase salmon pens that will be installed in the City of Santa Cruz Harbor.

MBSTP plans to run 120,000 chinook (or King) salmon smolts out of both the Santa Cruz and Monterey harbors. Chinook salmon are from the Feather or American rivers hatcheries. The fish are acclimated to saltwater, kept in the pens for two weeks and then released. Pens protect the young fish from aquatic and avian predators during their confinement. These fish are planted for recreational and commercial fisheries.

\$5,975.47 Allocation to California Department of Fish and Game

The Commission recommends allocation of \$5,975.47 for six pieces of enforcement equipment for California Department of Fish and Game (CDFG). The Commission considered this request (Attachment 2) at the November 2, 2000, December 7, 2000, and the March 1, 2001 meetings. These funds will purchase one Sony Digital Video

camera (\$861.95) and two digital still cameras (\$861.90) that will be valuable for printing digital photos immediately for prosecution evidence. CDFG originally requested funding for two video/still cameras, but further research indicated the combination of 1 video camera and 2 still digital cameras will produce higher quality evidence. On the March 1, 2001 meeting, the Commission approved this modification. The allocation will also purchase a spotting scope (\$550.91), stabilizing binoculars (\$957.96) and a monocular night vision scope (\$2,743).

This additional equipment will improve warden access to critical equipment for prosecution, and improve enforcement of new fishing and netting regulations. Stabilizing binoculars are important for enforcement of misdemeanors, which must be observed directly by wardens. The monocular night vision scope allows a warden to operate a boat in the dark in order to approach boats without detection.

\$5,000 Allocation to Various Projects

In December and January, the Fish and Game Commission solicited proposals from local groups for habitat enhancement, fish and wildlife management, and educational programs. The Commission received fourteen proposals with a total funding request of \$22,975. Proposals were reviewed at the February 1, March 1 and April 5 meetings. Three proposals were selected for partial or total funding and are detailed as follows:

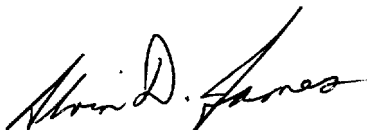
1. California Regional Environmental Education Community Program (CREEC) ~~\$1,000~~. will be used to conduct teacher workshops to promote a new high school curriculum for the investigation of wildlife and the environment. This request is included as Attachment 3.
2. Fishermen's Alliance - \$3,200. This research will investigate appropriate and safe equipment to deter sealion predation on salmonids. This proposal will fund research on various deterrence systems, and local field trials of an acoustic deterrence system. This request is included as Attachment 4.
3. City of Santa Cruz, \$693. This allocation will be used to purchase construction materials for wood duck boxes and turtle resting platforms to be installed at Neary Lagoon. This request is included as Attachment 5.

Your Board should also note that the Commission approved an allocation of \$100 from the same funding source as a stipend towards registration and travel expenses for Commissioner Ritchey to attend the state meeting of the County Fish and Game Advisory Commissions. While this request should have been submitted for approval prior to the conference, it was inadvertently delayed. We are requesting your Board consider reimbursement of the requested stipend at this time. This request is included as Attachment 6.

It is therefore RECOMMENDED that your Board:

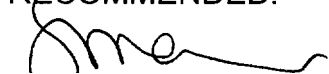
1. Approve the allocations and the purchase of fixed assets as detailed above and request the Auditor-Controller to disburse the funds.

Sincerely,



ALVIN D. JAMES
Planning Director

RECOMMENDED:



SUSAN A. MAURIELLO
County Administrative Officer

KLS/Fish and Game Commission/Board Letters/F & G June 2001 Funding Brd Ltr

Attachments:

- 1) Monterey Bay Salmon and Trout Project Request for Funds
- 2) California Dept of Fish and Game Request for Funds
- 3) CREEC funding proposal
- 4) Fishermen's Alliance funding proposal and support materials
- 5) City of Santa Cruz funding proposal
- 6) Commissioner Ritchey request to attend State Conference of County Fish and Game Advisory Commissions

**MONTEREY BAY SALMON & TROUT PROJECT P.O. BOX 417 DAVENPORT, CA 95017**

SANTA CRUZ FISH & GAME COMMISSION
701 OCEAN STREET 4TH FLOOR
SANTA CRUZ, CA 95060

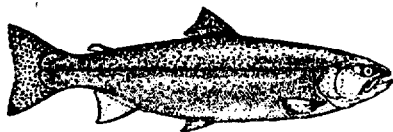
11/16/00

REFERENCE: REQUEST FOR FUNDING FOR NEW SALMON REARING PENS
FOR THE SANTA CRUZ HARBOR: - \$15,000.00

Dear Sir or Madam:

The Monterey Bay Salmon & Trout Project finally received permits from CDF&G to raise up to 120,000 King Salmon in the Santa Cruz Harbor. The activity will take place during the month of May and June of each year. The salmon net pens will cost \$32,000.00. The pens will be portable and only be in the water 45 days each year. The pens will be purchased from a company in Canada that has been building net pens for many years. Their net pens are currently being used by The Central Coast Salmon Enhancement program located in Avila Beach, CA, with great success. Enclosed are some pictures of the pens design. We are currently working with the Santa Cruz Harbor for the final design. The pens should be approx. 40 ft. long and 16 ft wide with walk ways around the pens. The pens will have 8 ft tall adjustable legs under water.

The purpose of our net pen operation in the Monterey Harbor and now the Santa Cruz harbor is to help take pressure of native King Salmon that feed in our area during the spring and summer months, and then spawn in large rivers like the Sacramento River and the Feather and American Rivers. The fish we raise will first be released into a fresh water bladder floating in the net pens. Over a five-day period, the fresh water is slowly changed to salt water. At the end of the five-day period, the bladder is removed and the fish swim free in the pens for another ten to twelve days. After that time, the fish are released into the Monterey Bay on an outgoing tide. We run two loads of 60,000 fish at each location. Once the fish are released into the Monterey Bay, they usually stay close to the Monterey Bay and at the end of their three-year cycle, will come back to the Santa Cruz and Monterey Harbor looking for fresh water. Because we do not get any rains early enough to open our streams during August and September, these fish will not dilute the native strains of fish we currently have in our streams. At the same time, these fish will provide recreational as well as commercial salmon fishing opportunities during August & September months of each year and also provide additional food for harbor seals and sea lions without endangering wild King Salmon that feed in our area. Since these fish are hatchery fish, they are not endangered or protected.



0555

MONTEREY BAY SALMON & TROUT PROJECT

P.O. BOX 417

DAVENPORT, CA 95017

Once the final designs are completed for the Santa Cruz Harbor, we will send you any data you need. We appreciate the support we have received in the past from the Santa Cruz Fish & Game Commission. We request \$15,000.00 to be used for the purchase of the new net pens and equipment needed to run the operation. The pens should last up to 15 years.

Thank you again for your consideration. If you need any additional information, please contact me at your earliest convenience at 83 1-688-4257.

Sincerely,

A handwritten signature in cursive script that reads "Lawrence Wolf". The signature is fluid and stylized, with a large loop at the end of the last name.

Lawrence Wolf
Director

FROM : Panasonic PPF

NOV.16.2000 1:33PM F 4

0556

SANTA CRUZ COUNTY

FISH AND GAME ADVISORY COMMISSION FUNDING REQUEST

I. Name of Group/Individual:

MONTEREY BAY SALMON & TROUT PROJECT

II. Amount of Funding Requested:

\$15,000.00

III. Name, Address and Phone Numbers of Contact Person:

LARRY WOLF 243 RANCHITOS DEL SOL, APTOS, CA 95003
831-688-4257

"IV. Description of Proposed Project: Install King Salmon Net Pens into the Santa Cruz Harbor each year. Net pens will acclimate 120,000 King Salmon Smolts each spring. Fish will be released directly into the Monterey Bay.

*V. Objective:- To protect wild King Salmon by planting additional hatchery salmon into the Monterey Bay. Predation of salmon I" from fishing and harbor seals and sea lions can continue allowin more wild fish to return to large rivers to spawn.

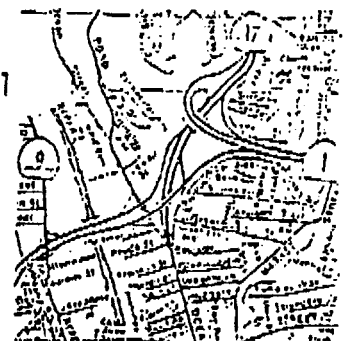
*VI. Background and History of your organization, and cr of the problem
Monterey Bay Salmon & Trout Project has been operating in Santa Cruz County since 1978, We are the only restoration hatchery south of San Francisco.

*VII. How will project be accomplished (design specs/plans,if applicable)

See Enclosed Letter

*VIII. Budget to include the precise use of Grant monies
to be included with other funding to purchase net pens for the Santa Cruz Harbor.

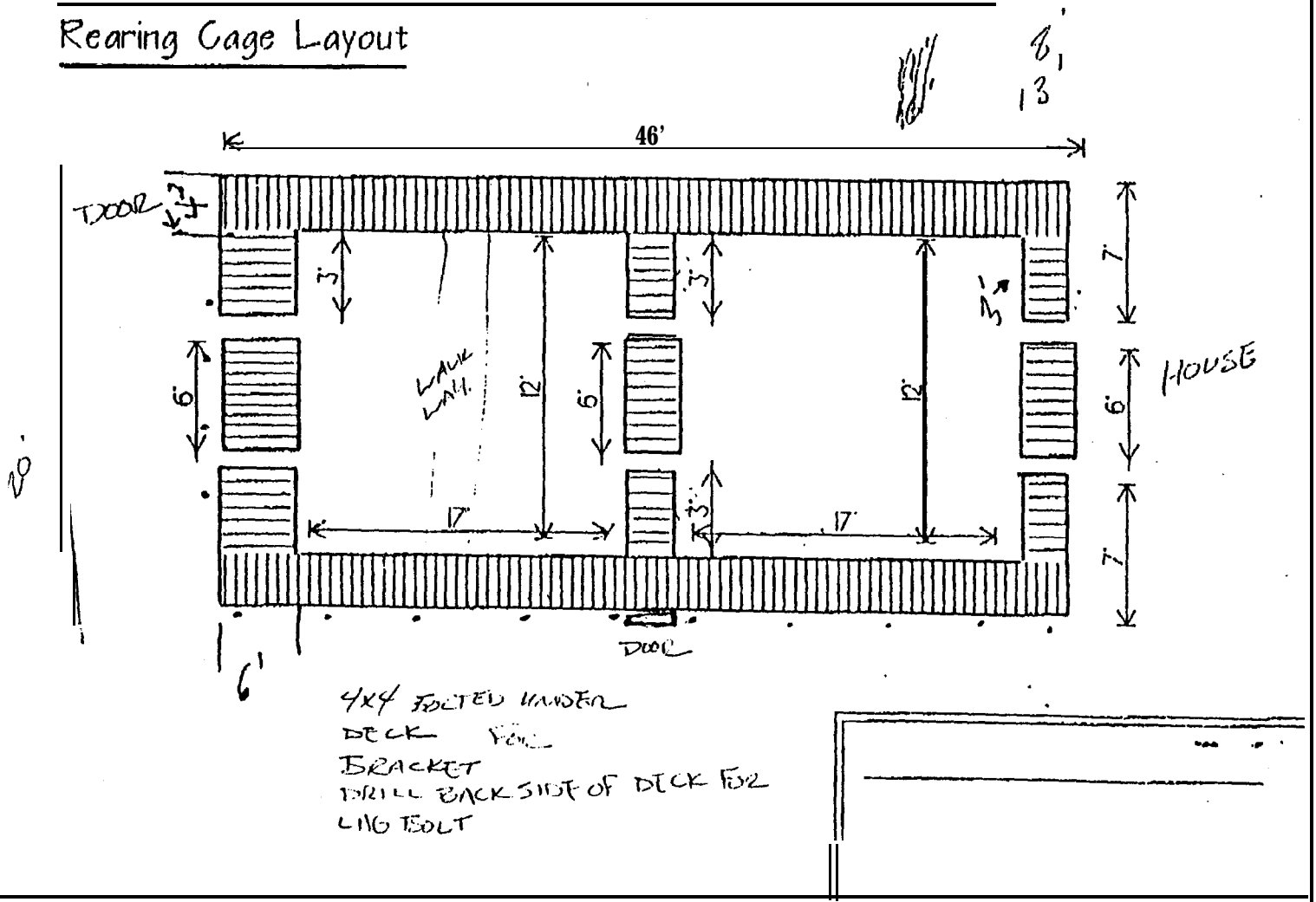
*Give a brief description under each section and use additional sheets to fully explain your proposed project.

DH/kh
FGFNDREQ

TRAIL END
4 TIE 0557

Central Coast Salmon Enhancement

Rearing Cage Layout



UP'S
240: FLANGE BOLTS
OVERNIGHT
8 SHORT POSTS ON INSIDE BOLTED ON END?

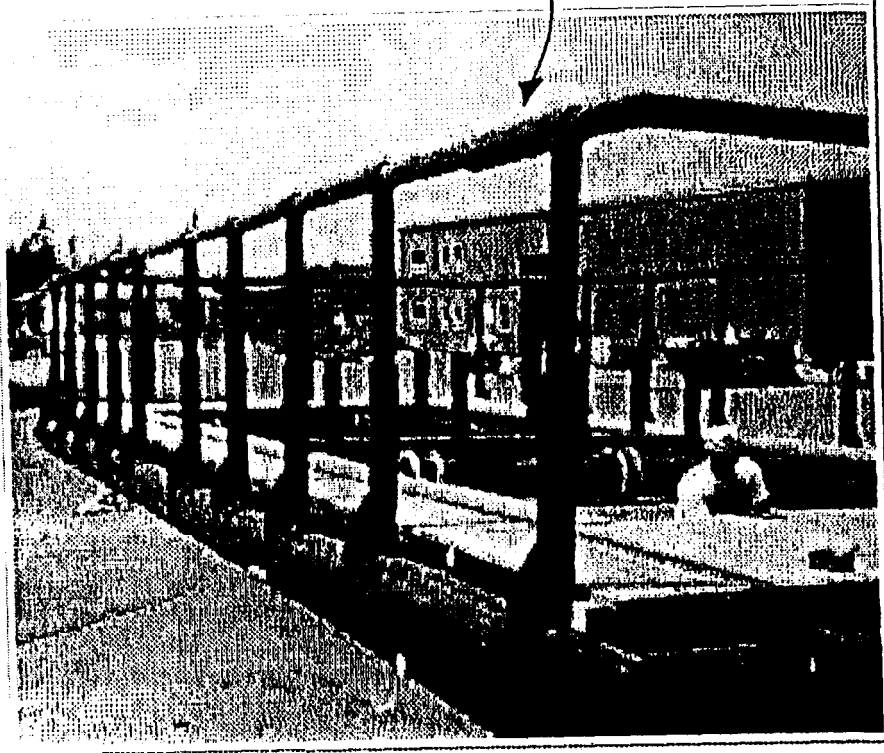
CARDS

Aquaculture

Products Ltd.

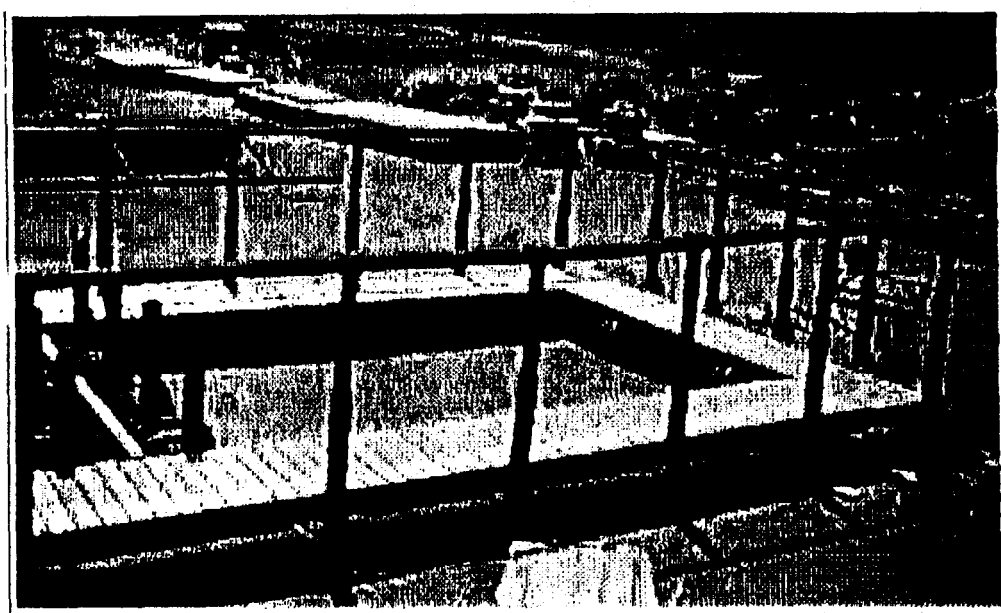
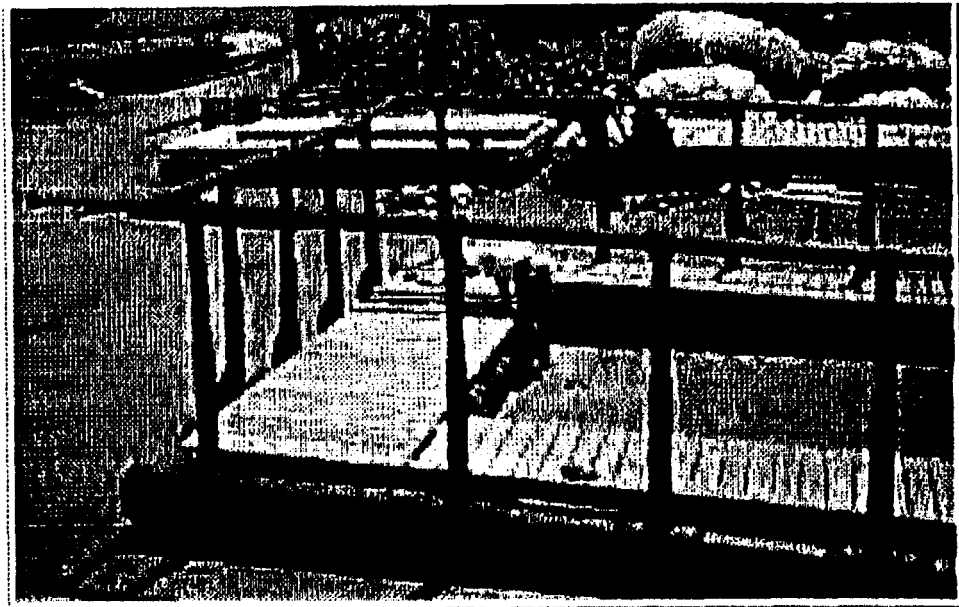
Square Cage
Pictures

0558

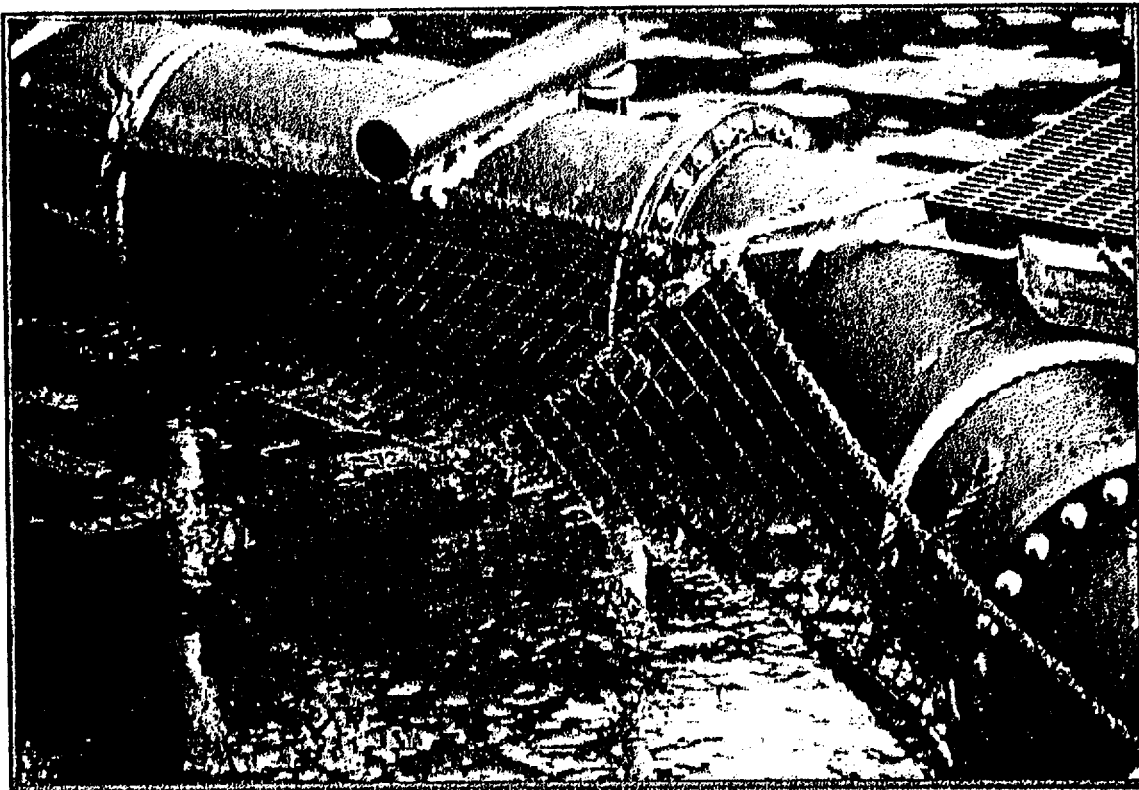


THESE ARE OUR CAGES 46'X20' WITH
6' UPRIGHTS. THERE ARE TWO PENS INSIDE
THIS STRUCTURE 17'X12' OPENINGS. THE WALK-
WAY IN THE MIDDLE IS FLEXIBLE (FOR SWELL).
THERE IS A SLIP JOINT AT EACH CORNER ON TOP TO
ABSORB SOME SWELL TOO.
THE PIPE IS 12" IN DIAMETER... DOUBLE PONTOON
WITH A TRIPLE AT THE END (JUST ONE SIDE OF THE 20'
SECTION).

0559



LOADING
PICTURES



0560

CLOSE-UP OF HDPE PENS OFF ICELAND.

CALIFORNIA DEPARTMENT OF FISH AND GAME (DFG)
ANADROMOUS FISH TRAPPING AND REARING APPLICATION/PERMIT

ATTACHMENT 1

Application

0561

Applicant: Allen Smith . Chairman Phone: (408) 458-3095

Organization: Monterey Bay Salmon and Trout Project

Address: 825 Big Creek Road, Davenport, CA 95017

Spawn Taker Name (s) : _____ Phone: (408) 458-3095

Trap Location (s): Fall-run Chinook salmon smolts provided by CDFG from either Nimbus or Feather River Hatcheries.

Period of Operation: Feb. 1, 2001 to July 31, 2001

Rearing Facility Location (s) : Monterey City and Santa Cruz Boat Harbors

Period of Operation: Feb. 1, 2001 to July 31, 2001

Funding Source (s) and Amount (s): Salmon Stamp (\$7,003) MBS&TP Fundraising/Contributions (\$11,437)

Species Requested	Requested Number of Adults (Male/Female)	Requested Number of Eggs
Chinook Salmon	<u>240,000 smolt fall/ run Chinook FRH</u>	_____
Coho Salmon	<u>/</u>	_____
Steelhead	<u>/</u>	_____
_____	<u>/</u>	_____

Anticipated Release
of Young Fish:

	<u>Number</u>	<u>Size (No. /Lb.)</u>	<u>Month/Year</u>	<u>Location</u>
	<u>120,000</u>	<u>50-90/lb.</u>	<u>May/June 2001</u>	<u>Monterey City Harbor</u>
Chinook Salmon smolt	<u>120,000</u>	<u>50-90/lb.</u>	<u>May/June 2001</u>	<u>Santa Cruz Boat Harbor</u>
Chinook Salmon postsmolt	_____	_____	_____	_____
Coho Salmon	_____	_____	_____	_____
Steelhead Trout	_____	_____	_____	_____

Applicant's Signature: A. R. Smith Date: 8/28/00
Applicant please check condition 6a or 6b on next page.

Note: Send completed application to: Department of Fish and Game,
20 Lower Ragsdale Drive #100, Monterey, CA 93940

PERMIT

The above named organization/person is hereby authorized to trap, spawn and/or rear anadromous fish in accordance with their approved five-year plan dated August 21, 1995 with the following additional conditions and limitations:

- ☒ ~~The fish trap and holding facilities shall be closely attended at all times by a responsible adult when the trap is in operation or when fish are being held; free passage of fish past the trap shall be provided when it is not in operation.~~ *not*
- ☒ ~~All dead fish and spawned female salmon shall be cut in half and returned to the stream.~~ *not*
- ☒ ~~All spawned males, not retained to be spawned again, shall be returned alive to the stream.~~ *not*

(over)

- ~~X~~ The weir and trap shall be removed from the stream, or rendered inoperable if a permanent installation, when the number of fish or eggs of each species authorized in this permit are obtained, whichever occurs first. ~~11~~
5. No fish or eggs acquired pursuant to this permit shall be possessed, transferred or otherwise disposed of except as authorized by this permit. 0562
6. ~~The trap may only be operated as follows (check one):~~ ~~11~~
~~a from 12 noon on any Monday to 12 noon on the following Thursday, 11~~
~~or~~
~~b. from 12 noon on any odd numbered day to 12 noon on the following even numbered day. 11~~
- The trap shall be rendered inoperable at all other times.
7. All fish shall remain the property of the State and their disposition remains solely at the discretion of the DFG.
8. All heads of dead adipose marked fish shall be removed, placed in plastic bags, frozen and delivered to the below named DFG fish rearing coordinator or biologist. Species, sex, date and location trapped, and name of permittee shall be recorded on hard cardboard tags in pencil or indelible ink and the tags securely attached to the plastic bags.
9. No drugs or other chemicals may be used in these operations without prior approval by DFG fish rearing coordinator or his/her designee.
- IO. Accurate records shall be kept by the permittee using the enclosed DFG 788 and annual report forms. The completed DFG 788 forms shall be sent to the DFG fish rearing coordinator no later than 10 days after completion of spawning operations, and the completed annual report to the same person no later than the following July 1.
- I I. This permit may be modified or revoked if the DFG determines the conditions or limitations of this permit are violated, if necessary to protect fishery resources or if required under an endangered species act or other statute or regulation.
12. Additional conditions and limitations: ☒ None - or - ☐ Attached

For assistance you may contact (in the order given):

Coordinator: Jerry Ayers
 Address: 6 IO Ninth Street
 Fortuna, CA 95540

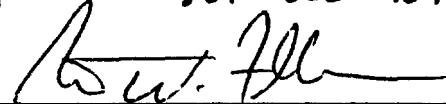
Phone: 707-725-1807

Biologist: Patricia Anderson

Phone: 83 1-724-7 130

Warden: Dennis Baldwin (s.cruz)
 Jesse Kaiser (Monterey)

Phone: 83 1- 479- 9389
 831 - 883 - 4041



Regional Manager

Date: 10/27/00

cc: Rearing Coordinator, District Biologist, Local Warden, Regional File, IFD Sacramento.

Region I revised (6/6/96)
 Belinda 3 disk/IFD/TRAPREAR.APP

FUNDING REQUEST

0563

I. Name of Group/Individual: **Department of Fish and Game-Marine Region**

II. **Amount** of Funding Requested: **\$889.00 +tax**

III. Name, Address and Phone Numbers of Contact Person: Lt. **Tim Olivas**
649-2870
 20 Lower **Ragsdale** Drive
suite 100
Monterey, CA 93940

IV. **Description** of Proposed Project:
Celestron C-90 Spotting Scope

V. **Objective:** This piece of equipment will allow the marine warden to view ocean activity from the shoreline. Unlike other spotting scopes, the Celestron scope has superior optics to decrease distortion by heat waves and foggy conditions. In many cases, the ability to read the identification numbers of a vessel are the determining factor in whether the warden has enough information to contact the boat and make a potential case. The spotting scopes issued to wardens do not have optics capable of reading numbers in many situations that exist on the ocean.

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

*VII. How will project be accomplished (design specs/plans, if applicable)

N/A

*VIII. Budget to **include** the precise use of Grant monies

*Give a brief description under each section and use additional sheets to **fully** explain your proposed project.

DH/kh
FGFNREQ

FUNDING REQUEST

0564

I. Name of **Group/Individual**: **Department of Fish and Game-Marine Region**

II. Amount of Funding Requested: **\$889.00 +tax**

III. Name, Address and Phone Numbers of Contact Person: **Lt. Tim Olivas**
649-2870
20 Lower Ragsdale Drive
suite 100
Monterey, CA 93940

IV. Description of Proposed Project:
Canon 12x36 Image Stabilizing Binoculars

V. Objective: **This piece of equipment will allow marine wardens to use binoculars on vessels on the open ocean. The image stabilization feature and magnification of the binoculars will allow the warden to view suspicious activities before approaching the boat. The binoculars have excellent optics and are water-resistant.**

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

***VII.** How will project be accomplished (design specs/plans, if applicable)

N/A

***VIII.** Budget to **include** the precise use of Grant monies

*Give a brief description **under** each section and use additional sheets to **fully** explain your proposed project.

DH/kh
FGFNREQ

FUNDINGREQUEST

0565

I. Name of **Group/Individual**: **Department of Fish and Game-Marine Region**

II. Amount of Funding Requested: **\$2,545.75** +tas

III. Name, Address and Phone Numbers of Contact Person: Lt. Tim **Olivas**
649-2870
20 Lower Ragsdale Drive
suite 100
Monterey, CA 93940

IV. Description of Proposed Project:

Night Quest 6015 Monocular Night Vision Scope

V. Objective: **This piece of equipment is a specialized night vision scope capable of allowing the warden to operate a boat on ocean waters at night, It can be mounted on a camcorder, 35mm camera and spotting scope. With changes in the fishing and netting regulations along the shoreline, this piece of equipment will greatly enhance the enforcement of these important regulations.**

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

***VII.** How **will** project be accomplished (design specs/plans, if applicable)

N/A

***VIII.** Budget to **include the** precise use of Grant monies

*Give a brief description under **each** section and use additional sheets to My explain your proposed project.

DH/kh
FGFNREQ

FUNDING REQUEST

ATTACHMENT 2

0566

I. **Name of Group/Individual:** Department of Fish and Game-Central Coast Region

II. **Amount of Funding Requested:** \$2,100.00 (Approximate)

III. Name, Address and Phone Numbers of Contact Person: Lt. Dennis **Baldwin**
479-9389
P.O. Bos 1506
Capitols, CA 95010-1506

IV. **Description** of Proposed Project:
Two Sony Digital Video/Still Cameras (Model numbers to be provided at the next meeting.)

V. **Objective:** The equipment will allow each land warden assigned to Santa Cruz County to have the ability to videotape or take still pictures of violations. The cameras will be especially useful in allowing the wardens to print photographs of pollution cases and stream alteration violations that can then be sent immediately by e-mail to the Environmental District Attorney.

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

*VII. How will project be accomplished (design specs/plans, if applicable)
N/A

*VIII. Budget to include the precise use of Grant monies

*Give a brief description **under** each section and use additional sheets to **fully** explain your proposed project.

DH/kh
FGFNREQ



January 15, 2001

County of Santa Cruz Fish & Game Advisory Committee
C/ O Kristen Schroede, Planning Department
701 Ocean Street
Santa Cruz, Ca. 95060

Re: Grant

1. Name of Group/ Individual
California Regional Environmental Education Community Program (CREEC, Region 5, Monterey, San Benito, Santa Clara and Santa Cruz Counties.
2. Amount of Funds Requested
Requesting \$ 1 ,000.00 for 2000-2001 Program.
3. Name , Address and Phone Numbers of Contact Person
William E. Lovvorn
CREEC Region V, Environmental Education Coordinator
Santa Cruz County Office of Education
809-H Bay Avenue
Capitola, Ca. 95010
Ph. 831-477-5493
4. Description of Proposed Project
Introduction of Science and Sustaining Wildlife Curriculum for high school Science and Social Studies courses. The Curriculum will guide high school students in the investigation of wildlife issues and needs and encourage them to collaborate their findings in responsible action projects that benefit wildlife, people and the environment.
5. Objective
To conduct a high school teacher inservice training workshop for new science and sustaining wildlife curriculum.
6. Background and History of Organization
The California Regional Environmental Education Community Program, Administred by SCCOE serves approximately 60 public and private schools, 4000 teachers and 50,000 students in Santa Cruz County plus 300 schools, 13,000 teachers and 200,000 students within Region V (Monterey. San Benito and Santa Clara Counties). The CREEC Region V Network has been providing teachers and the public with access to high quality resources for environmental literacy development for the past

CALIFORNIA REGIONAL ENVIRONMENTAL EDUCATION COMMUNITY NETWORK
SPONSORED BY STATE AND LOCAL PARTNERSHIPS
ADMINISTERED BY CALIFORNIA DEPARTMENT OF EDUCATION
OFFICE OF ENVIRONMENTAL EDUCATION



four years on budgets around \$30,000 yearly.

7. How the Project Will Be Accomplished:

High school science teachers will receive special training on how best to introduce "Science and Sustaining Wildlife curriculum to assist students in developing the awareness, knowledge, skills and commitment to act responsibly in matters concerning wildlife.

8. Budget (Teacher Inservice- Teachers)

Printing & Graphics (25 teacher guides)

Taking Action- Education's Guide	175.00
Wild School Sites	125.00
Exploring School Nature Video	400.00
Wild about Elk	175.00
	875.00

Workshop Rental Site	125.00
Total	\$1,000.00

Matching Funds From CREEC

Facilitator / Speaker	300.00
Food & Refreshments	375.00
Services (Planning, Organization)	475.00
	\$1,150.00

CREEC, REGION V 2000-2001 SPONSERS

0569

Public Agencies & Community Groups

City of Watsonville
City of Santa Cruz
Pajaro Valley Water Management Agency
Santa Clara Valley Water District
Seagate Technology
O'Neil Sea Odyssey
PG&E
San Jose City Environmental Services Dept.
Monterey Co. Office of Education
Santa Cruz Office of Education
Santa Cruz Beach Boardwalk
The Sentinel
Dominican Hospital

Total = \$15,870.00**State Agencies**

CA State Dept. of Education
State Water Resources Control Board
CA Air Resources Board
CA Dept. of Forestry & Fire Protection
CA State Toxic Substances Board

Total = 28,800.00**Grand Total = 44,670.00**

885 Abrego Street . Monterey, CA 93940 . (831) 373-3720 . Fax (831) 373-8098

**SANTA CRUZ COUNTY
FISH AND GAME ADVISORY COMMISSION FUNDING REQUEST**

0570

I. Name of Group: Fishermen's Alliance of California

II. Amount of Funding Requested: \$6,500.00

III. Name, Address and Phone Number of Contact Person:

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

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

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, has completed 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 projects. The first will be a research and development 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 work will study 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 the 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 2001 - study equipment and methods to deter sea lions and harbor **seals** in selected central coast streams.
- b) April through December 2001 - research and study to assess sea lion at&action to hooked **fish and** the effectiveness of various acoustic equipment as a deterrent to those attacks.
- c) April through December 2001 - conduct aerial surveys along our coastline to determing sea lion and harbor seal populations.
- d) April through August 2001 - 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 commerical and sport fishing industries, and the local and regional economies.

VIII. Budget to include the precise use of grant monies

0572

The specific work budget for items a), b), and c) are as follows:

a) Detering Marine Mammals Away from In-River Salmon	\$25,014.00
b) Assessment of Sea Lion Attraction and development of detracton equipment	14,707.00
c) Surveys of Distribution and Abundance of Sea Lions & Harbor Seals	3,643.00
d) Completion of Socio-Economic Study	<u>10,000.00</u>
	53,364.00

More specific budgets are being developed by Dr. Harvey and will be available by April.

The grant funds we received during 1999 were used to complete our third year of study, which has been sent to your commission. As you know, the \$5000.00 grant you awarded us during 2000 was not approved by the Board of Supervisors until the third year report was completed and presented to them. That grant was approved by the Board of December 5, 2000, and we are now waiting for the funds. They will be applied to this year's budget.

Because the third year report was not completed or distributed until late last year, and because other county fish and game commissions also wanted to receive the report prior to awarding grants, we were unable to do any work on the development of non-deterrent during 2000. That is why our proposal for 2001 is the same as the one for 2000. This year we will do the work we originally planned for last year.

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 waters 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 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 with the Marine Mammal Center of Sausalito to develop these non-lethal deterrents. We all realize we must pool all our resources if 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.

FISHERMEN'S ALLIANCE OF CALIFORNIA

885 Abrego Street • Monterey, CA 93940 • (831) 373-3720 • Fax (831) 373-8098

ATTACHMENT 4

0573

March 8, 2001

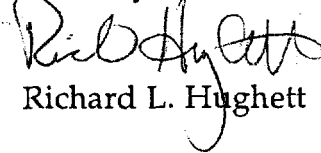
Mr. Dennis Murphy
Santa Cruz County Fish and Game Advisory Commission
P.O. Box 7960
Santa Cruz, CA 95061

Dear Dennis,

Based on your suggestion that I submit a more detailed budget for the work that Dr. Harvey plans to do, I am sending you the following breakdown. I hope this helps. Please let me know what other information you might need.

Thank you again for your consideration, understanding and support of our work. I will be in touch with you very soon.

Cordially,



Richard L. Hughett

Projected costs for development of non-lethal deterrents to stop sea lion and harbor seal interactions with salmonids and fishermen.

- 1) Development of equipment and methods to deter sea lions and harbor seals in selected central coast streams.

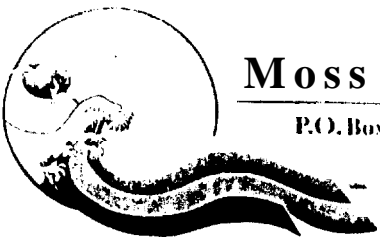
1) Research scientists	\$4,608.00
2) Engineer and mechanist	11,512.00
3) Housing for acoustic device	3,794.00
4) Electronic equipment	<u>5,100.00</u>
	\$25,014.00

- 2) Research to **assess** sea lion attraction to hooked fish and the effectiveness of various acoustic equipment as a deterrent to those attacks.

1) Research scientists	\$4,627.00
2) Digital low light videocamera	4,410.00
3) Underwater housing	1,260.00
4) Hydrophone and connections	1,260.00
5) Digital Tapes	630.00
6) Digital video playback deck	<u>2,520.00</u>
	\$14,707.00

- 3) Conduct aerial surveys along our coastline to determine sea lion and harbor seal populations and their movement.
- | | |
|---|-----------------|
| 1) Research scientists | \$555.00 |
| 2) Supplies (film, film processing, etc.) | 630.00 |
| 3) Airplane/pilot/fuel | <u>2,458.00</u> |
| | \$3,643.00 |
- 4) Complete collection of data and development of socio-economic study.
Estimate for work to be completed at this time - \$10,000.00

The total budget for all the items of work listed above is \$53,500.00.



Moss Landing Marine Laboratories

P.O. Box 450 Moss Landing, CA 95039-0450 Tel: (408) 633-3304 Fax: 753-2826

(<http://color.mlml.calstate.edu/www/>)

ATTACHMENT 4

0575

1 March 2001

Santa Cruz County Fish & Game Advisory Commission
Santa Cruz, CA

Dear Commission Members,

This is a letter to endorse the efforts of The Fishermen's Alliance of California -- Monterey Bay Chapter to secure funding for critical research to develop deterrents to mitigate the impacts of California Sea lions and Pacific harbor seals on **salmonid** fisheries in Monterey Bay, and continue to monitor pinniped populations along the central California Coast.

During three years of research investigating the impact of California sea lions on commercial salmon fisheries in Monterey Bay we found that sea lions took approximately 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 Fishing Vessel fishery, and 15.6 % (1997), 17.5 % (1998), and 4.0% (1999) of fish hooked in the skiff fishery. The percentage of hooked salmon taken by sea lions in the commercial salmon fishery relative to the legal catch has increased in the last several decades by as much as 8% in the commercial fishery, 8% in the CPFV fishery, and as much as 26% in the skiff fishery. Food habits data indicated that salmon occurred in the sea lion diet year-round, with the greatest frequency of occurrence in summer 1993. Hooked salmon from the fisheries are likely the majority of salmon in the diet of sea lions.

The proposed research is to develop new methods of deterring sea lions from taking hooked salmon or upstream migrating salmonids. To develop new deterrents we need to know what cues sea lions use to determine that a fish has been hooked and the behavior of sea lions as they take hooked fish. We need to understand what senses sea lions use so that we can develop methods that mask or hide the presence of hooked fish. We propose to use an underwater camera and hydrophone to record the frequency of sound emitted by hooked fish, record the behavior of sea lions after a fish has been hooked, and record how sea lions remove fish from the hook underwater.

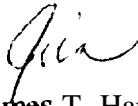
Continued monitoring of sea lion numbers in central California in conjunction with other ongoing research will allow us assess potential impacts on commercial fisheries in the Monterey Bay region. The largest source of variability in sea lion consumption models during the three years of research in Monterey Bay was the seasonal numbers of sea lions in the region. Consumption models are used to assess the quantity of commercially important fish species consumed by sea lions during a given season. The proposed research would conduct monthly aerial surveys of pinniped in central California to assess general numbers of animals and seasonal trends in numbers during the sea lion migration. More frequent surveys of the largest sea lion haul-out in the region, Año Nuevo Island, will enable us to reduce the variability in seasonal estimates of sea lion numbers, and in turn, reduce the variability in sea lion consumption models.

The cooperative agreement between The Fishermn's Alliance of California -- Monterey Bay Chapter and researchers has provided a useful mechanism for the development of non-lethal deterrents for pinniped-fisheries interactions. The assistance of the Santa Cruz County Fish & Game Advisory Commission would provide some of the

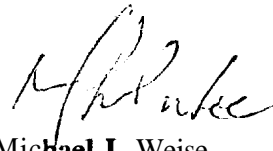
resources necessary to complete this vital research. Thank you for considering our request. If any additional information or materials are necessary please do not hesitate to call.

0576

Sincerely,



Dr. **James** T. Harvey
Associate Professor
Moss Landing Marine Laboratories.
8272 Moss Landing Road
Moss Landing, CA 95039
83 1-632-4434



Michael J. Weise
Research Associate
Moss Landing Marine Laboratories
8272 Moss Landing Road
Moss Landing, CA 95039
83 1-632-4422

**SANTA CRUZ COUNTY FISH AND GAME ADVISORY
COMMISSION**

0577

GRANT APPLICATION

1. Name: City of Santa Cruz, Department of Parks and Recreation
2. Amount of Funding Request: \$693.25
3. Contact: Dena Robertson, 323 Church St. Santa Cruz, CA 95060
(83 1-420-62 18)
4. Project Description: This project, located at the Neary Lagoon Wildlife Refuge, is for the purchase of nesting structures for wood ducks, mallards, and swallows and for the installation of wooden loafing platforms for the endangered Western Pond Turtle.
5. Objective: The objective of this project is to provide suitable nesting sites for waterfowl and birds and to provide predator guards to protect these nesting sites from intrusion by predators. An additional objective is to enhance the habitat for swallows and pond turtles by installing nests and loafing platforms. These structures will be explained to the public using interpretive displays which will be added to the existing interpretive loop trail system at Neary Lagoon.
6. Background: The problem is there are an insufficient number of nesting structures for wood ducks, and the design of the mallard nesting structures has not been successful in attracting waterfowl. All nesting structures need to be fitted with predator guards. New installation of swallow nests and loafing platforms for pond turtles will enhance the habitat for these species.
7. How will the project be accomplished: This grant request is for the purchase of the nesting structures and loafing platforms. The location and installation of these items will be undertaken by the City of Santa Cruz and directed and monitored by Biological Consulting Services which is under contract with the City of Santa Cruz.

0578

8. Budget:

(7) Mallard nesting structures @ \$49.95	= 349.65
(4) Wood duck nest boxes @ \$35.95	= 143.80
(4) Swallow nest structures @ \$29.95	= 119.80
(4) loafing platforms @ \$20.00	= 80.00

TOTAL	\$693.25
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JAMES M. RITCHEY
ATTORNEY AT LAW
125 Water Street, Suite C
Post Office Box 1499
Santa Cruz, California 95061-1499
Telephone: (831)426-7797
Facsimile: (831)429-6024
e-mail: jritchey1@earthlink.net

ATTACHMENT 6

0579

March 23, 2001

Attention: Christine Schroeder
Santa Cruz County
Fish & Game Commission
701 Ocean Street 4th Floor
Santa Cruz, CA 95060

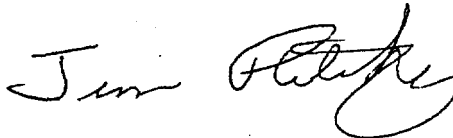
Re: State Wide County Fish and Game Commission Meeting -- Los Angeles May 18, 2001
Subject: Request for Stipend

Dear Chairmen and Members of the Commission:

I have made reservations for the May 18, 2001, state wide County Fish and Game Commission Meeting in Los Angeles. The registration fee is \$15.00 and attendance of the meeting will require two over-night lodgings and transportation. Therefore, I am requesting a stipend of \$100.00 to attend the meeting and will make a report to you regarding the meeting.

Thank you for your consideration of my request for a stipend to attend the conference.

Sincerely,



JIM RITCHEY

JMR/dh