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Exxon Valdez Oil Spill Trustee Council

Public Advisory Group 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone 907-278-8012 Fax 907-276-7178

AGENDA

Exxon Valdez Oil Spill Trustee Council Public Advisory Group First floor conference room 645 G Street, Anchorage, Alaska



EXXON VALDEZ OIL SPILL

Tuesday and Wednesday, August 2-3, 1994 TRUSTEE COUNCIL 9:30 a.m.

> **DRAFT** 8/1/94 4:10 p.m.

PURPOSE:

- 1. Obtain status reports on restoration activities.
- 2. Make recommendations on proposed activities and projects for the 1995 Work Plan.

Tuesday

9:30 a.m.	Call to order/roll call/ approval of agenda	Donna Fischer, Vice-Chair	
9:35	Approval of summary of June 28, 1994 meeting	Donna Fischer, Vice-Chair	
9:40	Recommendations for FY 1995 PAG Budget	Vern McCorkle Mary McBurney	
10:00	Executive Director's Report	Jim Ayers Executive Director	
	PAG Budget and Staffing		
	Introduction to Draft FY95 Work Plan		

-- Habitat Protection and Acquisition

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	"Less-than-fee" and "public access" policies	Chuck Totemoff, Pam Brodie, Jim Cloud, John Sturgeon, and Walt Sheridan
	Reserve/Endowment	Craig Tillery
	Restoration Plan	
LAR VALUE, DU SCAL TRUCIAL CHART SUMMATRATE ASCORD	Draft EIS	al Plan
11:30	Public comments	
12:00 p.m.	Lunch	
1:00	Report on 1994 Work Session	Donna Fischer, John French, Gail Evanoff
1:15	Comments on proposed projects for the draft 1995 Work Plan	5 Donna Fischer, Vice-Chair
5:00	Recess	
Wednesday		
8:30 a.m.	Ecosystem Management Initiative	Byron Morris, NOAA
9:30	Continue recommendations on the 1995 Work Plan	he Brad Phillips, Chair
11:30	Schedule next meeting	
11:35	PAG member comments	
12:00 p.m.	Adjourn	

Meeting Summary

A. GROUP: Exxon Valdez Oil Spill Public Advisory Group (PAG)

B. DATE/TIME: June 28, 1994

C. LOCATION: Anchorage, Alaska

D. MEMBERS IN ATTENDANCE:

<u>Name</u>

(King alternate for Andrews)
Pamela Brodie
Kim Benton (for Sturgeon)
Jim Cloud
Cliff Davidson (ex officio)
Donna Fischer
Brenda Norcross (for French)
Lew Williams
James King
Vern McCorkle
Mary McBurney (for McCune)
Dan Hall (for McMullen)
Brad Phillips, Chair
Gail Evanoff (for Totemoff)
(McCorkle alt. for Eliason)

E. NOT REPRESENTED:

<u>Name</u>

Jim Diehl Richard Knecht Don McCumby (alternate) Drue Pearce (*ex officio*)

F. OTHER PARTICIPANTS:

<u>Name</u>

Jim Ayers

Leslie Holland-Bartels Luke Borer Mark Broderson L.J. Evans Ken Holbrook Rod Kuhn Phil Kunsberg Brion Lettich Jamie Linxwiler



INCELES VALDEZ OIL SPILL Principal Sport Hunting and Fishing Environmental Forest Products Public-at-Large Alaska State House Local Government Science/Academic Public-at-Large Conservation Public-at-Large Commercial Fishing Aquaculture Commercial Tourism Native Landowners Public-at-Large

Principal Interest

Recreation Users Subsistence Public-at-Large Alaska State Senate

Organization

Executive Director, EVOS Restoration Office National Biological Survey Sherstone Timber Company AK Dept. Envir. Conservation Restoration Office Staff U.S. Forest Service U.S. Forest Service Los Alamos National Laboratory Eyak Bob Loeffler George Matz Molly McCammon

Jerome Montague Doug Mutter Eric Myers Donna Platt Sandy Rabinowitch Leif Selkregg Daryl Schaefermeyer Walt Sheridan Rick Steiner Kim Sundberg Nancy Swanton Alex Swiderski Thea Thomas Chuck Totemoff Craig Tillery

AK Dept. Envir. Conservation Alternate for King Director of Operations, EVOS Restoration Office AK Dept. Fish and Game Designated Federal Officer Dept. of the Interior Restoration Office Staff Eyak Corporation National Park Service IMS SAAMS U.S. Forest Service Self AK Dept. of Fish and Game Minerals Management Service AK Dept. of Law Cordova Dist. Fishermen United Chenega AK Dept. of Law

G. SUMMARY:

The meeting was opened June 28 at 9:30 a.m. by Chairperson Brad <u>Phillips</u>. The January 11-12, 1994 meeting summary was accepted (with the addition that Jim <u>Cloud</u> was present).

<u>Phillips</u> initiated a discussion about how meaningful the input and participation of the PAG has been as an advisory mechanism to the Trustee Council. Items that engendered frustration included: not getting the opportunity for input before decisions are made, advice is not listened to or responded to, difficulty in reaching a consensus, unclear what is expected of the PAG, a lot of material to digest in short time periods, a PAG staff person is needed to help digest information, better communication and more frequent meetings are needed. Jim <u>Ayers</u> stated that he hoped the PAG would be a deliberative body looking at the broad picture and that the PAG has been and will continue to be invited to participate in other restoration planning activities.

Jim <u>King</u> noted that the PAG suggestions about an endowment were not discussed in the Draft Environmental Impact Statement (EIS). Vern <u>McCorkle</u> noted that the July 1993 "Williams" protocol listing PAG recommendations for the restoration plan did not appear to be considered or responded to (attachment #2). <u>Ayers</u> said that the endowment issue was held up by Department of Justice lawyers and that the PAG goals of July 1993 would be considered. He also asked for PAG participation in planning and budgeting processes and expressed his desire to work with the PAG to develop specific objectives and staff needs for the PAG.

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<u>Ayers</u> also said he would put together a financial overview of alternative #5 at the PAG's request that would reflect Table 2-2 in the draft EIS.

Mary <u>McBurney</u> suggested the PAG have a policy that decision documents be by consensus only. Others stated that while reaching consensus was useful if it could be done, the range of opinion was valued by the Trustee Council as well.

The meeting was opened for public comment. Testimony was presented by: Thea <u>Thomas</u> in support of the Sound Ecosystem Assessment project and she presented a petition signed by 200 fishermen in support of the permit buy-back project; Donna <u>Platt</u> and Luke <u>Borer</u> regarding concerns about the draft policy on purchase of less than fee simple title for habitat protection--which was then discussed (attachment #3); and Rick <u>Steiner</u> in support of Eyak and Sherstone and for flexibility in negotiating habitat protection acquisitions.

Jim <u>Ayers</u> gave the Executive Director's report. The proposed organization (attachment #4) was reviewed, and includes a Coordinating Committee with 2 PAG members participating. PAG members were asked to participate in deliberations on the less than fee simple title policy, the 1995 budget for the PAG, and the 1995 Work Plan (see H. Follow-up).

Molly <u>McCammon</u> presented the FY 1995 and 1996 Work Plan Timelines (attachments #5 and 6). The draft Restoration Plan and EIS are in public review, comments are due August 1 (attachment #7). The final EIS is expected on September 28, 1994. The next Trustee Council meeting is July 11. After the meeting from 5:00 to 8:30 will be a picnic at Valley of the Moon Park in Anchorage, PAG members are invited.

Kim <u>Sundberg</u> gave a presentation on the status of the proposed Institute of Marine Science Improvements at Seward. The draft EIS is in process with the final EIS due on September 23, 1994. The Seward facility is expected to open in June 1997. The project includes a research element, a public element and a research vessel element. <u>Avers</u> said the financial numbers would be examined to determine which elements were eligible under the settlement agreement. Brenda <u>Norcross</u> raised a question about the role of the University in the operation of the Institute. <u>Sundberg</u> said the University supported the Institute but that it was not a University facility.

Doug <u>Mutter</u> briefed the members on the process for nomination and approval of PAG members for the 1994-1996 term, which begins in October 1994 (a process description

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was sent to members with the meeting agenda). Current members wishing to continue PAG service must send a written notice of application to the EVOS Restoration Office by August 1, 1994.

The meeting adjourned at 3:50 p.m. on June 28, 1994.

H. FOLLOW-UP:

- 1. <u>Phillips</u> will present a summary of PAG actions at the July 11, 1994 Trustee Council meeting.
- 2. <u>Mutter</u> will send PAG members copies of their original nomination package for review and update if they wish to re-apply for the next term (attachment #1).
- 3. PAG members to participate with Walt <u>Sheridan</u> and Alex <u>Swiderski</u> in discussions on the less than fee simple title policy: Chuck <u>Totemoff</u>, John <u>Sturgeon</u>, Pam <u>Brodie</u>, and Jim <u>Cloud</u>.
- 4. PAG members to participate with <u>Ayers</u> to prepare the FY1995 PAG Budget: Vern <u>McCorkle</u> and Mary <u>McBurney</u>.
- 5. PAG members to participate on July 12-13 with the Work Force to develop the 1995 Work Plan: Donna <u>Fischer</u>, John <u>French</u>, and Gail <u>Evanoff</u>.
- 6. The August meeting agenda will include a status report from <u>Avers</u> on the endowment issue.

I. NEXT MEETING: August 2-3, 1994 in Anchorage.

The following meeting is tentatively set for October 11-12, 1994.

J. ATTACHMENTS:

1. PAG member's original nomination submission (for the member only)

Handouts attached for those not present:

- 2. July 1993 PAG Approach to Restoration
- 3. Discussion Draft on Acquisition of Less Than Fee Simple Title
- 4. Handouts on the Restoration Plan and Organization
- 5. FY 1995 Work Plan Timeline
- 6. FY 1996 Work Plan Timeline
- 7. Restoration Plan EIS Public Meeting Schedule
- 8. Chart of Budgets for Restoration Alternatives
- 9. Habitat Protection Status Report

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K. CERTIFICATION:

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PAG Chairperson

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Date

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Departmended of the Interior OFFICE OF THE SECRETARY Office of Environmental Policy and Compliance - Alaska

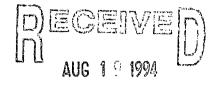
NOTE

TO:

FROM:

SUBJECT:

July 26, 1994



EXXCN VALDEZ CIL SPILL TRUSTEE COUNCIL

As requested, here is some information to help you and Mary McBurney with the PAC budget. The know if I can be of further assistance.

Currently proposed PAG budget for FY 1995:

Doug Mutter

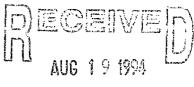
Vern McCorkle (fax: 279-2900)

Public Advisory Group (PAG) Budget Information

	Per me		travel/per diem printing/copying postage/courier transcription services advertising ADA compliance total:	\$	10,000 800 250 2,500 1,500 200 15,250	ŕ	61 000
	Four PAG meetings:			φ	61,000		
	Staff support:	ADF&	G (1.0 FTE)				46,100
		DOI (0	.1 FTE)				6,000
	General & administrative:					9,300	
	Total:					\$ 1	22,400
Propos	ed additions:	4					
	Four two-day PAG meetings:				no ad	ditional	
	Drinks/snacks and working lunch (@ \$400/mtg x 4 mtgs):				\$	1,600	
	Two one or two-day PAG community-based meetings/field visits:					37,300	
	@ \$18,650 each: (e.g., \$9,200 added for 20 people Anchorage to Cordova: travel @ \$4,500, two nights per diem @ \$ 4,600, room cost @ \$100; plus travel for 9 people to Anchorage @ \$4,200; plus other per meeting costs from above)						
	Staff support/supplies for synopses/regular communication:			no ad	ditional		
	Total:			\$ 3	38,900		

Discussion paper for improving PAG meetings

I. MEETINGS



ADMINISTRATIVE RECORD

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A) change meeting format to provide more meetingxtimeALDER CIL SPILL TRUSTEE COUNCIL

1) start meetings at 8:30 a.m.

- provide refreshments and sack lunches to allow PAG to work through the lunch hour and reduce time spent on breaks
- 3) streamline public input (two suggestions)
 - a) require public to submit written comments to the PAG which would be incorporated into the PAG meeting packet. Members who would like to ask questions or have a presentation may request that specific people or topics be added to the agenda.
 - b) move the public comment period to the end of the first day PAG agenda to allow public input before second-day deliberation.

B) schedule six regular PAG meetings per year

- 1) Four quarterly meetings in Anchorage
 - a) two-day duration
 - i) first day workshop to review agenda items, hear reports from staff, ask questions (take public comment)
 - ii) second day for formal deliberation and decision-making
- 2) Meetings in spill-affected communities (two suggestions)
 - a) one-day duration/two meetings per year
 - i) send PAG chair and/or designee with a staff person to set up meeting and make local contacts.
 - b) two-day meeting/one meeting per year
 - i) conduct public meeting including updates on research of local interest
 - ii) second day field trip to visit project sites.

II. STAFF

A) prepare materials for PAG members

1) provide synopsis of Trustee Council meetings

- 2) deliver copies of PAG minutes not less than ten days before next scheduled meeting
- 3) prepare a weekly or bi-weekly calendar of other meetings which PAG members may attend on a drop-in basis.

B) PAG public relations

1) include a section in the *Restoration Update* to report on PAG meetings and activities

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III. BUDGET

A) staffing

B) additional meetings

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Charles E. MEKee P.O. BOX 143452 anch, ak UNITED STATES DISTRICT 99514 COURT FOR THE STATE OF ALASKA IN THE LLL AT ANCHORAGE Charles E. McKee-ot-al., PEOPLE-JUL 2 0 1994 KING, CLASS SUITE TEST SUIT (QUASI-Plaintiffs. CRIMINAL), UNITED STATES DISTRICT COURT VS. STATE OF ALASKA, EXECUTIVE BRANCH, DISTRICT OF ALASKA By LEGISLATIVE BRANCH, JUDICIAL Deputy BRANCH, STATE DEPARTMENT(S), BOARDS AND COMMISSIONS, et al. CASE NO. <u>A 94-151</u> +TO.100. g. Charles & MSKLe. Defendants. marpo JUDGMENT FOR -COST-OF on so COMPENSATION IN ORDER BEHALF OF PLAINTIFF IT IS ORDERED that THE STATE OF ALASKA ament U.S. C. 18550660 with Decree in behalf Plain a compensation al 01 Book 20: sage 27 Jan. 31. 18 nesin as Labels, Book 18: page 29, June 18, 1875 of copyright are paten Siracy to influ a partes R.S. 1980, 1981 face a Judge/Clerk **Effective Date** (at least 10 days after date of Notice) Type or Print Name Honorable Judge Greene Charles & MELee c.c.: Alaska Superior Court 7-20-1994 4FA-82-2208 Civil Weiss v. State of Alaska I certify that on, a copy of this judgment was sent to: Lections Unit, 1033 W 4th Ave, Suite 200, Anchorage, AK 99501. Phone: 269-5205 Department of Law Clerk JUL 20 1994 Office of the Attorney General Anchorage Branch Anchorage, Alaska

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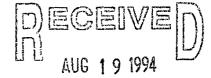
Мето...

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

JUL 26 1994

Date: July 25, 1994

To: Molly McCammon From: James Mykland Re: Area E Salmon Permit Buyback Project.



EXXON VALDE2 OIL SPILL TRUSTEE COUNCIL ADMINISTRATIVE RECORD

Dear Molly,

Here are the signatures I have gathered in support of a permit buyback program. Please see that they are included in the trustees packet and distributed to all interested parties. Thank you for your cooperation.

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Sincerely, James L. Mykland

Commercial salmon fishing in Prince William Sound was injured by the Exxon Valdez Oil Spill. Each year that commercial fishing remains below pre-spill levels compounds the injury to the fishermen and, in many instances, the communities in which they live.

Poor returns of salmon stocks to Prince William Sound have severely affected the health of our commercial fisheries. Prince William Sound is the only oiled area that is experiencing major salmon run failures. There are not enough salmon stocks to support the commercial fishing fleet in its present state.

SIGNATURE PRINT NAME ADDRESS Box 1430 Love all Box 1512 Godown AK BOX 406 CON AK Box 1149 MFAJARDO 500 mold Rox 903 CDV, AK 2 11001 Box 10:39 Cordora Hoover lonf 3900 MCMAHA, ANL.AK9 GAL JUE Unne an Box 1875 Cordora 99.574 Linden mle

Please return petition to J.L. Mykland, Box 1241 Cordova, AK 99574, 424-7115

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PRINT NAME SIGNATURE ADDRESS EKCUNIT ANCES A. MAllory 995 Box 396 Cordon Birk tella M. SKuls 802 CD 99571 BOX -(1-1

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PRINT NAME SIGNATURE ADDRESS BOX 1693 TERROLD A.PLAT In Mall P.OBox 1714 A. DEMot O. BOX thand Pettit to, K 145 Cordova, armelita HERLIDAN 3602000

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We the undersigned request that the EVOS Trustee Council initiate and fund an Area E salmon permit buyback program.

PRINT NAME SIGNATURE ADDRESS Wow 86 CORDOVA GREV 1824 CORDOUA Adour. ra AR

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PRINT NAME SIGNATURE ADDRESS BOX1611 CORDUA PATRICIA M'GUIRE Tet In 2161 CONDOUA, William A. Merritt Williama. Meriett P.O. Box 1108 Cord P.O. Box 721 Cordova 1.Jana P. O. Box 1881 Cordo~ ERENT 4 SELEDKON O lores Te letis P.D Box 646 Cordova Kandy Menn ho Jou 1156 ,30% m Bix 2.338 14s weller Kune harles teron 130x 992 Cordone

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PRINT NAME SIGNATURE ADDRESS Cordova Box Robert A.S. 251 BOX 1012 1,0 R REMNER DREADIN 15x 25 1946 ick Kockwell Box

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SIGNATURE PRINT NAME ADDRESS Bilderback Charles V 0. Box 2095 BOX Rox 100 AMS $\zeta \varphi \varphi \zeta$ Box 223 lalters Box 1871 CORDOUD AK 99574

Please return petition to J.L. Mykland, Box 1241 Cordova, AK 99574, 424-7115

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PRINT NAME SIGNATURE ADDRESS Lannva 0 box 2312 D Cordo PO Box 263 CORDON CFR Maluti 942 CORDOVA MALUTIN BECKER * 1185 CORDOVA 5 cord na 2Ï

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PRINT NAME SIGNATURE ADDRESS Box 1829 Ordone 1472 CORPONN POTTOR 10 BOK X tra AK 996 n)

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PRINT NAME SIGNATURE ADDRESS Pettingill Greg POB01222491 · 2

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PRINT NAME SIGNATURE ADDRESS ROX Box 1352 Cordova Ak Box 1352 z, Please return petition to J.L. Mykland, Box 1241 Cordova, AK 99574, 424-7115

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PRINT NAME SIGNATURE ADDRESS Box 382 Homes, Alarke 55 16h 3303 IOWA SPENARD 5:11 BACON E.FLACK ACK Jox 881 Codora AK 99574 CorolarA AK. even M. Rector Bx 1405 1

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PRINT NAME SIGNATURE ADDRESS Libbie Graham Box 873 z"

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PRINT NAME SIGNATURE ADDRESS Sof 1896 Condora, At 2

Please return petition to J.L. Mykland, Box 1241 Cordova, AK 99574, 424-7115

14.2.11 WILLIAM SOU PRINCE July 30, 1994 **EVOS Trustee Council** 645 G Street PUACULTURE CORPORATION Anchorage, AK 99501 AUG 1 9 1994

Trustee Council Members,

EXXON VALDEZ CIL SPILL TRUSTEE COUNCIL ADMINISTRATIVE RECORD

Prince William Sound Aquaculture Corporation (PWSAC) is a non-profit regional corporation representing users and communities of the Prince William Sound-Copper River area in their efforts to rehabilitate, enhance and stabilize salmon resources and associated services. Following the *Exxon Valdez* oil spill (EVOS), salmon in PWS experienced productivity decreases, and stocks have been recognized as injured and not recovering.

PWSAC has pursued many avenues to continue its services to area residents through ongoing enhancement operations and supporting ecosystem based research, restoration and monitoring of salmon resources. The Trustee Council has been supportive through their funding of very important research towards understanding oil spill impacts to the resources and improving our understanding of the PWS-Gulf of Alaska ecosystem. It is now time to take significant restorative actions to aid the recovery process of the Sound's salmon.

In being <u>responsive</u> to concerns voiced by Trustee Council members and staff, PWSAC is submitting this new proposal which is an evolution of the proposal to fund hatchery operations to replace lost resources and services with hatchery salmon. PWSAC, guided by the voice of its constituents and as directed by its Board, proposes restoration of salmon resources in PWS through a program of professional/agency and local resident collaboration, and integration of research, restoration and monitoring objectives.

The proposal delineates a multidisciplinary program for investigating salmon resources, enumerating stocks, and assessing stock condition and genetic identity. The program further intends to take restorative action using methods among those described in the <u>EVOS Restoration Plan Draft Environmental Impact Statement (DEIS)</u> such as hatchery rearing of wild stock eggs, netpen rearing of wild stocks, and relocation of hatchery runs. The program involves a collaboration with University of Alaska Fairbanks School of Fisheries and Ocean Sciences, Alaska Department of Fish and Game, PWSAC and local residents including members of the native community.

Program objectives include:

- A. Restore wild stock salmon resources and services in PWS to pre-spill conditions.
- B. Maximize fitness (both biologic and economic) of injured wild stocks through application of knowledge of salmon population biology, genetics and disease.

- C. Reduce harvest of injured wild stocks by more specific management of wild and hatchery stocks.
- D. Develop, integrate and coordinate collaborative participants in research, restoration and monitoring.

E. Develop, train and use resident expertise to establish the capability for continuing conservation and protection of PWS salmon resources.

Although actions proposed focus on an FY95 timeline, the program described is planned to run through the year 2002. This length of time is crucial to restore and monitor two generations of both even and odd year pink salmon including returning adults.

In perspective, the program is collaborative and designed to integrate with current knowledge, existing and proposed projects, and provide a framework for involving local people in the restoration process. PWSAC fish culture expertise will contribute to restoration activities, and provide training to local residents who will serve as field technicians. Existing aquaculture facilities and technologies will be utilized to implement restoration methods recommended in the <u>Restoration Plan Draft Environmental Impact</u> <u>Statement</u>.

It is time to begin active restoration of the salmon resources of the oil impacted area. The path is provided for the collaboration and integration of program partners and objectives. The result will provide us more than knowledge and teams of developed local expertise in salmon restoration and conservation, but will also provide for a sustainable service for people and communities of Prince William Sound.

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Sincerely.

Bob Roys President

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I. EXXON VALDEZ OIL SPILL BRIEF PROJECT DESCRIPTION

Project Title:	Restoration of PWS Wild Stock Salmon Resources and Services: An Integrated Approach
Project Leader:	Howard Ferren, Special Projects Manager
Lead Agency:	AK. Dept. of Fish and Game (ADF&G)
Cost of Project	FY95: \$1,690,331; FY96 \$1,704,434
Start/Completion:	January, 1995 - September, 1995
Project Duration:	0.75 yr.
Geographic Area:	Prince William Sound
Contact Person:	Howard Ferren, Special Projects Manager PWSAC, P.O. Box 1110, Cordova, AK 99574 (907) 424-7511

II. Introduction

Prince William Sound Aquaculture Corporation (PWSAC) is the regional association for salmon enhancement in the PWS area. The corporation is authorized (Section 1 ch 111 SLA 1974) for the purpose of "contributing to the rehabilitation of the state's depleted and depressed salmon fishery", and is responsible (AS 29.03.020) for "providing salmon enhancement services."

Due to the **Exxon Valdez Oil Spill (EVOS)**, wild stocks of salmon in PWS are recognized as injured. Pink salmon in particular are identified as injured and not recovering (**EVOS** Trustee Council). As a result of these injured resources, individuals and communities of PWS have suffered lost or reduced services.

The purpose of this project is to rehabilitate injured wild salmon stocks and restore services to subsistence, commercial, recreational and other users and communities of the PWS area. This will be accomplished by an integration of collaborative professional and local resident partners, and integration of objectives to actively rehabilitate injured stocks; relocate hatchery production to locations which will reduce harvest pressures on injured wild stocks; research and develop stock baseline genetic databases; determine stream escapements, and monitor both gene pools and returning adults.

This project will result in stock identification, enumeration, rehabilitation, monitoring, development and use of local expertise and evolvement in the restoration and monitoring process, and utilization of the restored and replacement resources.

This project will contribute to the **EVOS Trustee Council** mission to "efficiently restore the environment injured by the *Exxon Valdez* oil spill to a healthy, productive ecosystem while taking into account the importance of quality of life and the need for viable opportunities to establish and sustain a reasonable standard of living." The restoration will be accomplished through natural recovery, resource and service restoration and enhancement, replacement of resources, research and monitoring. The project falls under **EVOS** TC Draft Guiding Principles including:

- "occur within the spill area";
- "support services necessary for the people who live in the area";
- include "meaningful public participation process";
 - reflect "a reasonable balance between costs and benefits";
 - provide a "cost-sharing opportunity";
 - "have a sufficient relationship to an injured resource"; and, and a second second
 - "state a clear, measurable and achievable endpoint".

III. Need for Project

Restoration funds must be used "...for the purposes of restoring, replacing, enhancing or acquiring the equivalent of natural resources injured as a result of the oil spill or the reduced or lost services provided by such resources". This project is needed to: restore and replace <u>injured resources</u> by increasing the rate and degree of recovery of wild pink salmon stocks; and, to restore/replace <u>injured or lost services</u> by wild stock enhancement and relocation of hatchery stocks which have "sufficient relationship to the injured resource...and will benefit the same user group(s) that was (were) injured."

IV. Objectives

- A. Restore wild stock salmon resources and services in PWS to pre-spill conditions.
- B. Maximize fitness (both biologic and economic) of injured wild stocks through application of knowledge of salmon population biology, genetics and disease.
- C. Reduce harvest of injured wild stocks by more specific management of wild and hatchery stocks.
- D. Develop, integrate and coordinate collaborative participants in research, restoration and monitoring.
- E. Develop, train and use resident expertise to establish the capability for continuing conservation and protection of PWS salmon resources.

V. Methods

Four methods will be used to accomplish the immediate objectives of salmon stock restoration; a fifth will serve the longer-term objective of establishing expertise to practice sustained efforts in stock restoration. The restoration methods include direct restoration through use of available fish cultural facilities and talent in PWS; research into biological interactions, **particularly genetic**

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effects of cultured salmon on wild salmon; integrated monitoring of the fitness of salmon stocks and their progress toward restoration; and, collaboration of partners to restore the Sound by integrating and coordinating activities. These methods, particularly the research and monitoring aspects, follow in concept a model for monitoring interactions of wild and hatchery salmon recently set forth by an international panel of salmon geneticists and conservation scientists convened by NINA (Norweg. Instit. Nature Res.). They emphasize the necessity of monitoring a baseline of genetic and fitness (phenotypic) data, of understanding the extent of gene flow between stocks, and of studying the biological effect of gene flow through quantitative genetic analysis.

The proposed methods anticipate the integrated cooperation of projects independently proposed by other agencies and groups; some of those projects are referenced here. Because of the schedule with which this revision has been undertaken there has not been formal communication and coordination with those agencies and groups. However, no impediments to integration of those projects into the restoration of wild stock resources are anticipated. A workshop is proposed to bring collaborators together to integrate and plan activities.

The work proposed will be carried out in part through the cooperation of several agencies active in salmon resource management in PWS (PWSAC, ADF&G). Portions of the genetic-interaction research will be carried out by the University of Alaska Fairbanks School of Fisheries and Ocean Sciences (SFOS) and will provide opportunity for graduate thesis research and professional development for junior biologists in PWS. PWS residents will participate in field restoration and monitoring activities.

A. Directly restore injured stocks.

- 1. Assess and inventory hatchery capabilities: water regimes, incubation capacity, stock isolation capability, etc. This will be completed to help match hatchery constraints or opportunities with specific injured or depleted wild salmon stocks identified as candidates for restoration which may benefit from hatchery/fish culture intervention.
- 2. Incubate eggs taken from injured stocks, returning them as fry to the native site via net pen culture (cf Draft EIS, Proposed Action, Comprehensive Restoration of Impacts on Fish, Action 3, Ch. 4, p. 124).
- **3.** Rear and release hatchery fish to divert harvest from injured wild stocks (cf Draft EIS, Proposed Action, Comprehensive Restoration of Impacts on Fish, Action 4, Ch. 4, p. 124; See C.1. below).

B. Maximize fitness of wild stocks.

Mark or tag hatchery stocks: a research and monitoring tool.
 <u>a.</u> Coded micro wire tagging: Refer to Project Proposal 95137, 95320: Stock ID and Monitoring Studies.

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<u>b.</u> <u>Thermal manipulation of otolith microstructure</u> Contained in Project Proposal 95320C, Otolith thermal mass marking.

2. Monitor stock baselines: a reference for assessment of progress; a basis for setting policy for restoration decisions.

<u>a.</u> <u>Census:</u> enumerate stocks of wild salmon by ground surveys in five districts of PWS to contribute to stock baseline information including species, stocks and stock size in oiled and unoiled areas.

<u>b.</u> <u>Demography:</u> fitness and life history traits of stocks: sample age, size, sex, timing, meristic/morphologic information from stocks. This information will aid in identifying injured and depleted stocks which will be targeted for further research, monitoring and possible restoration.

<u>c.</u> <u>Gene frequencies:</u> representative samples of tissues from stocks; contained in Project Proposal 95320D by Seeb & Seeb.

<u>d.</u> Pathogens and parasites: representative samples of tissues, fluids from stocks.

<u>e. Marks and tags:</u> recover marks and tags from representative samples of stocks.

3. Research genetic interactions of wild with wild stocks; hatchery with wild stocks

a. <u>Straying/gene flow field experiment: (SFOS Division of Fisheries)</u> This research is modelled on earlier work on pink salmon at Auke Creek in Juneau by A.J. Gharrett and colleagues. Straying may be estimated by observing physically marked or tagged salmon; however, straying is only one component of gene flow--strays may well not breed successfully to contribute genetically. Our proposed protocol is to screen male returning salmon at a weir, allowing about 20%, those bearing a relatively rare presumably neutral gene, to spawn naturally. This procedure genetically tags the stock; applied with different marker genes to two stocks in the same region, a precise estimate of actual gene flow can be obtained by simple monitoring of the stocks over several generations. Integrates with Project Proposal 95076 by Wertheimer, et al.

<u>b.</u> Fitness phenotype laboratory experiment: quantitative genetic analysis of life history and fitness traits.⁵ (SFOS Division of Fisheries) This research is developed from earlier work on pink salmon at Auke Creek and at Gastineau Hatchery by W.W. Smoker, P.A. Crandell, and colleagues. Gametes sampled from known parents in stocks under restoration will be taken to the incubation laboratory at Juneau and observed under a standard quantitative genetic experimental design. Analysis of observations of fitness-related developmental traits (rates of development, salinity tolerance, etc.) and developmental stability

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(fluctuating asymmetry of meristic and morphologic traits) will provide estimates of genetic parameters, and from observations of hybrid families, direct estimates of the fitness effects of gene introgression.

c. Analysis of fitness effects on wild stocks of interactions with cultured fish based on observed PWS data. (SFOS Division of Fisheries) Recent biometrical simulations of hypothetical salmon production systems, modelled on PWS pink salmon, by AJ Gharrett have demonstrated a relationship between ecological productivity (carrying capacity) and the overall fitness benefit of homing or straying. These models will provide a basis for analyzing with biometrical rigor the straying, gene flow, population genetic structure, and quantitative fitness variation data collected by other components of this integrated project.

d. Incorporate genetic interaction insights in rehabilitation activities.

C. Reduce harvest of injured wild stocks by more specific management of wild and hatchery stocks.

1. Relocate hatchery runs in space or season(cf Draft EIS, Proposed Action, Comprehensive Restoration of Impacts on Fish, Action 4, 6 Ch. 4, p. 124)

a. Use appropriate remote releases (cf Phase Three Comprehensive Salmon Plan for Prince William Sound/Copper River). Based on site selection criteria and site evaluation, imprint and remote release hatchery fish to reduce possible harvest pressures on injured wild stocks which might migrate through fisheries conducted near hatcheries or targeting enhanced salmon migrating to the hatchery of incubation and rearing. For example, hatchery salmon could be released in the Eastern, Southeastern and/or Montague Districts, thereby distributing the commercial fleet and reducing harvest pressures on injured stocks in the Northwestern and Southwestern Districts.

b. Develop new hatchery stocks with inherent run timing different from injured wild stocks (cf Phase Three Comprehensive Salmon Plan for Prince William Sound/Copper River). Identify and select from the salmon stock census, stocks which have adult return run time different from that of injured or depleted wild stocks which may be currently harvested in fisheries targeting returning hatchery salmon. By culturing temporally isolated salmon stocks, fisheries can be managed without placing additional pressure on injured stocks. Consideration must be given to species in addition to pink salmon if those species provide the temporal and spatial isolation necessary to reduce pressures on injured pink stocks. Of particular potential are early run time chum and sockeye salmon.

- 2. Identify hatchery stocks in season and manage harvests accordingly. Otolith marking and CWT tag recovery and assessment (B.1. above).
- D. Project collaboration and activity integration.

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- 1. Convene working group of research and restoration collaborators. Agencies, organizations and groups which are identified by PWSAC as required within a collaborative network for salmon restoration to complete the objectives outlined within this proposal, will convene in Cordova to integrate objectives and activities including and in addition to those outlined within this proposal.
 - Integrate projects while formulating strategies and agreements towards implementation of activities. Establish project manager and management team, communication and decision making protocols, priorities and implementation plans.
- E. Employ resident sector-specific technical teams (5 sectors corresponding to major fishing districts, see Figure 1). Teams responsible for surveys, sampling, egg takes, pen rearing, etc. Communications have been initiated with Eyak Tribal Council on project potentials and participation.
 - 1. Contract five vessels and crew for field work including stream surveys, escapement enumeration, stock sampling, egg take, netpen and fry rearing support or other salmon restoration activities identified as appropriate. PWSAC will exercise standard contract procedures and employment options.
 - 2. Provide technical training to crews in salmon escapement enumeration, and working with technical, academic and professional staff in genetic, disease and marked salmon recovery sampling, fish culture techniques, restoration methods and stock monitoring. Training will be provided survey, monitoring, sampling and fish culture crews by PWSAC, ADF&G and University of Alaska SFOS as required.
 - 3. Deploy vessels and teams for stream surveying, stock assessment, sampling, restoration activities and monitoring. Historic observations indicate that early returning salmon stocks spawn in the Eastern and Southeastern Districts. Therefore, two vessels and technical teams are to be deployed to those sectors from June 23 to August 15. Beginning August 15, five vessels and crews are to be deployed, one to each sector of PWS, and remain in the field until September 25. The project leader and field technicians trained and assigned to each vessel and sector will survey, sample, monitor, compile data and report as required. Additional assignments may include, based on restoration requirements, taking eggs, managing net pens, rearing fry for imprinting, or other enhancement or rehabilitation activities.

V. Schedule for FY-95

NOTE: The schedule is presented for FY-95. Specific objectives and activities are intended to occur annually to encompass two (2) life cycles for both odd year and even year pink salmon. A schedule will be presented in the <u>detailed project description</u> (DPD) which delineates the workplan through the year 2002. A generalized listing of the extended workplan and timeline is presented in **Figure 2**.

Activity	Begin	End
Convene workshop		··· ··· ·· ··· ··· ··· ··· ··· ··· ···
Contact all collaborators	1/95	1/95
Convene workshop	2/95	2/95
Integrate objectives/activities	2/95	2/95
Finalize workplans	2/95	3/95
Evaluate hatchery capabilities		
Analyze facility temp and	1/95	2/95
water flows		
Review incubation and facility	2/95	3/95
floor plans		
Compute species/stock limitations	2/95	3/95
Report on recommendations	3/95	4/95
Develop five sector technical teams		
Contract vessels and crews	1/95	4/95
Contract technicians	3/95	4/95
Train field crews	4/95	5/95
Monitor stock baselines		
Stock surveys	6/95	10/95
Census/demographics	6/95	10/95
Marks/tags/tissue samples	6/95	10/95
Direct restoration		
Incubate injured-stock eggs	7/95	12/95
Survey injured stocks	6/95	10/95
Collect injured stock eggs	6/95	10/95
Incubate embryos	8/95	12/95
Pen rear & release fry	1996	
Evaluate & revise plan	² 1996	
Recover marks/tags	1997	
Plan next cycle	1997	
Realign hatchery stock releases		
Remote release hatchery fish	4/95	6/95
Survey sites	4/95	5/95

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Activity	Begin	End
Pilot scale releases	4/95	5/95
Evaluate releases/returns	1996	
Production releases	(decision point)	
Develop new broodstocks	7/95	12/95
Survey stocks	7/95	10/95
Remote egg takes	7/95	10/95
Incubate and release	8/95	1996
Geneflow field experiment		
Establish genetic tag	7/95	9/95
(2 camps/screen males)		
Sample returns	1997	
Analyze gene flow	1997	
Report	1998	
Quantitative genetic analysis of fitness traits		
Sample gametes in field	7/95	10/95
Incubate embryos in lab and	10/95	1996
gather data		
Analyze	1996	
Report	1997	
Model fitness effects of genetic interactions: develop simulation models for:		
Gene flow and drift	2/95	11/95
Single locus selection	7/95	1996
Quantitative/fitness trait	12/95	1997
population dynamics	1996	1997
Incorporate PWS data	1998	

Report

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VI. Technical support

Technical support will include the services of:

- PWSAC planning, project management and fish culture staff
- ADF&G biologists and technicians
- University of Alaska geneticists and other experts in this field
- ADF&G pathologist
- permitting agencies including ADF&G, Department of Army, Corps of Engineers, Department of Natural Resources

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- ADF&G otolith mark analysis lab

VII. Location

This project will take place in Prince William Sound. Field crew activities will take place within districts of PWS as divided into five sectors (Figure 1) including the Southeastern, Eastern, Northern-Coghill-Northwestern, Southwestern and Montague Districts. Hatchery incubation and rearing of wild stock salmon will occur at PWSAC hatchery facilities; specific facilities selected will be based on evaluation of site capabilities and wild stock biological requirements. PWSAC facilities include the Armin F Koernig Hatchery on Evans Island, the Main Bay Hatchery near Crafton Island, the Wally Noerenberg Hatchery on Esther Island, and the Cannery Creek Hatchery in Unakwik Inlet.

VIII. Project Implementation

PWSAC will implement the project in conjunction with ADF&G as the lead agency and other collaborating organizations. Restoration management will be based within PWSAC and PWSAC will be responsible for coordinating activities under this proposal including research, restoration and monitoring.

IX. Coordination of Integrated Research Effort

Activities of the salmon restoration program will be integrated with ongoing genetic investigations, stream analysis, stock identification and monitoring studies, and otolith marking (Figure 3).

X. Public Process

PWSAC is a regional association which by law (AS 16.05.380.) must include on their boards representatives of sport fishermen, municipalities, and Native organizations, in addition to commercial fishermen and processors. It is PWSAC's mission to optimally produce salmon for the benefit of all user groups.

As a mechanism to restore PWS salmon resources and services, the PWSAC salmon restoration project will incorporate existing research results achieved through projects previously and currently funded by the EVOS Trustee Council process. In addition, specific stock and stream restoration options may be recommended by users and villages within PWS. Local vessels, skippers and crews will be solicited from interested public and contracted for training and field work.

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XI. Personnel Qualifications

Personnel: PWSAC

H.J. Ferren

Special Project Manager, Planner

M.S. Biological Oceanography, University of Alaska Corporate strategic and tactical planning, regional salmon planning, team facilitation and project management.

Personnel: University of Alaska, SFOS

W.W. Smoker

Professor of Fisheries, SFOS. PhD Fisheries, Oregon State Univ. Research in salmon ocean ranching, quantitative genetics of Pacific salmon.

A.J. Gharrett

Professor of Genetics, SFOS PhD Genetics, Oregon State Univ Research on molecular genetics, population genetics of Pacific salmon. Recognized expert on population genetics of Pacific salmon, Genetic Stock Identification, genetic tagging

Patricia A. Crandell

Postdoctoral Fellow and Research Associate, SFOS PhD Aquaculture Genetics, Biometrics Univ. of Calif Davis Research on quantitative genetics of pink salmon, ploidy manipulation in Pacific salmon Expertise in experimental design and statistical analysis.

Andrew Gray

Research Associate, SFOS MS Genetics, Washington State University Molecular genetics techniques, Electrophoretic analysis of allozymes, DNA analysis

Budget FY95

PWSAC		
100	Personnel	\$135,120
200	Travel	\$30,700
300	Contractual Services	\$747,000
	Administration	\$161,895
400	Commodities	\$32,480
500	Equipment/capital	<u>\$134,000</u>
	SUBTOTAL	\$1,241,195
UAF SFOS (partner in genetics)	
100	Personnel	\$231,080
200	Travel	\$7,200
300	Contractual Services	\$16,000
	Administration	\$74,856
400	Commodities	 \$20,000
500	Equipment/capital	<u>\$100,000</u>
	SUBTOTAL	\$449,136
	SUBTUTAL	449,130

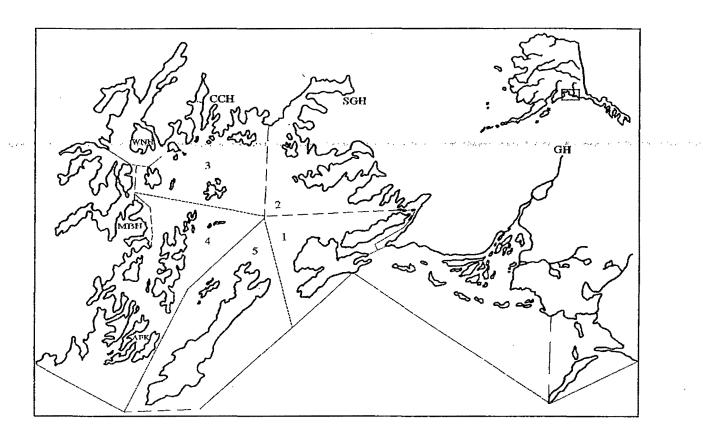
TOTAL PROJECT BUDGET

\$1,690,331.

Figure 1

Prince William Sound

Sectors for Research, Restoration and Monitoring



Sectors

- 1: Southeastern District
- 2: Eastern District
- 3: Northern-Northwestern-Coghill Districts
- 4: Southwestern-Eshamy Districts
- 5: Montague District

Hatcheries

Solomon Gulch

Cannery Creek Wally Noerenberg

Main Bay Armin F. Koernig

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EVOS Trustee Council: Project Description Restoration of PWS Wild Stock Salmon Resources and Services

Figure 2: Time-line and activities (\pwsac\evos\fig95-2)

(\pwsac\evos\tig93-2) 1995		1997		1999
(odd year pink salmon)	 evaluate hatchery capabilities assess existing stream research contract vessels and crew train field crew contract technicians conduct stream/stock surveys evaluate remote release sites collect gene & disease samples analyze samples collect & transport BY95 eggs incubate B'Y95 eggs otolith mark embryos 	 transport and rear BY95 fry release BY95 fry conduct stream/stock surveys evaluate remote release sites collect gene & disease samples analyze samples collect & transport BY96 eggs incubate BY96 eggs otolith mark embryos 	 transport and rear BY96 fry release BY96 fry conduct stream/stock surveys collect gene & disease samples analyze samples analyze gene flow remote release hatchery fish sample BY95 adults for marks analyze for otolith marks collect & transport BY97 eggs incubate BY97 eggs otolith mark embryos 	 transport and rear BY96 fry release BY96 fry release BY96 fry conduct stream/stock surveys collect gene & disease samples analyze samples remote release hatchery fish sample BY95 adults for marks analyze for otolith marks collect & transport BY98 eggs incubate BY98 eggs otolith mark embryos
	(even year pink salmon) 1996	l i	1998	1
1999 	 transport and rear BY98 fry release BY98 fry conduct stream/stock surveys 	2001	 - conduct stream/stock surveys - collect gene samples - analyze samples 	

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2000	•		2002	•
 collect gene samples analyze samples remote release hatchery fish sample BY96 adults for marks analyze for otolith marks 	 conduct stream/stock surveys collect gene samples analyze samples remote release hatchery fish sample BY98 adults for marks analyze for otolith marks 	- remote release hatchery fish		 - conduct stream/stock surveys - collect gene samples - analyze samples - remote release hatchery fish
 transport and rear BY98 fry release BY98 fry conduct stream/stock surveys 		 conduct stream/stock surveys collect gene samples analyze samples 	S	

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Figure 3: Integration of Research, Restoration and Monitoring

COMPONENT	ACTIVITY	INTEGRATION
Research	Stream - stock identification	ADF&G USFS PWS resource users
Research	Stream - stock surveys and escapement enumeration	PWSAC ADF&G Trained technicians and vessel crews
Research	Genetic and disease sampling	Technicians ADF&G
Research	Gene analysis; gene flow simulation	ADF&G University of Alaska, SFOS NMFS: Auke Bay Lab
Research	Disease analysis	ADF&G
Research	Evaluate remote release sites for hatchery fish	PWSAC ADF&G
Restoration	Egg-take from wild stock system(s)	PWSAC ADF&G technicians Vessel crews
Restoration	Incubation and rearing wild stock	PWSAC
Restoration	Imprint and release wild stock	PWSAC Vessel crews
Restoration	Remote release hatchery fish	PWSAC ADF&G
Research	Otolith marking	ADF&G PWSAC
Research and monitoring	Adult return, enumeration and otolith mark sampling	PWSAC ADF&G technicians Vessel crews
Research and monitoring	Otolith analysis	ADF&G

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SUBJ: Update on Development of the Draft FY 95 Work Plan

The purpose of this memorandum is to provide you with an update on the effort to prepare a public review draft of the Draft FY 95 Work Plan to be released for public review during the month of September.

As reflected in the "List of FY 95 Projects" (Attachment A) and Tables 1 - 5, some 178 project proposals were received in response to the *Invitation to Submit Restoration Projects for Fiscal Year 1995*. On July 12 - 13, a work session was held including Trustee Council agency liaisons, the Chief Scientist together with core peer reviewers, the Interdisciplinary Work Group Coordinating Committee and representatives of the Public Advisory Group appointed by Chair Brad Phillips (Donna Fischer, Gail Evanoff and John French). (Attachment B)

The fundamental purpose of this work session was to initially review, organize and categorize FY 95 project proposals as part of the effort to develop a Draft FY 95 Work Plan document that would allow for meaningful public comment. After public comment — including another opportunity for PAG review of the Draft FY 95 Work Plan on October 11 — the Executive Director will formulate a recommendation to the Trustee Council regarding FY 95 projects for presentation at a meeting scheduled for late October.

Outline of Draft FY 95 Work Plan

An outline for the structure of the Draft FY 95 Work Plan was presented to the Trustee Council at their July 11, 1994 meeting.

Trustee Agencies

This outline calls for publication of three (3) companion volumes:

1. Summary: Draft FY 95 Work Plan

This Summary document would consist of tables that identify proposed FY 95 projects by type (i.e., Research, Monitoring, General Restoration, etc.) as well as category for review purposes (i.e., 1, 2, 3, 4, 5 or 6). Additionally, a narrative would discuss proposed projects in the context of the restoration goals, objectives and strategies drawing on the guidance provided in the *Invitation to Submit Restoration Projects for FY 95* and the *Draft Restoration Plan*. The Summary document would receive wide circulation to the Trustee Council mailing list.

2. Draft FY 95 Work Plan — Supplement Volume I

This document would consist of Brief Project Descriptions (BPDs) for Category 1 and Category 2 projects together with information on how to obtain BPDs for all other projects. This document would receive limited mail circulation, but be widely noticed as available upon request.

3. Draft FY 95 Work Plan — Supplement Volume II

This document would consist of detailed budget forms for Category 1 and Category 2 projects. This document would be provided to agencies for internal review and available at libraries for public review.

Categories used to organize the Draft FY 95 Work Plan are as follows:

Category 1	=	apparent high restoration benefit, strong technical merit and generally responsive to the <i>Invitation</i>
Category 2	=	permissible under settlement but of a lower priority for funding in FY 95
Category 3	=	incomplete, lacking a clear relationship to restoration or otherwise of a low priority for restoration
Category 4	Ξ	significant legal or policy issue or concern associated with the proposal
Category 5	=	closeout projects from FY 94
	=	carry-forward projects (i.e., FY 94 projects that are to be continued but do not require additional FY 95 funds)

The identification of project categories in no way reflects an action or decision on the part of the Trustee Council regarding any specific project or proposal to **be funded in FY 95.** Moreover, it should be noted that the initial review only addressed issues of technical merit, the extent to which proposals were responsive to restoration goals and objectives and the identification of potential legal or policy concerns. Detailed budget information for most projects is only now becoming available and will be the focus of on-going review over the next two months.

[Note: Authorization of FY 95 expenditures for 1) on-going Trustee Council operational costs; 2) projects from FY 94 that need funding for closeout/report writing; and 3) a very few projects from FY 94 that absolutely require interim, first-quarter FY 95 funding will be addressed by the Trustee Council at a meeting scheduled for late August.]

Results of Initial Review

A summary of the initial review and category identification for FY 95 projects is provided in the "Summary of FY 95 Projects" below. Additional detail on individual projects is provided in Tables 1 - 5, attached to this memorandum.

In summary, a total of 178 project proposals have been initially reviewed representing a total FY 95 request of \$69.8 million. Research proposals were the most numerous (73 proposals for a total of \$18.1 million), followed by General Restoration (65 proposals for \$26.6 million), Monitoring (27 proposals for a total of \$6.7 million), Habitat Protection and Acquisition (8 proposals for \$2.3 million) and Administration/Public Information (4 proposals for \$4.1 million). Additionally, it has been proposed that the Trustee Council make an additional deposit into the Restoration Reserve in the amount of \$12 million. These proposals will be the subject of on-going public review and comment.

To help put these FY 95 proposals into perspective, in FY 94 the Trustee Council budgeted a total of approximately \$35.9 million. This included authorizations for Research and Monitoring (\$12.1 million), General Restoration (\$5.4 million), Habitat Protection and Acquisition (\$2.2 million), Administration/Public Information (\$4.2 million) and the Restoration Reserve (\$12 million).

On-going Review of Restoration Project Proposals

Once again, it is important to emphasize that **all** project proposals will be subject to on-going review. As a result of the initial technical and policy review, it is apparent that the *Invitation to Submit Restoration Projects for Fiscal Year 1995* provided valuable guidance to those who submitted project proposals. The guidance provided by the *Invitation* also resulted in a number of proposals that address similar issues. Under the direction of the Chief Scientist, a number of working groups are examining opportunities for



SUMMARY OF FY 95 PROJECTS

Proj. Type/ Proj. Category	Cost FY 95	No.	Cost FY 95	No.
Administration and Public Information	\$4,092. 0	4		
Category 1	- 1902	•	\$4,040.1	2
Category 3			\$31.9	2
Category 5	x		\$20.0	1
General Restoration	\$26,599.0	65	<i>\</i> 20.0	1
Category 1	• •		\$2,078.8	10
Category 2			\$2,505.6	8
Category 3			\$1,922.2	12
Category 4			\$19,582.9	26
Category 5			\$509.5	6
Category 6	*		\$0.0	3
Habitat Protection	\$2,328.5	8	• • • •	-
Category 1			\$1,420.5	2
Category 2			\$458.4	2
Category 3			\$305.7	3
Category 5			\$143.9	1
Monitoring	\$6,700.4	27		
Category 1			\$4,621.2	15
Category 2			\$1,308.0	5
Category 3			\$342.6	2
Category 4			\$84.0	1
Category 5			\$344.6	4
Research	\$18,105.5	73		
Category 1			\$11,478.5	37
Category 2			\$1,818.3	10
Category 3			\$4,356.9	21
Category 4			\$389.5	4
Category 5			\$62.3	1
Restoration Reserve	\$12,000.0	1		
Category 1			\$12,000.0	1
TOTAL	\$69,825.4	178		

integration and/or coordination of individual project proposals to better address restoration objectives and to potentially reduce costs. (For example, there were roughly a dozen proposals that addressed forage fish as a restoration concern. These projects are being examined collectively to assess opportunities for consolidation.) The results of these working groups will be made available to the PAG in October to assist in its final review.

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I look forward to your review and discussion of the Draft FY 95 Work Plan development effort on August 2 - 3.

attachments:

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- Attachment A List of FY 95 Projects (sorted by Project Number)
- Attachment B Participants in July 12 13 BPD Review Work Session
- Table 1 Research Projects
- Table 2 General Restoration Projects
- Table 3 Monitoring Projects
- Table 4 Habitat Protection Projects
- Table 5 Administration/Public Information Projects



Cat.	Proj.No.	Title	Proposer	Lead Agency	Proj. Type	Cost FY 95
1	95001	Condition and Health of Harbor Seals	Castellini, UAF	ADFG	Research	\$153.8
4	95002	Leave No Trace Education Program	Ford, National Outdoor Leadership School	USFS	General Restoration	\$177.7
4	95003	Area E Commercial Salmon Permit Buyback Program	Mykland	ADFG	General Restoration	\$11,735.0
2	95005	Harlequin Duck Abundance and Productivity in Western Cook Inlet	DOI	DOI	Monitoring	\$40.2
3	95006	Paint River Pink Salmon Development -	Mears, Cook Inlet Aquaculture Assn.	ADFG	General Restoration	\$173.9
5	95007-CLO*	Closeout: Site-specific Archaeological Restoration	ADNR	ADNR	General Restoration	\$191.7
1	95007A	Archaeological Site Restoration - Index Site Monitoring	ADNR	ADNR	Monitoring	\$190.9
1	95007B	Archaeological Site Restoration (Site SEW-488)	USFS	USFS	General Restoration	\$83.8
3	95009A	Trophics and Community Structure in the Intertidal and Shallow Subtidal	Highsmith, UAF	USFS	Research	\$455.4
3	95009B	Primary Productivity as a Factor in the Recovery of Injured Resources in Prince William Sound	Stekoll, UAF	USFS	Research	\$218.9
2	95009C	Trophic Dynamics and Energy Flow: Impacts of Herring Spawn and Sea Otter Predation on Nearshore Benthic Community Structure	Highsmith, UAF	USFS	Research	\$217.3
1	95009D	Survey and Experimental Enhancement of Octopuses in Intertidal Habitats	Scheel, PWS Science Center	USFS	Research	\$159.5
3	95009E	Community Structure of Mobile Foragers Using the Nearshore	USFS	USFS	Research	\$280.5
3	95010	Intertidal Fauna and Flora Species Composition, Abundance and Variability Relative to Physical Habitat Controls	Schoch, Oregon State Univ.	DOI	Research	\$73.5
1	95013	Killer Whale Monitoring in PWS	Matkin, North Gulf Oceanic Society	NOAA	Monitoring	\$105.0
1	95014	Predation by Killer Whales in PWS: Feeding Behavior and Distribution of Predators and Prey	Matkin, North Gulf Oceanic Society	NOAA	Research	\$156.9
4	95016	A Tribute to Prince William Sound	Kremen	USFS	General Restoration	\$161.0
3	95017	Port Graham Coho Salmon Subsistence Fishery Restoration Project	Daisy, Aquafrarm	ADFG	General Restoration	\$587.9
2	95018	Partitioning of Primary Production Between Pelagic and Benthic Communities	Naidu, UAF	ADFG	Research	\$197.1
1	95019	Distribution of Forage Fish as Indicated by Puffin Diet Sampling	DOI	DOI	Research	\$284.4



Cat.	Proj.No.	Title	Proposer	Lead Agency	Proj. Type	Cost FY 95
2	95021	Seasonal Movement and Pelagic Habitat Use by Common Murres from the Barren Islands	DOI	DOI	Research	\$251.1
3	95022	Foraging Efficiencies at Temporary Food Patches	Scheel, PWS Science Center	DOI	Research	\$183.1
2	95023	Food Web Relationships of Pelagic Species Exhibiting Long-term Decline	Duffy, Alaska Natural Heritage Program	DOI	Research	\$168.0
2	95024	Enhancement of Wild Pink Salmon Stocks	Reidel, Native Village of · Eyak	ADFG	General Restoration	\$350.0
1	95025A	Factors Affecting Recovery of Sea Ducks and Their Prey	DOI	DOI	Research	\$393.7
1	95025B	Sea Otter Abundance and Distribution, Food Habits and Population Assessment	DOI	DOI	Research	\$162.7
1	95025C	Pigeon Guillemots and River Otters as Bioindicators of Nearshore Ecosystem Health	Roby, UAF	DOI	Research	\$179.6
3	95025D	Settlement Rates of Nearshore Invertebrates, Oceanic Processes and Population Recovery: Are They Linked?	DOI	DOI	Research	\$435.7
2	95025E	Algal Competition Limiting Recovery in the Intertidal	Stekoll, UAF	DOI	Research	\$222.5
2	95025F	Availability and Utilization of Musculus spp. as Food for Sea Ducks and Sea Otters	Dean, Coastal Resources Associates, Inc.	DOI	Research	\$4.6
3	95025G	Recruitment Patterns of Nearshore Clam Populations in Prince William Sound	Van Blaricom, UAF	DOI	Research	\$121.3
1	95025H	Effects of Predatory Invertebrates on Nearshore Clam Populations in Prince William Sound	Van Blaricom, UAF	DOI	Research	\$118.4
3	95025J	Primary Productivity as a Factor in the Recovery of Injured Resources in Prince William Sound	Stekoll, UAF	DOI	Research	\$397.0
1	95026	Hydrocarbon Monitoring: Integration of Microbial and Chemical Sediment Data	Braddock, UAF	ADEC	Monitoring	\$84.4
2	95027	Kodiak and Alaska Peninsula Comprehensive Shoreline Assessment: Monitoring Surface and Subsurface Oil	ADEC	ADEC	Monitoring	\$759.5
2	95029	Population Survey of Bald Eagles in PWS	DOI	DOI	Monitoring	\$48.3
1	95030	Productivity Survey of Bald Eagles in PWS	DOI	DOI	Monitoring	\$81.9
I	95031	Reproductive Success as a Factor Affecting Recovery of Murrelets in PWS	DOI	DOI	Research	\$398.0
1	95033	Kittiwakes as Indicators of Forage Fish Availability	DOI	DOI	Research	\$198.5

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<u>C</u> at.	Proj.No.	Title	Proposer	Lead Agency	Proj. Type	Cost FY 95
2	95038	Symposium on Seabird Restoration	Harrison, Pacific Seabird Group	DOI	General Restoration	\$77.0
1 -	95039	Common Murre Productivity Monitoring	DOI	DOI	Monitoring	\$163.7
5	95039-CLO*	Closeout: Common Murre Population Monitoring	DOI	DOI	Monitoring	\$30.5
5	95041A-CLO*	Closeout: Introduced Predator Removal from Islands	DOI	DOI	General Restoration	\$20.4
5	95041B-CLO*	Closeout: Introduced Predator Removal from Islands - Follow-up Surveys	DOI	DOI	General Restoration	\$50.9
4	95042	Five-year Plan to Remove Predators from Seabird Colonies	Harrison, Pacific Seabird Group	DOI	General Restoration	\$75.0
3	95043A	Cordova Cutthroat Trout Habitat	USFS	USFS	General Restoration	\$22.7
6	95043B	Carry-forward: Cutthroat and Dolly Varden Rehabilitation in Western PWS	USFS	USFS	General Restoration	\$0.0
1	95044	In Situ Formation and Ecotoxicity of Hydrocarbon Degradation Products Produced by Ultramicrobacteria	Button, UAF	NOAA	Research	\$118.5
3	95045	Green Island Intertidal Restoration Monitoring	Juday and Foster, UAF	USFS	Monitoring	\$113.4
3	95046	Long-term Record in Tree Rings of Climatic Features	Juday, UAF	NOAA	Research	\$153.6
3	95047	Seal Contamination	МсКее	ADNR	General Restoration	
1	95048	Historical Analysis of Sockeye Salmon Growth	Ruggerone, Natural Resources Consultants	ADFG	Monitoring	\$85.0
3	95049	Independent Review of Restoration and Monitoring Projects	Ruggerone, Natural Resources Consultants	ADFG	Administration and Public Information	\$31.9
4	95050	A Test of Sonar Accuracy in Estimating Escapement of Sockeye Salmon	Ruggerone, Natural Resources Consultants	ADFG	Research	\$79.3
1	95051	Large-scale Coded Wire Tagging of PWS Herring	June, Natural Resources Consultants	ADFG	General Restoration	\$190.6
I	95052	Community Involvement and Use of Traditional Knowledge	ADNR	ADNR	General Restoration	\$230.6
4	95053	Cordova's Mini-Imaginarium	Trowbridge, PWS Science Center	ADNR	General Restoration	\$62.6
2	95054	Montague Riparian Rehabilitation	USFS	USFS	Habitat Protection	\$42.7
3	95055	Prehistoric Ecological Baseline for PWS	USFS	USFS	Research	\$149.6
2	95057	Movement of Larval and Juvenile Fishes within PWS	Norcross, UAF	NOAA	Research	\$300.0
2	95058	Restoration Assistance to Private Landowners	USFS	ADFG	Habitat Protection	\$415.7



Cat.	Proj.No.	Title	Proposer	Lead Agency	Proj. Type	Cost FY 95
4	95060	Spruce Bark Beetle Infestation Impacts on Injured Fish and Wildlife Species of the <i>Exxon Valdez</i> Oil Spill	ADFG .	ADFG	Research	\$213.9
2	95062	River Otter Recovery Monitoring	ADFG	ADFG	Monitoring	\$69.0
1	95064	Monitoring, Habitat Use, and Trophic Interactions of Harbor Seals in PWS	ĄDFG	ADFG	Research	\$309.4
4	95065	PWSAC Pink Salmon Fry Mortality	Olsen, PWS Aquaculture Corporation	ADFG	Research	\$52.5
2	95069	Restoration of Salmon Stocks of Special Importance to Native Cultures	ADFG	ADFG	General Restoration	\$672.6
3	95071	Monitoring Nearshore Fish Species for Persistence of Oil Exposure and Ecotoxicological Effects	ADFG	NOAA	Research	\$225.0
3	95073	Impact of Killer Whale Predation on Harbor Seals in PWS	NOAA	NOAA	Research	\$99.5
1	95074	Herring Reproductive Impairment	NOAA	NOAA	Research	\$234.8
2	95075	Population Structure of Blue Mussels in Relation to Levels of Oiling and Densities of Vertebrate Predators	NOAA	NOAA	Research	\$197.5
1	95076	Effects of Oiled Incubation Substrate on Survival and Straying of Wild Pink Salmon	NOAA	NOAA	Research	\$179.9
3	95077	Recreation Impacts in PWS: Human Impacts as a Factor Constraining Long Term Ecosystem Recovery	Ford, National Outdoor Leadership School	ADNR	Research	\$117.0
3	95078	Culture, History, and Ecosystems: An Assessment of Cultural/Historical Strategies to Building Long-term Understanding of Ecosystem Dynamics in the Exxon Valdez Oil Spill Area	DOI	DOI	Research	\$166.7
4	95079	Pink Salmon Restoration Through Small-scale Hatcheries	Van Hyning, NERKA, Inc., and Aquabionics Inc.	ADFG	General Restoration	\$150.0
4	95080	Fleming Spit Recreation Area Enhancements	The Cordova Sporting Club	ADNR	General Restoration	\$1,365.0
4	95082	"Mor-Pac Hill" Campground Improvements	The City of Cordova	ADNR	General Restoration	\$360.0
4	95084	Odiak Camper Park Expansion	The City of Cordova	ADNR	General Restoration	\$266.0
4	95085	Cordova Historical Marine Park	The Cordova Planning and Harbor Commiss.	ADNR	General Restoration	\$196.5
1	95086A	Coastal Habitat Intertidal Monitoring and Experimental Design Verification	Stekoll, UAF	ADFG	Monitoring	\$829.4
3	95086B	Population Dynamics of Eelgrass and Associated Fauna	Stekoll, UAF	ADFG	Research	\$64.8
1	95086C	Herring Bay Monitoring and Restoration Studies	Highsmith, UAF	ADFG	Monitoring	\$549.1



Cat.	Proj.No.	Title	Proposer	Lead Agency	Proj. Type	Cost FY 95
1	95087	Sea Urchin Population Dynamics: Changes in Population Density and Availability as Prey of Sea Otters	Jewett, UAF	ADFG	Research	\$65.4
1	95089	Information Management System	Executive Director's Office	ADFG	Administration and Public Information	\$540.1
1	95090	Mussel Bed Restoration and Monitoring in PWS and Gulf of Alaska	ŇOAA	NOAA	Monitoring	\$261.8
5	95090-CLO*	Closeout: Mussel Bed Restoration and Monitoring	ADEC	ADEC	Monitoring	\$154.4
1	95092	Recovery Monitoring of PWS Killer Whales	NOAA	NOAA	Monitoring	\$99.5
4	95093	PWSAC: Restoration of Pink Salmon Resources and Services	Olsen, PWS Aquaculture Corporation	ADFG	General Restoration	\$2,219.1
3	95094	Recovery of Intertidal Clams in PWS	Jewett, UAF	ADFG	Monitoring	\$229.2
3	95095	Quantification of Stream Habitat for Harlequin Ducks and Anadromous Fish Species from Remotely Sensed Data	Podolsky	ADNR	Habitat Protection	\$88.0
3	95096	Restoration of Murres by Way of Social Attraction and Predator Removal	Podolsky	DOI	General Restoration	\$167.0
3	95097	Restoration of Murres by Way of Transplantation of Chicks: A Feasibility Study	Podolsky	DOI	General Restoration	\$176.0
3	95098	Identification of Seabird Feeding Areas from Remotely Sensed Data	Podolsky	DOI	General Restoration	\$74.0
3	95099	Murrelet Vocalization in Conjunction with Artificial Nests: A Possible Means of Attraction to Habitat	Podolsky	DOI	General Restoration	\$77.0
1	95100	Administrative Budget	Executive Director's Office	ALL	Administration and Public Information	\$3,500.0
5	95102-CLO	Closeout: Murrelet Prey and Foraging Habitat in Prince William Sound	DOI	DOI	Research	\$62.3
1	95105	Kenai River Ecosystem Restoration Pilot Enclosure Study	ADFG	ADFG	Research	\$361.2
1	95106	Subtidal Monitoring: Eelgrass Communities	Jewett, UAF	ADFG	Monitoring	\$399.9
4	95107	Subtidal Site Verification	Jewett, UAF	ADFG	Monitoring	\$84.0
5	95110-CLO	Closeout: Habitat Protection and Acquisition	ADNR	ADNR	Habitat Protection	\$143.9
3	95111	Sustainable Rockfish Yield	ADFG	ADFG	General Restoration	\$204.4
3	95112	Rockfish Restoration Objective	ADFG	ADFG	General Restoration	\$69.0
3	95113	Energetics of Intertidal Fish: The Connection between Lower and Upper Trophic Levels	Barber, UAF	ADFG	Research	\$392.5



Cat.	Proj.No.	Title	Proposer	Lead Agency	Proj. Type	Cost FY 95
3	95114	Eelgrass Community Structure Restoration Assessment Using Stable Isotope Tracers	Kline, PWS Science Center	ADFG	Research	\$192.1
1	95115	Sound Waste Management Plan	Prince William Sound Economic DevelopmentCouncil	ADEC	General Restoration	\$275.9
2	95116	Restoration of Intertidal Oiled Mussel Beds by Nondestructive Manipulation/Flushing with PES-51	Rog, PES Services AK, Inc.	ADEC	General Restoration	\$453.2
1	95117-BAA	Harbor Seals and EVOS: Blubber and Lipids as Indices of Food Limitation	Castellini, UAF	NOAA	Research	\$184.3
1	95118-BAA	Diet Composition, Reproductive Energetics and Productivity of Seabirds Damaged by the <i>Exxon</i> Valdez Oil Spill	Roby, UAF	NOAA	Research	\$413.7
3	95119-BAA	Food Limitation on Recovery of Injured Marine Bird Populations	Sydeman, Point Reyes Bird Observatory	NOAA	Research	\$124.9
1	95120-BAA	Proximate Composition and Energetic Content of Selected Forage Fish Species in PWS	Worthy, Texas A&M University	NOAA	Research	\$38.4
2	95121	Stable Isotope Ratios and Fatty Acid Signatures of Selected Forage Fish Species in PWS	Worthy, Texas A&M University	NOAA	Research	\$42.0
3	95122	Mapping Potential Nesting Habitat of Marbeled Murrlets in PWS Using Geographic Databases	DeVelice	USFS	Habitat Protection	\$167.5
4	95123	Tatitlek Community Store	Komkoff, Tatitlek IRA Council	ADFG	General Restoration	\$300.0
4	95124A	Tatitlek Mariculture Development Project	Daisy, Tatitlek IRA Council	ADFG	General Restoration	\$109.5
4	95124B	Tatitlek Mariculture Development Project - Capital Outlay	Daisy, Tatitlek IRA Council	ADFG	General Restoration	\$405.0
4	95125	Tatitlek Sockeye Salmon Release Program	Komkoff, Tatitlek Traditional Council	ADFG	General Restoration	\$39.0
1	95126	Habitat Protection and Acquisition Support	ADNR	ADNR	Habitat Protection	\$1,403.3
4	95127	Tatitlek Coho Salmon Release Program	Komkoff, Tatitlek Traditional Council	ADFG	General Restoration	\$39.0
4	95128	Teaching Subsistence Practices and Values	Callaway, NPS	DOI	General Restoration	\$69.0
4	95129	Tatitlek Fish and Game Processing Center and Smokery	Komkoff, Tatitlek IRA Council	ADFG	General Restoration	\$515.5
4	95130	Mental Health Center	Vlasoff, Chugachmuit and Copper Mountain Foundation	ADFG	General Restoration	\$106.1
1	95131	Clam Restoration (Nanwalek, Port Graham, Tatitlek)	Nanwalek and Port Graham Village Councils	ADFG	General Restoration	\$447.5
2	95132	Port Graham and Nanwalek Subsistence Baseline	Port Graham Village Council, Nanwalek Village Council	ADFG	General Restoration	\$488.2

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Cat.	Proj.No.	Title	Proposer	Lead Agency	Proj. Type	Cost FY 95
2	95133	English Bay River Sockeye Salmon Subsistence Project	Kvasnikoff, Nanwakek - Traditional Council	ADFG	General Restoration	\$129.8
4	95134	Chenega Bay Mariculture Development Project	Evanoff, Chenega Bay IRA Council	ADFG	General Restoration	\$184.3
4	95135	Subsistence Harvest Support	Chenega Bay Village IRA Council	ADFG	General Restoration	\$50.0
4	95136	Skin Sewing Crafts Restoration	Callaway, NPS	DOI	General Restoration	\$29.9
1	95137	Prince William Sound Salmon Stock Identification and Monitoring Studies	ADFG	ADFG	General Restoration	\$273.4
1	95138	Elders/Youth Conference	Fall, Subsistence Division	ADFG	General Restoration	\$77.7
2	95139B	Spawning Channel - Port Dick Creek	ADFG	ADFG	General Restoration	\$127.5
3	95139C	Salmon Instream Habitat and Stock RestorationPink Creek and Horse Marine Barrier Bypass Development	ADFG	ADFG	General Restoration	\$45.7
4	95140	Subsistence Skills Program	Olsen, Valdez Native Association	ADFG	General Restoration	\$36.7
4	95141	Afognak Island State Park Interim Support	ADNR	ADNR	General Restoration	\$21.5
2	95159	Surveys to Determine Additional Oil Spill Effects and Recovery of Marine Bird and Sea Otter Populations in PWS	DOI	DOI	Monitoring	\$391.0
1	95163	Abundance and Distribution of Forage Fish and their Influence on Recovery of Injured Species	NOAA	NOAA	Research	\$1,203.7
6	95165	Carry-forward: PWS Herring Stock Genetic Stock Identification	ADFG	ADFG	General Restoration	\$0.0
1	95166	Herring Natal Habitats	ADFG	ADFG	Monitoring	\$493.3
1	95173	Factors Affecting Recovery of PWS Pigeon Guillemot Populations	DOI	DOI	Research	\$353.7
5	95173-CLO*	Closeout: Pigeon Guillemot Recovery Monitoring	DOI	DOI	Monitoring	\$55.0
1	95191A	Investigating and Monitoring Oil Related Egg and Alevin Mortalities	ADFG	ADFG	Research	\$681.5
1	95191B	Injury to Salmon Eggs and Pre-emergent Fry Incubated in Oiled Gravel (Laboratory Study)	NOAA	NOAA	Research	\$165.6
5	95199-CLO	Institute of Marine Science - Seward Improvements EIS	ADF&G	ADFG	General Restoration	\$71.7
3	95200	Public Access	USFS	USFS	Habitat Protection	\$50.2
1	95244	Seal and Sea Otter Cooperative Subsistence Harvest Assistance	ADFG	ADFG	General Restoration	\$54.5
1	95255	Kenai River Sockeye Restoration	ADFG	ADFG	General Restoration	\$406.1
1	95258	Sockeye Salmon Overescapement	ADFG	ADFG	Monitoring	\$983.3



Cat.	Proj.No.	Title	Proposer	Lead Agency	Proj. Type	Cost FY 95
3	95259	Restoration of Coghill Lake Sockeye	ADFG -	ADFG	General Restoration	\$324.6
5 -	95266-CLO	Closeout: Shoreline Assessment and Oil Removal	ADEC	ADEC	General Restoration	\$93.8
1	95272	Chenega Chinook Release Program	Olsen, PWS Aquaculture Corporation	ADFG	General Restoration	\$38.7
2	95279	Subsistence Food Safety Testing	ADFG	ADFG	General Restoration	\$207.3
5	95285-CLO	Closeout: Subtidal Sediment Recovery Monitoring	NOAA	NOAA	Monitoring	\$104.7
1	95290	Hydrocarbon Data Analysis, Interpretation, and Database Maintenance for Restoration and NRDA Environmental Samples Associated with the Exxon Valdez Oil Spill	NOAA	NOAA	Monitoring	\$72.2
1	95320A	Salmon Growth and Mortality	ADFG	ADFG	Research	\$267.8
4	95320B	PWS Pink Salmon Stock Identification and Monitoring (CWT)	ADFG	ADFG	General Restoration	\$260.5
4	95320C	Otolith Thermal Mass Marking of Hatchery Reared Pink Salmon in PWS	ADFG	ADFG	General Restoration	\$649.0
2	95320D	PWS Pink Salmon Genetics	ADFG	ADFG	Research	\$218.2
1	95320E	Juvenile Salmon and Herring Integration	ADFG	ADFG	Research	\$1,032.1
1	95320G	Phytoplankton and Nutrients	McRoy, UAF	ADFG	Research	\$227.3
I	95320H	Role of Zooplankton in the PWS Ecosystem	Cooney, UAF	ADFG	Research	\$235.1
1	95320I(1)	Isotope Tracers - Food Webs of Marine Mammals and Birds	Schell, Institute of Marine Science	ADFG	Research	\$100.1
1	95320I(2)	Isotope Tracers - Food Webs of Fish	Kline, UAF	ADFG	Research	\$73.4
3	95320I(3)	Purchase of Isotope Radio Mass Spectrometer	Schell, Institute of Marine Science	ADFG	Research	\$257.4
1	95320J	Information Systems and Model Development	Patrick, PWS Science Center	ADFG	Research	\$789.6
4	95320K	PWSAC: Experimental Fry Release	Olsen, PWS Aquaculture Corporation	ADFG	Research	\$43.8
1	95320M	Observational Physical Oceanography in PWS and the Gulf of Alaska	Salmon, PWS Science Center	ADFG	Research	\$545.2
1	95320N	Nearshore Fish	Thomas, PWS Science Center	ADFG	Research	\$600.6
3	95320P	Planning and Communication	Scheel, PWS Science Center	ADFG	Research	\$66.8
1	95320Q	Avian Predation on Herring Spawn	USFS	ADFG	Research	\$124.8
1	95320S	Disease Impacts on PWS Herring Populations (competetive project solicitation under ADF&G two-step, RECOREP process)	ADFG	ADFG	Research	\$375.0

RFQ-RFP process)



List of FY 95 Projects (sorted by Project Number)

				Lead		Cost
Cat.	Proj.No.	Title	Proposer	Agency	Proj. Type	FY 95
1	95320T	Juvenile Herring Growth and Habitat Partitioning	ADFG	- ADFG	Research	\$378.6
1	95320U	Somatic and Spawning Energetics of Herring and Pollock	Paul, UAF	ADFG	Research	\$94.4
3	95320V	Herring Predation by Humpback Whales in PWS	Matkin, North Gulf Oceanic Society	ADFG	Research	\$181.6
1	95320Y	Variation in Local Predation Rates on Hatchery-Released Fry	Scheel, PWS Science Center	ADFG	Research	\$118.9
6	95417	Carry-forward: Waste Oil Disposal Facilities	ADEC	ADEC	General Restoration	\$0.0
5	95422-CLO	Closeout: Restoration Plan EIS/Record of Decision	USFS	USFS	Administration and Public Information	\$20.0
1	95424	Restoration Reserve	ALL	ALL	Restoration Reserve	\$12,000.0
1	95427	Harlequin Duck Recovery Monitoring	ADFG	ADFG	Monitoring	\$221.8
5	95428-CLO	Closeout: Subsistence Planning	NOAA	ADFG	General Restoration	\$81.0
1	95505B	Data Analysis for Stream Habitat	USFS	USFS	Habitat Protection	\$17.2

Total FY 95 Request:	\$69,825.4
Number of Projects:	178

* NOTE: These projects are for report writing and data analysis of FY 94 fieldwork with related projects proposed for continuation in FY 95.

Attachment B

FY 95 Brief Project Description Review Anchorage Restoration Office — 4th Floor Conference Room July 12-13 • 8:00 am

Restoration Work Force

Byron Morris Dave Gibbons Sandy Rabinowitch Mark Brodersen Jerome Montague Veronica Gilbert

Chief Scientist and Technical Reviewers

Robert Spies Andy Gunther Charles Petersen Chris Haney Phil Mundy Stanley Senner

Public Advisory Group

Donna Fischer Gail Evanof John French

Coordinating Committee

Dave Irons Jim Bodkin Kathy Frost Alex Wertheimer Judy Bittner

Trustee Council Staff

Jim Ayers, Executive Director Molly McCammon, Director of Operations Eric Myers, Project Coordinator



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	Project No	. Title	Proposer	Lead Agency	Loc.	Proj. Type	Cost FY 95	Notes
C	ategory 1						\$11,478.5	
1	95001	Condition and Health of Harbor Seals	Castellini, UAF	ADFG	PWS	NEW	\$153.8	Project addresses important injured resource of high priority to subsistence communities. Possible economies if Projects 95064 (monitoring, habitat use, and trophic interactions of seals) and 95117-BAA (seal blubber and lipids as indications of food limitation) are all pursued. Need to examine opportunities for collaboration with community outreach efforts. Proposer has strong qualifications.
1	95009D	Survey and Experimental Enhancement of Octopuses in Intertidal Habitats	Scheel, PWS Science Center	USFS	PWS	NEW	\$159.5	Addresses resources (octopus and chiton) important to subsistence communities. Proposal can stand independent of nearshore ecosystem/community structure package. Geographical scope and scale of effort deserve further consideration. Need to coordinate with subsistence community outreach projects.
1	95014	Predation by Killer Whales in PWS: Feeding Behavior and Distribution of Predators and Pre	Matkin, North Gulf y Oceanic Society	NOAA	PWS	NEW	\$156.9	Good conceptual development and justification articulated in proposal. Results could enhance interpretation of PWS ecosystem work on trophic interactions. Less important than monitoring of killer whales (killer whales thought to be recovering) but still could provide valuable data on resource. Clarification of cost in relation to related Project 95013 (monitor killer whales) needed.

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	Project No.	Title	Proposer	Lead Agency	Loc.	Proj. Type	Cost FY 95	Notes
1	95019	Distribution of Forage Fish as Indicated by Puffin Diet Sampling	DOI	DOI	PWS KEN	NEW	\$284.4	Potentially an extremely valuable project although puffins have limited distribution in PWS. This project needs to be further evaluated under the direction of the Chief Scientist in the context of the many other proposals being advanced to study trophic interactions forage fish.
1	95025A	Factors Affecting Recovery of Sea Ducks and Their Prey	DOI	DOI	PWS	NEW	\$393.7	Proposal to address winter ecology of seabirds is important aspect not previously addressed. Possibly should focus effort on harlequins although inclusion of scoters would address valuable issues. Need to coordinate or combine with Project 95427 (harlequin duck recovery monitoring). Questions concerning feasibility of proposed capture techniques.
1	95025B	Sea Otter Abundance and Distribution, Food Habits and Population Assessment	DOI	DOI	PWS	NEW	\$162.7	Clear objectives consistent with the <i>Invitation</i> although project description needs some further detail. Well qualified proposers. Should possibly be integrated with Projects 95025H (effects of predatory invertebrates on clams), 95009C (trophic dynamics: herring spawn and sea otters), 95087 (sea urchins as sea otter prey) and coordinated with Projects 95244 (seal/sea otter harvest assistance), 95075 (blue mussels), 95090 (mussel bed restoration) and 95159 (marine bird/sea otter survey).

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	Project No.	Title	Proposer	Lead Agency	Loc.	Proj. Type	Cost FY 95	Notes
1	95025C	Pigeon Guillemots and River Otters as Bioindicators of Nearshore Ecosystem Health	Roby, UAF	DOI	PWS	NEW	\$179.6	Clearly stated objectives pertaining to injured resources consistent with the <i>Invitation</i> . Reviewers impressed with linkage of two foragers using the same habitat/prey. Effort to define bioindicator is valuable but may not be successful; proposal is responsible in it cautious approach. Should be coordinated with Project 95173 (recovery of pigeon guillemots) to realize possible cost efficiencies.
1	95025H	Effects of Predatory Invertebrates on Nearshore Clam Populations in Prince William Sound	Van Blaricom, UAF	DOI	PWS	NEW	\$118.4	Affords opportunity to investigate two injured resources (clams and sea otters) and their interrelationship as predator and prey. Important that investigators on projects addressing higher trophic level predators (sea otters) help define issues of importance to be addressed by project. Should possibly be integrated with 95025B (sea otter abundance, food habits).
1	95031	Reproductive Success as a Factor Affecting Recovery of Murrelets in PWS	DOI	DOI	PWS	NEW	\$398.0	Highly responsive to <i>Invitation</i> . Clearly articulated relationship to restoration objective for marbeled murrelets. Well qualified proposer.

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	Project No.	Title	Proposer	Lead Agency	Loc.	Proj. Type	Cost FY 95	Notes
1	95033	Kittiwakes as Indicators of Forage Fish Availability	DOI	DOI	PWS KEN	NEW	\$198.5	This project needs to be further evaluated under the direction of the Chief Scientist in the context of the many other proposals being advanced to study trophic interactions of forage fish. Should review this project proposal in relation to Project 95320Y (variation in local predation on hatchery fry).
. 1	95044	In Situ Formation and Ecotoxicity of Hydrocarbon Degradation Products Produced by Ultramicrobacteria	Button, UAF	NOAA	PWS	NEW	\$118.5	Novel issue to be addressed. Need for further review of budget. Potential for collaboration with other projects needs further examination.
1	95064	Monitoring, Habitat Use, and Trophic Interactions of Harbor Seals in PWS	ADFG	ADFG	PWS	Cont'd	\$309.4	Project targets an injured resource important to subsistence communities. Good potential to collaborate with other harbor seal projects (Projects 95001 and 95117-BAA). Strong technical merit and excellent qualifications of proposer. Need to coordinate with subsistence community outreach efforts.
1	95074	Herring Reproductive Impairment	NOAA	NOAA	PWS	Cont'd	\$234.8	Important attempt to determine if there are persistent, heritable reproductive impacts to herring in view of recent run failures. Responsive to <i>Invitation</i> . Strong technical merit. Needs further assessment in the context of other projects proposed to address herring

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	Project No.	Title	Proposer	Lead Agency	Loc.	Proj. Type	Cost FY 95	Notes
1	95076	Effects of Oiled Incubation Substrate on Survival and Straying of Wild Pink Salmon	NOAA	NOAA	ALL	NEW	\$179.9	Proposal responsive to restoration needs, addresses important ecotoxicological issue. Proposer should provide more background on similar work.
1	95087	Sea Urchin Population Dynamics: Changes in Population Density and Availability as Prey of Sea Otters	Jewett, UAF	ADFG	PWS	NEW	\$65.4	Project should possibly be integrated with Projects 95025B (sea otter abundance, food habits), 95009C (trophic dynamics: herring spawn and sea otters), 95025H (predatory invertebrates on clarns) under direction of Chief Scientist in consultation with investigators working on sea otters. Needs clarification relative to other predator projects. Potentially important if redesigned.
1	95105	Kenai River Ecosystem Restoration Pilot Enclosure Study	ADFG	ADFG	KEN	NEW	\$361.2	Further clarification needed on interrelationship of this project to other major Kenai River sockeye projects 95255 (Kenai sockeye restoration) and 95258 (sockeye salmon overescapement). A comprehensive review of the Kenai River sockeye restoration effort is needed.
1	95117-BAA	Harbor Seals and EVOS: Blubber and Lipids as Indices of Food Limitation	Castellini, UAF	NOAA	ALL	NEW	\$184.3	Potential opportunities for collaborative effort and cost efficiencies between this project and Projects 95001 (condition and health of harbor seals) and 95064 (monitoring, habitat use and trophic interactions of seals) must be addressed.

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·	Project No.	Title	Proposer	Lead Agency	Loc.	Ргој. Туре	Cost FY 95	Notes
1	95118-BAA	Diet Composition, Reproductive Energetics and Productivity of Seabirds Damaged by the <i>Exxon</i> <i>Valdez</i> Oil Spill	Roby, UAF	NOAA	PWS	NEW	\$413.7	This project needs to be further evaluated under the direction of the Chief Scientist in the context of the many other proposals being advanced to study trophic interactions of forage fish. Peer reviewers thought very highly of this project; strong technical merit.
1	95120-BAA	Proximate Composition and Energetic Content of Selected Forage Fish Species in PWS	Worthy, Texas A&M University	NOAA	PWS	NEW	\$38.4	This project needs to be further evaluated under the direction of the Chief Scientist in the context of the many other proposals being advanced to study trophic interactions of forage fish. Also, objectives of this project need to be integrated into other projects involving stable isotopes. Project needs to demonstrate a close relationship with other projects including 95163 (forage fish) and 95320U (somatic and spawning energetics of herring and pollock). Strong qualifications of proposer.
1	95163	Abundance and Distribution of Forage Fish and their Influence on Recovery of Injured Species	NOAA	NOAA	PWS KEN	Cont'd	\$1,203.7	This project needs to be further evaluated under the direction of the Chief Scientist in the context of the many other proposals being advanced to study trophic interactions of forage fish. Project scope may need to be reduced in light of slow start up of 1994 pilot study. Coordination of hydroacoustics work in 95320N is essential.

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	Project No.	Title	Proposer	Lead Agency	Loc.	Ргој. Туре	Cost FY 95	Notes
1	95173	Factors Affecting Recovery of PWS Pigeon Guillemot Populations	DOI	DOI	PWS	Cont'd	\$353.7	This project needs to be further evaluated under the direction of the Chief Scientist in the context of the many other proposals being advanced to study trophic interactions of forage fish.
1	95191A	Investigating and Monitoring Oil Related Egg and Alevin Mortalities	ADFG	ADFG	ALL	Cont'd	\$681.5	A critical, on-going study effort (together with 95191B) to evaluate the possibility of long-term, heritable damage to salmon. Already extensively peer reviewed in prior years.
1	95191B	Injury to Salmon Eggs and Pre-emergent Fry Incubated in Oiled Gravel (Laboratory Study)	NOAA	NOAA	ALL	Cont'd	\$165.6	A critical, on-going study effort (together with 95191A) to evaluate the possibility of long-term, heritable damage to salmon. Already extensively peer reviewed in prior years.
1	95320A	Salmon Growth and Mortality	ADFG	ADFG	PWS	Cont'd	\$267.8	This sub-project, as part of the PWS System Investigation, was extensively peer reviewed in FY 94. FY 95 proposal continues first year effort. A peer review of first year progress will take place in the fall 1994 with information presented to Trustee Council ii. late October. Note: This sub-project depends on Project 95320B (CWT), a project with policy/legal concerns.

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	Project No.	Title	Proposer	Lead Agency	Loc.	Ргој. Туре	Cost FY 95	Notes
1	95320E	Juvenile Salmon and Herring Integration	ADFG	ADFG	PWS	Cont'd	\$1,032.1	This sub-project, as part of the PWS System Investigation, was extensively peer reviewed in FY 94. FY 95 proposal continues first year effort. A peer review of first year progress will take place in the fall of 1994 with information presented to Trustee Council i- late October. Expansion of predator study to include herring should go forward in cost-effective manner.
1	95320G	Phytoplankton and Nutrients	McRoy, UAF	ADFG	PWS	Cont'd	\$227.3	This sub-project, as part of the PWS System Investigation, was extensively peer reviewed in FY 94. FY 95 proposal continues first year effort. A peer review of first year progress will take place in the fall of 1994 with information presented to Trustee Council in late October.
1	95320H	Role of Zooplankton in the PWS Ecosystem	Cooney, UAF	ADFG	PWS	Cont'd	\$235.1	This sub-project, as part of the PWS System Investigation, was extensively peer reviewed in FY 94. FY 95 proposal continues first year effort. A peer review of first year progress will take place in the fall of 1994 with information presented to Trustee Council it late October.

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	Project No.	Title	Proposer	Lead Agency	Loc.	Ргој. Туре	Cost FY 95	Notes
1	95320I(1)	Isotope Tracers - Food Webs of Marine Mammals and Birds	Schell, Institute of Marine Science	ADFG	PWS	Cont'd	\$100.1	Strong technical merit and demonstrated understanding of technical issues involved. Objectives of this project need to be integrated with other projects involving stable isotopes under the direction of the Chief Scientist.
1	95320I(2)	Isotope Tracers - Food Webs of Fish	Kline, UAF	ADFG	PWS	Cont'd	\$73.4	Objectives of this project need to be integrated with other projects involving stable isotopes under the direction of the Chief Scientist.
1	95320J	Information Systems and Model Development	Patrick, PWS Science Center	ADFG	PWS	Cont'd	\$789.6	This sub-project; as part of the PWS System Investigation, was extensively peer reviewed in FY 94. FY 95 proposal continues first year effort. A peer review of first year progress will take place in the fall of 1994 with information presented to Trustee Council in late October. Important to ensure successful accomplishment of sub-project objectives prior to expansion.

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	Project No.	Title	Proposer	Lead Agency	Loc.	Ргој. Туре	Cost FY 95	Notes
1	95320M	Observational Physical Oceanography in PWS and the Gulf of Alaska	Salmon, PWS Science Center	ADFG	PWS	Cont'd	\$545.2	This sub-project, as part of the PWS System Investigation, was extensively peer reviewed in FY 94. FY 95 proposal continues first year effort. A peer review of first year progress will take place in the fall of 1994 with information presented to Trustee Council ir late October. Need to ensure that this sub-project is more closely coordinated with other bird, forage fish projects.
1	95320N	Nearshore Fish	Thomas, PWS Science Center	ADFG	PWS	Cont'd	\$600.6	This sub-project, as part of the PWS System Investigation, was extensively peer reviewed in FY 94. FY 95 proposal continues first year effort. A peer review of first year progress will take place in the fall of 1994 with information presented to Trustee Council in late October. Coordination of hydroacoustics work in Project 95163 is essential.
1	95320Q	Avian Predation on Herring Spawn	USFS	ADFG	PWS	Cont'd	\$124.8	This sub-project, as part of the PWS System Investigation, was extensively peer reviewed in FY 94. FY 95 proposal continues first year effort. A peer review of first year progress will take place in the fall 1994 with information presented to Trustee Council in late October.

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	Project No.	Title	Proposer	Lead Agency	Loc.	Proj. Type	Cost FY 95	Notes
1	95320S	Disease Impacts on PWS Herring Populations (competetive project solicitation under ADF&G two-step, RFQ-RFP process)	ADFG	ADFG	PWS	Cont'd	\$375.0	Five responses have been received as a result of the herring disease project solicitation. Under state law, these responses must be evaluated confidentially. Needs to be assessed as part of a comprehensive herring restoration effort. A recommendation regarding wheth to proceed with funding for a herring disease project w be made to the Trustee Council in late October. FY 95 budget for this project is only an estimate.
1	95320T	Juvenile Herring Growth and Habitat Partitioning	ADFG	ADFG	PWS	NEW	\$378.6	Addresses an injured resource of critical concern to commercial fisheries. Proposal concept is strong, although more complete evaluation of technical merit would require additional information. Needs to be assessed as part of a comprehensive herring restoration effort.
1	95320U	Somatic and Spawning Energetics of Herring and Pollock	Paul, UAF	ADFG	ALL	NEW	\$94.4	Clarification of specific restoration objectives needed. Project needs to be evaluated in the context of, and possibly integrated with, other herring projects 95074 (herring reproductive impairment); 95163 (forage fish) 95320E (salmon herring integration), 95320N (nearshore fish); 95320T (juvenile herring growth), 95120 (energetic composition of selected forage fish), 95166 (herring natal habitats) and 95121 (isotope and fatty acid signatures of selected forage fish).

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	Project No.	Title	Proposer	Lead Agency	Loc.	Proj. Type	Cost FY 95	Notes
1	95320Y	Variation in Local Predation Rates on Hatchery-Released Fry	Scheel, PWS Science Center	ADFG	PWS	NEW	\$118.9	Potentially valuable information on avian predation on hatchery stocks. Could complement fish predation study information. Should review this project proposal in relation to Project 95033 (kittiwakes as indicators $e^{2\pi i t}$ forage fish). Apparently depends on large-scale hatched production. Budget needs scrutiny.
Cat	tegory 2						\$1,818.3	
2	95009C	Trophic Dynamics and Energy Flow: Impacts of Herring Spawn and Sea Otter Predation on Nearshore Benthic Community Structure	Highsmith, UAF	USFS	PWS	NEW	\$217.3	The sea otter elements of this proposal could possibly be combined with Project 95025B (sea otter abundance and distribution, food habits and population). Portions relating to herring spawn could be addressed as part of other herring project efforts.
2	95018	Partitioning of Primary Production Between Pelagic and Benthic Communities	Naidu, UAF	ADFG	PWS	NEW	\$197.1	Link to restoration not clear but potentially valuable part of future ecosystem studies.
2	95021	Seasonal Movement and Pelagic Habitat Use by Common Murres from the Barren Islands	DOI	DOI	KEN	NEW	\$251.1	Questions concerning whether useful results could be obtained in a short time period. Feasibility study should be completed before funding this project. Could be deferred for consideration in FY 96.

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	Project No.	Title	Proposer	Lead Agency	Loc.	Ргој. Туре	Cost FY 95	Notes
2	95023	Food Web Relationships of Pelagic Species Exhibiting Long-term Decline	Duffy, Alaska Natural Heritage Program	DOI	PWS	NEW	\$168.0	Needs further evaluation under direction of the Chief Scientist in the context of other proposals to address forage fish. Needs evaluation in context of projects using stable isotope analysis. Revised scope for this project may be needed. Concern regarding collection carcasses under MBTA.
2	95025E	Algal Competition Limiting Recovery in the Intertidal	Stekoll, UAF	DOI	KEN	NEW	\$222.5	A good proposal but very narrowly focused. Species to be addressed by project not regarded as a high priority for restoration. Proposed study area/habitat type is unique.
2	95025F	Availability and Utilization of Musculus spp. as Food for Sea Ducks and Sea Otters	Dean, Coastal Resources Associates, Inc.	DOI	PWS	NEW	\$4.6	Although potential cost-effectiveness is high, the methodology is unclear. Cost should be absorbed by another sea duck or sea otter project or possibly as part of a combined clam/mussel/oyster project.
2	95057	Movement of Larval and Juvenile Fishes within PWS	Norcross, UAF	NOAA	PWS	NEW	\$300.0	Further clarification of the specific restoration objectives of this project needed. Further consideration needed in the context of other forage fish projects as well as relationship to 95320T (juvenile herring growth). Appears to be dependent upon certain oceanography portions of Project 95320 (PWS System Investigation). Clarification of sampling scale and design needed.

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	Project No.	Title	Proposer	Lead Agency	Loc.	Ргој. Туре	Cost FY 95	Notes
2	95075	Population Structure of Blue Mussels in Relation to Levels of Oiling and Densities of Vertebrate Predators	NOAA	NOAA	PWS	NEW	\$197.5	Project unfocused. Significant questions concerning methodologies. More focused project of reduced scope might have value in coordination with 95025B (sea otter abundance, food habits). Possible that elements of this proposal could be redefined and/or integrated with a revised nearshore/shelfish project.
2	95121	Stable Isotope Ratios and Fatty Acid Signatures of Selected Forage Fish Species in PWS	Worthy, Texas A&M University	NOAA	PWS	NEW	\$42.0	This project needs to be further evaluated under the direction of the Chief Scientist in the context of the many other proposals being advanced to study trophic interactions of forage fish. Also, objectives of this project need to be integrated into other projects involving stable isotopes under the direction of the Chief Scientist. Utility of fatty acid studies needs careful assessment.
2	95320D	PWS Pink Salmon Genetics	ADFG	ADFG	PWS	Cont'd	\$218.2	Peer reviewer felt more information is needed to fully evaluate the study design. Technical aspects needs further examination.
Ca	tegory 3		<u></u>				\$4,356.9]
3	95009A	Trophics and Community Structure in the Intertidal and Shallow Subtidal	Highsmith, UAF	USFS	PWS	NEW	\$455.4	Proposal not yet well developed and articulated. (Note: Certain elements of Project 95009A provide for the logistics of the related projects proposed as 95009B, 95009C, etc.).

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	Project No.	Title	Proposer	Lead Agency	Loc.	Proj. Type	Cost FY 95	Notes
3	95009B	Primary Productivity as a Factor in the Recovery of Injured Resources in Prince William Sound	Stekoll, UAF	USFS	PWS	NEW	\$218.9	Proposal does not demonstrate a clear relationship to the restoration mission, nor to the rest of the proposed nearshore ecosystem/community structure proposal package.
3	95009E	Community Structure of Mobile Foragers Using the Nearshore	USFS	USFS	PWS	NEW	\$280.5	The issues addressed in this proposal can be better addressed in the context of Project 95320Q. Proposal did not demonstrate a knowledge of the literature in this area. Questions about the methodology proposed.
3	95010	Intertidal Fauna and Flora Species Composition, Abundance and Variability Relative to Physical Habitat Controls	Schoch, Oregon State Univ.	DOI	KEN	NEW	\$73.5	Proposal lacked focus. Lack of strong relationship to restoration objectives.
3	95022	Foraging Efficiencies at Temporary Food Patches	Scheel, PWS Science Center	DOI	PWS	NEW	\$183.1	This project needs to be further evaluated under the direction of the Chief Scientist in the context of the many other proposals being advanced to study trophic interactions of forage fish. Important topic but not adequately addressed by this proposal. Meaure of efficiency proposed too simplistic. This type of work may be valuable in the future in a more sophisticated form.

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	Project No.	Title	Proposer	Lead Agency	Loc.	Proj. Type	Cost FY 95	Notes
3	95025D	Settlement Rates of Nearshore Invertebrates, Oceanic Processes and Population Recovery: Are They Linked?	DOI	DOI	PWS	NEW	\$435.7	Relationship to restoration objectives unclear. Some interesting ideas but proposal vague, not well defined, too general. No specific hypothesis to test.
3	95025G	Recruitment Patterns of Nearshore Clam Populations in Prince William Sound	Van Blaricom, UAF	DOI	PWS	NEW	\$121.3	Substantial methodology questions concerning key proposal assumptions and study design. A basic clam biology investigation. Proposal does not address issue of sediments. Possible that elements of this proposal could be redefined and/or integrated with a revised nearshore/shelfish project.
3	95025J	Primary Productivity as a Factor in the Recovery of Injured Resources in Prince William Sound	Stekoll, UA	F DOI	PWS	NEW	\$397.0	Relationship of project to specific restoration objectives not well defined. Questions regarding methodology and sampling techniques. Questions regarding utility of isotope analysis. Project needs to be reevaluated in the context of all other projects proposing the use of stable isotope analysis under the direction of the Chief Scientist.

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	Project No.	Title	Proposer	Lead Agency	Loc.	Proj. Type	Cost FY 95	Notes
3	95046	Long-term Record in Tree Rings of Climatic Features	Juday, UAF	NOAA	ALL	NEW	\$153.6	Proposal presents novel approach to gathering historical data, but utility to on-going ecosystem research not well established. Relationship to specific restoration objectives not clear. If proposal could be refocused to address a specific priority restoration concern, it migh- be of greater utility.
3	95055	Prehistoric Ecological Baseline for PWS	USFS	USFS	PWS	NEW	\$149.6	Relationship to specific restoration objectives not well established. Regarded as a low priority at the April 1994 science management workshop. If proposal could be refocused to address a specific high priority restoration concern it might be of greater utility.
3	95071	Monitoring Nearshore Fish Species for Persistence of Oil Exposure and Ecotoxicological Effects	ADFG	NOAA	PWS KEN AKP	NEW	\$225.0	Substantial concerns about the essential concept of the proposal. The utility of the methods is uncertain.
3	95073	Impact of Killer Whale Predation on Harbor Seals in PWS	NOAA	NOAA	PWS	NEW	\$99.5	Methodology regarding stable isotopes would not clear yield desired results. The proposed research would like provide interesting results but would not appear to get at the issue of how many seals were being taken by killer whales. This project needs further consideration in context of all other projects involving stable isotope analysis.

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	Project No.	Title	Proposer	Lead Agency	Loc.	Proj. Type	Cost FY 95	Notes
3	95077 [·]	Recreation Impacts in PWS: Human Impacts as a Factor Constraining Long Term Ecosystem Recovery	Ford, National Outdoor Leadership School	ADNR	PWS	NEW	\$117.0	Proposed project's relationship to restoration of injured resource not well established. Proposal lacks strong rationale regarding the need to investigate human impacts to ecosystem health. Without further documentation of injury to be addressed, project appe- to be a low prioity.
3	95078	Culture, History, and Ecosystems: An Assessment of Cultural/Historical Strategies to Building Long-term Understanding of Ecosystem Dynamics in the <i>Exxon Valdez</i> Oil Spill Area	DOI	DOI	ALL	NEW	\$166.7	Novel approach to provide long-term perspective on ecological processes but not clear how useful this could be in meeting restoration objectives. Need to first identify long-term, historic data needs this project could address. If refocused to address specific high priority restoration concerns, it might be of greater utility. Appears most useful in preparation for future spills. See Project 95055.
3	95086B	Population Dynamics of Eelgrass and Associated Fauna	Stekoll, UAF	ADFG	PWS	Cont'd	\$64.8	Need for this project in FY 95 not well established in proposal. Should be reexamined following fundamental review of progress on intertidal work to date. Not recommended unless needed by sea otter studies or rep on 1993 field work is finished and substantiates the need for further work.

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 	Project No.	Title	Proposer	Lead Agency	Loc.	Proj. Type	Cost FY 95	Notes
3	95113	Energetics of Intertidal Fish: The Connection between Lower and Upper Trophic Levels	Barber, UAF	ADFG	PWS KEN	NEW	\$392.5	This project needs to be further evaluated under the direction of the Chief Scientist in the context of the many other proposals being advanced to study trophic interactions of forage fish with particular emphasis on relationship to other proposed pigeon guillemot studi. Project not sufficiently driven by questions pertainin_ predators.
3	95114	Eelgrass Community Structure Restoration Assessment Using Stable Isotope Tracers	Kline, PWS Science Center	ADFG	PWS	NEW	\$192.1	Objectives of this project need to be integrated with those other projects involving stable isotopes under the direction of the Chief Scientist. Issues addresed by this project are of a lower priority than those proposed in other projects.
3	95119-BAA	Food Limitation on Recovery of Injured Marine Bird Populations	Sydeman, Point Reyes Bird Observatory	NOAA	OUT	NEW	\$124.9	Good technical proposal addressing limitation on sea bird recovery, however, focus on California data may not provide useful information for Alaska birds.
3	95320I(3)	Purchase of Isotope Radio Mass Spectrometer	Schell, Institute of Marine Science	ADFG	PWS	NEW	\$257.4	Need for equipment not well substantiated by proposa. Need to examine all projects that propose the use of isotope analysis in order to develop consistent approach to the use of this technique.



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	Project No.	Title	Proposer	Lead Agency	Loc.	Proj. Type	Cost FY 95	Notes
3	95320P	Planning and Communication	Scheel, PWS Science Center	ADFG	PWS	Cont'd	\$66.8	Need for this project unclear in view of indirect and General Administration costs provided in each budget. Relationship to restoration objectives unclear.
3	95320V	Herring Predation by Humpback Whales in PWS	Matkin, North Gulf Oceanic Society	ADFG	PWS	NEW	\$181.6	Proposed project appears very expensive relative to potential benefit of data. The information that would be collected by this proposal was not regarded as a substantial priority. Proposal can be deferred for future consideration.
Ca	tegory 4						\$389.5	
4	95050	A Test of Sonar Accuracy in Estimating Escapement of Sockeye Salmon	Ruggerone, Natural Resources Consultants	ADFG	KEN OUT	NEW	\$79.3	Policy issue. Sonar is a standard tool used by ADF&G. Ensuring its accuracy is a part of normal agency management for the department. Equipment proposed for testing is soon to be obsolete.
4	95060	Spruce Bark Beetle Infestation Impacts on Injured Fish and Wildlife Species of the Exxon Valdez Oil Spill	ADFG	ADFG	PWS KEN	NEW	\$213.9	Policy issue. Proposed project appears to consist of normal agency responsibilies.

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	Project No.	Title	Proposer	Lead Agency	Loc.	Ргој. Туре	Cost FY 95	Notes
4	95065	PWSAC Pink Salmon Fry Mortality	y Olsen, PWS Aquaculture Corporation	ADFG	PWS	NEW	\$52.5	Legal issue. Indications from federal legal counsel are that the proposed use of settlement funds to support hatchery operations will require an EIS prior to a final determination of whether the project would be legally permissible.
4	95320K	PWSAC: Experimental Fr Release	ry Olsen, PWS Aquaculture Corporation	ADFG	PWS	Cont'd	\$43.8	Legal issue. Indications from federal legal counsel are that the proposed use of settlement funds to support hatchery operations will require an EIS prior to a final determination of whether the project would be legally permissible.
Ca	tegory 5						\$62.3	
5	95102-CLO	Closeout: Murrelet Prey and Foraging Habitat in Prince William Sound		DOI	PWS	Closeout	\$62.3	Closeout of prior year work. Budget needs further review.
		[,	Total FY 95 Requ	uest:	···	•,	\$18,105.5]
			Number of Proj	ects:			73	

	Project No.	Title	Proposer	Lead Agency	Loc.	Proj. Type	Cost FY 95	Notes
Ca	tegory 1	· · · · · · · · · · · · · · · · · · ·					\$2,078.8	
1	95007B	Archaeological Site Restoration (Site SEW-488)	USFS	USFS	PWS	Cont'd	\$83.8	Initial proposal was reduced from 185.2 to 83.8 to reflect FY 94 progress.
	95051	Large-scale Coded Wire Tagging of PWS Herring	June, Natural Resources Consultants	ADFG	PWS	NEW	\$190.6	Proposal provides strong link to restoration. Potentially important part of effort to understand herring stocks. Multi-year project commitment. Need to look further at technique, and ensure resources are adequate to meet objectives. Recovery of data (coded tags) needs further consideration.
1	95052	Community Involvement and Use of Traditional Knowledge	ADNR	ADNR	ALL	NEW	\$230.6	Need to coordinate with other community involvement efforts including Projects 95027 (shoreline assessment), 95279 (subsistence food safety testing), 95428-CLO (subsistence planning). Proposal needs further consideration in context of other subsistence priorities.
1	95115	Sound Waste Management Plan	Prince William Sound Economic Development Council	ADEC	PWS	NEW	\$275.9	Not yet reviewed by lawyers. Proposal needs to addre relationship to injured resources and services, rather than preparation for future spills. If approved after legal review, consider integration with 95417 (waste oil facilities).

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B		Project No.	Title	Proposer	Lead Agency	Loc.	Proj. Type	Cost FY 95	Notes
	1	95131	Clam Restoration (Nanwalek, Port Graham, Tatitlek)	Nanwalek and Port Graham Village Councils	ADFG	PWS KEN CI	NEW	\$447.5	This could potentially be a valuable project to restore clams if success of culture technique is demonstrated first on a pilot project basis. Benefits would be greatest if project could restore injured clam beds. Long-tern cost of project needs consideration (\$2.25 million). Extent of NEPA analysis not clear.
14	1	95137	Prince William Sound Salmon Stock Identification and Monitoring Studies	ADFG	ADFG	PWS	Cont'd	\$273.4	Provides substantial opportunity to track success of restoration efforts and improve management of chum and sockeye stocks. Could contribute to life-history models of these species.
•	1	95138	Elders/Youth Conference	Fall, Subsistence Division	ADFG	ALL	NEW	\$77.7	Potentially valuable project if conference focused on transfer of knowledge that will contribute to the recovery of injured natural resources. Project could possibly be designed to facilitate exchange of traditional knowledge between subsistence community residents and agency/scientific researchers. Project description needs to be reworked to establish clear project objectives that will contribute to the restoration of natural resources upon which subsistence services depend.



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	Project No.	Title	Proposer	Lead Agency	Loc.	Ргој. Туре	Cost FY 95	Notes
1	95244	Seal and Sea Otter Cooperative Subsistence Harvest Assistance	ADFG	ADFG	PWS KEN	Cont'd	\$54.5	Proposal appears well-prepared, cost effective. Should be integrated with sea otter Projects 95159 (bird and sea otter survey), 95025B (sea otter abundance and distribution) as well as other community outreach efforts. Proposal needs further consideration in conte of other subsistence priorities.
. 1	95255	Kenai River Sockeye Restoration	ADFG	ADFG	KEN	Cont'd	\$406.1	Last year of field work for project (report writing in FY 96). Further clarification needed on interrelationship of this project to other major Kenai River sockeye projects 95105 (Kenai River ecosystem pilot enclosure study) and 95258 (sockeye salmon overescapement) as well as review of entire Kenai River sockeye effort.
1	95272	Chenega Chinook Release Program	Olsen, PWS Aquaculture Corporation	ADFG	PWS	Cont'd	\$38.7	Potential for cost recovery in long-term. May be eligible for criminal funding.
Cat	tegory 2		·				\$2,505.6	
2	95024	Enhancement of Wild Pink Salmon Stocks	Reidel, Native Village of Eyak	ADFG	PWS	NEW	\$350.0	Proposal did not address potentially significant technical problems and genetic concerns. Project needs to be combined with Project 95069 (restoration of salmon stocks of special importance to native cultures). Further consideration needed in context of other subsistence priorities.



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	Project No.	Title	Proposer	Lead Agency	Loc.	Ргој. Туре	Cost FY 95	Notes
2	95038	Symposium on Seabird Restoration	Harrison, Pacific Seabird Group	DOI	ALL	NEW	\$77.0	Potentially of great value although lack of proceedings or publication of results is a problem. Proposer should consider conducting such a symposium as part of a regular Pacific Seabird Group annual meeting.
2	95069	Restoration of Salmon Stocks of Special Importance to Native Cultures	ADFG	ADFG	PWS KEN	NEW	\$672.6	Technical merit and effectiveness need further review. Concerns about genetic impacts. Proposal should be combined with Project 95024 (enhancement of wild pink stocks).
2	95116	Restoration of Intertidal Oiled Mussel Beds by Nondestructive Manipulation/Flushing with PES-51	Rog, PES Services AK, Inc.	ADEC	PWS	NEW	\$453.2	Proposal as written raises policy issue (public funds should not be used to support private product testing). Idea may be appropriate for a competitive RFP on various alternative cleanup methods for remaining oiled situations (not just mussel beds and not just PES-51).
2	95132	Port Graham and Nanwalek Subsistence Baseline	Port Graham Village Council, Nanwalek Village Council	ADFG	PWS	NEW	\$488.2	Questions about scope of project (service area) and expense. Trustee Council previously indicated that 1994 would be last year of subsistence food testing (Project 94279). Budget needs examination. Relationship to Project 95279 (subsistence food safety testing) needs further consideration.



	Project No.	Title	Proposer	Lead Agency	Loc.	Ргој. Туре	Cost FY 95	Notes
2	95133	English Bay River Sockeye Salmon Subsistence Project	Kvasnikoff, Nanwakek Traditional Council	ADFG	KEN	NEW	\$129.8	Technical questions regarding effectiveness of proposed methods, the potential impact of competition and genetic impacts. Clarification needed regarding status of on-going project effort and alternative funding sources.
2	95139B	Spawning Channel - Port Dick Creek	ADFG	ADFG	KEN	Cont'd	\$127.5	Funding for this project was provided in FY 94 as part of Project 94139 but project was delayed due to low cost-benefit ratio (0.4 : 1). Funds were reallocated to address herring disease effort. Project still has support among Kenai commercial fishermen and should be reviewed in light of limited restoration options for this region.
2	95279	Subsistence Food Safety Testing	ADFG	ADFG	ALL	Cont'd	\$207.3	Need to coordinate with other community outreach projects including 95027 (shoreline assessment), 95052 (community involvement and use of traditional knowledge), 95428-CLO (subsistence planning) and the Trustee Council's public information program. Cost seems high.
Ca	tegory 3	· · · · · · · · · · · · · · · · · · ·					\$1,922.2	
3	95006	Paint River Pink Salmon Development	Mears, Cook Inlet Aquaculture Assn.	ADFG	KEN	NEW	\$173.9	Low technical merit; weak link to restoration (Paint River was not damaged by spill). Proposal involves creation of replacement resource to benefit commercial fishermen. Project was pursued prior to EVOS.

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	Project No.	Title	Proposer	Lead Agency	Loc.	Proj. Type	Cost FY 95	Notes
3	95017	Port Graham Coho Salmon Subsistence Fishery Restoration Project	Daisy, Aquafrarm	ADFG	KEN	NEW	\$587.9	Extremely high cost per fish produced (about \$40/fish amortized over a ten year period). Technical concerns regarding the proposed water supply and possibility of pathogens. Raises legal issue since the project does address restoration of injured resource but rather seeks enhance silver salmon production. Not apparent that proposed project would rebuild self-sustaining wild populations or aid the recovery of the ecosystem as a whole.
3	95043A	Cordova Cutthroat Trout Habitat	USFS	USFS	PWS	Cont'd	\$22.7	Need to address how the project would evaluate the result of efforts on more than a qualitative level.
3	95047	Seal Contamination	McKee	ADNR	PWS	NEW		Proposal incomplete. A lack of information precludes meaningful consideration.
3	95096	Restoration of Murres by Way of Social Attraction and Predator Removal	Podolsky	DOI	ALL	NEW	\$167.0	Concept is not without merit. However, quality of proposal is low does not show command of literature and makes many assumptions. Insufficient information to fully evaluate proposal.
3	95097	Restoration of Murres by Way of Transplantation of Chicks: A Feasibility Study	Podolsky	DOI	ALL	NEW	\$176.0	Concept is not without merit. However, quality of proposal is low does not show command of literature and makes many assumptions. Insufficient information to fully evaluate proposal.

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Table 2 — GENERAL RESTORATION PROJECTS

	Project No.	Title	Proposer	Lead Agency	Loc.	Proj. Type	Cost FY 95	Notes
3	95098	Identification of Seabird Feeding Areas from Remotely Sensed Data	Podolsky	DOI	ALL	NEW	\$74.0	Concept is not without merit. However, quality of proposal is low does not show command of literature and makes many assumptions. Insufficient information to fully evaluate proposal.
3	95099	Murrelet Vocalization in Conjunction with Artificial Nests: A Possible Means of Attraction to Habitat	Podolsky	DOI	ALL	NEW	\$77.0	Concept is not without merit. However, quality of proposal is low does not show command of literature and makes many assumptions. Insufficient information to fully evaluate proposal.
3	95111	Sustainable Rockfish Yield	ADFG	ADFG	ALL	NEW	\$204.4	Not a high priority. Further work on rockfish should await final report on earlier studies. Proposal would seem to fall within the purview of normal agency responsibility.
3	95112	Rockfish Restoration Objective	ADFG	ADFG	ALL	NEW	\$69.0	Not a high priority. Further work on rockfish should await final report on earlier studies. Proposal would seem to fall within the purview of normal agency responsibility.
3	95139C	Salmon Instream Habitat and Stock RestorationPink Creek and Horse Marine Barrier Bypass Development	ADFG	ADFG	KOD	Cont'd	\$45.7	Low technical merit. Unless maintained, improvements may not yield desired results. Questions regarding incremental benefits to area salmon runs. Cost/benefit needs further consideration.

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 Project No.	Title	Proposer	Lead Agency	Loc.	Proj. Type	Cost FY 95	Notes
3 95259	Restoration of Coghill Lake Sockeye	ADFG	ADFG	PWS	Cont'd	\$324.6	Questions about technical feasibility. Needs further review. Effectiveness of fertilizer in this lake is uncertain. ADFG extremely concerned that if Coghill Lake fishery does not recover, these stocks may be designated as endangered. Coghill Lake sockeye problems pre-date EVOS. Restoration of sockeye is considered a replacement resource for commercial fishery in PWS.
Category 4						\$19,582.9	· · ·
4 95002	Leave No Trace Education Program	Ford, National Outdoor Leadership School	USFS	PWS	NEW	\$177.7	Raises legal issue. Lack of clear connection to restoration of natural resources injured by EVOS. No evidence provided that recreation is having a significant impact on the recovery of injured resources.
4 95003	Area E Commercial Salmon Permit Buyback Program	Mykland	ADFG	PWS	NEW	\$11,735.0	Raises legal issue. No link to restoration. While proposal would perhaps benefit individual permit holders, there is no explanation of how proposal wou ^{1,4} aid in recovery of natural resources injured by EVOS. Issues dealing with the economic condition of commercial fishermen are outside of the Trustee Council's purview.



	Project No.	Title	Proposer	Lead Agency	Loc.	Ргој. Туре	Cost FY 95	Notes
4	95016	A Tribute to Prince William Sound	Kremen	USFS	PWS	NEW	\$161.0	Raises legal issue. Does not address an injured resource but rather proposes what is essentially a commercial promotion effort. A national tour as proposed would contravene the Council's past practice of undertaking restoration actions within the spill area.
4	95042	Five-year Plan to Remove Predators from Seabird Colonies	Harrison, Pacific Seabird Group	DOI	OUT	NEW	\$75.0	Raises legal issue (some of the species addressed by the project are not recognized as injured) and policy issues (work area is outside spill area and planning effort is part of normal agency responsibility).
4	95053	Cordova's Mini-Imaginarium	Trowbridge, PWS Science Center	ADNR	PWS	NEW	\$62.6	Raises legal issue. Does not address an injured resource or service damaged by the spill.
4	95079	Pink Salmon Restoration Through Small-scale Hatcheries	Van Hyning, NERKA, Inc., and Aquabionics Inc.		PWS	NEW	\$150.0	Raises legal issue. Indications from federal legal counsel are that proposed use of settlement funds to support hatchery operations will require an EIS prior to a final determination of whether the project would be legally permissible.
4	95080	Fleming Spit Recreation Area Enhancements	The Cordova Sporting Club		PWS	NEW	\$1,365.0	Proposal has merit because Fleming Spit was injured by cleanup workers (mentioned in the Draft Restoration Plan). However, proposal needs to be reworked to more clearly be responsive to spill damage.



	Project No.	Title	Proposer	Lead Agency	Loc.	Proj. Type	Cost FY 95	Notes
4	95082	"Mor-Pac Hill" Campground Improvements	The City of Cordova	ADNR	PWS	NEW	\$360.0	Raises legal issue. The proposal to improve a campground originally built to house oil spill workers that now suffers from lack of maintenance is not a proposal for the restoration of the natural resources or services provided by those resources injured by the spill.
4	95084	Odiak Camper Park Expansion	The City of Cordova	ADNR	PWS	NEW	\$266.0	Raises legal issue. The proposal to improve a campground is not a proposal for the restoration of the natural resources or services provided by those resources injured by the spill.
4	95085	Cordova Historical Marine Park	The Cordova Planning and Harbor Commiss.	ADNR	PWS	NEW	\$196.5	Raises legal issue. A marine historical park for display of salvaged fishing boats would not be natural resource restoration of any type.
4	95093	PWSAC: Restoration of Pink Salmon Resources and Services	Olsen, PWS Aquaculture Corporation	ADFG	PWS	NEW	\$2,219.1	Raises legal issue. Indications from federal legal counsel are that proposed use of settlement funds to support hatchery operations will require an EIS prior a final determination of whether the project would be legally permissible. Proposer is considering the submission of an alternative proposal.
4	95123	Tatitlek Community Store	Komkoff, Tatitlek IRA Council	ADFG	PWS	NEW	\$300.0	Raises legal issue. Not restoration of a natural resource upon which the subsistence service depends.

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	Project No.	Title	Proposer	Lead Agency	Loc.	Proj. Type	Cost FY 95	Notes
4	95124A	Tatitlek Mariculture Development Project	Daisy, Tatitlek IRA Council	ADFG	PWS	NEW	\$109.5	Raises legal issues. Clarification regarding the project's natural resource restoration objectives is needed.
4	95124B	Tatitlek Mariculture Development Project - Capital Outlay	Daisy, Tatitlek IRA Council	ADFG	PWS	NEW	\$405.0	Raises legal issues. Clarification regarding the projection natural resource restoration objectives is needed.
4	95125	Tatitlek Sockeye Salmon Release Program	Komkoff, Tatitlek Traditional Council	ADFG	PWS	NEW	\$39.0	Raises legal issues. Proposed as a replacement resource for subsistence. Questions regarding injured resource (sockeye) being replaced. Technical concerns regarding potential impacts to wild stocks, source of brood stock and potential for disease.
4	95127	Tatitlek Coho Salmon Release Program	Komkoff, Tatitlek Traditional Council	ADFG	PWS	NEW	\$39.0	Raises legal issues. Proposed as a replacement resource. Technical merit appears high.
4	95128	Teaching Subsistence Practices and Values	Callaway, NPS	DOI	PWS	NEW	\$69.0	Raises legal issues. Does not address natural resource restoration. Direct restoration of service without restoration of resource.
4	95129	Tatitlek Fish and Game Processing Center and Smokery	Komkoff, Tatitlek IRA Council	ADFG	PWS	NEW	\$515.5	Raises legal issue. Relationship to restoration of natural resource unclear.



	Project No.	Title	Proposer	Lead Agency	Loc.	Proj. Type	Cost FY 95	Notes
4	95130	Mental Health Center	Vlasoff, Chugachmuit and Copper Mountain Foundation	ADFG	PWS	NEW	\$106.1	Raises legal issue. Relationship to restoration of natural resource unclear.
4	95134	Chenega Bay Mariculture Development Project	Evanoff, Chenega Bay IRA Council	ADFG	PWS	NEW	\$184.3	Raises legal issues. Clarification regarding the project's intended natural resource restoration objectives is needed
4	95135	Subsistence Harvest Support	Chenega Bay Village IRA Council	ADFG	PWS	NEW	\$50.0	Raises legal issues. Unclear how proposed project restores natural resource. This project previously funded by DCRA.
4	95136	Skin Sewing Crafts Restoration	Callaway, NPS	DOI	PWS	NEW	\$29.9	Raises legal issues. Unclear how proposed project restores natural resource.
4	95140	Subsistence Skills Program	Olsen, Valdez Native Association	ADFG	PWS	NEW	\$36.7	Raises legal issues. Unclear how proposed project restores natural resource.

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	Project No.	Title	Proposer	Lead Agency	Loc.	Proj. Type	Cost FY 95	Notes
4	95141	Afognak Island State Park Interim Support	ADNR	ADNR	KOD	NEW	\$21.5	Raises policy issue (normal agency management responsibilities). Project would provide operational support for park management and to oversee implementation of the terms of the road closure and reforestation provisions agreed to by the seller. Woul also develop a plan to convert some existing roads into trails and to revegetate remaining roads.
4	95320B	PWS Pink Salmon Stock Identification and Monitoring (CWT)	ADFG	ADFG	PWS	Cont'd	\$260.5	Raises policy issue regarding whether proposal is normal agency responsibility. Also, legal issue since this project involves hatcheries. Indications from federal legal counsel are that proposed use of settlement funds to support hatchery operations will require an EIS prior to a final determination of whether the project would be legally permissible. Possible that funding will be available from other sources.
4	95320C	Otolith Thermal Mass Marking of Hatchery Reared Pink Salmon in PWS	ADFG	ADFG	PWS	Cont'd	\$649.0	High technical merit (otolith marking may be superior to CWT). Also, legal issue since this project involves hatcheries. Indications from federal legal counsel are that proposed use of settlement funds to support hatcheries requires EIS prior to determination of whether project is legally permissible. Also, policy issue regarding whether proposal is within normal agency responsibility.

Table 2 — GENERAL RESTORATION PROJECTS



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******************	Project No.	Title	Proposer	Lead Agency	Loc.	Ргој. Туре	Cost FY 95	Notes
Ca	tegory 5						\$509.5	
5	95007-CLO*	Closeout: Site-specific Archaeological Restoration	ADNR	ADNR	ALL	Closeout	\$191.7	Completion of prior year project. Cost appears high.
5	95041A-CLO*	Closeout: Introduced Predator Removal from Islands	DOI	DOI	OUT	Closeout	\$20.4	Completion of prior year project.
5	95041B-CLO*	Closeout: Introduced Predator Removal from Islands - Follow-up Surveys	DOI	DOI	OUT	Closeout	\$50.9	Predator removal is generally effective. Proposal will allow measurable results to be obtained. Budget should be reviewed for possible reduction.
5	95199-CLO	Institute of Marine Science - Seward Improvements EIS	ADF&G	ADFG	ALL	Cont'd	\$71.7	Project would closeout the EIS process for the Institute of Marine Science improvements at Seward. Only ADF&G costs reflected here.
5	95266-CLO	Closeout: Shoreline Assessment and Oil Removal	ADEC	ADEC	ALL	Closeout	\$93.8	Completion of prior year project. Budget should be reviewed for possible reduction.
5	95428-CLO	Closeout: Subsistence Planning	NOAA	ADFG	ALL	Closeout	\$81.0	Need to coordinate with other community outreach efforts including Projects 95027 (shoreline assessment), 95052 (community involvement and traditional knowledge), 95279 (subsistence food safety testing). Proposal needs further consideration in context of other subsistence priorities.

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Table 2 — GENERAL RESTORATION PROJECTS

Project No.	Title	Proposer	Lead Agency	Loc.	Proj. Type	Cost FY 95	Notes
Category 6	·····					\$0.0	
6 95043B	Carry-forward: Cutthroat and Dolly Varden Rehabilitation in Western PWS	USFS	USFS	PWS	Carry Fwd.	\$0.0	Reauthorization of approximately 126.8 will be requested for FY 95. NEPA compliance to be completed in FY 94.
6 95165	6 95165 Carry-forward: PWS Herring Stock Genetic Stock Identification		ADFG	PWS	Carry Fwd.	\$0.0	This project was authorized at 62.2 in FY 94 but not implemented due to failure of herring run. FY 95 budget for 95165 will be carry forward funds. (RFP may be issued before end of FY 94 that will encumber FY 94 funds for herring stock identification.)
6 95417	Carry-forward: Waste Oil Disposal Facilities	ADEC	ADEC	ALL	Carry Fwd.	\$0.0	Possibly combine with 95115 (PWS waste management plan).

* NOTE: These projects are for report writing and data analysis of FY 94 field work that also have related projects proposed for continuation in FY 95.

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_	Proj.No.		Title	Proposer	Lead Agency	Loc.	Ргој. Туре	Cost FY 95	Notes
	Category	1						\$4,621.2]
1	95007A		Archaeological Site Restoration - Index Site Monitoring	ADNR	ADNR	ALL	Cont'd	\$190.9	Responsive to Invitation, but cost appears high.
1	95013		Killer Whale Monitoring in PWS	Matkin, North Gulf Oceanic Society	NOAA	PWS	NEW	\$105.0	Same basic methodology as 95092, but with a broader scope (includes AT1 pod). NOAA and North Gulf Oceanic Society should examine possibility of collaborating on single killer whale monitoring project.
1	95026		Hydrocarbon Monitoring: Integration of Microbial and Chemical Sediment Data	Braddock, UAF	ADEC	ALL	NEW	\$84.4	Analysis of previously collected data sets (chemical and microbiological). Strong proposal. Responsive to <i>Invitation</i> .
1	95030		Productivity Survey of Bald Eagles in PWS	DOI	DOI	PWS	NEW	\$81.9	DOI has proposed two bald eagle projects: monitoring productivity (95029) and monitoring population (95030). Last surveys done in 1991. Bald eagles are long-lived birds; therefore, more likely to see decline in productivity than in population.
1	95039		Common Murre Productivity Monitoring	DOI	DOI	KEN	Cont'd	\$163.7	Directly responds to Invitation.



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	Proj.No.	Title	Proposer	Lead Agency	Loc.	Proj. Type	Cost FY 95	Notes
1	95048	Historical Analysis of Sockeye Salmon Growth	Ruggerone, Natural Resources Consultants	ADFG	ALL	NEW	\$85.0	Innovative proposal to address damage and recovery of sockeye. Appears cost-effective. Some technical questions need clarification such as statistical power of proposed methodology. Scope of work questions. Investigators are of high quality.
1	95086A	Coastal Habitat Intertidal Monitoring and Experimental Design Verification	Stekoll, UAF	ADFG	PWS	Cont'd	\$829.4	Valuable to revisit sites from 1991 but project in need of revised scope of effort. Objectives 1(b) and (c) should be dropped and budget reduced accordingly (retrospective analysis of methodology does not warrant expense; its main contribution would be to prepare for future spills). Quéstion continued need for statisticians. Must decide which geographic areas and habitat types would be appropriate to monitor.
1	95086C	Herring Bay Monitoring and Restoration Studies	Highsmith, UAF	ADFG	PWS	Cont'd	\$549.1	Important on-going work. However, need to finish current studies before initiating new ones. Any additional work in FY 96 should be considered on basis of completed reports from prior and on-going studies. Recommend narrowing project to finish work underwa and reduce budget accordingly.
1	95090	Mussel Bed Restoration and Monitoring in PWS and Gulf of Alaska	NOAA	NOAA	PWS KEN	Cont'd	\$261.8	Important to follow up on prior work to determine effectiveness of techniques being used. Questions regarding need to go outside of PWS for restoration. Further consideration of this proposal needed in the context of other clam, mussel and sea urchin projects.

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	Proj.No.	Title	Proposer	Lead Agency	Loc.	Proj. Type	Cost FY 95	Notes
1	95092	Recovery Monitoring of PWS Killer Whales	NOAA	NOAA	PWS	NEW	\$99.5	Same basic proposal as 95013 (killer whale monitoring), but with narrower focus. NOAA and North Gulf Oceanic Society should collaborate on single killer whale monitoring project if possible. Questions regarding 20-year duration and sampling methods.
1	95106	Subtidal Monitoring: Eelgrass Communities	Jewett, UAF	ADFG	PWS	NEW	\$399.9	History of other spills demonstrates longlasting effects on soft sediment environments. Data suggests that follow-up to FY 93 study needed.
1	95166	Herring Natal Habitats	ADFG	ADFG	PWS	Cont'd	\$493.3	Need to coordinate with 95320T (juevenile herring growth). Need to clarify project cost and participation of project personnel.
1	95258	Sockeye Salmon Overescapement	ADFG	ADFG	KEN	Cont'd	\$983.3	Future funding should depend upon completion and comprehensive assessment of past work. A phase-out strategy should be developed; examine opportunity to schedule research less frequently. Further clarification needed on interrelationship of this project to other major Kenai River sockeye projects 95105 (Kenai River ecosystem pilot enclosure study) and 95255 (Kenai sockeye restoration).



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	Proj.No.	Title	Proposer	Lead Agency	Loc.	Ргој. Туре	Cost FY 95	Notes
1	95290	Hydrocarbon Data Analysis, Interpretation, and Database Maintenance for Restoration and NRDA Environmental Samples Associated with the <i>Exxon</i> <i>Valdez</i> Oil Spill	NOAA	NOAA	ALL	Cont'd	\$72.2	Ongoing hydrocarbon interpretation and support services. Provides valuable technical support to many project investigators.
1	95427	Harlequin Duck Recovery Monitoring	ADFG	ADFG	PWS	Cont'd	\$221.8	Continuation of ongoing work. Should be contingent upon successful completion of field methodology project from FY 94. Opportunity to integrate or combine with Project 95025A (recovery of sea ducks) needs further consideration.
	Category 2						\$1,308.0	
2	95005	Harlequin Duck Abundance and Productivity in Western Cook Inlet	DOI	DOI	KEN	NEW	\$40.2	No compelling reason to undertake this project. No documented injury to harlequin ducks in western Cook Inlet.
2	95027	Kodiak and Alaska Peninsula Comprehensive Shoreline Assessment: Monitoring Surface and Subsurface Oil	ADEC	ADEC	KOD AKP	NEW	\$759.5	Concern about expense of project relative to benefit. Methods need clarification. Should be coordinated with subsistence/community outreach Projects 95052 (community involvement and traditional knowledge), 95279 (subsistence food safety testing), and 95428-CLO (subsistence planning). Possibly scaled back to address "hot spots." Perhaps project could be phased. (Last assessment outside of PWS was 1990.)

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	Proj.No.	Title	Proposer	Lead Agency	Loc.	Proj. Type	Cost FY 95	Notes
2	95029	Population Survey of Bald Eagles in PWS	DOI	DOI	PWS	NEW		Recommended frequency of bald eagle population surveys is every 5 years; survey was last done in 1991. If approved, could be integrated with Project 95030 (productivity of bald eagles).
2	95062	River Otter Recovery Monitoring	ADFG	ADFG	PWS	NEW	\$69.0	Damage to river otters by EVOS substantiated but magnitude of injury unclear. Latrine site information would provide limited insights into recovery. Sample size is small. If approved, possibly integrate with Project 95025C (pigeon guillemots and river otters as bioindicators).
2	95159	Surveys to Determine Additional Oil Spill Effects and Recovery of Marine Bird and Sea Otter Populations in PWS	DOI	DOI	PWS	Cont'd	\$391.0	Recommended frequency of monitoring is every 3 years; last surveys were done under this project in winter 1994. Could be deferred until 1996. Concern that FY 94 survey was winter only, not in summer, and that each year, additional species have been found to occur in lesser numbers in oiled areas than in unoiled areas. Questions of statistical power of survey methods.
	Category 3		·····				\$342.6	
3	95045	Green Island Intertidal Restoration Monitoring	Juday and Foster, UAF	USFS	PWS	NEW	\$113.4	Methodology and objectives vague.

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	Proj.No.	Title	Proposer	Lead Agency	Loc.	Proj. Type	Cost FY 95	Notes
3	95094	Recovery of Intertidal Clams in PWS	Jewett, UAF	ADFG	PWS	NEW	\$229.2	This project needs further consideration in the context of other clam, mussel and urchin projects under the direction of the Chief Scientist. Need to examine relative to Project 95025G (recruitment of clam populations), 95075 (blue mussels in relation to oilin and predators), and 95087 (sea urchin poulation dynamics). Possible that elements of this proposal could be redefined and/or integrated with a revised nearshore/shelfish project. Involvement of subsistence community needed to provide direction.
	Category 4		4				\$84.0	
4	95107	Subtidal Site Verification	Jewett, UAF	ADFG	PWS	NEW	\$84.0	Proposal is duplicative of 95086A (see 95086A Genera Objectives 1(b) and (c)). Focus on preparation for future oil spill or disturbance raises legal concern. Retrospective analysis of methodology does not warran expense.
Γ	Category 5						\$344.6	
5	95039-CLO*	Closeout: Common Murre Population Monitoring	DOI	DOI	KEN	Closeout	\$30.5	Analysis of FY 94 data and report writing.
5	95090-CLO*	Closeout: Mussel Bed Restoration and Monitoring	ADEC	ADEC	PWS	Closeout	\$154.4	Laboratory analysis of samples and final report writing



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Manage 1988	Proj.No.	Title	Proposer	Lead Agency	Loc.	Proj. Type	Cost FY 95	Notes	
5	95173-CLO*	Closeout: Pigeon Guiller Recovery Monitoring	not DOI	DOI	PWS	Closeout	\$55.0	Analysis of FY 94 data and report writing.	
5	95285-CLO	Closeout: Subtidal Sedime Recovery Monitoring	ent NOAA	NOAA	KEN	Closeout	\$104.7	The BPD for this project has not been submitted.	<u>{</u>
		,	Total FY 95 Requ Number of Proje				\$6,700.4 27	· ·	

* NOTE: These projects are for report writing and data analysis of FY 94 field work that also have related projects proposed for continuation in FY 95.

DRAFT Table 4 — HABITAT PROTECTION & AQUISITION PROJECTS

_	Proj.No.		Title	Proposer	Lead Agency	Loc.	Proj. Type	Cost FY 95	Notes
	Category	1		··				\$1,420.5	
1	95126		Habitat Protection and Acquisition Support	ADNR	ADNR	ALL	Cont'd	\$1,403.3	Further consideration of budget needed; possible reduction due to lapse of some FY 94 funds. Project funds final six months of support in FY 95. Budget includes funding for negotiators, which Trustee Council has chosen not to fund in the past.
1	95505B		Data Analysis for Stream Habitat	USFS	USFS	ALL	NEW	\$17.2	Project would complete data analyses for an existing stream habitat database to establish the relationship between aerial photo channel type interpretations and spawning and rearing habitat.
	Category	2						\$458.4	
2	95054		Montague Riparian Rehabilitation	USFS	USFS	PWS	NEW	\$42.7	Proposal needs further clarification regarding injured resources and restoration objectives to be addressed by project.
2	95058		Restoration Assistance to Private Landowners	USFS	ADFG	ALL	NEW	\$415.7	This project should be scaled back to a more modest initial effort based on a more complete assessment of demand.

Table 4 — HABITAT PROTECTION & AQUISITION PROJECTS

•	Proj.No.		Title	Proposer	Lead Agency	Loc.	Ргој. Туре	Cost FY 95	Notes
	Category	3						\$305.7]
3	95095	_	Quantification of Stream Habitat for Harlequin Ducks and Anadromous Fish Species from Remotely Sensed Data	Podolsky	ADNR	ALL	NEW		Questions regarding the proposed application of remote sensing (whether a sufficiently distinct "signature" for harlequin habitat can be identified). Further informal consideration warranted before funding of proposal.
3	95122		Mapping Potential Nesting Habitat of Marbeled Murrlets in PWS Using Geographic Databases	DeVelice	USFS			\$167.5	Benefits to restoration efforts beyond large parcel evaluation process needs further articulation.
3	95200		Public Access	USFS	USFS	PWS	NEW	\$50.2	Link to restoration vague. The majority of this project proposal has already been funded from other sources. For remainder of project, benefits to injured resources or services unclear. Brief project description no longer accurately describes proposed project activity.
	Category	5	· · · · · · · · · · · · · · · · · · ·	۵۰۰۰۰ ۵ ۵۰۰۰ ۵۰۰۰ ۵۰۰۰ ۵۰۰۰ ۵۰۰۰ ۵۰۰۰				\$143.9	
5	95110-CL	0.	Closeout: Habitat Protection and Acquisition	ADNR	ADNR	ÁLL	Closeout	\$143.9	Further examination of budget needed. Proposed budget includes 84.0 that will be carried forward from FY 94, and 60.0 in FY 95 funds. Project funds three months of the work group in FY 95.

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Table 4 — HABITAT PROTECTION & AQUISITION PROJECTS

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Proj.No.	Title	Lead Proposer Agency L	Proj. oc. Type	Cost FY 95	Notes	
		al FY 95 Request:	99999999999999999999999999999999999999	\$2,328.5		
	Nu	mber of Projects:		8		

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Table 5 — ADMINISTRATION AND PUBLIC INFORMATION PROJECTS

	Proj.No.		Title	Proposer	Lead Agency	Loc.	Proj. Type	Cost FY 95	Notes
	Category	1						\$4,040.1]
1	95089	-	Information Management System	Executive Director's Office	ADFG	ALL	Cont'd	\$540.1	This project transitions the Oil Spill Public Information Center (OSPIC) into a comprehensive system for the management, integration and public dissemination of information and research results obtained through the Trustee Council process.
1	95100	-	Administrative Budget	Executive Director's Office	ALL	ALL	Cont'd	\$3,500.0	Reflects a 17% reduction in costs from FY 94. Reaches goal of administrative budget of 5% of annual Exxon payment.
	Category	3						\$31.9]
3	95049		Independent Review of Restoration and Monitoring Projects	Ruggerone, Natural Resources Consultants	ADFG	ALL	NEW	\$31.9	This proposed project would duplicate work already approved by the Trustee Council and implemented through the work of the Chief Scientist and the peer reviewers. A Request for Proposals (RFP) for the services of the Chief Scientist will be issued in the fal and, if interested, the proposer of this project could apply at that time.
	Category	5						\$20.0	
5	95422-CL	0	Closeout: Restoration Plan EIS/Record of Decision	USFS	USFS	ALL	Closeout	\$20.0	Completes EIS process for the <i>Draft Restoration Plan</i> . Record of Decision (ROD) due in late October.



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Table 5 — ADMINISTRATION AND PUBLIC INFORMATION PROJECTS

Proj.No.	Title	Lead Proposer Agency L	Proj. oc. Type	Cost FY 95	Notes	
		l FY 95 Request: mber of Projects:		\$4,092.0 4		

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Exxon Valdez Oil Spill Trustee Council

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



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EXXON NALDEZ OIL SPILL

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TO: Public Advisory Group

FROM: Molly McCammon, Director of Operations

DATE: August 1, 1994

SUBJ: Research Topics Addressed in FY 95 Project Proposals

As indicated by the attached tables, after preliminary review, the forty six research project proposals received in response to the *Invitation to Submit Restoration Projects for Fiscal Year 1995* that were categorized as either a category 1 or 2 project can be organized around a number of topics.

These include:

- PWS System Investigation
- Forage Fish
- --- Stable Isotopes
- Nearshore Ecosystem
- Ecotoxicology
- Other Projects

A summary of the number and cost of these projects is attached.

Trustee Agencies

State of Alaska: Departments of Fish & Game, Law, and Environmental Conservation United States: National Oceanic and Atmospheric Administration, Departments of Agriculture and Interior

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RESEARCH TOPIC				(\$000's)
PWS System Investigation	Category 1 Category 2	(12 projects) (0 projects)	\$4,789.4 \$0.0	\$4,789.4
Forage Fish	Category 1 Category 2	(7 projects) (0 projects)	\$2,676.7 \$0.0	\$2,676.7
Stable Isotopes	Category 1 Category 2	(2 projects) (2 projects)	\$173.5 \$210.0	\$383.5
Nearshore Ecosystem	Category 1 Category 2	(4 projects) (2 projects)	\$526.1 \$414.8	\$940.9
Ecotoxicity	Category 1 Category 2	(5 projects) (0 projects)	\$1,380.3 \$0.0	\$1,380.3
Other Research	Category 1 Category 2	(6 projects) (6 projects)	\$1,778.7 \$1,193.5	\$2,972.2

TOTAL

\$13,143.0

Research Category: PWS System Investigation

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	Project No.	Title	Proposer	Lead Agency	Loc.	Ргој. Туре	Cost FY 95	Notes
Ca	tegory 1						\$4,789.4	
1	95320A	Salmon Growth and Mortality	ADFG	ADFG	PWS	Cont'd	\$267.8	This sub-project, as part of the PWS System Investigation, was extensively peer reviewed in FY 94. FY 95 proposal continues first year effort. A peer review of first year progress will take place in the fall of 1994 with information presented to Trustee Council in late October. Note: This sub-project depends on Project 95320B (CWT), a project with policy/legal concerns.
1	95320E	Juvenile Salmon and Herring Integration	ADFG	ADFG	PWS	Cont'd	\$1,032.1	This sub-project, as part of the PWS System Investigation, was extensively peer reviewed in FY 94. FY 95 proposal continues first year effort. A peer review of first year progress will take place in the fall of 1994 with information presented to Trustee Council in late October. Expansion of predator study to include herring should go forward in cost-effective manner.
1	95320G	Phytoplankton and Nutrients	McRoy, UAF	ADFG	PWS	Cont'd	\$227.3	This sub-project, as part of the PWS System Investigation, was extensively peer reviewed in FY 94. FY 95 proposal continues first year effort. A peer review of first year progress will take place in the fall of 1994 with information presented to Trustee Council in late October.
1	95320H	Role of Zooplankton in the PWS Ecosystem	Cooney, UAF	ADFG	PWS	Cont'd	\$235.1	This sub-project, as part of the PWS System Investigation, was extensively peer reviewed in FY 94. FY 95 proposal continues first year effort. A peer review of first year progress will take place in the fall of 1994 with information presented to Trustee Council in late October.
1	95320J	Information Systems and Model Development	Patrick, PWS Science Center	ADFG	PWS	Cont'd	\$789.6	This sub-project, as part of the PWS System Investigation, was extensively peer reviewed in FY 94. FY 95 proposal continues first year effort. A peer review of first year progress will take place in the fall of 1994 with information presented to Trustee Council in late October. Important to ensure successful accomplishment of sub-project objectives prior to expansion.

Research Category: PWS System Investigation

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		Project No.	Title	Proposer	Lead Agency	Loc.	Ргој. Туре	Cost FY 95	Notes
	1	95320M	Observational Physical Oceanography in PWS and the Gulf of Alaska	Salmon, PWS Science Center	ADFG	PWS	Cont'd	\$545.2	This sub-project, as part of the PWS System Investigation, was extensively peer reviewed in FY 94. FY 95 proposal continues first year effort. A peer review of first year progress will take place in the fall of 1994 with information presented to Trustee Council in late October. Need to ensure that this sub-project is more closely coordinated with other bird, forage fish projects.
	1	95320N	Nearshore Fish	Thomas, PWS Science Center	ADFG	PWS	Cont'd	\$600.6	This sub-project, as part of the PWS System Investigation, was extensively peer reviewed in FY 94. FY 95 proposal continues first year effort. A peer review of first year progress will take place in the fall of 1994 with information presented to Trustee Council in late October. Coordination of hydroacoustics work in Project 95163 is essential.
	1	95320Q	Avian Predation on Herring Spawn	USFS	ADFG	PWS	Cont'd	\$124.8	This sub-project, as part of the PWS System Investigation, was extensively peer reviewed in FY 94. FY 95 proposal continues first year effort. A peer review of first year progress will take place in the fall of 1994 with information presented to Trustee Council in late October.
,	1	95320S	Disease Impacts on PWS Herring Populations (competetive project solicitation under ADF&G two-step, RFQ-RFP process)	ADFG	ADFG	PWS	Cont'd	\$375.0	Five responses have been received as a result of the herring disease project solicitation. Under state law, these responses must be evaluated confidentially. Needs to be assessed as part of a comprehensive herring restoration effort. A recommendation regarding whether to proceed with funding for a herring disease project will be made to the Trustee Council in late October. FY 95 budget for this project is only an estimate.
/	1	95320T	Juvenile Herring Growth and Habitat Partitioning	ADFG	ADFG	PWS	NEW	\$378.6	Addresses an injured resource of critical concern to commercial fisheries. Proposal concept is strong, although more complete evaluation of technical merit would require additional information. Needs to be assessed as part of a comprehensive herring restoration effort.

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Research Category: PWS System Investigation

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		Project No.	Title	Proposer	Lead Agency	Loc.	Proj. Type	Cost FY 95	Notes
\bigcirc	1	95320U	Somatic and Spawning Energetics of Herring and Pollock	Paul, UAF	ADFG	ALL	NEW	\$94.4	Clarification of specific restoration objectives needed. Project needs to be evaluated in the context of, and possibly integrated with, other herring projects 95074 (herring reproductive impairment); 95163 (forage fish), 95320E (salmon herring integration), 95320N (nearshore fish); 95320T (juvenile herring growth), 95120 (energetic composition of selected forage fish), 95166 (herring natal habitats) and 95121 (isotope and fatty acid signatures of selected forage fish).
	1	95320Y	Variation in Local Predation Rates on Hatchery-Released Fry	Scheel, PWS Science Center	ADFG	PWS	NEW	\$118.9	Potentially valuable information on avian predation on hatchery stocks. Could complement fish predation study information. Should review this project proposal in relation to Project 95033 (kittiwakes as indicators of forage fish). Apparently depends on large-scale hatchery production. Budget needs scrutiny.
			Tota	ıl FY 95 Requ	est:	<u></u>		\$4,789.4	1
				mber of Proje				12	
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Research Category: Forage Fish

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_	Project No	D. Title	Proposer	Lead Agency	Loc.	Proj. Type	Cost FY 95	Notes
Ľ	Category 1						\$2,676.7]
	1 95019	Distribution of Forage Fish as Indicated by Puffin Diet Sampling	DOI	DOI	PWS KEN	NEW	\$284.4	Potentially an extremely valuable project although puffins have limited distribution in PWS. This project needs to be further evaluated under the direction of the Chief Scientist in the context of the many other proposals being advanced to study trophic interactions of forage fish.
	1 95033	Kittiwakes as Indicators of Forage Fish Availability	DOI	DOI	PWS KEN	NEW	\$198.5	This project needs to be further evaluated under the direction of the Chief Scientist in the context of the many other proposals being advanced to study trophic interactions of forage fish. Should review this project proposal in relation to Project 95320Y (variation in local predation on hatchery fry).
	1 95117-BAA	Harbor Seals and EVOS: Blubber and Lipids as Indices of Food Limitation	Castellini, UAF	NOAA	ALL	NEW	\$184.3	Potential opportunities for collaborative effort and cost efficiencies between this project and Projects 95001 (condition and health of harbor seals) and 95064 (monitoring, habitat use and trophic interactions of seals) must be addressed.
	1 95118-BAA	Diet Composition, Reproductive Energetics and Productivity of Seabirds Damaged by the <i>Exxon Valdez</i> Oil Spill	Roby, UAF	NOAA	PWS	NEW	\$413.7	This project needs to be further evaluated under the direction of the Chief Scientist in the context of the many other proposals being advanced to study trophic interactions of forage fish. Peer reviewers thought very highly of this project; strong technical merit.
()	1 95120-BAA	Proximate Composition and Energetic Content of Selected Forage Fish Species in PWS	Worthy, Texas A&M University	NOAA	PWS	NEW	\$38.4	This project needs to be further evaluated under the direction of the Chief Scientist in the context of the many other proposals being advanced to study trophic interactions of forage fish. Also, objectives of this project need to be integrated into other projects involving stable isotopes. Project needs to demonstrate a close relationship with other projects including 95163 (forage fish) and 95320U (somatic and spawning energetics of herring and pollock). Strong qualifications of proposer.

Research Category: Forage Fish

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<u></u>	Project No.	Title	Proposer	Lead Agency	Loc.	Ргој. Туре	Cost FY 95	Notes
1	95163	Abundance and Distribution of Forage Fish and their Influence on Recovery of Injured Species	NOAA	NOAA	PWS KEN	Cont'd	\$1,203.7	This project needs to be further evaluated under the direction of the Chief Scientist in the context of the many other proposals being advanced to study trophic interactions of forage fish. Project scope may need to be reduced in light of slow start up of 1994 pilot study. Coordination of hydroacoustics work in 95320N is essential.
) 1	95173	Factors Affecting Recovery of PWS Pigeon Guillemot Populations	DOI	DOI	PWS	Cont'd	\$353.7	This project needs to be further evaluated under the direction of the Chief Scientist in the context of the many other proposals being advanced to study trophic interactions of forage fish.
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		Total	FY 95 Requ	iest:			\$2,676.7	
		Nun	ber of Proj	ects:			7	

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Research Category: Stable Isotopes



	Project No.	Title	Proposer	Lead Agency	Loc.	Ргој. Туре	Cost FY 95	Notes
Ca	tegory 1	······	·····				\$173.5]
1	95320I(1)	Isotope Tracers - Food Webs of Marine Mammals and Birds	Schell, Institute of Marine Science	ADFG	PWS	Cont'd	\$100.1	Strong technical merit and demonstrated understanding of technical issues involved. Objectives of this project need to be integrated with other projects involving stable isotopes under the direction of the Chief Scientist.
1	95320I(2)	Isotope Tracers - Food Webs of Fish	Kline, UAF	ADFG	PWS	Cont'd	\$73.4	Objectives of this project need to be integrated with other projects involving stable isotopes under the direction of the Chief Scientist.
Ca	tegory 2						\$210.0]
2	95023	Food Web Relationships of Pelagic Species Exhibiting Long-term Decline	Duffy, Alaska Natural Heritage Program	DOI	PWS	NEW	\$168.0	Needs further evaluation under direction of the Chief Scientist in the context of other proposals to address forage fish. Needs evaluation in context of projects using stable isotope analysis. Revised scope for this project may be needed. Concern regarding collection of carcasses under MBTA.
2	95121	Stable Isotope Ratios and Fatty Acid Signatures of Selected Forage Fish Species in PWS	Worthy, Texas A&M University	NOAA	PWS	NEW	\$42.0	This project needs to be further evaluated under the direction of the Chief Scientist in the context of the many other proposals being advanced to study trophic interactions of forage fish. Also, objectives of this project need to be integrated into other projects involving stable isotopes under the direction of the Chief Scientist. Utility of fatty acid studies needs careful assessment.
		Total	FY 95 Requ	lest:		<u></u>	\$383.5	
		Nun	ıber of Proje	ects:			4	

Research Category: Nearshore Ecosystem

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_		Project No.	Title	Proposer	Lead Agency	Loc.	Ргој. Туре	Cost FY 95	Notes
	Cat	tegory 1		•••				\$526.1]
	1	95025B	Sea Otter Abundance and Distribution, Food Habits and Population Assessment	DOI	DOI	PWS	NEW	\$162.7	Clear objectives consistent with the <i>Invitation</i> although project description needs some further detail. Well qualified proposers. Should possibly be integrated with Projects 95025H (effects of predatory invertebrates on clams), 95009C (trophic dynamics: herring spawn and sea otters), 95087 (sea urchins as sea otter prey) and coordinated with Projects 95244 (seal/sea otter harvest assistance), 95075 (blue mussels), 95090 (mussel bed restoration) and 95159 (marine bird/sea otter survey).
	1	95025C	Pigeon Guillemots and River Otters as Bioindicators of Nearshore Ecosystem Health	Roby, UAF	DOI	PWS	NEW	\$179.6	Clearly stated objectives pertaining to injured resources consistent with the <i>Invitation</i> . Reviewers impressed with linkage of two foragers using the same habitat/prey. Effort to define bioindicator is valuable but may not be successful; proposal is responsible in its cautious approach. Should be coordinated with Project 95173 (recovery of pigeon guillemots) to realize possible cost efficiencies.
	1	95025H	Effects of Predatory Invertebrates on Nearshore Clam Populations in Prince William Sound	Van Blaricom, UAF	DOI	PWS	NEW	\$118.4	Affords opportunity to investigate two injured resources (clams and sea otters) and their interrelationship as predator and prey. Important that investigators on projects addressing higher trophic level predators (sea otters) help define issues of importance to be addressed by project. Should possibly be integrated with 95025B (sea otter abundance, food habits).
(_)	1	95087	Sea Urchin Population Dynamics: Changes in Population Density and Availability as Prey of Sea Otters	Jewett, UAF	ADFG	PWS	NEW	\$65.4	Project should possibly be integrated with Projects 95025B (sea otter abundance, food habits), 95009C (trophic dynamics: herring spawn and sea otters), 95025H (predatory invertebrates on clams) under direction of Chief Scientist in consultation with investigators working on sea otters. Needs clarification relative to other predator projects. Potentially important if redesigned.

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Research Category: Nearshore Ecosystem



	Project No.	Title	Proposer	Lead Agency	Loc.	Proj. Type	Cost FY 95	Notes
Ca	tegory 2						\$414.8]
2	95009C	Trophic Dynamics and Energy Flow: Impacts of Herring Spawn and Sea Otter Predation on Nearshore Benthic Community Structure	Highsmith, UAF	USFS	PWS	NEW	\$217.3	The sea otter elements of this proposal could possibly be combined with Project 95025B (sea otter abundance and distribution, food habits and population). Portions relating to herring spawn could be addressed as part of other herring project efforts.
2	95075	Population Structure of Blue Mussels in Relation to Levels of Oiling and Densitie of Vertebrate Predators	NOAA s	NOAA	PWS	NEW	\$197.5	Project unfocused. Significant questions concerning methodologies. More focused project of reduced scope might have value in coordination with 95025B (sea otter abundance, food habits). Possible that elements of this proposal could be redefined and/or integrated with a revised nearshore/shelfish project.

Total FY 95 Request:	\$940.9
Number of Projects:	6

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Research Category: Ecotoxicity

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		Project No.	Title	Proposer	Lead Agency	Loc.	Proj. Type	Cost FY 95	Notes
[Ca	tegory 1		·				\$1,380.3]
7	1	95044	In Situ Formation and Ecotoxicity of Hydrocarbon Degradation Products Produced by Ultramicrobacteria	Button, UAF	NOAA	PWS	NEW	\$118.5	Novel issue to be addressed. Need for further review of budget. Potential for collaboration with other projects needs further examination.
`_′	1	95074 <u>.</u>	Herring Reproductive Impairment	NOÁA	NOAA	PWS	Cont'd	\$234.8	Important attempt to determine if there are persistent, heritable reproductive impacts to herring in view of recent run failures. Responsive to <i>Invitation</i> . Strong technical merit. Needs further assessment in the context of other projects proposed to address herring
	1	95076	Effects of Oiled Incubation Substrate on Survival and Straying of Wild Pink Salmon	NOAA	NOAA	ALL	NEW	\$179.9	Proposal responsive to restoration needs, addresses important ecotoxicological issue. Proposer should provide more background on similar work.
	1	95191A	Investigating and Monitoring Oil Related Egg and Alevin Mortalities	ADFG	ADFG	ALL	Cont'd	\$681.5	A critical, on-going study effort (together with 95191B) to evaluate the possibility of long-term, heritable damage to salmon. Already extensively peer reviewed in prior years.
	1	95191B	Injury to Salmon Eggs and Pre-emergent Fry Incubated in Oiled Gravel (Laboratory Study)	NOAA	NOAA	ALL	Cont'd	\$165.6	A critical, on-going study effort (together with 95191A) to evaluate the possibility of long-term, heritable damage to salmon. Already extensively peer reviewed in prior years.

Total FY 95 Request:	\$1,380.3
Number of Projects:	5

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Research Category: Other

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		Project No.	Title	Proposer	Lead Agency	Loc.	Proj. Type	Cost FY 95	Notes
	Category 1							\$1,778.7]
	1	95009D	Survey and Experimental Enhancement of Octopuses in Intertidal Habitats	Scheel, PWS Science Center	USFS	PWS	NEW	\$159.5	Addresses resources (octopus and chiton) important to subsistence communities. Proposal can stand independent of nearshore ecosystem/community structure package. Geographical scope and scale of effort deserve further consideration. Need to coordinate with subsistence community outreach projects.
	1	95014	Predation by Killer Whales in PWS: Feeding Behavior and Distribution of Predators and Prey	Matkin, North Gulf Oceanic Society	NOAA	PWS	NEW	\$156.9	Good conceptual development and justification articulated in proposal. Results could enhance interpretation of PWS ecosystem work on trophic interactions. Less important than monitoring of killer whales (killer whales though to be recovering) but still could provide valuable data on resource. Clarification of cost in relation to related Project 95013 (monitor killer whales) needed.
	1 ·	95025A	Factors Affecting Recovery of Sea Ducks and Their Prey	DOI	DOI	PWS	NEW	\$393.7	Proposal to address winter ecology of seabirds is important aspect not previously addressed. Possibly should focus effort on harlequins although inclusion of scoters would address valuable issues. Need to coordinate or combine with Project 95427 (harlequin duck recovery monitoring). Questions concerning feasibility of proposed capture techniques.
	1	95031	Reproductive Success as a Factor Affecting Recovery of Murrelets in PWS	DOI	DOI	PWS	NEW	\$398.0	Highly responsive to <i>Invitation</i> . Clearly articulated relationship to restoration objective for marbeled murrelets. Well qualified proposer.
	1	95064	Monitoring, Habitat Use, and Trophic Interactions of Harbor Seals in PWS	ADFG	ADFG	PWS	Cont'd	\$309.4	Project targets an injured resource important to subsistence communities. Good potential to collaborate with other harbor seal projects (Projects 95001 and 95117-BAA). Strong technical merit and excellent qualifications of proposer. Need to coordinate with subsistence community outreach efforts.

Research Category: Other

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-		Project No.	Title	Proposer	Lead Agency	Loc.	Ргој. Туре	Cost FY 95	Notes
	1	95105	Kenai River Ecosystem Restoration Pilot Enclosure Study	ADFG	ADFG	KEN	NEW	\$361.2	Further clarification needed on interrelationship of this project to other major Kenai River sockeye projects 95255 (Kenai sockeye restoration) and 95258 (sockeye salmon overescapement). A comprehensive review of the Kenai River sockeye restoration effort is needed.
	Ca	tegory 2		~~~			<u>.</u>	\$1,193.5]
L	2	95018	Partitioning of Primary Production Between Pelagic and Benthic Communities	Naidu, UAF	ADFG	PWS	NEW	\$197.1	Link to restoration not clear but potentially valuable part of future ecosystem studies.
	2	95021	Seasonal Movement and Pelagic Habitat Use by Common Murres from the Barren Islands	DOI	DOI	KEN	NEW	\$251.1	Questions concerning whether useful results could be obtained in a short time period. Feasibility study should be completed before funding this project. Could be deferred for consideration in FY 96.
	2	95025E	Algal Competition Limiting Recovery in the Intertidal	Stekoll, UAF	DOI	KEN	NEW	\$222.5	A good proposal but very narrowly focused. Species to be addressed by project not regarded as a high priority for restoration. Proposed study area/habitat type is unique.
بەر يەرىپ	2	95025F	Availability and Utilization of Musculus spp. as Food for Sea Ducks and Sea Otters	Dean, Coastal Resources Associates, Inc.	DOI	PWS	NEW	\$4.6	Although potential cost-effectiveness is high, the methodology is unclear. Cost should be absorbed by another sea duck or sea otter project or possibly as part of a combined clam/mussel/oyster project.
*	2	95057	Movement of Larval and Juvenile Fishes within PWS	Norcross, UAF	NOAA	PWS	NEW	\$300.0	Further clarification of the specific restoration objectives of this project needed. Further consideration needed in the context of other forage fish projects as well as relationship to 95320T (juvenile herring growth). Appears to be dependent upon certain oceanography portions of Project 95320 (PWS System Investigation). Clarification of sampling scale and design needed.

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Research Category: Other

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_		Project No.	Title	Proposer	Lead Agency	Loc.	Ргој. Туре	Cost FY 95	Notes
:	2	95320D	PWS Pink Salmon Genetics	ADFG	ADFG	PWS	Cont'd	\$218.2	Peer reviewer felt more information is needed to fully evaluate the study design. Technical aspects needs further examination.
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Total FY 95 Request:	\$2,972.2
Number of Projects:	12

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