11.6.4

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

To: Trustee Council Members

From: Molly McCammon
Executive Director

Date: May 25, 1995

Re: Briefing Materials for June 1, 1995 Meeting

In preparation for the June 1 meeting in Cordova, I have enclosed the agenda, briefing materials, and several other informational items. This memo and the enclosures constitute your briefing packet for the June 1 meeting. If you have any questions on these items, please don't hesitate to contact me.

1. Meeting Notes. The draft meeting notes for the March 31 meeting are enclosed.

2. Financial Report. Enclosed are the financial statements as of April 30, 1995, as well as the Quarterly Financial Reports as of March 31, 1995.

3. Project Status Report. Enclosed are the status reports of FY92, 93, 94 and 95 projects as of March 31, 1995.

4. FY96 Work Plan and Long Range Restoration Program. Enclosed is a timeline graphic describing the development of a draft FY96 Work Plan. This will be further discussed at the Cordova meeting.

5. Habitat Protection. Included is a written report on the status of the Small Parcel Program. I will be providing a verbal report in Cordova on the Large Parcel Program reflecting the most current information.

6. Alaska SeaLife Center. Included for your information is a status report from Project Coordinator Kim Sundberg. Groundbreaking ceremonies took place on May 21, 1995.

7. Public Advisory Group Reports. Included for your information are reports of the PAG meetings held on March 23 - 24 and April 20 - 21 and an informal work session on May 15, 1995. PAG Chair Vern McCorkle will be at the Cordova meeting to present a report to the Council.

8. Fleming Spit. Enclosed is the most recent description of this project. This proposal was before the Council on November 2, 1994 and December 2, 1995, and deferred both times pending further review. The project is still being reviewed by the Department of Justice.

9. Technical Budget Amendments. There are two technical budget amendments for Council approval. The first is to transfer funds from the Lowe River project (95139C-2), which is on hold pending further data collection, to the Port Dick Spawning Channel (95139A-1). The Port Dick project has been revised since it first came before the Council two years ago, and now has the support of the Chief Scientist and ADF&G. It is currently being reviewed by the Department of Justice. The second transfer of funds is between two components of the SEA program and reflects a consolidation of vessel charter needs for that project.

   No new funds are required for either of these actions.

10. Port Dick. Enclosed is background material on this project, including the project description, Dr. Spies' review, and ADF&G's response on harvest management.

11. Correspondence. Enclosed are copies of recent correspondence received by the Trustee Council on various topics.

12. Cordova Issues. Enclosed are copies of various background materials on issues that are of importance to Cordova residents:

    - the most recent version of the Prince William Sound Aquaculture Corporation proposal (95093) and ADF&G correspondence regarding that proposal;

    - Dr. Spies' reviews of the SEA program; and

    - the proposal submitted by the Prince William Sound Science Center for expansion of their facilities. The Alaska Legislature recently appropriated $300,000 for planning for this effort.

mm/raw

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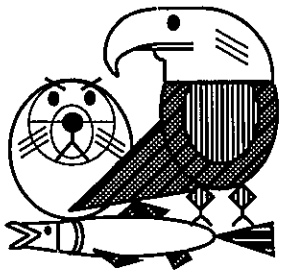

DRAFT

AGENDA
EXXON VALDEZ OIL SPILL SETTLEMENT
TRUSTEE COUNCIL
JUNE 1, 1995 @ 1:00 P.M. -- CORDOVA
Mt. Eccles Auditorium

5/25/95
10:20 am

DRAFT

Trustee Council Members:

BRUCE BOTELHO/CRAIG TILLERY
Attorney General/Trustee
State of Alaska/Representative

GENE BURDEN/MICHELE BROWN
Commissioner/Trustee Representative
Alaska Department of Environmental Conservation

GEORGE T. FRAMPTON, JR./DEBORAH WILLIAMS
Assistant Secretary/Trustee Representative for Fish & Wildlife & Parks
U.S. Department of the Interior

PHIL JANIK
Regional Forester, Alaska Region
U.S. Department of Agriculture Forest Service

STEVE PENNOYER
Director, Alaska Region
National Marine Fisheries Service

FRANK RUE
Commissioner
Alaska Department of Fish & Game

1. Call to Order 1:00 p.m.
   - Approval of Agenda
   - Approval of March 31, 1995 meeting notes.

2. Executive Director's Report - Molly McCammon
   - Financial Report
   - Status of Audit and Investments
   - FY96 Work Plan and Long Range Restoration Program
   - Habitat Protection Status Report
     - Large Parcels
     - Small Parcels
   - Alaska SeaLife Center Status Report

3. Public Advisory Group Report - Vern McCorkle, Chair

4. Public Hearing 2:00 p.m.

DRAFT

5. Fleming Spit, Project 95080

6. Technical Amendments to FY95 Budgets

Adjourn

raw

Exxon Valdez Oil Spill Trustee Council

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

MEMORANDUM

TO: Molly McCammon

FROM: Traci Cramer
Administrative Officer

DATE: May 23, 1995

RE: FFY 1995 Budget Amendments

Based on communication from the Alaska Department of Fish and Game, the following amendments to the Federal Fiscal Year 1995 budget require consideration by the Trustee Council.

Transfers Between Trustee Projects

No.	Title	Amount
95139A1	Salmon Instream Habitat and Stock Restoration - Port Dick Spawning Channel	$37,000

Comments - Funding is requested in FFY 1995 to continue data collection efforts and prepare the Environmental Assessment for the Port Dick Spawning Channel. The agency has requested $223,100 to construction the spawning channel in FFY 1996. Trustee Council action on the FFY 1996 request will be sought in August. After Trustee Council action, the FFY 1995 Authorization will be $37,000.

No.	Title	Amount
95139C2	Salmon Instream Habitat and Stock Restoration - Lowe River	($37,000)

Comments - The Draft Environmental Assessment has been produced and comments in response revealed that some original planning assumptions may be flawed. Additional data collection will be required before this project or a similar project in the Lowe River drainage can proceed. Since construction of the spawning channel cannot proceed as originally intended, funding is available for transfer to the Port Dick Spawning Channel. This is the second amendment affecting the Lowe River project, after Trustee Council action, the FFY 1995 Revised Authorization will be $108,100.

No.	Title	Amount
95320E	Pink Salmon and Herring Predators	($40,000)

Comments - The proposed request would transfer vessel charter needs associated with the SEA program and required for implementation of the Prince William Sound Science Center portions. After Trustee Council action, the FFY 1995 Revised Authorization will be $903,100.

No.	Title	Amount
95320M	Physical Oceanography	$40,000

Comments - The transfer represents the consolidation of vessel charter needs associated with the SEA program and required for implementation of the Prince William Sound Science Center portions. After Trustee Council action, the FFY 1995 Revised Authorization will be $617,800.

cc: Eric Myers
Joe Sullivan, ADF&G

Habitat Protection Process; Large Parcel Status Summary

Landowner/Parcel (* High Value Parcels)	Region	Acreage	Estate Purchased	Purchase Price (M)	Joint Trust $	YR Due*	Other Sources	Managing Agency	TC Reso.	Closing	Notes	Action Required: Exec. Dir.	T.C.	Nego. Agency	L.O.
Seldovia Native Association	KEN								Yes	Yes					
Inholdings w/in Kachemak Bay St. Pk.		23,800	Fee	$22,000.0	$7,500.0	93	$14,500.0	DNR	12/11/92	8/27/93	Transaction Complete				
Imminent Threat															
Total		23,800		$22,000.0	$7,500.0		$14,500.0								
Seal Bay	KOD/Afog			$38,700.1	$29,950.0	93	none	DNR	Yes	Yes	Payment schedule does not reflect accrued interest due at time of payment.				
Seal Bay KAP 01		17,166	Fee		$2,916.7	94			6/25/93	11/23/93					
Tonki Cape		24,383	Fee		$2,916.7	95									
Imminent Threat					$2,916.7	96									
Total		41,549		$38,700.1	$38,700.1										
Eyak	PWS								Yes					Closing	
Orca Narrows Subparcel		2,052	Commercial	$3,450.0	$3,450.0	95		USFS	5/31/93	1/13/95	Eyak accepted TC offer 12/31/94.				
Imminent Threat			timber rights								Trustee Council authorized add'l funds 1/5/95.				
Total		2,052		$3,450.0	$3,450.0						Transaction Complete				
Total Imminent Threat		**67,401**		**$64,150.1**											
Afognak Joint Venture	KOD/Afog			FMV + 20%	20% closing	95	none	State	Yes		No commercial use of the land (including timber harvest) except that which may be consistent with the goals of restoration. Public uses to include sport and subsistence hunting, fishing, trapping and recreation. Nego continue on AJV 01b, 02, 04 and subsurface.		Authorization for funding may be withdrawn by giving 30 day notice to AJV.	Hazmat NEPA Develop language satisfactory to DOJ & DOL to implement enforcement provisions.	
AJV 01a, Shuyak Strait*		19,500	Fee	≤ $70M	5%	96			12/2/94						
AJV 03 Laura/Paul's Lake*		13,400	Fee	Offer is open for 60 days following completion of final approved appraisal.	15%	97									
AJV 07 East Tonki Bay		2,500	Fee		15%	98									
AJV 08, West Tonki Bay		13,328	Fee		15%	99									
					15%	2000									
					15%	2001									
Total		48,728		≤ $70,000.0											
Akhiok Kaguyak	KOD			$46,000.0	$13,000.0	Closing	$10,000.0	USFWS	Yes	Yes	Exchange of lands will be on a value for value basis w/ such lands subject to the conservation easement.				
AKI 01 Kaiugnak Bay, 02 Kiavak Bay, 04a & 04b Aliulik Peninsula*, 05 Sulua/Portage Bays, 06a & 06b & 06c North Olga Bay*		76,646	Fee		$8,000.0	95			11/2/94	5/25/95	Purchase agreement signed May 23, 1995. Closing May 25, 1995				
AKI 03 Kaguyak Bay,07a & 07b Olga Bay Narrows, 08 Upper Station Lakes*		43,239	Conservation Easement		$7,500.0	96									
AKI 03 Kaguyak Bay, 07b/to be identified		n/a	Exchange		$7,500.0	97									
Total		119,885		$46,000.0	$36,000.0		$10,000.0								

** Payments due after September 15 of the year indicated; either 9/30 or 10/1*

≤ indicates less than or equal to - not to exceed.

DRAFT

5/30/95

Habitat Protection Process; Large Parcel Status Summary

Landowner/Parcel (* High Value Parcels)	Region	Acreage	Estate Purchased	Purchase Price (M)	Joint Trust $	YR Due*	Other Sources	Managing Agency	TC Reso.	Closing	Notes	Action Required: Exec. Dir.	T.C.	Nego. Agency	L.O.
Chenega	**PWS**			FMV + 20% ≤ $48M	20% closing	95	≤ $10M		**Yes**		Development of language satisfactory to DOJ & DOL to implement enforceable conservation easement required.		Authorization for funding may be withdrawn by giving 30 day notice to Chenega.	Congressional notification to extent necessary.	Shareholder approval
CHE 01 Eshamy Bay*		7,900	Fee	Offer is open for 60 days following completion of final approved appraisal.	5%	96									
					15%	97			12/2/94						No development
CHE 02 Jackpot Bay*		12,100	Fee		15%	98								Preparation of conservation easements	
CHE 03 Granite/Ewan/Paddy Bays, CHE 04 NW Chenega Island, CHE 07 NE Whale Bay, CHE 08 Flemming Island, CHE 10 Sleepy Bay, CHE 11 Pleiades Islands, CHE 06 S Knight Island		54,554	Conservation Easement including Timber Rights and public access.		15%	99		US						Develop language satisfactory to DOJ & DOL to implement enforcement provisions.	
CHE 05 SE Chenega Island(southern portion)			Conservation Easement including Timber Rights, limited public access		15%	2000									
CHE 09 Evans Island		clarify			15%	2001		US							
Total		74,554		≤ $48,000.0	≤ $38M		≤ $10M							NEPA	
English Bay	**KEN**							NPS			T.C. authorized continued negotiations with English Bay Corporation for lands within Kenai Fjords National Park and other additional parcels at 12/2/94 meeting.				
ENB 06 James Lagoon*, ENB 02 Harris Peninsula, ENB 03 North Arm Nuka Bay, ENB 04 Paguna/Taroka/Thunder Bays, ENB 05 McArthur Pass, ENB 07 Beauty Bay (All ENB parcels w/in Kenai Fjords NP)		33,500	Fee												
ENB 08 Port Chatham		15,800						State							
Total		49,300													
Eyak	**PWS**							USFS	**Yes**		Easement in perpetuity, on Orca Revised, is subject to terms and conditions as negotiated and determined by parties involved and Trustee Council. Easement will address development on Orca Revised only to the extent compatible with restoration of injured resources and services and shall include the right to public access.			Final Approved Appraisal	Shareholder Approval
Alternative 1:														Title Search	
Orca Revised: EYA 12 Rude River, EYA 13 Orca Narrows, EYA 07 East Simpson Bay		14,800	Timber Rights, public access		20%	Closing			12/2/94					Congressional notification to extent necessary.	
EYA 11 Core Parcels: EYA 08 Power Creek, 09 Eyak Lake, 10 Eyak River		13,700	Fee	FMV + 20% ≤ $50 M	5%	96									
Remaining Eyak Lands, EYA 02 Sheep Bay*, EYA 03 Windy Bay*, EYA 01 Port Gravina*, EYA 04 Canoe Passage, EYA 05 Outer Sheep Bay, EYA 06 West Simpson Bay			5 Year timber moratorium	No additional cost to Trustee Council	15%	97								Develop language satisfactory to DOJ & DOL to implement enforcement provisions.	
					15%	98									
					15%	99									
					15%	2000									
					15%	01									
Total		28,500												Hazmat	
Alternative 2: Core Parcels Only as described above		13,700	Fee	FMV + 20% ≤ $21M										NEPA	
Total		13,700		≤ $21,000.0											

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Habitat Protection Process; Large Parcel Status Summary

Landowner/Parcel (* High Value Parcels)	Region	Acreage	Estate Purchased	Purchase Price (M)	Joint Trust $	YR Due*	Other Sources	Managing Agency	TC Reso.	Closing	Notes	Action Required: Exec. Dir.	Action Required: T.C.	Action Required: Nego. Agency	L.O.
Kodiak Island Borough	**KOD/Afog**				20% closing	95		DNR	**Yes**		No commercial use of the land (including timber harvest) except that which may be consistent with the goals of restoration. Public uses to include sport and subsistence hunting, fishing, trapping and recreation. Funds must be provided w/in 8 months of execution of purchase agreement or KIB has the option to withdraw from the deal.			Develop language satisfactory to DOJ & DOL to implement enforcement provisions.	Title Search
KIB 01, Shuyak Island*		25,665	Fee	FMV + 20%	5%	96			12/2/94						Provision for Fish Tech Ctr.
				≤42M	15%	97									Natural Use
					15%	98									Zoning enacted.
					15%	99									Interim mgmt as in Shuyak St. Pk..
					15%	2000									
					15%	2001									
Total		25,665		≤ $42,000.0										Hazmat	
														NEPA	
Koniag	**KOD**			$28,500.0	$3,000.0	Closing	7,000.00		**Yes**		Unamortized amounts for the easement will be applied to any subsequent purchase.			Dev. process for making weir sites etc. avail to State @ no cost.	
Alternative 1:									12/2/94						Shareholder approval
Kon 01*, 02*, 03, 05, 06a		59,691	Fee	$26,500.0	$5,000.0	95									
Sturgeon and Karluk Rivers, KON 02 W-2, KON 04*, KON 06b, K Parcel amortized over 7 years.		56,048	7 Yr. Non development Conservation Easement	$2,000.0	$4,500.0	96						Approve conservation easement.			
			No public access		$4,500.0	97						Maintain un-obligated funds $16.5M		Develop language satisfactory to DOJ & DOL to implement enforcement provisions.	
Total		115,739		$28,500.0	$4,500.0	98									
Set Aside for Future Purchase of Easement Lands				$16,500.0											
Total Compensation w/ Set Aside				$45,000.0	$21,500.0		$7,000.0								
Alternative 2: All holdings identified above.											Requires a letter of intent w/in 120 days or $4.75M lapses.	Yes		DOJ approval as	
KON 01 Brown's Lagoon*		8,090	Fee	$51,750.0	$3,000.0	Closing.	$9,000.0					12/2/94		necessary.	
KON 02 Uyak Bay* (portions of)		6,897	Fee	$4.75M requires letter of intent w/in 120 days.	$6,000.0	95					Any conveyance in fee will require an access easement for residents of Larsen Bay and Karluk to engage in subsistence activities as permitted by law.			Title Search	
KON 03 Larsen Bay		16,110	Fee		$6,000.0	96								Survey	
KON 04 Karluk River *		36,865	Fee		$6,000.0	97								Hazmat	
KON 05 Halibut Bay		24,112	Fee		$6,000.0	98								NEPA	
KON 06 Sturgeon River		22,536	Fee		$6,000.0	99								Congressional	
K Parcel		1,129	Fee		$5,000.0	2000								Review	
					$4,750.0	2001									
Total		115,739		$51,750.0	$42,750.0		$9,000.0								
Old Harbor	**KOD**			$14,500.0	$4,000.0	94	$3,250.0	USFWS	**Yes**	**Yes**	Old Harbor will relinquish their remaining entitlement within the Kodiak Refuge up to 4,433 acres. Purchase agreement signed May 23, 1995. Closing May 25, 1995				
OLD 1 Kiliuda Bay, OLD 02 Sitkalidak Strait, OLD 03 Midway Bay (partial), OLD 04 Barling Bay (partial), OLD 05 Three Saints Bay		29,000	Fee		$7,250.0	95			11/2/94	5/25/95					
OLD 03 Barling Bay and OLD 04 Midway Bay (partial)		3,000	Conservation Easement	Donation											
OLD Selections in Refuge		see notes													
Additional small islands		100	Fee												
Sitkalidak Island		Unspecified	Exchange/ Conservation Easement												
Total		32,100		$14,500.0	$11,250.0		$3,250.0								

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Habitat Protection Process; Large Parcel Status Summary

Landowner/Parcel (* High Value Parcels)	Region	Acreage	Estate Purchased	Purchase Price (M)	Joint Trust $	YR Due*	Other Sources	Managing Agency	TC Reso.	Closing	Notes	Action Required: Exec. Dir.	T.C.	Nego. Agency	L.O.
Port Graham	KEN							NPS			T.C. authorized continued negotiations with Port Graham Corporation for lands within Kenai Fjords National Park and other additional parcels at 12/2/94 meeting.				
PTG 05, Delight Desire Creeks, PTG 01, 02 and other holdings w/in Kenai Fjords NP		46,170	Fee and Unspecified partial interest												
Total		46,170													
Tatitlek	PWS								Yes		No commercial use of the land (including timber harvest) except that which may be consistent with the goals of restoration. Public uses to include sport and subsistence hunting, fishing, trapping and recreation.		Offer may be w/drawn by T.C. by giving 30 days notice to TAT.	Develop language satisfactory to DOJ & DOL to implement enforcement provisions.	Shareholder Approval
TAT 02 Sawmill Bay		1,521	Fee	FMV + 20%	20% closing	95	≤ $10M	State	12/2/94						No further timber harvesting or road development except that provided for under existing contract.
TAT 03 Columbia Bay (Emerald Bay)		477	Fee	≤ $22M	5%	96		State							
TAT 03 Columbia Bay (Heather Bay)		1,719	Easement	Offer open for 30 days after final approved appraisal.	15%	97		US							
TAT 04 Galena Bay (subparcel)		1,685	Fee		15%	98		State							
		7,758	Cons. Easement		15%	99		US							
TAT 01 Bligh Island* (Bligh, Busby, &Reef Is.)		8,853	Cons. Easement		15%	2000		US (Busby Island State)							
TAT 07 Two Moon Bay (Hells Hole)		6,325	Fee		15%	2001		US							
TAT 07 Two Moon Bay (Port Fidalgo)		844	Cons. Easement					State						Hazmat	
TAT 07 (Snug Corner Cove, Two Moon Bay, Goose Island)		23,177	Conservation Easement					US						NEPA	
TAT 06 Pt. Fidalgo Subparcel (Sunny Bay)		2,445	Cons. Easement					US						Title Search	
TAT 06 Pt. Fidalgo Subparcel (Whalen Bay)		1,981	Fee, subj. to existing rights incl. timber contract	44,796 ac con. easement 11,989 ac fee				US						Congressional notification to extent necessary.	
Total		56,785		≤ $22,000.0	≤ $12M		≤ $10M								
Total Large Parcel		597,426													

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PRINCE WILLIAM SOUND AQUACULTURE CORPORATION

RESOLUTION 95 - 2EC

FLEMING SPIT PROJECT #95080

WHEREAS, it is the mission of the Prince William Sound Aquaculture Corporation to provide salmon for the benefit of all user groups in Prince William Sound, and

WHEREAS, since 1990, PWSAC has assumed from ADF&G the responsibility for releasing chinook and coho smolt at Fleming Spit for the enjoyment of recreational fishermen and the community of Cordova.

THEREFORE BE IT RESOLVED, that the Prince William Sound Aquaculture Corporation hereby supports *EVOS* Trustee Council project #95080 to restore and improve salmon fishing opportunities in the Fleming Spit area.

CERTIFICATION

I HEREBY CERTIFY, that I am the duly elected, qualified and acting Secretary of the Prince William Sound Aquaculture Corporation, an Alaska corporation; that the foregoing is a full, true and correct copy of a resolution duly and legally adopted at a regular meeting of the Board of Directors Executive Committee on May 24, 1995 at which a quorum was present, and that such resolution is now in full force and effect and duly recorded in the minutes of said Board of Directors.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed the seal of the Corporation this 24th day of May, 1995.

Edward Jeune

Secretary

Corporate Office • Post Office Box 1110 • Cordova, Alaska 99574-1110
phone: 907/424-7511 * fax: 907/424-7514

TENTATIVE AGENDA
CORDOVA TRIP
EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL
JUNE 1-2, 1995
(as of May 22, 1995)

DRAFT

June 1

a.m.	Fly to Cordova. Flight from Anchorage arrives at approximately 7:50 a.m. Flight from Juneau arrives at approximately 11:54 a.m.
1:00 p.m. - 5:00 p.m.	Trustee Council meeting at Mt. Eccles Elementary School auditorium.
5:30 - 6:30	Presentation at Prince William Sound Science Center, reception.
7:00 -	Dinner at Reluctant Fisherman with Mayor Margy Johnson and other Cordovans.
NOTE:	**You should make your own hotel reservations at the Reluctant Fisherman.**

June 2

8:00 a.m.	Leave Cordova, 2 planes: 1 beaver based out of Cordova (5 people) that will return to Cordova in time to catch the Cordova to Juneau flight at 4:00 p.m. 1 otter out of Anchorage that will return directly to Anchorage (8 - 10 people). Fly over Eyak lands, Montague Island, Chugach Alaska Corporation lands, Tatitlek lands, Chenega lands. Possible break at Green Island cabin.
12 noon	Lunch at Wally Nurenberg hatchery on Esther Island. View otolith marking project. It is possible SEA research vessel *Alaska Beauty* will be there. Stay 2 hours?
DRAFT	Beaver returns to Cordova for 3:30 p.m. flight to Juneau. Otter returns to Anchorage.

Please respond to Eric Myers or Tami Yockey (278-8012) for further information regarding the June 2 arrangements.

Focus on Your World. Enter the UNEP International Photographic Competition on the Environment 1994-1995.
Your photographs will show the world the beauty of our planet and the danger that it faces. Call 1-800-670-4321 for an entry form.

5/28

Dear Trustees,

As longtime residents of The Seward Area, The quality of life There is of utmost importance to us. Living on the ocean and not having access to it would greatly diminish that quality of life. Lowell Point Beach has for generations provided a unique environment + access point for residents + visitors alike that wish to enjoy The beautiful ocean beaches That are rapidly being developed + restricted elsewhere on Resurrection Bay whether it is salmon fishing, beachcombing, school group tideland studies, boat launching or just simply enjoying an hour or two at the beach - Lowell Point is a precious treasure That needs to be preserved. Please strongly consider purchasing 70 acres of Tidelands + uplands for AK State Parks in order to preserve this important access for future generations to enjoy. Thank you

Exxon Valdez Trustee Council
645 G Street
Anchorage, AK 99501

RECEIVED
MAY
EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL

Amateur Division: David Allan, U.S.A., Honorable Mention. Organized by UNEP(United Nations Environment Programme)
UNEP International Photographic Competition on the Environment 1994-1995. Sponsored by Canon Inc. Printed on recycled paper.

Focus on Your World. Enter the UNEP International Photographic Competition on the Environment 1994-1995.
Your photographs will show the world the beauty of our planet and the danger that it faces. Call 1-800-670-4321 for an entry form.

Dear Trustee Council -

I am compelled to write and express my strong concerns over the Seward Lowell Point public access issue. Please seriously consider purchasing land for public use to guarantee the beautiful beach for my children and generations to come. We love to beach comb fish walk + enjoy the

Respectfully - Teresa L. Johnson Seward - AK

Exxon Valdez Trustee Council
645 G Street
Anchorage, AK 99501

RECEIVED
MAY
EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL

Amateur Division: Dieter Arndt, Canada, Honorable Mention. Organized by UNEP(United Nations Environment Programme)
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Focus on Your World. Enter the UNEP International Photographic Competition on the Environment 1994-1995.
Your photographs will show the world the beauty of our planet and the danger that it faces. Call 1-800-670-4321 for an entry form.

I support the Lowell Point Beach project.

Please support this expense with EVOS funds.

Exxon Valdez Trustee Council
645 G Street
Anchorage, AK 99501

RECEIVED
MAY
EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL

PHONE COMMENT LOG

Name	Affiliation	Phone	Address
Eileen Shultz	Concerned Citizen		P.O. Box 202303 Anchorage, AK 99520

Add to mailing list? Yes X No ____ Newsletters only Y Technical Docs + ____

Date of call: May 30, 1995 Comment taker: CJ Evans

Subject of comments: Eyak Lands

Comments:

Please use the moneys to protect habitat. Does not want to see the Eyak Lands clearcut, but she does want the Natives to retain ownership of the land. Please buy timber rights.

Cordova Sporting Club

P.O. Box 2056
Cordova, Alaska 99574
(907) 424-3246 FAX (907) 424-3245

May 23,1995

Exxon Valdez Oil Spill Trustees Council
Restoration Office
645 G Street, Suite 401
Anchorage, Alaska 99501-3451
Re: Fleming Spit Project

Dear Trustees,

We have been informed that you plan to meet here in June. We welcome you, hope you enjoy your stay, and hope that you can make some time to view our beautiful surroundings. We especially invite all of you to visit the Fleming Spit area. This year's smolt will be arriving on the First of June and placed in the net pens. We could arrange for you to view or participate in feeding them. Word is that there are already king salmon being caught at the Spit. We could arrange some borrowed tackle and could lead you to a license vendor if any of you are interested. High tide is the best time to fish. The high tides are at 4:36pm on Thursday, June 1, and 5:15pm on Friday, June 2, if you wish to arrange your agenda to take advantage of this opportunity. Those will be the best times to view people utilizing the resource, and some will be benefiting from the fruits of our labors.

Every year at this time anglers flock to the spit to try their luck. During this time the members of the Sporting Club get to witness the enjoyment that these people receive. We hear it in the screams of delight on a hookup, or the frantic cries of help from a young angler who has hooked too much for him or her to handle. We see it while viewing someone netting the fish of a stranger, or someone lending a lure to someone who just lost their last one. We laugh at the inventive ways that different people have of dispatching their fish. We marvel when small children find the most interesting stuff under a rock while mom is yelling for someone to please get the net. Our hearts break along with the line when the fish wins. We applaud when a young angler proudly tries to lift his or her first catch. We smile because we know we had a big part in bringing all of this about.

We ask that you help us continue this legacy. The improvements that we are asking you to help us build will benefit not only the people, but all of the surrounding area. A deeper pond will protect its natural inhabitants from predators. The fishing boardwalk will protect the people from the environment and the environment from the people. An alternate place to fish will draw people away from the runs of wild stocks that are threatened by increased pressure every year.

I will be available at the above numbers to answer any further questions or to fulfill any further requests that you may have. We do not envy you your tasks. Please contact me with your concerns so I can forward them to the rest of the club and provide you with answers or information. Thank you.

Sincerely,

David A. O'Brien, President

STATE OF ALASKA
DEPARTMENT OF FISH AND GAME
OFFICE OF THE COMMISSIONER

TONY KNOWLES, GOVERNOR

P.O. BOX 25526
JUNEAU, ALASKA 99802-5526
PHONE: (907) 465-4100

May 31, 1995

Molly McCammon
Executive Director
Exxon Valdez Oil Spill Restoration Office
645 G Street, Suite 401
Anchorage, AK 99501

Dear Ms. McCammon:

The Alaska Department of Fish and Game requests that two parcels be given special merit consideration in Phase II of the Comprehensive Habitat Protection Small Parcel Evaluation and Ranking. KEN 1006 (Girves property Kenai River) and KEN 1009 (Cooper property Ninilchik River) have unique management values and provide important restoration benefits for injured species and services.

Girves Property: Located near mile 19 of the Kenai River, this 110-acre parcel is situated just outside the City of Soldotna across the river from two heavily used state recreation sites--Centennial Campground and Slikok Creek State Recreation Area. The parcel provides key habitat for injured and replacement species including chinook salmon, coho salmon, pink salmon, and Dolly Varden. High levels of trespass recreational use occur from sportfishermen who access the property by boat. Acquisition of the parcel would enhance recreation by providing additional public land for fishing and other recreational uses. At the same time, recreational amenities such as boardwalks and floating docks could be installed that would protect streambank vegetation for fish.

Cooper Property: This 30-acre parcel is located on the Ninilchik River, approximately two miles upstream of the mouth. The Ninilchik River flows through the middle of the parcel and most of the property is classified as riparian habitat. Protecting riparian habitat benefits salmon and other fish that use this drainage, including pink salmon and Dolly Varden, two species that

were injured in the Exxon Valdez oil spill. Recreational sport fishing, which currently occurs in trespass on the parcel, would be protected and could easily be enhanced by providing better access to the river.

Sincerely,

Frank Rue
Commissioner

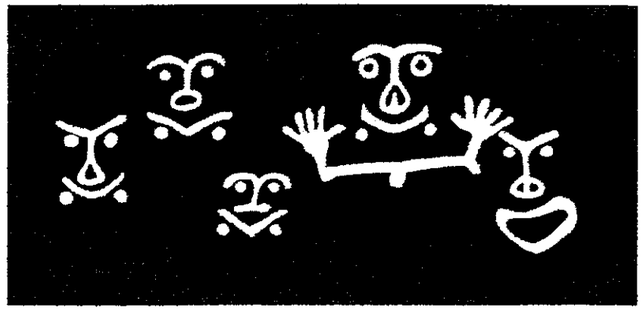
cc: Ellen Fritts
Lance Trasky
Mark Kuwada

Kodiak's Alutiiq Museum Opens

The Alutiiq Museum and Archaeological Repository officially opened to the public on Saturday, May 13. Opening ceremonies marked completion of the Alutiiq Center, which houses the museum and repository on the first floor and office suites for Natives of Kodiak Inc. and Afognak Native Corporation on the second floor.

"The Trustee Council is pleased to have played a role in the creation of this facility," Craig Tillery, Assistant Alaska Attorney General said at the ceremonies. "The Trustees thank the people of Kodiak for working with us on this project. This Center will help to achieve an important restoration objective by providing the means to preserve and protect cultural resources injured by the 1989 oil spill."

Construction of the Archaeological Repository was partially funded with $1.5 million from the *Exxon Valdez* oil spill settlement funds. The regional and village Native corporations of Kodiak and the Kodiak Area Native Association jointly formed the Alutiiq Heritage Foundation to oversee operations of the center.



When designing the Alutiiq Museum and Archaeological Repository's logo, the staff incorporated figures which resemble several 1,000-year old petroglyphs found near a "Kachemak tradition" village site on Cape Alitak.

The museum will house and display artifacts, ethnographic pieces and archival collections from the Alutiiq culture in a facility with appropriate climate control and security features. The first exhibit on display at the museum is *Crossroads Alaska*, a collection of Native artifacts from Alaska and Siberia. Artifacts found during Kodiak archaeological excavations, including projects funded by the Trustee Council, will also be on display.

For more information about the Alutiiq Museum, call Rick Knecht at 907/486-7004.

Exxon Valdez Oil Spill Trustee Council
645 G St., Suite 401
Anchorage, AK 99501-3451

Exxon Valdez Oil Spill Trustee Council

Restoration Update

May 1995 Vol 2 No. 2

Preliminary results: PWS Herring Still In Decline

Cordova observers reported sightings of Pacific herring spawning in Prince William Sound during the last weeks of April. However, for the third year in a row, no commercial seine fishing for herring was allowed.

Alaska Department of Fish and Game staff from the Cordova office noted that the decline in herring biomass, although serious, was not as drastic as some feared, and may suggest moderately successful commercial harvests will be possible in future years.

Pathologists also noted the presence of lesions on some herring, which suggests that the *Ichthyophonus* virus is still present. More information on the source of the lesions will become available as analyses are completed as part of Project 95320S.

Although spawning fish were observed in more areas, the total biomass seems to be less than last year, according to John Wilcock of the Cordova Fish and Game Office.

"This year it looked like the largest accumulation of fish were near Montague Island," Wilcock said. "The preliminary estimate from sonar data was 10,000 tons, just in Rocky Bay, compared to last year's estimate of 20,000 tons of herring throughout the sound.

"This year we saw herring spawn on ten miles of beach in parts of the sound where spawning did not occur last year, but they were more spread out. Though there were at least some thousands of tons in other parts of the sound, by far the largest aggregation of herring we've seen this year from the air or on the water was at Montague."

Herring are an important element in the food chain of the Gulf of Alaska marine ecosystem. Seabirds and marine mammals rely on herring and other forage fish as part of their diets. Understanding the herring declines of recent years is an especially challenging restoration problem.

"The trouble with herring is their variability," Wilcock said. "Whatever generalization you can make for herring, the next time you look at them they will do just the opposite."

The Trustee Council is supporting research on herring through several different projects, including the Sound Ecosystem Assessment, an ecosystem-based examination of environmental factors that may be constraining recovery of pink salmon and herring, and a project being conducted by researchers at the National Marine Fisheries Service laboratory in Auke Bay to investigate the effects of oil on herring genetics.

Divers were in the field in early May conducting spawn deposition biomass surveys to provide a better estimate of how many fish are actually spawning. Wilcock said results of that data collection will be available in August.

For more information on Trustee Council herring studies, contact Joe Sullivan at 907/267-2213.

Calendar

June 1 • Trustee Council meeting in Cordova, 1 PM at Mt. Eccles Elementary School Auditorium.

June 13 & 14 • Public Advisory Group meeting in Anchorage at 645 G Street.

June 27 • Draft 1996 Work Plan available for public review. Comment period from June 27 through August 1.

August 25 • Trustee Council meeting in Anchorage to take action on 1996 Work Plan.

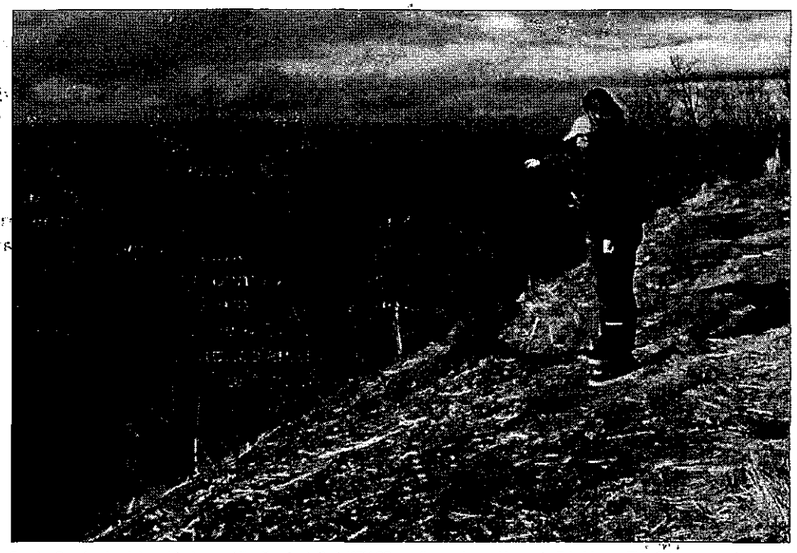
September 21 • Public Advisory Group meeting in Valdez.

Inside...

Habitat Protection

Small parcel program

Trustee Council could initiate negotiations by August



Sandra Cronland points out features of the Overlook Park KEN 55 small parcel near Homer to Eric Myers. This 97 acre parcel contains an extensive Kachemak Bay tidal pool area unique to the area and containing an especially diverse assortment of marine flora and fauna. The Trustee Council is considering possible acquisition of this parcel. Photo by Joe Sullivan, ADF&G.

Work continues on the Small Parcel habitat protection program with Trustee Council staff evaluating and ranking several additional private landowner nominations.

This program identifies opportunities for the Trustee Council to protect small parcels (less than 1,000 acres) of habitat important to resources injured by the spill. The Trustee Council works only with voluntary and willing private landowners who wish their land to be considered for protection.

Evaluation of recent small parcel nominations by a multi-agency working group is nearly complete. Preliminary negotiations, title searches, hazardous materials investigations and appraisals are moving forward on small parcels identified to date as being of substantial importance to restoration objectives.

It is estimated that a total of approximately 25 – 30 small parcels will be considered for possible purchase and protection through the Small Parcel program. The Trustee Council may review options for small parcel action at their August 25 meeting.

For more information about the Small Parcel program, contact Eric Myers at 907/278-8012.

The *Restoration Update* is published approximately six times a year by the *Exxon Valdez* Oil Spill Trustee Council. Its purpose is to update interested members of the public about actions, policies and plans of the Trustee Council to restore resources and services injured by the *Exxon Valdez* oil spill.

For more information, mailing address correction or to request future articles on specific topics, contact:

Executive Director: • Molly McCammon *Director of Operations:* • Eric Myers *Editor:* • L.J. Evans

Exxon Valdez Oil Spill Trustee Council, 645 G Street, Suite 401, Anchorage, Alaska 99501-3451

Telephone: 907/278-8012, Toll-free within Alaska at 800-478-7745, Toll- free outside Alaska at 800-278-7745

FAX: 907/276-7178

Oil Spill Public Info Center

More than 8,000 served

Staff at the Oil Spill Public Information Center recently received their 8,000th visitor since the opening of the library in September 1990. This unique library is funded by the Trustee Council to provide public access to information on the *Exxon Valdez* oil spill and subsequent restoration efforts.

During the past four and a half years, the library staff has answered over 12,000 questions about the spill and distributed 23,000 publications. Questions come in from people all over the world via phone, fax, regular mail and electronic mail.

OSPIC staff, l-to r: Beverly Hayes, Technical Services Librarian; Carrie Holba, Head Librarian; and Jeff Lawrence, Library Technician. Photo by L.J. Evans

"The question we get most often is is 'How did the oil spill affect thewildlife?' said Carrie Holba, the OSPIC's Head Librarian.

OSPIC regularly receives queries from students, teachers, writers, radio and television journalists, attorneys, agency personnel, scientists, business professionals, and librarians from Alaska and elsewhere.

The OSPIC collection includes information from the natural and social sciences, economics, and law pertaining to the *Exxon Valdez* oil spill, other spills in the marine environment, and restoration. Visitors to the OSPIC find answers to their questions in technical reports, books, journals, maps, video tapes, audio tapes, photographs and computerized databases.

Items in the circulating collection are available for check out by Anchorage residents. Users outside the Anchorage area may borrow these materials through interlibrary loan from their local public or academic library. OSPIC is also a contributing member of the Western Library Network, and a database of the OSPIC collection is available via Internet on SLED, the Alaska State Library's Statewide Library Electronic Doorway.

The OSPIC staff recently established a Home Page on the World Wide Web. Users can find out about the oil spill, library materials, and the latest Trustee Council publications and activities by typing http://www.alaska.net/~ospic.

To reach the OSPIC staff with your questions, call (907) 278-8008, toll-free from within Alaska at 1-800-478-7745, toll-free from outside Alaska at 1-800-283-7745, or via email to ospic@muskox.alaska.edu or ospic@calvino.alaska.net, or you may visit the library at 645 G Street in Anchorage. Hours are Monday – Friday, 9 AM – 4:30 PM.

New Science Coordinator On Board

A veteran of oil spill restoration work has returned to fill the position of Science Coordinator for the Trustee Council. In his new role, Stan Senner will facilitate coordination and communication among the Trustees, Chief Scientist Bob Spies, and the agency and private researchers working on *Exxon Valdez* restoration projects.

Senner is no stranger to the Council since he served as ADF&G's Restoration Program Manager from 1990 to 1992. He co-chaired the Trustee Council's Restoration Planning Work Group and played a key role in early development of the Restoration Plan. In 1992 he moved to a position as Director of the Migratory Bird Conservation Program for the National Audubon Society in Boulder, Colorado.

"I'm glad to be back in the middle of this ground breaking program," Senner said. "Much discussion is taking place among scientists, industry and conservationists about restoration, but the Trustee Council has the resources and the opportunity to put new ideas into practice. We can add greatly to the knowledge of what can and should be restored following an environmental disaster such as the *Exxon Valdez* oil spill."

Attendees at area meetings discuss local concerns, restoration goals

At a meeting in Kodiak representatives of all the outlying Kodiak villages spoke with staff from the Trustee Council and from the Alaska Department of Fish and Game's Subsistence Division. Trustee Council representatives held public meetings in twelve communities in the spill region during April to provide an update on current activities and discuss options for the future. Meetings in other spill area communities will be held in the fall. Photo by Bruce Wright, NMFS.

Ground breaking for Alaska SeaLife Center May 21

Groundbreaking ceremonies for the Alaska SeaLife Center in Seward took place at 11:30 AM on Sunday, May 21. When completed, the SeaLife Center will provide a facility for long-term research and monitoring programs important to restoration of resources injured by the *Exxon Valdez* oil spill.

The center will consist of a research and wildlife rehabilitation facility as well as a public educational and visitation component.

The Trustee Council in 1994 authorized $24.9 million in funding to support development of the research component of the SeaLife Center. Additional start-up funding came from the state's *Exxon Valdez* oil spill criminal restitution funds appropriated by the Alaska Legislature.

Alaska SeaLife Center
windows to the sea

A $10 million private funding campaign is underway to fund the public visitation component of the Center. The facility will include specialized resources for studies on marine mammals, marine birds and fish genetics.

The City of Seward is providing the land and will own the center; the Seward Association for the Advancement of Marine Science, a non-profit organization, will operate the facility.

Current plans are for the Alaska SeaLife Center to open its doors to researchers and the public in 1998.

For more information about the the Trustee Council's support of the Alaska SeaLife Center, call Kim Sundberg at 907/267-2342.

Program Update

Large parcel discussions underway

Some land transfers imminent

Lands owned by Akhiok–Kaguyak Inc. and Old Harbor Corporations will be transferred to the U.S. Department of the Interior soon, resulting in protection of almost 152,000 acres of forest lands in the Kodiak National Wildlife Refuge.

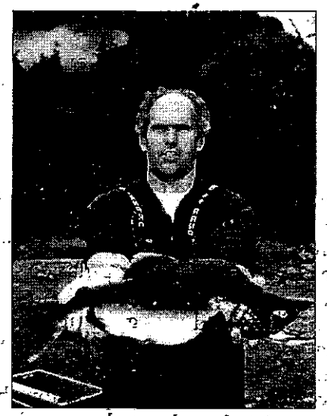
Transfer of another 115,000 acres of land owned by Koniag, Inc. is expected to follow shortly. Negotiations and appraisals continue for offers made by the Trustee Council to Afognak Joint Ventures, Chenega, Eyak and Tatitlek Corporations, as well as the Kodiak Island Borough. Talks are also underway with the English Bay and Port Graham Corporations. The current status of these habitat protection negotiations is summarized in the table shown below.

For more information on the status of the Trustee Council's habitat protection activities, call Carol Fries at 907/278-8012.

Status of Large Parcel Habitat Protection Actions

As of May 15, 1995

	Acreage	Purchase Price (In Millions)	Civil Trust Funds (In Millions)	Other $ Sources (In Millions)
Completed Transactions				
Kachemak Bay State Park Inholdings	23,800	$22.0	$7.5	$14.5
Seal Bay/Tonki Cape	41,549	$38.7	$38.7	
Orca Narrows Timber Rights	2,052	$3.45	$3.45	
Subtotal:	**67,401**	**$64.15**	**$49.65**	**$14.50**
Agreements Reached				
Akhiok–Kaguyak, Inc.	119,885	$46.0	$36.0	$10.0
Koniag	115,739	$28.5	$21.5	$7.0
Old Harbor	32,100	$14.5	$11.25	$3.25
Subtotal:	**267,724**	**$89.0**	**$68.75**	**$20.25**
Offers – Subject to Appraisals				
Afognak Joint Venture	48,728	$70.0	$70.0	$0
Chenega	74,554	$48.0	$38.0	$10.0
Eyak – Core Parcels	13,700	$21.0	$21.0	$0
Shuyak Island	25,665	$42.0	$42.0	$0
Tatitlek	56,785	$22.0	$12.0	$10.0
Subtotal:	**219,432**	**$203.0**	**$183.0**	**$20.0**
Negotiations Continuing				
English Bay	49,300			
Eyak – Orca Revised & Other Lands	49,700			
Port Graham	46,170			
Subtotal:	**145,170**			
Total:	**699,727**	**$356.2**	**$301.4**	**$54.75**



Project Geneticist Gary Miller collected muscle, liver, heart and retina tissue samples from pink salmon in Prince William Sound. The tissue samples were frozen in liquid nitrogen for transport to the Fish and Game genetics laboratory in Anchorage, where the genetic data was collected using DNA techniques and protein electrophoresis.

Photo by Jim Seeb, ADF&G.

Pink Salmon Genetics More Diverse Than Expected

Pink salmon that spawn in the upper reaches of streams in Prince William Sound are genetically distinct from salmon spawning in other areas of the same streams, according to 1994 Alaska Department of Fish and Game research funded by the Trustee Council. In fact, researchers say salmon spawned in the lower zones of different streams have more in common genetically than the salmon spawned in the upper reaches of the same streams.

Understanding the genetic structure of wild pink salmon populations inhabiting Prince William Sound is critical to both their management and conservation, according to fishery biologists.

"Pink salmon are known to stray among local streams, sometimes in large numbers," said Jim Seeb, Project Manager for ADF&G. "We also know that when they return to spawn, they home in to an area with some degree of geographical and temporal precision," Seeb said. "We're using genetics technology to understand just where the dividing lines are between specific populations."

In order to properly manage fisheries in Prince William Sound, ADF&G needs to know the genetic boundaries of pink salmon populations. Managing for the pink salmon spawning in every stream may not be necessary and may result in policies which adversely affect the fishing industry and waste management resources while not significantly aiding conservation and restoration efforts, Seeb said. On the other hand, managing for the whole sound as if the wild stock populations in individual streams did not matter could result in a loss of genetic adaptations and diversity.

Populations of fish adapt genetically in response to local conditions...

According to Seeb, fishery managers will be able to use Trustee-funded research results to better interpret and apply findings obtained from analyses on a population basis, more properly define the population-level nature of the oil spill damage documented in previous studies of damaged pink salmon, and guide the management-oriented restoration of oil spill-damaged pink salmon populations. The same knowledge of population structure will be used for genetic monitoring and risk assessment required to evaluate restoration proposals involving fish supplementation.

Prince William Sound is the center of one of the State of Alaska's largest aquaculture industries. Prince William Sound Aquaculture Corporation and Valdez Fisheries Development Association hatcheries release over 700 million salmon fry and smolts each year. ADF&G has been grappling for nearly a decade with managing the combined hatchery/wild stock fishery in order to prevent over-fishing of wild stocks. The *Exxon Valdez* oil spill injuries to wild stocks, coupled with survival rates for hatchery fish, which exceed wild stocks by 10 to 1, has intensified ADF&G's concerns about protecting the wild stocks.

Diverse genetic population mixes provide a biological buffer to environmental change...

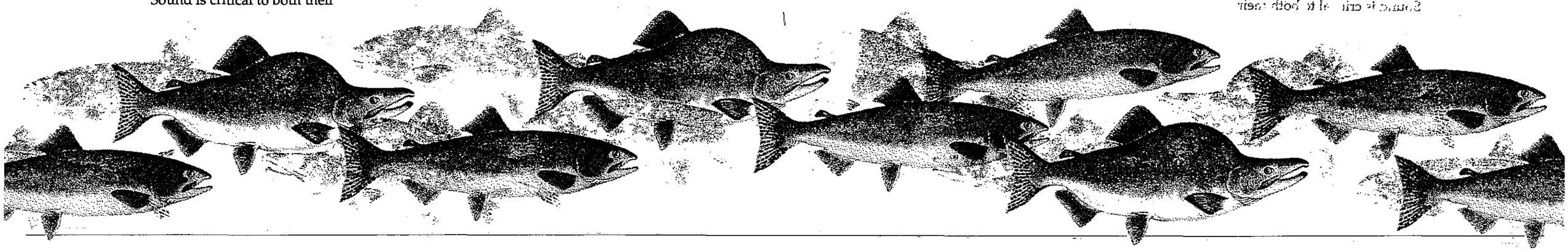
"We know that populations of fish adapt genetically in response to local conditions such as stream gradient, temperature, turbidity and many other factors," Seeb said. However, genetic exchange between populations is restricted, and the accumulation of local adaptations produces diversity within the population which is responsible for many aspects of the "fitness," or survival rate, of the species.

In the case of commercially harvested species like pink salmon, fitness includes peak productivity as well as long-term sustainability. Highly diverse genetic population mixes provide a biological buffer to environmental changes such as droughts, floods, major earthquakes, and other events which occur routinely in Alaskan ecosystems.

To date the Trustee Council has funded data collection and analysis of 18 odd- and 45 even-year pink salmon populations. A comprehensive set of genetic markers has been screened using two different laboratory approaches.

Preliminary results show that Prince William Sound populations are identifiable at least along major geographic boundaries. East Sound, West Sound, and South Sound Island populations have been found to be genetically different from one another. Recent laboratory results seem to show that significant genetic differences also can occur between populations spawning upstream and intertidally in the same stream, Seeb said.

Pink salmon genetics work proposed for 1996 is intended to provide a better understanding of the structure of diversity among all of the potentially influential factors, including early and late spawners and spawners in different bays and corridors. For more information contact Jim Seeb at 907/267-2385.



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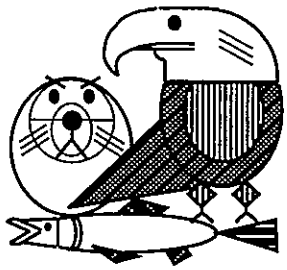
Exxon Valdez Oil Spill Trustee Council

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



DRAFT

AGENDA
EXXON VALDEZ OIL SPILL SETTLEMENT
TRUSTEE COUNCIL
JUNE 1, 1995 @ 1:00 P.M. -- CORDOVA
Mt. Eccles Auditorium

Trustee Council Members:

BRUCE BOTELHO/CRAIG TILLERY
Attorney General/Trustee
State of Alaska/Representative

GENE BURDEN/MICHELE BROWN
Commissioner/Trustee Representative
Alaska Department of Environmental Conservation

GEORGE T. FRAMPTON, JR./DEBORAH WILLIAMS
Assistant Secretary/Trustee Representative for Fish & Wildlife & Parks
U.S. Department of the Interior

PHIL JANIK
Regional Forester, Alaska Region
U.S. Department of Agriculture Forest Service

STEVE PENNOYER
Director, Alaska Region
National Marine Fisheries Service

FRANK RUE
Commissioner
Alaska Department of Fish & Game

1. Call to Order 1:00 p.m.
   - Approval of Agenda
   - Approval of March 31, 1995 meeting notes.

2. Executive Director's Report - Molly McCammon
   - Financial Report
   - Status of Audit and Investments
   - FY96 Work Plan and Long Range Restoration Program
   - Habitat Protection Status Report
     - Large Parcels
     - Small Parcels
   - Alaska SeaLife Center Status Report

3. Public Advisory Group Report - Vern McCorkle, Chair

4. Public Hearing 2:00 p.m.

5. Fleming Spit, Project 95080

6. Technical Amendments to FY95 Budgets

Adjourn

raw

11.6.4 N

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

TRUSTEE COUNCIL MEETING ACTIONS

March 31, 1995 @ 2:00 p.m.

By Molly McCammon
Executive Director

DRAFT

Trustee Council Members Present:

Phil Janik, USFS
•Deborah Williams, USDOI
•Bill Hines, NMFS
•Ellen Fritts, ADF&G
*•Michele Brown, ADEC
•Alex Swiderski, ADOL

* Chair
• Alternates:

Deborah Williams served as an alternate for George T. Frampton, Jr. for the entire meeting.
Bill Hines served as an alternate for Steve Pennoyer for the entire meeting.
Ellen Fritts served as an alternate for Frank Rue for the entire meeting.
Michele Brown served as an alternate for Gene Burden for the entire meeting.
Alex Swiderski served as an alternate for Bruce Botelho for the entire meeting.

1. Approval of the Agenda

APPROVED MOTION: Approved the Agenda. Motion by Williams, second by ? (Attachment A)

APPROVED MOTION: Approved February 13, 1995, February 22, February 24, February 28, and March 1, 1995 Trustee Council meeting notes. Motion by Williams, second by Janik. (Attachment B)

2. Nearshore Vertebrate Predator Package (NVP)

APPROVED MOTION: Trustee Council to fund the Nearshore Vertebrate Predator Package project for the duration of the project, for the amount of $606,100 for FFY95 with the following provisos:

1) that there be no collections unless and until Dr. Spies approves a methodology and the Council reviews the methodology and,

2) to the maximum extent possible, if there are collections that they be done in conjunction with the hunting community, and,
3) that the Department of Justice reviews and approves the project.

Motion by Williams, second by Swiderski.

3. APEX

APPROVED MOTION: Trustee Council to fund the APEX project for the amount of $1,167,900 for FFY95 for the next year only, with the following provisos:

1) that there be no collections unless and until Dr. Spies approves a methodology and the Council reviews the methodology and,
2) to the maximum extent possible, if there are collections that they be done in conjunction with the hunting community, and,
3) that the Department of Justice reviews and approves the project.

Motion by Fritts, second by Hines.

4. Technical Amendments to AKI and Old Harbor Resolutions

APPROVED MOTION: The Trustee Council agreed to language changes on the Akhiok-Kaguyak and Old Harbor November 2, 1994 resolutions relating to the reverter clauses. The specific changes provide for permanent protection and give the non-acquiring government an oversight role. Motion by Williams, second by Swiderski. (Attachment C)

5. Technical Amendments to FY95 Budgets

APPROVED MOTION: To transfer previously authorized funds between two Trustee agencies for two projects, and to transfer between two sub-projects within an already authorized project. Motion by Fritts, second by Hines. (Attachment D)

Meeting adjourned.

raw

11.6.4 m

Exxon Valdez Oil Spill Trustee Council
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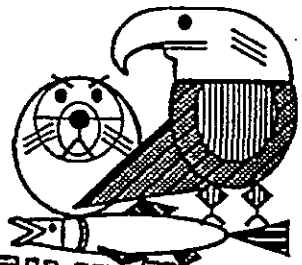

MEMORANDUM

TO: Trustee Council

THROUGH: Molly McCammon
Executive Director

FROM: Traci Cramer
Administrative Officer

DATE: May 19, 1995

RE: Financial Report as of April 30, 1995

Attached is the Statement of Revenue, Disbursements and Fees, and accompanying notes for the *Exxon Valdez* Joint Trust Fund for the period ending April 30, 1995.

The following is a summary of the information incorporated in the notes and contained on the statement.

Joint Trust Fund Account Balance	$92,804,022	
Less: Current Year Commitments (Note 5)	$27,750,000	
Less: Restoration Reserve Balance	$24,000,000	
Plus: Adjustments (Note 7)	$2,851,277	
Uncommitted Fund Balance		$43,905,299
Plus: Future Exxon Payments (Note 1)	$490,000,000	
Less: Remaining Commitments (Note 8)	$60,163,584	
Total Estimated Funds Available		$473,741,715

If you have any questions regarding the information provided please give me a call at 586-7238.

attachments

cc: Restoration Work Force
Bob Baldauf

NOTES TO THE STATEMENT OF REVENUE, DISBURSEMENTS AND FEES
FOR THE *EXXON VALDEZ* JOINT TRUST FUND
As of April 30, 1995

1. Contributions - Pursuant to the agreement Exxon is to pay a total of $900,000,000.

Received to Date	$410,000,000
Future Payments	$490,000,000

2. Interest Income - In accordance with the MOA, the funds are deposited in the United States District Court, Court Registry Investment System (CRIS). All deposits with CRIS are maintained in United States government treasury securities with maturities of 100 days or less. Total earned since the last report is $485,478.

3. Reimbursement of Past Costs - Under the terms of the agreement, the United States and the State are reimbursed for expenses associated with the spill.

Reimbursements to Date	$150,382,887
Remaining Reimbursements	
United States	$3,000,000
State of Alaska	$23,300,000

4. Fees - CRIS charges a fee of 10% for cash management services. Total paid since the last report is $53,942.

5. Current Year Commitments - Includes $12,500,000 for the Alaska Sealife Center in Seward, $8,000,000 for the September 1995 payment to Akhiok-Kaguyak and $7,250,000 for the September 1995 payment to Old Harbor.

6. Restoration Reserve - The required documentation for establishment of the reserve is currently under review by the District Court in Texas.

7. Adjustments - Under terms of the Agreement, both interest earned on previous disbursements and prior years unobligated funding or lapse are deducted from future court requests. Since the last court request $324,686 in interest have been earned and $2,637,624 have been reported as unobligated for the 1992 and 1993 Federal Fiscal Years.

	Interest	Lapse
United States	$13,648	$240,859
State of Alaska	$200,002	$2,396,765

8. Remaining Commitments - Includes $12,500,000 for the Alaska Sealife Center in Seward, the $26,300,000 in remaining reimbursement and the following land payments.

Seller	Amount	Due
Seal Bay	$6,363,584	November 1995 and 1996
Akhiok-Kaguyak	$15,000,000	September 1996 and 1997

STATEMENT OF REVENUE, DISBURSEMENTS AND FEES
EXXON VALDEZ OIL SPILL JOINT TRUST FUND
As of April 30, 1995

	Federal Fiscal Years Ending September 30			To Date	Cumulative
	1992	1993	1994	1995	Total
REVENUE:					
Contributions: (Note 1)					
Contributions from Exxon Corporation	90,000,000	250,000,000	70,000,000		410,000,00
Less: Credit to Exxon Corporation for clean-up costs incurred		(39,913,688)			(39,913,68
Total Contributions	90,000,000	210,086,312	70,000,000	0	370,086,31
Interest Income: (Note 2)					
Exxon Corporation escrow account	831,233				831,23
Joint Trust Fund Account	596,000	1,378,000	3,736,000	3,420,037	9,130,03
Total Interest	1,427,233	1,378,000	3,736,000	3,420,037	9,961,27
Total Revenue	**91,427,233**	**211,464,312**	**73,736,000**	**3,420,037**	**380,047,58**
DISBURSEMENTS:					
Reimbursement of Past Costs: (Note 3)					
State of Alaska	29,267,842	29,000,000	25,000,000		83,267,84
United States	24,726,280	36,117,165	6,271,600		67,115,04
Total Reimbursements	53,994,122	65,117,165	31,271,600	0	150,382,88
Disbursements from Joint Trust Account:					
State of Alaska	6,559,200	18,529,113	44,546,266	19,434,190	89,068,76
United States	6,320,500	9,105,881	6,008,387	25,452,361	46,887,12
Total Disbursements	12,879,700	27,634,994	50,554,653	44,886,551	135,955,89
FEES:					
U.S. Court Fees (Note 4)	23,000	154,000	364,000	363,775	904,77
Total Disbursements and Fees	**66,896,822**	**92,906,159**	**82,190,253**	**45,250,326**	**287,243,56**
Increase (decrease) in Joint Trust	**24,530,411**	**118,558,153**	**(8,454,253)**	**(41,830,289)**	**92,804,02**
Joint Trust Account Balance, beginning balance	0	24,530,411	143,088,564	134,634,311	
Joint Trust Account Balance, end of period	24,530,411	143,088,564	134,634,311	92,804,022	
Current Year Commitments: (Note 5)					(27,750,00
Restoration Reserve: (Note 6)					24,000,00
Adjustments: (Note 7)					2,851,27
Uncommitted Fund Balance					**43,905,29**
Remaining Commitments: (Note 8)					(60,163,58
Total Estimated Funds Available					**473,741,71**

Exxon Valdez Oil Spill										
Quarterly Report as of March 31, 1995										
Work Plan	Authorized	Adjustments	Adjusted Authorization	EVOS Expenditures	RSA Expenditures	Obligations	Unobligated Balance	EVOS Lapse	Federal Lapse	State Lapse
1992	19,211,000	13,058	19,224,058	13,988,844	2,720,100	0	2,515,114	5,235,214	1,615,178	3,620,036
1993	15,463,000	-18,003	15,444,997	11,672,522	0	18,921	3,753,554	4,130,750	1,712,236	2,418,514
1994	25,750,900	-30,742	25,720,158	20,783,818	0	763,998	3,073,342	41,400	20,000	21,40
1995	24,811,200	-100	24,782,500	4,701,447	0	4,677,860	15,403,193	0	0	
Work Plan Total	85,236,100	-35,787	85,171,713	51,146,631	2,720,100	5,460,779	24,745,203	9,407,364	3,347,414	6,059,950
						Previously Reported Lapse		6,768,155	3,106,555	3,661,600
						Net		2,639,209	240,859	2,398,350
Other										
Kachemak Bay	7,500,000	0	7,500,000	7,500,000		0	0	0		
Seal Bay/Afognak	33,179,042	0	33,179,042	33,179,042		0	0	0		
Orca Narrows	3,650,000	0	3,650,000	3,650,000		0	0	0		
Akhiok-Kaguyak	4,000,000	0	4,000,000	0		4,000,000	0			
Old Harbor	13,000,000	0	13,000,000	0		13,000,000	0			
Other Total	61,329,042	0	61,329,042	44,329,042	0	17,000,000	0	0	0	0
TOTAL	146,565,142	-35,787	146,500,755	95,475,673	2,720,100	22,460,779	24,745,203	9,407,364	3,347,414	6,059,950
						Previously Reported Lapse		6,768,155	3,106,555	3,661,600
						Net		2,639,209	240,859	2,398,350

Footnote:

The 1994 Unobligated Balance has been adjusted to reflect the reauthorization of $1,039,800 of 1994 projects into the 1995 Work Plan.

Exxon Valdez Oil Spill
Quarterly Financial Report As of March 31, 1995

	92' Work Plan			93' Work Plan			94' Work Plan			95' Work Plan		
	Adjusted		Percent	Adjusted		Percent	Adjusted		Percent	Adjusted		Percent
Category	Authorization	Obligated	Obligated	Authorization	Obligated	Obligated	Authorization	Obligated	Obligated	Authorization	Obligated	Obligated
Administration	5,076,100	4,293,933	84.59%	4,135,800	2,654,875	64.19%	4,885,500	4,076,325	83.44%	4,255,400	1,778,338	41.79%
General Restoration	4,097,400	3,792,301	92.55%	3,927,700	3,117,237	79.37%	5,189,200	3,255,454	62.74%	4,458,200	1,620,795	36.36%
Habitat Protection	1,319,100	1,357,629	102.92%	2,282,200	1,509,033	66.12%	3,731,200	2,973,373	79.69%	1,744,300	775,852	44.48%
Monitoring							2,891,300	2,584,995	89.41%	3,472,300	953,553	27.46%
Research							8,636,500	8,329,887	96.45%	10,881,000	4,250,769	39.07%
Monitoring and Research	1,386,600	1,307,572	94.30%	4,335,200	3,726,318	85.95%	417,200	327,782	78.57%			
Damage Assessment	7,331,800	5,957,509	81.26%	782,100	683,980	87.45%						
Sub-Total	19,211,000	16,708,944	86.98%	15,463,000	11,691,443	75.61%	25,750,900	21,547,816	83.68%	24,811,200	9,379,307	37.80%
Habitat Acquisition				7,500,000	7,500,000	100.00%	31,950,000	31,950,000	100.00%	21,879,042	21,879,042	100.00%
Total	19,211,000	16,708,944	86.98%	22,963,000	19,191,443	83.58%	57,700,900	53,497,816	92.72%	46,690,242	31,258,349	66.95%

Footnotes:

Obligated = Expenditures to date + any encumbrances or known obligations/contracts.
Adjusted Authorization = Original Authorization +/- any agency adjustments

Work Plan Time Periods:

92' Work Plan - Oil Year 4 or March 1, 1992 through February 28, 1993
93' Work Plan - Oil Year 5 or March 1, 1993 through September 30, 1993
94' Work Plan - October 1, 1993 through September 30, 1994
95' Work Plan - October 1, 1994 through September 30, 1995

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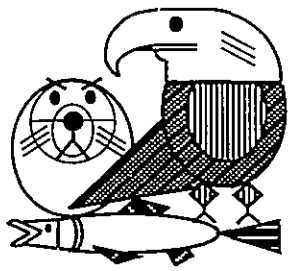
Exxon Valdez Oil Spill Trustee Council

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



MEMORANDUM

TO: Trustee Council Members

FROM: Molly McCammon
Executive Director

DATE: May 24, 1995

RE: Quarterly Project Status Summary -- March 31, 1995

Attached is the *Exxon Valdez* Oil Spill Project Status Summary for the quarter ending March 31, 1995, for all projects funded by the Trustee Council during 1992, 1993, 1994, and 1995. The Summary focuses on the status of final reports.

As of March 31, 1995, a total of 62 final reports had been approved by the Chief Scientist. Once approved by the Chief Scientist, final reports are to be submitted to the Oil Spill Public Information Center (OSPIC) where they are available to the public. Primarily because the guidelines for preparing final reports have only recently been finalized by the Restoration Office, as of March 31, 1995 only one report was available at OSPIC, with several others submitted to OSPIC for formatting review. Guiding reports through this last step in the report process will be a priority of my staff during the next quarter. These reports will then be available through the Internet and at libraries across the state.

This memorandum summarizes the status of reports for each project year. Attachment A summarizes the status of 1992 and 1993 reports by agency. Attachment B lists the 1992 and 1993 reports that are significantly behind schedule. These are reports that either (1) have not yet been submitted to the Chief Scientist, or (2) were reviewed by the Chief Scientist, returned to the PI for revision longer ago than six months, and have not been revised and resubmitted to the Chief Scientist. I have reminded the agency liaisons of the Trustee Council policy that past performance be taken into consideration when making funding decisions on future restoration projects (*Exxon Valdez Oil Spill Restoration Plan*, p. 16). Individual PIs have been notified that their proposals for FY 96 funding will not be favorably reviewed if their reports on prior years' projects are significantly behind schedule. I am therefore expecting to see a great deal of progress in this regard by the end of the June quarter (June 30, 1995).

ATTACHMENT A

Summary of Final Report Status as of March 31, 1995

1992 WORK PLAN

AGENCY	NUMBER OF REPORTS	Accepted by Chief Scientist	In Progress	Not Yet Submitted to Chief Sci.
ADEC	3	1	1	1
ADFG	27	9	17	1
ADNR	1	1	0	0
DOI	33	26	7	0
NOAA	11	5	5	1
USFS	1	1	0	0
TOTAL	76	41	32	4

1993 WORK PLAN

AGENCY	NUMBER OF REPORTS	Accepted by Chief Scientist	In Progress	Not Yet Submitted to Chief Sci.
ADEC	2	1	1	0
ADFG	11	5	4	2
ADNR	1	0	1	0
DOI	7	2	3	2
NOAA	1	0	0	1
USFS	2	2	0	0
TOTAL	24	10	9	5

which point a "final" report will be required. In general, the annual report will follow the same format as the final report, with modifications as necessary to accommodate the fact that data collection and analysis is preliminary or ongoing. The greatest difference from the final report is that the annual report will not be prepared in a publication-ready format. Annual reports will, however, be available to the public through OSPIC.

Status of 1995 Projects as of March 31, 1995

The focus of the FY 95 status report is approval of Detailed Project Descriptions (DPDs) and compliance with the National Environmental Policy Act (NEPA). DPDs were due to the Chief Scientist in mid-February. All DPDs were to be approved and all NEPA work to be completed by March 31, 1995. Of the 95 projects approved in the FY 95 Work Plan, all but four have met that goal. Attachment C lists the projects that are behind schedule in this regard.

Conclusion

I believe that, in almost all cases, an adequate effort to complete final reports is being made. Of particular concern are those projects from the 1992 and 1993 work plans that are significantly behind schedule (these projects are listed in Attachment B). Individual arrangements have been made to ensure that these reports are forthcoming. As mentioned, the agency liaisons and PIs are very aware of the Trustee Council's interest in seeing these reports completed, and my staff will continue to monitor their progress.

On a more favorable note, as indicated in the table on the previous page, an additional six reports on 1992 and 1993 projects have been accepted by the Chief Scientist since the December 31, 1994 quarterly report, for a total of 62 accepted reports. This represents a substantial effort on the part of the agencies, the PIs, and the Chief Scientist.

DOI

Reports Not Yet Submitted to Spies

93035	Brad Andres	Black oystercatchers/oiled mussel beds
94043	Brenda Ballachey	Sea otter demographics/habitat

Reports Peer Reviewed and Returned to P.I. for Revision 6 or More Months Ago

B08	Dave Irons	Kittiwake damage assessment closeout
	Presentation of hydrocarbon data needs to be resolved with Chief Scientist.	
MM6	Brenda Ballachey	Sea otters/hydrocarbons in tissues
MM6	Brenda Ballachey	Sea otters/hydrocarbons in hair, liver
MM6	Doroff/Bodkin	Sea otters/foraging behavior
MM6	Mulcahy	Sea otters/hydrocarbons in tissues

USFS

Report Peer Reviewed and Returned to P.I. for Revision 6 or More Months Ago

93051	Rob Olson	Habitat info. for channel classification

ATTACHMENT B
Summary of Reports Significantly Behind Schedule as of March 31, 1995

ADEC

Reports Not Yet Submitted to Spies

AW1	Ward Lane	Surface oil maps

Peer Reviewed and Returned to P.I. for Revision 6 or More Months Ago

93038	Piper/Gibeaut	Shoreline assessment

ADFG

Reports Not Yet Submitted to Spies

FS01	S. Fried/B. Bue	Spawning area injury
	These are new PIs. Expected date of submission August 15, 1995.	
93012	Jim & Lisa Seeb	Kenai sockeye genetic stock i.d.
93024	Mark Willette	Coghill Lake
93033	Tom Rothe	Harlequin duck restoration
93068	*PI resigned*	Non-pink salmon CWT
	Rehiring for new PI now.	

Peer Reviewed and Returned to P.I. for Revision 6 or More Months Ago

B11	Rothe/Patten	Harlequin duck
FS13	Tim Baker	Hydrocarbon effects on bivalves
	This is a new PI. Expected date of submission August 15, 1995.	
FS28	Geiger, et al	Run reconstruction

Revisions Under Discussion with Chief Scientist

R103(3)	Terry Boyer	Oiled mussels
TM3	Terry Boyer	River otter/mink damage assessment

NOAA

Reports Not Yet Submitted to Spies

ST8	Jeff Short	Sediment data synthesis
	Analysis backlog; will submit report by December 31, 1995.	
93047	Chuck O'Clair	Subtidal monitoring

Peer Reviewed and Returned to P.I. for Revision 6 or More Months Ago

ST3A	Jeff Short	Caged mussels
ST3A	Jeff Short	Caged mussels/hydrocarbons in water
ST7	Collier	Demersal fishes damage assessment

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Exxon Valdez Oil Spill Project Status Summary
1995 Work Plan
Quarter Ending March 31, 1995

Project No.	Project Title	Lead Agency	DPD Status	NEPA Status	Exec Dir Authorize	Project Activity to Date	Comments
95001	Condition and Health of Harbor Seals	ADFG	On file/review complete	CE on file	On file		
95007A	Archaeological Site Restoration - Index Site Monitoring	ADNR	On file/review complete	CE on file	On file		Project is report writing for 94007B.
95007B	Archaeological Site Restoration	USFS	Expect to submit to Chief Scientist by June 1, 1995.	EA/FONSI on file (93006, 94007)			
95009D	Survey of Octopus and Chiton in Intertidal Habitats	USFS	On file/review complete	CE on file	On file		
95012	Comprehensive Killer Whale Investigation	NOAA	On file/review complete	CE on file	On file		
95021	Seasonal Movement and Pelagic Habitat Use by Common Murres from the Barren Islands	DOI (NBS)	On file/review complete	CE on file	On file		
95025	Nearshore Package: Project Planning and Development	DOI (NBS)	On file/review complete	CE on file	On file		
95025	Mechanisms of Impact and Potential Recovery of Nearshore Vertebrate Predators	DOI	On file/review complete	CE on file	On file		
95026	Hydrocarbon Monitoring: Integration of Microbial and Chemical Sediment Data	ADEC	Spies request revision from PI 2/20/95	CE on file		PI will return May 30, 1995; DEC will resolve issue of DPD by June 30, 1995.	
95027	Kodiak Shoreline Assessment: Monitoring Surface and Subsurface Oil	ADEC	On file/review complete	CE on file	On file	Project going into field June 24, 1995; final report to chief Scientist by September 30, 1995.	
95029	Population Survey of Bald Eagles in PWS	DOI (FWS)	On file/review complete	CE on file	On file		
95031	Reproductive Success as a Factor Affecting Recovery of Murrelets in PWS	DOI (FWS)	On file/review complete	CE on file	On file		

11.6.4 K

Exxon Valdez Oil Spill Project Status Summary
1995 Work Plan
Quarter Ending March 31, 1995

Project No.	Project Title	Lead Agency	DPD Status	NEPA Status	Exec Dir Authorize	Project Activity to Date	Comments
95038	Symposium on Seabird Restoration	DOI (FWS)	On file/review complete	Not applicable	On file		
95039	Common Murre Productivity Monitoring	DOI (FWS)	Report writing only; no DPD required	Not applicable	On file		
95041	Introduced Predator Removal from Islands - Follow-up Surveys	DOI (FWS)	On file/review complete	EA/FONSI on file (94041)	On file		
95043B	Carry-forward: Cutthroat and Dolly Varden Rehabilitation in Western PWS	USFS	In preparation; expect to submit to Chief Scientist by June 1, 1995.	EA to 30-day public review May 12, 1995.			
95052	Community Interaction/Use of Traditional Knowledge	ADFG	On file/review complete	CE on file	On file	Draft contracts were negotiated with three communities (Tatitlek, Chenega Bay, and Port Graham) to provide community liaisons.	
95058	Landowner Assistance Program	ADFG	On file/review complete	Not applicable	On file	Mailed project notification letters to 58 major landowners/operators thorughout spill area. Prepared species/impact summaries for range of expected development activities. Assisted 3 landowners in identifying and planning resotration projects for FY 96.	
95060	Spruce Bark Beetle Impacts	ADEC	RSA reviewed by Executive Director in lieu of peer review	CE on file	On file	RSA to ADFG complete.	
95064	Monitoring, Habitat Use, and Trophic Interactions of Harbor Seals in PWS	ADFG	On file/review complete	CE on file	On file	Analyzed 1993-94 SLTDR data on movements and diving behavior; developed correction factors for survey data to account for effects of weather, date, time and tide; conducted power analysis.	

Exxon Valdez Oil Spill P. ect Status Summary
1995 Work Plan
Quarter Ending March 31, 1995

Project No.	Project Title	Lead Agency	DPD Status	NEPA Status	Exec Dir Authorize	Project Activity to Date	Comments
95074	Herring Reproductive Impairment	NOAA	On file/review complete	CE on file	On file		
95076	Effects of Oiled Incubation Substrate on Survival and Straying of Wild Pink Salmon	NOAA	On file/review complete	CE on file	On file		
95086C	Herring Bay Monitoring and Restoration Studies	ADFG	On file/review complete	CE on file	On file	Signed boat contract. Finalized schedule of 4 short field trips to Herring Bay, with the first 10-day trip beginning May 14, 1995. Field monitoring and experimental work will focus on poulation dynamics of *fucus* and invertebrates.	
95089	Information Management System	ALL	No DPD required	Not applicable	On file		
95090	Mussel Bed Restoration and Monitoring in PWS and Gulf of Alaska	NOAA	On file/review complete	CE on file	On file	Vessel charter contract complete. Field work to begin May 12, 1995.	
95093	PWSAC: Restoration of Pink Salmon Resources and Services	ADFG	Planning funds only; no DPD required	Not applicable	On file	Portion of funds used to support Wild Stock Supplementation Workshop held January 12-13, 1995. Continued project planning.	
95100	Administration, Science Management and Public Information	All	No DPD required	Not applicable	On file		
95102-CLO	Closeout: Murrelet Prey and Foraging Habitat in Prince William Sound	DOI (FWS)	Report writing only; no DPD required.	Not applicable	On file		
95106	Subtidal Monitoring: Eelgrass Communities	ADFG	On file/review complete	CE on file	On file	Ordering supplies and conducting equipment maintenance for 1995 field season (July).	

Exxon Valdez Oil Spill P. ject Status Summary
1995 Work Plan
Quarter Ending March 31, 1995

Project No.	Project Title	Lead Agency	DPD Status	NEPA Status	Exec Dir Authorize	Project Activity to Date	Comments
95110-CLO	Closeout: Habitat Protection and Acquisition	ADNR	No DPD required	Not applicable	On file	Comprehensive Habitat Protection Process: Small Parcel Evaluation and Ranking Volume III completed February 13, 1995. Nominations currently being accepted for evaluation in continuation of small parcel nomination process.	
95115	Sound Waste Management Plan	ADEC	RFP reviewed by Executive Director in lieu of peer review	CE on file	On file	Contractor chosen; first deliverable due June 1995.	
95117-BAA	Harbor Seals and EVOS: Blubber and Lipids as Indices of Food Limitation	NOAA	On file/review complete	CE on file	On file		
95121	Fatty Acid Signatures of Selected Forage Fish Species in PWS	NOAA	Spies will review RFP statement of work in lieu of DPD	CE on file			
95126	Habitat Protection and Acquisition Suppor	ADNR	No DPD required	Not applicable	On file	Work continues in support of both large and small parcel negotiations including appraisals, title work, hazardous materials assessments, mapping of parcels as parcel configurations are refined and additional work as needed by negotiators.	
95126A	Carry-forward: Habitat Protection and Acquisition Support	ADNR	No DPD required	Not applicable	On file	See 95126.	
95127	Tatitlek Coho Salmon Release Program	ADFG	No DPD required (NEPA only)	EA in preparation		Draft EA propared.	

Exxon Valdez Oil Spill P. . ect Status Summary
1995 Work Plan
Quarter Ending March 31, 1995

Project No.	Project Title	Lead Agency	DPD Status	NEPA Status	Exec Dir Authorize	Project Activity to Date	Comments
95131	Clam Restoration (Nanwalek, Port Graham, Tatitlek)	ADFG	On file/review complete	CE on file	On file	Conducted literature surveys and consulted with experts in field about culture techniques. Conducting development work at hatchery. In process of developing cooperative agreement.	
95137-CLO	Closeout: Prince William Sound Salmon Stock Identification and Monitoring Studies	ADFG	Report writing only; no DPD required	Not applicable	On file		
95138	Elders/Youth Conference	ADFG	On file/review complete	CE on file	On file	Evaluated five proposals, awarded contract, released RFP. Communities are being contacted regarding conference.	
95139	Wild Stock Supplementation Workshop	ADFG	No DPD required	Not applicable	On file	Workshop conducted January 12-13, 1995.	
95139A1	Carry-forward: Salmon Instream Habitat and Stock Restoration -- Little Waterfall Creek Barrier Bypass	ADFG	On file/review complete	CE on file (94139A1)	On file	Preparing engineering documents for contracted part of work.	
95139B	Closeout: Otter Creek/Shrode Creek Instream Restoration	USFS	No DPD required	Not applicable (report writing only)	On file		
95139C1	Montague Riparian Rehabilitation	USFS	In preparation; expect to submit to Chief Scientist by June 1, 1995.	1993 CE on file; needs to be updated			
95139C2	Carry-forward: Salmon Instream Habitat and Stock Restoration -- Lowe River	ADFG	No DPD required (project delayed until FY 96)	Not applicable (project delayed)		1995 plans on hold pending review of EA.	

Exxon Valdez Oil Spill P. . ect Status Summary
1995 Work Plan
Quarter Ending March 31, 1995

Project No.	Project Title	Lead Agency	DPD Status	NEPA Status	Exec Dir Authorize	Project Activity to Date	Comments
95163A	Abundance and Distribution of Forage Fish and their Influence on Recovery of Injured Species (interim funding)	NOAA	No DPD required (is close-out of FY 94 work)	Not applicable	On file	Contractor (UAF) presented verbal final report on April 26, 1995. Written draft report due June 1995.	
95163A1	Abundance and Distribution of Forage Fish and their Influence on Recovery of Injured Species (APEX)	NOAA	On file/review complete	CE on file	On file		
95163B	Foraging of Seabirds (APEX)	DOI	On file/review complete	CE on file	On file		
95163C	Fish Stomach Contents Analysis (APEX)	NOAA	On file/review complete	CE on file	On file		
95163D	Tufted Puffin Foraging and Reproductive Success (APEX)	DOI	On file/review complete	CE on file	On file		
95163E	Reproduction and Foraging of Black-legged Kittiwakes (APEX)	DOI (FWS)	On file/review complete	CE on file	On file		
95163F	Factors Affecting Recovery of PWS Pigeon Guillemot Populations (interim funding)	DOI (FWS)	Report writing only; no DPD required.	Not applicable	On file		
95163F1	Reproduction of Pigeon Guillemots Populations in PWS in Relation to Food (APEX)	DOI	On file/review complete	CE on file	On file		
95163G	Seabird Energetics (APEX)	NOAA	On file/review complete	CE on file	On file		
95163I	Seabird/Forage Fish Interaction: Program Management and Integration	DOI (FWS)	On file/review complete	CE on file	On file		
95163J	Barren Islands Seabird Studies (APEX)	DOI	On file/review complete	CE on file	On file		
95163K	Using Predatory Fish to Sample Forage Fish (APEX)	DOI	On file/review complete	CE on file	On file		

Exxon Valdez Oil Spill Project Status Summary
1995 Work Plan
Quarter Ending March 31, 1995

Project No.	Project Title	Lead Agency	DPD Status	NEPA Status	Exec Dir Authorize	Project Activity to Date	Comments
95163L	Historic Review of Ecosystem Structure in PWS/Gulf of Alaska and Abundance/ Distribution of Forage Fish in Barren Islands (APEX)	DOI	On file/review complete	CE on file	On file		
95165	PWS Herring Genetic Stock Identification	ADFG	On file/review complete	CE on file	On file		
95166	Herring Natal Habitats	ADFG	On file/review complete	CE on file	On file	Doing transects for herring egg survival and predation and other mortality factors.	
95191A	Investigating and Monitoring Oil Related Egg and Alevin Mortalities	ADFG	Received 3/28/95; under review by Spies	CE on file			
95191B	Injury to Salmon Eggs and Pre-emergent Fry Incubated in Oiled Gravel (Laboratory Study)	NOAA	On file/review complete	CE on file	On file		
95199-CLO	Institute of Marine Science - Seward Improvements EIS	ADFG	No DPD required	FEIS on file (94199)	On file	Cooperative agreement between ADFG and City of Seward signed for construction, operation and maintenance of Alaska SeaLife Center.	
95244	Seal and Sea Otter Cooperative Subsistence Harvest Assistance	ADFG	On file/review complete	CE on file	On file	A second review draft of a report being prepared under a contract by Alaska Sea Otter Commission was distributed.	
95255	Kenai River Sockeye Restoration	ADFG	On file/review complete	CE on file	On file		
95258	Sockeye Salmon Overescapement (Kenai/ Kodiak)	ADFG	On file/review complete	CE on file	On file	Readied field equipment for 1995 field studies on the Kenai and Tustumena Lakes and Kodiak lakes.	April field initiation work began on schedule because of late ice out.
95259	Restoration of Coghill Lake Sockeye	ADFG	On file/review complete	EA/FONSI on file (94259)	On file	Negotiating contracts for fertilizer purchases and delivery by aerial application. Preparing for field work.	

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Project No.	Project Title	Lead Agency	DPD Status	NEPA Status	Exec Dir Authorize	Project Activity to Date	Comments
95266	Experimental Shoreline Oil Removal	ADEC	No DPD required (literature search only)	CE on file for Phase 1; separate NEPA for Phase 2		Phase I report to Chief Scientist by June 1, 1995.	
95272	Chenega Chinook Release Program	ADFG	On file/review complete	EA/FONSI on file (94272)	On file	Smolts are currently rearing at Wally Noerenberg Hatchery. Transport of 50,000 smolts to Chenega will occur approximately May 20, 1995 depending on weather, tide, barge arrangements. Smolts will be reared on site 2 weeks before release.	
95279	Subsistence Restoration Project - Food Safety Testing	ADFG	On file/review complete	CE on file	On file	Draft RFP was prepared for a contract to assemble sampling kits for abnormalities portion of project.	
95285-CLO	Closeout: Subtidal Sediment Recovery Monitoring	NOAA	No DPD required (sample analysis and report writing only)	Not applicable	On file		
95290	Hydrocarbon Data Analysis, Interpretation, and Database Maintenance for Restoration and NRDA Environmental Samples Associated with the *Exxon Valdez* Oil Spill	NOAA	On file/review complete	CE on file	On file		
95320A	Salmon Growth and Mortality	ADFG	On file/review complete	CE on file	On file		
95320B	PWS Pink Salmon Stock Identification and Monitoring (CWT)	ADFG	On file/review complete	CE on file	On file	In process of hiring PI. Beginning to tag pinks as part of field season.	Proposed for continuation as 96186.
95320C	Otolith Thermal Mass Marking of Hatchery Reared Pink Salmon in PWS	ADFG	On file/review complete	CE on file	On file	Boilers have been ordered and are now being installed.	Proposed for continuation as 96188.

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Project No.	Project Title	Lead Agency	DPD Status	NEPA Status	Exec Dir Authorize	Project Activity to Date	Comments
95320D	PWS Pink Salmon Genetics	ADFG	On file/review complete	CE on file	On file		Proposed for dontinuation as 96196.
95320E	Juvenile Salmon and Herring Integration	ADFG	On file/review complete	CE on file	On file	Currently in field in vicinity of Esther Island on a 15-day cruise capturing fish by fyke nets, purse seines, and tow nets to evaluate growth, survival and predation.	
95320G	Phytoplankton and Nutrients	ADFG	On file/review complete	CE on file	On file	Started 1995 field program with first PWS cruise in March.	
95320H	Role of Zooplankton in the PWS Ecosystem	ADFG	On file/review complete	CE on file	On file	Eleven-day cruise mid-March. Occupied 30 zooplankton stations including four deep stations. Prepared for April cruise and have been processing samples.	
95320I	Isotope Tracers - Food Web Dependencies in PWS (Fish, Marine Mammals, and Birds)	ADFG	On file/review complete	CE on file	On file	Interim funds were provided for lower trophic component only. New RSA for marine mammal work and analytical component was started in April 1995.	Proposed for continuation as 96170.
95320I(2)	Isotope Tracers - Food Webs of Fish	ADFG	On file/review complete	CE on file	On file	Subcontract for fish component to PWSSC commenced. Sample collection commenced -- oceanographic cruises March and April 1995, offshore fish sampling, nearshore fish sampling.	

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Project No.	Project Title	Lead Agency	DPD Status	NEPA Status	Exec Dir Authorize	Project Activity to Date	Comments
95320J	Information Systems and Model Development	ADFG	On file/review complete	CE on file	On file	Core PWS packet-radio repeater system completed and operational. Prototype database system and time-animated display/analysis tools for oceanographic and acoustics datasets completed. Interim model estimates for spring distribution of macrozooplankton generated; fish bioenergetics model developed and undergoing testing. Ocean modelling activity for definition of geostrophic flow in PWS in progress. Data ingestion, network administration, facilities maintenance continues.	
95320K	PWSAC: Experimental Fry Release	ADFG	On file/review complete	EA/FONSI on file	On file	Fry are currently outmigrating to holding pens. Fry will be reared and fed to projected size prior to release, tentatively schedule for late May-early June.	
95320M	Observational Physical Oceanography in PWS and the Gulf of Alaska	ADFG	On file/review complete	CE on file	On file	First cruise of FY 95 field season departed Cordova March 15; second cruise April 10. The 9 and 7-day cruises collected CTD, nutrient and phytoplankton data at 30 and 39 stations respectively, in PWS and Gulf of Alaska. Acoustic Doppler Current Profiler collected data continuously during the cruises. Aquashuttle was deployed and Optical Plankton Counter and CTD/fluorometer collected data in upper 50 meters. Analysis of CTD and ADCP from 1994 field season ongoing.	
95320N	Nearshore Fish	ADFG	On file/review complete	CE on file	On file	Tested and calibrated equipment in preparation for field work; completed winter acoustic survey of pollock in PWS.	

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Project No.	Project Title	Lead Agency	DPD Status	NEPA Status	Exec Dir Authorize	Project Activity to Date	Comments
95320Q	Avian Predation on Herring Spawn	USFS	On file/review complete	CE on file	On file		
95320S	Disease Impacts on PWS Herring Populations (competitive solicitation under State of Alaska two-step, RFQ-RFP process)	ADFG	On file/review complete	CE on file	On file	Virology and bacteriology completed; statistical analysis completed.	
95320T	Juvenile Herring Growth and Habitat Partitioning	ADFG	On file/review complete	CE on file	On file		
95320U	Somatic and Spawning Energetics of Herring/Pollock	ADFG	On file/review complete	CE on file	On file	Sampling scheduled to begin May 1995.	Because funding not received until April 7, 1995, will request extension of termination date.
95320Y	Variation in Local Predation Rates on Hatchery-Released Fry	ADFG	On file/review complete	CE on file	On file	Preparing for field work.	
95417	Carry-forward: Waste Oil Disposal Facilities	ADEC	RFP prepared in lieu of DPD	EA/FONSI on file (94417)	Review of RFP on file		
95422-CLO	Closeout: Restoration Plan EIS/Record of Decision	USFS	No DPD required	FEIS on file (94422)	On file		
95424	Restoration Reserve	All	No DPD required	Not applicable	Not applicable		
95427	Harlequin Duck Recovery Monitoring	ADFG	On file/review complete	CE on file	On file	Preparing for field season.	
95428-CLO	Closeout: Subsistence Planning Project	ADFG	No DPD required	Not applicable	On file	Held another series of PWS community meetings (5 meetings) followed by a regional PWS meeting. Regional meeting held in Kodiak with representatives from all 7 communities on Kodiak Island. Developed packet of proposals for consideration in FY 96 Work Plan.	

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Project No.	Project Title	Lead Agency	DPD Status	NEPA Status	Exec Dir Authorize	Project Activity to Date	Comments
95505B	Data Analysis for Stream Habitat	USFS	No DPD required; report writing only.	Not applicable (report writing only)	On file	Final draft of report being prepared from comment on April 1995 draft. Expect to submit redraft to Chief Scientist June 15, 1995.	

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
94007	Site Specific Archaeological Restoration	ADNR	94007A - this represents completion of the 1993 field work. The draft report has been turned in to NPS, the lead agency -- NPS is waiting for results from Auke Bay Lab on sediment samples. 94007B - this represents the FY94 project. Annual report being prepared by ADNR under 95007A (draft report submitted to Chief Scientist March 1995; under peer review).		94007A is continuation of 93006.
94020	Black Oystercatcher Interaction with Intertidal	DOI	Project is report writing for 93035 (report being drafted; expect to submit to Chief Scientist by July 1, 1995).		Continuation of 93035.
94039	Common Murre Population Monitoring	DOI/ FWS	Report being drafted; expect to submit to Chief Scientist March 15, 1995. (NOTE: Report not yet received.)	Roseneau, D.G., A.B. Kettle, and G.V.Byrd. Common murre restoration monitoring in the Barren Islands, Alaska in 1994. U.S. Fish and Wildlife Service, Alaska Maritime NWR, Homer, AK In 1994, complete censuses and replicate index plot counts were made at the East Amatuli Island-Light Rock and Nord Island murre colonies. Although a marginally significant increasing trend was found over the 6-year post-spill period at one 2-plot index area at East Amatuli Island-Light Rock, no significant trends were detected in the other 1989-1994 East Amatuli Island-Light Rock and Nord Island population data sets. Productivity was high (0.7 fledglings per nest site) and within normal bounds, compared with other colonies.	Begun as R11; continued as 93022.

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
94041	Introduced Predator Removal from Islands	DOI/ FWS	Annual report submitted to Chief Scientist March 23, 1995; under peer review. (NOTE: Report accepted by Chief Scientist; not yet at OSPIC.)	Bailey, E. 1995. Introduced predator removal in the Shumigan Islands. U.S. Fish and Wildlife Service, Alaska Maritime NWR, Homer, AK. Removed 33 arctic foxes from Simeonof Island (no more believed remaining); removed 3 arctic foxes from Chernabura Island (population appeared to be dying out naturally). Censused populations of black oystercatchers and pigeon guillemots on above islands as well as on nearby islands with no foxes (controls). No oystercatcher nests found on fox islands; densities of both oystercatchers and guillemots are much less on fox islands than on fox-free ones. Recovery of nesting populations of oystercatchers and guillemots is expected to begin in 1995 on Simeonof and Chernabura islands.	
94043A1	Eshamy River Restoration (W. PWS)	USFS	Project discontinued.		
94043A2	Gumboot Creek Restoration (W. PWS)	USFS	EA being prepared under 95043 (EA submitted to Forest Service Regional Office in Juneau; comments received. Documents being finalized for signature).		
94043A3	Stream No. 508 Restoration	USFS	Project discontinued.		
94043A4	Stream No. 509 Restoration (W. PWS)	USFS	Project discontinued.		

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
94043A5	Otter Creek/Lake Restoration (Knight I.)	USFS	EA being prepared under 95043 (EA submitted to Forest Service Regional Office in Juneau; comments received . Documents being finalized for signature).		
94043A6	Miners Creek/Lake Restoration (N. PWS)	USFS	Project discontinued.		
94043A7	Shrode Creek/Lake Restoration (W. PWS)	USFS	EA being prepared under 95043 (EA draft reviewed by Forest Service Regional Office in Juneau. Comments are being incorporated and final documents are being prepared for signature).		
94043B1	Sockeye Creek/Lake Restoration (Knight I.)	USFS	EA being prepared under 95043. (EA final edit underway. Signature copy to the Regional Forester with proposed date of June 15, 1995. Thirty day waiting period before implementation begins May 15, 1995.)		
94043B2	Rocky Creek/Bay Restoration (Montague)	USFS	Annual report being drafted.		

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
94064	Harbor Seal Habitat Use and Monitoring	ADFG	Includes funding for report writing on Project 93046 (report accepted by Chief Scientist; not yet at OSPIC).	Frost, K. and L. Lowry. 1994. Habitat use, behavior, and monitoring of harbor seals in Prince William Sound, Alaska. ADFG Twenty-six seals caught and sampled September 1994 (blood, whiskers for stable isotopes, blubber for fatty acids, skin for genetics, measurements). Twelve of these instrumented with satellite-linked time-depth recorders (6 adults, 6 subadults). Aerial surveys conducted during molting period in September. Preliminary survey analysis suggests no marked increase or decrease since 1993. Eight SLTDRs functioning on 11/10/94. Most seals remain local in PWS; one subadult in Gulf of Alaska.	Started as MM5; continued as R73 and 93046. Also related: 94244, 94320F.
94066	Harlequin Duck Recovery Monitoring	ADFG	Project is close-out and report writing for 1993 monitoring (Project 93033). Report being drafted; expect to submit to Chief Scientist by July 1, 1995 (delayed from March 1, 1995). Contract laboratory results still not received for 1993 contaminant testing of harlequin foods (NOAA-Auke Bay); or blood chemistry, histology, reproductive physiology (Univ. California Davis); or tissue analysis ordered by Chief Scientist. Lack of results from contract labs on specimens submitted June 1993 prevents completion of the report.		93033

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
94086	Herring Bay Experimental and Monitoring Studies	ADFG	Laboratory and data analysis in progress. Expect to submit annual report to Chief Scientist June 1, 1995.	Four field trips were conducted in 1994 for data and sample collections. Field activities in 1994 included data collections for population dynamics, barnacle recruitment, and water circulation studies. Laboratory analyses are continuing for mussel size-frequence distribution and mussels in filamentous algae samples collected in 1994.	Population dynamics portion of 93039.
94090	Mussel Bed Restoration and Monitoring	NOAA	Mussel chemistry nearly complete. Annual report, incorporating data from R103, 93036, and 94090 will be submitted August 1995.	Analysis of sediments collected April/May 1994 resulted in selection of 16 oiled mussel beds for restoration. Twelve mussel beds were cleaned and restored in 1994. Sediment chemistry completed; chemical analyses of mussels in process. Several sites identified as being impacted by EVOS were resampled this year.	CH1B and 93036. Other related projects include 94266 and R103.
94092	Killer Whale Recovery Monitoring	NOAA	Project is close-out and report writing of Project 93042 (report accepted by Chief Scientist; not yet at OSPIC).	Dalheim, M.E. 1994. Assessment of injuries and recovery monitoring of Prince William Sound killer whales using photo-identification techniques. National Marine Mammal Laboratory, Seattle, WA.	Continuation of 93042.
94102	Marbled Murrelet Prey and Foraging Habitat in Prince William Sound	DOI/ FWS	Report being drafted under Project 95102 (expect to submit to Chief Scientist February 5, 1995). (NOTE: Report submitted after March 31, 1995; peer reviewed and returned to PI for revision May 8, 1995.)	Kuletz, K.J., D.K. Marks, R. Burns, and L. Prestash. Marbled murrelet foraging patterns and habitat use during the breeding season in PWS. Forty-seven murrelets were radio-tagged. Foraging ranges were obtained by tracking birds with boats and planes. Birds foraged up to 60 kms. from their nests (average 10 km.). The average distance from shore was 0.6 km.	R15, 93051

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
94110	Habitat Protection - Data Acquisition and Support	ADNR	No report required.	See Habitat Protection Working Group, "Comprehensive Habitat Protection Process; Large Parcel Evaluation and Ranking" Volumes I and II (November 2, 1994 Supplement). Work on supplement to Large Parcel Evaluation and Ranking completed November 2, 1994. Work completed on the Small Parcel Evaluation and Ranking, Phase 1. Final document released February 13, 1995 under project 95110-CLO.	94126
94126	Habitat Protection and Acquisition Fund	ADNR	No report required.	Work continues in support of large parcel negotiations, including appraisals, title work, hazardous materials assessments, mapping of parcels under negotiation, and additional work as needed by negotiators.	94110
94137	Stock Identification of Chum, Sockeye, Chinook, and Coho in PWS	ADFG	Data analysis and report writing for 93068 funded under this project (report being drafted). Expect to submit report to Chief Scientist by June 30, 1995 (delayed from March 15, 1995 due to resignation of PI).	FY94 work effort: Scanned approximately half a million sockeye salmon and 1/3 million chum salmon in PWS for tags. Results of sockeye tag recoveries were used to manage fisheries in western PWS. Interception of Coghill Lake-bound wild fish was kept to a minimum. Analysis of tag recovery is expected by end of November 1994.	Evolved from FS03; continued as 93068 and 95137.
94139A1	Waterfall Creek Bypass Instream Restoration	ADFG	No report required (project carried forward as Project 95139A1).		94043, carried forward as 95139A1

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
94139A2	Port Dick Spawning Channel	ADFG	No report required (project carried forward as 95139A2).		
94139B1	Otter Creek Bypass Instream Restoration	USFS	Annual report being drafted; expect to submit to Chief Scientist by May 25, 1995.	Otter Creek bypass rehabilitation completed.	
94139B2	Shrode Creek Bypass Instream Restoration	USFS	Annual report being drafted; expect to submit to Chief Scientist by May 25, 1995.	Shrode Creek bypass renovation completed.	
94139C1	Montague Island Chum Instream Restoration	USFS	Annual report prepared December 1994; expect to submit to Chief Scientist by May 25, 1995.	For initial monitoring results, see "Montague Island Chum Salmon Restoration", 1994 Project Report, USFS Cordova Ranger District. Project completed for three streams on Northern Montague Island. This project completed 32 structures and 15 acres of thinning.	95139C1
94139C2	Lowe River (6.5 Mile) Instream Restoration	ADFG	No report required (project carried forward as Project 95139C2).		95139C2
94159	Marine Bird & Sea Otter Boat Surveys	DOI	Draft report submitted to Chief Scientist; under peer review. (NOTE: Draft report peer reviewed; revised by PI; and resubmitted to Chier Scientist May 18, 1995.)	Agler, B.A., S.J.Kendall, P.E. Seiser, and D.B. Irons. 1995. Marine bird and sea otter abundance of PWS, Alaska: Trends following the T/V *Exxon Valdez* oil spill. Estimated 320,470 plus-or-minus 63,640 marine birds in PWS in March 1994. Goldeneye and merganser populations may still be showing effects from oil spill. They are both increasing faster in the unoiled area than in the oiled area.	Began as B2; continued as 93045.

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
94163	Forage Fish Influence on Recovery of Injured Species	NOAA ADFG	NOAA: Contractor (UAF) presented verbal final report on April 26, 1995. From comments at that meeting, the contractor will prepare a written draft final report by June 1995. ADFG: Data analysis underway. All samples expected to be laboratory processed by January 31, 1995; expect to submit annual report to Chief Scientist by April 1, 1995. (NOTE: Report not yet received.)	NOAA: 11/4-11/16/94 cruise successfully completed. Hydroacoustics data analysis underway at biosonics laboratory. Bird and fish stomach data analysis ongoing. ADFG: Survey for collection of stomach samples was conducted 8/27-9/9/94. Approximately 1,500 stomach samples collected for analysis of diet overlap. Found Pacific herring, walleye pollock, and juvenile chum salmon common and widespread throughout western PWS.	Integrate with Projects 94320 (PWS System Investigation), 94102 (Murrelet Prey), and 941 (Pigeon Guillemot).
94165	Herring Genetic Stock Identification in Prince William Sound	ADFG	Project deferred to FY 95 (95165); no report required.	Collection schedule disrupted by run failure. RFP to be issued as soon as possible to analyze the samples that have been collected and to finish the work in spring 1995.	95165

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
94166	Herring Spawn Deposition and Reproductive Impairment	ADFG NOAA	ADFG - Laboratory and data analysis complete. Annual report being drafted; expect to submit by June 15, 1995. NOAA - Annual report being drafted; hydrocarbon analysis in progress.	Adult herring biaccumulated hydrocarbons, including ovarian tissue and ova. Adults were stressed by oil when VHS was present; VHS prevalence was correlated with PAH concentration. Eggs and larvae were not impacted by parental exposure to hydrocarbons. Factors unaffected included egg fertility, time of hatch, survival, larval stage at hatch, swimming ability, morphology, chromatid separation, and number of mitotic figures.	Coordinating with USFS regarding avian predation (94320Q).
94173	Pigeon Guillemot Recovery Monitoring	DOI/ FWS	Draft report submitted to Chief Scientist; under peer review. (NOTE: Draft report peer reviewed and returned to PI for revision April 11, 1995.)	D. Lindsey Hayes, Recovery monitoring of pigeon guillemot populations in PWS, Alaska. Found evidence of predation on eggs and chicks on Naked Island and abandonment of eggs on Jackpot Island. On Naked Island, gadids were much more prevalent and sandlan much less prevalent in the diet of chicks in 1994 than in 1979-81. Herring or smelt accounted for ca. 32% of prey items delivered to chicks at Jackpot Island, but only ca. 1% at Naked Island.	Continued from 93034. Also related to 94163, 94102, 94506.
94185	Coded Wire Tagging of Wild Pinks for Stock Identification	ADFG	Project includes funds for report writing of Project 93067 (redraft of report submitted to Chief Scientist December 20, 1994).	See 94320B.	Began as FS03; continued as R060A. Also related to 93014, 94320B.

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
94191	Oil Related Egg and Alevin Mortalities	ADFG NOAA	ADFG - Annual report under review by genetics staff; expect to submit to Chief Scientist by June 30, 1995. NOAA - Annual report being prepared; expect to submit to Chief Scientist by June 30, 1995. (Final report will be prepared after the progeny of the 1993 brood complete incubation in the spring of 1996.)	ADFG - Collected gametes from 8 controlled and 8 oiled streams. These eggs are now being incubated and will be completed by December 31, 1994, for analysis in 1995. NOAA - 992 brood died from bacterial kidney disease. 1993 brood emerged from incubators by 5/15/94. 18,000 fish were coded wire tagged and released May 1994; 14,000 fish were retained for PIT tagging later in the summer. Dose-related differences in growth and size of 1992 brood year observed in October 1993 were not as apparent in April 1994. Embryo survival to the development of the eye and emergence from substrate were measured in 1993 brood year, and clear relationship was observed between dose and survival to both developmental stages. During emergence period, inspected over 50,000 newly emerged fry for visible lesions and observed a dose relationship with the proportion of fish displaying edema.	Began as FS02 and R060C; continued as 93003.
94199	Institute of Marine Science - Seward Improvements	ADFG	No report required. Record of Decision signed by DOI, DOA (USFS), and NOAA October 31, 1994. Capital funding approved by Trustee Council November 2, 1994, subject to executive director's approval.		95199
94217	Prince William Sound Area Recreation Implementation	USFS	Project is close-out and report writing of Project 93065 (report submitted to OSPIC; undergoing final format review).	Menefee, W. and S. Hennig. 1994. Prince William Sound recreation project.	Close-out of 93065.

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
94244	Harbor Seal and Sea Otter Co-op Subsistence Harvest Assistance	ADFG	Annual report being drafted; expect to submit to Chief Scientist by June 30, 1995.	A harbor seal/sea otter restoration workshop took place in Anchorage December 2, 1994. It was attended by more than thirty people, including representatives from eight communities which use marine mammals for subsistence. A draft report on harbor seal and sea otter restoration was completed and distributed for internal review. A second workshop took place on March 2, 1995.	95424
94246	Sea Otter Recovery Monitoring	DOI	Funding includes funding for report writing of Project 93043: (1) Draft report on recovery of sea otter carcasses has been submitted to the Chief Scientist and is under peer review. (2) Draft report on aerial survey of sea otters has been peer reviewed and returned to the PI for revision. (3) Third report is being drafted; expect to submit to Chief Scientist April 1, 1995.		
94255	Kenai River Sockeye Salmon Restoration	ADFG	Annual report submitted to Chief Scientist March 1, 1995; under peer review.		Began as R53; continued as 93012 and 93015.

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
94258	Sockeye Salmon Overescapement	ADFG	Project includes funds for report writing on Project 93002 (final report will not be prepared until multi-year project complete; annual report accepted by Chief Scientist but not yet at OSPIC).	Skilak weight of fall predictive on both escapements and fall fry abundance. 1994 fall fry had low abundance and weight. Lipid comparisons of similar length fall fry from Tustumena and Skilak indicated Skilak fall fry entered winter in poor condition in 1993. 1995 adult return needed to define magnitude and duration of reduced sockeye production.	Started as FS27; continued as 93002.
94259	Coghill Lake Sockeye Salmon Restoration	ADFG	Draft report being prepared. (NOTE: Draft report submitted to Chief Scientist by May 19, 1995.)	Limnology and hydroacoustic sampling completed for this year. Analysis in progress. Estimated 900,000- 1,800,000 smolts outmigrated this year. Escapement approximately 7,200 adults. Response of phytoplankton to liquid fertilizer applications suggests fertilizer is not being lost to the anaerobic layer, but is actually improving the productivity of Coghill Lake.	Began as 93024. Coordinate with Project 94320 (PWS System Investigation) to obtain project smolts.
94266	Shoreline Assessment and Oil Removal	ADEC	Report being drafted. (NOTE: Draft report submitted to Chief Scientist April 26, 1995; under peer review.)		94090/Mussel Bed Restoration

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
94272	Chenega Chinook Release Program	ADFG	Draft annual report submitted to Chief Scientist December 30, 1994; under peer review.	50,300 chinook smolts released at Crab Bay on 5/27/94. Chenega residents reared and fed smolts in net pens prior to release. PWSAC staff instructed Chenega Natives as to proper fish culture methods.	Continuation of 93016.
94279	Subsistence Food Safety Testing	ADFG	Annual report being drafted; expect to submit to Chief Scientist by June 30, 1995.	Test results on final fish and shellfish samples received from NMFS lab. All results so low as to be within margin of error for tests. Dames and Moore (contractor) submitted report on fish and shellfish collections. Seal samples from Tatitlek and duck samples from Chenega Bay were collected by ADFG with assistance from local subsistence hunters. Test results found hydrocarbon contamination was at background levels.	Continuation of 93017.
94285	Subtidal Sediment Recovery Monitoring	NOAA ADEC ADFG	Project includes funding for report writing of Project 93047 (ADEC report accepted by Chief Scientist but not yet at OSPIC; ADFG report submitted to Chief Scientist and under peer review; NOAA report being drafted -- awaiting hydrocarbon analysis of sediments).	Braddock, J. and Z. Richter, Microbiology of subtidal sediments: monitoring microbial populations, ADEC.	Continuation of ST2A and 93
94290	Hydrocarbon Data Analysis and Interpretation	NOAA	This project will update the hydrocarbon database being submitted as the final report for ST8. The database will be updated in FY 95 under project 95290.	In FY94, 2,742 samples were received and several hundred were submitted for analysis. Conversion of database to Oracle, the standard agency database, is complete. This will allow access to anyone with security clearance.	Continuation of ST8 and 93053.

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
94320A	Salmon Growth and Mortality	ADFG	Annual report submitted to Chief Scientist as part of consolidated SEA-94 report on April 15, 1995; under peer review.	Growth rate of juvenile pink salmon in 1994 in PWS slightly above average compared to 1989-1993 period. Presently analyzing growth/survival data for PWS pink salmon with emphasis on effects of number of juvenile salmon released.	
94320B	Coded Wire Tagging Recovery-PWS Pinks	ADFG	PI has resigned. Expect to submit draft annual report to Chief Scientist by June 30, 1995.	Common property fisheries: 26.2 million caught, 4.4 million scanned (17%), 3,600-4,000 tags recovered. Hatchery revenue sales: 10.4 million caught, 2 million scanned (19%), 1,600 tags recovered. Scanned close to 100% of brood stock from PWS salmon hatcheries. Used results of in-season analysis, based on detection of tags, for critical management decisions regarding fishing areas and times. Ability to detect wild stock shortfalls and high abundance of hatchery fish contributed to meeting restoration goals.	Continued as 96186.
94320C	Otolith Mass Marking of PWS Pink Salmon	ADFG	Draft annual report submitted to Chief Scientist March 31, 1995; under peer review.	Feasibility study initiated at PWSAC Cannery Creek Hatchery. Approximately 50,000 fry were immersed for different lengths of time and at different temperatures to determine optimum treatment for marking effectiveness and survival. Completed examination of otoliths subjected to varying levels of oxytetracycline and varying temperatures at ADFG lab. Marking was not successful for any of the treatment groups.	Continued as 96188.

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
94320D	Pink Salmon Genetics	ADFG	Contractor completed his tasks related to project; resulting report to be completed by May 24, 1995.	In ADFG lab, DNA data showupstream and intertidal spawners in the same stream genetically differ. Have also found that mainland and island populations genetically differ.	94184, 94191
94320E	Salmon Predation	ADFG	Annual report submitted to Chief Scientist April 15, 1995 as part of consolidated SEA-94 report; under peer review.	Walleye pollock, adult pink salmon, Pacific herring, and dolly varden trout identified as important predators on juvenile salmon in Prince William Sound. FY 94 results have been analyzed to develop study design for FY 95 effort that is expected to significantly improve hypothesis testing capability.	
94320F	Harbor Seals-Trophic Interactions	ADFG	Annual report will be submitted to Chief Scientist by June 1995 (in combination with 95064).	Preliminary fatty acid analysis of blubber samples indicates several distinct feeding patterns. Some seals appear to eat plankton-eating fishes and others piscivorous fishes/prey such as pollock and squid. Stable isotope analysis indicates different feeding patterns for subadults and most adults. Adult females in particular show a strong annual shift in prey. First prey samples currently being analyzed.	94064. Combined with 95064 for 1995.

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
94320G	Phytoplankton and Nutrients	ADFG	Annual report submitted to Chief Scientist April 15, 1995 as part of consolidated SEA-94 report; under peer review.	1994 field work concluded on 9/29/94. Analyzed all water samples (for nutrients, chlorophyll, phaeopigments, particulate C & N, dissolved oxygen, temperature and salinity) except for MV *Bering Explorer* cruise that just ended. Continued work on phyloplankton species identifications for samples from Lake Bay, Ester Island.	
94320H	Role of Zooplankton in PWS Ecosystem	ADFG	Annual report submitted to Chief Scientist April 15, 1995 as part of consolidated SEA-94 report; under peer review.	Time series of zooplankton biomass tracks predation on 0-class fish in April, May, and June.	95320H
94320I	Food Web Dependencies in PWS Ecosystem/Stable Isotopes	ADFG	Annual report submitted to Chief Scientist April 15, 1995 as part of consolidated SEA-94 report; under peer review.	Food Web of Fishes- Conducted isotopic analysis of approximately 500 samples (i.e, roughly 2,000 isotopic determinations). Marine Mammal Trophic Energetics- Conducted isotopic analysis of vibrissae of 23 seals, roughly 30 samples per whisker.	

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
94320J	Information Systems and Model Development	ADFG	Annual report submitted to Chief Scientist April 15, 1995 as part of consolidated SEA-94 report; under peer review.	Repeater installation was completed and modified at two sites and further design work was completed for the HERO site at Hinchinbrook Entrance. Field testing indicated a need for design modifications to radio transmitter power levels, and flaws were discovered in some radio equipment. Reengineering by the supplier and delivery of replacements is complete for the core repeater sites on the eastern side of PWS. Approval was secured for use of the USFS repeater site on Naked Island and the repeater installed. The core PWS packet-radio repeater system is now completed and functional. This completes the last of the FY 94 tasks for this project.	
94320K	PWSAC-Experimental Fry Release	ADFG	Annual report submitted to Chief Scientist April 15, 1995 as part of consolidated SEA-94 report; under peer review.	Adult pink salmon will return in summer 1995 as a result of 1994 fry release. Marine survivals will be estimated based on coded wire tag data. Rearing and release strategies will be compared and differences in marine survival evaluated between rearing and release groups.	
94320L	PWSAC-Experimental Manipulation	ADFG	Annual report submitted to Chief Scientist December 22, 1994.	Adult fish will return in 1995. Marine survivals will be estimated for returning adults.	

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
94320M	Physical Oceanography in PWS and Gulf of Alaska	ADFG	Annual report submitted to Chief Scientist April 15, 1995 as part of consolidated SEA-94 report; under peer review.	A publication was submitted to the peer reviewed journal *Global Atmosphere and Ocean System*, titled Circulation and Hydrography in PWS, Alaska during the Spring, Summer and Fall of 1994. Analysis of CTD and ADCP from the 1994 field season is ongoing.	Most of the projects under 94320.
94320N	Nearshore Fish	ADFG	Annual report submitted to Chief Scientist April 15, 1995 as part of consolidated SEA-94 report; under peer review.	The 1994 field season yielded over 1,000 bioacoustic data sets, which require several stages of analysis. For data management purposes, all raw data sets have been filed, and most entered into an electronic log. A majority of the post-processing software has been written, including programs to perform electroacoustic transforms, classify biological targets, and relate trawl catches to acoustic scatter. Scientists have been trained on use of the Sun workstations so that post-processing has been initiated.	
94320P	SEA Program: Program Management	ADFG	Annual report submitted to Chief Scientist April 15, 1995 as part of consolidated SEA-94 report; under peer review.	Community involvement obligations met (community visits and meetings, SEA activities bulletin).	All subprojects of 94320.
94320Q	Avian Predation on Herring Swan	USFS	Annual report being drafted.		95320Q

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
94320S	Disease Impacts on Herring	ADFG	Report being drafted; expect to submit to Chief Scientist May 15, 1995.	Because of the important of *ichthyophonus* in herring morbidity in 1994, all previous Pacific herring sampled from PWS and submitted to UC Davis (1989, 1990, 1991, 1992) were re-screened for *ichthyophonus*. Prevalence in these samples was never more than 15% and was distributed fairly evenly among liver, kidney, and spleen, but was never in the olfactory nares.	
94417	Waste Oil Disposal Facilities	ADEC	No report required (project carried forward as 95417).		95417
94422	Environmental Impact Statement for the Draft Restoration Plan	USFS	Final EIS released September 30, 1994. Notice of Availability in Federal Register, Vol. 59, No. 186, p. 49232, dated 9/27/94 and Vol. 59, No. 189, p. 49926, dated 9/30/94. Record of Decision (ROD) signed October 31, 1994. FEIS distributed; additional copies available through OSPIC.		95422 funded to complete ROD and Administrative Record

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
94423	Oil Spill Public Information Center (OSPIC)	ALL	No report required.	During the quarter ending 3/31/95, OSPIC staff received 427 visitors, responded to 945 requests for information, processed 88 interlibrary loans, loaned 146 items, distributed 1,950 documents, and acquired 27 books, 4 periodicals, 3 reports, 2 maps, and 1 database. Approximately 106 documents were added to the Trustee Council Administrative Record and 88 Marine Ecosystem posters were sold. During the week of 3/24/95, OSPIC received its 8,000th visitor since its opening in September 1990. OSPIC staff began format review of NRDA/Restoration Project final reports; provided support for the 1995 Restoration Workshop; and explored options for the destination of Information Management System products, including SLED, AnchorNet, and the OSPIC World Wide Web site.	
94424	Restoration Reserve	DOL	No report required.	At its December 2, 1994 meeting, the Trustee Council voted to place $24 million into a Restoration Reserve fund within the court registry investment system and to invest the funds in laddered securities. Motion to establish the Restoration Reserve Fund has not been filed with the court.	
94425	Marine Mammal Book	NOAA	Book printed and being distributed.		

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
94427	Experimental Harlequin Duck Breeding Survey	ADFG	Annual report being drafted; expect to submit to Chief Scientist by August 1, 1995.	PI met with other experts and examined harlequin collections at American Museum of Natural History and the Denver Museum of Natural History to develop age and sex criteria.	B11, R71, 93033, 94066, 95427 nearshore ecosystem projects.
94428	Subsistence Restoration Planning and Implementation	ADFG	Annual report being drafted; expect to submit to Chief Scientist by June 30, 1995.	Trustee Council funded several subsistence restoration projects developed through this planning program as part of its FY 95 Work Plan. Additionally, the state Trustees met in November and approved additional projects to be supported with criminal settlement funds. Project staff followed up with communities to develop project descriptions for the next funding cycle.	
94504	Genetic Stock Identification of Kenai River Sockeye	ADFG	Project is report writing for 93012 (report being drafted; expect to submit to Chief Scientist by June 30, 1995). (NOTE: Expected submission date delayed from February 30, 1995.)		Begun as 93012. Also related to 94255.

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
94505	Information Needs for Habitat Protection	USFS ADFG DOI	Project is close-out and report writing for Project 93051 (ADFG report on Stream Habitat Assessment undergoing final formatting review at OSPIC; DOI report on Radio Tagging Murrelets accepted by Chief Scientist; USFS report on Channel Type Classification and DOI report on Marbled Murrelet Habitat Identification peer reviewed and returned to PIs for revision; USFS report undergoing final formatting review at OSPIC). (NOTE: DOI report on Marbled Murrelet Habitat Identification accepted by Chief Scientist April 3, 1995.)	Sundet, K. 1994. Stream habitat assessment project: PWS and Lower Kenai Peninsula. ADFG	Close-out of 93051. Also related to 94110, 94126.
94506	Pigeon Guillemot Recovery	DOI	Project is report writing of Project 93034 (report accepted by Chief Scientist; not yet at OSPIC).	Sanger, G.A. and M.B. Cody. 1994. Survey of pigeon guillemot colonies in Prince William Sound, Alaska. U.S. Fish and Wildlife Service, Anchorage.	Report writing for 93034; also related to 94173.
94507	Symposium Proceedings Publication	NOAA	Forty manuscripts finalized and with the publisher (American Fisheries Society, AFS) in format editing and layout. Ten manuscripts are ready to be sent to AFS and the remaining 13 manuscripts are in review/revision status. The book will probably be over 1200 pages, 50% longer than first estimated.		

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
93002	Sockeye Salmon Overescapement	ADFG	Project continued as 94258. Final report will not be prepared until multi-year project complete. Annual report accepted by Chief Scientist February 22, 1995; not yet at OSPIC.	Red Lake 1994 plankton indicate downward trend associated wtih increased sockeye salmon fry recruitment. May suggest increased smolt production in 1995 likely. Akalura Lake failed to meet escapement goals. Adult return to Red Lake accurately forecasted by smolt program. Kenai River adult return forecast with large bounds because of uncertainty of smolt produciton in 1990.	95259 (glacial lake ecology information may be transferable), 95255. Project is a continuation of FS27, 93002, 94258.
93003	Salmon Egg to Pre-emergent Fry Survival	ADFG NOAA	The results of this project will be presented in two reports: (1) ADFG report submitted to OSPIC; undergoing final formatting review. (NOTE: Available at OSPIC May 15, 1995.) (2) NOAA report not due until after the progeny of the 1993 brood complete incubation in Spring 1996.	(1) Sharr, S. and J.E. Seeb. 1994. Injury to salmon eggs and preemergent fry in Prince William Sound. Oil exposures completed for 1992 and 1993 brood years. 1992 brood pink salmon died from bacterial kidney disease; spawning not possible. Precautions to ensure survival of 1993 brood have been taken. Persistence of elevated embryo mortalities in oiled streams in 1992 indicate possible genetic damage to wild pink salmon populations from the *Exxon Valdez* oil spill. Preliminary laboratory studies support the genetic hypothesis. Additional laboratory studies demonstrate dose response of pink salmon embryos when incubated in gravel exposed to crude oil from the *Exxon Valdez.*	Started in 1989 as FS2 and continued as R60C and 94191. Also related to R60AB. Project 93067 provides fisheries managers with information critical for protecting these chronically damaged wild pink salmon populations from overexploitation in commercial fisheries.

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
93006	Site Specific Archaeological Restoration	ADNR	Draft report submitted to Chief Scientist March 31, 1995; under peer review.	Archaeological restoration assessments conducted at 14 sites in 1993 suggest that a majority of the archaeological vandalism that can either be directly or indirectly linked to the *Exxon Valdez* oil spill event occurred in 1989 before adequate constraints were put into place over the activities of oil spill clean-up personnel. Most vandalism took the form of "prospecting" for high yield sites. In 1993, only two of the 14 sites visited showed signs of continued vandalism and the link between this recent vandalism and the *Exxon Valdez* oil spill event remains highly problematical. Oil monitoring samples from the archaeological sites have not been processed as of this date, but oil was still visible to the naked eye in the intertidal zones of two of the 14 sites visited.	The remaining site assessments will be completed in 1994 under Project 94007B.
93012	Genetic Stock Identification of Kenai River Sockeye Salmon	ADFG	Data analysis and report writing funded under project 94504 (report being drafted; expect to submit to Chief Scientist by June 30, 1995.) NOTE: Submission delayed from February 28, 1995.	Genetic data were collected during 1992 and 1993 from spawning populations contributing to mixed-stock harvest of sockeye salmon in Cook Inlet. These data were used in a pilot study to estimate the component of Kenai River stocks harvested in mixed-stock areas of Upper Cook Inlet.	Continued as 94504. Related to 93002 as well as to 93012 and 93015, which continued as 94255. Collection of spawning samples is being conducted under 93015.

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
93015	Kenai River Sockeye Salmon Restoration	ADFG	Final report will not be prepared until multi-year project complete. Redraft of annual report submitted to Chief Scientist on September 19, 1994. (NOTE: Annual report accepted by Chief Scientist on May 8, 1995.)	Successful collection of baseline and fishery genetic samples. Successful in-season hydroacoustic survey of Upper Cook Inlet by subcontractor.	Genetic samples analyzed under 93012. Projects 93012 and 93015 began as R52 and continued as 94255.
93016	Chenega Bay Chinook and Silver Salmon (NEPA Compliance)	ADFG	No report required.		Continued as 94272. Also related to 93017.
93017	Subsistence Food Safety Survey and Testing	ADFG NOAA	Report accepted by Chief Scientist. Not yet at OSPIC.	First round of tests for hydrocarbon contamination of subsistence resources showed little or no contamination. Results of second round of testing are pending. The observations of abnormalities in the tested resources caused a shift in concerns of subsistence users from oil contamination to what effects these abnormalities have on these resources. A series of public meetings were held in communities to locate sites and species of concern.	Continued as 94279. Depends on information from all resource restoration projects as well as the shoreline oiling survey. Other related subsistence projects include 94428 and 93016.
93024	Restoration of Coghill Lake Sockeye Salmon Stock	ADFG USFS	Completion of report (being drafted by ADFG) delayed due to intensive field sampling in SEA program. Expect to submit report to Chief Scientist by February 15, 1995. (NOTE: Report not yet received.)	Monitoring showed the need for modifying both the type and concentrations of fertilizer.	Continued as 94259 and 95259.

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
93032	Cold Creek Pink Salmon Restoration (NEPA Compliance)	ADFG	Project removed from Work Plan.		R105
93033	Harlequin Duck Restoration	ADFG	Report writing funded under project 94066 (report being drafted; expect to submit to Chief Scientist by July 1, 1995; submissin date delayed from March 1, 1995). Contract lab results still not received for contaminant testing of harlequin foods (NOAA-Auke Bay), indications of oil exposure or physiological effects on reproduction from blood and tissue samples (UC-Davis). Absence of lab analysis is preventing assessment of continued harlequin exposure to oil and connections to reproductive impairment.	Only 3 harlequin broods observed in western Prince William Sound; 14 in eastern Prince William Sound. Decreased numbers of harlequins molting in western Prince William Sound in July. Suspect incomplete gonadal development in pre-nesting western Prince William Sound harlequins. Blood/physiological analysis and hydrocarbon analyses in process. Harlequin breeding stream/nest site model in preparation. Harlequin breeding assessment completed on North Afognak Island.	Started in 1989 as B11 and continued as R71. Also related to B2, CH1B, R103, 93036, 93045, 93053, 94159 and 94427. 93036 documents continued oil in prey species. 93045 surveys corroborate harlequin status in Prince William Sound. 93053 is the hydrocarbon database for sea duck samples.
93034	Pigeon Guillemot Recovery	DOI	Report accepted by Chief Scientist; not yet at OSPIC.	Sanger, G.A. and M.B. Cody. 1994. Survey of pigeon guillemot colonies in Prince William Sound, Alaska. U.S. Fish and Wildlife Service, Anchorage. One hundred eighty-four colonies, concentrated in southwest Prince William Sound and at Naked Island, were identified. This colony survey confirmed that the present population of pigeon guillemots in Prince William Sound is 3,000 - 4,900.	Continued as 94173. Also related to B9 and 93045.

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
93035	Black Oystercatchers / Oiled Mussel Beds	DOI	Report being drafted under Project 94020 (expect to submit report to Chief Scientist July 1, 1995). NOTE: Expected submission date delayed from July 1, 1995.	Growth rates of oystercatcher chicks were lower on oiled than unoiled nest sites. Some alphatic compounds were detected in 1992 fecal samples from oiled sites. Breeding pairs increased on oiled Green Island from 1992 to 1993 but decreased on Knight Island from 1991 to 1993.	Related to B12, R103, 93036, and 93045. Continued as 94020.
93036	Oiled Mussel Beds	DOI/ NBS	Two reports are being prepared under this project. NOAA and DOI both expect to submit reports to Chief Scientist by April 15, 1995. (NOTE: DOI report submitted to Chief Scientist for peer review April 28, 1995. NOAA report delayed to August 1, 1995.)	Cusick, J.A. and G.B. Irvine. 1995. Geographical extent and recovery monitoring of intertidal oiled mussel beds in the Gulf of Alaska affected by the *Exxon Valdez* oil spill. Documented 27 of 66 sampled mussel bed sediments within PWS with total petroleum hydrocarbons greater than 10,000 ng/g wet weight. Minimally intrusive site manipulation was conducted at three heavily oiled mussel beds. Prelminary evaluations indicate these methods were not effective in reducing petroleum hydrocarbons adjacent to manipulated areas. Along the Kenai and Alaska Peninsulas, 15 mussel beds were sampled--four of which were new sites--and four of these beds showed total petroleum hydrocarbons in excess of 5000 ng/g wet weight.	Continued as 94090 and 94266 (the portion of the project that examines the chemical and physical degradation of oil along national park coastlines). Other related projects include B11, CH1B, R71 and 93033.

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93038	Shoreline Assessment	ADEC	Draft report peer reviewed; returned to PI for revision August 10, 1994. (NOTE: Piper completed his revisions according to reviewer's comments in December 1994; Gibeaut is incorporating them into technical report which is due to ADEC June 1, 1995. Gibeaut's contract had to be extended.)	Piper, E., et al. 1993 shoreline assessment. Surface oil has become stable. Subsurface oil has decreased substantially since 1991. Oiling is discontinuous throughout the study site.	93036
93039	Herring Bay Experimental and Monitoring	ADFG	Draft report submitted to Chief Scientist March 2, 1995; under peer review.	Highsmith, R.C., M.S. Stekoll, P. van Tamelen, A.J. Hooten, S.M Saupe, L. Deysher, and W.P. Erickson. 1995. Herring Bay monitoring and restoration studies. School of Fisheries and Ocean Sciences, UAF. Examination of dominant intertidal alga, *fucus gardneri,* has shown that larger plants were removed from intertidal in areas affeced by spill/clean-up. Where *fucus* cover was reduced, abundance of ephemeral algae often increased. Populations of grazing invertebrates, e.g., limpets and periwinkles, showed reduced densities at oiled sites in upper intertidal. Initially, barnacle recruitment was lower in quadrats on tar-covered rocks than clean quadrats, but differences disappeared at most sites over time. *Fucus* germlings and filamentous algae continued to have lower densities and percent cover on oiled than non-oiled substrates. Recovery occurring in lower/middle intertidal zones and normal community interactions returning. Upper intertidal continues to exhibit damage; recovery may take additional 2-5 years.	Evolved from CH1A and R102 and continued as 94086. Also related to B11, R103, ST1A, ST1B, and ST2A.

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93041	Comprehensive Monitoring	NOAA	Project discontinued.		
93042	Killer Whale Recovery	NOAA	Data analysis and report writing funded as Project 94092 (report accepted by Chief Scientist; not yet at OSPIC).	Dalheim, M.E. 1994. Assessment of injuries and recovery monitoring of Prince William Sound killer whales using photo-identification techniques. National Marine Mammal Laboratory, Seattle, WA. AB pod number has increased by one (a calf) to a total of 26. The 14 missing pod members were not present in 1993.	Continued as 94092.
93043	Sea Otter Demographics and Habitat	DOI/ NBS	The results of this project will be presented in three reports (funded under 94246): (1) Draft report on recovery of sea otter carcasses accepted by Chief Scientist; not yet at OSPIC. (2) Draft report on aerial survey of sea otters has been peer reviewed and was returned to the PI for revision December 15, 1994. (3) Report on sea otter demographics being drafted; expect to submit to Chief Scientist by May 31, 1995. (NOTE: Submission delayed from April 1, 1995.)	Aerial survey of sea otters in Prince William Sound completed summer 1993; estimated abundance is approximately 18,000. Age distribution of sea otter carcasses recovered in spring 1993 in western Prince William Sound is similar to prespill distribution. Age- and sex-specific survival rates generated from carcass data for sea otters in Prince William Sound.	

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93045	Marine Bird / Sea Otter Surveys	DOI	Redraft of report submitted to Chief Scientist December 2, 1994. (NOTE: Report accepted by Chief Scientist May 19, 1995.)	Agler, B.A., P.E. Seiser, S.J. Kindall and D.B. Irons. 1994. Marine bird and sea otter populations in Prince William Sound, Alaska: Population trends following the *Exxon Valdez* oil spill. U.S. Fish and Wildlife Service, Anchorage. Overall marine bird population estimates in Prince William Sound have not changed significantly since 1989, but were 41% lower than 1972-1973 estimates. Rates of increase of goldeneyes and surfbird populations were higher in the unoiled zone of Prince William Sound than in the oiled zone, whereas oystercatchers increased more rapidly in the oiled zone.	Started as part of B2 and continued as 93045 and 94159.
93046	Habitat Use, Behavior, and Monitoring of Harbor Seals in PWS	ADFG	Report accepted by Chief Scientist. Not yet at OSPIC.	Frost, K.J. and L.F. Lowry. 1994. Habitat use, behavior, and monitoring of harbor seals in Prince William Sound, Alaska. ADFG Counts of seals at 25 trend sites in Prince William Sound were similar during pupping and molting in 1992 and 1993. However, 1993 pupping counts were 23% lower than in 1989. Molting counts were similar to 1989 postspill counts, but 27% lower than 1988 counts. Sixteen seals satellite-tagged since 1992 indicate that seals in central Prince William Sound haul out and feed near the same sites with little movement to other areas. Feeding usually occurs in depths of 100-200 meters, with a maximum recorded dive depth of 404 meters.	Started in 1989 as MM5, which was closed out as R73. It continued as 94064. Other related projects are 94244 and one of the studies in 94320. ADFG is also conducting similar studies in southeast Alaska and near Kodiak.

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93047	Subtidal Monitoring	ADEC ADFG NOAA	The results of this project will be presented in three reports: (1) NOAA sediments - Hydrocarbon analysis of subtidal sediments complete. Data analysis and report preparation in progress; expect to submit report to Chief Scientist by July 1995. (2) DEC microbiology - Report accepted by Chief Scientist. Not yet at OSPIC. (3) ADFG eelgrass - Response to peer review comments submitted to Chief Scientist March 10,1995.	(2) Braddock, J. Microbiology of subtidal sediments: monitoring and microbial populations. (3) Jewett, S., et al. The effects of the *Exxon Valdez* oil spill on shallow subtidal communities in PWS 1989-93. As a follow-up to previous studies from 1989-1991, the numbers and activity of oil-degrading microorganisms were measured in sediments collected in 1993. Preliminary results suggest some contamination remains in subtidal sediments. However, generally very low numbers were found where visible oil was present (e.g., subsurface sediments, Northwest Bay). Analysis of 1993 eelgrass data complete. Several infaunal and epifaunal taxa more abundant in oiled bed sites than control sites. Amphipods less abundant in oiled sites. Sea urchins are more abundant. Hemosiderosis in fishes from oiled sites.	Started as ST1A and continued as 94285. Other related projects include ST1A, ST1B and 93053.
93049	Monitor Murre Colony Recovery	DOI/ FWS	Report being drafted. Expect to submit to Chief Scientist February 17, 1995. (NOTE: Draft report submitted to Chief Scientist for peer review April 28, 1995.)	Roseneau, D. 1995. Common murre Restoration monitoring in the Barren Islands, Alaska, 1993. U.S. Fish and Wildlife Service, AK Maritime NWR, Homer, AK. Murre productivity in the Barren Islands was 0.4 - 0.6 chicks per nest site in 1993, up from near zero in 1989. Population counts on plots were similar to or higher than in previous postspill years.	Started as R11 and continued as 94039. Also related to B3. (Formerly in EVOS database as 93022.)

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
93051	Habitat Information for Anadromous Streams and Marbled Murrelets	ADFG DOI USFS	The results of this project will be presented in 5 reports (being prepared under 94505): (1) ADFG Stream Habitat Assessment/PWS & Lower Kenai- report accepted by Chief Scientist; not yet at OSPIC. (2) USFS Habitat Protection Info. for Channel Type Classification Study- draft report peer reviewed; returned to PI for revision October 31, 1994. (3) DOI Pilot Study on Capture and RadioTagging of Murrelets in PWS-report accepted by Chief Scientist. (4) DOI Information Needs for Habitat Protection: Marbled Murrelet Habitat Identification - report peer reviewed and returned to PI for revision. (NOTE: Accepted by Chief Scientist April 3, 1995.) (5) USFS Upland Nesting Habitat of Marbled Murrelet -report submitted to OSPIC; undergoing formatting review.	(1) Sundet, K. 1994. Stream habitat assessment project: Prince William Sound and Lower Kenai Peninsula. ADFG (3) Burns, R.A., L.M. Prestash, and K.J. Kuletz. 1994. Pilot study on the capture and radio tagging of murrelets in PWS, AK, July and August, 1993. U.S. Fish and Wildlife Service, Anchorage, AK. (5) Characterization of the upland nesting habitat of the marbled murrelet in the *Exxon Valdez* oil spill area. Late season surveys, sites at the heads of bays, low elevations, high percentages of forest cover, and large trees were all consistent predictors of high murrelet activity. Radar performed better than humans in detecting murrelets and was cheaper than boat-based or ground-based surveys by humans. About 995 km of shoreline and 117 km^2 of uplands were surveyed for anadromous fish streams on private lands on the lower Kenai Peninsula and in Prince William Sound, resulting in discovery of 186 anadromous streams totaling about 57 km. Stream habitat parameters were collected along all streams, upper extents of anadromous distribution were documented and streams were mapped by GIS.	Evolved from R15 and R47. Information will be integrated into the restoration GIS (93062) and supplement 93033 Also related to 93045. Project closeout in FY 94 as 94505.

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93053	Hydrocarbon Database	NOAA	No report required.	Continuing project with updating and quality control of hydrocarbon data. Analyzed several thousand environmental samples, provided numerical correlations directly related to oil, and assessed associations of observed biological effects with concentrations of *Exxon Valdez* oil.	Continued as 94290. This project supports most restoration projects.
93057	Damage Assessment GIS	ADNR	Project completed; no report required.	Cataloged and plotted over 160 maps for public access at OSPIC. Provided mapping and database support for damage assessment studies.	Supported numerous damage assessment projects, including B11, FS13, AW1, and CH1A.
93059	Habitat Identification Workshop	USFS	Project completed; no report required.	Identified parcels of non-public land containing critical habitat necessary for the recovery of injured resources and services.	93046, 93051, 93059, 93063, 93064, and 93065.
93060	Accelerated Data Acquisition	USFS	Project completed; no report required.	Collected and organized existing resource data needed for the analysis of private lands in the oil spill area.	93046, 93051, 93059, 93063, 93064, and 93065.
93062	Restoration GIS	ADNR	Project completed; no report required.	Provided technical mapping and database support for restoration projects. Generated spill area map and land status maps for Kachemak Bay, Seal Bay, and Eyak lands in support of habitat protection data analysis and negotiations. Plotted maps to provide public access to EVOS information.	Supported numerous restoration projects, including 93038, 93063, 93064 and R47.

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
93063	Anadromous Stream Surveys	USFS ADFG	Project is data analysis and report writing for anadromous stream portion of R105. Two reports are being prepared. (1) USFS report accepted by Chief Scientist; not yet at OSPIC. (2) ADFG draft report submitted to Chief Scientist; under peer review. (NOTE: Draft report peer reviewed; returned to PI for revision May 2, 1995.)	(1) Weidemeyer, K. Survey and evaluation of instream habitat and stock restoration techniques for anadromous fish. (2) Willette, M. Survey and evaluation of instream habitat and stock restoration techniques for wild pink and chum salmon.	Started as R105 and continued as 93063 and 94139.
93064	Imminent Threat Habitat Protection	ADNR	No report required.	See "Opportunities for Habitat Protection/Acquisition" (2/16/93) and "Comprehensive Habitat Protection Process; Large Parcel Evaluation & Ranking, Volume I" (11/30/93). Imminent Threat Evaluation and the first round of Large Parcel Evaluation were completed. $7.5 million from settlement funds was combined with $14.5 million from other sources for the purchase of private inholdings in Kachemak Bay. $29,950;000 was committed from the most recent court request for the initial payment for purchase of private land near Seal Bay on Afognak Island. The total purchase price of this transaction is $38,700,000 with the balance to be paid in three annual installments.	Data sources: 93051, 93059, 93060, 93062, and 93063.

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
93065	Prince William Sound Recreation	USFS ADNR	Report writing for this project funded under Project 94217 (report accepted by Chief Scientist; not yet at OSPIC).	Menefee, W. and S. Hennig. 1994. Prince William Sound recreation project. Recreation Injury Statement (10/93) was incorporated into the Draft Restoration Plan. Final report includes a prioritized list of projects and other recommendations for restoration of recreation in Prince William Sound.	Continued as 94217.
93066	Alutiiq Archeological Repository	ADEC	No report required.	Opening ceremony held May 13, 1995.	
93067	Pink Salmon Coded Wire Tag Recovery	ADFG	Redraft of report submitted to Chief Scientist December 20, 1994. (NOTE: Draft report peer reviewed; returned to PI for revision April 12, 1995.)	Reduced commercial exploitation of damaged wild pink salmon populations through timely inseason estimates of hatchery and wild contributions to harvest. Accurate and timely stock composition estimates were used by fisheries managers to justify restriction of fishing fleet to areas where interception of damaged wild populations in mixed-stock fisheries could be minimized.	Started as FS3 and continued as R60A, 94185 (report preparation) and 94320B.
93068	Non-Pink Salmon Coded Wire Tag Recovery	ADFG	Data analysis and report writing funded under project 94137 (report being drafted; expect to submit to Chief Scientist by June 30, 1995). NOTE: Expected submission date delayed from March 15, 1995).	Timely and accurate inseason estimates of hatchery and wild stock contributions to commercial harvest for improved management of wild stocks in mixed-stock fisheries.	Evolved from FS3; continued as 94137. Other related projects are 93024 and 94320. 93024 was designed to restore the natural population of sockeye salmon from Coghill Lake.
93AD	Administrative Director's Office		No report required.		

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
93FC	Financial Committee		No report required.		
93RT	Restoration Team Support		No report required.		

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
AD	Administrative Director's Office	ALL	No report required.		
ARC1	Archaeological Survey	ADNR	Report accepted by Chief Scientist. Not yet at OSPIC.	Reger, D.R., J.D. McMahon, and C.E. Holmes. 1992. Effect of crude oil contamination on some archaeological sites in the Gulf of Alaska, 1991 investigations. Four archaeological sites from which adequate collections and radiocarbon samples were obtained were sampled for sediments to test for presence of oil. Two sediment samples (Shuyak Island and Chenega Island) tested positive for oil. None of the sites yielded radiocarbon dates which appear to be significantly skewed from the expected age range. The results of the study show that reasonable dates can be obtained from the test sites despite presence of oil remains on the beach surface or in the case of two sites from within the cultural deposits. The results of the study are applicable to the sites studied and useful for management decisions based on broad general conclusions.	
AW1	Surface Oil Maps	ADEC	Report drafted but not yet submitted to Chief Scientist.		
B02	Boat Surveys	DOI	Report accepted by Chief Scientist. Not yet at OSPIC.	Klosiewski, S.P. and K.K. Laing. 1994. Marine bird populations of Prince William Sound, Alaska, before and after the *Exxon Valdez* oil spill. U.S. Fish and Wildlife Service, Anchorage. Populations of 9 species or species groups (black oystercatcher, pigeon guillemot, cormorants, harlequin duck, loons, scoters, newgull, arctic tern, northwestern crow) declined more than expected in the oiled zone of Prince William Sound suggesting an oil effect. Most injured species were ecologically tied to intertidal or nearshore areas.	Continued as 93045 and 94159.

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
B03	Murres Damage Assessment Closeout	DOI	Report accepted by Chief Scientist. Not yet at OSPIC.	Nysewander, D.R., C.H. Dippel, G.U. Byrd and E.P. Knudtson. 1993. Effects of the T/V Exxon Valdez oil spill on murres: A perspective from observations at breeding colonies. U.S. Fish and Wildlife Service. Homer. Numbers were reduced, nesting was delayed, and productivity rates were far below normal at major colonies within the spill trajectory. Reproductive success improved slightly in 1991.	Related to R11, 93022 and 94039.
B04	Eagles Damage Assessment Closeout	DOI	Report accepted by Chief Scientist. Not yet at OSPIC.	Bauman, T.D., P.F. Schempf, and J.A. Bernatowicz. 1994. Effects of the Exxon Valdez oil spill on bald eagles. U.S. Fish and Wildlife Service. Anchorage. Reproductive success of Prince William Sound bald eagles was significantly impaired in 1989, and nest failures were correlated with the distribution of crude oil on beaches. Although estimated direct mortality throughout the spill area was relatively large (about 300 - 900 eagles), no change in the population could be detected due to wide variation in population counts. The Prince William Sound eagle population was expected to return to its prespill level by 1993.	
B06	Marbled Murrelets Damage Assessment Closeout	DOI	Report accepted by Chief Scientist. Not yet at OSPIC.	Kuletz, K.J. 1994. Marbled murrelet abundance and breeding activity at Naked Island, Prince William Sound, and Kachemak Bay, Alaska, before and after the *Exxon Valdez* oil spill. U.S. Fish and Wildlife Service, Anchorage. The marbled murrelet population at a site within the path of the oil (Naked Island) was lower in 1989 than in prespill years, but returned to normal in 1990. Murrelet numbers in Kachemak Bay where oiling was minimal did not change following the spill.	Related to R15, 93051B and 94102.

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
B07	Storm Petrels Damage Assessment Closeout	DOI	Report accepted by Chief Scientist. Not yet at OSPIC.	Nishimoto, M. and G.U. Byrd. 1994. Effects of oil from the T/V exxon Valdez spill on fork-tailed storm petrels breeding in the Barren Islands, Alaska. U.S. Fish and Wildlife Service. Homer. At the largest storm-petrel colony within the spill trajectory (Barren Islands), no evidence of adverse effects to breeding petrels was found. Burrow occupancy rates were above average, nesting chronology was not delayed, and productivity was normal.	
B08	Kittiwakes Damage Assessment Closeout	DOI	Draft report peer reviewed; returned to PI for revision January 4, 1994. Handling of hydrocarbon data needs to be resolved with Chief Scientist.	Irons, D.B. 1994. Effects of the *Exxon Valdez* oil spill on black-legged kittiwake colonies in Prince William Sound, Alaska. U.S. Fish and Wildlife Service. Anchorage. The number of breeding pairs did not decline at colonies in the oiled area of Prince William Sound but reproductive success in 1989 was less than expected, apparently due to low hatching success. Reproductive success did not recover by 1992 but whether the decline was due to the spill is unknown.	TS1
B09	Pigeon Guillemots Damage Assessment Closeout	DOI	Report accepted by Chief Scientist. Not yet at OSPIC.	Oakley, K.L. and K.J. Kuletz. 1994. Population, reproduction and foraging of pigeon guillemots at Naked Island, Alaska, before and after the *Exxon Valdez* oil spill. U.S. Fish and Wildlife Service. Anchorage. The population at a major breeding site within the spill trajectory (Naked Island) declined by 50% compared to 1972-1973 levels. A long-term decline within Prince William Sound predated the spill and, therefore, the decline at naked Island could not be attributed totally to the spill. Reproduction was largely normal following the spill.	93034 and 94173

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
B03	Murres Damage Assessment Closeout	DOI	Report accepted by Chief Scientist. Not yet at OSPIC.	Nysewander, D.R., C.H. Dippel, G.U. Byrd and E.P. Knudtson. 1993. Effects of the T/V Exxon Valdez oil spill on murres: A perspective from observations at breeding colonies. U.S. Fish and Wildlife Service. Homer. Numbers were reduced, nesting was delayed, and productivity rates were far below normal at major colonies within the spill trajectory. Reproductive success improved slightly in 1991.	Related to R11, 93022 and 94039.
B04	Eagles Damage Assessment Closeout	DOI	Report accepted by Chief Scientist. Not yet at OSPIC.	Bauman, T.D., P.F. Schempf, and J.A. Bernatowicz. 1994. Effects of the Exxon Valdez oil spill on bald eagles. U.S. Fish and Wildlife Service. Anchorage. Reproductive success of Prince William Sound bald eagles was significantly impaired in 1989, and nest failures were correlated with the distribution of crude oil on beaches. Although estimated direct mortality throughout the spill area was relatively large (about 300 - 900 eagles), no change in the population could be detected due to wide variation in population counts. The Prince William Sound eagle population was expected to return to its prespill level by 1993.	
B06	Marbled Murrelets Damage Assessment Closeout	DOI	Report accepted by Chief Scientist. Not yet at OSPIC.	Kuletz, K.J. 1994. Marbled murrelet abundance and breeding activity at Naked Island, Prince William Sound, and Kachemak Bay, Alaska, before and after the *Exxon Valdez* oil spill. U.S. Fish and Wildlife Service, Anchorage. The marbled murrelet population at a site within the path of the oil (Naked Island) was lower in 1989 than in prespill years, but returned to normal in 1990. Murrelet numbers in Kachemak Bay where oiling was minimal did not change following the spill.	Related to R15, 93051B and 94102.

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
B12	Shorebirds Damage Assessment Closeout	DOI	The results of this project will be presented in two reports: (1) Report on migrant shorebirds has been accepted by Chief Scientist but is not yet available at OSPIC. (2) Report on black oystercatchers has been accepted by Chief Scientist but is not yet available at OSPIC.	(1) Martin, P.D. 1993. Effects of the *Exxon Valdez* oil spill on migrant shorebirds using rocky intertidal habitats of Prince William Sound, Alaska, during Spring 1989. U.S. Fish and Wildlife Service, Anchorage. (2) Andres, B.A. 1994. The effects of the *Exxon Valdez* oil spill on black oystercatchers breeding in Prince William Sound, Alaska. U.S. Fish and Wildlife Service. Anchorage. (1) Spring migrant shorebirds (surfbirds and black turnstones) escaped impacts because shorelines used by these species (particularly around Montague Island) were largely unoiled. (2) Black oystercatcher breeding was disrupted and hatching success reduced. Chicks raised on oiled beaches grew more slowly than chicks raised on unoiled beaches, perhaps due to ingestion of contaminated food.	Related to R17, R103 and 93035.
CH1A	Coastal Habitat Damage Assessment	USFS	Report submitted to OSPIC; undergoing final formatting review.	Comprehensive assessment of coastal habitat. Serious and long-term lasting effects on intertidal algae. Recovery occurring but slow to none in upper intertidal habitat. Full recovery expected. Intertidal invertebrates indicate negative effects from spill. Intertidal fish findings were inconclusive.	Continued as R102, 93039 and 94086. Also related to B11, FS13, R102, MM6, R71, ST3A, TM3, and TS1.

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
B11	Harlequin Ducks Damage Assessment Closeout	ADFG	Redraft of report peer reviewed; returned to PI for revision November 22, 1994. Expect to resubmit to Chief Scientist by July 1, 1995. (NOTE: Expected submission date delayed from March 1, 1995.)	Petroleum exposure confirmed in four species of sea ducks. Hydrocarbons in food, liver and bile. Diverse intertidal prey used by ducks. Blue mussels are a key contaminated prey. 1990-1992 low harlequin breeding densities and negligible harlequin stream activity and production in western PWS. A compendium of information on oiled harlequin coast and stream habitats is produced in a supplement to the report as a resource for future studies.	Project conducted in conjunction with R71 and continued as 93033. Also related to B2, CH1B, TS1, R103, and 93036.

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
FS02	Pre-emergent Fry	ADFG	Redraft of report submitted to Chief Scientist May 2, 1994. (NOTE: Draft report peer reviewed; returned to PI for revision May 6, 1995.)	Measured higher embryo mortalities in oil-contaminated streams than in unoiled streams.	Project conducted in conjunction with R60C; continued as 93002 and 94191. Also related to R60A/B, 93012, 93015 and 94255. FS1, FS2, FS3, FS4A, and FS4B measured oil damages to specific life stages. FS28 incorporated their results into a model to estimate population level damages.
FS03	Coded-Wire Tags Damage Assessment	ADFG	Redraft of report submitted to Chief Scientist October 14, 1994. (NOTE: Draft report peer reviewed; returned to PI for revision April 12, 1995.)	Sharr, S., et al. Coded wire tag studies on PWS salmon, 1989-91. Unable to detect significant differences in survival to adults from fry emerging from oiled and control streams. Also unable to detect significant difference in survival of hatchery fish reared in oiled versus unoiled areas of Prince William Sound.	Project conducted in conjunction with R60A; continued as 93067, 93068, 94185, and 94320B. FS1, FS2, FS3, FS4A, and FS4B measured oil damages to specific life stages. FS28 incorporated their results into a model to estimate population level damages.

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
CH1B	Hydrocarbons in Mussels	NOAA	Draft report submitted to Chief Scientist; under peer review. (NOTE: Peer reviewed report returned to PI for revision May 8, 1995.)	*Exxon Valdez* oil is located in several sites. Reductions in hydrocarbons are seen at several sites in PWS over 1989.	R103
FS01	Spawning Area Injury	ADFG	Project delayed due to over-commitment of PI, and resignation of subsequent PI. Report has been assigned to new PI; expect to submit draft report to Chief Scientist by August 15, 1995. [Note: Report will present findings from both FS01 and R60B.]	For preliminary results, see 1989, 1990 and 1991 NRDA Draft Status Reports. Documented oil contamination of Prince William Sound pink salmon spawning area. Improved current and historic pink salmon escapement estimates which are necessary for accurate estimates of total wild returns.	Project conducted in conjunction with R60B. Also related to 93012, 93015 and 94255. FS1, FS2, FS3, FS4A, and FS4B measured oil damages to specific life stages. FS28 incorporated their results into a model to estimate population level damages.

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
FS05	Dolly Varden Damage Assessment	ADFG	Redraft of report submitted to Chief Scientist February 1, 1994. (NOTE: Draft report peer reviewed and returned to PI for revision after March 31, 1995.)	Two populations of Dolly Varden and cutthroat trout emigrated from lakes into the wake of the spill. Growth from 1989-1990 was 24% and 22% slower for recaptured subadult and adult Dolly Varden and 36% to 43% slower for subadult and adult populations of cutthroat trout in populations associated with the oil. This difference persisted through 1991 for cutthroat trout but not for Dolly Varden. Chronic starvation and direct exposure to petrogenic hydrocarbons were hypothesized as effects leading to reduced growth and accelerated mortality of both Dolly Varden and cutthroat trout.	Combined with R90.

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
FS04A	Early Marine Salmon Damage Assessment	ADFG	Redraft of report submitted to Chief Scientist December 2, 1994.	Detected reduced growth and survival of fry rearing in oiled areas in 1989. No significant differences in growth and survival between oiled and nonoiled areas in subsequent years. Rate of adult returns to unoiled hatcheries twice that of oiled hatcheries in 1990.	Related to most projects in 94320 (PWS System Investigation). FS1, FS2, FS3, FS4A, and FS4B measured oil damages to specific life stages. FS28 incorporated their results into a model to estimate population level damages.
FS04B	Juvenile Pinks	NOAA	Report submitted to OSPIC. Final copies currently being printed.	Wertheimer, A.C., A.G. Celewycz, M.G. Carls, and M.V. Sturdevant. 1994. Impact of the oil spill on juvenile pink and chum salmon and their prey in critical nearshore habitats. NOAA, NMFS, Auke Bay Lab, Juneau, AK. Documented exposure and contamination of juvenile salmon in Prince William Sound. Contamination was associated with reduced growth. Ingestion of oil or oiled prey was route of contamination.	FS4A, AW3, and ST3A.

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
FS27	Sockeye Salmon Overescapement	ADFG	Report submitted to OSPIC; undergoing final formatting review.	Schmidt, D.C., J.P. Koenings, and G.B. Kyle. Predator induced changes in diet vertical migration of copepods in Skilak Lake, Alaska: A hypothesis to explain the decrease in overwinter survival of juvenile sockeye salmon (*Onchorhynchus nerka*). Approximately ten to fifteenfold reduction in Kenai River smolt when compared to brood year 1987. Reduced smolt production from Akalura and Red Lakes, Kodiak Island. Reduced harvests for the Kenai are forecast for 1994 with returns below escapement levels possible for 1995 and 1996. Minimal harvests of Kenai River sockeye salmon are likely. Reduced harvests are forecast for Red and Akalura Lakes for 1994 through 1996.	Continued as 93002 and 94258. R53 acquired new information to facilitate management of anticipated reduced future runs. R113 examined potential for hatchery-reared fry in Red Lake, but forecasted returns make the project unfeasible.
FS28	Run Reconstruction	ADFG	Draft report peer reviewed; returned to PI for revision August 31, 1993. Expect to submit redraft to Chief Scientist in April 1995.	Estimated losses to adult populations from oil damages to early life stages at 2 to 3 million in 1990, and 40 to 70 thousand in 1991. Projected losses of 100 to 200 thousand adults in 1993 and 1994.	Through this project, results from FS1, FS2, FS3, FS4A and FS4B were incorporated into a model to estimate population level damage.

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
FS11	Herring Injury	ADFG	Redraft of report submitted to Chief Scientist March 14, 1995. [Note: Report will include nine articles prepared for the Canadian Journal of Fisheries and Aquatic Science and will be included in the proceedings of the EVOS symposium.]	Brown, E. D., et al. Injury to Prince William Sound Following the *Exxon Valdez* Oil Spill. Adult herring migrating to the spawning grounds in 1989 were exposed to oil. Exposure to oil continued throughout 1989 and into 1990. Internal tissues were damaged but the short- and long-term effects are speculative. There may have been a short-term effect which inhibited egg deposition and a long-term reproductive impairment (reduced survival of offspring). Eggs were deposited in oiled areas in 1989. Larvae hatched from exposed embryos suffered reduced survival.	Similar to 94166 (Herring Spawn Deposition). Also related to 94165 and 94320.
FS13	Effects of Hydrocarbons on Bivalves	ADFG	Draft report peer reviewed; returned to PI for revision April 26, 1993. Expect to submit redraft to Chief Scientist August 15, 1995.		Clams are important prey for ducks, sea otters, river otters, and bears. This study is related to studies of these species and to 93017.

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
MM6 (1of3)	Sea Otter Damage Assessment	DOI	The results of this project will be presented in 19 reports -- 15 reports have been accepted by the Chief Scientist (not yet at OSPIC); 4 reports have been peer reviewed and returned to PIs for revision.	(1) Ballachey, B.E. Biomarkers of damage to sea otters in PWS following potential exposure to oil spilled from the T/V *Exxon Valdez*. [Report accepted by Chief Scientist. Not yet at OSPIC.] (2) Ballachey, B.E. and D.M. Mulcahy. Hydrocarbon residues in tissues of sea otters (*Enhydra lutris*) collected from southeast Alaska. [Draft report returned to PI for revision June 29, 1994; expected resubmission date delayed from April 1, 1995 to June 1, 1995] (3) Ballachey, B.E. and D. M. Mulcahy. Hydrocarbons in hair, liver and intestine of sea otters (*Enhydra lutris*) found dead along the path of the *Exxon Valdez* oil spill [Draft report peer reviewed and returned to PI for revision July 13, 1993; expect to submit redraft to Chief Scientist May 19, 1995.) (4) Bodkin, J.L., D.M. Mulcahy and C. Lensink. Age-specific reproduction in female sea otters (*Enhydra lutris*) from southcentral Alaska: analysis of reproductive tracts. [Report accepted by Chief Scientist, not yet at OSPIC] 5) Bodkin, J.L. and M.S. Udevitz. An intersection model for estimating sea otter mortality from the *Exxon Valdez* oil spill along the Kenai Peninsula. [Report accepted by Chief Scientist, not yet at OSPIC]	93043

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
FS30	Database Management	ADFG	Report submitted to OSPIC; undergoing final formatting review.	DiCostanzo, C. and B.P. Simonson. 1993. Database Management. Final Report, State/Federal Natural Resource Damage Assessment. 14 pp. Software was written to provide access to fish harvest database using the ADFG commercial fisheries Wide-Area Network (WAN). Procedures were implemented to provide reports in numerous database, spreadsheet, and statistical formats. Documentation and guidelines for using the harvest database were completed. WAN capability is now available between Juneau, Cordova, Anchorage, Kodiak, Soldotna, and Homer.	This database provides a repository for all NRDA and restoration projects information.
MM1	Humpback Whales Damage Assessment	NOAA	Report accepted by Chief Scientist. Not yet at OSPIC.	Dalheim, M. and O. von Ziegesar. 1993. Effects of the *Exxon Valdez* oil spill on the abundance and distribution of humpback whales (megaptera novaeangliae) in Prince William Sound. NMFS, Seattle, WA and North Gulf Oceanic Society, Homer, AK. No documented injury.	
MM2	Killer Whales Damage Assessment	NOAA	Report accepted by Chief Scientist. Not yet at OSPIC.	Dalheim, M. and C. Matkin. 1993. Assessment of injuries to killer whales in Prince William Sound, Kodiak Archipelago, and Southeast Alaska. National Marine Mammal Laboratory, Seattle, WA and North Gulf Oceanic Society, Homer, AK. Whales missing from AB and AT pods. A total of 14 AB pod members lost from 1988-1990 due to unknown causes.	

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
MM6(3of3)	Sea Otter Damage Assessment	DOI	See MM6(1of3).	(12) Monnett, C. and L.M. Rotterman. Movements of weanling and adult female sea otters in PWS after the *Exxon Valdez* oil spill. [Report accepted by Chief Scientist. Not yet at OSPIC.] (13) Monnett, C. and L.M. Rotterman. Mortality and reproduction of female sea otters in PWS. [Report accepted by Chief Scientist. Not yet at OSPIC.] (14) Monnett, C. and L.M. Rotterman. Mortality and reproduction of sea otters oiled and treated as a result of EVOS. [Report accepted by Chief Scientist. Not yet at OSPIC.] (15) Monson, D.H. and B.E. Ballachey. Age distributions and sex ratios of sea otters found dead in PWS following the *Exxon Valdez* oil spill. [Report accepted by Chief Scientist. Not yet at OSPIC.] (16) Mulcahy, D.M. and B.E. Ballachey. Hydrocarbon residues in tissues of ten oiled sea otters (*Enhydra lutris*) recovered from PWS following the *Exxon Valdez* oil spill. [Draft report returned to PI for revision May 31, 1994.] (17) Rebar, A.H., B.E. Ballachey, D.L. Bruden and K.A. Kloecker. Hematology and clinical chemistry of sea otters captured in PWS following the *Exxon Valdez* oil spill. [Report accepted by Chief Scientist. Not yet at OSPIC.] (18) Rotterman, L.M. and C. Monnett. Mortality of sea otter weanlings in eastern and western PWS during the winter of 1990-91. [Report accepted by Chief Scientist. Not yet at OSPIC.] (19) Udevitz, M.S., J.L. Bodkin and D.P. Costa. Sea otter detectability in boat based surveys of PWS. [Report accepted by Chief Scientist. Not yet at OSPIC.]	

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
MM6(2of3)	Sea Otter Damage Assessment	DOI	See MM6(1of3).	(6) Burn, D.M. Boat-based population surveys of sea otters (*Enhydra lutris*) in PWS in response to the *Exxon Valdez* oil spill. [Report accepted by Chief Scientist; not yet at OSPIC.] (7) DeGange, A.R., D.C. Douglas, D.H. Monson and C. Robbins. Surveys of sea otters in the Gulf of Alaska in response to the *Exxon Valdez* oil spill. [Report accepted by Chief Scientist; not yet at OSPIC.] (8) Doroff, A.M. and J.L. Bodkin. Sea otter foraging behavior and hydrocarbon levels in prey following the *Exxon Valdez* oil spill. [Draft report peer reviewed; rerturned to PI for revision May 27, 1994. Expected date of resubmission delayed from April 1, 1995 to June 1, 1995.] (9) Doroff, A.M. and A.R. DeGange. Experiments to determine drift patterns and rates of recovery of sea otter carcasses following the *Exxon Valdez* oil spill. [Report accepted by Chief Scientist. Not yet at OSPIC.] (10) Lipscomb, T.P., R.K. Harris, R.B. Moeller, J.M. Fletcher, R.J. Haebler and B.E. Ballachey. Histopathologic lesions associated with crude oil exposure in sea otters. [Report accepted by Chief Scientist. Not yet at OSPIC.] (11) Lipscomb, T. P., R.K. Harris, A.H. Rebar, B.E. Ballachey and R.J. Haebler. Pathological studies of sea otters. [Report accepted by Chief Scientist. Not yet at OSPIC.]	

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
R047	Stream Habitat Assessment	ADFG	Report submitted to OSPIC; undergoing final formatting review.	Kuwada, M. and K. Sundet. 1993. Stream Habitat Assessment Project: Afognak Island. Habitat and Restoration Division Technical Report No. 93-3, *Exxon Valdez* Restoration and Habitat Protection Planning. 104 pp. About 250 km of shoreline and 260 km2 of uplands were surveyed for anadromous fish streams on private lands on Afognak Island, resulting in discovery of 167 anadromous streams totaling about 56 km. Stream habitat parameters and upper extents of anadromous distribution were documented, and streams were mapped by GPS.	Continued as part of 93051 and 94505 (closeout). Supported evaluation of land for habitat protection.
R053	Kenai River Sockeye Salmon Restoration	ADFG	Annual status report accepted by Chief Scientist February 22, 1995. Not yet at OSPIC.	Successful collection of baseline and fishery samples for genetic stock identification. Unsuccessful in choosing new adult in-river hydroacoustic equipment. Successful hydroacoustic enumeration of returning adult salmon in Upper Cook Inlet.	R59 analyzed genetic samples collected by this project.
R059	Genetic Stock Identification	ADFG	Draft report peer reviewed; returned to PI for revision September 13, 1993. Expect to resubmit report to Chief Scientist by February 15, 1995. (NOTE: Redraft submitted to Chief Scientist April 20, 1995.)	Seeb, Jim and Lisa. Assessment of genetic stock structure of salmonids. Genetic data were collected during 1992 from spawning populations contributing to mixed-stock harvests of sockeye salmon in Cook Inlet. These data can be used to estimate the presence of Kenai River stocks in mixed-stock areas of Upper Cook Inlet.	R53 collected spawning samples.

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
R011	Murre Recovery Monitoring	DOI	Redraft of report submitted to Chief Scientist March 27, 1995. (NOTE: Draft peer reviewed and returned to PI for revision April 28, 1995.)	Dragoo, D.E., G.V. Byrd, D.G. Roseneau, D.A. Dewhurst, J.A. Cooper, and J.H. McCarthy. 1994. Population levels and reproductive performance of murres based on observations at breeding colonies four years after the T/V *Exxon Valdez* oil spill. U.S. Fish and Wildlife Service. Homer Numbers of murres breeding at major colonies within the trajectory remained lower in 1992. Breeding chronology was delayed. Productivity at the Barren Islands was higher than in other postspill years, but still lower than normal. Productivity at Puale Bay was normal.	Continued as 93022 and 94039. Also related to B3.
R015	Marbled Murrelet Restoration Study	DOI	The results of this project will be presented in two reports: (1) Redraft of report submitted to Chief Scientist February 2, 1995. (2) Report on murrelets' upland habitat accepted by Chief Scientist. Not yet at OSPIC.	(1) Kuletz, K.J., D.K. Marks, and N.L. Naslund. 1994. At-sea abundance and distribution of marbled murrelets in the Naked Island area, Prince William Sound, Alaska, in Summer, 1991 and 1992. U.S. Fish and Wildlife Service, Anchorage (2) Kuletz, K.J., N.L. Naslund, and S.K. Marks. 1994. Identification of marbled murrelet nesting habitat in the *Exxon Valdez* oil spill zone. U.S. Fish and Wildlife Service, Anchorage. Using ground search techniques, 10 tree nests were found on Naked Island in 1991 and 1992. Nest trees were in stands of high volume and size class trees, and upland activity of murrelets throughout Prince William Sound was highest in such stands.	Continued as part of 93051 and 94505 (closeout).

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
R060C	Pink Salmon Egg/Fry	ADFG NOAA	The results of this project will be presented in two reports: (1) ADFG report accepted by OSPIC; copies currently being made. (NOTE: Report available at OSPIC May 15, 1995.) (2) NOAA activity report has been submitted (a final report will be prepared, under a future project number (/191B), after the progeny of the 1993 brood complete incubation in the spring of 1996).	(1) Sharr, Samuel and C. Peckham. 1994. Coded wire tag studies on Prince William Sound salmon, 1992. ADFG (1) Persistence of elevated mortalities among embryos in oiled streams versus those in unoiled streams suggests genetic damage. (2) Oil exposures completed for 1992 and 1993 brood years. All 1992 brood pinks died from bacterial kidney disease by June 1994. Spawning of 1993 brood expected in September 1995, with survival of progeny to be determined in early 1996.	Continued as 93003 and 94191. Other related projects include B11, CH1B, R60AB, R103, and 93036.

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
R060A/B	Prince William Sound Pink Salmon	ADFG	R060A: Redraft of report submitted to Chief Scientist. (NOTE: Draft report peer reviewed; returned to PI for revision April 12, 1995.) R060B: Findings will be presented in report being prepared under Project FS01 (project delayed due to over-commitment of PI; primary author changed to rectify problem; will submit draft report to Chief Scientist by April 15, 1995).	R060A: Sharr, S., et al. Coded wire tag studies on PWS salmon, 1992. R060A: The CWT program helped reduce the commercial harvest on damaged pink salmon populations by providing fishery managers with timely inseason fishery stock composition estimates. R060B: The escapement project provided improved pink salmon escapement information which was essential for the precise fisheries management required to protect damaged wild stocks.	Continued as 93067, 94185 (report preparation) and 94320B. Also related to R60C, which monitors and investigates mechanisms for oil damage to early life stages of pink salmon populatio

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
R090	Dolly Varden Char Monitoring	ADFG	Report being prepared under Project FS05 (redraft of report submitted to Chief Scientist February 1, 1994).	Two populations of Dolly Varden and cutthroat trout emigrated from lakes into the wake of the spill. Growth from 1989-1990 was 24% and 22% slower for recaptured subadult and adult Dolly Varden and 36% to 43% slower for subadult and adult populations of cutthroat trout in populations associated with the oil. This difference persisted through 1991 for cutthroat trout but not for Dolly Varden. Chronic starvation and direct exposure to petrogenic hydrocarbons were hypothesized as effects leading to reduced growth and accelerated mortality of both Dolly Varden and cutthroat trout.	Project combined with FS05. R90 and R106 provide information on populations of Dolly Varden and cutthroat trout for 94320 (Ecosystem Study Plan).
R092	GIS Mapping and Analysis: Restoration	ADNR DOI	No report required.	Provided mapping and database support for restoration projects. Developed timber harvest database and land status and parcel maps for imminent threat parcels. Contributed to a 3-volume data dictionary produced for the Trustee Council by the Nature Conservancy.	Supported numerous restoration projects.

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
R071	Harlequin Duck Restoration and Monitoring	ADFG	Redraft of report submitted to Chief Scientist February 16, 1995.	Comparative harlequin data in eastern Prince William Sound for B11. 1991-1992 harlequin production in eastern Prince William Sound similar to prespill. Techniques devised to capture and track harlequins. Breeding stream parameters and nest sites described. Additional oiled mussel beds identified. Description and analysis of harlequin breeding stream habitat in eastern PWS produced in an M.S. thesis, Oregon State University (Crowley 1994).	B11 corroborated harlequin status in Prince William Sound. R103 documented continued oiled prey.
R073	Harbor Seals	ADFG	Report accepted by Chief Scientist. Not yet at OSPIC.	T.R. Loughlin (ed.), Marine Mannals and the *Exxon Valdez*, Academic Press. Harbor seals continued to use heavily oiled haulouts even when unoiled sites were available nearby. They were observed to give birth and care for their pups on these sites. The pelage of both pups and adults became oiled when they used these sites or contacted oil in the water. However, the pelage became cleaner with time if they did not continue to use oiled sites. Many carcasses recovered were either stillborn or died shortly after birth. Observations suggest that stress and/or toxic effects of oil resulted in abortions, premature births, and increased mortalities in heavily oiled areas. Four book chapters prepared and in press detailing results of MM5 study.	Started in 1989 as MM5. Continued as 93046 and 94064.

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
R103	Oiled Mussels	ADFG NOAA DOI	The results of this project will be presented in four reports: (1) NOAA report accepted by Chief Scientist; not yet at OSPIC. (2) DOI/FWS report being prepared under Project 93035 (expect to submit report to Chief Scientist July 1, 1995.) (3) ADFG redraft of report submitted to Chief Scientist January 24, 1994. (4) DOI/NPS report accepted by Chief Scientist; not yet at OSPIC.	(1) Babcock, M., P.M.Rounds, C. Brodersen and S. Rice. 1993. Recovery monitoring and restoration of intertidal oiled mussel beds in Prince William Sound impacted by the *Exxon Valdez* oil spill. NOAA, NMFS, Auke Bay Laboratory, Juneau, Alaska. (4) Andres, B. 1993. Potential impacts of oiled mussel beds on higher organisms: Black oystercatchers. U.S. Fish and Wildlife Service, Anchorage, AK. (1) Identified 27 mussel beds within PWS with total petroleum hydrocarbons greater than 10,000 mg/g wet weight. Site manipulation was conducted at three heavily oiled mussel beds. (2) Black oystercatcherc hicks raised on oiled sites grew more slowly than chicks raised on unoiled sites. (4) Differences in levels of blood haptoglobin and Interleukin-6 ir, previously found to be elevated in river otters inhabiting oiled compared to nonoiled areas in PWS, were not observed in summer 1992. River otters from oiled areas continued to regain body size from levels noted in 1990. Suggests that river otters may be recovering from chronic effects that were observed in 1990 and 1991.	Continued as 93036, 94090, and 95090. Other related projects include B11, B12, CH1B, R7, TM3, and 93033.

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
R102	Herring Bay Experimental and Monitoring Study	ADFG	Draft report peer reviewed; returned to PI for revision May 29, 1994.	Highsmith, R.C., M.S/ Stekoll, A.J.Hooten, P. van Tamelen, L. Deysher, L. McDonald, D. Strickland and W.P. Erickson. 1993. Herring Bay experimental and monitoring studies. School of Fisheries and Ocean Sciences, UAF. 203 pp. Cover of the dominant intertidal alga, *Fucus gardneri*, was reduced at oiled/cleaned sites. *Fucus* recruitment was poor in the mid- to upper intertidal, probably due to lack of shelter from desiccation and heating by adult plants. Limpet densities continued to be lower in the upper intertidal. Recovery appeared to be occurring in the lower intertidal zone in 1990-1991 and in the upper intertidal in 1993. Results have been incorporated into an interaction web to elucidate potential oil spill effects on community dynamics.	Continued as 93039 and 94086. Also related to B11, CH1A, R103, and TM3.

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
R113	Red Lake Sockeye Salmon Restoration	ADFG	Project canceled based on findings of FS27.	Red Lake does not need restoration effort. This project was funded in anticipation of poorer returns of sockeye salmon to Red Lake than actually occurred.	Related to FS27. NEPA compliance for Red Lake restoration project was funded through 93030, which was canceled when the project was dropped.
RT	Restoration Team	ALL	No report required.		
ST1A	Subtidal Sediments	NOAA	Draft report submitted to Chief Scientist; under peer review.	Petroleum hydrocarbon induced injury to subtidal sediment resources. Subtidal sediments have been found to be contaminated at no fewer than 15 sites within Prince William Sound by June 1990. Contamination had reached at least 20 meters at some sites. Evidence of hydrocarbon movement downslope into subtidal sediments was detected by 1991.	Continued as 93047 and 94285. Other related projects include ST1B.
ST1B	Subtidal Microbial	ADEC	Report accepted by Chief Scientist. Not yet at OSPIC.	Braddock, Joan F., B. Rasley, T. Yeager, J. Lindstrom, D. Brown. Hydrocarbon mineralization potentials and microbial populations in marine sediments following the *Exxon Valdez* oil spill. DEC The numbers and activity of oil-degrading microorganisms were measured in sediments periodically for two years after the oil spill. Populations of oil-degrading microorganisms were significantly higher in sediments collected at oiled sites relative to reference sites. This information is useful in establishing the extent of contamination of the oil with time and also provides evidence that biodegradation is occurring naturally in Prince William Sound.	93047

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
R104A	Site Stewardship	DOI	Report accepted by Chief Scientist. Not yet at OSPIC.	Corbett, D.G. 1994. Development of the Alaska Heritage Stewardship Program for protection of cultural resources at increased risk due to the *Exxon Valdez* oil spill. U.S. Fish and Wildlife Service, Anchorage, AK. Increased public knowledge of archaeological sites following the spill led to increased vandalism. A stewardship program to train local residents to protect cultural resources was developed.	93006, 94007
R105	Instream Survey Restoration Implementation Planning	ADFG USFS	The results of this project will be presented in two reports: (1) ADFG redraft of report submitted to Chief Scientist January 6, 1995. (2) USFS report being prepared under Project 93063 (report accepted by Chief Scientist; not yet at OSPIC).	(2) Weidemeyer, K. Survey and evaluation of instream habitat and stock restoration techniques for anadromous fish. A number of sites were reviewed, evaluated, and ranked for possible instream restoration efforts. A number of efforts have subsequently been implemented.	Continued as 93063. Related projects include FS1, R47, 93024, 93032, and 94139.
R106	Dolly Varden Restoration	ADFG	Peer review complete; returned to PI for revision May 14, 1993. (NOTE: Report accepted by Chief Scientist May 8, 1995.)	The nature and extent of injury to Dolly Varden and cutthroat trout was documented in FS5. The goal of R106 was to provide information for developing a management plan to protect impacted stocks, while allowing for continued recreational fishing for sport anglers where stocks could support fisheries. Sixty-one streams were surveyed to provide this information.	FS5 and 94139.

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
ST3A	Caged Mussels Damage Assessment	NOAA	The results of this project will be presented in two reports: (1) Draft report on caged mussels peer reviewed and returned to PI for revision October 2, 1993. (2) Draft report on hydrocarbons in water peer reviewed and returned to PI for revision November 15, 1993. Expect to resubmit both reports to Chief Scientist in August1995. (NOTE: Expected submission date delayed from March 1995.)	Mussels transplanted along spill trajectory accumulated particulated oil at concentrations that decreased with depth, elapsed time, and distance from heavily oiled beaches. In 1990 and 1991, low concentrations of polynuclear aromatic hydrocarbons were sporadically detected at locations adjacent to heavily oiled beaches. Petroleum hydrocarbons were detected only sporadically in mussels deployed in locations outside Prince William Sound in 1989.	ST3B
ST3B	Sediment Traps Damage Assessment	ADEC	Draft report peer reviewed; returned to PI for revision February 22, 1995.	Sale, David M., J. Gibeaut, J. Short. Nearshore subtidal transport of hydrocarbons and sediments following the *Exxon Valdez* oil spill. DEC The subtidal sediment trap study demonstrated that oiled particulate matter derived from oil-impacted beaches in Prince William Sound contaminated adjacent subtidal sediments. The study further showed that the transfer rate of oil from beach to subtidal sediment was highest the year following the spill, and declined steadily thereafter.	ST3A and ST4

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
ST2A	Shallow Benthic	ADFG	Report accepted by Chief Scientist. Not yet at OSPIC.	Jewett, Stephen C., T.A. Dean, L.J. Haldorson, D.A. Laur, M. Stekoll, and L. McDonald. 1993. The effects of the *Exxon Valdez* oil spill on shallow subtidal communities in Prince William Sound, Alaska 1989-91. At oiled sites there was a decrease in some subtidal organisms relative to unoiled sites. Partial recovery observed in 1991.	Continued as 93047 and 94285. Other related projects include B11, CH1A, R103, and TM3.
ST2B	Deep Water Benthic	ADFG	Draft report peer reviewed; returned to PI for revision February 23, 1995.	No indication of oil-related damage to deep benthic environment. No oil fractions appear related to unusual benthic faunal composition. Differences between stations within and outside of oil trajectory were mainly related to sediment differences. No oil effects demonstrated.	CH1A, ST1B, ST2A, ST4, ST5, ST6, ST7, ST8, and TS1.

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Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
ST6	Rockfish Damage Assessment	ADFG	Report accepted by Chief Scientist; not yet at OSPIC. (NOTE: Report available at OSPIC May 15, 1995.)	Hoffman, A. Injury to demersal rockfish and shallow reef habitats in PWS, 1989-91. Oil was determined to be the cause of death for a small number of demersal rockfish in Prince William Sound. Dead and dying rockfish were reported from the spill area. Of the five fish that were fresh enough to be necropsied, exposure to crude oil was found to be the cause of death. These results prompted additional testing for hydrocarbons in live fish. These tests showed at least 11 of 36 rockfish tested from oiled sites had been exposed to oil within 2 weeks prior to testing. None of the 13 fish from unoiled sites were exposed to oil. Subsequent studies showed some indications of sublethal injuries to rockfish from exposure to oil.	ST2A and ST2B
ST7	Demersal Fishes Damage Assessment	NOAA	Draft report peer reviewed; returned to PI for revision November 17, 1994.	Results show continuing exposure of several benthic fish species and pollock, suggesting continuing petroleum contamination of subtidal sediments, water and food in 1990 and 1991 at sites up to 400 miles from the spill origin.	ST1A
ST8	Sediment Data Synthesis	NOAA	Report submittal deadline delayed to December 31, 1995. Report will include electronic database.	Analyzed several thousand environmental samples, provided numerical correlations directly related to oil, and assessed associations of observed biological effects with concentrations of *Exxon Valdez* oil.	TS1, TS3, and 93053.

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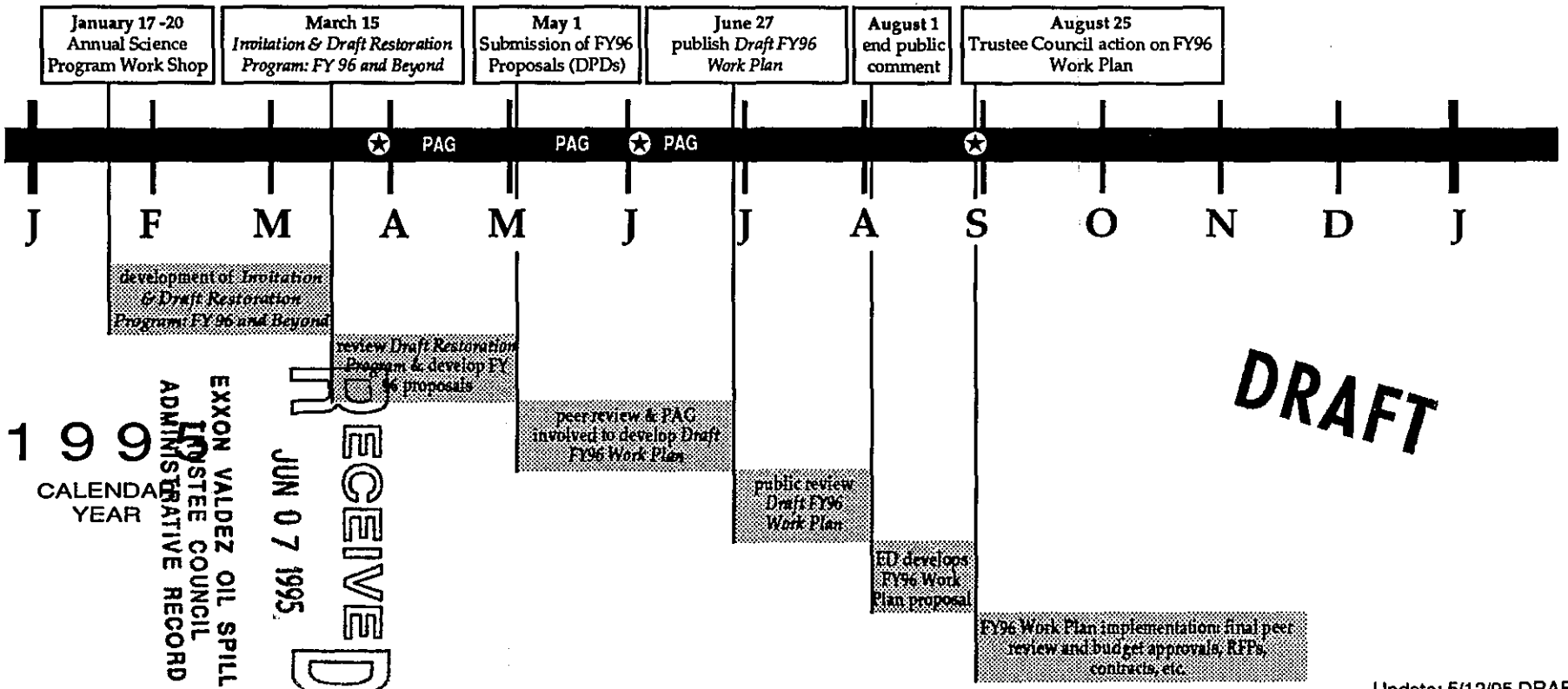
Project No.	Project Title	Lead Agency	Report Status	References and Results	Related Projects
ST4	Fate and Toxicity Damage Assessment	NOAA	Report submitted to OSPIC; undergoing final formatting review.	Fate and toxicity of spilled oil from the *Exxon Valdez*. 1994. Results indicate that some toxicity was still associated in 1990 and 1991 with sediments from lower intertidal zones of heavily oiled sites. The fate of *Exxon Valdez* oil will include transformation of most constituents (through biodegradation and photooxidation) mainly into carbon dioxide and water, although some constituents may persist indefinitely.	AW4, ST1, ST2, ST3A, ST3B, ST7, TS1 and response studies.
ST5	Shrimp	ADFG	Report accepted by Chief Scientist. Not yet at OSPIC. (NOTE: Report submitted to OSPIC May 3, 1995.)	Trowbridge, C. 1992. Injury to Prince William Sound spot shrimp. Hydrocarbon analyses did not detect oil contamination with sampled spot shrimp. Shrimp collected in unoiled areas had more inflammatory gill lesions than did shrimp from the oiled area. These results indicate that oil contamination had little or no effect on spot shrimp.	Relates to all other fish studies. Shrimp are a principle food source for fish and some whales.

Fiscal Year 1996 Annual Restoration Work Plan

DRAFT

* Note = tentative date.

January 17 - 20	Annual Science Program Work Shop.
March 15	FY 96 *Invitation* and *Draft Restoration Program: FY 96 and Beyond* published.
March 31	Trustee Council meeting.
April 20-21	PAG meeting. PAG
May 1	Submission of FY96 proposals (DPDs).
May 15	PAG teleconference. PAG
May 23-25	Chief Scientist/peer reviewer work session.
June 1-2	Trustee Council meeting (Cordova).
June 6-8	ED/Chief Scientist/Work Force Review of FY 96 proposals.
June 13-14 *	PAG meeting. Review of FY 96 proposals. PAG
June 27	Publish *Draft FY 96 Work Plan.*
July 27-28 *	PAG meeting. Review of *Draft FY 96 Work Plan.* PAG
August 1	End of formal public comment on *Draft FY 96 Work Plan.*
August 10-11	Chief Scientist/RWF/Executive Director review of FY 96 Work Plan.
August 25 *	Trustee Council action on FY 96 Work Plan.



1995 CALENDAR YEAR

Update: 5/12/95 DRAFT

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Small Parcel Protection & Acquisition: Program Status Report

Molly McCammon
Executive Director

May 24, 1995

The purpose of this update is to provide the Trustee Council with a program status report and initial recommendation concerning the Small Parcel Protection and Acquisition Program.

1. Background

On February 13, 1995, the *Comprehensive Habitat Protection Process: Small Parcel Evaluation and Ranking - Volume III* report (Phase I) of the Habitat Work Group was presented to the Trustee Council. At that time, the Trustee Council took action to recognize 19 parcels as "high," "moderate," or special merit parcels (see attached).

At the February 13, 1995 meeting, the Trustee Council adopted a resolution that authorized and directed the Executive Director to:

— provide overall management for the small parcel protection and acquisition program;

— initiate a second phase of the Small Parcel process (Phase II) to allow nomination of additional parcels, subject to agency sponsorship, for evaluation/ranking;

— direct appropriate agencies to start preliminary negotiations, including appraisals as deemed appropriate, with the landowners of parcels ranked "high" or "moderate," or identified as otherwise having unique or outstanding restoration value for injured natural resources or services (special merit parcels); and

— provide the Trustee Council, by June 15, 1995, "... an initial recommendation regarding those small parcels that should be protected using joint settlement funds;" and

— continue to accept nominations for additional small parcels.

2. Phase II — Nomination and Evaluation Process

Since the February 13 meeting, additional Phase II small parcel nominations have been received and evaluated by the Habitat Work Group:

— Under Phase II, a total of 23 small parcel nominations have been accepted and evaluated to this point.

— Two of the Phase II parcels were ranked "high":

• KEN 1001/Deep Creek	Ninilchik Native Assoc. Inc.	172 ac.
• KEN 1004/Stephanka Tract	Kenai Natives Assoc. Inc.	803 ac.

— Six Phase II parcels scored 18, just below the current "moderate" break point.[1] These six parcels are:

• KEN 1005/Ninilchik River	Ninilchik Native Assoc. Inc.	16 ac.
• KEN 1006/Girves Property	Irene Girves	110 ac.
• KEN 1009/Cooper Property	David & Wanda Cooper	~30 ac.
• PWS 1010/Jack Bay	University of Alaska	942 ac.
• KEN 1014/Anderson Property	Dean Anderson	64 ac.
• KEN 1015/Lowell Point	James E. McCracken	19.4 ac.

— Each of these small parcels are of substantial interest to one or more federal or state agency sponsors for their restoration value; several have also generated substantial public comment in support of their purchase and protection. As indicated in my memo of May 10, I have recommended that the Trustee Council consider revising the moderate-low break point to recognize the value of these parcels. In the event the Trustee Council declines to modify the moderate-low breakpoint, each of these six parcels is being proposed for "special merit" consideration.

3. Preliminary Negotiations Initiated

Consistent with the February 13, 1995 resolution of the Trustee Council:

— Preliminary small parcel negotiations to date have been conducted by federal or state agencies for the purpose of developing and providing the Trustee Council with proposed terms and conditions for acquisition of a parcel, or portion of a parcel. Agreement to terms and conditions of a negotiation have been exclusively reserved to the

[1] Each of these six Phase II parcels was scored at 18, just below the "moderate" break point (ie., <20 = Low, 20-39 = Moderate, and 40/above = High)

Trustee Council and no promises or representations to the landowners to the contrary have been made.

— Each small parcel that has, to this point, been ranked as "high," "moderate," or identified as "special merit" has been assigned a lead State or federal negotiator.

— The Alaska Department of Law is the lead negotiator on 15 parcels; the U.S. Fish and Wildlife Service is the lead negotiator for 5 parcels; and the U.S. Forest Service is the lead negotiator for 1 parcel.

— Preliminary negotiations have been initiated with these landowners, including efforts to confirm a continued interest by the landowner in the possible sale of their land to the Trustee Council

— Hazardous materials surveys, preliminary title searches, and site visits as needed are under way.

4. Appraisals

— Appraisal services in conformance with the *Uniform Appraisal Standards for Federal Land Acquisitions* and *Uniform Standards of Professional Appraisal Practice* are either under way or being obtained through contacted services.

— It is projected that the small parcel appraisals and necessary appraisal reviews will be conducted over the next two months in order to obtain specific information upon which the Trustee Council could base any purchase offers determined to be appropriate.

5. Other - Miscellaneous

— Horseshoe Bay: As a result of further evaluation of the PWS 11/Horseshoe Bay parcel (received during Phase I), the Alaska Department of Natural Resources has requested that this parcel be considered as a "special merit" nomination. As indicated in the attached letter from Marty Rutherford to Molly McCammon (dated May 22), ADNR feels that the unique characteristics of this parcel are especially valuable in the interest of a geographically balanced small parcel protection effort due to the limited number of opportunities for habitat protection in this highly impacted area.

6. Public Comment

Throughout the small parcel process, there have been numerous opportunities for public comment:

— comment has been received during regular Trustee Council meeting comment periods as well as at PAG meetings;

— following publication of the *Comprehensive Habitat Protection Process: Small Parcel Evaluation and Ranking - Volume III* in mid-February additional public comment on the program was sought through the March edition of the "Restoration Update" newsletter;

— comment was solicited as part of the most recent round of community meetings during April in Port Graham, Cordova, Seldovia, Nanwalek, Valdez, Tatitlek, Homer, Kodiak, Chenega, Kenai, Seward and Anchorage;

— comment on the program to date has indicated broad based public support for the small parcel program with a number of specific small parcels receiving a substantial amount of comment and support (e.g., Overlook Park, Lowell Point, Jack Bay, Valdez Duck Flats, Termination Point);

— public comment continues on the small parcel program and has been used to formulate the initial recommendations presented below.

7. Summary and Conclusions

Based upon the progress of the small parcel program to this point, I recommend:

1. The Trustee Council should consider revising the moderate-low break point from 20 to 18 to recognize the value of the six Phase II parcels discussed above. With the addition of these six Phase II parcels, there is now a cluster of eight parcels that scored 18 (see bar chart). The two Phase I parcels that scored 18 are both already in the preliminary negotiation process (KAP 220 was identified as a "special merit" parcel and KAP 162 is part of the larger "moderate" KAP 226 parcel). If these additional 6 parcels were identified as "moderate," the total number of Phase I and II parcels undergoing further consideration and negotiation would be 27. This will allow for timely appraisal of these parcels in order to present the Council with information upon which to base any future offer, if any. Otherwise, each agency "special merit" nomination will be reviewed by the Trustee Council.

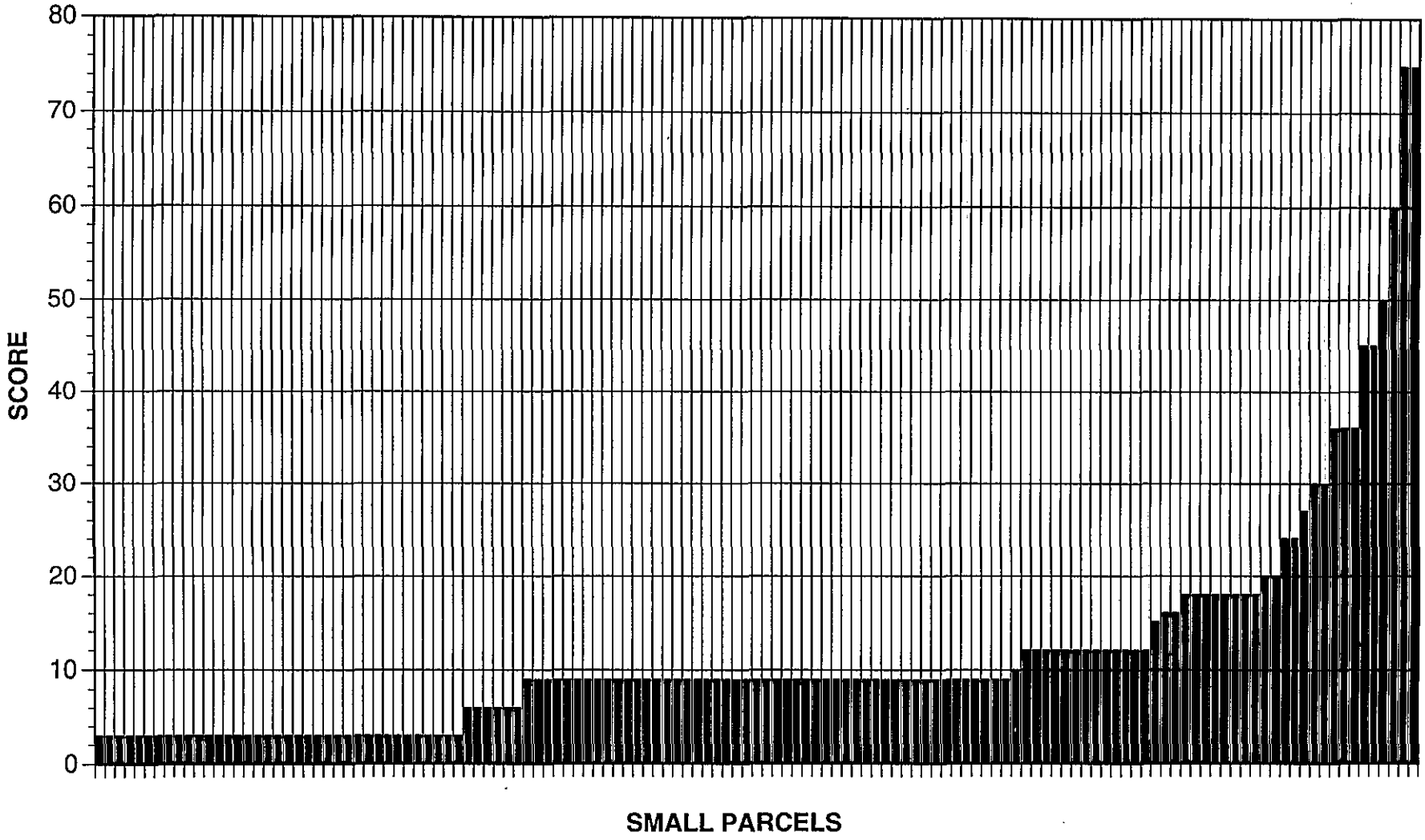
2. Additional small parcel nominations received after June 1, 1995 should be evaluated on a case by case basis, at the direction of the Executive Director, as time and staff resources permit with incremental "high" or "moderate" parcels added to those parcels being actively considered.

3. Based on the program progress to date, it should be possible to provide the Trustee Council with information upon which to base any specific purchase offers on or before the next scheduled meeting on August 25.

4. At that time, a parcel-specific recommendation for action regarding the purchase of each individual parcel could be made.

attachment
— Small Parcel Process — Status Summary (spreadsheet)

SMALL PARCEL SCORES
PHASE I & II



Habitat Protection Process; Small Parcel Process
Status Summary

Parcel ID	Name	Owner	Location	Acres	Rank	Agency Sponsor	Description
KEN 19	Coal Creek Moorage	Linda McLane 262-4613 P.O. Box 769 Kasilof, AK 99610	Coal Creek Moorage Subdivision, Part 1, Block 1, Lots 1,2,3,4, & 5; Block 2, Lot 2, Tract A. This parcel is located at the confluence of Coal Creek and the Kasilof River, part of the Kasilof River Flats.	53	High	ADF&G/ ADNR	The parcel contains an extensive tidal marsh surrounded by uplands of mixed spruce and birch. This parcel benefits pink and sockeye salmon, Dolly Varden, bald eagles, commercial and sport fishing, recreation and archaeological resources.
KEN 34	Cone Parcel	Chester Cone 283-7167 P.O. Box 263 Kenai, AK 99611	South of Beaver Loop Road, Kenai AK. T5N, R11W, Sec 11, SM. This parcel is located near the mouth of the Kenai River in an area known as the Kenai River Flats.	100	High	ADF&G/ ADNR	This parcel contains an extensive tidal marsh and is surrounded by uplands containing bog meadow, grass, sedge, rose shrubs and spruce. Wetlands found on this property provide habitat for salmon smolt, Dolly Varden, waterfowl, shorebirds and raptors.
KEN 149	Perl Island	Perl Island Ranch Partners 243-1380 P.O. Box 190228 Anchorage, AK 99519	Island in Chugach Island group south of the Kenai Peninsula. T12S, R14W, Sec. 19 SM, Kenai, AK. This parcel occupies the NW corner of Perl Island, the central of the three islands in the Chugach Islands group.	156	High	ADNR	An anadromous stream on the property provides habitat for salmon and Dolly Varden. In addition, there is a documented concentration of sea otters in the area. Acquisition would eliminate the impact of cattle grazing on injured resources.
PWS 05	Valdez Duck Flats	University of Alaska 786-7766 3890 Univ. Dr. #103 Anchorage, AK 99508	0.5 miles north of the city of Valdez, Richardson Highway, Valdez Alaska. U.S. Survey No. 448, T8S, R6W, S29/32.	33	High	USFS	The Valdez Duck Flats are a large and unique complex of intertidal mud flats and salt marsh covering approximately 1000 acres. Millions of salmon fry from these streams and the nearby Solomon Gulch hatchery feed and rear throughout the Duck Flats.
PWS 52	Valdez, Hayward	Philip L. Hayward 562-5037 1208 Oxford Dr. Anchorage, AK 99503	Lots 1-4, Block 3 and 4, Zook Subdivision, Mineral Loop Road, Valdez, Alaska. T8S, R6W, S33/34.	9.5	Moderate	ADF&G	This parcel is adjacent to the Valdez Duck Flats and acquisition would provide protection from developement adjacent to these unique complex intertidal mud flats and salt marsh.
KEN 10	Kobylarz Subdivision	Elizabeth Kobylarz 262-6393 254 Binkley St. Soldotna, AK 99669	Kobylarz Subdivision Tract D, Sec 19, T5N, R10W, SM, Kenai, AK. This parcel is located on Mile 14 of the Kenai River and encompasses approximately 1100 feet of riverbank frontage on Big Eddy.	20	Moderate	ADF&G/ ADNR	This parcel provides access to one of the most popular fishing areas on the Kenai river. Acquisition would provide protection of key salmonid habitat and also benefit Dolly Varden.

Habitat Protection Process; Small Parcel Process
Status Summary

Parcel ID	Name	Owner	Location	Acres	Rank	Agency Sponsor	Description
KEN 148	River Ranch	Anderson, Hanni, Terry 243-1380 P.O. Box 190228 Anchorage, AK 99519	Government Lot 4, 9, 10 and the NE 1/4 of the SW 1/4, T5N, R9W, Sec 22, SM Kenai AK. This parcel is located near River Mile 32 on the Kenai River.	146	Moderate	ADF&G/ ADNR	This parcel is one of the larger privately owned properties on the river, developed as a horse and cattle ranch. It has high potential for recreational use and habitat protection as acquisition will facilitate management of fisheries and injured resources
KAP 150	Karluk	Karluk IRA Council Kathryn Reft P.O. Box 22 Karluk, AK 99608	Karluk River, Kodiak Ak. T30S, R32W, Section 23, SM. This parcel is located on the west side of Kodiak Island.	5	Moderate	ADF&G/ ADNR	The Karluk River drainage is the single largest salmon system in the Kodiak Island Group. Subsistence fishermen are dependant on Karluk resources including pink and sockeye salmon. Dolly Varden and recreation/tourism will also benefit from protection.
KAP 226	Karluk River Lagoon	Reed Stoops, Ayakulik Associates 463-3223 420 Main St. #600 Juneau, AK 99801	USS 362 - Tracts A-D, Karluk River Lagoon, T30N, R32W, Sec. 22. SM.	21.5	Moderate	ADF&G/ ADNR	This parcel provides important public access and recreational service values. The Karluk River is world renown for its highly productive fishery resources including chinook, sockeye, pink, chum and coho salmon. Cultural resources will also benefit.
KEN 54	Salamatof Parcel	Salamatof Native Assoc., Inc. 283-7864 P.O. Box 26822 Kenai, AK 99611	T4N, R9W, Sec. 6 & 7, SM, Kenai, AK. T4N, R10W, portions of Sec. 1 & 12, SM, Kenai AK. This parcel encompasses approximately two miles of river bank between River Miles 26 & 28 upstream of the Soldotna Airport.	1260	Moderate	ADF&G/ ADNR/ USFWS	This parcel is one of the largest undeveloped privately owned parcels on the Kenai River.Protection will be provided injured resources such as salmon, Dolly Varden, river otters and bald eagles from future development.
PWS 17	Ellamar Subdivision	Ellamar Properties, Inc. 278-1311 P.O. Box 203113 Anchorage, AK 99520	Ellamar Sbudivision in Virgin Bay, Tatitlek Narrows, Prince William Sound. T11S, R9W, S20/29. This parcel is located on Virgin Bay, Approx. 2 miles north of the village of Tatitlek in PWS.	172	Moderate	ADNR	The area is mostly flat, well forested protected by Bligh and Busby Islands to the west and surrounded by mountains to the east. 42 lots have been sold. Benefits exist for salmon, herring, intertidal/subtidal habitats, sea otters and recreation/tourism.

Habitat Protection Process; Small Parcel Process
Status Summary

Parcel ID	Name	Owner	Location	Acres	Rank	Agency Sponsor	Description
KEN 55	Overlook Park	Cronland, Geisler, Lloyd, McNiven, Whytal 235-5401/5144 P.O. Box 1649 Homer, AK 99603	3/4 miles north of Bluff Point from Sterling Highway, Homer, AK. T6S, R14W, Sections 15 & 22, SM, Kenai, AK. This parcel is locally known as Overlook Park. It is situated below and is visible from the Sterling Hwy: scenic overlook.	97	Moderate	ADNR	The parcel lies upland of 3/4 mile of Kachemak Bay shoreline and an extensive tidal pool area unique to the area and accessible from the road system. This intertidal habitat contains especially diverse flora and fauna.
KAP 145	Termination Point	Leisnoi Inc. 487-4929 P.O. Box 1186 Kodiak, AK 99615 (Surface Estate)	Monashka Bay, NE coast of Kodiak Island. T27S, R20W, Sec. 6, 7, 8 & 18. SM. This parcel is approx. 12 miles from the town of Kodiak.	1028	Moderate	ADNR	This relatively flat coastal tract with 4 miles of convoluted shoreline and is forested. The parcel also contains productive intertidal habitat and benefits marbled murrelets, pigeon guillemots, recreation, subsistence and archaeological resources.
KAP 130	Uyak Bay	Dodge, Eklund, Povelite, Truitt 487-2122 SR Box 8800 Kodiak, AK 99615	Head of Uyak Bay, west side of Kodiak Island. T33S, R27W, Sec. 31, & T34S, R27W, Sec.6. SM.	318	Moderate	USFWS	This parcel has approx. 0.5 miles of shoreline on Uyak Bay and Uyak River runs through a portion of the parcel. The Uyak River provides habitat for pink, coho, and chum salmon, Dolly Varden, bald eagles. There is also a productive intertidal area.
Round 2: Parcels Scoring High or Moderate							
KEN 1001	Deep Creek	Ninilchik Native Association 563-9900 703 W. Tudor #101 Anchorage, AK 99503	Parcel is located at MM 137.3 on the Sterling Highway 2.2 miles south of Ninilchik. T25S, R14W, SM, Lot 5, Sec. 4, Lot 6, Sec. 4, Lot 6 Deep Creek Subdiv., Tracts A&B & Lot 1, Bl 1, Leisure Time Estates.	172	High	ADNR	This parcel has approx. 0.5 miles of shoreline on Cook Inlet and provides habitat for sockeye salmon, pink salmon, Dolly Varden, bald eagles, common murres and harbor seals.
KEN 1004	Stephanka Tract	Kenai Native Assoc. Inc. 333-4911 215 Fidalgo #203 Kenai, AK	This parcel is located within the Kenai National Wildlife Refuge. T4N, R8W, S.M., Section 1 and E 1/2 of Section 2.	803	High	USFWS	This parcel contains one and one half sections of intermediate and mature forest with small pockets of wetlands. It provides habitat for sockeye and pink salmon, Dolly Varden and river otters and has recreation and cultural resource values.

Habitat Protection Process; Small Parcel Process
Status Summary

Round 1: Parcels Meriting Special Consideration

Parcel ID	Name	Owner	Location	Acres	Rank	Agency Sponsor	Description
KEN 12	Baycrest	Michael Bullock (Agent), Baycrest Investment Corp. 562-6968 725 Market St. Wilmington, DE 19801	T6S, R14W, Sec. 23., below Baycrest Hill west of Homer. This parcel is adjacent to the "Overlook Parcel" on the west and contains 3/4 mile of Kachemak Bay frontage.	90	PMSC*	ADNR	This parcel contains an extensive tidal pool area and is accessible from the road system. Outstanding attributes of this parcel contribute to recreation, public access and management of the Overlook Parcel.
KEN 29	Tulin Parcel	Charles E. & Helen Tulin 272-2159 1422 K Street Anchorage, AK 99501	Located between the Sterling Highway and Cook Inlet with 3/4 mile of ocean frontage. T6S, R14W, Sec. 8 & 9, SM Kenai, AK	220	PMSC*	ADNR	This parcels contains and runs parallel to Diamond Creek from the Sterling Highway to Cook Inlet. The parcel is dominated by a mixed spruce and birch forest. Outstanding attributes of this parcel are its potential for recreation and public access.
KAP 22	The Triplets	Ouzinkie Native Corporation 680-2208 Box 89 Ouzinkie, AK 99644	Marmot Bay, 4 miles north of Kodiak Island, T25S, R25W, Sec. 23 & 26, SM.	60	PMSC*	USFWS	These three islands comprise the largest seabird colony in the Kodiak Archipelago. They contain important breeding habitat for several seabird populations impacted by the oil spill (colonial nesting seabirds, common murres).
KAP 220	Mouth of Ayakulik River	Ayakulik Associates, c/o Reed Stoops 463-3223 240 Main St. #600 Juneau, AK 99801	Mouth of the Ayakulik River, USMS 247, lots 1-6, Tract A. This parcel is composed of 6 lots and an adjacent tract at the mouth of the Ayakulik River in western Kodiak.	56	PMSC*	ADF&G	This river is second only to the Karluk for sockeye and chinook salmon production potential. Acquisition would provide outstanding benefits to recreation and fisheries management.
KAP 105/142	Three Saints Bay	Pestrikoff & Boskofsky 286-2206 Box 93 Old Harbor AK 99643	Three Saints Bay, Kodiak ISland T35S, R27W, Sec. 10 & 11, SM. These parcels adjoin each other and are located within the entrance to the bay.	48 & 40	PMSC*	USFWS	Accessible shorelines and nearshore waters are used for subsistence purposes. Outstanding attributes include the wilderness qualities of the area, subsistence benefits to residents, and cultural resources.

Habitat Protection Process; Small Parcel Process
Status Summary

Parcels which may Merit Special Consideration

Parcel ID	Name	Owner	Location	Acres	Rank	Agency Sponsor	Description
KEN 1015	Lowell Point	James E. McCracken 224-3350 P.O. Box 691 Seward, AK 99664	McCracken Tract A, located in Lot 3, USS 3365, SW 1/4 Sec 22, NW 1/4 Sec 27 SM	19.38		ADNR	Located on Lowell Point, one mile south of Alaska SeaLife Center. Parcel is forested in old growth hemlock and spruce with 700' of sand and gravel beach. The parcel provides recreational opportunities and access to Resurrection Bay.
KEN 1014	Grouse Lake	Mr. Dean Anderson 224-5584 Box 87 Seward, AK 99664	Portion of the S 1/2, SW 1/4, Section 1, T1N, R1W, SM lying west of Grouse Lake	64		USFS	This parcel is the only level access area to Grouse Lake and Grouse Creek, an area used by campers and anglers for years. Purchase will benefit the restoration of sockeye salmon, Dolly Varden, pink salmon and recreation/tourism.
PWS 1010	Jack Bay	University of Alaska 786-7766 3890 University Lake Dr. Suite 103 Anchorage, AK 99508	T10S R8W Copper River Meridian, Alaska, Sec. 2, lot 7, Sec. 3, lot 2, containing 198.64 acres, more or less. T10S, R8W, of the Copper River Meridian, Alaska, Sec. 4: tract A, Sec. 9: tract A, Sec. 10: N1/2, Sec. 11: tract A, containing 743 acres.	942		ADNR/ USFS	This parcel provides restoration benefit for pink salmon, herring, bald eagles, harbor seals, harlequin ducks and intertidal and subtidal biota. In addition, this parcel has received much public support and is accessible by boat from Valdez.
KEN 1009	Cooper Parcel	David & Wanda Cooper 745-3593 P.O. Box 264 Palmer, AK 99645	T2S R14W S02 Portions of Govt lots 1 & 2	30		ADF&G	This parcel is located on the Ninilchik River 2 miles upstream from the mouth. The river flows through the middle of the parcel and most of the property is classified as riarian habitat benefitting pink salmon,Dolly Varden and recreational use.
KEN 1006	Girves Parcel	Irene H. Girves 262-1846 Box 327 Soldotna, AK 99669	060-470-0100 M/L T05NR10WS31 Govt lot 2, containing 39.65 acres; 060-011-1300 T05NR10WS31 Govt lot 11 containing 46.73 acres; M/L 060-470-1200 T05NR10WS31 Govt lot 3 excluding lot 5 blk 1 HALCYON Sub (KN73009) and Resub Lot 1 Blk 1 HALCYON Sub KN760075	110		ADNR/ ADFG	Parcel is located near Mile 19 of the Kenai River just outside the city of Soldotna. The parcel provides key habitat for pink salmon and Dolly Varden and receives high levels of trespass recreational use from sportfishermen accessing property by boat.
KEN 1005	Ninilchik	Ninilchik Native Assoc. 563-9900 703 W. Tudor Rd., Suite 101 Anchorage, AK 99503	Parcel #1, Section 35, T1S, R14W, SM W 1/2, SW 1/4 Homer Recording District, Parcel #2, Section 35, T1S, R14W, SM (Chinook Park Homer Recording Dist.	5.76 10.38		ADNR	This parcel is located immediately adjacent to Ninilchik State Recreation Area and provides significant benefit to recreation/tourism. Acquisition will enhance access to public lands and eliminate existing trespass problems.

Habitat Protection Process; Small Parcel Process
Status Summary

Parcels which may Merit Special Consideration

Parcel ID	Name	Owner	Location	Acres	Rank	Agency Sponsor	Description
PWS 11	Horseshoe Bay	Lucy Groh 277-8791 1576 Coffey Lane Anchorage, AK 99501	Horseshoe Bay Subdivision and Tracts 1,2,3,4, and 5 of Horseshoe Bay Subdivision according to the official Plat thereof recorded as Plat 83-7, Valdez Recording District. T2S, R9E, S9.	315		ADNR	This parcel is surrounded by Horseshoe Bay State Marine Park and contains 1600' of waterfront in the heart of Horseshoe Bay, including the creek mouth and the waterfall. Acquisition would benefit pink salmon and recreation/tourism in PWS.

STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES

OFFICE OF THE COMMISSIONER

TONY KNOWLES, GOVERNOR

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3601 C STREET, SUITE 1210
ANCHORAGE, ALASKA 99503-5921
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FAX: (907) 562-4871

May 22, 1995

Molly McCammon
Executive Director
Exxon Valdez Oil Spill Restoration Office
645 G Street, Suite 401
Anchorage, AK 99501

Dear Ms. McCammon;

DNR would like to request that the Jack Bay parcel nominated by the University of Alaska during the second round of the Comprehensive Habitat Protection Small Parcel Evaluation and Ranking be placed in the category of "Parcels Meriting Special Consideration."

This parcel (PWS 1010) was evaluated by the Habitat Work Group and while it did not receive a score that would place it in the Moderate or High categories we feel it has unique characteristics which would allow it to contribute to the restoration of injured resources and services. This parcel scored at the high range of the low parcels and provides restoration benefit for the following injured resources: pink salmon, herring, bald eagles, harbor seals, harlequin ducks and intertidal and subtidal biota. In addition this parcel has received a high level of support from the public and provides additional restoration benefit for recreation/tourism for the residents of Prince William Sound. In addition this parcel is especially valuable due to the limited number of opportunities for habitat protection in this highly impacted area.

We appreciate your consideration of the Jack Bay parcel. Should you require additional information please do not hesitate to contact me. Thank you.

Sincerely,

Marty K. Rutherford
Deputy Commissioner

10-J9 LH

STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES

OFFICE OF THE COMMISSIONER

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FAX: (907) 562-4871

May 22, 1995

Molly McCammon
Executive Director
Exxon Valdez Oil Spill Restoration Office
645 G Street, Suite 401
Anchorage, AK 99501

Dear Ms. McCammon;

DNR would like to request that the Horseshoe Bay parcel nominated by Lucy Groh during the initial phase of the Comprehensive Habitat Protection Small Parcel Evaluation and Ranking be placed in the category of "Parcels Meriting Special Consideration."

This parcel (PWS 11) was evaluated by the Habitat Work Group and while it did not receive a score that would place it in the Moderate or High categories we feel it has unique characteristics which would allow it to contribute to the restoration of injured resources and services. This parcel provides habitat beneficial for pink salmon and would contribute significantly to the restoration of recreation/tourism in Prince William Sound. This parcel is especially valuable due to the limited number of opportunities for habitat protection in this most highly impacted area.

We appreciate your consideration of the Horseshoe Bay parcel. Should you require additional information please do not hesitate to contact me. Thank you.

Sincerely,

Marty K. Rutherford
Deputy Commissioner

10-J9 LH

United States Department of Agriculture
Forest Service
Alaska Region
P.O. Box 21628
Juneau, AK 99802-1628

File Code: 1590

Date: MAY 25 1995

Molly McCammon, Executive Director
Exxon Valdez Oil Spill Restoration Office
645 G Street, Suite 401
Anchorage, AK 99501

Dear Molly McCammon:

We would like to request that the Grouse Lake parcel (KEN 1014) nominated by owner Dean Anderson during the secondary phase of the comprehensive Small Parcel Habitat Evaluation and Ranking Process be placed in the category of "Parcels Meriting Special Consideration".

This parcel was evaluated by the Habitat Work Group and received a score of 18 placing it just below the minimum score of 20 for a moderate restoration value ranking. This parcel borders Grouse Lake and Creek and is contiguous with the Chugach National Forest. It can be easily incorporated into existing management plans and will enhance public access to recreational opportunities as it is within about 5 miles of Seward. It also provides habitat for sockeye and pink salmon, and Dolly Varden char. Thus, we feel that this parcel has unique characteristics which will provide for the restoration of injured resources and associated services.

In reference to another parcel (PWS 1010) Jack Bay, we are also interested in requesting special merit status. We have coordinated a recommendation submitted by Alaska Department of Natural Resources to initiate special merit status dated May 22nd. The Forest Service is also interested in incorporating this parcel into National Forest Management for the restoration of injured resources and associated services.

We appreciate your consideration of these parcels and should you require additional information, please contact Dave Gibbons.

Sincerely,

PHIL JANIK
Regional Forester

11614 II

MEMORANDUM

State of Alaska

DEPARTMENT OF FISH AND GAME

TO: Molly McCammon
Executive Director
EVOS Trustee Council
Restoration Office

RECEIVED
JUN 07 1995

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL
ADMINISTRATIVE RECORD

DATE: May 25, 1995
FILE: S-4.2.8.13.9

PHONE: 267-2334
FAX: 349-1723
E-MAIL: 72350.1610@compuserve.com

FROM: Kimbal A. Sundberg
Habitat Biologist
Habitat and Restoration Division
Anchorage

SUBJECT: Alaska SeaLife Center
Status Report

The following is a summary of current issues for the Alaska SeaLife Center (ASC) project. The first five headings in this status report track with the provisions of the November 2, 1994 Trustee Council Resolution:

1. Detailed Construction Budget and Operating Plan

- The Design Development phase has been completed to allow for preparing a 100% design development estimate. Two independent estimates will be prepared, one by the designer, Livingston Slone and one by the construction manager, Heery International. These estimates will then be conformed into one design development estimate through discussions between the designer and construction manager. The conformed estimate will be used to prepare the detailed construction budget and cash flow projection.

- A meeting is scheduled on May 31 between the project team and John Olson of the Alaska Industrial Development and Export Authority (AIDEA) to brief him and his design review consultants John Wood, Craig Freis, and Cliff Hitchens. At the request of the Executive Director, AIDEA has agreed to coordinate an independent review of the Design Development process, construction estimate, cash flow projection, and project schedule. AIDEA will provide a report in July.

- Leif Selkregg and I are continuing to refine the ASC operating plan. The outline for the plan is enclosed. A revised draft should be available for your review in June.

2. Alaska Department of Fish and Game - City of Seward Agreement

- The Cooperative Agreement between ADF&G and the City of Seward governing the construction, operation, and maintenance of the research component of the ASC was signed by all parties and recorded on April 28. The agreement provides that the City of Seward own the facility and provide for the operation and maintenance of the

facility for its practical life. Pending approval of all conditions in the November 2, 1994 Trustee Council Resolution, ADF&G will administer monthly payments to the City for construction of the facility when the restoration funds are made available on or after September 15, 1995.

- The City of Seward has signed the agreement with the Seward Association for Advancement of Marine Science (SAAMS) for financing, lease, construction, operation, and maintenance of the ASC, effective April 28. Among other things, the agreement provides for up to a fifty year lease of the seven acre waterfront site and requires SAAMS to maintain operating and replacement reserves.

3. Mitigation Measures

- Maureen Sims of Leif Selkregg & Associates has compiled a database listing all mitigation measures contained in the EIS, permits, and agreements for the project. The database identifies how each mitigating measure is being implemented during the construction phase of the project. For example, Dames & Moore is under contract to provide soil monitoring of the excavation of a buried fuel tank and other debris at the project site. Mike Yarborough, Cultural Resource Consultants, is under contract to monitor all excavations at the site for archeological resources. The inwater construction window provisions of the Corps permit and ACMP consistency finding are in effect for the marine work taking place this year.

4. Governing and Management Structure

- Discussions are continuing with the University of Alaska Fairbanks (UAF) concerning their role in research operations at the ASC. Comments were received from Dean Vera Alexander on a draft Memorandum of Understanding between SAAMS and the UAF-School of Fisheries and Ocean Sciences (SFOS). A meeting with Mike Castellini, AJ Paul, Jim Seeb, David Duffy, Bob Spies, Stan Senner, Joe Sullivan, Eric Meyers, Leif Selkregg and myself was held on May 22 to formulate options for the research management structure. This group came to consensus that appropriate scientific leadership at the ASC should be provided through a Scientific Review Committee comprised of research users and led by a representative of the SFOS. The Committee would review proposals for consistency with the ASC's capabilities, academic standards, and service to the EVOS restoration mission. Additionally, the group agreed that the ASC Research Director should be supervised by the ASC Executive Director and could be required to maintain an affiliation with the SFOS. The issues of the governing and management structure are still being reviewed.

5. Reports and Monitoring

- The requirement for the City of Seward to submit annual financial and project status reports to the Trustee Council is included in the ADF&G - City of Seward Agreement. Additionally, the City will be submitting monthly progress and financial reports to ADF&G as a condition for payments and a final report will be prepared following completion of construction. ADF&G will regularly monitor the construction of the facility and will continue to provide progress updates to you and others.

6. Other

- The marine construction and site work contract was awarded to Sandstrom & Sons Construction on May 16 for an amount substantially below the estimated budget. Four bids were received ranging from $2.9 to $1.8 million. Prior to receiving bids, the construction estimate for this work was $2.3 million. The $1.837 million contract with Sandstrom includes debris removal and site preparation, installation of the seawater intake and outfall lines, construction of the concrete wet well, placement of sheet piling and rip rap along the shoreline, and utility location. Construction fencing has been installed and the contractor is currently mobilizing on the site. Funding for this first phase of construction will come from the $12.5 million EVOS restitution appropriation.

- Ground breaking ceremonies for the ASC were held in Seward on May 21. Over 2,000 attended the all day events which included participation by Trustee Council members Frank Rue, Deborah Williams, and Craig Tillery in addition to former Trustee Council members Charlie Cole and John Sandor, and a number of Public Advisory Group members. Other participants, in addition to yourself, included Lt. Governor Fran Ulmer, Governor and Mrs. Hickel, and a number of past and present state legislators. The events and venues were made possible through generous donations by the Alaska Railroad, Holland America-West Tours, NANA-Marriot, and Kenai Fjords Tours.

- Fund raising efforts have thus far identified $750,000 in donations from Seward for the public education component of the ASC. An additional $1.25 million in donations are being sought from the remainder of Alaska. Three million dollars are being sought from outside corporations and foundations. Discussions are continuing between SAAMS, the City of Seward, and several banks for a $5 million bridge financing package.

- A meeting between ADF&G and Livingston Slone was held on May 23 to discuss the concept of a fish pass between Resurrection Bay and the fish research tanks at southwest corner of the ASC. The fish pass would allow a self-sustaining run of pink salmon to be established for genetics studies. Livingston Slone will develop a proposal for designing and developing a cost estimate for the fish pass. Because the

fish pass is not currently in the ASC budget, funding for design and construction would need to come from additional sources.

- Upcoming Events:

May 31	AIDEA Briefing
June 13	SAAMS Board Meeting
June 27	Scientific Work Group Meeting (tentative)

Alaska SeaLife Center Operating Plan
Outline

1. Executive summary
2. Description of SAAMS; Relationship to City of Seward; Operating agreements
3. Mission of ASC
4. Organization chart and description
5. Job descriptions for key staff
6. List of positions, projected salaries, and hiring sequence
7. Projected operating costs
   - Personnel
   - Utilities
   - Animal food, vitamins, and meds
   - Supplies
   - Administrative expenses
   - Animal acquisition
   - Contracts
   - Store inventory
8. Projected revenue
   - Admissions
   - Memberships
   - Sales
   - Research
9. Reserves and Interest
10. Ramp-up budget 1996-98
11. Operations Pro Forma - 1999
12. Cash flow analysis

STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES

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May 22, 1995

Molly McCammon
Executive Director
Exxon Valdez Oil Spill Restoration Office
645 G Street, Suite 401
Anchorage, AK 99501

Dear Ms. McCammon;

DNR would like to request that the Ninilchik parcel nominated by the Ninilchik Native Association during the second round of the Comprehensive Habitat Protection Small Parcel Evaluation and Ranking be placed in the category of "Parcels Meriting Special Consideration."

This parcel (KEN 1005) was evaluated by the Habitat Work Group and while it did not receive a score that would place it in the Moderate or High categories we feel it has unique characteristics which would allow it to contribute to the restoration of injured resources and services. This parcel scored at the high range of the low parcels and provides significant restoration benefit for recreation and tourism. This parcel is immediately adjacent to a state recreation area. It can reasonably be incorporated into existing management plans and will enhance access to public recreation lands, eliminating existing trespass problems. The parcel provides access to outstanding sport fishing for king salmon, dolly varden, pink salmon, steelhead, and silver salmon, and habitat for these same species.

We appreciate your consideration of the Ninilchik parcel. Should you require additional information please do not hesitate to contact me. Thank you.

Sincerely,

Marty K. Rutherford
Deputy Commissioner

10-J9 LH

STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES

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May 22, 1995

Molly McCammon
Executive Director
Exxon Valdez Oil Spill Restoration Office
645 G Street, Suite 401
Anchorage, AK 99501

Dear Ms. McCammon;

DNR would like to request that the Lowell Point parcel nominated by James McCracken during the second round of the Comprehensive Habitat Protection Small Parcel Evaluation and Ranking be placed in the category of "Parcels Meriting Special Consideration."

This parcel (KEN 1015) was evaluated by the Habitat Work Group and while it did not receive a score that would place it in the Moderate or High categories we feel it has unique characteristics which would allow it to contribute to the restoration of injured resources and services. This parcel is located on Lowell Point, one mile south of the Alaska Sea Life Center and contains seven hundred feet of prime sand and gravel beach with a souther exposure. This parcel scored at the high range of the low parcels and provides many unique recreational opportunities and direct access to Resurrection Bay. In addition this parcel has received a high level of support from the public.

We appreciate your consideration of the Lowell Point parcel. Should you require additional information please do not hesitate to contact me. Thank you.

Sincerely,

Marty K. Rutherford
Deputy Commissioner

10-J9 LH

11.6.14 G

Meeting Summary

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

B. DATE/TIME: March 23-24, 1995

C. LOCATION: Anchorage, Alaska

D. MEMBERS IN ATTENDANCE:

Name	Principal Interest
Chris Beck	Public-at-Large
Karl Becker	Aquaculture
Kim Benton	Forest Products
Pamela Brodie	Environmental
Dave Cobb	Local Government
Chip Dennerlien	Conservation
Jim Diehl	Recreation Users
John French	Science/Academic
James King	Public-at-Large
Vern McCorkle	Public-at-Large
Brenda Schwantes (3/23)	Subsistence
Thea Thomas	Commercial Fishing
Chuck Totemoff	Native Landowners
Martha Vlasoff (3/24)	Public-at-Large
Gordon Zerbetz	Public-at-Large

E. NOT REPRESENTED:

Name	Principal Interest
Rupert Andrews	Sport Hunting and Fishing
Nancy Lethcoe	Commercial Tourism
Georgianna Lincoln (*ex officio*)	Alaska State Senate
Alan Austerman (*ex officio*)	Alaska State House

F. OTHER PARTICIPANTS:

Name	Organization
Kenny Blatchford	Qutekcak Native Tribe
Traci Cramer	EVOS Staff
Glenn Elison	Fish and Wildlife Service
Dave Gibbons	U.S. Forest Service
Veronica Gilbert	AK Dept. Nat. Resources
Robert Henrichs	Native Village of Eyak
Carrie Holba	Oil Spill Public Info. Center
Lora Johnson	Chugach Heritage Foundation
Gary Kompkoff	Tatitlek Native Village
Tom Livingston	Livingston & Sloan Architects
Bob Loeffler	AK Dept. Envir. Conservation
Molly McCammon	EVOS Director of Operations
Doug Mutter	Designated Federal Officer Dept. of the Interior
Eric Myers	EVOS Staff
Helmer Olsen	Valdez Native Tribe

Sandra Schubert	EVOS Staff
Leif Selkreg	Alaska SeaLife Center
Maureen Sims	Alaska SeaLife Center
Jim Sinnett	Chugach Heritage Foundation
Theona Sodden	Port Graham
Bob Spies	Chief Scientist
Joe Sullivan	AK Dept. Fish and Game
Kim Sundberg	AK Dept. Fish and Game
Alex Swiderski	AK Dept. of Law
Ray Thompson	U.S. Forest Service
Craig Tillery	AK Dept. of Law
Bill Wood	Wood & Associates
Cherri Womac	EVOS Staff

G. SUMMARY:

The meeting was opened March 23 at 8:45 a.m. by Doug Mutter, the Designated Federal Officer. Roll call was taken and PAG member introductory statements were made.

Molly McCammon welcomed the new PAG members for 1995-1997. She provided an overview of the PAG and its role as an advisor to the Trustee Council. Other advice is provided to the Trustee Council from the Chief Scientist, EVOS and agency Staff, State and Federal Attorneys, and the general public. She introduced Exxon Valdez Oil Spill (EVOS) Restoration Office Staff.

Bill Wood facilitated the PAG in a 2 hour session on how to be an effective advisory group member (Attachment #4). Several issues were raised and set aside for later analysis (Attachment #2).

Vern McCorkle was selected to serve as temporary Chair until the election of officers on Friday.

Craig Tillery presented background information about the court settlement and funds received from Exxon.

Veronica Gilbert reviewed the Restoration Plan (see Tab VII in the PAG Notebook). Key sections for PAG members are: chapter 1, Introduction; page 6, Settlement Funds; page 32, Injured Resources and Services List; and chapter 5, Goals, Objectives Strategies. The Restoration Plan provides guidelines for development of Annual Work Plans.

Tillery discussed the Restoration Reserve, which was established at the strong recommendation of the PAG, as a method to address issues beyond 2001, when Exxon funding ceases. Two annual allocations of $12 million have been set aside in the Court Registry, which manages the EVOS trust funds. The current target for the Restoration Reserve is $108 million plus interest by 2001. The funds must be managed by the Trustee Council.

The Chief Scientist, Dr. Robert Spies, discussed the status of recovery of injured resources and services. He noted the types of projects underway and the scientific process used to evaluate proposals and projects.

Bob Loeffler outlined the annual work plan process. Efforts are now underway for fiscal year 1996, which will begin October 1, 1995. An invitation for proposals is available (Attachment #5). Proposals will be evaluated beginning in May. A draft Work Plan will be prepared for public review, followed by a Trustee Council decision in August. Multi-year funding of projects will be a consideration. Questions for PAG consideration after conducting an informed review of the Work Plan: Are the objectives worth the cost? What project are preferred? What activities are missing or are overly emphasized? What items should be added? The schedule is: May 1 proposals due, June 27 a draft Work Plan produced, August 1 public comments due, and late August a Trustee Council decision.

McCammon described the habitat protection process, reviewing the status of small parcel protection (Attachment #8)--21 parcels are under consideration. Large parcel status reports (Attachment #7) were provided by Glenn Elison, Dave Gibbons, and Alex Swiderski. There was discussion about the value and goal of protecting logged lands.

Traci Cramer reported on the financial status of the restoration funds (Attachment #10). An audit process is being set up.

Kim Sundberg reported on the progress of the Alaska SeaLife Center project in Seward. Tom Livingston, Leif Selkreg, and Maureen Sims presented detailed plans, financial information, and organizational concepts for the project. Sundberg addressed the issues raised previously by the PAG (Attachment #6). The PAG discussed the financial assumptions and safeguards of the project. The need to coordinate with similar activities of other agencies was noted.

Public comment was accepted at 10:00 a.m. Friday. Testimony was heard from the following in support of a project being developed by a consortium of local communities (after introductory comments by Martha Vlasoff): Jim Sinnett, Chugach Heritage Foundation; Helmer Olsen, Valdez Native Tribe; Robert Henrichs, Native Village of Eyak; Kenny Blatchford, Qutekcak Native Tribe; Gary Kompkoff, Tatitlek Native Village; Theona Sodden, Port Graham; and Lora Johnson, Chugach Heritage Foundation.

McCammon noted that the EVOS civil settlement deals with public natural resources and related services, but does not address human needs--she described this as a failure of State and Federal laws.

Mutter described the contents of the PAG Notebooks, noting the PAG operating procedures in Tab V. He stated that PAG members who have a personal stake in a particular project could discuss, debate, and provide information about the project, but should not vote on the project, because that is a conflict of interest. Cherri Womac provided information about travel and expenses for PAG members. She recommended PAG members save all receipts if they wish reimbursed.

Pam Brodie nominated (second by Jim King) Vern McCorkle for the position of Chairperson for the coming year. McCorkle was unanimously elected. Karl Becker nominated Martha Vlasoff (second by Chris Beck) for the position of Vice-Chair. Brodie nominated John French (second by Dave Cobb). The election for the position of Vice-Chair was tabled until the next meeting when both candidates are present or can be queried about their interest in the position.

A question about the need and process for designating alternates or giving proxies was raised. Chip Dennerlien moved (second by French) that each member forward nominations for their alternate to the Executive Director for compilation and consideration at the next PAG meeting--staff are to send to PAG members material on the process and alternate member information needs (Attachment #1). Motion passed unanimously.

An ad hoc Work Group of volunteers was established to address the issues listed in Follow-up #3, below. Members are: Vern McCorkle, John French, Dave Cobb, Thea Thomas, and Gordon Zerbetz.

Brodie moved (second by Thomas) to petition the Trustee Council for a grant program for PAG members who need assistance in communicating via telephone and telefax with members of the interest groups they represent and with EVOS staff. Motion passed unanimously.

The meeting adjourned at 1:30 on March 24, 1995.

H. FOLLOW-UP:

1. McCammon will have summaries (when available) of Trustee Council meetings sent to the PAG for their information.

2. Mutter is to compile and send to PAG members copies of previous resolutions passed by the PAG (Attachment #3).

3. The ad hoc Work Group is to: consider time and location for a field trip meeting in the fall of 1995; alternatives for addressing the "Parking Lot" issues (Attachment #2); and recommend priorities for the PAG for FY 1995.

I. NEXT MEETING: April 20-21, 1995, Anchorage, AK.
June 13-14, 1995, Anchorage, AK.
July 27-28, 1995, Anchorage, AK.
September ??, 1995, Field Trip in Spill Area.

J. ATTACHMENTS:

1. Packet for nomination of PAG member alternates
2. PAG Issues in the "Parking Lot"
3. Previous resolutions passed by the PAG

For those not in attendance:

4. How to be an Effective Advisory Group, By William Wood
5. Invitation to Submit Restoration Projects for Federal Fiscal Year 1996
6. Resolutions on the Alaska SeaLife Center
7. Habitat Protection Process Large Parcel Status Summary
8. Habitat Protection Process Small Parcel Status Summary
9. Restoration Update newsletter
10. Memorandum: Financial Report as of February 28, 1995

K. CERTIFICATION:

_____ _____

PAG Chairperson **Date**

11.6.4 F

Meeting Summary

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

B. DATE/TIME: April 20-21, 1995

C. LOCATION: Anchorage, Alaska

D. MEMBERS IN ATTENDANCE:

Name	Principal Interest
Chris Beck	Public-at-Large
Kim Benton	Forest Products
Pamela Brodie	Environmental
Dave Cobb	Local Government
Chip Dennerlein	Conservation
John French	Science/Academic
James King	Public-at-Large
Vern McCorkle	Public-at-Large
Brenda Schwantes	Subsistence
Thea Thomas (4/20)	Commercial Fishing
Chuck Totemoff (4/20)	Native Landowners
Martha Vlasoff (4/21)	Public-at-Large
Gordon Zerbetz	Public-at-Large
Russ Redick (4/20 for Andrews)	Sport Hunting and Fishing

E. NOT REPRESENTED:

Name	Principal Interest
Rupert Andrews	Sport Hunting and Fishing
Karl Becker	Aquaculture
Jim Diehl	Recreation Users
Nancy Lethcoe	Commercial Tourism
Georgianna Lincoln (*ex officio*)	Alaska State Senate
Alan Austerman (*ex officio*)	Alaska State House

F. OTHER PARTICIPANTS:

Name	Organization
Pamela Bergmann (4/21 for Mutter)	Designated Fed. Officer Dept. of Interior
Jim Bodkin	Nat. Biological Service
Dave Deans	Focus Company
Dave Duffy	Univ. of Alaska Anchorage
Glenn Elison	Fish and Wildlife Service
Dave Gibbons	U.S. Forest Service
Veronica Christman	AK Dept. Nat. Resources
Mark Kuwada	AK Dept. Fish and Game
Bob Loeffler	AK Dept. Envir. Cons.
Molly McCammon	Trustee Council Executive Director
Peter McRoy	Univ. of Alaska Fairbanks
Doug Mutter (4/20)	Designated Fed. Officer Dept. of Interior

Eric Myers	Trustee Council Director of Operations
Sandra Schubert	Trustee Council Staff
Stan Senner	Trustee Council Staff
Bob Spies	Chief Scientist
Joe Sullivan	AK Dept. Fish and Game
Alex Swiderski	AK Dept. of Law
Art Weiner	AK Dept. Nat. Resources

G. SUMMARY:

The meeting was opened April 20 at 9:10 a.m. by Vern McCorkle, Chairperson. Roll call was taken. With modifications, the meeting summary for the March 23-24, 1995 PAG meeting was approved.

Molly McCammon reviewed the March 31, 1995 Trustee Council meeting actions. The next Trustee Council meeting will probably be in late May in Cordova. She reviewed the 1995 Restoration Status Report. The current series of public meetings were summarized by McCammon, Eric Myers, and Bob Spies. Chip Dennerlein suggested that a "permanent mobile display" be developed for providing public information about the spill and restoration. McCammon said that Valdez is also interested in establishing a display. Chris Beck asked if an analysis of restoration funds spent by community was available (not at this time). Kim Benton suggested more villages in the Kodiak area be visited (this will be done). Gordon Zerbetz suggested that video clips of public meetings would be a good way to provide the PAG and others with a synopsis of what was going on.

McCorkle reported on the results of the ad hoc work group meeting, with recommended action for the "parking lot" issues identified at the last PAG meeting. Doug Mutter reviewed statements of the PAG's role and responsibilities from the Court Settlements, PAG Charter, and PAG Background and Guidelines (available in PAG Notebook Tabs IV and V). John French suggested that the PAG take a broader view of restoration and recommend positions on direction, policy, and research--identifying areas that require emphasis. Pam Brodie agreed, saying that the PAG is not equipped to deal with the details of many projects, but can address more global issues. Others voiced support of this concept. McCammon welcomed PAG involvement in policy and broad direction setting--within the context of the policies set forth in the Restoration Plan.

Dave Cobb distributed a report (Attachment #1) outlining an option for the PAG field trip this fall. Chuck Totemoff said the village of Chenega welcomed a visit by the PAG. One option is for the PAG to view part of the SERVS drill at Valdez in September. The purpose of the field trip will be to view some of the large and small habitat protection parcels, some of the research/monitoring projects are being conducted, and some of the oiled beaches. Dennerlein moved (second by Cobb) that *the PAG request the staff to develop a cost-effective fall (around September 21, 1995) field trip to include a visit from Valdez to*

Chenega by boat, viewing as many restoration activities as possible, and bring costs/options back to the PAG for a final decision. Passed unanimously.

A resolution was prepared by McCorkle regarding the use of proxies in PAG meetings. It was moved by Cobb (second by Totemoff) that *PAG meetings shall be conducted by members voting in person, or in their absence by the member's duly appointed alternate.* Passed unanimously.

Brodie suggested the PAG take a position on trustee agency land and resource management actions that may affect the restoration efforts within the spill area. She moved (second by Dennerlein) that *the PAG recommends to the Trustee Council that they oppose oil/gas lease sale 149, to allow for the recovery of oil spill-affected resources.* After much discussion the motion failed (see Attachment #2).

Stan Senner discussed the proposed specimen collection policy (Attachment #3). Dennerlein moved (second by Jim King) that *the PAG gives general endorsement of the proposed collection policy, with the addition of an 8th question: asking for the full utilization of any specimens collected.* Passed unanimously.

Bob Loeffler outlined the annual work plan process (Attachment #4). He asked the PAG to provide a broad perspective on the direction of the proposed plan and its projects. Two PAG members are asked to participate in preliminary staff development of the work plan. Ecosystem projects were outlined: Spies on general ecosystem projects, Peter McRoy on the Sound Ecosystem Assessment, Dave Duffy on seabird/forage fish, and Jim Bodkin on nearshore. The draft Work Plan for FY 1996 is to be completed in early June.

Beck discussed some thoughts (Attachment #5) on the directions for restoration the PAG should consider. The PAG discussed restoration approaches over the long-term and the value of projects for direct restoration and/or management decision-making.

An overview of small parcel habitat protection efforts was presented by Dave Gibbons, Mark Kuwada, Art Weiner, and Alex Swiderski. Benton asked about the landowner assistance program. Key issues include: access for recreation and subsistence, appraised values, local support for protection.

Public comment was accepted at 10:00 a.m. Friday. Testimony was heard from Dave Deans, of Focus Company, representing Ellamar Properties.

Cherri Womac presented information about the use of telephone debit cards for use in contacting constituents. She will check on legal and accounting issues.

The meeting adjourned at 1:20 p.m. on April 21, 1995.

Eric Myers	Trustee Council Director of Operations
Sandra Schubert	Trustee Council Staff
Stan Senner	Trustee Council Staff
Bob Spies	Chief Scientist
Joe Sullivan	AK Dept. Fish and Game
Alex Swiderski	AK Dept. of Law
Art Weiner	AK Dept. Nat. Resources

G. SUMMARY:

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April 17, 1995

Mr. Vern McCorkle
EVOS Public Advisory Group
Anchorage, Ak

Dear Vern:

Please find enclosed some of the information that the "Parking Lot" working group requested that I provide with regards to the 1995 PAG field trip and some suggestions for possible "ground rules" or "norms" that may be used in conjunction with a gatekeeper. The following information is provided for the PAG's consideration:

1. 1995 PAG Field trip to Valdez

Date: September 19-21, 1995

Activities: SeaRiver Maritime's (Exxon) annual oil spill training drill in Prince William Sound. PAG meeting with RCAC executive committee to discuss mutual interests. Boat trip to Tatitlek and Chenega Bay to view restoration projects and large/small parcel purchases.

Cost: Hotel accommodations at the Westmark Valdez would be a rate of $89 per night. Stan Stephens Charters would provide one of their boats (Nautilus) that would easily provide 20-25 people with overnight accommodations and food. I do not have a final price at this time. Mr. Stephen's has indicated that the price would be just enough to cover his expenses. Ketchum Air can provide two airplanes to meet our needs. Mr. Beck indicated that he felt that two hours flying time would provide the PAG with the air time needed to view the parcels. The price would be $2,300 - $2,500 and would provide room for up to seventeen people. I have talked to Mr. Bader of Alyeska and he has indicated that Alyeska feels that this is an excellent opportunity for the PAG to view a large scale oil spill response drill and to watch SERVS in action.

2. "Ground rules" or "Norms" for a gatekeeper.

The following "ground rules" are provided for consideration by the PAG to be used by our gatekeeper:

1. Stay focused, limit rambling
2. Start on time, end on time
3. Meet deadlines and goals
4. Clear accountability for off-line assignments
5. All materials ready at the start of a meeting
6. Limit outside interference
7. Public invited, comments at end of meeting after agenda completed
8. Consensus ("I can live with this and I will not sabotage this"). We will agree to

H. **FOLLOW-UP:**

1. McCammon will provide public meeting schedules to the PAG in advance.

2. McCammon will follow-up on development of a spill/restoration public information display.

3. McCammon will prepare a report on the proposed fall PAG field trip.

4. McCammon will prepare information about the availability of subsistence easements as a tool for habitat protection.

5. Loeffler will distribute a request for comments and arrange a teleconference on the Work Plan and criteria for evaluating FY 1996 project proposals.

6. McCorkle and French will assist McCammon with preparation of the FY 1996 PAG budget.

7. Vote is pending on the position of Vice-Chairperson.

8. PAG members who wish a telephone debit card should contact Womac.

9. PAG members who wish to designate an alternate member should get the nominee's information packet to Womac at this time.

I. **NEXT MEETINGS:** June 13-14, 1995, Anchorage, AK.
July 27-28, 1995, Anchorage, AK.
September 19 (??), 1995, Field Trip to Valdez/Chenega (??).

J. **ATTACHMENTS:**

1. Letter from Dave Cobb re. field trip and PAG norms
2. Vote record and information opposing lease sale 149
3. Proposed specimen collection policy
4. Proposed PAG Work Plan Review Schedule
5. Thoughts from Chris Beck on restoration directions
6. Financial Report as of March 31, 1995

K. **CERTIFICATION:**

_____ _____

PAG Chairperson **Date**

Sierra Club
Alaska Field Office
241 E. Fifth Avenue, Suite 205, Anchorage, Alaska 99501
(907) 276-4048 • FAX (907) 258-6807

April 17, 1995

Dear Fellow Members of the EVOS Public Advisory Group,

I would like to suggest an additional item for us to add to the agenda to discuss at the upcoming meeting of the Exxon Valdez Oil Spill Public Advisory Group (PAG). I do not think that it will require a long period of time for discussion.

I would like the PAG to consider taking a stand opposing the U.S. Mineral Management Service's Oil Lease Sale 149. This is an off-shore oil lease sale for Lower Cook Inlet and Shelikof Strait, directly within the Oil Spill affected area. If this lease sale goes forward, it significantly increases the risk of another catastrophic oil spill within the area which has not yet recovered from the Exxon Valdez Oil Spill.

Although the Trustee Council has focused its attention almost entirely on how to spend the remaining funds from the $900 million settlement, it has always had the ability and responsibility to help restore the Oil Spill injuries through management decisions over public resources -- something it can do at little or no cost.

The Mineral Management Service's deadline for public comments is Wednesday, April 19 -- the day before our meeting. However, I believe that MMS would accept comments from such a group as the PAG even if they are a day or two late.

I am attaching a fact sheet with some more information about this lease sale. I encourage you to check with members of your interest group, especially those who live in the Kenai Peninsula and Kodiak Archipelago area about their views on Lease Sale 149. Thank you.

Sincerely,

Pam Brodie

Pamela Brodie
EVOS PAG Environmental Representative

cc: Molly McCammon ✓
Doug Mutter

disagree.

9. Chairman is the tie-breaker if needed.
10. The use of proxies is not acceptable, alternates should be used.

The above listed "ground rules" are commonly used by many groups. If you have any questions feel free to contact me at (970) 835-4874.

Respectfully,

Dave Cobb

Dave Cobb

Exxon Valdez Oil Spill

Public Advisory Group
Voting Record

Date: 4-20-95

Motion by: Brodie

Second by: Dennerlein

Issue: PAG recommends to the Trustee Council that they oppose lease sale 149 to allow for recovery of oil spill effected resources.

Name	YES	NO	ABSTAIN	ABSENT
Rupert Andrews				✓
Christopher Beck			✓	
Karl Becker				✓
Kimberly Benton		✓		
Pamela Brodie	✓			
Dave Cobb		✓		
Chip Dennerlein	✓			
James Diehl				✓
John French			✓	
James King			✓	
Nancy Lethcoe				✓
Vern C. McCorkle			✓	
Brenda Schwantes			✓	
Thea Thomas			✓	
Charles Totemoff		✓		
Martha Vlasoff				✓
Gordon Zerbetz		✓		

2 4 6

MMS Proposed Oil Lease Sale 149
Lower Cook Inlet & Shelikof Strait
-- some comments for the EVOS PAG --
from information provided by Trustees for Alaska & Greenpeace

Within or surrounding the Lease sale area are:

- Five national wildlife refuges -- Alaska Maritime, Kodiak, Becharof, Alaska Peninsula, Kenai;
- Four national parks -- Katmai, Lake Clark, Aniakchak, Kenai Fjords;
- The largest concentration of state-designated critical habitat areas;
- McNeil River State Wildlife Sanctuary, renowned as the greatest brown bear viewing area in the world;
- Kachemak Bay, recently designated as an International Shorebird Reserve;
- Shelikof Strait, designated critical habitat for the threatened Steller sea lion, whose numbers have declined about 70 percent since the mid-1970's, according to government agencies.

Many Native villages suffered during the Oil Spill from loss of their subsistence resources. These are threatened again by Lease Sale 149. The following have expressed strong opposition to the sale in resolutions to MMS: Chugachmiut Environmental Protection Consortium (representing the villages of Port Graham, Nanwalek [formerly English Bay], Chenega Bay and Tatitlek), Ninilchik Traditional Council, Dena'ina Traditional Council, Chickaloon Village).

Oil development threatens multi-million dollar commercial and sport fisheries and tourism, the economic bases for local communities. The area is of comparable value to Bristol Bay, where development is currently under a Congressional moratorium. If it is leased, local demand for a buy-back is likely to be high (more than four hundred people attended the public hearing in Homer to express unanimous opposition to the sale). United Fishermen of Alaska, representing 18,000 commercial fishermen, also opposes Lease Sale 149.

The oil industry has an unfortunate record of pollution on the Kenai Peninsula and in Cook Inlet:

- Oil and gas companies operating 18 facilities in upper Cook Inlet have committed more than 4,000 violations of their Clean Water Act NPDES permits from 1987 to the present;
- Oil industry operations on the Kenai Peninsula caused the Kenai Peninsula Borough to have the highest levels of pollution of any local government in EPA's Region 10 (WA, ID, OR, AK), according to the Toxics Release Inventory;
- The oil industry has left a toxic legacy of more than 150 hazardous waste sites on the Kenai Peninsula, the greatest concentration of these is within the Kenai National Wildlife Refuge;
- The oil industry has resisted efforts to prevent pollution from oil spills through campaigns to preclude requirements of tug escorts in Cook Inlet.

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

To: Public Advisory Group

From: Molly McCammon
Executive Director

Date: April 13, 1995

Subj: Proposed Collection of Bird Specimens for Project No. 95320Q

The Trustee Council's Chief Scientist, Dr. Robert Spies, has recommended proceeding with the collection of bird specimens proposed as part of the Avian Predation on Herring Spawn Project (95320Q, part of the SEA Program) by the principal investigator, Dr. Mary Anne Bishop, U.S. Forest Service. I concur with this recommendation. Per the Collections Review Policy discussed at the last Trustee Council meeting, I am notifying you of this recommendation, prior to giving final authorization for this proposed collection.

If you have questions or comments on this recommendation, please contact me by Wednesday, April 19.

enclosures: Dr. Spies' recommendation, 04/12/95
Dr. Bishop's request, 03/10/95

mm/raw

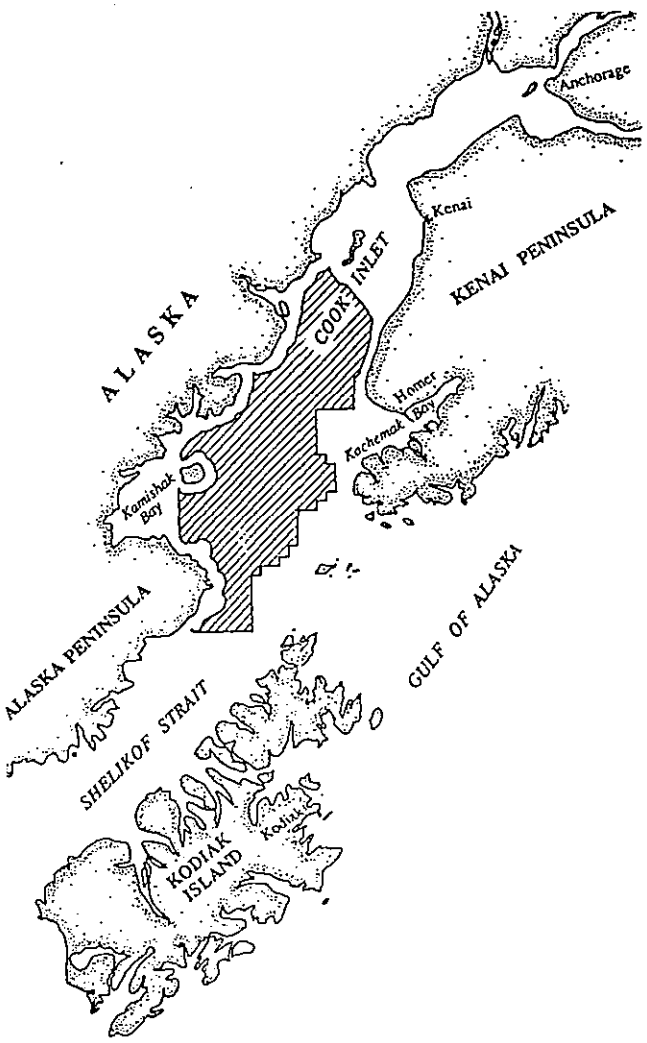
Alaska Outer Continental Shelf

OCS EIS/EA
MMS 94-0066

Cook Inlet Planning Area Oil and Gas Lease Sale 149

Draft Environmental Impact Statement

Volume I



MMS U.S. Department of the Interior
Minerals Management Service
Alaska OCS Region

The general health of all five species is probably good. Based on Bird Study No. 2 (Klosiewski and Laing 1994), there is evidence of population declines for Glaucous-winged Gulls, Mew Gulls, and scoter species between 1972-73 and 1989-91. There is, however, no indication that any of these populations are in distress, and recent boat surveys indicate that gulls are increasing in Prince William Sound since 1990. In addition, the Surf Scoter is a legally-taken game bird for which there is a daily bag limit of 15 a day. The 7,451 Surf Scoters estimated by the U.S. Fish and Wildlife Service in March 1994 is an increase of 1,530 from the same survey in 1993. Unlike the two gulls and the Surf Scoter, which are widely distributed, much of the world populations for Surfbirds and Black Turnstones may be found on Montague Island during spring migration. However, numbers of these shorebirds stopping on northern Montague Island in spring migration have shown no decreases on mostly *ad hoc* surveys during the years 1989-1994 (USFWS unpubl. data).

3. Is the proposed take likely to affect any population trends?

In a word, no. The numbers proposed to be collected are about 1/4 of 1% or less of the local seasonal population (PWS population in case of Surf Scoter). This level of collections, performed only in a single year, will have a negligible impact on the population trends of any of the five species.

4. Is the proposed method of take humane? Are there any effective, alternative means to obtain the data?

Bishop proposes to collect the birds by shotgun at close range. Death will be almost instantaneous.

There are various alternatives to sacrificing birds to obtain gut contents, but none of them are appropriate or adequate in this context. What is critical here is that the investigators intend to observe and record behavioral information on specific individuals and then collect those same individuals for diet analysis. Collection methods that rely on, for example, flushing a flock of birds into a net do not allow investigators to select individuals for collection. In addition, live trapping can be extremely difficult and time consuming, and cause more stress and possibly injury to more birds than quickly shooting a few individuals. Finally, in the case of the shorebirds, stomach pumping techniques are probably not satisfactory for getting large hard-shelled prey (e.g., *Mytilus* sp.) out of the gut, because the prey items are larger in diameter than the tube which is inserted into the gut (the items can be swallowed because of flexibility in the esophagus, but getting them back out is more difficult!). This could bias results toward soft prey and lead to an overestimate of the importance of herring eggs.

APPLIED
marine
SCIENCES

April 12, 1995

TO: Molly McCammon
Executive Director

FR: Robert Spies
Chief Scientist

RE: Proposed Collection of Bird Specimens for Project No. 95320Q, Avian Predation on Herring Spawn

On March 10th Mary Anne Bishop, principal investigator on Project No. 95320Q, submitted a request and justification for the collection of a small sample of Glaucous-winged Gulls, Mew Gulls, Surfbirds, Black Turnstones, and Surf Scoters in Prince William Sound. A copy of Bishop's justification is attached. The purpose of the collections is to sample the diets of five key avian predators on herring spawn and estimate total eggs ingested (in metric tons) by birds in Prince William Sound. This information will be brought into models of herring embryo survival, thus enabling better estimates of herring spawn biomass and better management of PWS herring stocks for benefit of both the herring fisheries and the marine-related ecosystem. There is strong justification to proceed with the collection of bird specimens as proposed by Bishop, and my recommendation is that this request be approved. My analysis follows with reference to the draft policy on collections in your memorandum to the Trustee Council dated March 30, 1995.

1. How many individuals are proposed to be collected and the approximate times and locations? How do these numbers compare with the total population in the general collecting area?

All collections are planned in April and May on northern Montague Island. Here are the numbers of birds proposed to be collected, followed in parentheses by recent estimates of numbers of each species seen on northern Montague Island during the sampling period: 30 Glaucous-winged Gulls (45,000), 20 Mew Gulls (9,700), 20 Surfbirds (56,000), 20 Black Turnstones (25,000), and 20 Surf Scoters (7,451 in March 1994 in PWS). With the exception of the Surf Scoters, the estimated numbers of birds are for northern Montague Island only. Thus, actual population estimates for PWS and the adjacent north Gulf of Alaska coast would be higher, and substantially so for glaucous-winged and mew gulls.

2. What is the general health of the population? Is the population increasing, decreasing or holding steady in the proposed sampling area? Is reproduction and young survival normal?

United States Department of Agriculture
Forest Service
Pacific Northwest Research Station/ Alaska Region
Copper River Delta Institute
P.O. Box 1460
Cordova, AK 99574
(907) 424-7212
FAX (907) 424-7214

Caring for the Land and Serving People

Bob Spies, EVOS Chief Scientist
Applied Marine Sciences
2155 Las Positas, Suite S
Livermore, CA 94550

Date: 10 March 1995

Reply to: 4000

Dear Bob,

Greetings from sunny Cordova! I heard today through Jim Bodkin that there was a nearshore meeting this past Monday and Tuesday in Anchorage. While I am sorry I was not able to attend, I was pleased to hear that my proposed study on the importance of herring eggs for breeding and migrant birds was discussed on how it will fit into the nearshore investigations for FY96. I hope to discuss this project in more detail with you at your convenience.

The reason I am writing to you is to submit to you a justification for the proposed taking of birds at herring spawn areas this spring as part of 95320Q. I have written this justification based on the draft policy guidelines that were circulated in January. Please let me know if you need any additional information.

I have been in contact with Eric Myers on the proposed collections. I understand that the Trustee Council has not yet acted on the takings issue, but should be considering it (hopefully) by the end of this month. Given my timeline of collections beginning in mid-April, I wanted to submit this to you for your review and consideration.

Thanks again for your help Bob. I look forward to hearing from you.

Best wishes,

Mary Anne

Mary Anne Bishop, Ph.D.
Research Wildlife Biologist

Enc.
cc: Eric Myers, EVOS

5. What will be lost of if there is no take allowed?

Having quantitative data on actual consumption of eggs is essential to estimations of the level and impact of predation on herring spawn. Without these data, the investigators are left to make assumptions that might well be faulty. Bishop already has completed one season without collecting any specimens, and there would be almost no reason to undertake the 1995 work without the requested collections.

6. What can we realistically hope to learn that will justify this collection?

Herring are a keystone component of the PWS ecosytem, and their economic value is significant. The diet analysis and estimation of the impact of predation on herring spawn proposed by Bishop will provide essential information for modeling herring productivity and survival. This in turn will allow better management of PWS herring stocks for the benefit of the commericial fishery and the ecosystem. In the long run, the bird species that are being collected will benefit from these actions.

7. Have federal and/or state permits been secured? If not, why not?

Bishop has secured a federal collecting permit and has applied for a state permit. No difficulty is expected in securing the state permit.

In conclusion, I recommend approval of Bishop's request to collect bird specimens. In addition, I recommend that we stipulate that the carcasses be retained, frozen, and made available to the University of Alaska or management agencies for analysis of body composition. This is not a part of Project No. 95320Q, but we should encourage maximum use of any specimens collected.

Please let me know if you have any questions.

cc: Stan Senner
EVOS Science Coordinator

Dr. Mary Anne Bishop
U.S. Forest Service

- Project #95320Q will work in concert with Project #95166, Herring Natal Habitats. Sampling efforts and field logistics will be coordinated and subsequent data will be integrated into a model describing herring egg loss.
- Not only will this study gather valuable data on herring egg loss through predation but it will also document the importance of the spawn to resident and migratory birds in Prince William Sound.

Population Status of Species

- Glaucous-winged Gulls - The largest breeding colony of Glaucous-winged Gulls in the area is Egg Island with 20,000 breeding adults. The number of collected individuals equals 0.15 percent of the Egg Island population. The 1994 spring counts found an estimated 45,000 Glaucous-winged Gulls on Montague Island. The number of collected individuals equals 0.07 percent of this population.
- Mew Gulls - In 1994, an estimated 9,700 Mew Gulls where counted on Montague Island during spawn. The number of collected individuals equals 0.21 percent of the population.
- Surfbirds - In May 1992, an estimated 56,000 Surfbirds were counted on Montague Island. The number of collected individuals equals 0.04 percent of the estimated population.
- Black Turnstones - The same May 1992 count estimated 25,000 Black Turnstones on Montague Island. The number of collected individuals equals 0.08 percent of the population.
- Surf Scoters - In March 1994, the U.S. Fish and Wildlife Service estimated 7,451 Surf Scoters in Prince William Sound (1,530 higher than 1993). The number of collected individuals equals 0.27 percent of this population. It is likely that the population size is greater in April and early May. In addition, Surf Scoters are a legally hunted species with liberal bag limits.
- The large population sizes of all 5 species and the small number of collected birds results in no significant impact on any population trends.

Alternative Methods

- Ignoring food habits and working under the assumption that herring spawn equals 100 percent of prey items selected was considered. However, in 1994, the gulls and shorebirds were observed consuming non-spawn prey items. For the scoters, no direct observations of prey selection are possible. Data from previous work in herring spawn areas shows all 5 species consuming non-spawn prey items.
- Non-lethal methods of collecting data on the food habits of seabirds usually depends on birds being present at nests. Stomach contents are obtained by forced regurgitation (stomach pump or emetic) or by collection of prey items brought to chicks. However, none of the birds present in the spawn areas are breeding before the roe hatches. Also, both methods of collecting stomach contents in this situation are biased. In the case of stomach pumping, smaller prey items are over represented.
- Live capture of free ranging birds in a rigorous environment is problematic at best. In 1994 we tried several capture methods including net gunning, mistnets, and pull nets. Both the

Justification of Collecting Activities
Project #95320Q, Avian Predation on Herring Spawn

Prepared for : Chief Scientist,
Exxon Valdez Oil Spill Trustee Council

Prepared by: Copper River Delta Institute,
U.S. Forest Service

Summary and Conclusions

- As part of the Avian Predation on Herring Spawn Project (#95320Q) individuals from 5 avian species will be collected to obtain data on avian diet in herring spawn areas.
- The number of gulls, shorebirds, and scoters is small and will not impact the populations of these species.
- Non-lethal methods of obtaining data on avian diets in herring spawn areas have been attempted and were found to be ineffectual, impractical and time-consuming while yielding low quality data. Because of the free ranging nature of the species in question, their behaviors, and their habitat, no non-lethal alternatives are feasible.
- Without collecting birds, no accurate, quantified data on avian diet in herring spawn areas will be available. Without data on the amount of spawn present in the diet of the birds foraging in spawn areas, the impacts of avian predators on herring spawn in Prince William Sound cannot be assessed.

The Proposal

- Project #95320Q, Avian Predation on Herring Spawn, will assess the impact of avian predation on herring spawn in Prince William Sound.
- Boat and aerial surveys will document the size of the avian populations using herring spawn areas. Surveys and collections will occur from mid-April to mid-May (this is highly dependent upon spawn timing). These numbers, combined with behavioral observations, energetic models, and, most importantly, data on diet composition, will be used to estimate the amount of spawn removed by avian predators.
- To acquire data on the diet composition of avian predators using herring spawn areas we will collect 30 Glaucous-winged Gulls, 20 Mew Gulls, 20 Surfbirds, 20 Black Turnstones, and 20 Surf Scoters. In 1994, all 5 species are present in large numbers on the study area during spawn and were, to different degrees, found to be associated with concentrations of herring spawn. Birds will be collected while actively foraging within herring spawn areas. They will be taken with a shotgun firing large enough shot to ensure a clean, quick kill, but small enough to prevent unnecessarily damage to the specimens. The contents of their upper Gastro-intestinal tract will be collected and the carcass will be frozen for analysis of body composition.

PROPOSED PAG SCHEDULE

April 20-21 Meeting
- Confirm Mission/Schedule
- Review Restoration Program
- Review Ecosystem Projects

DRAFT

June 13-14
- Preliminary Review; Draft Work Plan Projects
- Review Fish & Marine Mammal Projects

July 27-28
- Final Review: Draft Work Plan/Restoration Program
- Review Subsistence, Archaeology, & Other Projects

DRAFT

mistnets and the pull nets failed completely. Several factors contributed to the zero capture rate: large tidal range, high or steady winds, rocky environment, and flushing behavior of birds (out from instead of along the shore). The net gun was an effective capture method at high tide and given a sandy or mud substrate. We refrained from firing the net toward rocky areas for several reasons. The fast moving net could very easily drag birds, severely injuring them on barnacle encrusted rocks. Even in perfect conditions, the net gun can easily kill or permanently disable birds. Additionally, the rocks will damage the net and, more importantly, the metal bolts that carry the net as it is shot.

- Techniques for capturing free ranging seabirds are not selective. To obtain optimal data on food habits, an actively foraging bird is chosen and watched to record both its habitat and behavior before it is collected. This ensures that the bird has freshly consumed food in its stomach and provides highly relevant data on its environment. Typically, this cannot be done using current live capture methods for seabirds.
- Direct observations of prey item manipulation and intake were considered. Experience gained in 1994 during flock scan and focal animal observation rules out this alternative. Most prey items are far to small to observe and the data is biased toward large prey items. Often, prey intake occurs too fast for an observer to record. For the scoters, direct observation of prey selection is impossible.
- Regurgitant from Glaucous-winged Gulls was collected in 1994 by flushing flocks of gulls and then searching for any stomach contents they regurgitated before taking off. However, this method is haphazard and most likely does not accurately reflect the food habits of the birds. Also, the identity of the species may be suspect.

Permits

- Within Alaska, permits for collecting birds for research are required from both the Alaska Department of Fish and Game and the U.S. Fish and Wildlife Service.
- The collecting permit applications for this project are pending.

Importance of Data

- Data on the proportion of herring spawn in the diet of avian predators is the keystone to the analysis of avian impact on herring spawn. The amount of spawn removed by these 5 major species can only be estimated using the proportion of spawn and other items in their diets as determined by collecting gastrointestinal contents.

June 1995

DRAFT

FY96 Work Plan Schedule

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
			1	2
5 E.D. meets with RWF, Chief Scientist, and 2 PAG members to develop Draft Work Plan	6	7	8	9
12	13 PAG meeting	14	15	16
19	20	21 Draft Work Plan to printer	22	23
26	27 Draft Work Plan distributed	28	29	30

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raw

4/20/1995

May 1995

FY96 Work Plan Schedule

DRAFT

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
1 Proposals Due	2	3	4	5
8 Proposals distributed for Restoration Work Force Scientific and Legal review	9	10	11	12
15	16	17	18	19
22	23	24	25	26
29	30	31		

Chief Scientist, Coor-Peer Reviewers meet to develop Chief Scientist's Recommendation to E.D.

raw

4/20/1995

August 1995

DRAFT

FY96 Work Plan Schedule

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
	1 Comments on Draft Work Plan due	2	3	4
7	8 Public Comments compiled, analyzed	9	10 Executive Director, RWF & Chief Scientist meet to recommend Final Work Plan	11
14	15	16 Trustee Packets mailed	17	18
21	22	23	24	25 Proposed TRUSTEE COUNICL meeting on FY96 Work Plan & Beyond
28	29	30	31	

MILLER TIME

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4/20/1995

July 1995

FY96 Work Plan Schedule

DRAFT

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
3	4	5	6	7
10	11	12	13	14
17	18	19	20	21
24	25	26 PAG meeting	27	28
31				

raw

4/20/1995

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

MEMORANDUM

TO: Trustee Council

THROUGH: Molly McCammon
Executive Director

FROM: Traci Cramer
Administrative Officer

DATE: April 17, 1995

RE: Financial Report as of March 31, 1995

Attached is the Statement of Revenue, Disbursements and Fees, and accompanying notes for the *Exxon Valdez* Joint Trust Fund for the period ending March 31, 1995.

The following is a summary of the information incorporated in the notes and contained on the statement.

Joint Trust Fund Account Balance	$109,518,545	
Less: Commitments (Note 5)	$50,171,598	
Less: Restoration Reserve Balance	$24,000,000	
Plus: Adjustments (Note 7)	$2,742,197	
Uncommitted Fund Balance		$38,089,144
Plus: Future Exxon Payments (Note 1)	$490,000,000	
Less: Remaining Reimbursements (Note 3)	$26,300,000	
Total Estimated Funds Available		$501,789,144

If you have any questions regarding the information provided please give me a call at 586-7238.

attachments

cc: Restoration Work Force
Bob Baldauf

EXXON VALDEZ RESTORATION
PUBLIC ADVISORY GROUP

A FEW THOUGHTS FOR GROUP REVIEW
Offered by Public-at-Large Member Chris Beck 4/20/95

STARTING ASSUMPTION

To the greatest extent possible within the law, the EVOS restoration process should broaden its efforts to achieve the following goals:

a. Long term, sustainable ecosystem health
b. Sustainable, beneficial human use of the spill area

One way to broaden the process - to maximize the legacy of settlement spending - is to *restructure* ongoing EVOS programs so they continue to meet established EVOS objectives (e.g., land acquisition, research on recovery of injured resources) and, at the same time, serve these broader goals.

The EVOS process has already shifted away from restoration in the strictest sense. Accepting that reality, let's be more explicit about our broader possible impacts.

POSSIBLE EXAMPLES

1. Select/structure research programs for greatest possible application in the following areas:
   a. Application to public (and private) land management policy (*make it easier to understand the consequences of past and proposed management choices.*)
   b. Application for concerned citizens and groups that watch over public/private land management decisions (*empower people to better participate in ongoing land management decision-making.)*
   c. Application to general public knowledge of the spill area (foster greater emotional and intellectual attachment to the future environmental health of the spill area.

Overall goal: direct research to the broad goal of learning how to live in and use the spill area over the long haul without destroying it's beauty and ecological health.

2. Maximize Impacts (albeit often indirect) of EVOS programs on Cultural/Economic Health
   a. Local Hire programs
   b. More outreach from science programs to communities

STATEMENT OF REVENUE, DISBURSEMENT, [illegible] FEES
EXXON VALDEZ OIL SPILL JOINT TRUST [illegible]D
As of March 31, 1995

DRAFT

	Federal Fiscal Years Ending September 30			To Date	Cumulative
	1992	1993	1994	1995	Total
REVENUE:					
Contributions: (Note 1)					
Contributions from Exxon Corporation	90,000,000	250,000,000	70,000,000		410,000,00
Less: Credit to Exxon Corporation for clean-up costs incurred		(39,913,688)			(39,913,68
Total Contributions	90,000,000	210,086,312	70,000,000	0	370,086,31
Interest Income: (Note 2)					
Exxon Corporation escrow account	831,233				831,23
Joint Trust Fund Account	596,000	1,378,000	3,736,000	2,880,617	8,590,61
Total Interest	1,427,233	1,378,000	3,736,000	2,880,617	9,421,85
Total Revenue	**91,427,233**	**211,464,312**	**73,736,000**	**2,880,617**	**379,508,16**
DISBURSEMENTS:					
Reimbursement of Past Costs: (Note 3)					
State of Alaska	29,267,842	29,000,000	25,000,000		83,267,84
United States	24,726,280	36,117,165	6,271,600		67,115,04
Total Reimbursements	53,994,122	65,117,165	31,271,600	0	150,382,88
Disbursements from Joint Trust Account:					
State of Alaska	6,559,200	18,529,113	44,546,266	19,434,190	89,068,76
United States	6,320,500	9,105,881	6,008,387	8,252,361	29,687,12
Total Disbursements	12,879,700	27,634,994	50,554,653	27,686,551	118,755,89
FEES:					
U.S. Court Fees (Note 4)	23,000	154,000	364,000	309,833	850,83
Total Disbursements and Fees	66,896,822	92,906,159	82,190,253	27,996,384	269,989,61
Increase (decrease) in Joint Trust	24,530,411	118,558,153	(8,454,253)	(25,115,766)	109,518,54
Joint Trust Account Balance, beginning balance	0	24,530,411	143,088,564	134,634,311	
Joint Trust Account Balance, end of period	24,530,411	143,088,564	134,634,311	109,518,545	
Commitments: (Note 5)					(50,171,598
Restoration Reserve: (Note 6)					24,000,000
Adjustments: (Note 7)					2,742,197
Uncommitted Fund Balance					38,089,144
Remaining Reimbursements: (Note 3)					(26,300,000
Total Estimated Funds Available					501,789,144

NOTES TO THE STATEMENT OF REVENUE, DISBURSEMENTS AND FEES
FOR THE *EXXON VALDEZ* JOINT TRUST FUND
As of March 31, 1995

1. Contributions - Pursuant to the agreement Exxon is to pay a total of $900,000,000.

Received to Date	$410,000,000
Future Payments	$490,000,000

2. Interest Income - In accordance with the MOA, the funds are deposited in the United States District Court, Court Registry Investment System (CRIS). All deposits with CRIS are maintained in United States government treasury securities with maturities of 100 days or less. Total earned since the last report is $381,730.

3. Reimbursement of Past Costs - Under the terms of the agreement, the United States and the State are reimbursed for expenses associated with the spill.

Reimbursements to Date	$150,382,887
Remaining Reimbursements	
United States	$3,000,000
State of Alaska	$23,300,000

4. Fees - CRIS charges a fee of 10% for cash management services. Total paid since the last report is $42,414.

5. Commitments - Includes $24,956,000 for the Trustee Council's contribution toward the Alaska Sealife Center in Seward, $6,363,584 for the final two installments (plus interest) for the Seal Bay purchase, and $18,852,014 for the two pending court requests. The contributions for the Alaska Sealife Center will be made in September 1995 and 1996, with the Seal Bay payments due in November 1995 and 1996.

   There are two pending court requests. First, $1,652,014 for the Nearshore Vertebrate Predator and Apex: Forage Fish/Seabird projects approved at the March 31, 1995 meeting. As of this date, the projects are under review by the Department of Justice and the required documentation has not been filed. Secondly, $17,200,000 for land acquisitions for Orca Narrows, Akhiok-Kaguyak, and Old Harbor.

6. Restoration Reserve - The required documentation for establishment of the reserve has not been filed.

7. Adjustments - Under terms of the Agreement, both interest earned on previous disbursements and prior years unobligated funding or lapse are deducted from future court requests. Since the last court request $104,570 in interest have been earned and $2,637,624 have been reported as unobligated for the 1992 and 1993 Federal Fiscal Years.

	Interest	Lapse
United States	$0	$240,859
State of Alaska	$104,570	$2,396,765

Meeting Summary

A. GROUP: Ad Hoc Work Session, Exxon Valdez Oil Spill Public Advisory Group (PAG)

B. DATE/TIME: May 15, 1995

C. LOCATION: Teleconference

D. MEMBERS IN ATTENDANCE:

Name	Principal Interest
Rupert Andrews	Sport Hunting and Fishing
Chris Beck	Public-at-Large
Kim Benton	Forest Products
Pamela Brodie	Environmental
Dave Cobb	Local Government
Jim Diehl	Recreation Users
John French	Science/Academic
James King	Public-at-Large
Nancy Lethcoe	Commercial Tourism
Vern McCorkle, Chair	Public-at-Large
Brenda Schwantes	Subsistence
Thea Thomas	Commercial Fishing
Chuck Totemoff	Native Landowners
Martha Vlasoff	Public-at-Large
Gordon Zerbetz	Public-at-Large

E. NOT REPRESENTED: N/A

F. OTHER PARTICIPANTS:

Name	Organization
Bob Loeffler	Trustee Council Staff
Molly McCammon	Trustee Council Executive Director
Doug Mutter	Designated Federal Officer Dept. of the Interior
Eric Myers	Trustee Council Director of Operations

G. SUMMARY:

The session began May 15 at 1:00 p.m. Molly McCammon explained that excluding habitat protection efforts, the Trustee Council has received 128 proposals for FY 1996 projects totalling nearly $39 million. Once habitat protection commitments are taken care of, about $18 million is available for projects and $3.2 million for administrative support in FY 1996. This is compared to about $25 million spent in FY 1995.

Bob Loeffler explained the project review process:

1. Scientific review by peer reviewers and the Chief Scientist--scientific merit, relation to other efforts.

2. Legal review by agency attorneys--legality under terms of the settlement.
3. Agency and trustee Council staff review--budget, consistency, relation to previous and continuing efforts, restoration issues.
4. Public review--broad perspective.

Continuing projects (from FY 1995) proposed for FY 1996 total about $17 million. Some options are to re-prioritize projects, reduce costs, look hard at any new projects.

McCammon summarized the project clusters (see Handout #1), indicating new and continuing projects and possible duplications.

Jim Diehl asked if the past project results were available to use in determining future efforts. This information was presented at the Annual Workshop earlier in the year and is summarized in the "FY 1996 Invitation". Chris Beck suggested determining how much we have learned, what our restoration goals are, and then identifying how a project fits into this pattern--what projects offer the most public good and what time frame is needed to achieve solid results? Nancy Lethcoe said we should consider how the results of these projects are going to assist in future management decisions. Jim King questioned what projects were more normal agency management.

The session ended at 3:15 p.m.

H. FOLLOW-UP:

1. By the June 13-14 meeting, PAG members should review the project spreadsheet, read through the "Invitation to Submit Restoration Projects for Federal Fiscal 1996 and Draft Restoration Prgoram: FY 96 and Beyond", and think about what criteria the PAG should use to evaluate projects and the work plan.

2. Loeffler will get the scientific and Trustee Council staff reviews of projects to the PAG around June 9.

3. Martha Vlasoff will participate in the work plan work session scheduled for June 6-8. McCammon will poll other PAG members to see if another wishes to participate. Kim Benton is available, if no one else is interested.

4. McCammon will add a briefing on information management to the next meeting agenda.

I. NEXT MEETING: N/A

J. HANDOUTS:

1. FY 1996 Project Proposals
2. Memorandum from Bob Loeffler re. teleconference agenda

K. CERTIFICATION:

PAG Chairperson	Date

5-11-95 11.6.41

Fleming Spit Recreation Area

Project Number: 95080

Restoration Category: General Restoration

Proposed By: The Cordova Sporting Club

Lead Agency: Alaska Department of Natural Resources

Cost FY 95: $644,900

Cost FY 96: $0

Total Cost: $644,900

Duration: 2 years

Geographic Area: Prince William Sound

Injured Resource/Service: Recreation (sport fishing) and pink salmon

INTRODUCTION

Fleming Spit, located 1.5 miles north of Cordova's city center, is the site of a strong terminal coho sport fishery and a fledgling king salmon fishery. The Prince William Sound Aquaculture Corporation transports 200,000 king and coho salmon smolts from the Noerenberg Hatchery to Fleming Spit each year. The smolts are held in net pens in a pond behind the Spit for the purpose of imprinting the fish to return to the release site. The coho fishery was established before the *Exxon Valdez* oil spill; the king salmon fishery was established in 1989.

After the spill, residents of Cordova increasingly turned to the terminal fisheries at Fleming Spit to replace sport fishing opportunities lost or reduced because of the spill. This project will improve fish habitat and the terminal fisheries through the following actions:

1. **Land Acquisition ($150,000).** Acquire a 5.39 acre parcel of land adjacent to the smolt release pond to accommodate existing and projected use of Fleming Spit for sport fishing and to maintain intertidal habitat for spawning and rearing of wild pink salmon.

2. **Fisheries Improvements ($170,000).** Enlarge and deepen existing smolt release ponds so net pens float at all tide stages, thereby decreasing mortality among young salmon. Also construct permanent net pens to replace two mobile net pens.

3. **Fishing Boardwalk ($300,000).** Construct a boardwalk to provide safe access to the fishing area for a diverse mix of people, including children, the elderly, and the disabled.

The City of Cordova supports these proposed improvements (Letter of 12/20/94 from Scott Janke, City Manager, City of Cordova).

Community Contributions. The City of Cordova and The Cordova Sporting Club have already constructed off-street parking at Fleming Spit and removed derelict barges from adjacent tidelands (joint project with the U.S. Coast Guard). If necessary, the City will also survey the parcel of land proposed for acquisition. These community contributions are valued at $60,000.

State Restitution Funds. The State has agreed to participate in this project by constructing recreation facilities at Fleming Spit. Facilities for which State restitution funds are being considered include fish-cleaning stations, public restrooms, and additional improvements to the parking area (e.g., signs and curbs).

NEED FOR THE PROJECT

The proposed project will replace sport fishing opportunities lost or reduced because of the oil spill and protect intertidal habitat for wild pink salmon at Fleming Spit.

Land Acquisition. The primary purpose of acquiring USS 252 is to accommodate existing and projected use of Fleming Spit for sport fishing. It will also maintain intertidal habitat for spawning and rearing of wild pink salmon.

Although this parcel was not formally nominated through the Small Parcel Process, the Habitat Work Group evaluated the parcel at DNR's request. The parcel contains key habitats that are linked to the recovery or replacement of injured resources and services. The parcel is a high-use recreation area; pink salmon spawn in the upper intertidal zone adjacent to the parcel. These habitats are at risk from development and therefore will benefit from added protection. Furthermore, the parcel has potential for enhancement of its recreation values.

In addition to being linked to the recovery of injured resources and services, the parcel appears to meet other threshold criteria for acquisition. Specifically, the present owner, Sealaska Corporation, has had the parcel appraised and is willing to sell it at or below fair market value. The parcel, which is within city limits, will be managed by the City of Cordova.

Public recreation facilities, including fish-cleaning stations, public restrooms, and parking areas, will occupy approximately four acres of the parcel of land proposed for acquisition.

Fisheries Improvements. The primary purpose of the proposed fisheries improvements — enlarging and deepening the smolt release pond and constructing permanent net pens — is to decrease mortality among young salmon. Improved survival at an early life stage should increase the number of fish available for sport fishing at Fleming Spit. Without the proposed improvements, the terminal fisheries at Fleming Spit will deteriorate and their value in replacing lost or reduced sport fishing opportunities will diminish.

An added benefit of a healthy sport fishery at Fleming Spit is that it serves as an alternative to sport fishing on wild coho salmon on the Copper River Delta. Although the wild coho salmon stocks in the Copper River Delta were not directly injured by the *Exxon Valdez* oil spill, the area is within the spill-affected area and the species is under increased sport fishing pressure.

The existing smolt release pond at Fleming spit is shallow, exposing smolts to bird predation and causing net pens to ground. Net pens should be kept floating to maintain proper circulation. A dredge and fill project is proposed to enlarge and deepen smolt release ponds. By reducing bird predation and allowing net pens to float at all tide stages, this improvement will decrease mortality among young salmon.

The terminal fisheries now operate with two mobile net pens temporarily on loan from the Prince William Sound Aquaculture Corporation. Continuation of the terminal fisheries requires replacement of the mobile net pens with more durable net pens, which will be owned by the city and dedicated to the Fleming Spit terminal fisheries.

Fishing Boardwalk. The purpose of the fishing boardwalk is to provide safe pedestrian access to the fishing area for a diverse mix of people, including children, the elderly, and the disabled. The fishing area is presently accessed via the steep, rocky slope of the roadbed. The main part of the proposed boardwalk will extend 20 to 30 feet offshore. Platforms will also extend into the smolt release pond (on the landward side of the road). The entire boardwalk will comply with the Americans with Disabilities Act and therefore be accessible to the elderly and the handicapped.

PROJECT DESIGN

A. Objectives

1. Replace lost or reduced sport fishing opportunities by improving terminal fisheries at Fleming Spit.

2. Protect riparian and intertidal habitat for wild pink salmon.

B. Methods

All of the following steps will be the responsibility of the City of Cordova.

1. Acquire a 5.39 acre parcel of land (USS 252) at or below appraised fair market value.

2. Before undertaking fisheries improvements or constructing the fishing boardwalk, secure the following commitments and authorizations:
   a. A long-term agreement with the Prince William Sound Aquaculture Corporation to obtain smolt for the terminal fisheries.
   b. Authorization from the Department of Natural Resources and, if necessary, the

Department of Transportation and Public Facilities, for long-term use the tidelands and road right-of-way for the fishing boardwalk (may require concurrence from the leaseholder of ATS 957).

c. Authorization from the Department of Natural Resources to use the tidelands occupied by the smolt release pond.

d. A long-term community commitment to operate the fisheries and maintain the fishing boardwalk.

3. Enlarge and deepen the smolt release pond.
   a. Design the dredge and fill project to minimize salmon mortality.
   b. Obtain a Sec. 401 permit from the Corps of Engineers and other permits as needed.
   c. Through a competitive procurement process, enter into a contract with a qualified contractor to dredge and fill the smolt release pond.

4. Construct permanent net pens.
   a. Through a competitive procurement process, acquire net pens.
   b. Install anchors for securing the net pens.
   c. Deploy net pens in the smolt rearing pond.

5. Construct a fishing boardwalk.
   a. Design the fishing boardwalk in compliance with the Americans with Disabilities Act.
   b. Obtain necessary permits.
   c. Through a competitive procurement process, enter into a contract with a qualified contractor to construct the fishing boardwalk.

C. Schedule

Acquire land	Feb - June	1995
Enter into operating agreements	Feb - Aug	1995
Deepen smolt release ponds		
- Obtain Sec. 401 permit	Feb - Aug	1995
- Issue RFP	Feb	1995
- Dredge and fill	Sept - Oct	1995
Construct permanent net pens	Apr - May	1995
- Acquire net pens	Feb - Aug	1995
- Install anchors	Sept - Oct	1995
- Deploy net pens	May - Aug	1996
Construct fishing boardwalk	Jan - May	1996

D. Technical Support

None.

E. Location

Fleming Spit is located within the city limits of Cordova, 1.5 miles northwest of the city center. It is on Orca Inlet between the State ferry dock to the south and the Eyak Village Corporation's log transfer facility to the north.

PROJECT IMPLEMENTATION

The proposed project will be implemented through a contract with the City of Cordova. The city will negotiate acquisition of land interests, hold title to the acquired land, obtain required permits, comply with the requirements of the National Environmental Policy Act (NEPA), and construct and maintain the permanent net pens and the fishing boardwalk.

COORDINATION OF INTEGRATED RESEARCH EFFORT

Not applicable.

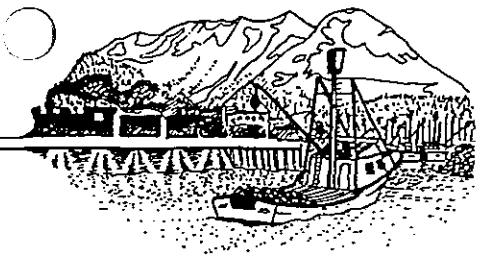
FY 95 BUDGET ($K)

Personnel	0.0
Travel	0.0
Contractual	620.0*
Commodities	0.0
Equipment	0.0
Subtotal	620.0
Gen. Admin.	24.9
Total	644.9

* Proposed as a contract with the City of Cordova for the following activities:

Acquire parcel of land	$150.0
Enlarge and deepen smolt release ponds	150.0
Construct permanent net pens	20.0
Construct a fishing boardwalk	300.0

CITY OF CORDOVA



Date: May 10, 1995

To: Molly McCammon, Executive Director

From: Lynda Plant, City Clerk

Re: Cordova City Council Resolution 5-95-35

Please find enclosed the above referenced Resolution supporting the Fleming Spit Recreation Area Project #95080 which was approve at a special council meeting held May 8, 1995.

Enclosures

602 Railroad Avenue P.O. Box 1210 Cordova, Alaska 99574 Telephone (907) 424-6200 Fax (907) 424-6000

CITY OF CORDOVA, ALASKA

RESOLUTION 5-95-35

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CORDOVA, ALASKA IN SUPPORT OF THE EVOS TRUSTEE COUNCIL FLEMING SPIT PROJECT #95080

WHEREAS, The Cordova Sporting Club presented to the EVOS Trustee Council a proposal to restore and enhance sport fishing opportunities in the Fleming Spit Area which were lost or reduced because of the spill; and

WHEREAS, The proposed project has been endorsed by the Cordova Planning and Zoning Commission and the City Council as a worthy project which will restore and improve the fisheries in the Fleming Spit area;

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Cordova, Alaska, hereby supports the EVOS Trustee Council Fleming Spit Project #95080 (attached);

AND BE IT FURTHER RESOLVED that the City Council of the City of Cordova, Alaska, will enter into an agreement as described in the Project Implementation.

PASSED AND APPROVED THIS 8 DAY May, 1995.

Margy K. Johnson
Mayor Margy K. Johnson

Lynda Plant
Lynda Plant, City Clerk

Encls: Fleming Spit Recreation Area Project #95080
Cordova City Council Resolution 93-74
Planning & Zoning Commission Resolution #93-07

Copper River/Prince William Sound Advisory Committee
P.O. Box 1558 • Cordova, Alaska 99574

February 2, 1995

Molly McCammon, Executive Director
Exxon Valdez Oil Spill Trustee Council
645 G Street
Anchorage, Alaska 99501

Dear Ms McCammon:

The Copper River/Prince William Sound Fish and Game Advisory Committee has supported the Flemming Spit terminal fishery project since its very beginning. In the ensuing years we have initiated and successfully convinced the Alaska Board of Fisheries to adopt regulatory changes which would enhance the sportfishing experience at Flemming Spit. What is needed now however, are facility improvements which enhance the health, safety and accessibility of recreationists at the Spit. We encourage the EVOS Trustee Council to support proposals which address this pressing need.

The Flemming Spit fishery is enjoyed by residents and visitors alike. More importantly however, intensively utilized terminal fisheries such as the Spit allow managers to direct fishing pressure away from the small, fragile wild-stock systems of Prince William Sound and the Copper River Delta. This is an important consideration as we adapt to the rapid increase in visitation and the associated increases in sportfishing pressure which followed the oil spill.

We believe the Flemming Spit proposal is consistent with established restoration goals and similar to other projects underwritten by the Trustee Council. We urge Council members to support this important project.

Sincerely,

George Covel
Chairmen, CR/PWS Advisory Committee

April 12, 1995

Dr. Joe Sullivan
Resource Program Manager
Habitat and Restoration Division
Alaska Department of Fish and Game
333 Raspberry Rd.
Anchorage, Alaska 99518-1599

Re: Proposed Spawning Channel--Project Port Dick Creek, Lower Cook Inlet: Project I.D. Number--95139

Dear Dr. Sullivan:

I fully support the Port Dick spawning project that Nick has proposed. It is way past time to fund fish related restoration in Lower Cook Inlet.

I continue to be amazed that no such activity has been funded by the Trustee council in this area. I have been a fishermen in these waters for years and have experienced the repercussions of the spill through its negative impact on all runs in this area. The outer coast of the Peninsula was especially hit by the spill so Nick's project is a good one to begin with.

Lets get this project funded and implemented so we can move on to the next one. It is time.

Sincerely,

John Weis
Box 1332
Homer, Ak 99603

235-4191

PHONE COMMENT LOG

Name	Affiliation	Phone	Address
Chris Anderson	Resident	424-5505 (msg)	P.O. Box 892 CORDOVA, AK 99574

Add to mailing list? Yes ✓ No ____ Newsletters only ____ EVERYTHING X Technical Docs + ____

Date of call: 5-23-95 Comment taker: KERI HILE

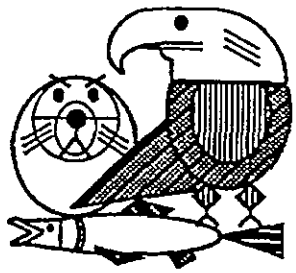
Subject of comments: Flemming Spit, Cordova.

Comments: Opposed to T.C.'s plans for the cove area. He's a resident who feels that he and all other residents have regarded living there as a blessing. He fears that all residents will be evicted. The community sauna and all the little cabins will be torn down. Campers will no longer be able to camp on spit. The only other Cordova camping option is right next to a landfill where there is no drive; city charges $10 per night. Present spit campers wouldn't be able to afford that fee. Lots of visitors and leaseholders would lose out. The acquisition would ruin the homes and way of life for many people. It would be really sad.

11.6.4

Exxon Valdez Oil Spill Trustee Council

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



MEMORANDUM

TO: Molly McCammon

FROM: Traci Cramer
Traci Cramer
Administrative Officer

DATE: May 23, 1995

RE: FFY 1995 Budget Amendments

Based on communication from the Alaska Department of Fish and Game, the following amendments to the Federal Fiscal Year 1995 budget require consideration by the Trustee Council.

Transfers Between Trustee Projects

No.	Title	Amount
95139A1	Salmon Instream Habitat and Stock Restoration - Port Dick Spawning Channel	$37,000

Comments - Funding is requested in FFY 1995 to continue data collection efforts and prepare the Environmental Assessment for the Port Dick Spawning Channel. The agency has requested $223,100 to construction the spawning channel in FFY 1996. Trustee Council action on the FFY 1996 request will be sought in August. After Trustee Council action, the FFY 1995 Authorization will be $37,000.

No.	Title	Amount
95139C2	Salmon Instream Habitat and Stock Restoration - Lowe River	($37,000)

Comments - The Draft Environmental Assessment has been produced and comments in response revealed that some original planning assumptions may be flawed. Additional data collection will be required before this project or a similar project in the Lowe River drainage can proceed. Since construction of the spawning channel cannot proceed as originally intended, funding is available for transfer to the Port Dick Spawning Channel. This is the second amendment affecting the Lowe River project, after Trustee Council action, the FFY 1995 Revised Authorization will be $108,100.

No.	Title	Amount
95320E	Pink Salmon and Herring Predators	($40,000)

Comments - The proposed request would transfer vessel charter needs associated with the SEA program and required for implementation of the Prince William Sound Science Center portions. After Trustee Council action, the FFY 1995 Revised Authorization will be $903,100.

No.	Title	Amount
95320M	Physical Oceanography	$40,000

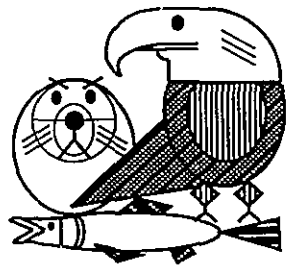
Comments - The transfer represents the consolidation of vessel charter needs associated with the SEA program and required for implementation of the Prince William Sound Science Center portions. After Trustee Council action, the FFY 1995 Revised Authorization will be $617,800.

cc: Eric Myers
Joe Sullivan, ADF&G

11.6.4 D

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

TO: Trustee Council

FROM: Molly McCammon, Executive Director

DATE: May 25, 1995

SUBJ: Project 95139A2/Port Dick Spawning Channel

Attached is a Detailed Project Description for Project 9513A2/Port Dick Spawning Channel. The Alaska Department of Fish and Game is seeking Trustee Council authorization to expend $32,800 in the current FY 95 fiscal year. ADFG proposes to use funding from another project authorized in FY 95, but not currently active (95139C2/Lowe River) and has asked for consideration of this request at the June 1 meeting.

Background

In the FY 94 Work Plan, the Trustee Council authorized Project 94139/Salmon Instream Habitat and Stock Restoration, a project involving instream habitat improvement work on a number of individual streams in the spill area, including Port Dick. Work on the Port Dick project, located on the outside coast of the southern Kenai Peninsula was deferred, however, and funding for the project lapsed.

Since that time, ADFG has reexamined the Port Dick project and seeks authorization to proceed at this time. The FY 95 Detailed Project Description has been prepared to specifically address the evaluation criteria developed as a result of the January 1995 Trustee Council-sponsored workshop on fishery supplementation issues (e.g., genetic risks, implication for mixed stock fisheries, monitoring/evaluation, cost effectiveness, etc.).[1]

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[1] See discussion of "Supplementation Criteria" in the *Invitation to Submit Restoration Projects for Federal Fiscal Year 1996*, pages 34-35.

FY 95 Proposal

The Port Dick project would fund work to support development of a spawning channel to accelerate the recovery of depressed wild pink and chum salmon stocks of Port Dick Creek. Specific work in FY 95 would include: preparation of an Environmental Assessment (EA); continued ground water measurements and analysis; and final engineering design/construction bid document development. (The work proposed in the FY 95 proposal would be in anticipation of actual construction of the spawning channel in FY 96 at an estimated cost of $184,000.)

Scientific Peer Review

The Chief Scientist has reviewed the Detailed Project Description and recommended it favorably (see attached). The one issue raised by the Chief Scientist — a concern regarding exploitation rates — has since been responded to by the Alaska Department of Fish and Game (see attached).

attachments

- — 95139A2/Port Dick FY 95 Spawning Channel DPD
- — Chief Scientist review memo
- — J. Brady to M. McCammon, memo dated May 25, 1995

11.6.4 C

STATE OF ALASKA

TONY KNOWLES, GOVERNOR

DEPARTMENT OF FISH AND GAME

HABITAT AND RESTORATION DIVISION

333 RASPBERRY ROAD
ANCHORAGE, ALASKA 99518-1599
PHONE: (907) 344-0541

8 May 1995

RECEIVED
MAY 10 1995
EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL

RECEIVED
JUN 07 1995
EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL
ADMINISTRATIVE RECORD

Dr. Robert Spies
Applied Marine Science, Inc.
2155 Los Positas Court, Suite S
P.O. Box 824
Livermore, CA 94550

Dear Dr. Spies:

Enclosed is a copy of the FY 1995 Detailed Project Description (DPD) for the following *Exxon Valdez* oil spill Project:

Title: Salmon Instream Habitat and Stock Restoration - Port Dick Spawning Channel
Number: 95139A2
Principal Investigator: Nick Dudiak

Comments:
1. We will greatly appreciate your expedited review of this DPD so work can proceed during this field season. You will also receive the FY 1996 DPD soon.
2. Preparation of this DPD was delayed, in part, because of the timing of the Wild Stock Supplementation Workshop and the proceedings and because of some concerns about the funding status.
3. I was just reminded that final approval may require Trustee Council action. Optimally, this will occur during their late-May meeting.

This review and approval of the DPD is a requirement for obtaining the authority to spend funds approved by the Trustee Council.

If you have any questions involving the DPD, please call me at (907) 267-2172. Your prompt attention in this review is appreciated.

Sincerely,

W. J. Hauser

William J. Hauser
Assistant Fisheries Program Manager

Enclosure

cc: E. Meyers
C. Rozen
D. Hughes

cc w/o enclosure: N. Dudiak
M. McCammon
✓S. Schubert w/ encl.
J. Sullivan

11-K107LH

EXXON VALDEZ TRUSTEE COUNCIL
FY 95 DETAILED PROJECT DESCRIPTION

PROJECT TITLE: Salmon Instream Habitat and Stock Restoration - Spawning Channel on Port Dick Creek

PROJECT ID NUMBER: 95139-A2

PROJECT TYPE: Instream habitat & wild stock restoration

NAME OF PROJECT LEADERS: Nick Dudiak, Area Resource Development Biologist
Mark Dickson, Fish and Wildlife Technician IV
James Brady, Regional Commercial Fisheries Biologist

LEAD AGENCY: Department of Fish and Game

COOPERATING AGENCIES: None

COST OF PROJECT/FY 95: $32,850

COST OF PROJECT FY/96: $184,883

COST OF PROJECT FY/97 AND BEYOND: $90,200

PROJECT START-UP/COMPLETION DATES: May 1, 1995/Sept. 1, 2000

GEOGRAPHIC AREA OF PROJECT: West Arm Port Dick, Southern Kenai Peninsula, Lower Cook Inlet.

NAME OF LEAD AGENCY PROJECT MANAGER: Joe Sullivan, 267-2213

INTRODUCTION

The portion of Lower Cook Inlet (LCI) along the southern Kenai Peninsula has a significant number of estuarine and intertidal nursery areas important to pink and chum salmon production. The harvest of pink and chum salmon returns to the area provide a significant contribution to the southern Kenai Peninsula economy. The original oil spill restoration survey involved the identification of EVOS impacted areas and the determination of the optimal methods of salmon restoration, in terms of habitat rehabilitation and enhancement methods.

The restoration surveys were initiated in FY/91 and FY/92, resulting in the final selection of Port Dick Creek, on the Outer Gulf Coastal area of the Kenai Peninsula (Figure 1). This system was chosen because it is considered one of the most important pink and chum salmon production streams in the LCI area and it was moderately to heavily oiled by the EVOS (ADF&G 1993). The Exxon Valdez Trustee Council approved funding to further evaluate the feasibility of developing new spawning habitat at this site in 1991

and 1992. A potential spawning channel feasibility analysis at this site was initiated in 1991 and was continued through the spring of 1993 (Figure 2). Although, this proposed project was initially approved for continued funding for FY/94 and FY/95 spending was placed on hold pending further review and discussion at the supplementation workshop.

After further review at the Wild Salmon Stock Supplementation Workshop held in Anchorage January 12 & 13, 1995, staff members from the Habitat and Restoration Office encouraged the resubmission of the Port Dick Spawning Channel project. Peer reviewer, Dr. Mundy's definition of supplementation as "artificial propagation actions with a net positive survival benefit to natural populations", fit the Port Dick project extremely well.

New criteria were developed at the workshop to assess the effectiveness of salmon supplementation projects. Some of the identified criteria included genetic considerations, monitoring and evaluation, mixed stock fisheries and economic issues. Dr. Spies, Chief Scientist for the EVOS Trustee Council, reviewed the Port Dick project under these criteria and developed several recommendations and requested further clarification. The following information attempts to address these concerns.

Genetic Risk:
It was found that the proposed project involves very little genetic risk to the wild salmon stocks. Because the broodstock used for this project is actually the native Port Dick chum and pink salmon. Additionally, the supplementation techniques to be used are limited to only on-site egg-take, instream incubation to eyed-egg stage and subsequent eyed egg plants. Thus human intervention to the native stock is minimized and should have very minor if any selective effect on the natural genetic makeup of the Port Dick stock.

Mixed Stock Fishery:
The Port Dick Creek pink and chum salmon commercial fisheries are both temporally and spatially segregated from other local stock fisheries. Additionally, in season fisheries management strategies for these natural terminal type fisheries further preclude any possible impact on mixed stock harvests (ADF&G 1993).

Limiting Factors:
The assumption that egg-to-fry survivals within the spawning habitat is the major limiting factor is based on the observed unstable conditions within the main channel of Port Dick Creek. These include wide fluctuations in water levels, extreme flooding effects, inadequate water flow and freeze out conditions. (ADF&G 1992/1993). Although escapements have generally been sufficient to fill existing spawning habitat, they have failed to yield significant harvestable surplus in recent years, further indicating that poor egg-to-fry survivals are related to marginal quality of spawning habitat. The proposed Port Dick Spawning Channel project would rehabilitate formally used spawning tributaries taken out of effective production by various physical effects. This spawning

channel would provide a much more consistent and stable spawning habitat than that of the main channel of Port Dick Creek.

Linkage to Injured Resources:
Although no damage assessment surveys were funded or conducted in the outer Gulf Coastal areas of the Kenai Peninsula or LCI, studies in the Prince William Sound area indicate differences in pink salmon egg mortality as well as growth in the early marine life stage (ADF&G 1994). These results should be considered applicable as potential impacts on pink and chum salmon stocks in the oil impacted areas of the outer Kenai Peninsula. Most of the streams and associated estuaries, including Port Dick Creek, that were exposed to oiling have demonstrated decreasing pink and chum salmon production trends, some even prior to the spill (Figure 3 & 4). Any further effects from the EVOS or other events could jeopardize long term wild stock salmon production in some of these systems. Moderate to intensive oil clean-up and remediation activities were conducted in only a small portion of the impacted areas in 1989 and 1992.

Monitoring and Evaluation:
A monitoring program to determine the success of the eyed-egg plants as well as the natural seeding of the restored tributaries will be designed with the aid of the biometrician from the Alaska Department of Fish and Game. Methods to capture emergent fry from known redd locations will follow a design by the Oregon State Game Commission (Phillips 1966).

Conclusion:
There exists a need to develop the proposed pink and chum salmon spawning channel project into the final engineering and evaluation phase. This would allow the completion of the actual rehabilitation of a formally effective spawning tributary system which will help to restore the currently depressed wild pink and chum salmon stocks of Port Dick Creek.

PROJECT DESCRIPTION

1. Resources and/or Associated Services:
The targeted resource is the pink and chum salmon stocks of Port Dick Creek, in the West Arm of Port Dick Bay. Benefits realized from the spawning channel will accelerate the recovery of the currently depressed wild pink and chum salmon stocks of Port Dick Creek. The LCI area commercial fisheries would definitely benefit from the increased salmon production at Port Dick Creek.

Preliminary benefit-cost analysis indicates that spawning channels may be the most cost effective technique for enhancement of wild chum salmon stocks in Lower Cook Inlet. The newly created spawning habitat would accommodate at least 1,500 additional chum salmon spawners, with at least that many contributing to the

commercial fisheries. The additional economic multiplier effect that these fish would provide to the Homer area economy would also be significant.

The construction costs for the Port Dick Spawning Channel and associated tasks are estimated at $184,883 for 1996. Subsequent enhancement, evaluation and monitoring for the years 1997 through 2000 will cost $90,200 for a total cost of $275,083 for the expected 20 year life span of the spawning channel. The basic exvessel value factored with the 20 year life expectancy of the spawning channel and the cost of the project should ultimately produce a satisfactory benefit-cost ratio.

While the benefit-cost ratio is an important aspect, we also believe that this analysis should not be the only criteria used to evaluate the significance of the Port Dick Spawning Channel project. Restoration of these currently depressed wild pink and chum salmon stocks in the EVOS oiled Port Dick Creek should be considered as the primary reason for this effort. It is difficult to assign a monetary value to the restoration of natural resources as the intrinsic value of wild salmon stocks cannot easily be measured.

2. **Relation to other Damage Assessment/Restoration Work:** Although no damage assessment surveys were actually conducted in the Outer Gulf Coastal areas of the Kenai Peninsula or LCI continuings studies in the Prince William Sound area indicated differences in pink salmon egg mortality as well as growth in the early marine life stage (ADF&G 1994). Therefore it is probable that these results could be considered as potential impacts that also occurred on pink and chum salmon stocks in the oil impacted areas of the outer Kenai Peninsula.

3. **Objectives:**

(April 1 through September 30,1995)

1. Continue ground water level measurements and data analysis.
2. Complete final engineering design.
3. Develop construction bid documents.
4. Complete an environmental assessment

(October 1, 1995 through September 2000)
(Details presented in FY/96 DPD)

The ultimate goal of this project is to restore the wild pink and chum salmon stocks of Port dick creek.

1. Construct the spawning channel during the spring of 1996.
2. Conduct stream side egg-takes with native salmon stocks and replant the eggs into the new spawning channel at the eyed stage in 1996.
3. Monitor subsequent egg-to-fry survival through on site evaluations beginning in the spring of 1997 through 1999.
4. Monitor adult spawner density and species composition beginning in the summer of 1997.
5. Enumerate the number of adult salmon to develop a return per spawner value.

4. **Methods:**

Ground water level fluctuations will continue to be measured using subsurface standpipes and battery operated stream stage recorders. Results from these measurements will be used to finalize the size, depth and actual configuration of the spawning channel.

Groundwater levels were measured during the winters of 1991/92 and 1992/93 and the results will be used to determine the size, depth and configuration of the spawning channel (Figures 2, 5 & 6). Results from the winter of 1994/95 water table measurements are currently being read at Dryden Instrumentation in Anchorage and will be available in the FFY/96 Detailed Project Description.

The final spawning channel design will be prepared by the Engineering section of the Department of Fish and Game supervised by Bruce McCurtain. The design will be advertised through the official construction bid process.

Periodic stream surveys will be conducted during the spawning runs to determine adult spawner density and species composition.

5. **Location:**
Port Dick Creek is located at the head end of the West Arm of Port Dick Bay on the outer coast of the Kenai Peninsula (Figure 1). Benefits produced from the salmon spawning channel will be of value to the LCI salmon seining fleet and local seafood processing plants. These benefits will expand into the Homer and nearby communities through the economic multiplier effect.

6. **Technical Support:**
Groundwater data recorded onto data storage modules from the stream stage recorders will be retrieved and decoded at Dryden Instrumentation, Anchorage. Final engineering

analysis for the spawning channel will be completed by the Alaska Department of Fish and Game Engineering staff supervised by Bruce McCurtain.

7. **Contracts:**
No construction contract will be awarded during FY/95.

SCHEDULE:

1/.May through September:
Continue ground water level measurements, data analysis and report writing.

2/.June through September:
Prepare an environmental assessment.

3/.October through February 1996
Prepare and design spawning tributary engineering drawings and initiate bid/contract process.

EXISTING AGENCY PROGRAM

The Commercial Fisheries Management and Development (CFM&D) Division of the Alaska Department of Fish and Game may conduct Port Dick Creek chum salmon stream life studies in conjunction with this project. However it is highly unlikely that the department will fund this project from general fund monies.

ENVIRONMENTAL COMPLIANCE/PERMIT/COORDINATION STATUS

The Port Dick Spawning Channel site lies on state lands within the Kachemak Bay Wilderness State Park. An environmental assessment will be written by the State of Alaska to further determine if an environmental impact statement will be necessary.
Permits will be applied for through the U.S. Corps of Engineers, Department of Natural Resources (Division of State Parks) and the Habitat Section of Alaska Department of Fish and Game.

PERFORMANCE MONITORING

With aid of the Biometrician Section of the Alaska Department of Fish and Game, a monitoring program will be developed to assess salmon fry survival each spring through 2000 to determine if optimal use of the channel site is accomplished and that survivals meet typical spawning channel expectations.

Ultimately, the additional adult wild pink and chum salmon available for the LCI seine fleet will be determined as a product of the spawning channel.

COORDINATION OF INTERGRTATED RESEARCH EFFORTS:

This instream habitat restoration project is the only commercial fisheries EVOS related project on Outer Gulf Coast of the Kenai

Peninsula and LCI currently being considered for further funding.

PUBLIC PROCESS:

The proposed Port Dick Pink and Chum Salmon Spawning Channel was a topic discussed at the Exxon Valdez Oil Spill Trustee Council meetings on January 31, 1994 and the Wild Salmon Stock Supplementation Workshop held in Anchorage January 12 & 13, 1995 with the general public invited. An EVOS public meeting was also held in Homer on April 12, 1995 in which the Port Dick Salmon Spawning Channel was discussed in detail and received favorable public response (see attachments.). The Cook Inlet Regional Planning Team will review this project in the near future.Continued public involvement will include, but not be limited to meetings with the Cook Inlet Seiners Association (CISA) and the Cook Inlet Aquaculture Association (CIAA) and the Cook Inlet Regional Planning Team. All documents created by and for the proposed spawning channel will be available to the general public.

PERSONNEL QUALIFICATIONS

Project leader: Nick C. Dudiak; Lower Cook Inlet Fisheries Resource Development Biologist.

Mr. Dudiak has been a fisheries biologist with the Alaska Department of Fish and Game for the last 18 years. He has been responsible for the commercial and sport fisheries rehabilitation and enhancement work in the Lower Cook Inlet area during those 17 years. In this capacity, he has been responsible for multi-disciplinary work involving the rehabilitation of depleted salmon stocks as well as enhancement activities that have created new and developing commercial and sport fisheries.

Mark Dickson, Fish and Wildlife Technician IV.

Mr. Dickson has been employed as a fish culturist and fish and game technician with the Alaska Department of Fish and Game for the past 18 seasons. He has considerable experience in fish cultural practices in the field and in the hatchery managing projects that restores and enhances sport and commercial fisheries in the Lower Cook Inlet area.

BUDGET

The detailed project budget for the Port Dick Spawning Channel project is presented in the following form 2A & 2B. As previously described, this project was not initially approved for continued funding in FY95. However, the possibility of project reinstatement for the remainder of FY/95 is currently under review. We have committed to the continued monitoring of this important project by temporarily using general fund monies which will eventually require reallocation.

Literature Cited (Appendix A)

ADF&G. 1994. Lower Cook Inlet Area Annual Finfish Management Report. Commercial Fisheries Management & Development.144pp.

ADF&G. 1993. Survey and Evaluation of Instream Habitat and Stock Restoration Techniques for Wild Pink and Chum Salmon.

Phillips, Robert W. 1966. A Trap For Capture of Emerging Salmonid Fry. Oregon State Game Comm., Corvallis, Oregon. p. 107.

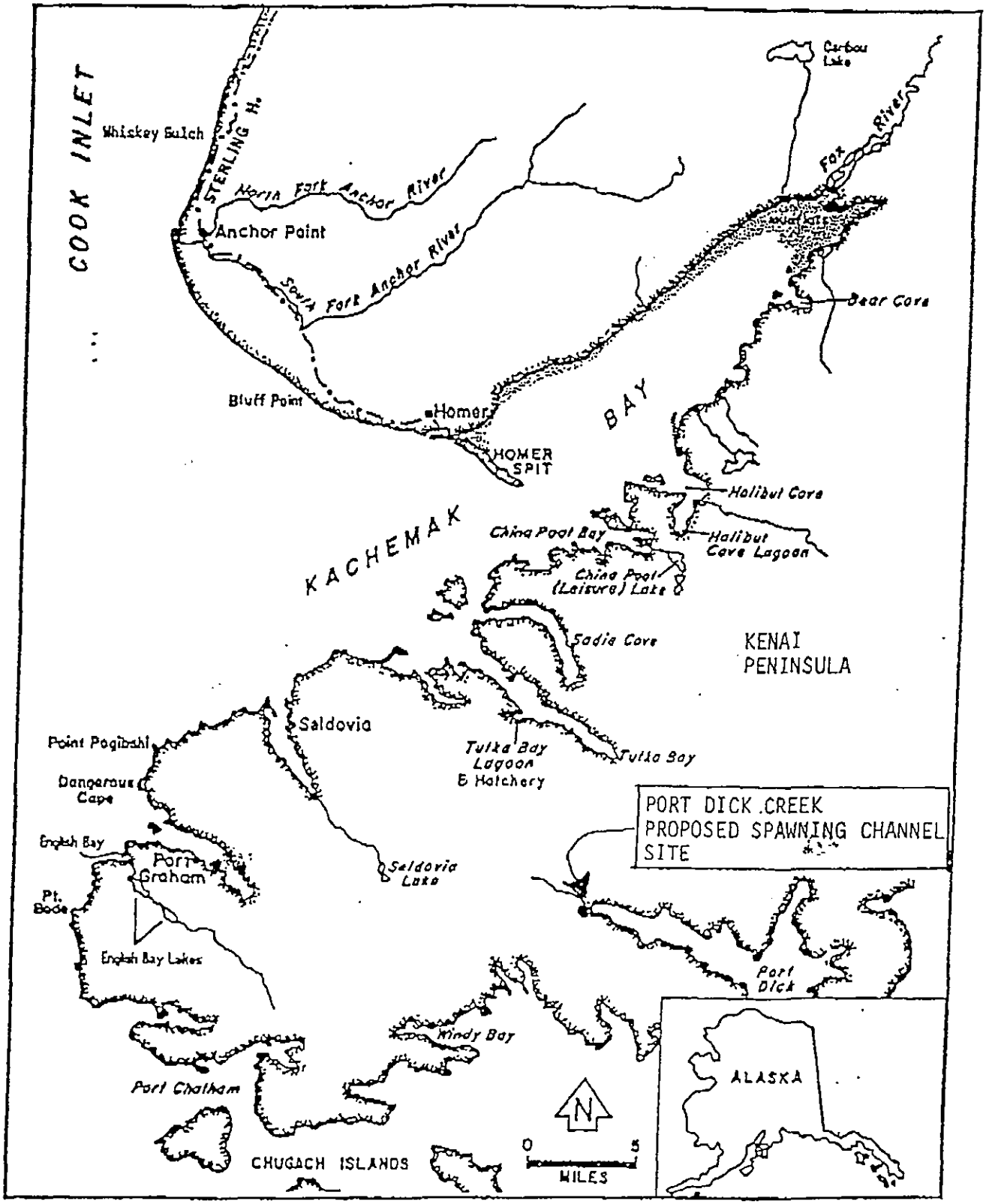


Figure 1. Location map of the Port Dick Creek Proposed Spawning Channel Site, Kenai Peninsula.

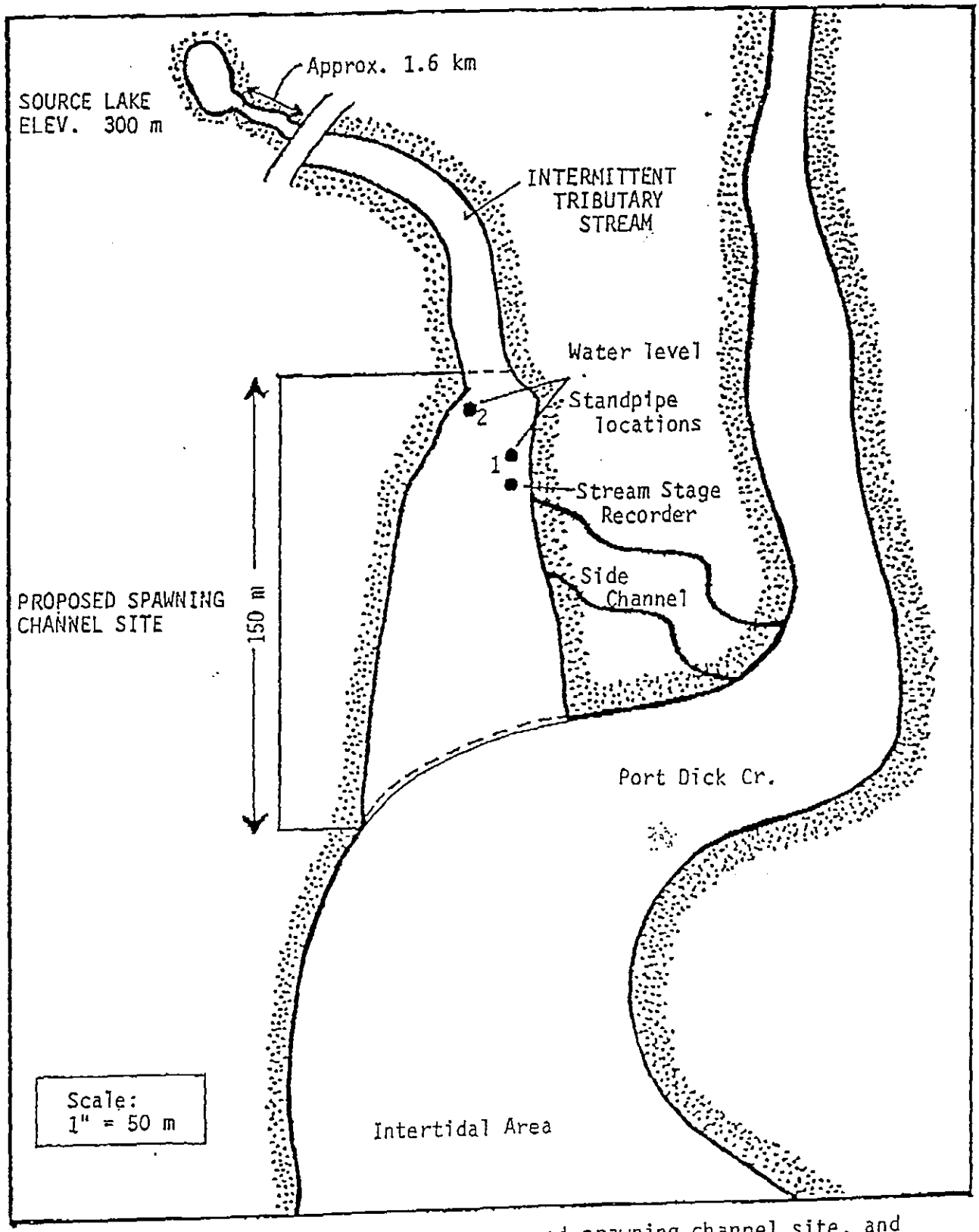


Figure 2. Port Dick Creek, adjacent proposed spawning channel site, and water level standpipe locations.

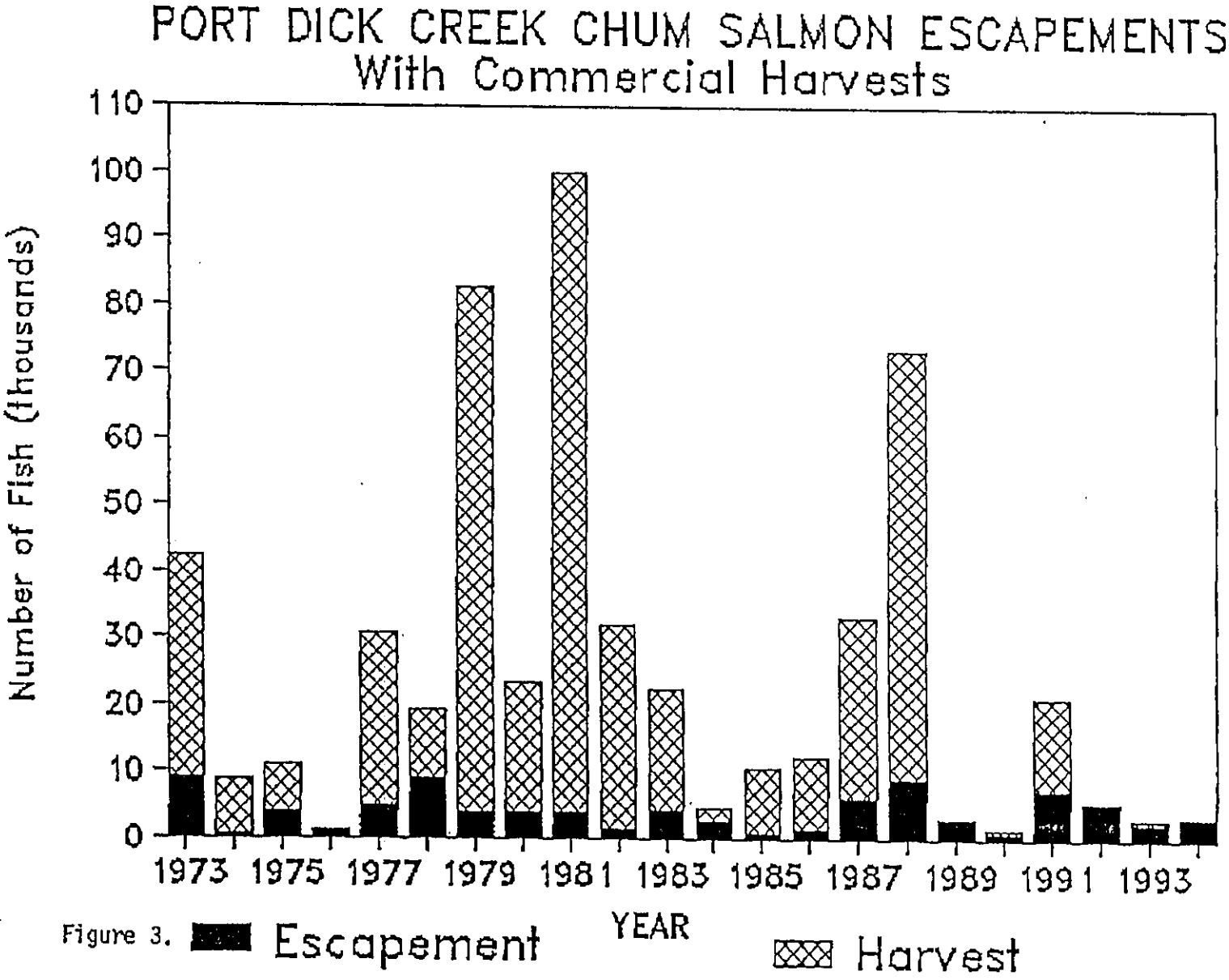


Figure 3.

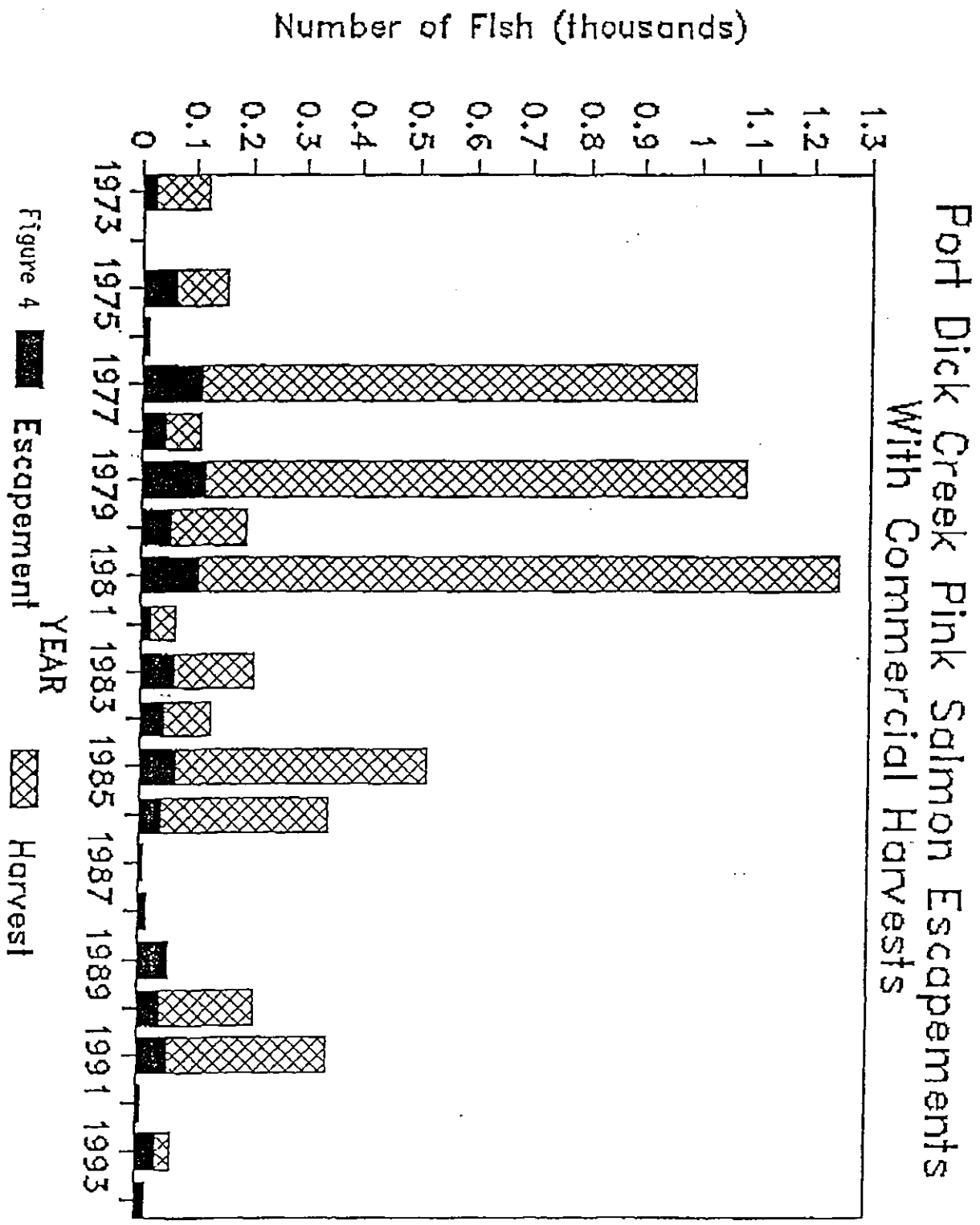

Port Dick Creek Pink Salmon Escapements
With Commercial Harvests
Number of Fish (thousands)
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
1.1
1.2
1.3
1973
1975
1977
1979
1981
1983
1985
1987
1989
1991
1993
YEAR
Escapement
Harvest

Figure 4

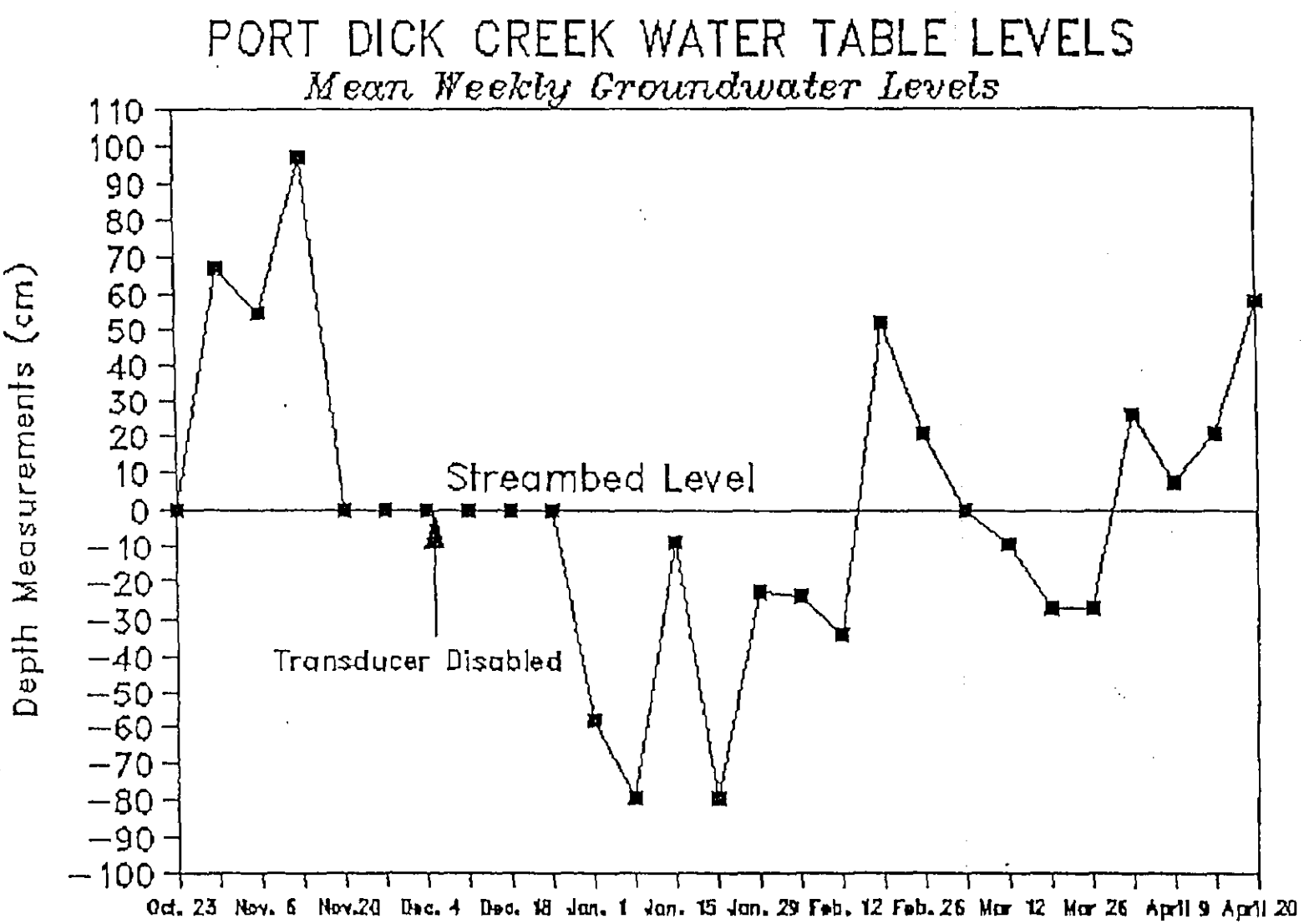


Figure 5. Stream stage recorder measurements, October,92 to April,93

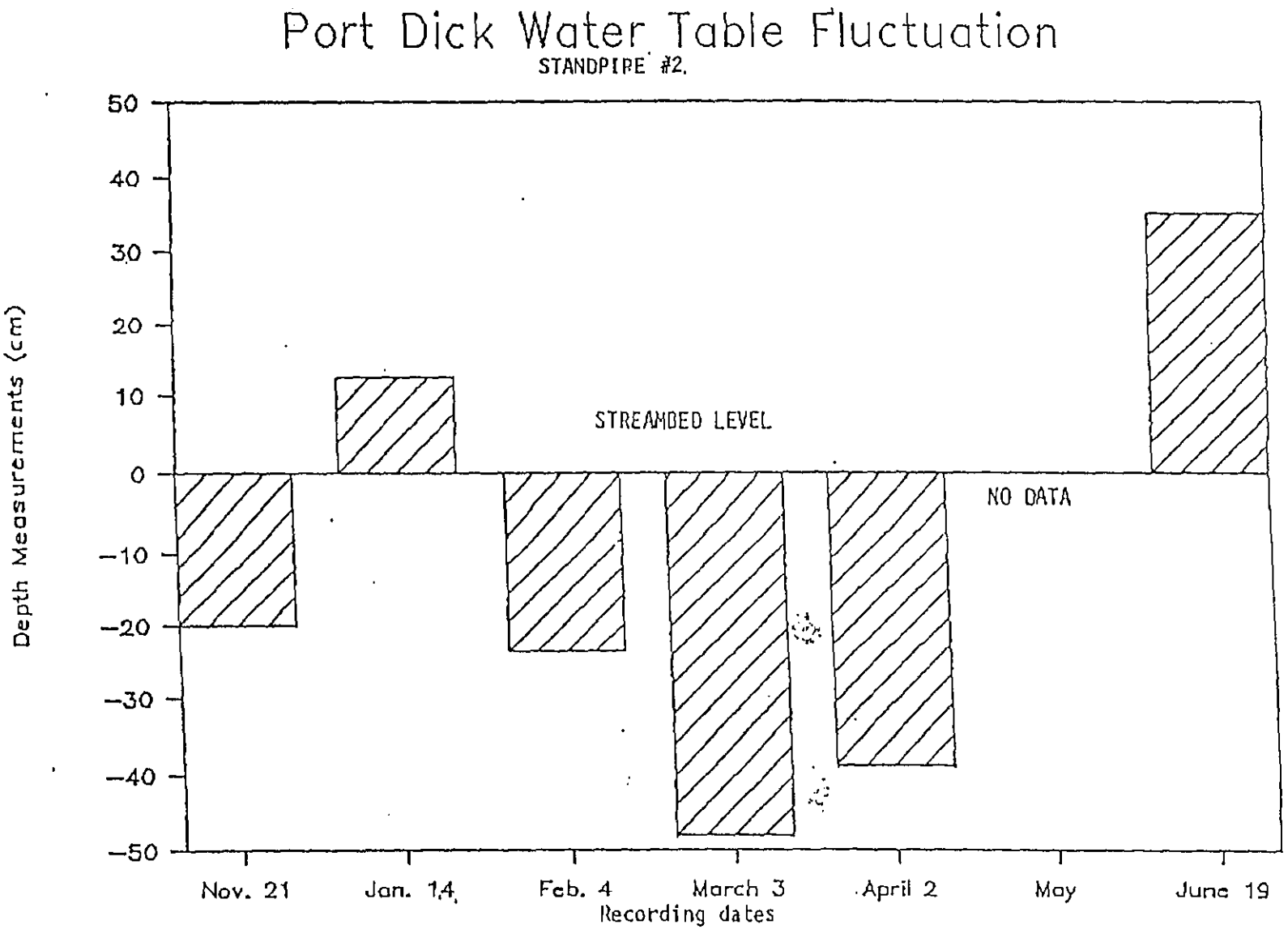


Figure 6. Standpipe #2 Water Table measurements, Port Dick Creek, November 1991 - June 19, 1992.

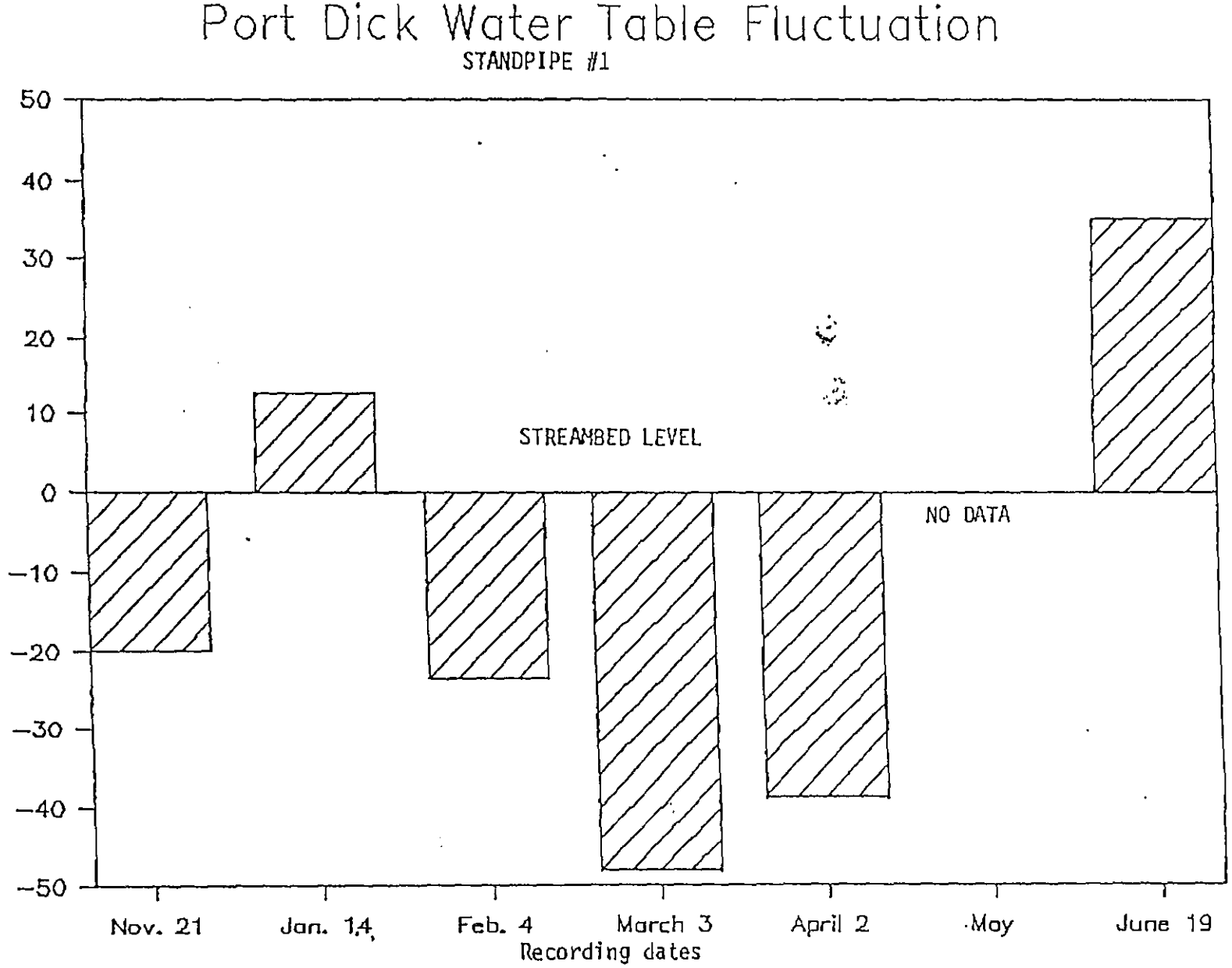
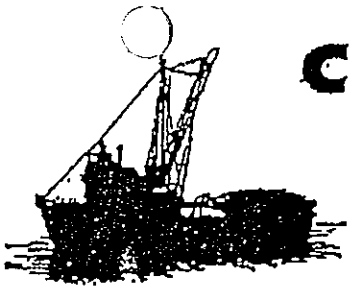


Figure 7. Standpipe #1 Water Table measurements, Port Dick Creek, November 1991 - June 19, 1992.



Cook Inlet Seiners Association

P.O. Box 4371
Homer, Alaska 99603
235-2656

April 12, 1995

Dr. Joe Sullivan
Resource Program Manager
Habitat and Restoration Division
Alaska Department of Fish and Game
333 Raspberry Rd.
Anchorage, Alaska 99518-1599

Re: Proposed Spawning Channel--Project Port Dick Creek, LCI Project I.D. Number--95139

Dear Dr. Sullivan:

As you know, based on your presentation at our 1992 Annual Membership Meeting and on-going encouragement, Cook Inlet Seiners Association has been actively engaged in the Exxon Valdez Trustee process. CISA has had representatives at most meetings, written many letters, and given testimony as well as provided a number of project proposals for Lower Cook Inlet. Basically our situation has not altered since your visit; even though we have taken an assertive role in presenting our need for restoration in this area, to date, we, astonishingly, still have had no fish related restoration projects funded in LCI.

CISA enthusiastically supports Nick Dudiak's Proposed Spawning Channel--Project Port Dick Creek, Lower Cook Inlet: Project I.D. Number--95139. Not only is this a valuable and worthwhile project, it makes good business sense to finish what has been started so that funds already expended will no be wasted.

CISA firmly believes much needs to be done in LCI to restore our salmon runs to pre-spill health. As you probably know, since the calamitous impact of the spill in 1989, LCI has suffered run failures across almost all species of salmon and throughout most of the geographic area. Prior to this time, the LCI supported healthy salmon fisheries that economically benefitted the entire region as well as the state. Project 95139 will be an initial yet significant step in restoring the oil devastated pink and chum runs in the Port Dick area of the outer coast.

Thank you for the opportunity to participate in the process and for your support over the last few years.

Sincerely,

Charles Wakden, Sr.
President, Cook Inlet Seiners Association

RECEIVED
APR 18 1995
STATE OF ALASKA
FISH & GAME
HABITAT & RESTORATION

April 15, 1995

Joe Sullivan
Resource Program Manager
Habitat and Restoration Division
Alaska Department of Fish and Game
333 Raspberry Rd.
Anchorage, Alaska 99518-1599

Re: Proposed Spawning Channel--Project Port Dick Creek, Lower Cook Inlet: Project I.D. Number--95139

Dear Mr. Sullivan:

I am writing to convey my ideas and concerns about the lack of restoration activities in the outer coast of the Kenai Peninsula. I was unable to attend the Trustee meeting that was held in Homer a couple of days ago.

The Lower Cook Inlet was one of the most heavily oil spill damaged area in Alaska. It is clear to me that no one can dispute that the region was seriously damaged by the spill. (Just take a look at one of the Trusteas' own publications--the map on the cover of the Exxon Valdez Oil Spill Restoration 1993 Draft Work Plan.)

Since the 1989 spill, the Lower Cook Inlet has suffered run failure after run failure across most species of salmon in the geographic area. Prior to '89, we had healthy salmon fisheries that economically benefitted the fishermen and related communities as well as the entire region and state.

The frustration level is high in LCI because we have seen no restoration projects in our area even though it is the mission and responsibility of the Trustees to address such situations. Our salmon runs have been effected and yet nothing has been done. I believe that Project # 95139 is a well throughout and workable project that will address some of the spill related issues in the outer coast. As a result, I strongly support funding for this project.

I also request that your office work closely with the Cook Inlet Seiners Association's office to develop other projects. In order for our wild runs in the outer coast to achieve pre-spill levels, they need restorative support.

I know that everyone believes that their project is vital. I would just ask you look at the map that I referred to before. It graphic depicts the oil spill area and makes it obvious that we were hit hard.

Thank you for your time and assistance.

Sincerely,

RECEIVED
APR 18 1995
STATE OF ALASKA
FISH & GAME
HABITAT & RESTORATION

April 13, 1995

Dr. Joe Sullivan
Resource Program Manager
Habitat and Restoration Division
Alaska Department of Fish and Game
333 Raspberry Rd.
Anchorage, Alaska 99518-1599

Re: Proposed Spawning Channel--Project Port Dick Creek, Lower Cook Inlet Project I.D. Number--95139

Dear Dr. Sullivan:

As a long time fishermen and concerned citizen, I am writing in support of Project 95139--Port Dick Spawning Channel. This project is deserving of funding by the Trustee and has the support of area fishermen.

Since 1989, most salmon runs have failed in Lower Cook Inlet. Restoration of affected salmon stocks must be accomplished as soon as possible to preserve these unique natural runs and the fisherman that harvest them. Although damage to Lower Cook Inlet by EVOS is an established fact, little has been done to research or restore damaged fish stocks. It is imperative that restoration of pink, chum, and sockeye stocks is begun immediately. It is with firm belief in and commitment to our environment, that I support restoration in LCI.

In summary, not only do I firmly support Project 95139, I believe that the time to deal with all LCI spill related salmon run failures is well overdue. As a result, I strongly support other restoration projects in the region. Although I do have some ideas, I do not know exactly what all these projects should be. I do intimately know the need for such projects because of how my fishing has been impacted. I welcome the opportunity to discuss any ideas you or your staff may have. This is a serious issue that requires immediate action.

Thank you.

Sincerely,

Patton A. Delaria

EXXON VALDEZ TRUSTEE COUNCIL
1994 Federal Fiscal Year Project Budget
October 1, 1993 - September 30, 1994

Project Description: An itermittent tributary of Port Dick Creek was selected for instr. habitat and restoration by constructing a pink and chum salmon spawning channel. The spawning channel is intended to accelerate the recovery of the depressed wild salmon stocks and to restore services lost to the commercial fishery.

Budget Category:	1994 Project No. . . . . Authorized FFY 94	'94 Report/ '95 Interim* FFY 95	Remaining Cost** FFY 95	Total FFY 95	FFY 96	Comment
Personnel	$0.0	$0.0	$24.0	$24.0		Costs reported are for the interim
Travel	$0.0	$0.0	$0.5	$0.5		period April 1 through September 30, 1995
Contractual	$0.0	$0.0	$6.8	$6.8		
Commodities	$0.0	$0.0	$1.6	$1.6		
Equipment	$0.0	$0.0	$0.0	$0.0		
Capital Outlay	$0.0	$0.0	$0.0	$0.0		
Subtotal	$0.0	$0.0	$32.9	$32.9	$0.0	
General Administration	$0.0	$0.0	$4.1	$4.1	$0.0	
Project Total	$0.0	$0.0	$37.0	$37.0	$0.0	
Full-time Equivalents (FTE)		0.0	2.0	2.0		
	Dollar amounts are shown in thousands of dollars.					

Budget Year Proposed Personnel: Position Description	Reprt/Intrm Months	Reprt/Intrm Cost	Remaining Months	Remaining Cost
Rept Intrm 1 Fishery Technician IV @ $4000.00/month for 6 months	0.0	$24.0	24.0	
Personnel Total	0.0	$24.0	24.0	$0.0

NEPA Cost: $8.0

*Oct 1, 1994 - Dec 31, 1994
**Jan 1, 1995 - Sep 30, 1995

06/01/94

1995

Printed: 5/5/95 8:10 AM

Project Number: 95139
Project Title: Proposed Port Dick Spawning Channel Project
Agency: Alaska Department of Fish and Game

FORM 2A
PROJECT
DETAIL

EXXON VALDEZ TRUSTEE COUNCIL
1994 Federal Fiscal Year Project Budget
October 1, 1993 - September 30, 1994

		Reprt/Intrm	Remaining
Travel:			
Rept Intrm	2 round trips, Homer to Anchorage with engineer for site inspection @ $250.00 per trip	$0.5	
	Travel Total	$0.5	$0.0
Contractual:			
Rept Intrm	2 round trips, Port Dick and return via float plane @ $750.00 per trip.	$1.5	
	7 round trips, Port Dick and return, for data retreival, environmental assessment and monitoring.	$5.3	
	Contractual Total	$6.8	$0.0

07/14/93

1995

Project Number: 95139
Project Title: Proposed Port Dick Spawning Channel Project
Agency: Alaska Department of Fish and Game

FORM 2A
PROJECT
DETAIL

EXXON VALDEZ TRUSTEE COUNCIL
1994 Federal Fiscal Year Project Budget
October 1, 1993 - September 30, 1994

Commodities:		Reprt/Intrm	Remaining
Rept			
Intrm	Food, supplies and camping equipment for two people for eight days @ $200.00 per day.	$1.6	
	Commodities Total	$1.6	$0.0
Equipment:			
Rept			
Intrm	No equipment is needed for this report period	$0.0	
	Equipment Total	$0.0	$0.0

07/14/93

1995

Printed: 5/5/95 8:10 AM

Project Number: 95139
Project Title: Proposed Port Dick Spawning Channel Project
Agency: Alaska Department of Fish and Game

FORM 2B
PROJECT
DETAIL

APPLIED
marine
SCIENCES

May 18, 1995

Ms. Molly McCammon
Executive Director
Exxon Valdez Oil Spill Trustee Council
645 G Street Ste. 402
Anchorage, AK 99501

Dear Molly,

I have completed the review of the detailed project description "Salmon Instream habitat and stock restoration--Port Dick Spawning Channel" (95139A). As you realize this projects was delayed for Trustee consideration until after the fish supplementation workshop. As a result of the workshop some general guidelines for criteria in supplementation actions were developed (my memo of February 7, 1995) that related to abundance and productivity of the environment, state of the stock, genetic risks, mixed-stock fisheries, economic considerations and evaluation and monitoring. In the February 7 memo I also raised two issues specifically with regard to the Port Dick Creek supplementation proposal--mixed-stock fisheries interactions and questions about whether the carrying capacity of the current stream bed was the limiting factor in the expansion of the population.

The revised proposal addresses most of these concerns satisfactorily. The reviewer indicates that the supplementation action does not create a problem with the mixed-stock fishery. Local fish will be used so that genetic impacts will be minimized. The assumptions about spawning habitat being limited is based the observations made by ADF&G personnel that the currently available spawning habitat is very unstable--subject to widely varying water levels and freeze out of the creek bed in winter. A monitoring and evaluation program will be established to evaluate the success of the eyed egg transplants and the level of natural seeding of the constructed spawning channel.

The only thing that concerns me about this proposal is that the harvest rates are apparently very high for this system (see Figs. 4 and 5 in the DPD). If the Trustee Council were to make an investment in Port Dick Creek in order to reestablish this natural resource, it would be desirable to have the investment result in a sustained runs of both chum and pink salmon. In my judgement continued high apparent harvest rates could well undermine the investment in the spawning channel. I would advise you to seek such

2155 Las Positas Court, Suite S Livermore, CA 94550 510.373.7142 FAX 510.373.7834

assurances in this regard from the appropriate management entity before the construction of the spawning channel occurs. Otherwise, I recommend this project be funded as proposed.

Sincerely,

Robert B. Spies
Chief Scientist

cc: W. Hauser
N. Dudiak
S. Schubert
S. Senner
J. Sullivan

ALASKA DEPARTMENT OF FISH AND GAME

COMMERCIAL FISHERIES MANAGEMENT AND DEVELOPMENT DIVISION
MEMORANDUM

To: Molly McCammon
Executive Director
Exxon Valdez Oil Spill Trustee Council
Anchorage

Date: May 25, 1995

Phone: 267-2125

From: James A. Brady
Regional Management Biologist
CFM&D; Region II
Anchorage

Subject: Bob Spies review of Port Dick project.

I received a copy of Bob Spies' review of the most recent Port Dick Spawning Channel (95139A) DPD. I was happy to see that Bob was satisfied with the manor in which it addressed the criteria developed at the supplementation workshop. By comparison to the PWS hatchery program, I have always maintained that the Port Dick project was squeaky clean in regard to genetic risks and mixed stock fishery management. The only concern that Bob raised was in regard to exploitation rates. He states, "In my judgement continued high apparent harvest rates could well undermine the investment in the spawning channel." Let me assure you that the Department has no intention of allowing this to happen. The Department is mandated to manage for maximum sustained yield, and at Port Dick this is achieved by management for a fixed escapement goal. Fishery exploitation rates therefor vary in proportion to the magnitude of the return. When the return is at the level of the escapement goal, ie. there is no harvestable surplus, the exploitation rate drops to zero. The chum salmon data indicate that since 1987, the only years in which the escapement goal of 4,000 spawners was not obtained were years when the total return was smaller than the goal. In most of these years there was no chum harvest at all. The same holds true for the pink salmon returns. Wes Bucher, the Area Management Biologist for Lower Cook Inlet, is very conscientious in the management of the Port Dick returns. Recent management strategies have established larger closed waters areas at the head of Port Dick which offer greater protection to the chum salmon returns. Once the Port Dick spawning channel is completed a thorough evaluation of the additional spawning area will need to be conducted. Based on this assessment, the Port Dick Creek escapement goals for chum and pink salmon will need to be elevated to insure optimum utilization of the available spawning habitat.

cc. Bob Spies, Joe Sullivan, Bill Hauser, John Hilsinger, Nick Dudiak, Wes Bucher

April 12, 1995

Dr. Joe Sullivan
Resource Program Manager
Habitat and Restoration Division
Alaska Department of Fish and Game
333 Raspberry Rd.
Anchorage, Alaska 99518-1599

Re: Proposed Spawning Channel--Project Port Dick Creek, Lower Cook Inlet: Project I.D. Number--95139

Dear Dr. Sullivan:

I fully support the Port Dick spawning project that Nick has proposed. It is way past time to fund fish related restoration in Lower Cook Inlet.

I continue to be amazed that no such activity has been funded by the Trustee council in this area. I have been a fishermen in these waters for years and have experienced the repercussions of the spill through its negative impact on all runs in this area. The outer coast of the Peninsula was especially hit by the spill so Nick's project is a good one to begin with.

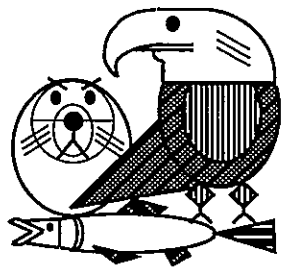
Lets get this project funded and implemented so we can move on to the next one. It is time.

Sincerely,

John Wise
Box 1332
Homer, Ak 99603

235-4191

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

TO: Trustee Council

FROM: Molly McCammon, Executive Director

DATE: May 25, 1995

SUBJ: Project 95093/PWSAC — Restoration of PWS Pink Salmon by Diversion of Harvest Effort

---

Attached you will find:

1. a copy of the most recent version (date stamped May 22, 1995) of the PWSAC Detailed Project Description for Project #95093/Restoration of PWS Pink Salmon by Diversion of Harvest Effort;

2. a letter dated April 21, 1995 from the Alaska Department of Fish and Game to Ted Achilles/PWSAC President and CEO expressing significant concerns regarding certain aspects of the 95093 proposal.

It should be noted that the attached Detailed Project Description (date stamped May 22, 1995) was submitted subsequent to the ADFG-Achilles letter.

The current version of the project proposal is being reviewed by the Chief Scientist as well as the Alaska Department of Fish and Game. Additional information developed as a result of that review process will be provided as it becomes available.

attachments

Restoration of Prince William Sound Pink Salmon by Diversion of Harvest Effort

Project Number:	95093
Lead Trustee Agency:	Alaska Department of Fish and Game
Cooperating Agencies:	Prince William Sound Aquaculture Corporation Native Village of Eyak University of Alaska Department of Fish and Game Prince William Sound Science Center
Start-up/Completion Dates:	June 1, 1995 - September 30, 2002
Expected Project Duration:	7 years
Cost FY 95:	$647.0
Cost FY 96:	See FY 96 DPD
Geographic Area of Project:	Prince William Sound
Injured Resource/Service:	Pink salmon, commercial fishing, subsistence

ABSTRACT

Pink salmon egg mortality attributed to oiling of anadromous streams from the *Exxon Valdez* oil spill has contributed to a reduction in adult pink salmon returns. Natural populations of pink salmon are harvested with large numbers of hatchery pink salmon in mixed stock fisheries, which may limit escapement to damaged streams and thereby delay recovery. This project will evaluate the feasibility of changes in hatchery production to reduce exploitation of injured wild stocks. Specific projects will focus on changing the location and timing of hatchery returns in western Prince William Sound. Funding for FY95 will be for Inventory and Assessment which will provide baseline information for the remainder of the project (96093-C) including logistical support for 96093-A (Population Genetic Assessment of Gene Flow from Early Return Stock) and 96093-B (Quantitative Genetic Assessment of Early Return Pink Salmon Broodstock).

INTRODUCTION

Natural spawning populations of pink salmon in western Prince William Sound were among the resources injured by oil from the *Exxon Valdez* oil spill (EVOS). These populations are harvested with large numbers of hatchery pink salmon in mixed stock fisheries, which may limit their ability to recover from the effects of the spill. To reduce harvest pressure on injured wild stocks, hatchery salmon targeted by commercial fishermen can be isolated spatially or temporally from the injured wild populations. Restoration of injured pink salmon populations through spatial or

temporal separation from hatchery fish is centered on the idea that more specific stock management will lead to higher escapement into oil impacted streams and facilitate recovery through increased egg deposition. Hatchery pink salmon, for example could be released in the Eastern, Northern, or Montague Districts, thereby distributing the commercial fleet away from injured stocks in the Eshamy, Northwestern and Southwestern Districts. Hatchery pink salmon can also be replaced with species or populations that have different return timing from wild pink salmon populations currently harvested in fisheries targeting hatchery salmon. By modifying hatchery production to separate hatchery and wild salmon returns, fisheries can be managed to minimize pressure on injured populations.

The extent to which the hatchery contribution to the pink salmon fishery in western PWS should be reduced to effectively aid the recovery of injured populations, however, is unknown. Evidence has shown that oil impacted streams experienced higher embryo mortality than non-oiled streams, but that differences between oiled and non-oiled streams are declining. If the high embryo mortality in injured streams does not persist, the escapement needed to achieve pre-spill levels of abundance would change accordingly. Moreover, differences in survival between hatchery and wild fish will complicate the assessment of changes that result from remote releasing or altering the run timing of hatchery fish. Consequently, this project is designed to achieve a measurable reduction in the hatchery contribution to the mixed stock fishery, rather than a demonstrable increase in escapement to injured streams.

Equally important is the need to determine whether changing the existing hatchery program will genetically impact wild populations. For example, the remote release of hatchery fish may result in local straying if the fisheries do not harvest all of the adult return. Similarly, developing new hatchery returns from species or populations outside the local area could lead to straying if migration patterns and homing are under rigid genetic control. Temporal or spatial overlap of characteristics such as spawning time and habitat also increase the potential for hybridization and gene flow between hatchery and wild populations. The implications of these alternatives are not well known, and will be considered in evaluating restoration alternatives.

Efforts by PWSAC to restore injured pink salmon populations to pre-spill conditions will be directed toward:

- **relocating hatchery runs in area or time by remote releasing current or anticipated hatchery runs away from areas which create fishing pressure on injured wild stocks.**
- **replacing current late run pink salmon production with species or stocks of earlier run timing.**

NEED FOR PROJECT

A. Statement of Problem

Egg mortality attributed to oiling of anadromous streams has persisted through several generations, which has contributed to a reduction in adult pink salmon returns. This has reduced the escapement of natural spawning populations and the economic benefits of users and communities that derive income from the resource. In addition, commercial fishing harvests in Western Prince William Sound that target mixed wild stock and hatchery stocks of salmon may

expose injured wild stocks to levels of exploitation which limit wild stock escapement to oil damaged streams, thereby further suppressing recovery.

B. Rationale

Without steps to reduce harvest pressure on injured wild populations, it may take many generations before these recover to pre-spill levels. If no action is taken, injured populations will remain subject to pressures that prevent their full contribution to the biodiversity of the PWS ecosystem. Moreover, services related to salmon harvesting such as fishing, processing and economies of the PWS communities will continue to suffer economic distress. Curtailment of fishing to protect pink salmon (*EVOS* Restoration Plan, 1994) and to allow injured stocks to achieve higher spawning escapement will only further injure associated services. Diversion of fishing effort to reduce harvest pressure on injured stocks can provide for better management of stocks to achieve spawning escapement while maintaining fishing services and economies based on fishing at the highest degree possible until injured stocks return to prespill levels of abundance. Information from this project will increase the options available to fishery managers to maximize the economic benefits from enhancement programs while ensuring wild stock protection.

C. Summary of Major Objectives

This project will assist the restoration of naturally spawning populations of pink salmon in PWS through modifications of the existing hatchery program to provide for more specific management of wild and hatchery stocks. **It will not involve an increase in hatchery production.** In its Record of Decision (October, 1994), the Trustee Council stated "restoration will take an ecosystem approach to better understand what factors control the populations of injured resources." Therefore, this project will take an integrated approach involving the application of salmon life history, genetics, disease and culture methods including the inventory and assessment wild and hatchery populations, investigations at proposed remote release sites, and the evaluation of project impact and success factors such as predation, and hatchery fry interactions with other species. These studies will be used to evaluate the feasibility of releasing hatchery fish into new areas, or changing hatchery production to species or stocks with timing characteristics different from local pink salmon populations.

Inventory and assessment will examine phenotypic characteristics in wild salmon stocks with particular focus on spawning time and spawning habitat distribution. Characteristics such as population abundance, stream life, adult size, egg size and fecundity will be needed to evaluate the appropriateness of specific stocks for hatchery culture. In addition, water conditions (i.e temperature, chemistry) of natal streams must be assayed and compared to hatchery water supplies to evaluate whether any particular species or population can be successfully cultured.

Concurrent with the inventory and assessment, a sampling program will also be conducted designed to evaluate potential sites as locations for remote releasing hatchery cultured salmon. This project will be directly integrated with SEA investigations as part of the ongoing effort to study physical and biological relationships between salmon and herring productivity in the PWS ecosystem. Guided by site recommendations listed with the Prince William Sound/Copper River Phase 3 Comprehensive Salmon Plan (1994), the sampling program will target Naked Island, Montague Island, and Nelson Bay. Sampling will include evaluation of near shore oceanographic conditions (eg. water currents, temperature, salinity), trophic level interactions of

temporal separation from hatchery fish is centered on the idea that more specific stock management will lead to higher escapement into oil impacted streams and facilitate recovery through increased egg deposition. Hatchery pink salmon, for example could be released in the Eastern, Northern, or Montague Districts, thereby distributing the commercial fleet away from injured stocks in the Eshamy, Northwestern and Southwestern Districts. Hatchery pink salmon can also be replaced with species or populations that have different return timing from wild pink salmon populations currently harvested in fisheries targeting hatchery salmon. By modifying hatchery production to separate hatchery and wild salmon returns, fisheries can be managed to minimize pressure on injured populations.

The extent to which the hatchery contribution to the pink salmon fishery in western PWS should be reduced to effectively aid the recovery of injured populations, however, is unknown. Evidence has shown that oil impacted streams experienced higher embryo mortality than non-oiled streams, but that differences between oiled and non-oiled streams are declining. If the high embryo mortality in injured streams does not persist, the escapement needed to achieve pre-spill levels of abundance would change accordingly. Moreover, differences in survival between hatchery and wild fish will complicate the assessment of changes that result from remote releasing or altering the run timing of hatchery fish. Consequently, this project is designed to achieve a measurable reduction in the hatchery contribution to the mixed stock fishery, rather than a demonstrable increase in escapement to injured streams.

Equally important is the need to determine whether changing the existing hatchery program will genetically impact wild populations. For example, the remote release of hatchery fish may result in local straying if the fisheries do not harvest all of the adult return. Similarly, developing new hatchery returns from species or populations outside the local area could lead to straying if migration patterns and homing are under rigid genetic control. Temporal or spatial overlap of characteristics such as spawning time and habitat also increase the potential for hybridization and gene flow between hatchery and wild populations. The implications of these alternatives are not well known, and will be considered in evaluating restoration alternatives.

Efforts by PWSAC to restore injured pink salmon populations to pre-spill conditions will be directed toward:

- **relocating hatchery runs in area or time by remote releasing current or anticipated hatchery runs away from areas which create fishing pressure on injured wild stocks.**

- **replacing current late run pink salmon production with species or stocks of earlier run timing.**

NEED FOR PROJECT

A. Statement of Problem

Egg mortality attributed to oiling of anadromous streams has persisted through several generations, which has contributed to a reduction in adult pink salmon returns. This has reduced the escapement of natural spawning populations and the economic benefits of users and communities that derive income from the resource. In addition, commercial fishing harvests in Western Prince William Sound that target mixed wild stock and hatchery stocks of salmon may

FY95 BUDGET

	PWSAC
Personnel	$75.2
Travel	$43.0
Contractual Services	$463.8
Commodities	$20.9
Equipment	$6.0
Subtotal	**$608.9**
Gen. Admin.	$38.1
Total	**$647.0**

PROJECT DESIGN

A. Objectives

The purpose of this project is to reduce the interception of oil impacted wild pink salmon stocks by changing the location and timing of hatchery returns in Western Prince William Sound. The specific objectives are to:

1. Identify and evaluate potential remote release sites that will produce spatial separation between hatchery fish and wild pink salmon populations in the oil impacted areas.

2. Determine the feasibility of developing hatchery species and stocks that are temporally distinct in return timing from wild pink salmon populations in the oil impacted areas.

3. Reduce the mixed hatchery stock / wild stock ratio in the mixed stock fishery by changing current hatchery brood stock and/or remote releasing hatchery fish.

B. Methods

This project is a multi- year program to achieve a reduction of hatchery fish returning in the mixed stock fisheries in Western PWS. The program is a sequential approach to evaluate the potential for remote release of hatchery salmon or to change the present hatchery species or stock composition. It includes projects to inventory and assess wild stocks, evaluate the feasibility of matching the conditions of hatchery water supplies to the specific requirements of new species or stocks, and investigate the genetic impacts that might result from wild-hatchery stock interactions. Most wild stocks of pink salmon returning to western PWS enter the Sound through several corridors situated between Montague and Bainbridge islands return in mid- to late summer, therefore evaluation studies will focus on identifying remote release areas that shift the migration of hatchery fish away from the southwest corridor, or change hatchery production to species or stocks with earlier run timing.

1. Inventory and Assessment

The application of remote release projects or development of new hatchery stocks to help restore injured pink salmon stocks in PWS will require detailed baseline information of conditions in the near shore marine environment including currents, salinity and temperature, and the abundance

salmon fry (zooplankton, competitor and predator species), and the abundance and distribution of local spawning populations and migrating stocks of wild salmon that may be subject to exploitation in a fishery targeting hatchery returns to remote release sites.

Finally, cooperative studies with the University of Alaska will examine responses in genetic and life history characteristics that result from hatchery practices, and the potential impacts to population fitness from hybridization between wild and hatchery fish. Specific investigations will compare the magnitude of the effects that hatchery stocks have on wild pink salmon populations with similar and different spawning times (ie. opportunity for hybridization).

As these activities progress, specific remote release and stock development objectives will be recommended to achieve a reduction in the mixed wild/hatchery stock ratio in the Western PWS commercial salmon fishery. Species, stocks, numbers of fry and release locations will be specified, and direct action proposed to remote release or replace current production with species or stocks that possess different run time characteristics.

D. Completion Date

The inventory and assessment of natural spawning populations, remote release sites and hatchery water supplies will be completed in FY97 and FY98 at which time changes in hatchery species or stock compostion may be recommended. Investigations related to genetic impact evaluations will be completed in FY2001 and FY2002.

COMMUNITY INVOLVEMENT

Alaska state law requires that PWSAC, as the regional aquaculture corporation in PWS, be comprised of representatives from all interested user groups and possess a board of directors "which includes no less than one representative of each user group that belongs to the association". The concept of a regional association is intended to allow active public participation in the salmon rehabilitation program. The PWSAC board of directors is comprised of: commercial / sport / subsistence / personal use fisherman, native representatives from villages in PWS and the Copper River region, representatives of the fish processing industry and representatives of the communities in PWS. To the extent that PWSAC is directed by a board of all interested users of the salmon resources in PWS, PWSAC will assist with this project and advocate for future funding.

This project has also been reviewed and recommended by the PWS-Copper River Regional Planning Team (RPT) which has publicly noticed, reviewed and recommended the project for funding. Further, the project has been publicly noticed by the *EVOS* Trustee Council through its proposal review process, and has been reviewed and recommended by the Public Advisory Group (PAG).

Also, direct community participation in project implementation will occur, primarily through the logistical support component. The Native Village of Eyak Tribal Council will help provide vessels and crews to support field work necessary for proposed test fishing, inventory and assessment of salmon stocks at specified locations, and genetic projects proposed under 96093-A and -B.

Sampling/Data Collection

1. Ground survey streams on a weekly basis throughout the period of adult return and spawning. Count number of live and dead fish.

2. Collect adult size (length) samples from ~ 100 fish (50 each sex) during each survey.

3. Collect fecundity and egg size samples at or near the peak of spawning from ~ 50 females.

4. Collect genetic samples (muscle tissue) from a subset of the streams in each district (see Population Genetic Assessment of Gene Flow Study).

5. Install continuous recording thermograph (intergravel probe) on 7 streams identified for gene flow studies during initial survey.

Surveys will require two support vessels with 3 person crews. Support vessels will be equipped with a skiff or inflatable for transport to and from shore. Data collected from continuous recording thermographs will be utilized in the experimental gene flow studies (i.e. hatchery introductions). These data are needed to control the development rate of hatchery stock eggs before out planting to ensure that fry emergence occurs within the normal window of timing for the experimental stream.

b. Assessment of facility water supplies: Successful incubation of hatchery stocks requires matching the inherent biological characteristics of the donor population to the water supply of the facility. Characteristics such as the time of spawning and rate of embryonic development have evolved in response to the thermal environment of the natal stream (Brannon 1987), and may not be suited to the conditions present in the hatchery water supply. For example, the embryos produced by early spawning populations found in cold water streams are less likely to tolerate the elevated incubation temperatures (i.e. > 12 °C) often experienced by later spawning stocks. Moreover, the fry of such transplants are likely to emerge far earlier than the optimum time for their new environment. Similarly, embryos produced by late spawning populations introduced into cold water environments may not achieve the degree of development needed to emerge at the proper time.

The effect of differing water regimes on development are shown below. The upper figure shows the average monthly water temperature for AFK hatchery (1977-1994) and a simulated temperature regime for an early spawning pink salmon stock. The lower figure illustrates the cumulative temperature units that would be acquired during development under these conditions. A stock that spawns in early July would accumulate ~ 1200 temperature units in its natal stream by the time of normal fry emmigration in early to mid- April. In contrast, the same stock incubated under ambient temperature conditions at AFK would accumulate ~ 1200 temperature units by early January. Although it is likely that some temperature compensation would occur (ie. rate of development increases at higher temperatures but the increase is not proportional to temperature), emergence in February to March would be much earlier than optimal.

and composition of plankton, predators and competitors. The biology of individual spawning populations, and the physical and biological characteristics of their spawning and rearing habitats must also be assessed to determine the potential for introducing new species or stocks into hatchery environments. Life history traits such as the timing, distribution and abundance of spawners, and genetic population structure will be needed to be identify possible brood sources and conduct studies to examine the impacts related to restoration alternatives. Finally, the thermal and chemical characteristics of natal streams will be examined to match brood sources to hatchery water supplies. Collection of these data will be the focus of the initial phase of the project and will be used to refine and direct the implementation of the restoration methods.

a. Wild salmon population surveys: This phase of the project will provide baseline information on naturally spawning populations of pink and chum salmon. The purposes are to: 1) identify potential sources for early run hatchery stock (Eastern, Northern and Coghill subdistricts), 2) obtain more specific data to establish the run timing and spawning schedules of populations in the study areas (Southwest and Montague subdistricts). 3) collect information on spawning habitat distribution, population abundance, life history characteristics (adult size, fecundity, egg size), and 4) genetic population structure (allozyme frequencies).

Information on return and spawning schedules of potential donor populations and populations in the vicinity of hatchery and remote release sites is needed to ensure that spatial and temporal separation is adequate to minimize the potential for hybridization. Data indicating differences in spawning habitat preference will provide additional information to protect wild populations from introgression by hatchery fish. Population abundance, adult size, and the size and number of eggs produced are essential data for evaluating the biotic feasibility of a population for hatchery stock. The genetic sampling will supplement the EVOS funded PWS Pink Salmon Genetics Project (95320D) conducted by the ADF&G.

ADF&G records indicate that early pink salmon populations are present in at least twenty-eight streams within PWS (17 in the Eastern District, 1 in the Northern District, 10 in the Coghill subdistrict). In the Southwest District, 28 streams are known to support later spawning pink salmon populations (12 in the vicinity of Armin F. Koernig Hatchery), but only 2 support chum salmon populations with mean annual escapements > 100. Based on escapement levels and proximity to hatcheries, 11 streams have been identified as potential sites for genetic evaluation studies (2 in the Southwest District, 2 in the Southeast District, and 7 in the Montague District). The stream numbers by district, the purpose of the survey and sample schedule are:

District	Stream Number	Purpose	Schedule
Eastern	11, 35, 36, 48, 51, 52, 115, 116, 117, 127, 129, 131, 133, 152, 153	Potential brood source	Late June - early Sept.
Northern	234	Potential brood source	Late June - early Sept.
Coghill	303, 307, 310, 314, 322, 414, 421, 422, 430, 432	Potential brood source	Late June - early Sept.
Montague	741, 744, 745, 746, 749, 770, 775	Genetic evaluation and remote release	Early July - mid Sept.
Southeast	850, 851	Genetic evaluation	Early July - mid Sept.
Southwest	603, 604, 613, 630, 665-667	Genetic evaluation	Early July - early Sept.

periodically through incubation to monitor the rate of yolk absorption. Treatment effects on each variable will be compared by Analysis of Variance.

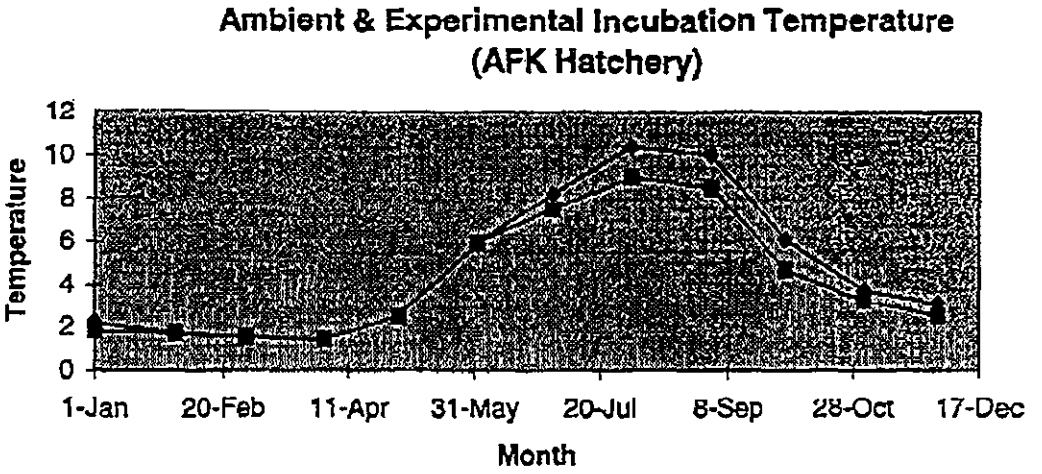
c. Near shore marine habitat evaluation: Growth and survival of salmon fry in near shore marine environment are closely related to temperature, food availability, and predation. Information obtained from the EVOS funded SEA Investigations indicate that these conditions vary annually and regionally within PWS, and that much of this variation is driven by physical oceanographic conditions in the Gulf of Alaska. More specifically, evidence suggests that surface and deep water circulation patterns provide a link between temperature and plankton abundance in the two regions, and that plankton abundance influences the intensity of predation through a prey switching mechanism. In years of low plankton abundance, predator species such as walleye pollock appear to switch from feeding primarily on macrozooplankton to juvenile salmon, and that smaller salmon (< 60 mm) experience higher rates of mortality. Moreover, data suggest that interannual variability in plankton abundance may be greater in the southern part of the Sound than in the north. Establishing the relationships among broad scale oceanographic processes and the near shore conditions that affect juvenile pink salmon production is a major objective of the SEA research, and will contribute important information for identifying release sites that will provide favorable conditions for growth and survival of hatchery fry.

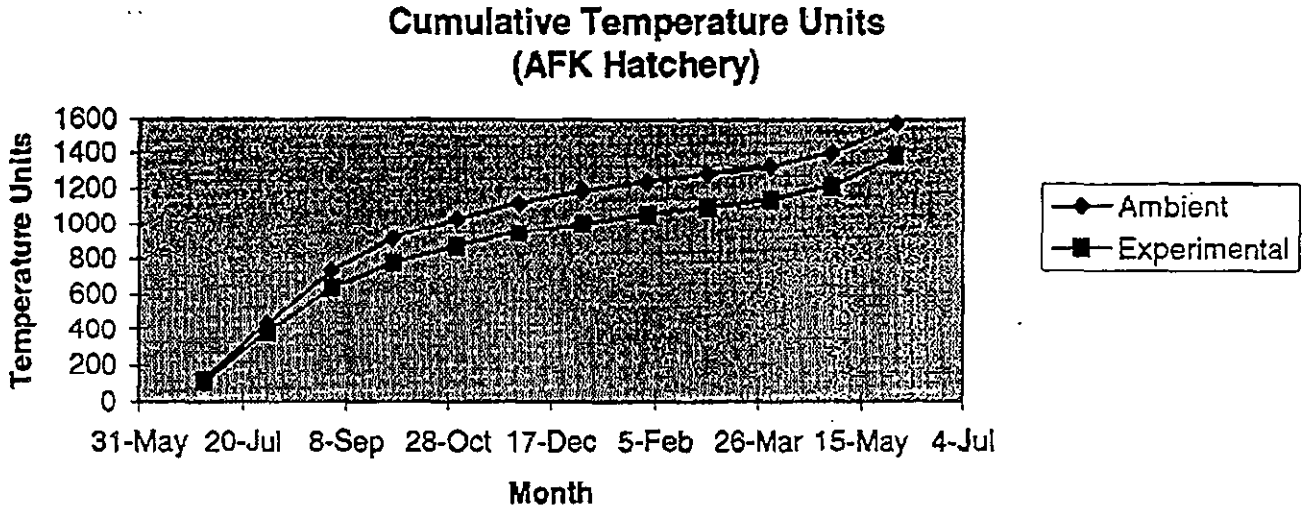
This project will integrate with and supplement the sampling outlined in SEA Investigations 95320 to assess physical (95320M Observational Physical Oceanography in Prince William Sound and the Gulf of Alaska) and biological, (95320H SEA-ZOO: The Role of Zooplankton in the Prince William Sound Ecosystem,) features of potential remote release sites, and identify salmon predator populations (95320E Juvenile Salmon and Herring Integration). Monitoring will focus on the temperature and salinity conditions, and zooplankton abundance during the period of spring rearing (mid- March to mid- June), and the abundance, composition and distribution of predators and wild juvenile salmon. Additional monitoring will be conducted to assess the timing, abundance and composition of adult migrations (early June to early September) and evaluate availability of fresh water influence for imprinting and adult homing.

Three areas have been identified by the Prince William Sound Regional Planning Team that have practical potential for remote release of hatchery produced early pink or early chum fry: Naked Island and Montague Island (both species), Nelson Bay (early chum only). Montague Island and Nelson Bay have been included in the SEA sampling program for 1995. PWSAC has established a remote release site in Chalmers Harbor on Montague Island and has been conducting test fishing in the area since 1994. SEA Investigations 95320 are scheduled to sample each site 4 times per season (2 pre- and 2 post- fry emigration samples). This project will be directed primarily toward evaluating marine conditions for juvenile salmon in the areas surrounding Naked Island and Nelson Bay.

Zooplankton sampling will be conducted twice weekly from mid- March to mid- June. Samples will be collected with a 0.5 meter plankton net (0.25 mm). Replicate 20 meter vertical tows will be taken at two locations at each site, preserved in 10 percent formalin and shipped to UAF for analysis. Temperature and salinity data will be recorded hourly using remote continuous recorder/loggers installed on site. Data will be down loaded to laptop computer during each site visit.

Release strategies for hatchery salmon are directed toward timing the release to the accretion of the zooplankton forage base in the near shore environment. Releases are typically concentrated to





The response of the donor population to the hatchery environment must be determined prior to any decision to develop it as a hatchery stock or for post-eyed incubation and remote release. This project will examine the feasibility of incubating eggs from an early spawning pink salmon stock (VFDA) and early spawning chum salmon stock (WNH) in a hatchery (Armin F. Koernig) that now supports a late spawning pink salmon stock.

Gametes to produce twenty-five mating pairs from an early spawning pink salmon stock (VFDA) and an early spawning chum stock (WNH) will be transferred to AFK hatchery, fertilized on site, and incubated in vertical flow trays (Heath-Technica) to complete yolk absorption. Each pair will be divided into four lots (two treatments with replicates) to determine the rate of embryonic development and the approximate timing of spring emergence under ambient (control) and chilled (experimental) temperature regimes. The experimental temperature regime will be designed to simulate conditions in the natal stream of the donor population (figures above). Water temperature will be monitored daily, and egg and fry mortality at weekly intervals. Samples will be collected and preserved in 5% buffered formalin from each lot at fertilization, hatching, and yolk absorption to measure size (wet weight) and yolk absorption efficiency, and

variation in fitness traits (i.e. rates of embryonic development, time of spawning, fluctuating assymmetry), and evaluate the feasibility of developing early spawning hatchery stocks through directed selection. Specific components of 96093-A and -B include:

1. Assessement of outbreeding depression

2. Outbreeding effects on fitness

3. Population genetic assessment of gene flow between hatchery and wild stocks

4. Gene flow among natural populations

5. Quantitative genetics of run timing

Methods, particularly the research and monitoring aspects, follow in concept a model for monitoring interactions of wild and hatchery salmon recently set forth by an international panel of salmon geneticists and conservation scientists convened by NINA (Norweg. Instit. Nature Res.). They emphasize the necessity of monitoring a baseline of genetic and fitness (phenotypic) data, of understanding the extent of gene flow between stocks, and of studying the biological effect of gene flow through quantitative genetic analysis. The ADF&G recognizes that much of Genetics Policy is based on extrapolation of knowledge from other disciplines and encourages cooperative research efforts among governmental, university and private sectors (McGee 1995). Areas recommended for research include the potential for genetic improvement, such as timing parameters, assessment of the effect of introgression of genes from hatchery fish into wild populations, and establishing the impacts that result from introgression. This project will address some of these issues and contribute to improved managment of pink salmon populations.

6. References

Brannon, E.L. 1987. Mechanisms stabilizing salmonid fry emergence timing. Pp 120-124 In H.D. Smith, L. Margolis, and C.C. Wood, eds. Sockeye Salmon (Oncorhynchus nerka) Population Biology and Future Management. Can. J. Fish. Aq. Sci. 96.

McGee, S.G. 1995. The hatchery program and protection of wild salmon in Alasks: Policies and regulations. AK Dept. of Fish and Game. CFMDD.

Cooney, R.T. 1995. Sound Ecosystem Assessment (SEA) - An integrated science plan for the restoration of injured species in Prince William Sound. Draft 1994 final report to the Exxon Valdez Oil Spill Trustee Council.

C. Contracts and Other Agency Assistance

Technical support will include the services of:

- PWSAC project management & fish culture staff
- ADF&G biologists and technicians
- University of Alaska geneticists
- ADF&G pathologist

1-2 large events or spread across a period of 2-3 weeks. In addition to zooplankton abundance, the outcome and impact of either strategy is affected by the concentration of wild salmon fry and predators at the time of release. Juvenile salmon sampling will occur weekly at each site during the period corresponding to the estimated optimum time of release based on increasing zooplankton abundance. Sampling will be conducted using a beach seine at 6 hour intervals and at two locations at each study site. The number and species of salmon fry will be counted and recorded.

Predator abundance will be estimated following procedures outlined by SEA Investigation 96320E (Juvenile Salmon and Herring Integration). Two purse seine vessels will sample near shore habitat at each site in conjunction with beach seine sampling for juvenile salmon (ie. weekly intervals corresponding to the period of fry release). Each vessel will sample with a small mesh purse seine (250 m x 30 m x 1.5 cm stretch mesh) in the upper 20 m in waters deeper than the beach seine sampling, and with a paired mid-water trawl (30 m x 30m x 1.5 cm stretch mesh cod end) in the water column deeper than 20 m outside the beach seine area. A variable mesh gill net (150 m x 1.5 - 10 cm stretch mesh) will also be fished in the near shore area with water depth < 20 m. Sampling will be conducted at 6 hour intervals. Processing will occur on board to determine species composition and abundance.

Test fishing for adult salmon will be conducted from mid- June to late July which will approximate the return timing of early pink and chum returns to PWS. Two purse seine vessel will sample eight survey locations at each site for two 12- hour periods per week. Nets will be 150 fathom, 3 strip seines set on a right- handed hook haul and fished for 20 minutes. Each vessel will have one technician to record catch by species. Methods and decision criteria regarding results and implications for release permitting will be modeled after those incorporated in the State of Alaska Cooperative Agreement Between Ak. Dept. of Fish and Game and Prince William Sound Aquaculture Corporation for Port Chalmers Chum Salmon Release Evaluation Program, COOP-94-060.

2. Genetic Impact Evaluations

Straying by hatchery fish into natural spawning populations can lead to hybridization, alter phenotypic characteristics important for local adaptation, and potentially reduce fitness (i.e. production). Concern for genetic introgression of hatchery fish into the wild populations has been an important consideration in the ADF&G Genetics Policy for salmon enhancement programs in Alaska. The policy is based, in part, on evidence that hatchery and wild populations have, to varying degrees, adapted to their specific environments through natural selection. Consequently, introgression of hatchery gentotypes into natural populations has the potential to reduce survival directly (i.e. natural selection against hybrids), or alter coadaptive genomes of natural populations and reduce survival in future generations (ie. natural selection neutral or favoring hybrids). The policy stipulates that local populations be given priority in developing hatchery broods because genetic differences between populations often increase with geographical distance, and therefore the impacts of hybridization will presumably be greater from selecting a non-local, rather than a local population. However, greater similarity in characteristics such as spawning time and habitat also provide more opportunity for hybridization and gene flow, and may actually increase the risk to natural populations. Subprojects 96093-A and -B, integral components of this project to restore PWS pink salmon by diversion of fishing effort, will examine the impacts to population fitness that result from hybridization between hatchery and wild populations of different and similar spawning schedules. Components of these studies will investigate rates of gene flow across populations, estimate genetic sources of

COORDINATION AND INTEGRATION OF RESTORATION EFFORT

Project 95093 is a multi- component program of research, restoration, monitoring and integration with more extensive programs already activated by the Trustee Council. In conjunction with 95093 program components to inventory wild salmon stocks, evaluate stocks for hatchery utilization, test fish remote release locations for presence of local or migrating wild stocks, and implement genetic studies to identify interactions between wild and hatchery fish, the program will draw directly on work being conducted by SEA Investigations. In this regard, oceanographic conditions will be evaluated at proposed remote release sites to assess physical (95320M Observational Physical Oceanography in Prince William Sound and the Gulf of Alaska) and biological (95320G SEA: Phytoplankton and Nutrients, 95320H SEA-ZOO: The Role of Zooplankton in the Prince William Sound Ecosystem, 95320N Nekton-Plankton Acoustics) features of the environment that may affect salmon fry survival. Sampling will be conducted to identify salmon predator populations (95320E Juvenile Salmon and Herring Integration), and potential remote releases will be guided by results obtained from both 95320A Juvenile Salmon Growth and Mortality and 95320K Experimental Fry Release studies. Temporally and spatially directed SEA sampling will aid evaluating sites for selection of appropriate stocks and run timing that could be designated for release by the hatchery program.

In conjunction with the program to reduce harvest pressure on injured stocks, the otolith marking project (95320C) funded by the *EVOS* Trustee Council will aid both inseason management of the fishery through detection, evaluation and more specific management of mixed stocks harvested in the fishery. The technology will also be utilized to support the evaluation programs related to straying, hybridization and genetic interactions between hatchery and wild stock pink salmon.

ENVIRONMENTAL COMPLIANCE/PERMITTING

Ak. Dept. of Fish and Game will conduct NEPA review. It is likely a categorical exclusion (CE) will be required for most field work which includes inventory and assessment, and test fishing. Research associated with 96093-A and -B may require an environmental assessment (EA), as with remote releases of salmon fry which may be possible following phases of remote site evaluation. Remote releases typically have additional permitting requirements including:

- hatchery permit alteration (PAR), ADF&G
- fry transport permit (FTP), ADF&G
- DOA Army Corp permit to anchor netpen in navigable waters;
- DNR tidelands lease, bond and insurance;
- Coastal Zone Management Consistency determination;
- letter of permit from uplands owner to support tidelands lease;
- US Coast Guard permit, netpen lighting designation, and annual notification of netpen installation and removal.

Additionally, should shore based field camps be required to support genetic research, special use permits may be required if selected sites are within the Chugach National Forest.

- permitting agencies including ADF&G, Department of Army, Corps of Engineers, Department of Natural Resources
- ADF&G otolith mark analysis lab

Contracts will be established for vessel charter to inventory and assess salmon stocks. Contracts will also be required for vessels chartered to test fish potential remote release locations recommended for evaluations.

D. Location

Projects 95093 and 96093-A, -B and -C will take place in Prince William Sound. Location of activities will vary dependent on the project phase. Early run time salmon stock inventory and assessment will occur principally in the Southeastern and Eastern districts. Wild stock assessment and test fishing will occur at Montague Island, Nelson Bay and Naked Island, as may future remote releases. Other activities including possible hatchery incubation and fry rearing will take place at hatcheries in PWS potentially including the Armin F. Koerning Hatchery on Evans Island in the Southwest District, and Wally Noerenberg Hatchery on Esther Island near Port Wells.

SCHEDULE

A. Measurable Project Tasks for FY95

Start-up - Sept. 10:	Evaluate hatchery capabilities
July 1 - October 1:	Analyze facilities' water temperature and water flows
July 1 - October 1:	Review incubation and facility floor plans
Sept. 1 - Otober 1:	Report on recommendations
July 1 - August 1:	Complete NEPA requirements
June 1 - June 15:	Develop technical field teams
June 1 - October 1:	Contract vessels and crews
June 15 - June 30:	Train field crews
June 25 - Sept 15.:	Inventory stk. baselines(census, phenotypes, tissue samples)
July 1 - August 15:	Release site surveys (hydrographic and fresh water sources)
June 15 - August 15:	Test fish sites
October 1 - April 1, 1996:	Report

B. Project Milestones and Endpoints

NEPA requirements for inventory and assessment phase completed.	August, 1995
Preliminary evaluation of remote release site test fishing.	February, 1996
Verification of potential to incubate early run salmon at AFK Hatchery.	May, 1996
Preliminary recommendations for hatchery stock composition.	June, 1996

C. Project Reports

April, 1996	Annual Report for FY95.
Quarterly	Quarterly reports as required.

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EXXON VALDEZ TRUSTEE COUNCIL
1995 Federal Fiscal Year Project Budget
October 1, 1994 - September 30, 1995

Project Description: **Restoration of Prince William Sound Pink Salmon by Diversion of Fishing Effort** is intended to restore oil injured pink salmon populations by increasing spawning numbers while maintaining services by diverting harvest pressure away from injured stocks to hatchery produced stocks which can be isolated from returning injured wild stocks by changes in hatchery stock composition and/or release location.

Budget catagory	1994 Project No. Authorized FFY 94	94 Report/ 95 Interim* FFY 95	Remaining Cost** FFY 95	Total FFY 95	FFY 96	Comments
Personnel	$0.0	$0.0	$0.0	$75.2	Please see	Manage & conduct field research.
Travel	$0.0	$0.0	$0.0	$43.0	FY96	Cost assoc. w/ research & reporting.
Contractual	$0.0	$100.0	$0.0	$463.8	Proposal	$100K planning; vessels charters.
Commodities	$0.0	$0.0	$0.0	$20.9	and budget	Field supplies/vessel crew food.
Equipment	$0.0	$0.0	$0.0	$6.0		Incubation water chiller & computer.
Capital Outlay	$0.0	$0.0	$0.0	$0.0		
Subtotal	$0.0	$100.0	$0.0	$608.9		
General Administration	$0.0	$0.0	$0.0	$38.1		
Project Total	$0.0	$100.0	$0.0	$647.0	$0.0	
Full-time Equiv. (FTE)	0.0	0.0	0.0	0.0		

Dollar amounts are shown in thousands of dollars

Budget Year Proposed Personnel: Position Description	Reprt/Intrm Months	Reprt/Intrm Cost	Remaining Months	Remaining Cost
Dr. Tim Linley, Project Leader			0.0	$0.0
Vacant, Project Manager			3.0	$15.6
Vacant, Field techniclans (3)			8.8	$24.6
Vacant, Fleld technicians (3)			7.2	$20.1
Vacant, Fish culturist II			3.0	$9.4
Vacant, Test fish technician (1)			3.0	$5.5
Personnel Total	0.0	$0.0	25.0	$75.2

NEPA Cost: $55.0

* Oct 1, 1994 - Dec 31, 1994

** Jan 1, 1995 - Sep 30, 1995

Project Number: 95093
Project Title Restoration of Pink Salmon by Diversion of .....
Agency: Prince William Sound Aquaculture Corporation

PERSONNEL

Dr. Tim Linley, Project Leader
Vacant, Project Manager
Vacant, Field Biologists/technicians (6)
Vacant, Fisheries Biologist

Dr. Tim Linley, Project Leader
Prince William Sound Aquaculture Corporation
P.O. Box 1110
Cordova, AK 99574
(907) 424-7511 (ph)
(907) 424-7514 (fax)

Project Manager, Habitat and Restoration, ADF&G
Alaska Department of Fish and Game
333 Raspberry Rd.
Anchorage, AK 99518-1599
(907) 267-2213 (ph)
(907) 522-3148 (fax)

May 18, 1995
Date prepared

Commodities:	Rept/Intrm	Remaining
Sampling nets, notebooks, sample containers, field supplies for both I&A work and test fishing.	$0.0	$5.0
Office supplies, desk, chair, phone charges associated with project.		$2.0
Food supplies and commodities for vessel charges @ $15/day per person for 3 charters as listed under "contractual".		$11.6
Food and commissary for FCII @ AFK Hatchery.		$2.3
Commodities Total	$0.0	$20.9

Equipment:		
Chiller and plumbing equipment to reduce incubation water temperature @ AFK Hatchery for early run time stock investigation.	$0.0	$3.0
Computer for project manager.		$3.0
Equipment Total	$0.0	$6.0

Project Number: 95093
Project Title Restoration of Pink Salmon by Diversion of .....
Agency: Prince William Sound Aquaculture Corporation

Travel:	Rept/Intrm	Remaining
Air taxi for biologist to visit site(s) and review water regimes and flow conditions. 5 rt @ 3 hr x $250/hr.	$0.0	$3.8
Air taxi for field tech travel (12 rt @ 3 hr @ $250/HR)		$9.0
Air ship tissue samples collected at experimental streams (CDV to Juneau). 5 shipments & $150/.		$8.0
EVOS meetings: CDV to ANCH (2 r.t. @ $300/)		$0.6
Mtg per diems: 2 trips @ 3 days ea @ $150/dy.		$0.9
Research meeting in Juneau with University collaborators (2 r.t @ $500/)		$1.0
Juneau mtg per diems: 2 trips @ 3 days ea @ $150/dy.		$0.9
Air taxi for proj. manager for vessel rendevous to oversee Inventory and Assessment work. (6r.t.@ $250/hr x 6 hr)		$9.0
Apartment for field crews R&R in Cordova and in route to/from field (3 months).		$5.0
Per diems for technicians R&R in Cordova and in route to/from field (total 120 days @ $40/dy).		$4.8
Travel Tota	$0.0	$43.0
Contractual		
NEPA: ADF&G contract for minimally 1 EA for Inventory and Assessment work; additional NEPA as required.	$0.0	$55.0
Contract with Native Village of Eyak: 1 vessel @ 82 days @ $1600/dy I&A work.		$131.2
1 vessel @ 67 days @ $1600/dy I&A work.		$107.2
1 vessel @ 44 days @ $1600/dy "test fishing."		$70.4
Contractual Total	$0.0	$363.8

ALASKA DEPARTMENT OF FISH AND GAME

COMMERCIAL FISHERIES MANAGEMENT AND DEVELOPMENT DIVISION

333 Raspberry Rd. Anchorage, AK 99518

Post-it™ brand fax transmittal memo 7671 | # of pages ▸ 3

To Eric Myers	From Don Mc
Co.	Co.
Dept. F F	Phone #
Fax #	Fax #

April 21, 1995

Ted Achilles, President and Chief Executive Officer
Prince William Sound Aquaculture Corporation
P.O. Box 1110
Cordova, AK 99574

Dear Ted:

We're crafting this letter to provide you with a clearer picture of the position of Alaska Department of Fish and Game (ADF&G) staff on your current draft proposal 95093. Unfortunately you received mixed signals from the combination of the Regional Planning Team (RPT) vote to support the proposal and the negative reaction that one of us (JES, a non-RPT member and not at the 11 April meeting) expressed in his 12 April fax to you.

First you should be aware that none of the ADFG members of the RPT had the opportunity to fully review the proposal prior to the 11 April meeting. The proposal was first presented at the meeting because of late preparation and PWSAC's desire to fast track the review. It was discussed briefly; and, largely based on the enthusiastic support of ADFG for the principles and ideas presented by PWSAC staff at the March RPT meeting, a vote to support it was taken. That vote was not taken based on a the proposed shift to an early brood stock, which was the stated purpose of the plan. Rather, the RPT's support was based upon the fact that the proposal covered only research plans for the coming field season and did not propose any stocking plans within the scope of the funding dates. In retrospect, the vote may have been premature, or the RPT should have been more specific in its comments.

Second, it is important to note that the planning and regulatory functions of ADFG are separate. Enthusiastic planners sometimes propose projects which do not pass regulatory muster. This can be true of internal ADF&G proposals for projects as well as those proposed by federal agencies and the private sector. Therefore, one should not misconstrue a vote of support from the RPT as regulatory or technical approval by ADF&G.

The primary problem that we have with the current draft is that it is primarily designed to provide momentum to change hatchery brood stocks from late-run timing to early-run timing. PWSAC discussed several restoration strategies at the March RPT meeting; most were supported by ADF&G participants, and only this particular strategy was strongly discouraged. Yet PWSAC chose to focus

on this approach as the primary theme of 95093, at one point writing that "The project is based on a multi-year program designed to develop new hatchery brood stocks of early-run timing . . ." Alaska Department of Fish and Game cannot support this project even with the minor language change that now reads "program to determine the potential for development."

We have objected to PWSAC proposals to change brood stocks to early-run timing for a number of years, long before this was proposed as a restoration strategy. The genetic criteria developed by the RPT (page 7 of the June 1993 remote release report) would prohibit this approach as an alternative. These objections have a sound basis in law as well as biology. Alaska Statutes Section 16.10.445 states that "Where feasible, salmon eggs utilized by a hatchery operator shall first be taken from stocks native to the area in which the hatchery is located, and then, upon department approval, from other areas . . ." The biological soundness of this statute is well accepted. Releasing large numbers of hatchery fish, not adapted to local environmental conditions, will erode the genetic integrity of the locally adapted populations if introgressive hybridization takes place. Such erosion of local adaptations in the southwest district of Prince William Sound would lead to further reduced productivity of the wild stocks (hardly something that we would approve or the Trustees would be likely to fund). Examples supporting this biological phenomenon can be found in various places in the experimental literature, case history studies in review papers, and in the anecdotal assessments of hatchery managers who have observed reduced fitness of hybrid individuals produced in experiments to evaluate the utility of early-stock x late-stock hybrids.

Also, PWSAC is inconsistent in its support of the remote-release component of 95093. We recognize and are concerned about the problems concomitant with remote release strategies, and we only consider them an option because they have been extensively promoted by your corporation and the RPT as a tool for addressing allocation and management problems. Tim Lindley apparently brings a different view of remote releases based upon his experience in Southeast Alaska with operational complexities of this approach in the management of hatchery production. His preferred alternative is to establish an early-run brood stock at AFK Hatchery. Tim's skepticism to remote releases warrants serious consideration, but we recognize that it is inconsistent with current corporate planning and with the focus of 95093 as discussed at the March RPT meeting.

We are encouraged by the portions of your proposal that recognize the need to address the mixed stock fishery problems in the migratory corridors of western PWS. It is becoming uniformly recognized that the mixed stock fishery in western PWS is threatening our ability to manage for wild stocks particularly those that spawn in the north western portion of the sound. The hypothesis presented in 95093 is that by reducing the portion of enhanced fish in the mixed stock fishery in western PWS we will help restore depressed wild stocks. The fact that 95093 does not seek to implement any corrective action to this problem until after one or two generations of studies are complete (5 years?) is viewed as a weakness by the Department and may be viewed the same way by the Trustee Council.

In previous correspondence and at our various meetings, we have suggested a variety of other potential solutions that may relieve the mixed stock fishery concerns. We recognize that some these may have inherent problems that need further investigation. Some suggestions include:

1.) Remote releasing pink production (late timing) from the WHN Hatchery to North Montague Island. This could be implemented on a shorter time frame and should directly decrease the number of enhanced pinks migrating through western PWS.

2.) Developing an early pink salmon brood at VFDA (or use their existing stock) and transfer eyed eggs to AFK or WHN for incubation. All resultant fry would be released at north Montague.
3.) Decrease or drop pink production at Esther and use incubator space to increase early chum production for released at N. Montague. Raises questions regarding predator prey relationship with depressed herring population on Montague.
4.) Substantially reducing pink production at the PWSAC facilities.

We also recognize that in addition to the biological factors that pursuing any of these actions would be further complicated by the PWS allocation policy, the PWSAC production plan and the Area E fishermen's financial and aesthetic expectations. It may not be possible to solve all concerns in which case biological considerations should take precedence.

In summary, the Department's position on 95093 can be broken down to two basic points. First, the development of an early pink salmon brood stock at AFK, WHN, and Cannery Cr. hatcheries is unacceptable. The portions of 95093 that are directed at achieving this endpoint should be modified or removed.

Second, the wild stock shortfalls in northwestern PWS are an issue that ADF&G takes very seriously. We are strongly encouraged by the attitude of PWSAC and the portions of 95093 that seek to address this mixed stock problem. We feel it is important that ADF&G and PWSAC are proactive in addressing this problem and developing production plans that provide solutions that address our respective concerns.

Finally, we want to emphasize that your perception of the role that Ellen Simpson played in the lack of ADFG support for the current draft is incorrect. Ellen appropriately called attention to the fact that those of us involved with making regulatory recommendations might not support the fast-tracked draft. We believe Ellen did PWSAC a service by raising questions now so that we were able to comment before the proposal is submitted for peer review. We certainly hope that you can recognize Ellen for the asset that she is, both to ADFG and to PWSAC, and maintain open lines of communication with her so that she may better serve the needs of your corporation.

Sincerely,

James E. Seeb
Principal Geneticist

James A. Brady
Regional Management Biologist

Tim McDaniel
Statewide Hatchery Supervisor

APPLIED
marine
SCIENCES

May 16, 1995

TO: Molly McCammon
Executive Director

FROM: Robert Spies, Chief Scientist
Andrew Gunther, Asst. Chief Scientist

CC: R. Ted Cooney, SEA Project Leader
Stan Senner, Scientific Coordinator

RE: Specific comments on the SEA Program

On March 10, 1995, you received a letter from Bob Spies with a recommendation to you regarding the Sound Ecosystem Assessment (SEA) program (projects 95320A-Y). That letter indicated that two additional recommendations would be forthcoming; one for the hydroacoustics program and another that reviews the specific components of the SEA program. Our recommendation on the hydroacoustics program was delivered to you last month. This memo will summarize our concerns regarding the specific components of the SEA program.

In April we requested that Dr. Cooney forward the comments of the peer reviewers to all of the SEA principal investigators for their consideration, and we have enclosed those comments with this memo for your review. Rather than re-hash the comments of Drs. Peterson, Rose, Walters, and Pearcy, we would like to use this memo to highlight our major concerns with the various components of the SEA program.

Information Systems and Model Development

The reviewers expressed the opinion that the modeling is inadequately integrated with the field sampling. It is essential that field sampling identify the important physical and biological parameters that must be modeled, and early modeling products must identify those parameters to which the models appear the most sensitive for additional field sampling. There also must be adequate progress in model development to allow field data collection to be used to validate the models. Given the projected budgets for the project, it is clear that 1996 will be the last large-scale field season, and it is essential that model development progress to the point that collection of field data in 1996 can be used for model validation.

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The importance of integration of modeling and field work, including the development of interim modeling products, was emphasized in the October 1994 review. It is clear that the principal investigators for project 95320J have been responsive to this request. Several interim products are identified in the 1995 DPD for the purposes of hypothesis testing, parameter estimation, model validation, and adaptive sampling. There is inadequate discussion, however, regarding why these products were selected, and how they fit into an overall plan for model development. In addition, given that the hydroacoustic project has been slow to produce information, we are concerned about plans for model development with less data than anticipated. Has the modeling program provided priorities to the field researchers, and vice versa? To explore these issues, Andy Gunther will be traveling to Cordova May 28-30 to meet with the Dr. Patrick and his staff.

Fine-scale Oceanography

In response to previous plans and reviews, the oceanography component of SEA (95320M) will be conducting finer scale oceanographic surveys during 1995. These finer scale surveys will examine phenomena such as fronts, eddies, and shear zones that are likely to play an important role in the local distribution of plankton and their predators. This work is strongly supported by the core reviewers, especially in the light of results from 1994 which suggest nearshore fronts may contribute to providing predation refuge for juvenile salmon.

For this oceanographic work to be effective, however, it must be carefully coordinated with biological measurements in both time and space. The DPD for project 95320M recognizes this fact, but does not describe in adequate detail how coordination will occur. This has led some reviewers to question if the oceanography and biology adequately linked. Andy Gunther will discuss this issue in detail with Dr. Salmon, the principal investigator for the oceanography project, when he visits Cordova at the end of the month.

Hydroacoustics

Our memo to you of April 24, 1995, summarizes our concerns and recommendations regarding the hydroacoustic program (project 94320N). A key point that should be re-emphasized is that the analysis of the hydroacoustic data is taking longer than anticipated. In our previous memo we indicated a concern that the hydroacoustic program may be collecting more data than can be processed in a reasonable time. In the recent 1994 report for the SEA program (April 1995) projects 94320A and 94320E could not achieve all of their objectives because data from 94320N were not available.

The modeling program is also dependent upon receiving information from the hydroacoustics program, and if analysis and reduction of hydroacoustic data lags further and further behind it could adversely impact the schedule of the entire SEA program. Recommendation #6 of our April 24 memo requests that "the SEA Project Leader should provide a

description of the labor resources available for analyzing hydroacoustic data gathered in 1995...timely analysis of these data is essential to properly inform the modeling program and the 1996 field season." Dr. Cooney has been in the field most of the last month, and we look forward to discussing this issue with him upon his return.

Prey Switching Hypothesis

The evidence in support of the concept of " prey-switching" by salmon predators was among the most exciting data collected in the first year of the SEA program. We agree with Dr. Peterson's observation that the program must collect information regarding the absolute rate of predation on juvenile salmon with changes in zooplankton abundance, and not just the proportion of salmon v. zooplankton in predator guts. As zooplankton become more abundant, the proportion of juvenile salmon in predator guts could decrease, but the number of juvenile salmon eaten could stay the same. It is the absolute rate of predation on juvenile salmon that will affect their survival. We believe that the data is being collected to allow absolute predation rates to be estimated, and it is important that these calculations are made to adequately test the prey-switching hypothesis.

Experimental Fry Release

A criticism of this program is that the fry that will be grown to 1.5 g prior to release are also going to be released later than the normal hatchery releases. There is no way for the principal investigators to separate the effect of size and release date as the program is currently designed. Consequently, if these larger fry demonstrate higher survival, it will not be possible to unambiguously attribute this result to their larger size at release.

At this time it is not feasible to alter the design of this program. If the larger fry to demonstrate higher survival, further experiments will be needed to verify that it is fry size rather than the late release date that is responsible for the higher survival.

APPLIED marine SCIENCES

April 24, 1995

TO: Molly McCammon
Executive Director

FROM: Robert Spies, Chief Scientist
Andy Gunther, Asst. Chief Scientist

CC: R. Ted Cooney, SEA Project Leader
David Duffy, APEX Project Leader
Bruce Wright, NMFS
Bill Hauser, ADF&G
Stan Senner, Scientific Coordinator
John Piatt, NBS

RE: Specific Recommendations for use of Hydroacoustic Methodologies

On March 10, 1995 we provided you with memo recommending that the SEA program be authorized for full funding in 1995 as described in the integrated Detailed Project Description prepared by Dr. Cooney. At that time, we noted that a workshop was being held in late March to examine the hydroacoustic component of the SEA program and other related programs. We are writing two separate memos in regard to hydroacoustics and the SEA program: 1. This memo, which makes specific recommendations on the use of hydroacoustic methods in Trustee Council programs for assessing fish abundance, and 2. A separate memo with project-specific comments on the SEA program will follow.

This memo first presents a summary of the proceedings from the workshop. This will be followed by a recommendation from the Chief Scientist.

Workshop Proceedings

The workshop was held on March 28th through 30th in Cordova. We invited a variety of investigators and two reviewers to participate in the workshop. The workshop was open to the public as well. The main Trustee Council programs included in the review were SEA and APEX, both of which are measuring pelagic fish abundance in Prince William Sound. Dr. John Piatt of the National Biological Service, who is studying the foraging of sea birds and the relative abundance of their prey in lower Cook Inlet (including the Barren Islands) for the Minerals Management Service, also attended the workshop. The reviewers were Drs. George Rose and Jim Traynor. Dr. Traynor is a hydroacoustics expert from NOAA, who was invited at the recommendation of Dr. Pennoyer.

There was an excellent spirit of cooperation and a positive atmosphere at the meeting. We were able to keep the meeting to less than 20 people, which was essential for obtaining satisfactory interactions between the peer reviewers and the principal

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investigators. The first day of the meeting was held at the Prince William Sound Science Center and was devoted to a consideration of SEA. The second and third days of the meeting were held in a slightly larger conference room at the ADF&G office in Cordova, and included both SEA and APEX researchers and Dr. Piatt. The reviewers provided summary comments and discussion at the end of day 3, and prepared written comments that were delivered to our office by April 10, 1995.

Principal Recommendations

In general, the reviewers were pleased with the progress that has been made in analyzing data for the SEA program from 1994. However, they raised several important issues that must be carefully considered by the principal investigators of projects using hydroacoustic technologies in order to properly collect and interpret data, and for developing data sets that are comparable across projects. These issues are incorporated into our recommendations below.

1. **Principal investigators must utilize internationally recognized calibration techniques for their hydroacoustic equipment.** These techniques involve the independent use of standard spheres in controlled situations. Reliance upon the hydrophone calibrations supplied by the manufacturer are not satisfactory. Calibration should not a be a problem with the lower frequencies (e.g., 120 kHz) by using the ICES procedures, but calibration of high frequencies (e.g., 420 and 1,000 kHz) will require additional effort and perhaps additional research (see below). In general the reviewers felt that high frequency work was of lower priority and should not displace the fundamental work to be carried out with the low frequencies. The recommended calibration procedures were not satisfactorily applied in the 1994 SEA program, but it is acceptable to apply calibrations performed with the same instrument and vessel in 1995 to the 1994 data.

2. **An established target strength model should be used for scaling echo integration data, rather than using a relatively small number of *in situ* measurements to establish target strength relationships.** For fish, this model should probably be kg=20 LogL-b, where b is a species-specific constant. A thorough search of the literature should be made, however, before a scaling factor is chosen and used to convert echo integration to kilograms of biomass. Models should be adjusted only after many verified *in situ* measurements have been made; quantitative conclusions should not be based upon a few *in situ* measures of target strength, especially for new species.

3. **Biological sampling (e.g., nets) must accompany hydroacoustic sampling for all echo sign types that are to be classified.** The reviewers were very clear that it is not acceptable to biologically classify acoustic data without supporting biological sampling. This does not mean that every school observed hydroacoustically must be sampled, but rather that a sufficient number of samples be collected from each echo sign type to support the level of classification being attempted. Consequently, the hydroacoustic programs must dedicate sufficient resources to biological sampling, and making hydroacoustic measurements without biological sampling support should be avoided. In 1994, the nearshore acoustic sampling conducted by the SEA program was not satisfactorily supported by biological sampling. A wide range of nets or other devices

(such as the optical plankton counter) will be necessary for the SEA program, where so many different frequencies are going to be utilized.

4. **All projects should utilize a standard procedure for storage, analysis and classification of acoustic data to ensure comparable data between projects.** The data sets collected in the SEA program should be usable by the APEX program and *visa versa*. The efforts begun at the workshop in this regard should be continued. Mr. Jay Kirsch of the Prince William Sound Science Center has developed data analysis software that the reviewers thought was excellent, and this software can be made available to the other researchers for their use. It seems likely that all the individuals interpreting acoustic data will need to meet together at least once at the end of the field season to develop a joint classification scheme. Continuing communication and collaboration among the investigators will be necessary throughout data reduction and analysis.

5. **The range/noise/threshold properties of the equipment must be documented and kept as consistent as possible.** These properties will vary between vessels, acoustic systems and situations, but every effort must be made to keep them consistent over the range of conditions occurring in the studies to develop comparable data sets.

6. **The SEA Project Leader should provide a description of the labor resources available for analyzing hydroacoustic data gathered in 1995.** The reviewers indicated that it can take 4-8 hours to analyze every hour of acoustic data. Both reviewers expressed concern about the ambitious nature of the SEA acoustic program, given the fact that six acoustic frequencies are proposed for use in 1995. We are quite concerned that the SEA program may be collecting more data than they can successfully reduce and analyze in a meaningful fashion. Timely analysis of these data is essential to properly inform the modeling program and the 1996 field season.

Based upon the data collection plans for 1995, the SEA Project Leader should provide the Chief Scientist with a brief description of which project staff will be available for data analysis, and how much of each staff member's time is budgeted for these tasks. This description must document a reasonable allocation of resources between data collection and analysis to ensure that the biological interpretations of the hydroacoustic data are available in a timely fashion to the other researchers in the SEA program.

7. **The very high frequency work (e.g., 750 and 1,000 kHz) proposed in the SEA program for plankton should be considered of lower priority.** The high frequency work is much more experimental, and any interpretations of this data will be much more preliminary than the lower frequencies used for assessing fish abundance. In addition, it is not currently clear how the high frequency echo sounder will be calibrated. It is essential that the primary objectives of the hydroacoustic program for determining the abundance and distribution of fishes not be delayed by processing the high frequency data. The SEA program has other methods (nets and the OPC) for assessing zooplankton abundance and distribution. Given recommendation 6 (above), the SEA Project Leader should give careful consideration to the amount of project resources allocated to the high frequency work.

8. **The principal investigators should be ready to go into the field in 1995 with analog equipment if the new digital sounders are unavailable.** The software to process the data from the newer digital systems however is not fully developed, so the programs may have to use the old analog systems this coming field season. It appears that the transition from analog to digital dual beam systems in the programs as now contemplated will not be a problem within the SEA or APEX study with regards to data comparability. The new Biosonics DT4000 and DT500 digital systems will apparently produce comparable data. To the extent possible these systems should be employed in all programs at the same time; use of another analog system would require some intercalibrations to make the data comparable.

9. **The APEX program will have to carefully document its ability to discriminate different species of forage fishes.** The success of the APEX project depends to a large extent on the ability of the investigators to discriminate separate species of forage fish. Some of these species, such as capelin, have been studied extensively, but others (such as sandlance) have not. During the review of this program after the 1995 field season, careful consideration will be given to the ability of the APEX program to identify different species.

10. **Sampling design should probably incorporate an evenly spaced grid of crossing transects in the absence of data indicating how fishes are distributed in a particular area.** Further stratification could be done following this initial sampling on smaller scales.

11. **The principal investigator for the SEA hydroacoutics program should prepare a brief memo describing why the program selected its proposed frequencies.** There are some "non-standard" frequencies that are being proposed for the 1995 field season. These include 70 kHz for fish work offshore (instead of 38 or 120 kHz), and 420 and 1,000 kHz instead of 200 kHz for plankton. There is not nearly as much background information on the interpretation of 70 kHz data as there is for 38 kHz and 120 kHz, and the memo should also briefly explain how the literature on target strength at the more standard frequencies can be usefully applied to the "non-standard" frequencies being proposed (see recommendation 2 above), and what comparisons will be made between inshore and offshore data in the SEA program.

EXXON VALDEZ TRUSTEE COUNCIL
FY96 PROJECT DESCRIPTION

Expansion of the Prince William Sound Science Center/Oil Spill Recovery Institute.

Submitted under the BAA #50ABNF500082

Project Number:	96151-BAA
Restoration category:	Research Facilities
Lead Trustee Agency:	NOAA
Cooperating Agencies:	Prince William Sound Science Center
Duration:	Four years
Cost FY96:	$3,000,000
Estimated Cost FY97	$6,000,000
Estimated Cost FY98	$2,000,000
Estimated Cost FY99	$1,000,000
Geographic Area:	Prince William Sound
Injured Resource/Service:	Basic marine research infrastructure important to the long term restoration effort.

ABSTRACT

This project addresses the need for basic marine research infrastructure important to the long term restoration effort of Prince William Sound (PWS). The research facility will be maintained by the existing Prince William Sound Science Center who administers the Oil Spill Recovery Institute, Hazardous Substance Spill Technology Review Council, and houses the "Science of the Sound" education and outreach program and core projects in the "Sound Ecosystem Assessment" (SEA) program funded by the Trustee Council. This project will expand currently overcrowded research facilities and provide new capacity for research and monitoring of ocean processes, marine plankton and nekton, and interrelationships between physics and the biology of the Greater Prince William Sound region. The Science Center's new laboratories will emphasize remote sampling (underwater acoustics and optics), data communication, visualization and numerical modeling to monitor ecosystem level processes.

The new facilities will be supported by long term operations of the Oil Spill Recovery Institute and indirect costs derived from the Science Center's public education and research programs. The facilities plan is integrated with the community's needs for development in Cordova's "old harbor" area and was

endorsed unanimously by the Cordova City Council, as well as the City's Harbor Commission, Port and Economic Development Council and Planning Commission. The City Council unanimously agreed to provide the harbor property needed for the development of this facility. This project is multi-phased over a seven year period and seeks several sources of funding for completion.

INTRODUCTION

The Science Center was established in 1989 as an independent research, monitoring and educational institution with the mission to contribute to a better scientific understanding of the Prince William Sound ecosystems. A primary goal is to maintain a comprehensive database on the Sound's natural resources and provide this information to users, managers, and the general public through education and outreach programs. Initial funding of the Science Center came from grants from the Murdock Foundation, Pew Charitable Trust, Conservation International Inc., Ecotrust Inc., the Alaska legislature, the City of Cordova and many private donations from the Prince William Sound Community.

The research program currently underway at the Science Center uses an ecosystem-level, interdisciplinary approach to understand the prominent physical and biological processes that control the dynamics of key animal populations of the Sound. The research and monitoring are prioritized by a science plan that was developed by agency, users, scientists and the public. Implementation of the program involves pooling of technical resources of the Science Center with state and federal agencies, universities and the public (especially local fishermen and Alaska Natives) to collect a broad spectrum of information on the greater Prince William Sound region. Field sampling is guided by the need to test hypotheses, and initialize, build and verify numerical models.

Sustaining the use of exploited natural resources in an ecosystem requires an active exchange of information between resource users, researchers, management and the public. The Science Center works across the turf boundaries that separate these groups to encourage the development and implementation of long-term, science plan. The involvement of long-time residents of the Sound, Alaska Natives, and others in the planning efforts provides knowledge of what constitutes "good or bad conditions" in the ecosystem. This knowledge helps to establish a meaningful definition of environmental health, which is a prerequisite for establishing the goals of the science plan. The sharing of information with the public promotes the cooperative exchange necessary for broad spectrum ecosystem research.

Using these approaches, the Prince William Sound Science Center has grown into one of the leading marine research organizations in Alaska today. With a diverse staff of research scientists and the latest in scientific equipment, the Science Center is developing better tools for research and monitoring of the renewable natural resources. The Science Center's research staff is providing an integral part of the Sound Ecosystem Assessment (SEA) research program in the use of remote sensing and its applications to more accurately estimate animal abundance. In addition, Science Center staff are developing data visualization tools to display complex ecosystem processes in an animated, yet simple format which does not sacrifice the quantitative quality of the data. Examples of the visualization of quantitative information are given in Figures 1-3[1]. The visualization gives researchers a better way to educate the public on

[1]Figure 1 and Figure 2 show sampling efforts in Prince William Sound; Figure 3 shows pollock densities in the Wells and Perry Island passages, as they are regridded into the bathymetry model of the Sound.

ecosystem processes. Understanding ecosystem processes is fundamental to refining management, restoration, and scientific goals, in addition to more esoteric concepts such as the definition of ecologically sustainable yields.

For three years, state and federal governments have used the services of the Science Center to administer the Hazardous Substance Spill Technology Review Council and the Prince William Sound Oil Spill Recovery Institute (OSRI). Both entities were established to provide the best available information on oil spill prevention and response. Funding of the Oil Spill Recovery Institute in FY96 will require increases in the current staff at the Science Center as we implement its programs. The Institute has developed models for spill transportation (Figure 4), oil spill prevention through risk assessment (Figure 5) and damage assessment minimization through modeling (Figure 6). These models have been used to develop a strategic plan for oil pollution technology, research and development.

The SEA and OSRI programs described are just two of several programs that are on-line or coming on-line that will increase the capability and size of our staff. Since we have already outgrown our current building, this proposal respectfully requests partial funding to expand our facilities in the Cordova harbor .

NEED FOR THE PROJECT

A. Statement of problem

In 1989-90, the City of Cordova gave the PWS Science Center a ten year lease on its current building and a $100,000 loan to begin operations. The loan was forgiven when the Science Center raised more than $250,000 to renovate the facility. Through 1993, the Alaska legislature contributed $577,000 in capital funds to help build the Science Center facilities. In 1994, the Science Center staff increased by 16 full time positions with the funding of the Sound Ecosystem Assessment program by the Trustee Council. This expansion required that we acquire additional space, now rented from the Orca Cannery, located about 2 and 1/2 half miles north of the Science Center's main facility. About the same time, the Science Center's *Science of the Sound* education program expanded to include an outreach program to PWS communities and a science summer camp. These programs are totally supported by private and federal grants. We currently anticipate full funding for the Oil Spill Recovery Institute to commence in FY96. Additional new major programs we expect to initiate in FY96 are the fish offal (waste) and sentinel fisheries research programs. These projects employ new technologies to solve applied problems that plague coastal marine communities of Alaska.

B. Rationale

The Trustee Council has authorized funding to support the construction of research facilities in the coastal communities that were affected by EVOS. The Science Center has worked with the local public and the Trustee Council to develop strategic plans for research in the Sound. Scientific innovation is the heart of the Science Center's program. Working with agencies, universities and the local public we have defined an ecosystem approach to prioritize fisheries research in the Sound. The Ocean Ecosystem Program of the National Science Foundation (NSF) endorsed the increased use by researchers of acoustic and optical remote sensing technologies which result in better measurements, as well as the use of

optimum sampling designs to reduce error and costs of collecting data, and advanced visualization techniques to translate science into easily understood images. The Science Center's research programs have adopted this NSF-endorsed philosophy.

As fast as we produce new information, it is assimilated into the management, restoration, scientific and public aspects of the PWS community. We expect the methods and information developed by the Science Center's program for EVOS concerns to have far-reaching influence with state, national and international interests. Investment into this program has and will continue to return manyfold.

Cordova was one of the most severely impacted of EVOS communities because of its dependence upon the fisheries resources in the Sound. The Science Center program has grown because of the local needs for better information. The intense interest in our research programs is evidenced by the constant public inquiries about the status of the herring, pollock, cod, salmon and other marine populations in the Sound. The Science Center was founded to provide independent scientific services to the communities of Prince William Sound, so it was logical to include the communities' needs and endorsements for expansion of the facilities. The funds that we now request are an investment in the future of Cordova, the Sound, and Alaska.

C. Summary of Objectives

The primary objective is to build a community research, monitoring and education facility that will comfortably house our existing staff and provide space for the developing Sound Ecosystem Assessment Program, Oil Spill Recovery Institute, *Science of the Sound* Education and Outreach Program and other newer programs such as the fish waste recycling and sentinel fisheries programs. This support will allow us to continue to attract high-caliber researchers from around the globe to our expanded facility, to collect information valuable to the management, restoration and ecological understanding of Prince William Sound's vital resources.

This will be accomplished by writing planning documents and raising matching funds, conducting site preparation, constructing the new buildings, and finally developing the research laboratory.

D. Completion Date

The project will begin in fiscal year 1996 with the planning and fund raising and will be completed in 2000.

COMMUNITY INVOLVEMENT

The facilities expansion plan is integrated with the community's needs for improved harbor facilities, public meeting/conference and education facilities, and exhibition space for displays on regional programs. Public input received during the EVOS Trustee Council Research Priorities workshop (April 1994) have been incorporated in this expansion plan. The Science Center received unanimous support from the City's Port and Economic Development Council (Attachment 1). The Cordova City Council also passed a resolution to provide the property for the expansion of facilities (Attachment 2). And, the

City's Planning Commission and the Harbor Commission both unanimously endorsed the harbor development plan which recommended the Science Center's expansion plan.

In addition to the need for improvements in the facilities for collection of scientific data, the following points were incorporated into the preliminary design by our architects:

- improvements to the harbor jetty which will reduce the winter north wind swells from entering the harbor and damaging harbor floats,
- increased off-street parking for the old harbor area,
- additional large vessel docking,
- enhancement of the boat-grid,
- availability of public meeting/conference facilities,
- improved education classroom and exhibit space,
- and, a public display area for use by various organizations for exhibits of regional fish and wildlife and other regional programs

We will provide continued opportunities for the involvement of subsistence users and the Native community to contribute to decisions about the facilities design. We welcome further public input and anticipate opportunities to talk with members of the public at EVOS Trustee Council sponsored workshops and the Prince William Sound community.

FY96- FY99 BUDGET

	EVOS Trustee Council	Matching	City of Cordova	Total
Contractual	10,125,000	18,200,000		29,000,000
Facilities			557,000	557,000
Land			135,000*	135,000
Indirect Costs	1,875,000			1,200,000
Total Costs	$ 12,000,000			$ 31,892,000

* The property value is calculated at the higher upland property rate because the facilities expansion plan includes filling the tideland.

PROJECT DESIGN

A. Objectives

1. Development of a business plan

   Business plan development includes development of detailed long-term maintenance plans and projections, development of a strategic plan to raise matching funds and project future spending.

2. Environmental Impact Statement (EIS)/Environmental Assessment (EA) development and permitting.

   We will use the same plan for development of the tidelands as the State Department of Transportation (DOT) used for expansion of a nearby ferry terminal area. This required permitting from the U.S. Army Corps of Engineers.

3. Development plans for facilities expansion

   The first rendition of the expanded facilities is completed (Figure 7). Following public meetings, a second rendition will be completed.

4. Implementation of plans

   Site preparation and construction and equipping of the facility.

B. Methods

We have formed a team of architects and planners to develop the new facilities. Our long range building plans will cost about $30 million, which we plan to raise from a number of sources. Several of the features that relate to community needs such as harbor improvements, public display areas, lecture/meeting rooms and library facilities have more appropriate sources for funding than the EVOS Trustee Council. A detailed copy of the draft facilities improvement program is included (attachment 3).

C. Contracts and other Agency Assistance

The City of Cordova has dedicated the undeveloped harbor area surrounding the present building for the expansion of the Science Center facilities. We plan to phase this development and seek several sources of funding where appropriate. As an example of this, the installation of a new jetty along the north harbor entrance is part of the facilities expansion plan. Since the new jetty will improve the existing harbor facilities, we plan to request support from the Army Corps of Engineers and the Coastal Zone Management Council. The Science Center is also seeking support from private foundations which specialize in science and educational facilities development.

D. Location

The Prince William Sound Science Center is located at the entrance to Cordova's boat harbor, in eastern Prince William Sound. Cordova, one of the most economically and socially affected areas in the EVOS impact area, will benefit from this development.

SCHEDULE

A. Measurable Project Tasks for FY96

Start up to six weeks:	The business and development plans will be initiated following public meetings.

At three months:	A NEPA determination will be made by the Army Corp of Engineers and the appropriate permitting will be sought for the project.
At six months	Completion of a second rendition of the development plan.
At nine months	Completion of strategic plan for funding and detailed long term maintenance plan.
At twelve months:	Army Corps permit in place, EIS/EA complete.

B. Project Milestones and Endpoints

FY96:	Business and development plans completed. All permitting completed and initial site preparation begun and fund raising continued.
FY97:	Competition of site preparation and initial construction begun.
FY98	Completion of construction and initial equipping of laboratories.
FY99	Finish laboratories
FY00	Project closeout.

C. Project Reports

By April 15th of each year, an annual report will be submitted on the milestones reached in the previous funding year. The FY96 report will discuss progress made toward completion of each objective. While this project will not have any project results to publish in peer-reviewed journals, projects supported by the facility will have published results.

COORDINATION AND INTEGRATION OF RESTORATION EFFORT

The Prince William Sound Science Center has provided coordination and integration of SEA projects since the inception of the SEA program. The expansion project described in this proposal will provide continued support of SEA programs, and a platform from which field programs can operate. Laboratory space will be used by Science Center staff as well as local and visiting scientists. For instance, the ADF&G is currently using our existing laboratory space for processing samples collected by SEA projects. Under the planned expansion there will be ample space for SEA scientists to work cooperatively in the proposed wet laboratory facility.

ENVIRONMENTAL COMPLIANCE

The proposed expansion project will require filling of tidelands. Permits will be required from the U.S. Army Corps of Engineers, and the Coastal Zone Management Commission. We will follow the same procedure as the State DOT used for expansion of a nearby ferry terminal area for obtaining an CE for the project. NEPA review for the ferry terminal and dock construction was done by the U.S. Army Corps of Engineers.

PERSONNEL

The Science Center's Board of Directors established a facilities committee. The committee includes the following members:

Nolan Watson, *Consultant, McClellan & Copenhagen, Inc., Seattle*
Scott Janke, *City Manager, City of Cordova*
R.J. Kopchak, *PWS drift gillnet fisherman, Cordova*
Gary Thomas, *President, PWS Science Center*

See attached C.V.'s for qualifications.

G L Thomas by Nancy Bird

Gary Thomas, Principal Investigator
Prince William Sound Science Center
Box 705, Cordova, AK 99574
(907) 424-5800; fax (907) 424-5820
loon@grizzly.pwssc.gen.ak.us

Byron Morris, Project Manager
National Oceanic & Atmospheric Administration
Department of Commerce

Resumes, construction information, and photos available from the restoration office.

Prepared: April 26, 1995

Port and Commerce Development
Advisory Board
Agenda 2/07/95

PORT AND COMMERCE DEVELOPMENT ADVISORY BOARD
CORDOVA, ALASKA

RESOLUTION 01-95-06

A RESOLUTION FROM THE PORT AND COMMERCE DEVELOPMENT ADVISORY BOARD OF THE CITY OF CORDOVA, ALASKA IN SUPPORT ON THE PROPOSED EXPANSION OF THE PRINCE WILLIAM SOUND SCIENCE CENTER.

WHEREAS, the Port and Commerce Development Advisory Board has reviewed the proposed Expansion Plan of the Science Center at the Port and Commerce Development Advisory Board meeting of Tuesday, February 7, 1995; and

WHEREAS, the Port and Commerce Development Advisory Board is in support of adopting the Waterfront Master Plan;

WHEREAS, the Port and Commerce Development Advisory Board is in support of the concept of the Prince William Sound Science Center proposed expansion in the Waterfront Master Plan;

WHEREAS, the Port and Commerce Development Advisory Board supports siting the facilities at their present location with expansions towards Breakwater Avenue and the Coast Guard Dock;

NOW, THEREFORE, BE IT RESOLVED, that the Port and Commerce Development Advisory Board asked the City Council to support the Science Center Expansion Project, and to make available these property sites for long-term lease to the Science Center, to show potential sponsors of the development that Cordova fully supports this project.

PASSED AND APPROVED THIS 7th DAY OF FEBRUARY 1995.

Kim Ewers, Chairman

Nancy Patsoh, Secretary

for Nancy Patsoh

CITY OF CORDOVA, ALASKA

RESOLUTION 2-95-13

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CORDOVA, ALASKA

WHEREAS, the Prince William Sound Science Center is an integral part of the economy of Cordova and contributes to the base of knowledge needed to effectively manage the natural resources on which we depend; and

WHEREAS, the Science Center has outgrown its building and requires additional space for the expansion of its facilities to better meet its Mission; and

WHEREAS, the needs of the Science Center, and other needs of the community can best be met by a coordinated effort for facilities development; and

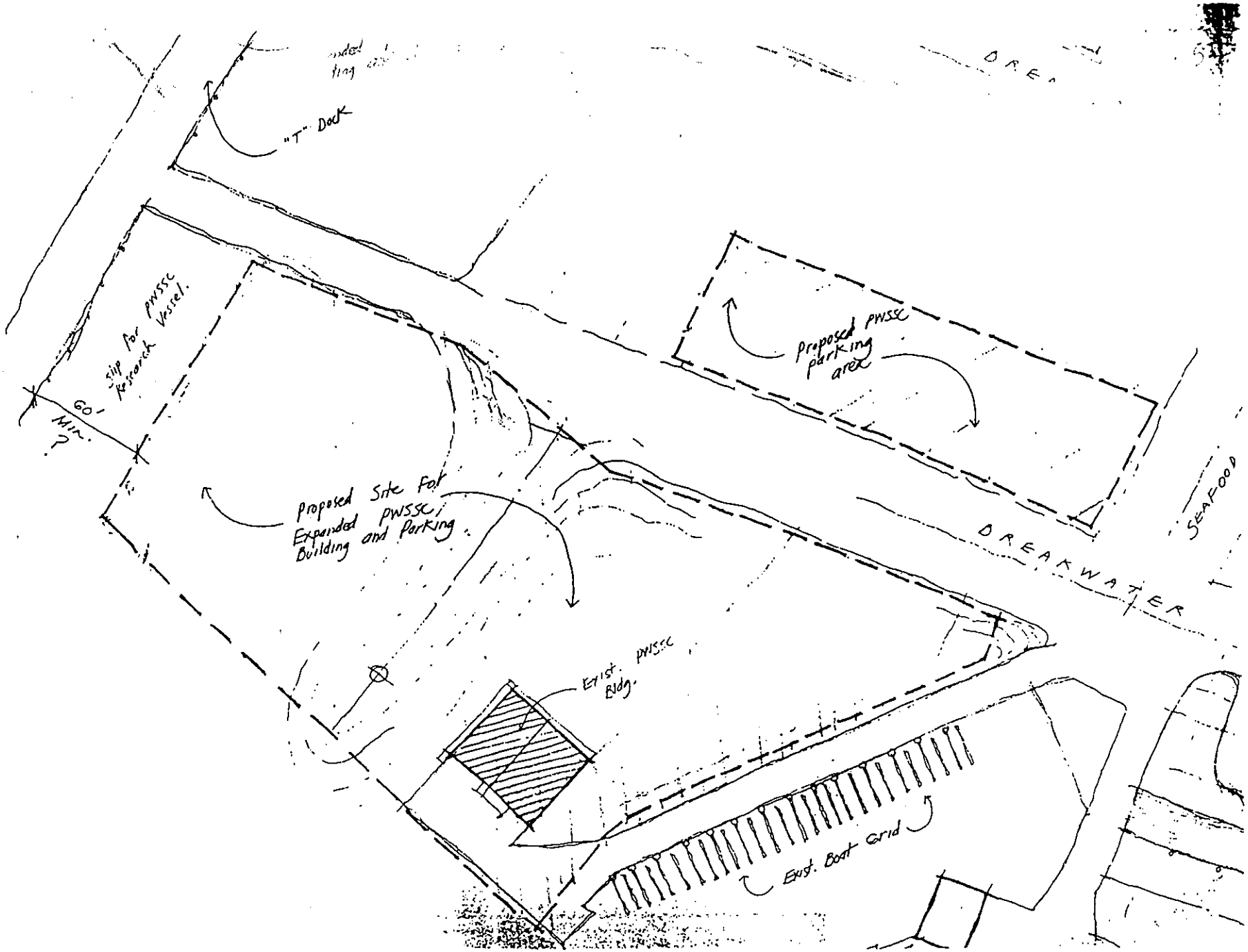
WHEREAS, the Harbor Commission, the Planning Commission, and the Port and Commerce Commission have reviewed the preliminary development proposals for the Science Center and found them to be responsive to the needs of the Science Center and the City of Cordova;

NOW, THEREFORE, BE IT RESOLVED that the City of Cordova set aside and designate the area located within the Tidewater Development Park, as shown on the attached map, as a special Economic Development Zone, and that this area be used to fulfill the needs of the Science Center and the City of Cordova for expanded facilities.

PASSED AND APPROVED THIS 16TH DAY OF FEBRUARY, 1995.

Neil Schultz, Vice-Mayor

Lynda Plant, City Clerk


"T" Dock
Slip for PWSSC Research Vessel.
60' Min.
Proposed Site for Expanded PWSSC Building and Parking.
Proposed PWSSC parking area
BREAKWATER
SEAFOOD
Exist. PWSSC Bldg.
Exist. Boat Grid

1996 EXXON VALDEZ TRUSTEE COUNCIL PROJECT BUDGET

October 1, 1995 - September 30, 1996

Budget Category:	Authorized FFY 1995	Proposed FFY 1996	LONG RANGE FUNDING REQUIREMENTS					
			Estimated FFY 1997	Estimated FFY 1998	Estimated FFY 1999	Estimated FFY 2000	Estimated FFY 2001	Estimated FFY 2002
Personnel		$0.0						
Travel		$0.0						
Contractual		$2,625.0						
Commodities		$0.0						
Equipment		$0.0						
Subtotal	$0.0	$2,625.0						
Indirect		$375.0						
Project Total	$0.0	$3,000.0	$6,000.0	$3,000.0	$1,000.0			
Full-time Equivalents (FTE)		0.0						
	Dollar amounts are shown in thousands of dollars.							
Other Resources								

Indirect costs are calculated at 12.5% of the total to manage the project..

1996

Prepared:

Project Number: 96
Project Title: Expansion of the Prince William Sound Science Center/Oil Spill Recovery Institute Facilities in Cordova, Alaska
(also submitted under the Broad Agency Announcement)
Name: Prince William Sound Science Center

FORM 4A
Non-Trustee
DETAIL

4 /95

11.6.4 A

PROVISIONAL GOVERNMENT
KATALLA-CHILKAT TLINGIT OF ALASKA

May 5, 1995

Regional Forester
US Department of Agriculture
P.O. Box 21628
709 W. 9th Street
Juneau, Alaska 99801

RE: Timber Rights for Timber Rights Exchange w/Eyak and Shearstone Corporations
Section 29, Copper River Meridian, 634 acres
Publication Dates 3/31, 4/7, 4/14, 4/21, 1995;

AND

IBLA 95-340, Katalla-Chilkat Tlingit of Alaska, Provisional Government

Dear Sir:

We wish to advise you that the Katalla-Chilkat Tlingit of Alaska has submitted documentation to the Department of the Interior, the Department of Justice and the Office of the President of the United States for consideration as an acknowledged autonomous People. We are in receipt of the above referenced IBLA docket number which positions the Katalla-Chilkat Tlingit for Regional Territorial Selection within the above referenced 634 acres as evidence of the Department of Interior intention to hear our petition.

We have identified our allodial territory (free from church and state) and intend to protect it from further encroachments, conveyances and expropriations by foreign or domestic industrial development regimes. In order to pre-empt violations of the Anti-Genocide Covenant and the Anti-Apartheid Covenant of the United Nations, by Referendum, we have formed a *non confrontational* Provisional Government to develop the framework to function as an autonomous territory to protect our region and to assure it remains intact. We shall guard against abuses of our Basic Human Rights.

We have registered our abhorrence of the collusion and coercion by the State of Alaska, Chugach Alaska Corporation and Eyak Corporation regarding our ancestral territories of the Katalla-Chilkat Tlingit. The premise of our allodial territory corresponds in no sense to property, but rather to the maintenance of the necessary ecological space to regulate such things as the genetic pool and food supply. Very clearly the renewable resource base of our People is far more important to us than the uses to which our resources have been put by domestic and foreign industrial regimes for which we have received no benefit.

Our claim to the allodial territory of the Katalla-Chilkat Tlingit has never been extinguished by any act of the United States Congress or Executive. We were abandoned by the Tlingit of Southeastern Alaska at the time of the Tlingit Haida Claim of 1934-59. The Katalla-Chilkat Tlingit were disregarded in the Alaska Native Claims Settlement Act (ANCSA) of 1971 and our land ceded to others. We propose a benevolent alternative to function as an autonomous territory of Alaska Indigenous People.

1001 Boniface Parkway Suite 45P
Anchorage Alaska 99504
tele: 907-338-3814 fax: 907-338-8095

The collusive, conspiratorial policies employed against us threaten the survival of eco-systems without which we as a distinct People cannot survive. Your intention of our demise is apparent by these neo-colonial and neo-mercantile practices employed against us. The Exchange under discussion now represents further conveyance of our territory and is a symbolic policy of *Apartheid* and its collusive nature could be considered an act of war against our People. This Exchange, in harmony with other implemented Plans, reflects failed continuity for managing inclusive eco-systems necessary for the long term sustainability of any sub-system.

Explicit in the collaborative decisions from the State of Alaska, Chugach Alaska Corporation, Eyak Corporation and now the US Department of Agriculture encroachment, expropriation and conveyance have been applied to this territory. Title to this territory is clouded and no claim is superior to the Katalla-Chilkat Tlingit. Before proceeding further into this murky labyrinth of fraud perpetuated on our People, and in light of the United States' willingness to consider our Petition, consider the consequences. United Nations Charter, Chapter IX, Trust Territories, Article 73 and subsequent enabling Resolutions of the UN General Assembly, clearly indicates recourse available to the Katalla-Chilkat Tlingit of Alaska includes the Congress and President of the United States but also available to our People for the adjudication of crimes is the proper court in Rome.

We have sought *Immediate Injunctive Relief* and asked for a six (6) month moratorium on further *encroachments, conveyances, or expropriations* concerning our Territory. We have sought help to acquire an *Executive Order* to accomplish this through the Office of Tribal Justice. We have sought cooperation of the Office of Tribal Justice at the US Department of Justice to invoke the Federal Pre-emption Doctrine under the *commerce clause of the Constitution article (1) section (8).* We have sought *protection and enforcement of our Basic Human Rights through Congressional and Executive cooperation of the United States.*

We urge you to honor our request for a moratorium and discontinue further discussions on this Exchange proposal. It should be clear from your own work under discussion that the State of Alaska, Chugach Alaska Corporation and Eyak Corporation intends to continue colonial and mercantile activities. Noting the disregard for the concerns based on actual experience of the residents of the region to the planned activities under discussion is more testimony to support the need to adopt our own policy standards for our Territory.

Our Policy for *Commerce and Trade* prevents any form of *neo-mercantilism, or neo-colonialism,* especially those in violation to article 2 paragraph (c) and (d) of the anti-*Apartheid* Convention. The Katalla-Chilkat Tlingit of Alaska are determined to direct our own destiny and maintain full oversight authority regarding our allodial territory. Our Economic Development Policy includes development and management of our assets for the benefit of our People and future generations more in keeping with traditional Tlingit custom. Our Government seeks mutual humanitarian cooperation more aligned to our own Policies.

1001 Boniface Parkway Suite 45P
Anchorage Alaska 99504
tele: 907-338-3814 fax: 907-338-8095

We have sought Government to Government recognition as the most appropriate method of Acknowledgment for the Katalla-Chilkat Tlingit. We request your support for this benevolent resolution of the continued abuses of our Human Rights which would render remedies sought in appropriate international courts unnecessary.

I shall be happy to discuss any questions or concerns raised by this protest at your earliest convenience. I reiterate, further conveyance of our allodial territory is a violation of the Anti-*Apartheid* Covenant of the UN codified in US Law. We urge you to honor our request for a moratorium until our petition has been judged within the Department of the Interior.

Thank you.

Gary C. Patton
Head Representative

cc: Larry Hudson
Forest Supervisor
Chugach National Forest
3301 C Street, Suite 300
Anchorage, Alaska 99503-3998

Donna Platt, President
Eyak Corporation
P.O. Box 340
Cordova, AK 99574

✓ *EXXON VALDEZ* Oil Spill Trustees Council
645 G Street, Suite 401
Anchorage, AL 99501-3451

1001 Boniface Parkway Suite 45P
Anchorage Alaska 99504
tele: 907-338-3814 fax: 907-338-8095

Focus on Your World. Enter the UNEP International Photographic Competition on the Environment 1994-1995.
Your photographs will show the world the beauty of our planet and the danger that it faces. Call 1-800-670-4321 for an entry form.

I urge you to help use EVOS money to buyback English Bay and Port Graham Corp. lands in Kenai Fjords NP

thankyou

David Rhode

David Rhode Box 796
Cooper Landing AK 99572

COOPER LANDING AK
MAY
2
AM
1995
99572

Exxon Valdez Trustee Council
645 G Street
Anchorage, AK 99501

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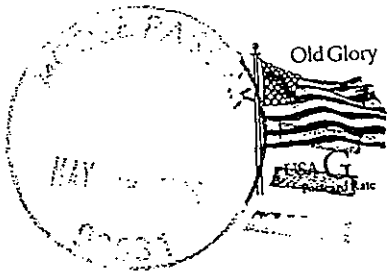
Your photographs will show the world the beauty of our planet and the danger that it faces. Call 1-800-670-4321 for an entry form.

I favor using EVOS funds to buy back Kenai Fjords Natl Park.

R. Smery
HCR 64 Box 3605
Seward, AK 99664



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645 G Street
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Your photographs will show the world the beauty of our planet and the danger that it faces. Call 1-800-670-4321 for an entry form.

I'm writing to urge you to support and ACT on the Kenai Fjords National Park BUYBACK. It is vital to Seward's tourism – our B & B and charter boat business.

We must commit to making this beautiful area accessible to all our citizens now and in the future!

Vera Johnson
Seward - AK

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I have paddled and delivered kayakers to Pedersen Lagoon & Northwestern Lagoon in Kenai Fjords Nat'l. Park. Please support a buy-back to protect these distinctive areas!

A. Lamberson

"Silversword"
Amateur Division: David Olsen, U.S.A., Honorary Mention,
UNEP International Photographic Competition on the Environment 1991-1992.

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Exxon Valdez Trustee Council
645 G Street
Anchorage, AK 99501

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CORDOVA PUBLIC SCHOOLS
P.O. BOX 140
100 FISHERMAN AVENUE
CORDOVA, ALASKA 99574
PHONE: (907) 424-3265 OR 424-3267
FAX: (907) 424-3271

MAY 3, 1995

MOLLY MCCAMMON
EXECUTIVE DIRECTOR
EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL
645 G ST., SUITE 401
ANCHORAGE, AK 99501-3451

DEAR MS. MCCAMMON,

THANK YOU FOR THE ALASKA MARINE ECOSYSTEM POSTER. IT WAS GIVEN TO MR. PAUL BEDNARZ, A SIXTH GRADE TEACHER, WHO IS ESPECIALLY INTERESTED IN MARINE SCIENCE. OUR ENTIRE SCHOOL DEVOTES THE MONTH OF MAY TO STUDYING THE MARINE ENVIRONMENT. THERE ARE MANY FIELD TRIPS AND ACTIVITES PLANNED AROUND A MARITIME SCIENCE THEME. YOUR POSTER WAS VERY TIMELY.

WE APPRECIATE THE EFFORTS OF THE TRUSTEE COUNCIL IN KEEPING OUR SCHOOL AND COMMUNITY INFORMED.

SINCERELY,

James B. Bruseth

JAMES B. BRUSETH
PRINICPAL

Focus on Your World. Enter the UNEP International Photographic Competition on the Environment 1994-1995.
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4/24/95

As a Seward resident, I strongly support the use of EVOS funds to buy back Kenai fjords land & be managed as a National Park for ALL citizens benefit.

Thanks.

Rhonda Johnson
PO Box 1831
Seward AK 99664

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Your photographs will show the world the beauty of our planet and the danger that it faces. Call 1-800-670-4321 for an entry form.

Please stop spending EVOS land acquisition money on smaller purchases until the Kenai Fjords NP coastline has been protected. As a Seward resident, and a Kayaker who loves the fjords, it is very important to me that you negotiate a deal with the villages to assure the land remains public parkland.

Mary Gilbert
PO Box 627 Seward AK 99664

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Exxon Valdez Trustee Council
645 G Street
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Your photographs will show the world the beauty of our planet and the danger that it faces. Call 1-800-670-4321 for an entry form.

To EVTC,

As a resident of Seward
AK and an outdoorsperson,
I believe that Seward should
have the accessibility of
a large tourist attraction
and National Park.

In allowing the buy
back of Kenai Fjords National
Park using the money of
the Council, this will continu

Sincerely,
Angela Walker

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645 G Street
Anchorage, AK 99501

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Your photographs will show the world the beauty of our planet and the danger that it faces. Call 1-800-670-4321 for an entry form.

I'm a 17 year resident of
Seward, business owner
and recreationist I
support keeping Kenai
Fjords Natl Park whole.
Please help!

Maddyn Walker
Box 112
Seward, AK
99664

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USA G
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TRUSTEE COUNCIL

Exxon Valdez Trustee Council
645 G Street
Anchorage, AK 99501

"Silversword"
Amateur Division: David Olsen, U.S.A., Honorary Mention.
UNEP International Photographic Competition on the Environment 1994-1995.

Organized by UNEP(United Nations Environment Programme)
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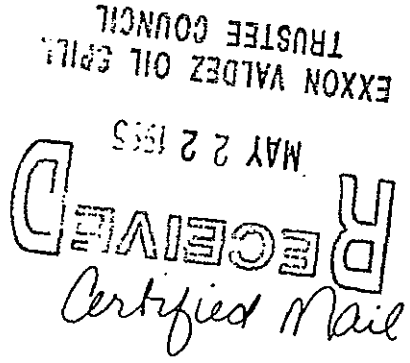
ATTN: Molly McCammon
Exxon Valdez Oil Spill Trustee Council
Restoration Office
645 G street, Suite 401
Anchorage, Alaska 99501-3451



RE: MISUSE OF TRUST FUNDS.

Ms. McCammon;

After viewing the "Restoration Plan", "1995 Status Report", "FY 96 Draft" and the other miscellaneous paperwork I have received I find that the information you are trying to shove down the publics throats is inconclusive, inconsistent, misleading and some information is even false.

I feel that the Environmentalist and Native groups with power backing are running rampant over the Trustee Council.

The summary of injuries listed in the Restoration plan are prevaricated. Please find inclosed copies of ADF&G reports and orders of which I have highlighted. Your plan does not even mention the Tanner crab, Halibut, Gray cod, sablefish, Brown, Red, or blue King crab. Nor that the sensitive King crab rookery was located within the direct area of the flow of oil.

Your summary states that the shrimp showed no mortality or decline but the ADF&G report shows that prior to the spill catches ranged from 75,173 to 242,676 pounds of whole shrimp, but in 1991 the catch dropped to 17,255 pounds. Why are there such discrepancies between the ADF&G documents and the Trustee's documents?

Subsistence, a subject of discrimination. Only natives received the right to claim subsistence. First off, deer can not be included as subsistence as they and the moose were planted in the Prince William Sound area.

Chenega was wiped out during the big earthquake and the survivors moved to Cordova until the Federal government built new Chenega some years back, therefore most of them lived off groceries from Davis Super Foods.

Tatitlek also receives their groceries from town, and a select few still catch salmon and seal, but so would a lot of the NON-NATIVE old timers that harvested salmon, clams, and seal prior to the 1972 marine mammal act. My children are fifth generation Alaskans, out with no native blood and the trustee council is discriminating against them and others by saying that non-natives do not qualify as subsistence users.

The timber rights purchased in Orca Narrows by the Trustees goes against the Court documents that I have viewed. The monies to be paid by Exxon over the ten year period were to RESTORE THE RESOURCES INJURED BY THE SPILL, [EMPHASIS ADDED].

The oil reached shorelines nearly 600 miles southwest from Bligh Reef, it did not travel east to Orca Narrows. According to the settlement the funds may be used for activities to restore injured resources and services. It DOES NOT manage fish and wildlife resources or MANAGE LAND. [EMPHASIS ADDED].

The Natives sold the Timber rights long before the oil spill, they were allowing logging on their lands before the oil spill, the monies from the the original sale of the timber rights had already been spent before the oil spill, the Natives began mismanaging their holdings before the oil spill, therefore this injury was not caused, created or brought on by the oil spill.

The ADF&G already manages the anadromous fish streams in the Orca Narrows, "the parcel" and those steams are protected by the State forest management regulations and laws. The bald eagle nests are protected and located by the federal government. The marbled murrelets tend to nest on adjacent state and federal lands. I think that the trustee's are using the trust funds frivolously.

The trust fund is better known as the meal ticket for a bunch of feel loading scientist, environmentalist, lawyers and native groups, and it is time to dump the free loaders, starting with the Cordova science center.

Maybe it is time to let the fisherman get involved, the ones that really know the sound, even better then the so called Biologists.

As an example...I believe the year was 1987 when ADF&G Biologist, I believe James Brady who would not listen to the local fisherman when they told him to open up the Cogrill sockeye season because they were running heavy and the lake would end up with an over escapement, a major over escapement happened. The Biologist against the argument of the fishermen decided to dynamite the lake in order to kill the overs. Fisherman tried to tell the Biologist that it would kill everything, the eggs, the next years fry, the adolescent and the adults, the Biologist did it anyway. Some fisherman said with the amount of dynamite he used the lakes bottom might stress and crack...the fishermen were unfortunately right.

I hope that the fishermen sue each of the trustee's through a TORT provision, as you are all individually responsible for the incorrect and missing information within the "RESTORATION PLAN" and the misuse of trust funds.

Thank you for allowing me to voice my opinion.

Sincerely;

Denny Ray Heathers
Box 1791, Deep Bay,
Hawkins Island
Via Cordova, Alaska
99574

5-17-95

Copies to each trustee
Copy to NMFile
Copy held for Newspaper
Copy held for TW

Note: Trustees' HDF+G reports sent only to Ms. McCammon please view here.

DRW
5-17-95

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Council members I'd like to see a series of representative and linked ecosystem preserves in the sound. Imagine trying to preserve a viable piece of the prairie during the last century.

Roman Dial
6520 E. 10th Ave Anch AK 99504

"Silversword"
Amateur Division: David Olsen, U.S.A., Honorable Mention
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EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL

Exxon Valdez Trustee Council
645 G Street
Anchorage, AK 99501

Women of the Wilderness

specializing in trips, courses and related workshops

To: Exxon Valdez Oil Spill Trustees Council

From: Alaska Women of the Wilderness

RE: Kenai Fjords purchase

I am writing in support of using the Exxon Valdez Oil Spill money to buy back the land from the Native corporations. It is imperative that we do all we can to keep the beautiful Kenai Fjords in tact. Please when meeting on April 30 and May 1, know that you are supported in buying back the Kenai Fjords and do all you can to make that happen.

Sincerely,

Roschele Wagoner

Roschele Wagoner

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Hello
Please support the Kenai Fjords Nat. Park land buyback.
As a longtime Seward resident, and former commercial fisherman devastated by EVOS, my new business depends upon visitors' experience in an unspoiled and undeveloped K.F.N.P.
Please pursue the buyback in the Park
Thank you Tom Missel
(Seward, AK)

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KENAI FJORDS NATIONAL PARK IS AN INCREDIBLE NATIONAL TREASURE. ONE NEED ONLY VISIT THESE LUSH FJORDS ONCE TO REALIZE HOW BEAUTIFUL AND PRISTINE THIS PLACE IS, AND HOW IT SHOULD BE PROTECTED FROM TACKY EXPLOITATION.

PLEASE SUPPORT THE LANDBUY-BACK VIA EVOS MONEY.
THANKS.

BRANDON ANDERSON
P.O. BOX 2283
SEWARD, AK 99664

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To whom it may Concern,
As a Seward Resident I am in favor of buying back land within the Kenai Fjords National Park. Please support the buy back from the Native Corp... Thank you, Sam Young

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Dear Trustee Council,
I'm writing to urge you to use 1994 EVOS money to buy land within Kenai Fjords National Park. This land is due to be conveyed to the village corporations of Port Graham and English Bay. This world-renowned park is unquestionably one of the back bones of Seward's economy. Thousands of visitors come to our community each year to see the park and its integrity must be preserved. Tim Pfeffenberger

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ANCHORAGE, AK
APR 20
1995

Support the Kenai Fjords National Park BuyBACK. Save funds for this worthwhile project.

Mick & Gai Sela
Daryl, Kyle, Katie and Jenny
Box 912
Seward, AK

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Mr. Stirrat H. Clark
P.O. Box 1509
Seward, AK 99664-1509

otographic
lanet and the danger

4/20/95
Please fund the APS effort to make the Kenai Fjords National Park a complete entity by purchasing pricious shoreline.
Thank you,
Stirrat Clark

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PROVISIONAL GOVERNME
KATALLA-CHILKAT TLINGIT OF ALASKA

April 8, 1995

Exxon Valdez Oil Spill Trustee Council
Restoration Office
645 G Street Suite 401
Anchorage, Alaska 99501-3451

Dear Sirs:

We have submitted documentation for Acknowledgment to the US Department of the Interior, the US Department of Justice and the President of the United States. We have presented to these agents of the United States a catalogue of public documents which serve as incontrovertible evidence of our allodial title to this region. Our claim pre-dates all legislation affecting Alaska's Indigenous since 1934. By choice the United States has never treated with the Katalla-Chilkat Tlingit People. Our claim to this land pre-dates Alaska Statehood.

It has become necessary to formalize our resolve for *self determination* and *self governance*. We have identified our allodial territory (free from church and state) and wish to protect it from further encroachments, conveyances and expropriations by foreign or domestic industrial development regimes. We must guard against abuses of our Basic Human Rights. We have registered our abhorrence of the collusion and coercion by the State of Alaska and Chugach Alaska Corporation regarding the ancestral territories of the Katalla-Chilkat Tlingit. In order to pre-empt violations of the Anti-Genocide Covenant, the Anti-Apartheid Covenant and the International Labor Organization Convention of the United Nations, by Referendum, we have formed this *non confrontational* Provisional Government. We have begun to develop the framework to function as an autonomous territory, to protect our interest in the region, and to assure it remains intact.

The *Economic Development Policy* of our Provisional Government prevents any form of *neo-mercantilism or neo-colonialism*, especially those in violation to article 2 paragraph (c) and (d) of the Apartheid Convention. The development and management of our assets for the benefit of our people and future generations is more in keeping with traditional Tlingit custom. Our *Trade and Commerce Policy* is not opposed to conducting commerce and trade with foreign and domestic interests, but insist that we maintain full oversight authority. Our Government seeks mutual humanitarian cooperation more aligned to our own policies especially in relation to foreign and domestic interests.

We have sought *Immediate Injunctive Relief* and have asked for a three (3) month moratorium on further *encroachments, conveyances, or expropriations* concerning our territory. We are seeking through the Office of Tribal Justice, at the US Department of Justice to assure us the protection and enforcement of our Basic Human Rights through coordinated Congressional, Judicial, and Executive cooperation of the United States.

Therefore we request your cooperation to honor this moratorium. I shall be pleased to answer any questions or concerns you may have regarding the allodial title of the Katalla-Chilkat Tlingit of Alaska and our place in any discussions relating to our allodial lands and waters.

Thank you.

Gary C. Patton

Gary C. Patton, Head Representative

1001 Boniface Parkway Suite 45P
Anchorage, Alaska 99504
tel.: 907-338-3814 fax: 907-338-8095

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

April 21, 1995

Mr. Gary C. Patton
1001 Boniface Parkway, Suite 45P
Anchorage, Alaska 99504

Dear Mr. Patton:

Thank you for your letter dated April 8, 1995. I have forwarded it to all of the individual members of the Trustee Council.

Sincerely,

Molly McCammon
Executive Director

MM/kh

The Alaska Reforestation Council

Forest Tree Improvement Cooperative

P. O. Box 242081 Anchorage, Alaska 99524-2081

TO: The Honorable Ted Stevens, Frank Murkowski and Don Young

FROM: Earl P. Stephens, PhD
Alaska Reforestation Council
Forest Tree Improvement Cooperative

Earl Stephens

DATE: February 27, 1995

SUBJECT: The Establishment in Alaska of a World-Class Terrestrial Ecosystem Research and Development Institute

Gentlemen:

May I suggest that in your efforts to open ANWR to exploration and rational development that you include in the scheme of things the establishment of a World-Class Terrestrial Ecosystem Research and Development Institute?

Imagine the knowledge such an Institute would generate and the influence it would have upon the policies of developing our natural resources. My understanding is that Congress has appropriated $571 million in discretionary funds for ecosystem management for fiscal year 1995, an increase of about 12 percent over 1994. Based upon the proportion of Federal land ownership in the State, Alaska's fair share would be ample to establish the Institute and get it well under way, especially since we already have formed a nucleus of one with the Ecosystem Management Research and Development Partnership of Interior and Southcentral Alaska. The time is now!

Thank you, for your consideration.

3/1/95

See Distribution

Molly: Working together, I believe we can accomplish the

Sincerely,

"The Private and Public Sectors Working Together"

Earl Stephens

The Alaska Reforestation Council

Forest Tree Improvement Cooperative

P. O. Box 242081 Anchorage, Alaska 99524-2081

WHY ALASKA NEEDS A WORLD-CLASS TERRESTRIAL ECOSYSTEM RESEARCH AND DEVELOPMENT INSTITUTE

EARL P. STEPHENS

DECEMBER 1994

A terrestrial ecosystem research and development institute is a logical and necessary means to effect the intent of the Alaska National Interest Lands Conservation Act and other federal and state legislation which have produced a preponderantly public ownership of land in Alaska: 220 million acres of federal, 105 million state, 44 million native, almost a million mental health, with the remaining few million acres of borough, municipality, and small private ownership. The salient purpose of this land ownership distribution was to meet the needs of the people on a sustainable basis. To ascertain and rationalize the uses to which these lands will be committed requires an ecosystem approach which treats human society and the environment as a single system.

The ecosystem approach becomes even more complex when human society is factored into the equation. The bottom line involves values, and people's perceptions of the components of the environment and their worth, singly and in combinations, vary considerably. Environmental and economic conflicts arise, the basis for coalitions -- clubs, federations, conservancies, foundations, etc. -- which advocate and support special recognition and treatment of specific parts of the ecosystems. Emotions can play a decisive role in the all important process of deciding the uses of our natural resources. What we need is an unbiased source of information/knowledge that decision makers, public and private, can apply with confidence, the very essence of the ecosystem approach. And, essential too, is a source of knowledge that can be used to inform the public of its land use options.

Last year with the encouragement of the U.S. Forest Service's Pacific Northwest Research Station at Portland, Oregon, The Ecosystem Management Research and Development Partnership of Interior and Southcentral Alaska was formed. The goals of the Partnership are to bring together a diverse group of scientists and resource managers who will develop a research and management program for the sustainable ecosystem management of the forests of Interior and South-Central Alaska, and to provide leadership and seek funding to facilitate and support the development of sustainable ecosystem management for that region. An awesome array of talent already is represented by the Partnership. The original signatories include the Alaska Department of Natural Resources, the Pacific Northwest Research Station and Region 10 of the U.S. Forest Service, the University of Alaska Fairbanks, the Tanana Chiefs Conference, Inc., Alaska Fish and Wildlife Research Center National Biological Survey U.S. Department

of Interior, and the Alaska Reforestation Council. Recent additions are the Natural Resources Conservation Service, Koncor Forest Products, and the Mat-Su Borough, while others are pending. And I might add, that an organized effort has not yet been made to increase its membership. The fact is that the establishment of a Terrestrial Ecosystem Research and Development Institute already is underway. To achieve the level of organization required to cope with the problems confronting Alaska's efforts to diversity its economy, however, long term financial support is essential. The Long Term Ecological Research Project located at UAF and funded in part by the National Science Foundation is a fine example.

Just recently, the Exxon Valdez Oil Spill Trustee Council announced the award of $25 million to the University of Alaska Fairbanks Institute of Marine Science at Seward. The Marine Center will be developed into a world-class, scientific research facility for the study of marine mammals, fish, birds, and the ecosystem of Prince William Sound. What a worthy cause! There will be a bullish market for this technology applicable to the northern latitudes especially in light of recent global developments. This is a significant step in the diversification of Alaska's economy. However, we need to expand this effort, and the timing is right. A Terrestrial Ecosystem Research and Development Institute to complement the Marine Institute is a must.

The marine and terrestrial ecosystems are components of the same biosphere, are intimately interrelated, and the perspective of one is requisite to the comprehension of the other. This is reason enough to establish a terrestrial counterpart to the marine center. Add to this, however, that Congress, under a misapprehension, has stored the bulk of land in Alaska behind the legislative walls of National Parks, National Parks and Preserves, National Preserves, National Monuments, Wilderness Areas, National Wild and Scenic Rivers, National Forests, etc. This legion of land legislation laws has made Alaska the embodiment of land stewardship culture the finest in the history of the world. Now all we need is the knowledge to advance this culture to the advantage of our society! Meanwhile, due to the dynamics of the environment, the seams of these land sanctuaries are beginning to crack and the supposedly safe havens deteriorate: water and air pollution, insect and disease epidemics, wild fires, earthquakes, volcanic eruptions, droughts, floods, cyclonic winds, ice storms, frost action, and other natural disturbances are doing their thing. Fish and game populations fluctuate erratically for no apparent reason. Forest management operations are being conducted without our knowing the impacts upon biodiversity, watersheds, anadromous streams, etc. People pressures are straining the ecological integrity of our national parks. And the "balance of nature" is being questioned.

The Exxon Valdez Oil Spill Trustee Council seems to be following a similar course of action. It has announced plans to invest approximately half of the remaining oil spill settlement money, some $400 million, in the acquisition of land as part of its habitat restoration program. Paradoxically, the ability does not exist to evaluate the role these lands will have in the restoration of the spill-damaged habitat, nor do we have the level of organization and commitment from our policy makers, advocacy groups, and the scientific community which are

sorely needed to accomplish this task. The challenge goes beyond the short term objective of acquiring additional public lands; that is, toward longer term management and restoration of impacted habitats.

The time is now, opportune, to establish a Terrestrial Ecosystem Research and Development Institute. A consortium-like effort should be employed to obtain short and long term commitment. No source of support should be left unsolicited; we are all in this together. The federal government ought to be a prime contributor since it is responsible for the publicly skewed distribution of land ownership. The State stands to benefit most from the knowledge achieved and could endow some of its recently acquired oil taxes. The Exxon Valdez Oil Spill Trustees Council could enhance its investment in the Marine Science Center by complementing it with terrestrial research. The private sector should kick in its share since it will be operating in an economy catalyzed by the technology the Institute generates.

The impact of a World-Class Terrestrial Ecosystem Research and Development Institute upon Alaska's well being could be analogous to that the Permanent Fund will have some day. An infrastructure like this is appropriate for Alaska. It doesn't pollute the air, despoil our water, clutter-up our highways, impair the environment in any way. What it does do is help to make this world a better place in which to live. Indeed, we can ill afford <u>not</u> to make this investment in our future. Let's all pitch in and make it happen!

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- C. Legislature:
  - 1. House:
    Green, Williams, Phillips, Mackie, Vezey
  - 2. Senate:
    Leman, Pearce, Halford, Dunc Rieger

III Exxon Valdez Oil Spill Council
Mc Cammon, Tanik

IV Others:
- A. Participants: Ecosystem Mgt. Research + Development Partnership of Interior and Southcentral Alaska (47)
- B. Sturgulewski, Steve Kalio Paul Jenkins