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David Cobb Valdez Fisheries Development Association

John Christensen Chugach Alaska Corporation

R.C. Collins R.C.'s Dock- Whittier

Jack Lamb Jonah & Company- Cordova

# Prince W am Sound Economic Development Council

Regional Office: P.O. Box 2353 • Valdez, Alaska 99686 Phone (907) 835-3775 • Fax (907) 835-5770 Satellite Office: P.O. Box 99 • Cordova, Alaska 99574 Phone (907) 424-7261 • Fax (907) 424-7259

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June 27, 1994

Exxon Valdez Oil Spill Trustee Council 645 G Street Anchorage, AK 99501

Dear Trustee Council Members:

Prince William Sound Economic Development Council submits the attached proposal for consideration as a FY '95 Restoration Project. The Sound Waste Management Plan (SWMP), was developed by our regional Solid Waste Management Committee in cooperation with the Alaska Department of Environmental Conservation. Their efforts to combat the high cost of handling, removing oily and solid waste from and protecting the environment encompass the SWMP.

It is important to note that as a grassroots, regional project, local input and coordination is crucial to the long-term success of the SWMP project by creating local ownership. This proposal was developed and intended to be coordinated by PWSEDC's Solid Waste Management Committee in cooperation with ADEC.

We appreciate the efforts of the Trustee Council to restore and protect the environment from future encroachment and look forward to your questions and comments regarding this proposal.

Thank you for your time and consideration of this proposal.

Sincerely,

Paul A. Roetman Executive Director

# Prince William Sound **Economic Development Council**

P.O. Box 2353 • Valdez, Alaska 99686 Phone: 835-3775 • Fax: 835-5770 Representing the communities of Chenega Bay, Cordova, Tatitlek, Valdez and Whittier.

#### Solid Waste Management Committee

Jack Lamb, Committee Chair Board of Directors, PWSEDC Cordova P: 424-7442 F: 424-6000

Kelley Weaverling Board of Directors, PWSEDC Cordova P: 424-5305 F: 424-3430 H: 424-5565

Paul Jackson Chugachmiut Corp. Chenega Bay P: 562-4155 F: 563-2891

Jeff Courier Director, Public Works Çity of Cordova P: 424-6200 F: 424-6000

Gary Kompkoff Board of Directors, PWSEDC President, IRA Council Tatitlek P: 325-2311 F: 325-2298

Scott Walther Board of Directors, PWSEDC Vice Mayor City of Whittier P: 472-2311 F: 472-2399

Gary Williams City Manager City of Whittier P: 472-2327 F: 472-2404 Dan Lawn, ex-officio Environmental Engineer, AK Dept. Environmental Conservation Valdez P: 835-4698 F: 835-2429 Cordova P: 424-4385 F: 424-4386

Bill Wilcox City Engineer City of Valdez P: 835-4313 F: 835-3420

Lee Schlitz Director, Public Works City of Valdez P: 835-4473 F: 835-4900

Marnie Graham PWS Conservation Alliance Valdez P: 835-2799 F: 835-5395

Dave Cobb Board of Directors, PWSEDC Valdez Fisheries Development Assoc. P: 835-4874 F: 835-5951

Tony Zamora Senior Environmental Specialist Alyeska Pipleline Service Company Environment/Operations Department P: 835-6477 F: 835-6420

Rob Terrell Maintenance Manager Prince William Sound Aquaculture P: 424-7511 F: 424-7514

Appendix A

#### EXXON VALDEZ TRUSTEE COUNCIL FY '95 GENERAL RESTORATION DESCRIPTION

#### **A. TITLE PAGE**

Prince William Sound Restoration Strategy: Sound Waste **Project Title:** Management Plan (SWMP) Kelley Weaverling, Chair, PWSEDC Solid Waste Management **Project Leader:** Committee Alaska Department of Environmental Conservation Lead Agency: Prince William Sound Economic Development Council Cooperating agencies: City of Cordova City of Valdez City of Whittier Alaska Department of Environmental Conservation Alyeska Pipeline Service Company Valdez Fisheries Development Association (VFDA) Prince William Sound Aquaculture Corporation (PWSAC)

**Cost of Project:** FY '95 - \$275,900

Project Start-up / Completion Dates: FY '95 - November 1, 1994 - August 1, 1996

-or-

**Duration:** 1 - 2 years, starting with FY '95

Geographic Area: Prince William Sound

Contact Person:

Kelley Weaverling Vice President PWSEDC Valdez, AK 99686 Tel: (907) 424-7261 Fax: (907) 424-7259 Paul A. Roetman Executive Director PWSEDC Valdez, AK 99686 Tel: (907) 835-3775 Fax: (907) 835-5770

Prince William Sound Conservation Alliance (PWSCA)

#### Prince William Sound Restoration Description: Sound Waste Management Plan (SWMP)

#### **B. INTRODUCTION**

The Sound Waste Management Plan (SWMP) is a comprehensive plan to identify and remove existing oily and other solid waste from the waste stream, of the oil-impacted communities of Prince William Sound. The plan will improve upon current waste management and join past efforts into a unified regional effort. The SWMP, will put into action an oily and solid waste management system that will operate in all Prince William Sound communities to eliminate the potential for further encroachment or damage to the local ecology.

#### **Problem:**

Currently each community in Prince William Sound is out of compliance with federal regulations as it relates to permitting of waste sights. There are no regional goals for managing, reducing and handling of oily and solid waste. Because there is no plan, Prince William Sound is at a potential risk to further environmental harm. Prince William Sound Economic Development Council's regional Solid Waste Management Committee was formed, therefore as a task force of the area's largest contributors of waste. This included both cities, villages, industry, and hatchery representatives. They identified the following regional problems:

- 1. Costs to manage and handle oily and solid waste continue to rise and tap declining revenue resources.
- 2. Existing landfills have limited life spans.
- 3. There is no long term solution in sight.

#### Solution:

A three phase approach is needed to: 1. identify 2. reduce the cost of handling oily and solid waste, and 3. implement an oily and solid waste management plan.

Phase I will identify the options and most cost-effective means for handling and managing oily and solid waste in Prince William Sound. The PWSEDC regional committee will contract a firm to accomplish this phase;

**Phase II** will handle all required ADEC/EPA permitting to implement a regional management project, and

**Phase III** is the implementation of the SWMP that includes construction of the identified, chosen project i.e. regional landfill, regional incineration, etc.

\* It is important to note that as a regional project, local input and coordination is crucial to the long-term success of the SWAMP project by creating local ownership. This proposal was developed and intended to be coordinated by PWSEDC's Solid Waste Management Committee in cooperation with ADEC.

The EVOS Trustee Council has funded a similar project, number 94417 entitled "waste oil disposal facilities." The SWMP broadens that project approach and greatly increases the effectiveness of enhancement and restoration efforts due to its regional coverage, local expertise and long term monitoring. Funding for SWMP will allow an effective and necessary approach to enhancement, clean-up and collection of valuable data as it relates to oily and solid waste management in Prince William Sound in 1995. The SWMP will restore, enhance and promote long-term preservation of Prince William Sound from the effects of oily and solid waste. This document describes the plan of work to be undertaken during FY '95

#### C. NEED FOR THE PROJECT

To further enhance, improve the rate of natural recovery of, and reduce future events of marine pollution in Prince William Sound, the SWMP, is crucial. To ensure the protection and preservation of the Prince William Sound oil-impacted region, implementation of this plan is needed. Under EVOS Designated Wilderness Area objectives, "any restoration objective which aids recovery of injured resources, or prevents further injuries, will assist recovery of these areas." This is the SWMP focus.

The current primary waste stream for oily waste are local harbors. From boats, both domestic waste water (sewage) and oily waste are discharged directly into Prince William Sound. The secondary stream is smaller in direct amounts, but no less damaging to the oil-impacted environment. This includes leechates from community landfills that contribute to the total impact of waste to the local ecology. To add to this, all area landfills in Prince William Sound including both cities and villages are out of compliance with federal regulations. The SWMP is the only regional effort identified to date that could provide a solution to oily and solid waste management in Prince William Sound.

#### **D. PROJECT DESIGN**

#### **1. Objectives:**

The development of the Sound Waste Management Plan (SWMP) originated with Prince William Sound Economic Development Council's regional Solid Waste Management Committee. The primary objectives include the development and implementation of a regional strategy to limit the exposure of hazardous waste material in oil-impacted communities in Prince William Sound. The SWMP will provide a design and recommend an oily and solid waste collection and disposal alternative and provide a plan for future management of oily and solid waste in Prince William Sound. The following outlines the objectives to be accomplished in FY '95:

- a) Gather background information on the composition and rate of oily and solid waste generation in Prince William Sound
- b) Analyze waste management processing and disposal alternatives and select the most appropriate solution for Prince William Sound
- c) Address regulatory requirements
- d) Establish public participation program to understand and address community concerns and needs

e) Analyze oily and solid waste reduction and recycling options

f) Evaluate sites for a new regional landfill

g) Develop cost estimates for oily and solid waste management alternatives

h) Recommend financial planning to fund oily and solid waste services

#### 2. Methods:

The SWMP will include a scoping of the current Prince William Sound situation by qualified firm. This scoping will determine both the options and costs related to each in implementing a regional oily and solid waste management system.

#### 3. Schedule:

(FY 95 - Plan of Work) Phase I

Nov 1	Distribute Request for Proposals (RFP's) for regional oily and solid waste management plan.
Dec 1	Coordinating meeting (Review of submitted proposals)
Jan 1995	Select consulting firm and draft contract
Feb 1	Coordinating meeting (contractor and committee)
Mar 1	Review of scoping firm's draft plan findings with PWSEDC Solid Waste Committee comments.
Apr 1	Public Review of findings (held in each PWS community)
Apr 2	Determination of most efficient and cost effective regional oily and solid waste system.
<b>Phase II</b> Apr 1	Start process for implementation of regional oily and solid waste system.
Apr 15	Scope ADEC/EPA permitting for project implementation
Jun 1	Committee review and evaluation of FY 95 Work Plan.
July 15 Aug 15	Meeting to review draft ADEC/EPA permits Submit ADEC/EPA permit
Oct 1	Meeting with ADEC/EPA about questions on permit
Nov 1	Submit revised permit

Jan 1996 Coordinating meeting

#### Phase III

May 1 Initiate construction of permitted facility

Aug 1 Facility complete and operational

#### 4. Technical Support:

Prince William Sound Economic Development Council's Solid Waste Management Committee will play both an evaluative and advisory role to the scoping firm.

5. Location: Prince William Sound

#### **E. PROJECT IMPLEMENTATION**

To maintain the direct link from development and implementation of the SWMP, Prince William Sound Economic Development Council's regional Solid Waste Management Committee is the only appropriate entity to implement this regional project. Alaska Department of Environmental Conservation will additionally play an advisory, and coordinating role with the Committee's efforts.

#### F. COORDINATION OF INTEGRATED RESEARCH

The SWMP program is a coordinated effort of the Prince William Sound Economic Development Council in cooperation with: Department of Environmental Conservation, Alyeska Pipeline Service Company, Chugachmiut, Valdez Fisheries Development Association, Prince William Sound Aquaculture Corporation, Prince William Sound Conservation Alliance, the City of Valdez, the City of Whittier, the City of Cordova, and the Villages of Tatitlek and Chenega.

#### G. PUBLIC PROCESS

Public involvement has been of the highest priority to all PWSEDC Solid Waste Management Committee meetings. In order to provide a representative cross-section of all Prince William Sound, each community is represented, including both fishing and petroleum industry representatives. The process will continue with public review at local city council and tribal council meetings for comment of the SWMP. An integral part of the SWMP is community education on oily and solid waste issues.

#### H. PERSONNEL QUALIFICATIONS

Each member of PWSEDC's Solid Waste Management Committee through both experience and knowledge contributes to the overall effectiveness of the SWMP (see committee list appendix A). The expertise of the scoping firm will be procured through the bid process, requiring an evaluative application process.

## I. BUDGET (FY '95)

1. Personnel Phase I & II	•	•
PWSEDC will staff and coordinate project efforts Phase III	\$	-0-
To be determined		
<ul> <li>2. Travel</li> <li>Phase I &amp; II</li> <li>10 trips for Solid Waste Committee Members</li> <li>14 members @ \$200 for airfare</li> </ul>	\$	28,000
Room & Board @ \$120/day	<b>\$</b>	16,800
2 air trips to Anchorage for 5 principal investigators 7 days time for 5 principal investigators @ 150/day Phase III	\$ \$	2,000 5,250
To be determined		
3. Contractual Services Phase I	·.	
Engineering Consulting Fees Accounting Services - project audit Teleconferencing fees 10 @ 150 Copy costs- quarterly reporting @ 200	\$ \$ \$ <b>\$</b>	100,000 3,500 1,500 800
Phase II Permitting for project implementation	\$	100,000
Phase III To be determined		
4. Commodities N/A	,	
5. Equipment N/A	 	
6. Capital outlay N/A	•	·
7. General administration (including environmental compliance) Phase I & II		ana an An An An
7% Administrative Support and Coordination	\$	18,050
Phase III To be determined		
Total Phase I & II	\$	275,900

# Exxon Valdez Oil Spill Trustee Council

Restoration Office 645 G Street, Suite 402, Anchorage, Alaska 99501 Phone: (907) 278-8012 Fax: (907) 276-7178



#### **MEMORANDUM**

To: Trustee Council

From: Jim Ayers Executive Director

Date: December 10, 1993

Subj: Administrative Matters

As discussed during the November 30, 1993, EVOS Trustee Council meeting, I have been tasked with improving the organization and efficiency of the efforts of the Trustee Council, as well as with reducing administrative costs by at least 15%. I need your assistance in accomplishing these tasks. Please note:

1. An agency liaison/restoration work force person and support personnel should be identified. This work force will be tasked with assisting in the development and implementation of an ecosystem approach to restoration planning, as well as with development of the agency's annual work plan. It would be helpful for your liaison to have technical expertise as well as be capable of work production. Based on preliminary conversations, it appears that most agencies will be able to accomplish these tasks by using two Full Time Equivalents (FTEs), not to exceed \$200,000 in personnel costs over a 12 month period and with a corresponding reduction in travel and per diem costs. As approved by the Trustees November 30, any administrative vacancies must be approved by the Executive Director. Previously established work groups are dissolved, and the new management structure will be fully implemented by March 1, 1994. The Habitat work force will be accomplished through Project 110, pending a revision of its budget.

Timeframe: Names to be submitted to Jim Ayers by December 17, 1993.

2. Your agency liaison or your administrative officer will be asked to work with the Director of Operations in developing a revised Administrative budget for FY 94 and an administrative budget for FY 95. This budget will include the following components: Executive Director's Office (including the PAG and administration); Operations; Chief Scientist; and Restoration Work Force.

Timeframe: Budget information for FY 94 to be developed by January 7, 1994.

Trustee Agencies

3. Your agency liaison will be asked to provide an update on the status of your agency's respective Trustee projects. The Director of Operations will be coordinating this report with the Chief Scientist.

Timeframe: Review to be completed by January 7, 1994.

4. In order to reconcile our records, your agency liaison will be asked to provide an inventory of all assets with value greater than \$500 that have been purchased using EVOS trust funds, either directly or indirectly, using the following format: Serial Number; Tag Number; Class; Description; Value; Pending Source Document; Acquisition Date; Location; User; Lost or Disposed. Your agency will be asked to describe the inventory system you currently have in place for items of lesser value.

Timeframe: Inventory to be submitted to Molly McCammon by January 7, 1994.

I would appreciate your assistance with these matters. Please feel free to call if you have any questions.

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Exxon	Valor Oil Spill Trustee Co Restoration Office 645 "G" Street, Anchorage, AK 99501 Phone: (907) 278-8012 Fax: (907) 276-7178	a.r. 13.239 11.5.10
TO:	November Trustee Council	
FROM:	James R. Ayers Executive Director	DEC 0 1 1994
SUBJECT:	Development of a Science Plan or Approach	EXXON VALUEZ OIL SPILL TRUSTEE COUNCIL ADMINISTRATIVE RECORD

At the November 2-3, 1994 Trustee Council meeting, the Council requested that I report back to you on development of a science "plan" or approach. This request can be broken down into two basic questions: 1) What information do we want? 2) How do we develop it? 3) What will the final product look like?

What information do we want? The Trustee Council has asked for a long-term view of the research, monitoring, and general restoration program including the objectives for restoration and how long it will take to achieve them. This long-term view is needed to help the Trustee Council prioritize each year's actions.

Pink salmon restoration is an excellent example to show the usefulness of a long-term view. As one of its actions with respect to pink salmon, the Trustee Council is currently pursuing, development of better management techniques to protect the wild stocks of salmon during the inseason management of the commercial fishery. This strategy is regarded by the Chief Scientist, agency managers, and biologists as one of the most important restoration measures that can be taken to protect pink salmon stocks. To implement this strategy, the Trustee Council in 1995 will continue to fund a program of Coded Wire Tagging in Prince William Sound as well as the development of an Otolith Marking Program, which appears to be a less expensive, and more effective technique. In addition, as part of this year's work plan, the Trustee Council required that a schedule and budget be developed to show the transition from Trustee Council funding to agency and private funding. Knowledge of the length of time and the cost of a given action, and its relationship to other strategies, assists the Trustee Council in prioritizing activities.

For each resource and service, the required information should include:

- Description of the oil spill injury and current status of the resource or service including spillrelated as well as natural events that are affecting recovery.
- *Objectives* what restoration is attempting to achieve.
- Previous restoration activities: What we have learned and accomplished. Each year's restoration activities must build on what was learned and accomplished in previous years. Thus, that information must be a part of a synthesized view.

- *Related activities.* Restoration activities frequently use and complement normal agency activities. Links to appropriate agency activities need to be clear.
- Current strategies and projects. Projects must be grouped so that their relationship is clear.
- *Timeline of future activities.* What restoration is necessary in future years to achieve the objectives? Will individual activities require one-time funding, or are they part of a multi-year request? How will on-going programs be operated and maintained in the long-run?

Much of this information already exists at least in part, and was used in the development of the FY 95 Work Plan. This information can be found in the final Restoration Plan, the FY 95 Solicitation for Work Plan Projects, the 1994 Annual Status Report, and the Draft and Final FY 95 Work Plans.

How do we develop it? The information referenced above will be further developed in 1995 through the following four mechanisms:

- The January Science for the Restoration Process Workshop. This workshop, scheduled for January 17-20, 1995, will involve scientists, agencies, and the general public. It will review results of the 1994 field season, consider plans for the 1995 field season and modify if necessary, and prepare information for the 1996 Work Plan. The Workshop will assist in developing and prioritizing restoration objectives and strategies.
- Individual Topic Work Sessions. Work sessions on specific topics such as those planned for Forage Fish, Wild (fish) Stock Supplementation Efforts, and Intertidal/Subtidal Research will be conducted to develop additional information as needed. They will further develop the scientific information developed from the January workshop as well as integrate the management and policy objectives and provide for more in-depth peer review of specific projects.
- Invitation to Submit Restoration Projects for Fiscal Year 1996. A document similar to that used in FY 1995 will be developed for FY 1996, but the requests for proposals will be more focused, include more extensive information, and be peer-reviewed in advance.
- 1996 Work Plan. In this document, the information gathered from the above process will be presented in an integrated, synthesized, easy-to-use format that is accessible to the general public, scientists, and the Trustee Council.

What will the final product look like? It is possible that the above information could be included in the Annual Status Report and the Annual Work Plan. Certainly, this has the advantage of using already existing work products and avoiding publication of yet another document. However, it is possible that this kind of approach may require development into its own separate document. A recommendation on a final product will be presented to the Trustee Council in the spring of 1995 in coordination with development of the FY 96 Work Plan. In the meantime, the various pieces of a science approach will continue to be developed as described above.

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SUBJECT: Recommendations for the 1995 Work Plan: Additional Funding of \$25,499,700.

More than 170 proposed projects were submitted for consideration as part of the Fiscal Year 1995 Work Plan. Following review of these projects by the Chief Scientist, peer reviewers, the public, the Public Advisory Group, and agency staff, I recommend funding the 1995 Work Plan at a level of \$35,462,500. This amount includes a deposit to the Restoration Reserve; funding for Administration, Science Management, and Public Information; and support for Habitat Protection and Acquisition activities, as well as funding for Research, Monitoring, and General Restoration. Of the amount recommended for the 1995 Work Plan, \$9,962,800 was approved by the Trustee Council as interim funding on August 23, 1994. Thus, I recommend \$25,499,700 in additional funds be approved by the Council to complete the Fiscal Year 1995 Work Plan.

Summary of Recommended	Funding f	for FY	95	Work Plan
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Restoration Category	No. of Projects	Interim Approved 8/23/94	Additional Recommended	Total Recommended For FY 95
General Restoration	28	\$1,671,900	\$3,602,100	\$5,274,000
Monitoring	12	\$1,336,500	\$2,135,800	\$3,472,300
Research	33	\$2,215,700	\$6,688,600	\$8,904,300
Habitat Protection and Acquisition	7	\$770,200	\$786,300	\$1,556,500
Admin, Science Mgmt, & Public Information	4	\$3,968,500	\$286,900	\$4,255,400
Restoration Reserve	1		\$12,000,000	\$12,000,000
Total:	85	\$9,962,800	\$25,499,700	\$35,462,500

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Recommended funding for the restoration categories of research, monitoring, and general restoration is \$17,650,600, of which \$5,224,100 was approved on August 23, and \$12,426,500 is still required. In addition, \$626,900 of the interim funding carried forward FY 94 authorizations that were not spent. Thus, total *new* FY 95 cost for these categories is \$17,023,700.

**Conditions.** As in past years, these recommendations are based on information presented in brief project descriptions. All project funding should be conditioned upon the Executive Director's final approval following scientific and budget review of the detailed project descriptions and budgets. The review of the detailed budgets will include an analysis of personnel requirements and equipment requests. Recommendations for individual projects are also conditioned according to any specific information noted in Attachment A, and on successful compliance with requirements of the National Environmental Policy Act.

Attachments. Five attachments accompany this recommendation:

- A. Project Funding Recommendations is a spreadsheet showing the recommendations for each project submitted for the Draft Fiscal Year 1995 Work Plan. It includes interim funding approved by the Council in August, recommendations by the Public Advisory Group, and the Executive Director's recommendations and conditions for each project.
- B. Executive Director's Findings for Fiscal Year 1995 Work Plan presents findings that support these work plan recommendations.
- C. Project Recommendations by Resource and Service shows how the proposed funding would affect each resource and service injured by the spill.
- **D.** Chief Scientist's Review memos include recommendations by the Chief Scientist that resulted from a series of review sessions held on proposed projects. It also includes a report on 1994 accomplishments of the Prince William Sound System Investigation by that effort's lead scientist, Dr. Ted Cooney.
  - Chief Scientist's recommendations on the Prince William Sound System Investigation.
  - Report on the Status and Accomplishments of the 1994 Prince William Sound System Investigation from Dr. Ted Cooney, lead scientist on the project.
  - Chief Scientist's recommendations on pink salmon efforts for FY 95.
  - Chief Scientist's memorandum to Howard Ferren, PWSAC Special Projects Manager, on Project 95093 (Restoration of Pink Salmon Resources and Services).

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- Chief Scientist's recommendations on herring research and monitoring for FY 95.
- Chief Scientist's recommendations on fish genetics research for FY 95.
- Chief Scientist's recommendations on sockeye salmon monitoring for FY 95.
- E. Public Comment on the Fiscal Year 1995 Work Plan.



## United States Department of the Interior

TAKE MARKE

NATIONAL PARK SERVICE Alaska Regional Office 2525 Gambell Street, Room 107 Anchorage, Alaska 99503-2892

TO: Jim Ayers, Executive Director, EVOS Molly McCammon, Director of Operations, EVOS Dave Gibbons, Agency Liaison - USFS Bryon Morris, Agency Liaison - NOAA Veronica Gilbert, Agency Liaison - ADNR Mark Broderson, Agency Liaison - ADEC Jerome Montegue, Agency Liaison - ADF&G Robert Spies, Chief Scientist

From: Sanford P. Rabinowitch, Agency Liaison - Department of the Interior

Subject: End of Exxon Valdez Oil Spill Duties

Date: September 28, 1994

As of this date my duties as the Department of the Interior's Agency Liaison for the Exxon Valdez oil spill have come to an end. I have accepted a new position with the Subsistence Division of the National Park Service, in Anchorage.

There are two small exceptions to the immediate end of duties. For a short time, likely until November 3, 1994, I will continue to work on the Restoration Plan and on Park Service acquisition efforts related to the restoration program for the department. For all other matters please immediately begin working directly with Catherine Berg at the Fish & Wildlife Service and Leslie Holland-Bartels at the National Biological Survey. Should you have any questions please feel free to contact me at 257-2653.

c:\sandy\evos\theend.w51

## Exxon Vald Oil Spill Trustee Council

Restoration Office 645 "G" Street, Anchorage, AK 99501 Phone: (907) 278-8012 Fax: (907) 276-7178



WILWONAW	DOINI
<b>TO:</b>	Trustee Council
FROM:	James R. Ayers Executive Director
PC.	May 21 100/ Trust

DATE: June 10, 1994

KE:

May 31, 1994 Trustee Council Meeting

This memo is intended to update you on a number of issues and a tentative meeting schedule for the next five months.

FY95 Work Plan -

MCMODANDURA

Everyone is working hard to accommodate your direction and the various policies that must be included in the FY95 Work Plan. Attached you will find a revised schedule based on the most recent council preferences (Attachment 1). It is not perfect. However, it has been designed with the following:

- A detailed solicitation for proposals with guidance
- Science plan framework
- Public Advisory Group participation
- Public review
- Legal review
- Trustee Council review of draft
- Trustee Council authorization
- Implementation subject to Science review
- Project monitoring
- Project reports
- Synthesizing
- Adaptive Management Process
- Ecosystem approach
- Final authorization (F.A.) in October (Next year we'll have F.A. prior to October 1)

#### FY95 Administration -

We are in the process of developing the administration budget for FY95. I have requested that "liaisons" develop their budgets based on 1 F.T.E. and \$150,000. It would seem that this is sufficient in most cases. The total budget must be no more than \$3.5 million including our Chief Scientist and technical review capability in order to meet your 5% goal. This is achievable. In addition, we are continuing our effort to develop an Information Management System. This will likely be a separate project for your review.

#### **Trustee Agencies**

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<u>Science Review Board</u> - We have had several work sessions involving scientists, the Restoration Work Force, Public Advisory Group members, and other public members to develop an effective Science program. The results of these workshops are included in Chapter 3 and Appendix A of the <u>Invitation to Submit a Restoration Project for FY95</u>. These research priorities will be continually reviewed and revised using an adaptive management approach.

In order to develop and maintain a Science program as a cornerstone to our Ecosystem foundation and provide the integration and synthesis of research results, a Science Review Board is essential. Attached you will find a draft of the Science Review Board structure (Attachment 2). I assume that the Trustee Council will want to review and approve appointments to the Science Review Board. That is consistent with the Memorandum of Agreement between the United States and the State of Alaska. I would request that any comments on the draft be submitted to me by Friday, June 24. For the long term, I would hope that you would formalize the Science Review Board during either the July or August meeting.

Until you take formal action it is my intent to use an informal technical review committee for this current year's effort. This committee will be made up of:

- Bob Spies, Chief Scientist.
- Charles Peterson. Dr. Peterson is a Professor at the Institute of Marine Science of the University of North Carolina in Moorehead City, NC. Dr. Peterson is a marine ecologist with particular expertise in intertidal ecosystems who has been actively involved in the review of research and monitoring activities conducted by the Trustee Council during the past several years.
- Philip Mundy. Dr. Mundy is a well-respected fisheries biologist specializing in the study of salmon, who is currently a private consultant. He has studied salmon of the northern hemisphere for the past 20 years, and has been a key reviewer of fisheries monitoring and research for the Trustee Council.
- Christopher Haney. Dr. Haney is an Assistant Professor of Wildlife Technology in the School of Forest Resources at Pennsylvania State University in Dubois, PA. He has studied Alaska seabirds for many years, and has a very strong background in statistical applications in the biological sciences.
- Stanley Senner. Mr. Senner is the Director of the Audubon Migratory Bird Office in Boulder, CO. He specializes in the study of migratory shorebirds, and possesses an in-depth knowledge of the oil spill from his previous work on the Restoration Team for the Alaska Department of Fish and Game from 1990-1992.

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	" <u>Less Than Fee</u> " -	We are in the process of developing a draft policy simple" acquisitions. The focus is on public access be circulated for your review prior to the PAG mee	y statement regarding "less than fee and easement acquisition. A draft will ating on June 28.
	<u>Investment Options</u> -	Research and preparation of an options paper on all Trustee Council funds including the Reserve ha review by the August meeting. A detailing of curr shortly. Currently the Federal District Court R percentage is averaging 4.7% and we do not have	how to maximize interest earnings on s begun and will be available for your rent interest rates will be sent to you late is averaging 3.6%. The State a Federal percentage at this time.
	<u>Project Status</u> -	An analysis of the Project Status Report will be in as you directed. All efforts will be made to work w outstanding issues.	cluded with the next quarterly report vith individual agencies to resolve any
	<u>Future Meetings</u> -	Based on the integration of the various tasks that respective schedules, we now anticipate:	at have to be accomplished and your
		a) July 5th or 11th, 1994 meeting for*:	
·		<ul> <li>Policy review of Acquisitions "less</li> <li>Overview of proposals for FY95 W</li> <li>Science Review Board policy revie</li> <li>EIS and Restoration Plan rewrite a</li> </ul>	than fee" ork Plan w uthorization
		* We are planning an EVOS Truste July 11. We hope all of you can att	e Council picnic for the evening of end.
		b) August 5th, 1994 meeting for:	
·		<ul> <li>Review of FY95 draft Work Plan for</li> <li>Update on issues</li> <li>Restoration Plan EIS update</li> <li>Fee Simple Acquisition progress</li> </ul>	or release to the public
		c) On or about September 15th, 1994 for:	
		<ul> <li>EIS and Final Restoration Plan upd</li> <li>Fee Simple Acquisition approval as</li> <li>Interim budget approval</li> </ul>	late s appropriate
		d) On or about October 31st, 1994 for:	
		<ul> <li>Adoption of final Restoration Plan</li> <li>Final authorization on FY95 Work</li> <li>Authorization for the Institute of N</li> </ul>	Plan Marine Science

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- Authorization for Habitat Acquisition purchase agreements
- Update on Issues

All things considered, we are making progress. However, it will take a series of meetings this summer to stay on track. Please, let me know if there is additional information that you may need.

JRA/mir

Attachments:

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- 1 FY95 Work Plan Timeline
  - 2 Science Review Board, Duties, Composition & Assumptions
  - 3 Science Planning and Management Organizational Diagram
  - 4 EVOS Adaptive Management Cycle

## FY95 Work Plan Timeline

Period	Task
05/16 - 06/15	Invitation to submit FY95 Restoration Projects. (Deadline for main process is 6/15; deadline for two experimental procurements is 6/30.) Trustee Council briefed on May 31.
05/27	Identify interim funding needs for first quarter FY95.
06/02	Finalize and distribute FY95 budget instructions to agencies.
06/02 - 06/10	Review and finalize list of FY95 interim funding needs.
06/16 - 06/25	Staff review and organization of project proposals. Review of each agency's projects by that agency's attorneys completed.
06/24	All budgets for FY95 due.
06/28	Public Advisory Group briefing.
06/27 - 07/11	Chief scientist and technical review. Legal review of all projects by all attorneys.
07/11	Trustee Council meeting (less than fee issues).
07/12 - 07/13	Chief Scientist, Interim Science Review Board, Executive Director, Restoration Work Force, and Coordinating Committee develop \$35 million preliminary Draft FY95 Work Plan (including administration, restoration reserve and payables).
07/14 - 07/27	Revise, combine, and add projects if needed. Prepare preliminary Draft Work Plan.
08/01	Public Advisory Group review of preliminary Draft FY95 Work Plan.
08/05	Trustee Council meeting to review preliminary Draft FY95 Work Plan.

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08/06 - 08/18	Finalize Draft FY95 Work Plan. Finalize Brief Project Descriptions and draft budgets.
08/19 - 09/05	Print and mail Draft FY95 Work Plan.
09/06-09/15	Trustee Council meeting to take action on FY95 budgets for administration, carry-forward projects, and 94 reports.
09/06 - 10/04	Review of the Draft FY95 Work Plan by the general public and the Public Advisory Group.
10/05 - 10/18	Compile comments received.
10/19 - 10/20	Executive Director prepares final recommendations in response to public comment.
10/21	Trustee Council receives packet of information for 10/31 meeting.
10/31	Trustee Council approves FY95 Work Plan.
11/01 - 12/1	Agencies prepare Detailed Project Descriptions, prepare Requests For Proposals (RFPs) as appropriate.
12/1 - 01/31	Scientific or peer review of Detailed Project Descriptions.
1/15 - 1/20	Principle Investigator Workshop to review results of 1994 field season, modify FY95 projects if needed, and develop FY96 priorities.
02/01 - 02/28	Approve Detailed Project Descriptions (revise if needed) and negotiate contracts.

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#### **SCIENCE REVIEW BOARD**

#### **Responsibilities of the Board**

- 1. Assist in the development of an adaptive management process:
  - A. Develop a synthesis that provides an annual overview of what has been accomplished, what has been learned, and what gaps need to be addressed.
  - B. Assist that Executive Director to organize the agenda for the annual workshop which reviews the restoration program.
  - C. Participate in the development of the Annual Status Report to the public, including an overview of the general health of the spill area ecosystem, and the status of injured resources and service.
  - D. Recommend appropriate changes to ongoing and proposed work and annually identify appropriate new projects.
- 2. Recommend scientific priorities based on technical merit:
  - A. Identify meritorious ideas and projects.
  - B. Recommend a prioritized list of ideas and projects within a specified funding level.
  - C. Recommend resolution of conflicts between competing proposals.
  - D. Recommend the best proposal or combination of proposals for a given objective and/or project.
  - E. Provide guidance to the interdisciplinary work groups for the development of strategies, research approaches, and testable hypotheses for monitoring, research, and general restoration activities.
  - F. Participate in the formation of the annual work plan; ensure that it is a comprehensive package for restoration that is both integrated and synthesized.

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- 3. Assist in the peer review process for proposed, ongoing, and completed work:
  - A. Review proposals.
  - B. Review project design.
  - C. Review project conclusions and reports.

### Composition

- 1. Members must be recognized as leading experts with proven track records, must have a multidisciplinary approach to solving scientific problems, and must have demonstrated professional integrity.
- 2. Since continuity is important, prior knowledge of the Exxon Valdez oil spill is desirable.
- 3. The Board will consist of three to five members including the Chief Scientist to cover as many as is appropriate of the following disciplines:
  - A. Archaeology
  - B. Birds
  - C. Ecotoxicology/chemistry
  - D. Fish
  - E. Intertidal/Subtidal
  - F. Marine Mammals
  - G. Oceanography

Where expertise is not available on the board, additional expertise on specific topics will be secured as necessary from appropriate sources.

- 4. The Chief Scientist will chair the Board (including calling meetings, setting agendas, and conveying results).
- 5. Appointment of persons to fill the Science Review Board positions shall be made by the Executive Director subject to approval by the Trustee Council.
- 6. Members will serve at the discretion of the Executive Director.
- 7. Members may not be contractually involved in the implementation of projects. Even the appearance of a conflict of interest must be avoided.
- 8. Annually, members must be able to travel to Alaska for at least two meetings. The first is the annual workshop that is conducted to disseminate the results of the previous season's field work, and recommend projects and/or modification of projects for the coming year. The second meeting will be to review project proposals as part of the annual work plan. The Board or individual members may hold additional meetings as needed.



#### Assumptions

- 1. The Science Review Board primarily focuses on the science program and scientific issues.
- 2. The Trustee Council establishes policies and executes authorizations per the Consent Decree. The Science Review Board makes recommendations and presentations to the Executive Director and the Trustee Council as appropriate.
- 3. Social objectives and policy continue to be set by the Trustee Council. The Science Review Board will be requested to make recommendations on how to most efficiently and effectively implement those objectives and policies.
- 4. The Science Review Board will operate on a consensus basis with majority and minority reports issued when necessary.
- 5. Science Review Board members only work part time and are compensated appropriately.
- 6. Both compensated and uncompensated peer reviewers will be available to the Science Review Board as necessary to review proposals, project descriptions, and reports.
- 7. Science Review Board meetings will be open to the public unless otherwise indicated by law (such as when reviewing proposals as part of a competitive procurement process in which proposals are confidential).
- 8. Staff support for the Science Review board will be provided by the Executive Director.

# Exxonvaldez 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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#### MEMORANDUM

то:	Trustee Council	JUN 1 1994
FROM:	James R. Ayers Executive Director	EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL
DATE:	May 18, 1994	ADMINISTRATIVE RECORD
RE:	Update on public information	n and communication activities

The following efforts are currently in progress to increase our communication with the public:

• A series of public meetings in April (see attached memo).

• Participation with Kodiak Native Association in a May 26 ground-breaking ceremony for the Alutiiq Museum in Kodiak, which was funded with Trustee Council restoration funds.

• Reproduction of the presentations made at the 5th Anniversary Forum into a 20 minute video, as well as a written publication of the presentations themselves, which expands upon the information in the 1994 status report.

• April 13 - 15 workshop to develop research priorities for FY95. Participants included PAG members, principal investigators, peer reviewers, agency representatives, and representatives from spill area communities.

• A May newsletter which highlights the FY95 Work Plan process, small parcel nominations, and other recent actions of the Trustee Council and staff.

• Establishment of a Community Involvement Working Group made up of scientists, agency representatives, and community members interested in incorporating local knowledge into Trustee research projects. The first result of this group's efforts was a letter that went to all Project Leaders encouraging greater cooperation and sharing of knowledge between researchers in the field and local residents.

Trustee Agencies

# 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



#### MEMORANDUM



Several public meetings sponsored by the Trustee Council were held during the month of April. The following is a brief summary of those meetings.

#### CHENEGA, April 18

The Chenega trip scheduled for April 18 was cancelled due to poor flying conditions. A teleconference held in lieu of the meeting was attended by:

Anchorage:	Jim Ayers, Trustee Council Exec Dir.
	Molly McCammon, Trustee Council Director of Operations
	Craig Tillery, State Trustee representative
	Chuck Totemoff, Chenega Corp.
	Sam Fortier, Chenega Corp.
	Jack Moores, Chenega Corp.
	Rita Miraglia, Div. of Subsistence

- Chenega: Mike Kompkoff Gail Evanof Larry Evanof Patricia Barker
- Tatitlek: Gary Kompkoff Ron Totemoff

Calif.: Bob Spies, Trustee Council Chief Scientist

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





Bob Spies started the meeting with a status report on the continuing presence of oil and the status of recovery of injured resources.

Discussion focused on these topics:

• The subsistence planning and implementation project funded by the Trustee Council. Chuck Totemoff expressed the frustration felt within the communities that their issues and concerns are not being taken seriously. "We're not just talking about putting another seal in the water," he pointed out. "We want to be part of the process." People asked that decision makers such as the Trustees and federal and state attorneys come to the villages so that they could have subsistence explained to them directly. Larry Evanoff explained that they now have to go a long way to get their subsistence foods. It was pointed out that the goal of the subsistence planning project was not just to put together a list of possible projects, but also to follow through and work with the communities and the federal and state attorneys to develop projects that would be legally permissible, first under the civil settlement, and if not that, under the state's criminal settlement funds of \$5 million.

• Gary Kompkoff asked for research to focus on the declining deer populations around Tatitlek.

• Community support for the waste oil facility project. Jim Ayers explained his interest in expanding the project. There was some discussion of a project to identify someone in each community to store contaminants for pickup.

• Recreation projects. PWS communities have interest and project ideas. We need to sit down with Neil Johannsen at state Div. of Parks and go over his plan.

• Mussel bed cleanup has support. Chenega Corp questions the way DEC has structured the competitive bids for vessel support and would like to see if it could be structured differently so Chenega would be able to bid for both the large and small vessel services.

• Stream enhancement. Would like AK DOTPF to haul big rocks to quarry to create pond areas for fish in O'Brien Creek as part of stream enhancement mitigation for airport.

• Project #94007 - Archaeology. Jim Ayers explained that it would not be possible to build museums in every community, but this project will work to clean up and restore sites and work with communities to develop a plan for storing artifacts. Chenega would like restoration at old village site. Chuck Totemoff noted that there continues to be looting and vandalism and that site monitoring needs to be done.

• 95 Work Plan process was explained. Gail Evanoff noted that the communities want to be involved in the decision-making, reports, and project planning, not just providing logistical support.





VALDEZ - April 19, 1994

Attending for Trustee Council:

Jim Ayers, TC Exec Director Molly McCammon, TC Director of Operations Bob Spies, Chief Scientist Craig Tillery, State Trustee representative

KCHU "Coffee Break" with Dick Reichman

This was a call-in radio show that is carried throughout Prince William Sound. Jim Ayers gave an opening presentation about the Trustees' balanced approach to restoration: general restoration, research and monitoring and habitat protection. Phone calls were primarily from Cordova and focused on two issues: support for purchase of habitat owned by Eyak Corp. that is slated for logging, and criticism of the Trustee Council's internal scientific review. Riki Ott called from Cordova and said the research scientists should be able to elect their own chief scientist, and that politics is potentially strong-arming science. Another caller said the Trustees were doing too little, too late for Cordova.

Rotary Club presentation. About 25 people attended. Only one question, about the possible use of Trustee money for additional housing.

Informal meeting with city representatives. Arranged by Doug Griffin, city mgr. Also attending: Dave Dengel, assistant city manager, Tim Lopez, harbormaster; Jeanne Donald, city clerk; John Tongin, school business manager; Joe Leahy, museum director; Greg Williams, KCHU reporter, and Karen Weiland, librarian. Discussion topics included:

• Interest in waste oil project. Valdez has its own burner, but is interested in working with DEC and Chenega and Tatitlek to possibly develop a joint effort. The harbormaster also noted they have more pollution in the harbor from the uplands than from the boat harbor itself and would like oil separators for their storm drains. It was questioned whether this would qualify for Trustee funding

• Impact of spill on school kids. This led to a lengthy discussion of the Clean Water Act and how settlement funds can only be used for restoring damages to natural resources.

•Valdez is interested in housing the OSPIC library. They currently have a consortium library jointly funded by the city and the PWS Community College. Because of its name, Valdez gets a large number of phone inquiries from researchers and schools. They would like to see such a library tied to a visitor industry type project, and are primarily interested in historical/archival type documents. Craig Tillery pointed out that it is unlikely this kind of project, as currently described, would be eligible for Trustee funding. Librarian Karen Weiland will be added to the Trustee staff's information management working group.



#### HOMER, April 27

Molly McCammon, Director of Operations, and Joe Sullivan, Program Manager for ADF&G represented the Trustee Council.

KBBI talk show with David Webster. Callers covered a wide range of topics including the status of resources injured by the spill, various research and restoration topics, the role of the Chief Scientist, the ability of private researchers to get contracts for Trustee research, habitat protection and acquisition, and positive responses to the Trustees' actions on the herring studies.

Public meeting at Senior Center. Attended by 8 members of the public. These topics were of primary interest:

• Small parcel process.

• Criticism of Chief Scientist and comments that Trustee should put their research results in historical and statewide context: i.e., if you can't show direct cause and effect, at least explain how unusual a finding may be, how it relates to results elsewhere in the state, give the findings more circumstantial context.

• Criticism of lack of Trustee effort to restore fisheries resources on outer coast of Kenai Peninsula. Also questioned decision to not go forward with Port Dick spawning channel due to poor benefit/cost ratio. Believes general restoration should be top priority and no habitat protection or other research should be done until all general restoration efforts have been exhausted.

#### PORT GRAHAM, April 27

Attended by Molly McCammon and Joe Sullivan for Trustee Council. Attended by 16 residents of Port Graham. Efforts were made to fly in representatives from Seldovia and Nanwalek, but were unsuccessful due to high winds in Nanwalek and scheduling conflicts with Seldovia. A very positive discussion focused on:





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• Concern that restoration efforts were not being made for Windy Bay and Elizabeth Island. Asked that Port Graham hatchery be used for possible enhancement efforts. Expressed interest in shellfish enhancement.

• Subsistence project. Very interested. Described the impacts the '89 spill had on subsistence use and activities. These have still not recovered to pre-spill levels.

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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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#### MEMORANDUM

То:	Trustee Council
From:	James R. Ayers Executive Director
Date:	April 27, 1994

Subj: April 28, 1994 Trustee Council Meeting

Attached is an agenda for our meeting tomorrow April 28, with accompanying documents respectively. The first item is a resolution regarding the Prince William Sound herring problem that requires action to deal with the emergency surrounding the herring decline and viral infections, "Disease Impacts on Prince William Sound Populations." This item can be handled by motion.

This subproject was assembled immediately after the Pacific herring began returning to Prince William Sound in reduced numbers, in a weakened and diseased state. Subproject 94320-S will be a component of the "Prince William Sound System Investigation" (project 94320).

The second item includes a copy of Eyak and Sherstone's letter to Mike Barton with a draft response letter from the Trustees to Eyak. The draft response needs resolution so as to provide Eyak opportunity to take action during their annual board meeting on Friday April 29.

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

## 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



AGENDA EXXON VALDEZ OIL SPILL SETTLEMENT TRUSTEE COUNCIL APRIL 28, 1994 MEETING **TELECONFERENCE** 

DRAFT

#### APRIL 28, 1994 @ 10:00 a.m.

Trustee Council Members:

MICHAEL A. BARTON Regional Forester, Alaska Region U.S. Department of Agriculture-Forest Service Detorate illians

GEORGE T. FRAMPTON, JR. Assistant Secretary for Fish, Wildlife & Parks U.S. Department of the Interior

CARL L. ROSIER Commissioner Alaska Department of Fish & Game BRUCE M. BOTELHO/CRAIG TILLERY Attorney General/Trustee State of Alaska/Representative

STEVEN PENNOYER Director, Alaska Region National Marine Fisheries Service

JOHN A. SANDOR Commissioner Alaska Department of Environmental Conservation

Steve Pennoyer - Chair Miles Borton retirement un ( When ) willes Borton vetter super by one ters. Juneau Location - Forest Service Conference Room 541A

1. Approval of Agenda

Order of the Day

2. Pacific Herring - Prince William Sound

3. **Executive Session** (To Discuss Habitat Protection Acquisition Strategies)

Attachments:

- Resolution Regarding Herring in Prince William Sound
- Draft letter to Eyak and Sherstone
- Copy of Original Letter From Eyak to Mike Barton

Adjourn

**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

April 27, 1994



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<u>Background</u> - On April 11, 1994, the Trustee Council formally authorized projects to proceed as part of the 1994 Work Plan. These included Project 94320 with its numerous components designed to study the Prince William Sound ecosystem, particularly as it relates to fisheries. Shortly after the meeting, the 1994 Pacific herring run began to return to Prince William Sound in a severely depleted, weakened and diseased state. Consequently, the Executive Director and staff from the Department of Fish and Game met with other scientists, including Dr. Spies, and designed an additional research component entitled "Disease Impacts on Prince William Sound Herring Populations" (94320-S) to investigate the failing herring run. This component is intended to determine if viral hemorrhagic septicemia (VHS) is present in the herring population and to ascertain if the disease is the cause of the weakened run or merely an opportunistic pathogen in a population already weakened from other causes. There was no record of VHS in Sound herring prior to 1993. Field sampling of this data has already begun because the herring run is short-lived.

No additional allocation of funds is being sought from the Trustee Council. Funds are available to transfer from other, already approved projects. Funding this Project 94320 component involves transferring \$72,000 from 94320-E, which represents money saved on that project from ADF&G's competitive bid vessel charter process, and transferring \$25,000 from Project 94139, which became available after the Port Dick component of this project was withdrawn. The Executive Director and the Chief Scientist highly recommend this project action be approved. April 27, 1994

Page 2

**Resolution** - Be it resolved that "Disease Impacts on Prince William Sound Herring Populations," Subproject 94320-S, will be incorporated into the Prince William Sound System Investigation, Project 94320, to investigate the disease impacts on the 1994 Pacific herring run in Prince William Sound, that the project will be funded with funds previously authorized in Projects 94320-E and 94139, and that total Trustee Council costs for this project will not exceed the \$95,000 identified above.

Date \_\_\_\_

MICHAEL A. BARTON Regional Forester Alaska Region USDA Forest Service \_Date \_\_\_

BRUCE M. BOTELHO Attorney General State of Alaska

Date \_\_\_\_

GEORGE T. FRAMPTON Assistant Secretary for Fish, Wildlife, & Parks Date \_

STEVEN PENNOYER Director, Alaska Region National Marine Fisheries Service

.Date \_

CARL L. ROSIER Commissioner Alaska Department of Fish and Game Date \_\_\_

JOHN A. SANDOR Commissioner Alaska Department of Environmental Conservation

# Exxon Valdez Oil Spill Trustee Council Restoration Office 645 G Street, Suite 401, Anchorage, AK 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178

## MEMORANDUM

- TO: Restoration Work Force:

  Byron Morris/NOAA
  Jerome Montague/ADF&G
  Dave Gibbons/USFS
  Sandy Rabinowitch/DOI
  Mark Brodersen/ADEC
  Veronica Gilbert/ADNR

  FROM: Molly McCammon, Director of Operations MMM
- DATE: April 25, 1994
- SUBJ: Trustee Council Meeting Actions

Please find enclosed a copy of the Trustee Council Action minutes from the April 11, 1994 meeting together with attachments.

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# Exxon Valdez Oil Spill Trustee Council

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



#### TRUSTEE COUNCIL MEETING ACTIONS

April 11, 1994 — Juneau, Alaska — 1:00 pm

by James R. Ayers Executive Director.

Members Present:

DRAFT

Trustee Council

Jim Wolfe<sup>\*</sup> (USFS)<sup>1</sup> George Frampton (USDOI)<sup>2</sup> Steve Pennoyer (NMFS) John Sandor (ADEC)<sup>3</sup> Craig Tillery (Alaska Department of Law)<sup>4</sup> Chuck Meacham (ADF&G)<sup>5</sup>

#### \* Chair

- <sup>1</sup> Jim Wolfe served as an alternate for Mike Barton
- <sup>2</sup> Deborah Williams served as an alternate for George Frampton for a portion of the meeting
- <sup>3</sup> Mark Brodersen served as an alternate for John Sandor for a portion of the meeting
- <sup>4</sup> Craig Tillery served as an alternate for Bruce Botelho
- <sup>5</sup> Chuck Meacham served as an alternate for Carl Rosier

Teleconference sites included the Anchorage Restoration Office, the Cordova LIO, the Kodiak LIO and the Seward LIO.

1. Approval of the Agenda

APPROVED MOTION: Approved the Agenda. (Attachment A)

2. Project #94320/PWS System Investigation

**APPROVED MOTION:** 

Approved the remaining project components and budgets for Project #94320/PWS System Investigation consistent with the conditions identified in the memorandum dated April 7, 1994 from the Executive Director to the Trustee

#### **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


Council (Attachment B). In addition to endorsing the recommendations contained in that memorandum, the Trustee Council specifically

- expressed the view that the indirect rates reflected in the project budgets for the University of Alaska and the Prince William Sound Science Center were for FY 94 only and not to be considered a precedent;
- affirmed that ownership of equipment purchased with Trustee Council funds would remain with Trustee Council agencies;
- recognized Dr. Ted Cooney as the overall project leader for Project #94320 for FY 94;
- indicated that the principles of adaptive management should be integrated into Project #94320 such that the project can respond to the biological opportunities available and change the scale of the work effort accordingly;
- indicated that the use of deterministic modeling be further reviewed before being incorporated into future research efforts; and
- indicated that the results of the 1994 field season should be reviewed in mid-September, prior to the Trustee Council taking action on the FY 95 Work Plan, and that a more detailed review be undertaken, together with review of other projects, at an annual workshop in mid-January in order to modify or revise the scope of work for FY 95.

# 3. Project #94191/Oil Related Egg and Alevin Mortality

**APPROVED MOTION:** 

Approved an increment of \$97.7 thousand in supplemental funding for Project #94191/Oil Related Egg and Alevin Mortality to replicate the results of studies that found inheritable (genetic) damage in pink salmon. 4. Project #94199/IMS Improvements at Seward

# **APPROVED MOTION:**



Approved an increment of \$83.0 thousand in supplemental funding for the continued work effort on meeting NEPA compliance requirements, reviewing economic and other assumptions of the proposed project, developing an integrated funding approach and formulating a recommendation for the Trustee Council consistent with the terms of the civil Settlement.

# 5. Project #94428/Subsistence Restoration Planning and Implementation

APPROVED MOTION: Approved \$99.2 thousand to design and implement a one-time subsistence restoration planning process coordinated among state and federal agencies and affected subsistence communities for use in identification of FY 95 subsistence restoration projects. The Trustee Council specifically directed that staff utilize the results of recent federal subsistence impact research and to carefully consult with state and federal attorneys regarding the permissible uses of the civil Settlement for subsistence restoration.

# 6. Project #94427/Experimental Harlequin Duck Breeding Survey

**APPROVED MOTION:** 

Approved \$20.4 thousand for limited intensive boat surveys of harlequin ducks in selected shoreline segments of western Prince William Sound in order to test several methodologies of classifying age and sex composition to design a sampling regime for future work.

The meeting was adjourned with next meeting of the Trustee Council tentatively scheduled for some time in June.

Attachment A Agenda

Attachment B

James R. Ayers to Trustee Council, memo re: Project #94320/PWS System Investigation dated April 7, 1994

АТТ	ACH	MENT

# **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

DRAFT

AGENDA EXXON VALDEZ OIL SPILL SETTLEMENT TRUSTEE COUNCIL CONTINUATION OF JANUARY 31, 1994 MEETING TELECONFERENCE

# APRIL 11, 1994 @ 1:00 p.m.

Trustee Council Members:

MICHAEL A. BARTON Regional Forester, Alaska Region U.S. Department of Agriculture-Forest Service

GEORGE T. FRAMPTON, JR. Assistant Secretary for Fish, Wildlife & Parks U.S. Department of the Interior

CARL L. ROSIER Commissioner Alaska Department of Fish & Game BRUCE M. BOTELHO/CRAIG TILLERY Attorney General/Trustee State of Alaska/Representative

STEVEN PENNOYER Director, Alaska Region National Marine Fisheries Service

JOHN A. SANDOR Commissioner Alaska Department of Environmental Conservation

Chair: Jim Wolfe, U.S. Forest Service U.S. Forest Service Conference Room 445C, Juneau

- 1. Approval of Agenda Order of the Day
- 2. Reports

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- Executive Director's Report
  - Implementation Strategy
    - Adaptive Management
    - Science Review Board
  - Habitat Acquisition & Protection
    - Appraisal Process
    - Small Parcel Process
    - Follow-up to Motion on Private Landowner Habitat Protection Options
  - Restoration Reserve
  - EIS Report (Rod Kuhn)
  - Update on Recreation & Subsistence Planning
  - Report on Forum and Public Participation Efforts
- Financial Report

# 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

- 1994 Work Plan
  - \* A. Review scope and detailed budgets of Project 94320
  - \* B. Increment for Project 94191
  - \* C. Increment for NEPA for Project 94199
    - D. Report on status of NEPA Compliance for 1994 Projects

# 4. New Business

- \* Proposed Project 94428 Subsistence Restoration Planning
- \* Proposed Project 94427 Harlequin Duck Boat Surveys & Methodology Testing

# Adjourn

\* Indicates action items.



# **Exxon Valdez Oil Spill Trustee Council**

Restoration Office 645 G Street, Suite 402, Anchorage, Alaska 99501 Phone: (907) 278-8012 Fax: (907) 276-7178



# MEMORANDUM

TO: Exxon Valdez Oil Spill Trustee Council

FROM: James R. Ayers, Executive Director

DATE: April 7, 1994

Charles ....

SUBJ: Project #94320/PWS System Investigation — Recommendation

The purpose of this memorandum is to provide the Trustee Council with my recommendation regarding the funding and implementation of Project #94320/Prince William Sound System Investigation.

In summary, it is my recommendation that Project #94320 (which is, in fact, a collection of sixteen interrelated sub-projects) be approved by the Trustee Council to proceed consistent with the recommendations and conditions described below. Included with this memorandum are copies of the Detailed Project Descriptions (DPDs) for each of the sixteen projects as listed in Table 1. Budget information for each "sub-project" is summarized in Table 2. (Copies of the detailed budgets have been provided to each of the Trustee Council agency liasons.)

# Prior Trustee Council Action on Project #94320

On January 31, 1994, the Trustee Council conditionally approved Project #94320/PWS System Investigation with a total budget of \$6.25 million subject to integration and coordination of the various project parts and a favorable scientific peer review of the various Detailed Project Descriptions (DPDs) under the direction of the Chief Scientist. The Trustee Council specifically reserved to itself the final decision on the overall approval of the project, while simultaneously directing the Executive Director to identify timesensitive elements of the proposed work effort that required immediate funding in order to allow the project to proceed in a timely manner.

State of Alaska: Departments of Fish & Game, Law, and Environmental Conservation United States: National Oceanic and Atmospheric Administration, Departments of Agriculture and Interior In response to the Trustee Council direction to identify time-sensitive elements of the project, the Executive Director, in consultation with the Chief Scientist and agency staff, developed a recommendation that was transmitted to the Trustee Council on March 4. This recommendation, as accepted by the Trustee Council, authorized a total of \$1,529.0 in time-sensitive expenditures (largely equipment purchases, vessel charter costs and some limited project administration funding for the Prince William Sound Science Center to offset the cost of developing DPDs) together with \$1.75 million for the PWSAC hatchery release and manipulation portions of the project pending NEPA compliance which has since been secured (Attachment A).

In addition to the identification of these time-sensitive elements of the project, the Chief Scientist has overseen a comprehensive scientific peer review of the overall project and its various constituent parts and prepared a formal recommendation. In some cases, this review process included direct consultation and discussion between the peer review scientists and the principal investigators and resulted in revisions to the proposed work and scope of services. The Chief Scientist's recommendation is attached to this memorandum (Attachment B). Additionally, a Project #94320 Summary has been prepared by Dr. Ted Cooney in his capacity as the lead scientist for the project.

### Executive Director's Recommendation

As a collaborative, interdisciplinary effort developed to address critical questions about the ecological health and recovery of spill damaged resources in PWS, the interrelated sub-projects being pursued through Project #94320 constitute an extraordinarily ambitious attempt to address a number of important research questions that the Trustee Council can use to: 1) guide further restoration activities; 2) improve management of common property fishery resources as a means of effecting restoration; and 3) identify important marine resources and processes for long-term recovery monitoring.

I concur with the findings and recommendations of the Chief Scientist that the project represents a "valid, defensible, sophisticated ecosystem approach" to understanding the factors controlling pink salmon production in Prince William Sound as well as the biological oceanography of PWS and, in this way, can make an important contribution to the overall restoration mission of the Trustee Council. While the primary focus of the project revolves around pink salmon, the project also includes important components that start to address herring, marine mammals, and certain sea birds. As indicated by the Chief Scientist, "understanding the ecological factors [that are limiting the recovery of these resources] is an integral part of the ecosystem approach" to restoration that the Trustee Council has endorsed.

It is imperative to underscore the ambitious nature of this collective research effort and to stress that a critical evaluation of the success of the first year of work will be essential to determining the appropriate scope and level of future efforts. A number of the project components that are central to the success of Project #94320 (e.g., the hydroacoustics work) involve highly innovative research methodologies that remain to be proven and workable in the field. Not only are there technical issues (e.g., the ability to successfully interpret hydroacoustics data to identify salmon predators), there are formidable logistical challenges to implement the program "on the water" in a manner that will yield useful results. Additionally, the ability to productively accumulate, analyze and interpret what will be enormous quantities of raw data remains to be determined.

Consistent with the peer review findings and recommendations of the Chief Scientist, my own recommendations concerning implementation of Project #94320 are as follows:

# 1. Project Leadership

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During development and review of the DPDs for the project, it became critically apparent that successful project implementation will require strong project leadership and management. As noted by the Chief Scientist, the consensus-based process that led to the formulation of the PWS research proposals reflected in Project #94320, must now give way to a strong leader-based process needed for the day-to-day execution of the work effort. In recognition of this need, Dr. Ted Cooney of the University of Alaska has assumed the role of "lead scientist" for implementation of Project #94320 for this year.

To ensure needed overall project accountability, it is both appropriate and important that the Trustee Council formally recognize Dr. Cooney's initial leadership role for Project #94320 and clearly communicate that the Trustee Council will expect Dr. Cooney to exercise both the leadership and authority necessary to successfully implement the various interrelated sub-projects as they get under way in this first critical year. Leadership responsibility and accountability should be emphasized as essential to continued Trustee Council support for the project. The future leadership and direction of Project #94320 warrants further evaluation by the Chief Scientist, the Executive Director and the Trustee Council.

# 2. Adaptive Management and Project Implementation

Closely related to recommendation #1 above, is the need to ensure that the various sub-projects are implemented in a manner that is responsive to the exceptional logistical and deployment challenges being confronted this first year. A large portion of the overall project effort depends upon the timely acquisition and use of hydroaucoustic equipment to track cohorts of hatchery released salmon and to study blooms of zooplankton. The peer review process has resulted in substantial questions about whether the project, as originally envisioned, can be fully implemented this first year given delays in procurement, the need to calibrate equipment, field test logistics, etc. The ability to respond to real-time circumstances in the field is critical. The Chief Scientist is planning to spend time in PWS this summer in order to obtain a first-hand understanding of project implementation and will provide periodic briefings to the Executive Director and the Trustee Council regarding project implementation progress.

The Trustee Council should communicate the clear expectation that, as noted by the Chief Scientist, research "objectives and plans have to be tailored to the biological realities......" If logistical or biological circumstances preclude the ability to implement a certain portion of the work effort this year, the researchers must anticipate the need to curtail their activity and expenditures accordingly. Implementation of this first field season will necessitate flexibility and a willingness on the part of the investigators to scale the work effort to the biological opportunities that are available. In some cases, this may mean deferring significant portions of the proposed work effort to a future field season (e.g., if the plankton bloom occurs earlier than needed research equipment can be deployed).

# 3. Data Management and Modeling

The PWS System Investigation research effort will generate enormous quantities of raw data. The ability to successfully manage, synthesize and interpret this raw data will be a major factor in determining the overall success of the project (see project #94320-J/Information Systems-Modeling). While the data management and analysis effort is clearly needed as an integral part of the overall Project #94320 work effort, the Chief Scientist's peer review process identified substantial questions about the utility of a deterministic modeling effort to address fisheries management issues.

I strongly concur with the questions and concerns regarding the highly technical nature of deterministic modeling. I recommend that this aspect of the work effort be closely scrutinized by the Chief Scientist and peer reviewers as part of the FY 95 work plan development effort.

4. Project #94320 — Program Review and Evaluation

A frank and critical review of the Project #94320's successes (and, inevitably, some failures) is essential. To that end, the Chief Scientist has been working with the various project Principle Investigators to identify, on a project-by-project basis, specific deliverables, work products and "milestones" that can be used to assess the success of the project's first year of implementation. These "mid-September 1994 milestones" are needed in order to formulate a recommendation to the Trustee Council regarding a continued work effort in FY 95.

I strongly commend the Chief Scientist's proposal for a critical review of the overall project in mid-September and urge that the Trustee Council communicate an expectation that future funding and support for the PWS System Investigation effort will be substantially determined by the success in meeting these "milestones." In addition, the results of the 1994 field season should be given a more in-depth review in mid-January 1995 (at the same time that initial results of other FY 94 projects are available). This will provide an additional opportunity for modification or revision of the scope of work planned for FY 95.

### 5. <u>NEPA Compliance</u>

ADF&G successfully addressed NEPA compliance requirements pertaining to the hatchery release (94320-K) and manipulation (94320-L) components of the project through the preparation of an Environmental Assessment (EA). This EA was approved by NOAA with a Finding of No Significant Environmental Impact (FONSI) on March 28, 1994.

A copy of the FONSI for the hatchery related portions of the project is on file. It is my understanding that all other parts of Project #94320 are eligible for a Categorical Exclusion under NEPA. In any case, no project element will be allowed to proceed prior to a determination of full NEPA compliance.

### 6. <u>Budget Issues</u>

At the January 31, 1994 Trustee Council meeting, Project #94320 was conceptually approved, subject to integration and coordination of the various project parts and a favorable scientific peer review, with a budget not to exceed \$6.25 million. As a result of a budget review involving the various affected agencies, the University of Alaska, PWSAC, the PWS Science Center, and the Trustee Council staff, budget allocations for each of the proposed projects have been developed as reflected in Table 2.

Review of the detailed project budgets has been exceptionally difficult and accomplished within a very short timeframe — detailed budget information pertaining to the PWS Science Center projects was only received on April 4. For the most part, the budgets proposed for the various components appear appropriate for the work proposed. However, as noted previously and also reflected in the comments of the Chief Scientist, the PWS System Investigation represents an extremely ambitious work effort and it is possible, if not likely, that certain portions of the work effort will not be ready to proceed at full capacity this field season. In the event this occurs, the Trustee Council should make clear that it fully expects that expenditures from the budgets of affected subprojects will be correspondingly reduced.

Some points of note include a highly competitive vessel charter market, that has resulted in some cost savings to this part of the budget. Additionally, in order to ensure flexibility regarding the possibility of needing to terminate charters due to changing biological or logistical circumstances, ADF&G included a provision in its vessel charter contracts allowing for termination of charters on short notice. The budget review also resulted in a reduction of some personnel costs in order to not exceed the 5.5 months remaining in the fiscal year.

Three particularly significant issues emerged during the budget review:

 <u>University of Alaska/PWSSC Indirect Rate</u> — For FY 93, the Trustee Council and the University of Alaska agreed to an indirect rate of 20% of project costs. This is a significant reduction from the University's standard 41% indirect rate, but significantly more than the rates typically approved for Trustee Council projects (15% for personnel and 2 - 7% for contractual). There appears to be a fundamental disagreement regarding what constitutes the definition of total direct costs. The University's definition is 20% of total project costs — that is, both direct and indirect costs which is, in effect, <u>a 25% rate on direct project costs</u>. As a University of Alaska sub-contractor, the PWS Science Center adopted the same methodology for calculating indirect rates. (The extra cost for the University of Alaska is mitigated somewhat by the fact that they did not charge the full 20% rate on the "pass through" funding for the PWS Science Center contract. In fact, the University charged only approximately \$11.2 to administer the PWS Science Center contract. Unfortunately, this is an issue that only surfaced six days prior to the Trustee Council's scheduled meeting.)

In view of the need to move forward quickly and get work in the field, I recommend that the University of Alaska and PWS Science Center budgets be accepted as proposed with the express understanding that the indirect rate used is an exception and will apply to this start up year only. Further, it should be made clear that, to the extent that any work is to be undertaken by the University of Alaska or the PWS Science Center on behalf of the Trustee Council in FY 95 or beyond, indirect rates will be calculated as 20% of direct project costs as is the case with other Trustee Council funded projects. It is worth noting that this issue could be avoided in the future by putting projects such as these through a formal,

competitive Request for Proposal (RFP) process and that this option for project implementation is currently under review.

• Equipment Ownership — Questions regarding equipment ownership emerged during the budget review. (The PWS Science Center had offered to waive its indirect charges on equipment purchased for sub-projects they are implementing if they were granted ownership of the equipment.) Trustee Council staff have clarified to both the University of Alaska and the PWS Science Center that one of the Trustee Council agencies, acting on behalf of the Trustees must retain ownership of the equipment. At this point, the University of Alaska and PWS Science Center budgets reflect funding for the purchasing, insurance, storage, maintenance and repair of equipment purchased with Trustee Council funds.

I recommend that the RSA between ADF&G and the University of Alaska (which includes the PWS Science Center) be amended to reflect that these services (purchasing, insurance, storage, maintenance and repair) are being paid for in this budget year and that these services will not be charged for in the future to the extent that these projects continue. In the future, it may be possible to avoid this problem by having one of the Trustee Council agencies purchase, store and maintain equipment.

• <u>Otolith Thermal Mass Marking</u> — As a result of further review and evaluation of project #94320-C/Otolith Mass Marking it became apparent that the original budget was substantially below what it would take to implement the project because 1) it was mistakenly assumed that boilers and other equipment would be installed inside existing buildings which is not possible due to fire code and lack of space; and 2) larger boilers would be needed to ensure that sufficient water can be heated to produce the number of banding "rings" for the thermal banding codes.

At this point, ADF&G has withdrawn the thermal mass marking portion of the project in order to fully reevaluate project costs and will review the proposal as part of the FY 95 work plan process. (A small portion of the project involving chemical marking of otoliths using oxytetracycline is still proposed for funding. It is the expectation of ADF&G that this portion of the project will qualify for a Categorical Exclusion under NEPA.)

# 7. Long-Term Implications

Finally, it is important to put Project #94320 into the larger context of the overall Trustee Council restoration effort. In essence, the sixteen FY 94 sub-projects that collectively comprise the Project #94320/PWS System Investigation constitute an elaborate and ambitious pilot project to implement an ecosystem approach to restoration. The project investigators are to be commended for their exceptional effort and commitment in designing an important and pioneering restoration

research and monitoring program. At the same time, the PWS System Investigation effort should be clearly viewed as part of the overall ecosystem approach to restoration being pursued by the Trustee Council. This overall approach must also provide for the restoration of a wide range of resources and services beyond those addressed by Project #94320.

To the extent that portions of the PWS System Investigation effort are found to be workable and successful in the field and are determined to make a worthwhile contribution to the overall restoration mission of the Trustee Council within the terms of the civil Settlement, long-term funding (perhaps 5 to 10 years for certain project components) will be needed and should be provided. Again, the appropriate level of funding is yet to be determined and will be substantially influenced by the success of the various sub-projects in meeting their first year "milestones."

Table 1 Project #94320 — PWS System Investigation (index)
Table 2 Project #94320 — Budget Summary
Attachment A Project #94320 — Time-Sensitive Elements
Attachment B R. Spies, Chief Scientist to J. Ayers, Executive Director Scientific Review and Recommendations for Project 94

Scientific Review and Recommendations for Project 94320 Memorandum dated April 4, 1994

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# Table 1

# Project #94320 — PWS System Investigation

94320-A/Salmon Growth and Mortality	ADF&G/Willette	Tab A
94320-B/CWT Recovery-PWS Pinks (94184)	ADF&G/Sharr	Tab B
94320-C/Otolith Mass Marking (94187)	ADF&G/Shar <b>r</b>	Tab C
94320-D/Pink Salmon Genetics (94189)	ADF&G/Seeb	Tab D
94320-E/Salmon Predation	ADF&G/Willette	Tab E
94320-F/Harbor Seals-Trophic Interactions	ADF&G/Frost	Tab F
94320-G/Phytoplankton and Nutrients	UAF/McRoy	Tab G
94320-H/Zooplankton in Ecosystem	UAF/Cooney	Tab H
94320-I/Trophic-Stable Isotopes	UAF/Schell	Tab I
94320-J/Information Systems-Modeling	PWSSC/Patrick	Tab J
94320-K/PWSAC-Experimental Release	PWSAC/Olsen	Tab K
94320-L/PWSAC-Experimental Manipulation	PWSAC/Olsen	Tab L
94320-M/Physical Oceanography	PWSSC/Salmon	Tab M
94320-N/Nearshore Fish	PWSSC/Thomas	Tab N
94320-P/Program Management	PWSSC/Scheel	Tab P
94320-Q/Avian Predation on Herring Spawn	USFS/Bishop	Tab Q

# (DRAFT 4/11/94).

# Table 2

# Project #94320/PWS System Investigation

# Budget Summary

# **BUDGETS FOR 94320 SUBPROJECTS**

SUBPROJECT	INTERIM	REMAINING	TOTAL
NUMBER	BUDGET	BUDGET	BUDGET
94320A	- \$0.0	\$263.4	\$263.4
· 94320B	47.8	196.6	244.4
94320C	0.0	53.9	53.9
94320D	0.0	171.2	171.2
94320E	0.0	907.1	907.1
94320F	0.0	26.0	26.0
94320G	0.0	141.5	141.5
94320H	0.0	300.1	300.1
94320I	0.0	60.5	60.5
94320J	0.0	756.5	756.5
94320K	0.0	46.6	46.6
94320L	0.0	1,750.0	1,750.0
94320M	0.0	773.1	773.1
94320N	0.0	666.9	666.9
94320P	100.0	51.8	151.8
94320Q	0.0	84.8	84.8
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TOTAL	\$147.8	\$6,250.0	\$6,397.8

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Attachment A

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Project #94320/PWS System Investigation Time-Sensitive Project Elements

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The six Trustees have reviewed and accepted my March 4, 1994 recommendation concerning the timesensitive elements of Project 94320. You are authorized to proceed only with the expenditures as outlined in the memo to myself and the Trustees from Dr. Sples dated March 2, 1994. These are:

Hydroacoustic equipment	\$270.0
Physical oceanography, zooplankton and phytoplankton equipment	310.0
Fish food and coded wire tags for PWSAC	45.0
Juvenile salmon predation/growth/survival Vessel charters Equipment (seines)	793.5 44.0
PWSSC project administration	25.0
Avian predation study startup costs	41.5
TOTAL	<b>\$1,529</b> .0

Expenditures for the hatchery research and manipulation portion of the project are not authorized at this time. Those hatchery research related funds will be authorized only when NEPA compliance has been clarified and successfully completed and when the Detailed Project Description is revised.

JRA/mir

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Restoration Work Force Trustee Council Members Molly McCammon, Director of Operations

### **Trustee Agencies**

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

# Exxon Valdez Oil Spill Trustee Council

Restoration Office 645 G Street, Suite 402, Anchorage, Alaska 99501 Phone: (907) 278-8012 Fax: (907) 276-7178



# MEMORANDUM

To:	Mike Barton U.S. Forest Service
From:	Jim Ayers by Executive Director
Date:	March 4, 1994
Subj:	Authorization for Project # 94320

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As directed by the Trustee Council at your January 31, 1994 meeting, I have been in consultation with Dr. Spies and the Prince William Sound System Investigation study group concerning the time-sensitive elements of Project # 94320. I concur with the recommendations of Dr. Spies as reflected in the attached documents.

I. Equipment and Vessel Charters

Attached you will find several supporting documents including: 1) a memo from Dr. Spies describing his recommendation for the time-sensitive elements of Project # 94320; 2) a more detailed memo from Dr. Spies and an agency work group describing further why some equipment is recommended for purchase at this time and why certain other equipment purchases can be deferred; 3) a letter from Dr. Ted Cooney describing how elements of the overall project would be delayed and/or compromised depending on the timing of equipment purchases and final approval of the Detailed Project Descriptions (DPDs).

I recommend that I move forward with Dr. Spies' recommendations for equipment purchase, vessel charters, and start-up personnel costs. As described by Dr. Spies, this funding is an appropriate initial investment in the research capability the Trustee Council will need for continuing investigations of the PWS ecosystem. The recommended expenditures will provide the essential research infrastructure, enable the research to proceed immediately on a pilot phase and permit an expanded effort as methodologies and techniques are determined to be successful. Ownership of the equipment will remain with the Trustee Council for future Trustee projects.

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

# II. Detailed Project Descriptions

Because Detailed Project Descriptions are still being completed and reviewed, I am unable to give you a final recommendation on the full scope of work that should be authorized for Project # 94320. I anticipate that the DPD review will be completed by mid to late March.

I recommend that the full scope of Project # 94320 be reviewed by the Trustee Council at a teleconferenced meeting in late March.

# III. Funding for Prince William Sound Aquaculture Corporation (PWSAC)

Included in Project # 94320 is \$1.75 million to compensate PWSAC for the costs of manipulating fry releases as an integral part of the research effort. It is my understanding that an additional \$250 thousand, above the original estimate of \$1.5 million, is needed for this component of the project.

There has been some question about whether the hatchery funding should be subject to an Environmental Assessment. However, because this project consists fundamentally of mariculture activities that have been on-going in PWS since the mid-70s and have gone through a comprehensive permitting and public participation process, I believe there is a strong argument for considering this project a "no action alternative" under NEPA and accordingly subject to a categorical exclusion under NOAA's NEPA guidelines. Additionally, this project should fall under NOAA's general permit for mariculture facilities, which include hatcheries. Finally, it should be noted that the project will have no impact on endangered or threatened species.

Although a final determination has yet to be made on the NEPA question, there is a serious time element involved with this project. I strongly recommend each Trustee work with staff so we can resolve this question as quickly as possible.

### Time Sensitive elements of Project #94320

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In accordance with your instructions I am providing you with the time sensitive elements of Project #94320. I am prepared to implement those elements immediately, subject to NEPA compliance. Please advise me in writing by Monday, March 7, 5 p.m., whether or not you require a teleconference to further consider these time sensitive elements prior to their implementation. Other components of Project # 94320 will be peer reviewed and brought back to you for consideration before any further expenditure of funds.

Please contact Molly McCammon at 278-8012 immediately if you would like a detailed briefing on the above recommendation by Dr. Spies and Dr. Cooney.

# Exxon Valdez Oil Spill Trustee Council

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



# MEMORANDUM

To: Trustee Council

From: Dr. Robert Spies Assisted by Byron Morris & Alex Wertheimer (NMFS), Jerome Montague (ADF&G), George Rose, Bill Pearcy and Andy Gunther

Thru: James R. Ayers Executive Director

Date: March 2, 1994

Subj: Recommendation for Time-critical Expenditures for Project # 94320

On January 31, 1994, the Trustee Council conditionally approved \$6.25 million for Project 94320 (Prince William Sound System Investigation) subject to the successful integration of this project with project #s 94163, 94184, 94185, 94187, 94189, 94192, 94259 and those portions of projects # 94421 that involve research. The Trustees directed the Executive Director to determine which elements of this project were timecritical and to report back to the Council for further action.

Subsequently, we have been directed by the Executive Director to meet with the principals of the Sound Ecosystem Assessment (SEA) group and to develop a recommended course of action concerning this project with respect to time-critical expenditures. The following is that recommendation.

# **RECOMMENDED ACTIONS**

A. Time-critical equipment and personnel expenditures.

We recommend that the Trustee Council immediately approve the following equipment and personnel expenditures for Project # 94320:

1.	Hydroacoustic equipment	\$ 270.0
2.	Physical oceanography, zooplankton and phytoplankton equipment	310.0
3	Fish food and coded wire tags for PWSAC	45.0

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

4.	Juvenile salmon predation/grow Vessel charters Equipment (seines)	vth/survival	793.5 44.0
5.	PWSSC project administration		25.0
6.	Avian predation study startup co	osts	<u>41.5</u>
		SUBTOTAL	\$1,529.0
7.	PWSAC Experimental Manipulat	ion	<u>1,750.0</u> *
		TOTAL	\$3,279.0

\* Authorized subject to NEPA compliance. It is anticipated that an additional \$250.0 will be needed by PWSAC to complete this portion of the project.

# B. Procurement conditions

We recommend that the Trustee Council approve the following procedures for moving forward with the time-critical elements of this project:

- 1. Procurement of all equipment identified for UAF and the Prince William Sound Science Center (PWSSC) via a Reimbursable Services Agreement (RSA) between ADF&G and UAF.
- 2. Vessel charters competitively procured by ADF&G for the full charter period, but based on a daily charter rate, with provision for ending the contract at any time without penalty.
- 3. Procurement of \$1.795 million to PWSAC pending NEPA compliance, approval of sole source justification by the Alaska Department of Administration and approval of the Detailed Project Description for that portion of Project # 94320.

# DISCUSSION

The scientific questions being asked by the Prince William Sound System Investigation are laudable and appropriate in order to answer basic questions about the health of the Prince William Sound fisheries. The investigators are scientifically qualified, clear about their goals, and enthusiastic. Significant portions of the investigations proposed

as parts of project # 94320 are very ambitious, in particular, those pertaining to juvenile salmon predation. These include the purchase, delivery and implementation of highly sophisticated equipment, the coordination of several vessels and crew, as well as extremely complex field logistics in order to obtain sampling data.

Although the peer review of Detailed Project Descriptions (DPDs) for all of the component parts of project # 94320 has not yet been completed, we nevertheless feel that the recommended expenditures are justified at this time and represent a sound investment in the research capability that will be needed over the next several years.

At the same time, we emphasize that expenditure commitments (especially the salmon predation studies that require extensive vessel support) should be structured and conditioned to accommodate an initial pilot phase that demonstrates the feasibility of the proposed methods. The pilot study should be designed so that it is possible to roll in the rest of the program to full field operation upon a determination that the pilot phase is successful.

Finally, it should be emphasized that the long lead time associated with procurement and deployment of the equipment necessitates an immediate decision if large portions of the study effort are to be undertaken in the coming field season in concert with the spring plankton bloom.

Final Council action is needed as quickly as possible. Any delays will result in a reduced program.

(Note: The recommended purchases and authorizations addressed above is not a complete list of equipment needs for project # 94320 and reflects only equipment and other procurement needs with long lead times that are critical to have "in the water" by April 15.)

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A more detailed memorandum, including a discussion of equipment requests that are not recommended for funding at this time, is provided as an attachment.

# Attachment B

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Robert Spies, Chief Scientist to James Ayers, Executive Director

Scientific Review and Recommendations for Project 94320

Memorandum dated April 4, 1994

April 4, 1994

# TO: James Ayers, Executive Director

### FROM: Robert Spies, Chief Scientist

### RE: Scientific Review and Recommendations for Project 94320

At the last Trustee Council meeting on January 31, 1994, the Council approved Project 94320 as part of the 1994 Workplan. This action was contingent on favorable peer review of the Detailed Project Descriptions (DPDs) written by the principal investigators for the various components of this project. A comprehensive review includes both technical and fiscal aspects of this project. Over the last two months, I have received the DPDs for Project 94320 and obtained expert review of their technical merit. Although a few of these reviews are still outstanding, I now have enough information to provide you with my analysis and recommendation for Project 94320 based on its technical merit. I have also provided an attachment that provides some background information on the development of this project.

I am also recommending that a detailed review of the budget, which I have not done, be carried out before you formulate your final recommendations to the Trustee Council. In addition you may wish to give further consideration to the specific manner in which the four general recommendations listed below can be implemented.

#### **Recommended** Actions

I recommend that the Trustee Council approve Project 94320 with the following provisions:

1. The SEA program needs to rethink how the leadership of the project can be strengthened. The current consensus-based process, which has been appropriate for formulating goals, should give way to a leader-based process needed for the day-to-day execution of the mandate set out by the Trustee Council, in partnership with the public, and for flexible management of the scientific process.

2. The principles of adaptive management need to be applied so that maximum flexibility in the scientific program is maintained while at the same time scientific objectives are pursued in a cost effective manner. For instance, if the major releases of juvenile salmon occur before all of the acoustic equipment is operable on the charter vessels, then objectives and plans have to be tailored to the biological realities, the most useful biological data should be gathered, and the vessel charters terminated after that data is gathered.

3. There should be a scientific review in mid-September of 1994 that evaluates the success of the program and what aspects of the program should be modified in the coming year. This review would involve the principal investigators, program manager, the chief scientist, selected peer reviewers and others designated by the executive director. The Chief Scientist would prepare a memo to the executive director that evaluates the

progress of the program and makes recommendations regarding relevant portions of the 1995 workplan.

4. I support the information and modeling efforts this year as they are mainly supportive of data interaction and visualization that is so important to the integration of this project. There are, however, serious questions about how effective a deterministic model of the system could be for fisheries management and we will subjecting this aspect of the project to further review with the idea of developing a substantial recommendation for whether this should be funded in 1995.

#### Background

A lack of understanding of the processes controlling the population fluctuations of injured populations limits the Trustees' ability to restore damaged resources in oil spill area. In order to (1) effectively guide the restoration of Prince William Sound after the *Exxon Valdez* Oil Spill, (2) improve the management of common property fishery resources damaged by the spill in order to effect restoration, and (3) identify key marine resources and processes for long-term monitoring, the Council has committed to improving our understanding of the functioning of the Prince William Sound ecosystem. This commitment was expressed by the Trustees at their September meeting through support of an ecosystem approach to studying the Sound and the greater oil spill area.

To begin the process of developing this ecosystem approach, the Trustee Council sponsored a workshop in Cordova during December of 1993. A Steering Committee was established to organize and conduct the workshop, and report its findings to the Council. The major objectives of this workshop were to obtain the advice of national experts and experienced local scientists in designing a multi-disciplinary study of the Prince William Sound marine ecosystem, and to review and critique an ecological study plan (the SEA plan) prepared by the Prince William Sound Fisheries Ecosystem Planning Research Group.

The Steering Committee reported their findings and recommendations in a January 14, 1994, memorandum to the Executive Director. The Committee's two key findings, strongly supported by the peer reviewers at the workshop, were that (1) the SEA plan contains an innovative, reasonable, and scientifically-testable hypothesis to explain how certain ecological processes may control fluctuations of key fisheries resources in PWS, and (2) the ecological approach described in the SEA could form the basis of a program that would make an important scientific contribution to the Trustee's mission of restoring a healthy, productive, and biologically diverse ecosystem within spill area.

The relevance of the SEA Plan to the Trustee's mission led to the development by SEA scientists of project proposals for 1994 workplan. After review by the Executive Director, myself, and others, these proposals were modified and incorporated in Project 94320. After the Council's action of contingent approval on January 31, the principal investigators prepared DPDs for review by the Chief Scientist and peer reviewers.

# Peer Review Process for Project 94320

The peer review of Project 94320 has been conducted in three phases. First, a preliminary review by myself and several key peer reviewers who attended the Cordova Workshop determined that the overall scientific questions being asked by Project 94320 are laudable and appropriate to answer basic questions about the health of Prince William Sound fisheries. The principal investigators are scientifically qualified, clear about their goals, and enthusiastic. Consequently, we recommended to the Executive Director that certain portions of Project 94320 be given a "fast-track" approval. If 94320 was to go forward in the field in April of 1994, those portions of the

project recommended for "fast track" approval needed immediate funding rather than waiting until review of the DPDs was complete. The vast majority of the fast track approval was required for ordering scientific equipment and arranging vessel charters.

The second phase of the peer review process involved the specific review of individual DPDs by scientific experts. The Council currently has over 60 North American scientists, with expertise ranging from cytogenetics to oceanography, who have provided expert review during the NRDA and restoration process. Given the very short time-frame available for review of the DPDs for 94320, I was very pleased with our success at obtaining reviews from top scientists around the country. The purpose of these reviews has been to obtain independent scientific assessments of (1) the validity of the scientific methods proposed in each project, and (2) whether the project as proposed will meet its stated objectives. In addition, two scientists besides myself reviewed all of the DPDs that were available by March 15 to obtain an "overall" assessment of the integration of various project elements.

The third phase of the peer review was to obtain an assessment of the overall integration of the seventeen components of project 94320. Two senior peer reviewers agreed to perform this task, although not all the DPDs were available in time to be included in this review. The table below indicates that of the 12 DPDs being reviewed, nine were available for this overall review (please note that some of the delays were administrative and not the responsibility of the principal investigators). In addition, I have reviewed all of the DPDs, as has my associate Dr. Andrew Gunther.

Included		DPD	
in	Project Title	Received	Review Status
"Overall"		by Chief	1
Review		Scientist	
	Avian Predation on Herring Spawn	March 2	specific reviews complete
	Salmon Growth & Mortality	March 2	specific reviews complete
<u>_</u> √	Salmon Predation	March 2	specific review complete
	Observational Physical Oceanography in PWS. &	March 3	specific review complete
	the Gulf of Alaska		
	Experimental Fry Release	March 7	no review proposed
V	Sound Ecosystem Assessment (SEA) & Related	March 7	included in overall review
	Studies: Summary		1
V	The Role of Zooplankton in the PWS Ecosystem	March 7	specific review complete
· ·	Trophic interactions of Harbor Seals	March 7	no review proposed
	Experimental Manipulation	March 7	no review proposed
	An Ecosystem Research plan for Nearshore Fish	March 7	specific reviews complete
$\overline{\mathbf{v}}$	Confirming Food Web Dependencies in the PWS	March 14	included in overall review,
	Ecosystem using Stable Isotope Tracers	. <u> </u>	specific review not complete
V	Information Systems and Model Development	March 15	included in overall review,
			specific review not complete
	Coded Wire Tag Recoveries from Pink Salmon in	March 18	no review proposed
	Prince William Sound	_	
	Otolith Marking-In season Stock Separation	March 18	specific review complete
	Genetic Structure of Pink Salmón Stocks	March 18	specific review not complete
	Program Management	· · ·	no review proposed
	Plankton Dynamics: Phytoplankton and Nutrients	March 22	specific review not complete

The following table lists the status of the review of 94320 DPDs.

In keeping with past practices, projects of a routine nature, or those with methods that have been reviewed in previous years, have not received a review ("no review proposed").

#### Overall Analysis

This project represents a valid, defensible, sophisticated ecosystem approach to understanding the factors controlling pink salmon production in Prince William Sound to help guide the Trustee Council's restoration activities. It can also provide valuable information about the biological oceanography of the northern Gulf of Alaska, and in this way will contribute to resource management throughout the oil spill area. Although the project in the first year does not begin to comprehensively address herring, a small project on bird predation on herring spawn is included. In a more comprehensive sense herring has been part of the planning process, and the project can include a more inclusive approach to herring production in the future. Also, of great concern in Prince William Sound and the northern Gulf of Alaska are the mammals (e.g., harbor seals and Stellar sea lions) and sea birds (e.g., marbled murrelets and pigeon guillemots). These species were injured by the spill and are in general decline in the area. Understanding the ecological factors limiting their recovery is a integral part of the ecosystem approach that the Trustees will wish to develop. These species can be included by way of coordination of other programs with the existing efforts within project 94320. The integrative links have already begun to be forged between this study and the forage fish study (94163), among others.

I would like to re-emphasize that for this program to be truly effective it may be necessary to provide from five to ten years of funding, although the level of funding is yet to be determined. This was a strong message from the peer reviewers attending the Cordova workshop. The reason for this recommendation is that the climatic conditions that are such an important source of variation need to be studied over a period of years to understand the relationships between climate, oceanography, and fisheries returns. Each year is in a sense a new natural experiment; the experiment must be repeated under different conditions to draw the appropriate conclusions. Hopefully, we will have a series of years in the near future that will provide the properly variable conditions.

It is critical to note that a comprehensive assessment of the first year's accomplishments towards understanding the complex factors controlling pink salmon production will not be available until early 1995. Since this will be after the Trustee Council approves the 1995 workplan, two years of funding will be committed before the Council has a good sense of what the program is producing. Given this situation, I believe it is imperative to measure the extent to which project 94320 is achieving its first-year objectives. I have therefore requested project-specific milestones from each of the principal investigators for September 1994, and for March 1995. Examples for the milestones for September 1994 include:

- 1. Preliminary assessment of oceanic transport in and out of PWS during spring and summer of 1994. This will verify our ability to determine if the Sound is acting like a "lake" or a "river".
- 2. Geotime coded acoustical measurements of juvenile salmon target strength and the fish assemblage associated with the juvenile salmon. This will provide the first measurement of the distribution of juvenile salmon and their predators during a single season.
- 3. Make a preliminary assessment of the major zooplankton taxa associated with swarms and layers of acoustically and optically censused macrozooplankton. This will verify our ability to measure relative zooplankton distributions using hydroacoustic technology.

4. Demonstration of a functional data management interface for accessing and visualizing empirical data sets and model output. This interface will be critical for providing interactive data management and analysis tools to principal investigators.

Assessment of progress against these milestones should occur in a meeting in Cordova to acquaint selected reviewers and myself of the state of the program after its first field season. I would be prepared to provide the Trustee Council with a formal assessment and recommendation prior to your vote on the 1995 workplan.

I would like to emphasize that the short time for review has made things difficult for all involved. The scientists proposing these studies are very committed, and have moved ahead with planning and preparation at their own risk to make the 1994 field season a meaningful first year. I strongly support the Executive Director's efforts to accelerate the 1995 planning process to move DPD production and review to the late fall. This change would also be welcomed virtually unanimously by the peer reviewers, based upon the comments I received during the review process.

As of today I have been told that the principal investigators still do not have access to the funding for this project that was "fast-tracked" earlier this year. While there are probably good reasons for these administrative delays, I am extremely concerned about the ability to mobilize the equipment and personnel required to be present in the field in mid-April. When last I inquired, the hatcheries were expecting to release the salmon around April 20, which corresponds to the expected peak of the zooplankton populations in Prince William Sound. The objectives Project 94320 will be able to achieve for the 1994 season will be significantly reduced if the principal investigators are not in the field by mid-April. If start up is delayed until early to mid-May only the final stages of the macrozooplankton populations can be censused, and only the later (and smaller) releases of juvenile salmon will be available for predation studies. I will monitor the progress of the mobilization of equipment and personnel if the Council approves Project 94320, and will advise the Executive Director as the situation develops.

### Specific Analyses of Each Component

#### 94320-A: Salmon Growth & Mortality

The purpose of this project is to: (1) estimate the growth of juvenile pink salmon in 1994 and compare the rates to past years, (2) describe their migration through PWS, (3) estimate their diet and compare it to past years, (4) determine the role of food abundance in limiting growth, (5) evaluate past relationships between juvenile growth rates and fry-to-adult survival, and (6) develop techniques to estimate mortality of juveniles in PWS and the Gulf of Alaska. There may be a predictable relationship between food availability to juvenile, juvenile growth rates and survival from juvenile to adult. This project will continue to explore these relationships and in the context of the other studies, particularly those on salmon predation and zooplankton abundance, help improve our understanding of the main factors that determine adult returns.

The reviewers thought that the investigators proposed for this part of the program had proven that they can do this kind of work successfully. The principal investigators also must devise a strategy to determine if faster growing juvenile salmon move to deeper water sooner, as this would make the school that is followed a more and more biased sample over time. The purpose of this study is to recover coded wire tags (CWTs) from pink salmon caught by commercial fishermen, researchers, and others. The recovery of the tags and subsequent analyses will provide, among other objectives, data regarding (1) the contribution of tagged hatchery stocks to the commercial harvest, and (2) the growth and marine survival rates of tagged hatchery stocks. These data are quite valuable to fisheries managers, and used for both planning and in-season regulation. The data on salmon growth and survival will also be used in conjunction with data from salmon predation, oceanographic, and zooplankton studies to test the basic hypothesis regarding factors controlling pink salmon production in Prince William Sound.

This study utilizes methods that have been reviewed in past years. It does not contain experimental or non routine elements, and so was not sent out for peer review. A pilot study has been proposed this year to test thermal and chemical marking of otoliths as an alternative to CWTs. Until the results of this study are available CWTs will remain the only feasible method for developing the data described above regarding growth and survival of hatchery salmon.

### 94320-C: Otolith Marking: In-Season Stock Separation

This is a proven technology in other species of fish for putting marks or checks on the otoliths (ear bones) of juveniles. This has not been tried on a wide scale with juvenile pink salmon previously and this project proposes to try to mark large numbers of hatchery fish by this method in 1994. This methodology, if successful, will replace the more costly coded wire tag method currently used on a portion of hatchery-released fish. This new tag can nearly universally mark hatchery fish and perhaps settle some long-standing potential objections to CWTs (e.g., potential alteration of the olfactory sense). This project alone has a great chance to greatly improve salmon management practice.

#### 94320-D: Genetic Structure of Pink Salmon Stock

The objective of this project is to define the genetic structure of pink salmon stocks in PWS. Potential sources of variation include stream-to-stream differences, even and odd-year stocks, upstream and intertidal spawners, early and late-season spawners. The program proposes to evaluate a series of analyses of allozyme frequencies in fish from a wide geographic range and from two hatcheries and apply a series of statistical measures to determine if different allele frequencies exist, the extent of the difference, and, if there are systematic differences, to construct measures of genetic distances between substocks. In addition a pilot study using DNA techniques will be carried out using mitochondrial DNA.

#### 94320-E: Salmon Predation

The purpose of this project is to: (1) determine the role that variable predation plays in overall survival of pink salmon, and (2) identify and describe the predators and mechanisms of predation under various conditions. This is an ambitious program that will track cohorts of juvenile pink salmon after they are released into PWS, attempt to identify their predators, and examine the mode of interaction of predators with the juvenile fish. This involves a highly coordinated group of vessels using state-of-the-art hydroacoustic equipment to track the juvenile fish and their predators as the fish progress from the Esther Island hatchery towards the southeast passages from PWS to the Gulf of Alaska. At the same time there will be real-time sampling of oceanographic conditions, plankton abundance, predators and the juveniles themselves. This sort of effort has never been attempted before, and this has caused some nervousness among the reviewers particularly with regard to coordination of vessels, calibration of the acoustic equipment and a myriad of details that have to "go right" for this effort to be successful. However, it appears to be possible and is definitely worth the effort, as much can be learned. As mentioned previously, if there are irresolvable technical problems that arise early in the program, the major costs associated with this project, the vessel charters, can be terminated without penalty.

#### 94320-F: Trophic Interactions of Harbor Seals

This is a small but potentially important part of the overall project. The objective of this portion of the project is to determine if links between various food sources and the harbor seal population in PWS can be established either by use of lipid-specific analysis or analysis of stable isotope ratios. The technique being proposed is a relatively new application. The key scientist in the country to act as a peer reviewer has already reviewed the proposal, so I did not think that it needed to go out for review. I do plan to recommend that a general review be performed on the use of lipid markers to indicate food sources in marine food webs.

### 94320-G: Plankton Dynamics: Phytoplankton and Nutrients

The objective of this part of the program will be to: (1) describe the spatial and temporal extent of the spring-summer phytoplankton bloom in PWS, (2) measure phytoplankton primary productivity, (3) identify the major species comprising the bloom, and (4) describe the distribution and abundance of the dissolved inorganic nutrients important to phytoplankton growth. Besides the obvious importance of this program for describing the primary production that eventually supports larval fish growth and production, this program will be making a major contribution in itself to our basic understanding of the PWS system. There has simply been very little work done in this area and this study will be a pioneering one in phytoplankton dynamics of PWS.

This DPD was delayed by the University of Alaska due to questions about potential conflict of interest because the principal investigator attended the Cordova workshop. The Department of Law determined that this was not a problem, and the DPD was then released by the University, although too late to obtain a review prior to preparation of this memo.

#### 94320-H: The Role of Zooplankton in the Prince William Sound Ecosystem

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The purpose of this project is to: (1) determine the timing, duration and magnitude of the bloom of mixed layer zooplankton stocks in western and northern PWS in the spring and summer, (2) determine how changes in vertical distribution of zooplankton affect their predators, (3) provide estimates of zooplankton abundance to calibrate the acoustic instrumentation used to locate and track swarms and patches of zooplankton in PWS, (4) determine the coupling of the phytoplankton and zooplankton blooms, and (5) provide taxonomic assistance with identification of zooplankton. The main goal of the project is to test the "River-lake" hypothesis that postulates that in years when PWS is swept continuously by buoyancy driven coastal currents during the spring plankton bloom food for juvenile fish is poor, and in years when PWS is not so swept, a "lake" year, there are better feeding conditions for juvenile pink salmon. A second and related hypothesis, "prey switching", is that certain fish that feed on zooplankton in "lake" years, when they are abundant, become predators of juvenile pink salmon instead in "river" years when zooplankton are less abundant.

# 94320-I: Confirming Food Web Dependencies in the Prince William Sound Ecosystem using Stable Isotope Tracers

The objective of this project is to use the predictable shifts in stable isotope ratios of carbon and nitrogen that occur with increasing trophic level to determine if the river-lake and prey switching hypothesis described above can be confirmed. As both of these elements are cycled further up the food chain the heavier natural isotopes (<sup>13</sup>C and <sup>15</sup>N) become relatively less abundant. Such shifts are easily measured and shifts of these isotopes in predatory fish during various types of years "river" or "lake" provide a novel way to test these hypotheses. This represents a novel application of stable isotope ratios in that such measurements, seasonal changes in food stable isotope ratios, reflected in a small measurable change of total isotope ratios against the background of carbon accumulated under different conditions.

#### 94320-J: Information Systems and Model Development

This study component is the data and information management element for all the major portions of 94320. The major objectives of this component are (1) to process the data developed by all parts of the project (including available satellite imagery), (2) integrate these data using geographic coordinates and date of collection, (3) adapt an existing computer interface for use by principal investigators for data analysis and interpretation, and (4) plan for the development of a numerical model of the Prince William Sound ecosystem in future years. This program component also includes purchase and modification of the aquashuttle sampling device for biological oceanography, and establishment of a high-speed Internet connection to Cordova for data transmission and analysis.

I have seen an example of the oceanographic computer interface to be adapted for this program (ECMOP), which will provide all investigators with the capacity to examine their data visually in time and space in a form analogous to a Geographic Information System (GIS). Data sets can be overlaid, allowing analysis of the basic hypotheses regarding the relation between oceanographic conditions and zooplankton distributions. Data sets from sequential sampling days can be "animated", developing a visual representation of changing conditions with time in the study area. The Internet connection will allow data to be quickly transferred between Fairbanks (where satellite images are downloaded), the University of Maryland, and Cordova, and will allow principal investigators in different locations to work with data stored in Cordova. I believe the data collection equipment and data analysis tools to be developed under this component will allow the principal investigators to test and refine their basic ecological hypotheses regarding factors controlling the production of Prince William Sound fisheries. I will be receiving a specific review of this component soon, and I will also been keenly focused upon the interim products to be produced under this study component. These products will be vital for developing useful information from the entire 94320 project.

While I and all of the peer reviewers at the Cordova workshop supported the testing of these "conceptual" or "descriptive" models, there are some very critical questions that must be examined before a major commitment is made to developing a complex numerical model. Such a model, if valid, would be an extremely valuable predictive tool for fisheries management. These models have been developed at many institutions around the country for oceanographic features, and a few of these models include plankton elements. However, developing a model that can use oceanographic and plankton data to predict salmon and herring returns is fraught with such unknowns and complications that there is much skepticism regarding the eventual success of such an effort. For example, these models rely upon assumptions regarding "boundary" conditions that may create enough uncertainty to limit the predictive use of the model on time scales of interest. In the current year, these efforts are limited, and the Trustees should not make a significant commitment in this regard without careful consideration of the likelihood of developing a useful product.

# 94320-K: Experimental Fry Release 94320-L: Experimental manipulation

These are fairly routine aspects of the project in that the standard approaches to aquaculture used previously will again be employed to raise fry from eggs. The juveniles will be released from the hatchery after attaining specified sizes, at certain times in relation to plankton abundance and at certain places. By releasing tagged lots and having a juvenile sampling and tag recovery component in other parts of this program it will be possible to do "natural experiments" whose outcome will point to conditions that are optimal for survival of juveniles. Since this projects was somewhat routine in nature it was not peer reviewed and no opinion is offered in relation to its value for restoration.

## 94320-M: Observational Physical Oceanography in PWS & the Gulf of Alaska

The purpose of this project is to: (1) determine the structure and variability of the climatic patterns and oceanographic features in PWS and the Gulf of Alaska, (2) determine the relationship between the atmospheric forcing and the wind and buoyancy driven ocean currents, (3) determine how currents act to disperse or retain food resources, (4) and determine the relationship between climatic and oceanographic cycles, physical features and changes in abundance of important species. The basic oceanographic process that will influence the abundance of fish food resources will be studied through charting currents and physical structure of the water in relation to biological phenomenon. In essence this provides the physical evidence for testing the "River-Lake" hypothesis. The basic measurements will be conducted with conductivity/temperature/depth measurements (CTDs), acoustic doppler current profilers (ADCPs) and chemical analyses of water samples. In addition towed vehicles with attached instruments will provide the "sections" needed to further characterize water structure. In the future the use of permanent buoys will be considered to supplement these other data gathering modes. The investigator has requested and received assurances that continuing advice from other oceanographers regarding fruitful approaches to measuring physical processes on a scale appropriate to biological resources will be made available.

#### 94320-N: An Ecosystem Research plan for PWS Nearshore Fish

The purpose of this project is to: (1) evaluate the distribution of macrozooplankton in PWS in real time in order to describe the prey field for juvenile pink salmon, and (2) describe the distribution of predators of juvenile fish in real time. This will be an integral part of the complex field studies centered around fry releases in northwestern PWS and provides an important part of the biological picture for the purposes of coordinating net sampling of predators and zooplankton. The investigator faces the challenge of ground truthing the measurements of zooplankton by hydroacoustical methods against the more conventional methods. There is considerable controversy on the ability of single-frequency hydroacoustic equipment to quantitatively measure zooplankton and this is, therefore, a challenging area on the cutting edge of biological oceanography for the investigators. Data interpretation will need to rely whenever possible on the simultaneous net and hydroacoustic data for zooplankton abundance to be convincing.

# 94320-P: Program Management

Although the SEA program originally requested sizable resources for program management it appeared to some of us that what was being requested was a whole different management structure outside the Trustee Council management process. This was viewed as duplicative. There is however, as there are with other Trustee Council sponsored projects, a need for program direction and leadership.

I believe that the management of the overall program requires strengthening by changing the way that program direction is formulated. The program was developed by consensus among a diverse group of scientists and the public, but it cannot be managed by committee. Some hard realtime decisions will undoubtedly be made during the next field season. These decisions cannot be made by consensus--that will undoubtedly paralyze the program. The open public process that lead up to the workshop is a good one and needs to continue to provide general guidance to the process, but the day to day execution of the mandate requires a single strong leader. The leadership should absolutely committed to the success of the program and we need a leader that will work untiringly towards this end.

#### 94320-Q: Avian Predation on Herring Spawn

The purpose of this study is to assess the impact of avian predation on herring spawn, with the goal of integrating this information into a model to predicts herring embryo survival. Better information regarding factors influencing the mortality of herring eggs should improve our ability to predict the spawning biomass of herring in Prince William Sound. The investigators will use avian census techniques to compare bird densities at sites of low and high density of egg deposition in different habitat types. Predator exclusion techniques will attempt to quantify predation from different sources. In this first year, the project will be limited to herring spawning sites along the northeastern shore of Montague Island.

Review of this DPD has greatly strengthened the experimental design. Proposals to collect lipid samples in an effort to determine the energetic importance of herring spawn has been eliminated, and the principal investigator is pursuing suggestions to provide samples to the stable isotope component (see below) if feasible. The proposal to collect seabirds for dietary analysis has been removed in favor of netting the birds and using regurgitation techniques to examine diet. In practice, it may be difficult to quantify bird predation as separate from predation by small fishes or invertebrates using exclosures. If the Trustee Council does not expand Project 94320 in future years to include pacific herring, the full value of the avian predation study will not be realized. This project is well integrated with the Herring Spawn Deposition and Egg Loss Survey (Project 94166).

# Exxon Valdez Oil Spill Trustee Council

13.2.3

EXXON VALDEZ OIL SPILL

TRUSTEE COUNCIL

ADMINISTRATIVE RECORD

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

# MEMORANDUM

TO: Trustee Council Members

FROM: James R. Ayers Executive Director

DATE: April 7, 1994

RE: Small parcel protection process

On January 31, 1994 the Trustee Council adopted a resolution in conjunction with Projects 94110 and 94126 for Habitat Protection and Acquisition. Number 7 of that resolution says that

Small parcel negotiations will proceed once an evaluation and ranking of small parcels has been completed and approved by the Trustee Council.

Staff have been working on development of a small parcel protection process, as well as a timeline for the activities involved in that process. Attached you will find a graphic description of the process that has been recommended by agency staff. The process will begin with a joint, simultaneous agency/landowner request for nominations. This request will include information to assist the public in developing its nominations and will be coordinated with the Trustee Council public solicitation for FY95 Work Plan projects. Once the nomination process is closed, agency and Trustee staff will review, evaluate, and rank parcels according to established criteria. A ranked list of parcels would be distributed for public comment, with a final list to be submitted to the Trustee Council.

The threshold and evaluation criteria are close to completion, although there still remain some minor revisions. The expected budget and timeline for completion of the small parcel process depend in large part upon the number of parcels that are eventually nominated, the scope of the evaluation process, and the number of other work duties assigned to the staff. It is estimated that this process could be completed in early 1995, and possibly before.



13.2.3A



Administrative Restructuring Re:

TRUSTEE COUNCIL ADMINISTRATIVE RECORD

This is to update you on my activities in streamlining the Trustee Council staff, reducing costs, and improving the overall efficiency of Trustee Council activities. As I committed during the Nov. 30 Council meeting, I have developed an overall administration budget that reflects 20% in reductions, from approximately \$5.6 million down to \$4.2 million for FFY94. plus \$280,000 for the Oil Spill Public information Center (OSPIC). The OSPIC is now shown as a separate project for future reference (Project Number 94423). By reducing staff and transferring the old CACI positions to the State of Alaska system, I was able to reduce the costs of the OSPIC from approximately \$350,000 in operating expenses and \$48,000 in rent to about \$280,000 a year for both! This is a significant savings, which I believe will allow us to give closer attention to the goals and objectives we wish to achieve with the OSPIC. I have copies of both the OSPIC budget and the revised Administration budget for your information.

Attached is the organization chart I presented you in November. Since that time, I have hired the Director of Operations, Molly McCammon, and the Director of Administration, June Sinclair, as well as the Project Management Coordinator, Eric Myers. I have also reorganized the support staff and transferred them from the CACI contract to the state system, at a substantial cost savings. The CACI contract has been canceled, effective January 31, 1994. I have no plans at this time to hire a Special Assistant or the Habitat and Lands Coordinator. My staff and I are continuing to seek improved efficiencies to both better serve the public and reduce our administrative costs.

Prior Budget	Bevised Budget
Admin. \$5.6M	\$4.2M
OSPIC .35M (includ	ied) +.28M
\$5.6M	\$4.48M

**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



Notes: 1. This structure provides efficient management of the Council business at reduced costs.

2. Secretarial and administrative staff will be developed as needed within the budget .

3. There will be a transition period as we implement a formal management and tracking system.

Items listed below directors are functions except Corrdinators and fiscal.