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official Record

Exxon Valdez Oil Spill Trustee Council

645 G Street, Suite 401, Anchorage, AK 99501-3451 907/278-8012 fax:907/276-7178

AGENDA

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL MEETING

December 6, 1999 @ 11 a.m.

645 G STREET, ANCHORAGE

12/9/99

8:41 am

DRAFT

DRAFT

Trustee Council Members:

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

MICHELE BROWN
Commissioner
Alaska Department of Environmental Conservation

MARILYN HEIMAN
Special Assistant to the Secretary for Alaska
U.S. Department of the Interior

DAVE GIBBONS
Trustee Representative
U.S. Department of Agriculture
Forest Service

STEVE PENNOYER
Director, Alaska Region
National Marine Fisheries Service

FRANK RUE
Commissioner
Alaska Department of Fish & Game

Teleconferenced Meeting / Juneau Forest Service Room 541A

State Chair

1. Call to Order 11 a.m.
   - Approval of Agenda
   - Approval of October 22 and November 30, 1999 meeting notes

2. Executive Director's Report - Molly McCammon

3. Public Comment Period 11:15 a.m.

4. Deferred FY96 Work Plan Projects*

* indicates tentative action items

Adjourn - 1 p.m. at the latest

raw

Exxon Valdez Oil Spill Trustee Council

645 G Street, Suite 401, Anchorage, AK 99501-3451 907/278-8012 fax:907/276-7178

TRUSTEE COUNCIL MEETING ACTIONS

November 30, 1999 @ 9 a.m.

By Molly McCammon
Executive Director

DRAFT

Trustee Council Members Present:

*Dave Gibbons, USFS
Marilyn Heiman, USDOI
●Bill Hines, NMFS
Frank Rue, ADF&G
●Dan Easton, ADEC
●Craig Tillery, ADOL

* Chair
In Anchorage via teleconference: Gibbons, Heiman and Tillery.
In Juneau via teleconference: Hines, Rue and Easton.

- Alternates:
  Bill Hines served as an alternate for Steve Pennoyer for the entire meeting.
  Dan Easton served as an alternate for Michele Brown for the entire meeting.
  Craig Tillery served as an alternate for Bruce Botelho for the entire meeting.

Meeting convened at 9:06 a.m.

1. Small Parcels on Kodiak Island

APPROVED MOTION: Authorized the purchase of 17 small parcels,(1092, 1093, 1094, 1095, 1096, 1097, 1098, 1099, 2000, 20001, 2002, 2003, 2004, 2005, 2006, 2024) located on Uyak Bay on Kodiak Island for the total purchase price of $254,000. Motion by Heiman, second by Rue.

Meeting adjourned at 9:18 a.m.

raw

Exxon Valdez Oil Spill Trustee Council

645 G Street, Suite 401, Anchorage, AK 99501-3451 907/278-8012 fax:907/276-7178

TRUSTEE COUNCIL MEETING ACTIONS

October 22, 1999 @ 10 a.m.

By Molly McCammon
Executive Director

DRAFT

Trustee Council Members Present:

Dave Gibbons, USFS
Marilyn Heiman, USDOI
*Steve Pennoyer, NMFS
Frank Rue, ADF&G
Michele Brown, ADEC
●Craig Tillery, ADOL

* Chair
In Juneau: Gibbons, Heiman, Pennoyer, Rue, Brown, & Tillery.

● Alternates:
Craig Tillery served as an alternate for Bruce Botelho for the entire meeting.

Meeting convened at 10:01 a.m.

1. Approval of the Agenda

APPROVED MOTION: Approved the Agenda. Unanimous motion.

2. Approval of the Meeting Minutes

APPROVED MOTION: Approved August 9 and September 9, 1999 Trustee Council meeting notes. Unanimous motion.

3. Briefings

The Trustees were given briefings on the Draft Gulf Ecosystem Monitoring program and small parcel issues.

3. Executive Session

APPROVED MOTION: Approved adjourning into executive session for the purpose of discussing habitat protection issues and to solicit and receive legal advice on Gulf Ecosystem Monitoring (GEM) issues. Motion by Tillery, second by Brown.

Off Record 12:35 p.m.
On Record 1:30 p.m.

4. Resolution to Involve Spill Area Natives:

APPROVED MOTION: Approved, with revisions, a resolution stating the intent of the Council to involve and work with the Alaska Natives in the oil spill region in developing the Gulf Ecosystem Monitoring program. Motion by Rue, second by Brown.

Public comments received from four individuals from Anchorage, Juneau, Kodiak, and Cordova.

Meeting recessed at 2:35 p.m.

DRAFT

raw

Exxon Valdez Oil Spill Trustee Council

645 G Street, Suite 401, Anchorage, AK 99501-3451 907/278-8012 fax:907/276-7178

MEMORANDUM

TO: Trustee Council

THROUGH: Molly McCammon
Executive Director

FROM: Traci Cramer
Administrative Officer

DATE: December 8, 1999

RE: Financial Report as of November 30, 1999

Attached is the Statement of Revenue, Disbursements and Fees, and accompanying notes for the *Exxon Valdez* Joint Trust Fund for the settlement period ending September 30, 2002, as of November 30, 1999. The following is a summary of the information incorporated in the notes and contained on the statement.

Liquidity Account Balance	$59,960,756	
Plus: Other Adjustments (Note 5)	7,185,248	
Less: Restoration Reserve Adjustment (Note 6)	-57,574,857	
Liquidity Fund Balance		$9,571,147
Restoration Reserve Accrued Value	$38,535,696	
Plus: Liquidity Fund Adjustment (Note 6)	57,574,857	
Restoration Reserve Balance		$96,110,553
Joint Trust Fund as of November 30, 1999		**$105,681,700**
Plus: Future Exxon Payments (Note 1)	$140,000,000	
Less: Reimbursements (Note 3)	-7,500,000	
Less: Commitments (Note 7)	-80,042,567	
Uncommitted Balance		$52,457,433
Joint Trust Fund as of September 30, 2002		**$158,139,133**

Attachments

cc: Agency Liaisons
Bob Baldauf

NOTES TO THE STATEMENT OF REVENUE, DISBURSEMENTS AND FEES
FOR THE *EXXON VALDEZ* JOINT TRUST FUND
FOR THE SETTLEMENT PERIOD ENDING SEPTEMBER 30, 2002
As of November 30, 1999

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

Received to Date	$760,000,000
Future Payments	$140,000,000

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 $213,485.

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. The remaining reimbursements represent that amount due the State of Alaska.

4. Fees – CRIS charges a fee of 5% of earnings for cash management services. Total paid since the last report is $10,674.

5. Other 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. Unreported interest and estimated lapse is summarized below.

	Interest	Lapse
United States	$710,943	$2,663,228
State of Alaska	$1,962,409	$1,848,668

6. Restoration Reserve/Liquidity Fund Adjustment – Includes the $12,000,000 transfer approved for Fiscal Year 1998, plus $1,325,000 in interest accrued since September 15, 1997, the $12,000,000 transfer approved for Fiscal Year 1999, plus $725,000 in interest accrued since September 15, 1998, and $12,000,000 transfer approved for Fiscal Year 2000, plus $125,000 in interest accrued since September 15, 1999. The proceeds from the securities that matured on November 15, 1998 and November 15, 1999 were deposited to the Liquidity Fund have also been included. This includes $18,727,207, plus $418,892 in interest, less $30,331 in fees. Also included is $284,088 for fees that were assessed against the Restoration Reserve prematurely and deposited in the Liquidity Fund.

7. Commitments - Includes $2,711,000 for the Archaeological Repository and the following land payments.

Seller	Amount	Due
Afognak Joint Venture	$23,025,833	October 2000
Eyak	$18,000,000	September 2000 through 2002
Shuyak	$8,000,000	October 2000 through 2001
Shuyak	$11,805,734	October 2002
Koniag, Incorporated	$16,500,000	September 2002

STATEMENT OF REVENUE, DISBURSEMENT, AND FEES
EXXON VALDEZ OIL SPILL JOINT TRUST FUND
As of November 30, 1999

	1997	1998	1999	To Date 2000	Cumulative Total
REVENUE:					
Contributions: (Note 1)					
Contributions from Exxon Corporation	70,000,000	70,000,000	70,000,000	0	760,000,000
Less: Credit to Exxon Corporation for Deposit of Maturing Securities			9,095,002	9,632,205	(39,913,688) 18,727,207
Total Contributions	70,000,000	70,000,000	79,095,002	9,632,205	738,813,519
Interest Income: (Note 2)					
Exxon Corporation escrow account					831,233
Joint Trust Fund Account	2,971,070	2,673,585	2,124,921	419,173	23,568,489
Total Interest	2,971,070	2,673,585	2,124,921	419,173	24,399,722
Total Revenue	**72,971,070**	**72,673,585**	**81,219,923**	**10,051,378**	**763,213,240**
DISBURSEMENTS:					
Reimbursement of Past Costs: (Note 3)					
State of Alaska	5,000,000	3,750,000	3,750,000	0	99,059,288
United States	0	0	0	0	69,812,045
Total Reimbursements	5,000,000	3,750,000	3,750,000	0	168,871,333
Disbursements from Liquidity Account:					
State of Alaska	17,846,130	15,686,600	62,457,990	0	250,935,918
United States	60,101,802	39,468,461	32,676,850	0	232,749,633
Transfer to the Restoration Reserve	12,449,552				48,445,783
Total Disbursements	90,397,484	55,155,061	95,134,840	0	532,131,334
FEES:					
U.S. Court Fees - Liquidity Account (Note 4)	254,221	199,946	250,528	20,959	2,249,818
Total Disbursements and Fees	**95,651,705**	**59,105,007**	**99,135,368**	**20,959**	**703,252,484**
Increase (decrease) in Liquidity Account	**(22,680,635)**	**13,568,578**	**(17,915,445)**	**10,030,419**	**59,960,756**
Liquidity Account Balance, beginning balance	76,957,839	54,277,204	67,845,782	49,930,337	
Liquidity Account Balance, end of period	54,277,204	67,845,782	49,930,337	59,960,756	
Other Adjustments: (Note 5)					7,185,248
Restoration Reserve Adjustment: (Note 6)					(57,574,857)
Liquidity Fund Balance					9,571,147
Restoration Reserve Balance					96,110,553
Joint Trust Fund as of June 30, 1999					**105,681,700**
Future Exxon Payments (Note 1)					140,000,000
Reimbursements (Note 3)					(7,500,000)
Commitments: (Note 7)					(80,042,567)
Joint Trust Fund as of September 30, 2002					**158,139,133**

Exxon Valdez Oil Spill Trustee Council

645 G Street, Suite 401, Anchorage, AK 99501-3451 907/278-8012 fax:907/276-7178

FAX MEMORANDUM

TO: Trustee Council

FROM: Molly McCammon
Executive Director

RE: FY 00 Work Plan: Deferred Projects

DATE: December 10, 1999

In August the Trustee Council deferred action on 18 projects totaling $1,770,100. I am recommending that nine of these projects totaling $880,600 be funded. This brings the total for the FY 00 work plan to $8,204,800. The Council's target for the FY 00 work plan was $8 - 9 million.

Recommended for funding	$ 880.6
Approved by TC in August	7,324.2
TOTAL	8,204.8

My recommendation is outlined in the two attachments. The numbers spreadsheet (A) presents the recommendation in summary form. The text spreadsheet (B) contains the complete text of the Chief Scientist's recommendation and my recommendation for each deferred project, as well as an abstract of each project. Both spreadsheets are arranged numerically.

SPREADSHEET A -- EXECUTIVE DIRECTOR'S RECOMMENDATION: DEFERRED PROJECTS / FY 00 WORK PLAN

Proj. No.	Project Title	Lead Agency	New or Cont'd	Approved in Aug.	Deferred to Dec.	RECOM-MENDATION	FY 01 Recom.	FY 02 Recom.	Total FY00-02	Exec. Director's Recommendation
00127	Tatitlek Coho Salmon Release	ADFG	Cont'd	$0.0	$11.4	**$11.4**	$0.0	$0.0	$11.4	Fund contingent
00195	Pristane Monitoring in Mussels	NOAA	Cont'd	$0.0	$30.2	**$54.9**	$55.0	$55.0	$164.9	Fund contingent
00222	Chenega Bay: Stream 667	USFS	New	$0.0	$55.0	**$0.0**	$0.0	$0.0	$0.0	Do not fund
00256B	Solf Lake Sockeye Salmon Stocking	USFS	Cont'd	$0.0	$159.5	**$159.5**	$40.0	$40.0	$239.5	Fund contingent
00339-CLO	Western PWS Human Use Model	USFS	Cont'd	$14.0	$21.2	**$0.0**		$0.0	$14.0	Do not fund
00366	Remote Video and Time-Lapse Recording	ADFG	Cont'd	$0.0	$46.5	**$46.5**	$12.3	$0.0	$58.8	Fund
00374	Regional Analysis of Juvenile Herring in PWS	ADFG	New	$0.0	$35.5	**$35.5**	$0.0	$0.0	$35.5	Fund contingent
00379-CLO	Assessment of Risk to Residual Oil Using P450	ADFG	Cont'd	$0.0	$114.5	**$32.1**	$0.0	$0.0	$32.1	Fund contingent
00389	3-D Ocean State Simulations	ADFG	New	$0.0	$130.0	**$125.3**	$72.2	$0.0	$197.5	Fund
00391	CIIMMS: Cook Inlet Information/Monitoring System	ADNR	Cont'd	$0.0	$600.0	**$370.0**	$230.0	$0.0	$600.0	Fund contingent
00396	Salmon Sharks, Sleeper Sharks, and Spiny Dogfish	NOAA	New	$0.0	$41.9	**$0.0**	$0.0	$0.0	$0.0	Do not fund
00416	Chenega Bay: O'Brien Creek Restoration	USFS	New	$0.0	$27.2	**$0.0**	$0.0	$0.0	$0.0	Do not fund
00453	Recovery Following Removal of Introduced Foxes	DOI	New	$0.0	$47.4	**$0.0**	$0.0	$0.0	$0.0	Do not fund
00478	Testing Satellite Tags	DOI	New	$0.0	$106.1	**$0.0**	$0.0	$0.0	$0.0	Do not fund
00481	Documentary on Intertidal Resources	ADFG	New	$0.0	$120.0	**$0.0**	$0.0	$0.0	$0.0	Do not fund
00562	VHSV, Overwinter Survival, and Year-Class Strength	ADFG	New	$0.0	$82.1	**$0.0**	$0.0	$0.0	$0.0	Do not fund
00563	Kenai River Streambank Habitat Utilization Study	ADFG	New	$0.0	$74.7	**$0.0**	$0.0	$0.0	$0.0	Do not fund
00567	Monitoring Environmental Contaminants	ADEC	New	$9.3	$66.9	**$45.4**	$0.0	$0.0	$54.7	Fund
	Total:			$23.3	$1,770.1	**$880.6***	$409.5	$95.0	$1,408.4	
						+ 7,324.2	*Approved in August*			
						$ 8,204.8	*TOTAL*			

**Total deferred in August $1,770.1*

DRAFT 12/10/99

SPREADSHEET B -- EXECUTIVE DIRECTOR'S RECOMMENDATION: DEFERRED PROJECTS / FY 00 WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	Approved in August	Deferred to Dec.	**RECOM-MENDATION**	FY01 Recom.	FY02 Recom.	Total FY00-02
00127	Tatitlek Coho Salmon Release	G. Kompkoff/Tatitlek IRA Council	ADFG	Cont'd 6th yr. 6 yr. project	$0.0	$11.4	**$11.4**	$0.0	$0.0	$11.4

Project Abstract

This project is creating a coho salmon return to Boulder Bay near Tatitlek village. Enough coho eggs to produce 50,000 smolt will be collected from an Alaska Department of Fish and Game approved stream, incubated and reared to smolt at the Solomon Gulch Hatchery, transported and held for two weeks in net pens in Boulder Bay before release. Release will produce a 2,000 to 3,000 adult return to Boulder Bay for harvest in a subsistence fishery. FY 00 funding will extend the project for an additional year beyond the originally scheduled termination date. Funds for continuation of the project beyond FY 00 will be obtained from other sources.

Chief Scientist's Recommendation

This funding would extend this successful and popular subsistence project for one more year at a very nominal cost. Fund.

Executive Director's Recommendation

Fund contingent on submittal of the report for 98127 and the revised reports for 96127 and 97127. Although the Trustee Council had initially planned to fund this temporary replacement project only through FY 99 (through one coho life cycle), one additional year of Council funding will keep the project going until funds from other sources become available in FY 01. Tatitlek residents report that the coho salmon produced through this project are being used by subsistence and sport fishermen.

SPREADSHEET B -- EXECUTIVE DIRECTOR'S RECOMMENDATION: DEFERRED PROJECTS / FY 00 WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	Approved in August	Deferred to Dec.	**RECOM-MENDATION**	FY01 Recom.	FY02 Recom.	Total FY00-02
00195	Pristane Monitoring in Mussels	J. Short, P. Harris/NOAA	NOAA	Cont'd 5th yr. 7 yr. project	$0.0	$30.2	**$54.9**	$55.0	$55.0	$164.9

Project Abstract	Chief Scientist's Recommendation	Executive Director's Recommendation
For the last four years, this project has focused on elucidating the transport mechanism of pristane from *Neocalanus spp.* copepods into mussels during spring in Prince William Sound, and on monitoring the seasonal variation of pristane in these mussels. Results from these prior years indicate that the current network of stations sampled twice during May is sufficient to provide a one-year advance indication of significant failure in the production of these copepods within the sound. Because these copepods are the key species linking primary productivity with higher trophic levels, a population failure would have serious ecosystem effects, including reduced catches of salmonids. Beginning in FY 00, the research component of this project will be dropped and the sampling effort reduced considerably as guided by previous research. The objective of this monitoring effort is to provide advance warning of a "reverse regime shift" in Prince William Sound.	This project will continue previously funded work on pristane concentrations in mussels as a tool for monitoring copepod concentrations available to pink salmon juveniles. Recent analyses have revealed a relationship between pristane concentrations in mussels near hatcheries and survival of hatchery-released pink salmon (as returning adults). The increase in the budget from the original request is justified based on the need for increased sampling to further refine the predictive relationships. Fund.	Fund contingent on approval of a revised Detailed Project Description that increases the sampling frequency during April and May and increase the density of monitoring stations near the hatcheries. This increase in scope will increase the precision of pristane monitoring as a forecasting tool. This project is developing a relatively inexpensive measure of marine productivity, thus allowing predictions about future fisheries production and harvest levels.

SPREADSHEET B -- EXECUTIVE DIRECTOR'S RECOMMENDATION: DEFERRED PROJECTS / FY 00 WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	Approved in August	Deferred to Dec.	**RECOM-MENDATION**	FY01 Recom.	FY02 Recom.	Total FY00-02
00222	Chenega Bay Dump Rehabilitation and Salmon Habitat Enhancement (Stream 667 Fish Pass)	R. Spangler /USFS	USFS	New 1st yr. 3 yr. project	$0.0	$55.0	**$0.0**	$0.0	$0.0	$0.0

Project Abstract

The revised proposal seeks to help the recovery of subsistence in Chenega Bay by developing alternatives for rehabilitating the village solid waste dump and reducing marine pollution. This project was proposed by the village as a fish enhancement project, but during initial project feasibility investigations the water quality problems associated with the community dump were identified. The creek flows through the dump of Chenega Bay causing water quality problems. By identifying alternatives and costs for rehabilitating the solid waste facility and long term management of solid waste at the village, marine pollution can be reduced and the potential for enhancing the stream can be realized.

Chief Scientist's Recommendation

This project has been revised to evaluate ways to clean up the dump that surrounds Stream 667 (also known as Anderson Creek) and to provide long-term management of solid wastes from the village of Chenega Bay. The proposed project is a good first step toward restoring the stream and reducing stream pollution if the Trustee Council determines that this project is a funding priority.

Executive Director's Recommendation

Do not fund. This proposal has been revised as expected to focus on assessing rehabilitation of the village solid waste dump and to postpone the fish enhancement component until after the dump has been cleaned up and the water quality of the stream improved. Although the proposal is consistent with the Trustee Council's restoration objectives regarding reduction of marine pollution, it is a lower priority for funding in FY 00. As proposed, funds for actual dump cleanup would be sought from non-EVOS sources. The Chenega Corporation and Village Council are encouraged to seek funds for the assessment phase from other sources as well.

SPREADSHEET B -- EXECUTIVE DIRECTOR'S RECOMMENDATION: DEFERRED PROJECTS / FY 00 WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	Approved in August	Deferred to Dec.	RECOM-MENDATION	FY01 Recom.	FY02 Recom.	Total FY00-02
00256B	Sockeye Salmon Stocking at Solf Lake	D. Gillikin/USFS, P. Shields/ADFG	USFS	Cont'd 5th yr. 7 yr. project	$0.0	$159.5	**$159.5**	$40.0	$40.0	$239.5

Project Abstract

This project will benefit subsistence, recreation, and commercial users of western Prince William Sound. There are two phases to the project: Phase 1, which began in FY 96, verified the ability of Solf Lake to support a sustainable population of sockeye salmon. Phase 2 included stocking the lake with approximately 100,000 sockeye salmon fry, then ensuring access to the lake for returning adult salmon. The stocking program began in 1997 along with modification to the two outlets to control water levels. However, further modifications to the eastern channel are still required to ensure adult returns to Solf Lake.

Chief Scientist's Recommendation

This is the proposed continuation of a sockeye supplementation project for Solf Lake. Enhanced production of sockeye salmon in the lake may be of importance to subsistence users, and should provide substantial recreational benefits for the expected increased number of visitors to Prince William Sound in the near future. Funds in FY 00 will be used to complete improvements to the channel providing access to Solf Lake for returning adults, to continue stocking the lake with sockeye fry, and to monitor food resources in the lake for rearing salmon. Project funding should be contingent on verification of a reliable source of broodstock that is acceptable to the Alaska Department of Fish and Game, provision of detailed engineering drawings for the fish pass prior to construction, and submittal of the final report for Project 98043B.

Executive Director's Recommendation

Fund contingent on (1) the U.S. Forest Service providing a copy of the fish transfer permit for the stocking component of the project from the Alaska Department of Fish and Game, (2) provision of detailed engineering drawings for the fish pass prior to construction, and (3) submittal of the final report for Project 98043B. This project is intended to provide sockeye salmon as a replacement for resources lost or reduced due to the oil spill. The Alaska Department of Fish and Game has determined that Solf Lake can support a sustainable run of 10,000 sockeye salmon. Stocking began in FY 98; the first adult sockeye are expected to return in FY 02. Recreational, commercial, and subsistence fishers should all benefit from this project.

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	Approved in August	Deferred to Dec.	RECOM-MENDATION	FY01 Recom.	FY02 Recom.	Total FY00-02
00339-CLO	Western Prince William Sound Human Use and Wildlife Disturbance Model	L. Suring/USFS, K. Murphy/USFWS	USFS	Cont'd 3rd yr. 3 yr. project	$14.0	$21.2	**$0.0**	$0.0		$14.0

Project Abstract

This project is the continuation of the application of geographic information system (GIS) techniques to describe current human-use patterns in western Prince William Sound. A model of potential use patterns as a result of additional development (e.g., increased access) will also be developed. Funds for preparation of manuscripts for publication in professional journals may be requested in FY 01.

Chief Scientist's Recommendation

This project will complete the development of the human use model and provide a final report. The objective of preparing manuscripts for a journal, which was deferred by the Trustee Council in August, has been delayed by the U.S. Forest Service and may be resubmitted in FY 01.

Executive Director's Recommendation

Consider funding the deferred component of this project (manuscript preparation) in FY 01 after the final report has been completed and reviewed. Completion of the final report was funded by the Trustee Council in August. Originally scheduled to be completed in FY 99, the report has been delayed by the departure from the U.S. Forest Service of one of the principal investigators, as well as key staff from other agencies. The U.S. Forest Service expects to complete the final report later in FY 00 and may resubmit the request for funds for manuscript preparation in FY 01.

SPREADSHEET B -- EXECUTIVE DIRECTOR'S RECOMMENDATION: DEFERRED PROJECTS / FY 00 WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	Approved in August	Deferred to Dec.	RECOM-MENDATION	FY01 Recom.	FY02 Recom.	Total FY00-02
00366	Improved Salmon Escapement Enumeration Using Remote Video and Time-Lapse Recording Technology	E. Otis/ADFG	ADFG	Cont'd 2nd yr. 3 yr. project	$0.0	$46.5	**$46.5**	$12.3	$0.0	$58.8

Project Abstract

Salmon resources and services within the spill area, and particularly within Prince William Sound, were injured by the oil spill and have not fully recovered. To monitor the recovery of salmon stocks in the spill area and improve escapement information used to set spawning escapement goals, this project will develop remote video and time-lapse recording technology for enumerating salmon escapement. Remote video has the potential to provide accurate, archivable documentation of salmon escapements well beyond the capacity of aerial survey indices, and well below the cost of weir and sonar projects. Videotapes can be retrieved and reviewed weekly to facilitate in-season management of commercial fisheries.

Chief Scientist's Recommendation

In this project's first year (FY 99), the remote video technology was shown to be a promising tool for monitoring salmon escapements. Accuracy of salmon escapement estimations compared favorably with weir counts despite some interruptions in the video power supply. Continued improvement in power sources for the video cameras will allow further improvements in accuracy and reliability. Objectives in FY 00 include implementing microwave transmission to provide near real-time data on escapements. The project personnel should apprise those researchers monitoring marine mammals and seabirds of progress in implementing improvements in remote video techniques so that the fruits of this project will benefit a variety of wildlife monitoring efforts. Fund.

Executive Director's Recommendation

This project is developing a new technique for estimating spawner abundance that could potentially advance salmon management. The technique was tested on Delight Creek (sockeye escapement in a small stream) in FY 99. Results have been promising, and warrant funding application of the technique to Port Dick Creek (pink and chum escapement in a tidally influenced stream) in FY 00. Also in FY 00, as recommended by the Chief Scientist, the principal investigator should apprise, perhaps by working with the agency liaison, those researchers monitoring marine mammals and seabirds of progress in implementing remote video techniques.

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	Approved in August	Deferred to Dec.	RECOM-MENDATION	FY01 Recom.	FY02 Recom.	Total FY00-02
00374	Regional Analysis of Juvenile Herring in Prince William Sound	B. Norcross/UAF	ADFG	New 1st yr. 1 yr. project	$0.0	$35.5	**$35.5**	$0.0	$0.0	$35.5

Project Abstract

This project has been reconfigured to focus on synthesizing existing information on the relationship between stock structure and recruitment in Pacific herring in Prince William Sound. The project will also identify and prioritize future research needs for Pacific herring. A part of the funds will be used to continue an informal working group that will provide the expertise needed to carry out the project objectives.

Chief Scientist's Recommendation

The need for further synthesis and priority setting was apparent as a result of the November 1999 workshop on Pacific herring. The principal investigator will use and further develop a life-history-based model for the Prince William Sound herring population and prioritize research needs with the assistance of a working group. The focus of the effort should be the relationship between stock structure, spawning, and recruitment. Fund contingent on submittal of a revised set of objectives.

Executive Director's Recommendation

Fund contingent on approval of a revised Detailed Project Description that focuses on the synthesis and prioritization recommended by the Chief Scientist. This project will continue work on a key species injured by the oil spill and provide a firmer basis for future ecosystem-level work in GEM (Gulf Ecosystem Monitoring, the Council's long-term research and monitoring program currently under development) and for management of the fishery over the long term.

SPREADSHEET B -- EXECUTIVE DIRECTOR'S RECOMMENDATION: DEFERRED PROJECTS / FY 00 WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	Approved in August	Deferred to Dec.	**RECOM-MENDATION**	FY01 Recom.	FY02 Recom.	Total FY00-02
00379-CLO	Assessment of Risk Caused by Residual Oil in Prince William Sound Using P450 Activity in Fishes	S. Jewett/UAF	ADFG	Cont'd 2nd yr. 2 yr. project	$0.0	$114.5	**$32.1**	$0.0	$0.0	$32.1

Project Abstract

FY 00 funding will close out this project, which is determining the spatial extent of potential exposure to hydrocarbons in western Prince William Sound by examining P450 activity in two coastal fishes, masked greenling and crescent gunnel taken mainly adjacent to oiled mussel beds in 1998, 1999, and 2000. These fishes live and feed in the nearshore zone, and provide an index of exposure for fishes and other vertebrates. In addition, the project will examine the relationship between P450 levels in these fishes, hydrocarbon concentrations in sediments, and hydrocarbon metabolites in these fishes to help determine if exposure is from residual oil from the *Exxon Valdez* spill.

Chief Scientist's Recommendation

Recently obtained data indicate that the nearshore fishes analyzed in the first year of this project had very low levels of exposure to contaminants. Some oiled areas showed declines and levels of enzyme induction are now similarly low across a series of oiled and reference stations in Prince William Sound. Although some induction may be occurring in selected oiled sites, induction does not appear to be widespread in western Prince William Sound and continued study of fish oil exposure is a lower priority for Trustee Council funding. Fund closeout only.

Executive Director's Recommendation

Fund closeout of this project contingent on submittal of a revised Detailed Project Description and budget that reflect closeout only. Preliminary results from FY 99 work do not indicate a level of contamination sufficient to justify another year of sampling.

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	Approved in August	Deferred to Dec.	**RECOM-MENDATION**	FY01 Recom.	FY02 Recom.	Total FY00-02
00389	3-D Ocean State Simulations for Ecosystem Applications from 1995-98 in Prince William Sound	J. Wang/UAF	ADFG	New 1st yr. 2 yr. project	$0.0	$130.0	**$125.3**	$72.2	$0.0	$197.5

Project Abstract

Using the observed data collected from 1995-98 in Prince William Sound and the forcing of tide, coastal current inflow/outflow, freshwater discharge, and wind stress, a 3-D Prince William Sound model developed from the Sound Ecosystem Assessment project (SEA, /320) will be used to produce a continuous four year, 3-D fields of velocity, temperature, salinity and mixing coefficients for resource managers, fishing industry and biological applications (in SEA, only 1996 physical forcing has been provided). In addition, the interannual variability of Prince William Sound ocean circulation, temperature, and salinity due to interannually variable atmospheric forcing will be studied. This will allow identification of the key environmental parameters to be included in a long-term monitoring program to assist resource managers.

Chief Scientist's Recommendation

This project will simulate larval transport of herring during three of the years of the Sound Ecosystem Assessment project (/320). Further application and testing of this three-dimensional circulation model will likely provide a better understanding of larval herring dispersion under different annual conditions. The model could play an important role in monitoring of Prince William Sound in the future. Fund.

Executive Director's Recommendation

Fund. This project will improve understanding of larval herring transport, which is essential for predicting productivity in Prince William Sound and which has been in demand by commercial fishers as well as fisheries managers. In addition, the project will contribute to development of a long-term monitoring program for the sound.

SPREADSHEET B -- EXECUTIVE DIRECTOR'S RECOMMENDATION: DEFERRED PROJECTS / FY 00 WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	Approved in August	Deferred to Dec.	**RECOM-MENDATION**	FY01 Recom.	FY02 Recom.	Total FY00-02
00391	CIIMMS: Cook Inlet Information Management/Monitoring System	K. Zeiner/ADNR, J. Hock/ADEC	ADNR	Cont'd 2nd yr. 3 yr. project	$0.0	$600.0	**$370.0**	$230.0	$0.0	$600.0

Project Abstract

The Cook Inlet Information Management/Monitoring System (CIIMMS) will provide a wide range of users the opportunity to share and access valuable information and data about the Cook Inlet watershed and Cook Inlet-related activities. CIIMMS potential users include educators, scientists, students, researchers, resource managers, private organizations and individual citizens. CIIMMS will provide an interactive website for the Cook Inlet community to efficiently and effectively contribute, identify and access relevant information from a distributed network of providers. The CIIMMS website is at *http://www.dec.state.ak.us/ciimms*.

Chief Scientist's Recommendation

This project has developed a very good prototype website for the Cook Inlet watershed that is an entry point to distributed information on the ecosystem. The web harvest approach uses a searchable metadata archive to index distributed data resources--an impressive feature and a cost-effective and efficient way to construct and maintain system capability by shifting the responsibility for data maintenance and access to the owners and generators of the data. This also makes the design of the interface between CIIMMS and the users a critical element. Continuing refinement of the user interface is in order to improve user friendliness and serviceability. The strategy of promoting system viability through wide user support is a good one for the long-term. Although the investigators have responded thoughtfully and substantively to previous reviews and suggestions, I still am greatly concerned that inadequate attention has been given to the long-term operation and maintenance (O&M) of the system. The current proposal indicates that developing an O&M plan is the final task for the project, but I would recommend that the O&M plan be developed jointly with the final design specifications in order to verify that the system as finally conceived can be adequately maintained by the departments of Environmental Conservation and Natural Resources. To provide the investigators with the flexibility to accomplish this, I would suggest that more of the budget be shifted into FY 01. In addition, a number of very specific suggestions contained in the individual peer reviews should be considered by the project team. Fund at reduced level.

Executive Director's Recommendation

Fund contingent on approval of a revised Detailed Project Description and budget that (1) include development of a long-range maintenance plan concurrent with development of the final system specifications and implementation plan and (2) shift some additional tasks, and the funds associated with those tasks, into FY 01. This project aims to improve management of injured and other marine natural resources by facilitating data sharing, resource management, and planning within the Cook Inlet watershed. The review of the prototype developed in Year 1 has been positive, with some specific recommendations for technical improvements outlined in the peer review memoranda. In addition, the project team is encouraged to continue its high-energy outreach efforts to ensure the system meets the needs of the broader user community.

SPREADSHEET B -- EXECUTIVE DIRECTOR'S RECOMMENDATION: DEFERRED PROJECTS / FY 00 WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	Approved in August	Deferred to Dec.	RECOM-MENDATION	FY01 Recom.	FY02 Recom.	Total FY00-02
00396	Diet, Trophic Interactions, and Historical Trends in Occurrence of Salmon Sharks, Sleeper Sharks, and Spiny Dogfish in Prince William Sound and the Eastern Gulf of Alaska	L. Hulbert/NOAA	NOAA	New 1st yr. 2 yr. project	$0.0	$41.9	**$0.0**	$0.0	$0.0	$0.0

Project Abstract

The revised proposal will investigate spatial and temporal movements, residency, diet composition, ecology, and trophic impacts of salmon sharks and Pacific sleeper sharks in Prince William Sound and will quantify refinements to shark parameters in the ECOPATH model (Project /330). The project will assess evidence of ecological implications of shark populations on the recovery of oil spill injured species through fatty acids and stable isotope tracer analyses and use of simulations based upon the refined ECOPATH model. Acoustic and satellite-linked telemetry will be utilized to determine shark movements and migrations, critical feeding areas and depths, and behavioral data. The research will address the role of the predominant shark species in the dynamic trophic structures in the Prince William Sound region.

Chief Scientist's Recommendation

This is a well conceived proposal for work on two species of sharks that appear to be of growing ecological importance in Prince William Sound. It is well integrated with other efforts in fisheries research. However, the proposal would initiate a new line of research, and other ecological work is presently of higher priority. Do not fund.

Executive Director's Recommendation

Do not fund. This project would fill in data gaps in understanding the ecosystem of Prince William Sound and the Gulf of Alaska, but other significant data gaps would remain. In addition, it is not essential that this work be done in FY 00, making it a lower priority for funding this year. Furthermore, the proposed study may more appropriately be a normal agency management function given the growing fishing pressure on salmon sharks and the other species proposed for study. [NOTE: Revised proposal included budget of $86.0.]

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	Approved in August	Deferred to Dec.	RECOM-MENDATION	FY01 Recom.	FY02 Recom.	Total FY00-02
00416	O'Brien Creek Restoration	R. Spangler/USFS	USFS	New 1st yr. 3 yr. project	$0.0	$27.2	**$0.0**	$0.0	$0.0	$0.0

Project Abstract

This project will help the recovery of subsistence in Chenega Bay by restoring the water flow to O'Brien Creek. The 1964 earthquake resulted in out-wash deposits that caused the stream to become subterranean at low flow levels. This project will restore the stream channel to increase access for migrating salmon, thereby increasing the number of salmon available for subsistence harvest. Additional benefits will be gained through education of Chenega Bay residents on fish habitat restoration techniques.

Chief Scientist's Recommendation

This project would remove a berm from O'Brien Creek, return the creek channel to conditions that existed before the 1964 earthquake, and otherwise provide more suitable habitat for chum and pink salmon. It is estimated that these improvements might provide an average increase of 1,500 pink and 1,000 chum salmon annually as a replacement for subsistence resources lost or reduced as a result of the oil spill. Given the local availability of salmon from other sources this is viewed as a lower priority for Trustee Council funding. Do not fund.

Executive Director's Recommendation

Do not fund. This project would enable O'Brien Creek to produce more pink and chum salmon as a replacement for subsistence resources lost or reduced as a result of the oil spill. Given the availability of salmon from other sources there appears to be little need for increased production. In addition, the stability of reconstructed streambeds is not guaranteed and the long-term prospects for this project in terms of increased production of fish are uncertain.

SPREADSHEET B -- EXECUTIVE DIRECTOR'S RECOMMENDATION: DEFERRED PROJECTS / FY 00 WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	Approved in August	Deferred to Dec.	**RECOM-MENDATION**	FY01 Recom.	FY02 Recom.	Total FY00-02
00453	Monitoring Recovery of Injured Species Following Removal of Introduced Foxes	V. Byrd/USFWS	DOI	New 1st yr. 2 yr. project	$0.0	$47.4	**$0.0**	$0.0	$0.0	$0.0

Project Abstract

Introduced arctic foxes were removed from Simeonof and Chernabura islands in the outer Shumagin Island group in 1994 and 1995 (projects 94041, 95041, 96101) to restore populations of black oystercatchers and pigeon guillemots, two species of birds injured by the oil spill. Oystercatcher and guillemot populations were much lower on Simeonof and Chernabura than on nearby fox-free islands in 1995, but they are expected to recover to historic levels following fox removal. This project will resurvey populations of oystercatchers and guillemots at Simeonof and Chernabura and at nearby reference sites in FY 00, five years after fox removal, to determine whether restoration is underway.

Chief Scientist's Recommendation

This project would carry out follow-up seabird surveys to determine if fox eradication efforts in 1994 and 1995 in the outer Shumagin Island group (Project /041) were successful in restoring seabird populations. This is a worthy project, but there are higher priorities for the FY 00 work plan. Do not fund.

Executive Director's Recommendation

Do not fund. Although this project's objective (documenting the degree to which fox removal on Simeonof and Chernabura islands in 1994-95 was effective in restoring populations of pigeon guillemots and black oystercatchers) is worthwhile, it is not a high priority for funding in FY 00.

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	Approved in August	Deferred to Dec.	**RECOM-MENDATION**	FY01 Recom.	FY02 Recom.	Total FY00-02
00478	Testing Satellite Tags as a Tool for Identifying Critical Habitat	J. Nielsen/USGS-BRD	DOI	New 1st yr. 1 yr. project	$0.0	$106.1	**$0.0**	$0.0	$0.0	$0.0

Project Abstract

The definition of "critical habitat" in the marine environment is essential to the development of reserves or protected areas in relationship to a sustainable commercial or sport fishery. This project will investigate the temporal and spatial distribution of one key fish species, the Pacific halibut. Technology needed to monitor individual fish will be tested and applied. Satellite pop-up and archival satellite tags will be used on live halibut, monitoring their seasonal movements and critical habitats in nearshore and marine environments in the Gulf of Alaska.

Chief Scientist's Recommendation

This is a very good proposal by a highly qualified investigator. Satellite tag technology will contribute greatly to understanding more about important wide-ranging stocks of fish in the Gulf of Alaska and what is needed for their conservation. It is also apparent that tagging technology needs further laboratory-based validation for local application. This work could be delayed a year given higher priorities in the work plan. Do not fund.

Executive Director's Recommendation

Do not fund. This study, which would test the satellite tag technology for its utility in defining critical habitat, would improve understanding of certain stocks of fish in the Gulf of Alaska. However, it is not essential that this work be done in FY 00, making it a lower priority for funding this year. [NOTE: Amount deferred included $31.1 for Alaska SeaLife Center bench fees.]

SPREADSHEET B -- EXECUTIVE DIRECTOR'S RECOMMENDATION: DEFERRED PROJECTS / FY 00 WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	Approved in August	Deferred to Dec.	**RECOM-MENDATION**	FY01 Recom.	FY02 Recom.	Total FY00-02
00481	Documentary Film on the Oil Spill Impacts on Subsistence Use of Intertidal Resources	G. Evanoff/Chenega Bay IRA Council, P. Panamarioff/ Ouzinkie Tribal Council	ADFG	New 1st yr. 1 yr. project	$0.0	$120.0	**$0.0**	$0.0	$0.0	$0.0

Project Abstract

This project (as revised) will produce a 27 minute documentary film on the impacts of the oil spill on the subsistence use of intertidal resources, including mussels, clams, chitons, and octopus, by residents of two predominantly Alaska Native communities: Chenega Bay in Prince William Sound and Ouzinkie on Kodiak Island. This project will build on two previous subsistence documentaries (projects 96214 and 98274) and will focus on the use of resources in the intertidal, the area hardest hit by oil, and broaden the discussion by bringing in the perspective of the residents of Chenega Bay, the first community directly in the path of the spilled oil, and Ouzinkie, the first Kodiak-area community to see the oil arrive. The documentary will compare the impact the spill has had on the use of intertidal resources in each community as well as the ongoing EVOS restoration efforts to help residents mitigate these impacts.

Chief Scientist's Recommendation

This project would document impacts of the oil spill on the subsistence use of intertidal resources in the Chenega Bay and Ouzinkie areas. The documentary film would supplement two previous films funded by the Trustee Council on the spill's impacts to harbor seals and Pacific herring/nearshore resources. This is a worthy project, but there are higher priorities for the FY 00 work plan. Do not fund.

Executive Director's Recommendation

Do not fund. This project, which is patterned after two previous video projects funded by the Trustee Council (96214/Harbor Seals and 98274/Herring and Nearshore Resources), is intended to contribute to the restoration of intertidal resources and subsistence uses by transmitting local knowledge about these resources to the scientific community and others. Within the funding constraints for the FY 00 work plan, production of a third video is a lower priority at this time than those projects recommended for funding. In addition, one issue to be addressed by the video is PSP (paralytic shellfish poisioning) and the use of test kits to detect PSP in the field. These test kits are still in the development phase (see Project 00482), and it would be more appropriate to consider this video once the test kits are available.

SPREADSHEET B -- EXECUTIVE DIRECTOR'S RECOMMENDATION: DEFERRED PROJECTS / FY 00 WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	Approved in August	Deferred to Dec.	**RECOM-MENDATION**	FY01 Recom.	FY02 Recom.	Total FY00-02
00562	Effect of Viral Hemorrhagic Septicemia Virus on Overwinter Survival of Juvenile Herring in Resurrection Bay: Implications for Year-Class Strength	R. Kocan/Univ. of Washington	ADFG	New 1st yr. 3 yr. project	$0.0	$82.1	**$0.0**	$0.0	$0.0	$0.0

Project Abstract

Viral hemorrhagic septicemia virus (VHSV) has been identified in age-0 Pacific herring soon after metamorphosis (about three months), and has been shown to be highly pathogenic, causing mortality in excess of 50 percent in captive fish. Herring that survive initial exposure have been shown to develop a solid immunity to reinfection, even when challenged with high concentrations of virus. The hypothesis to be tested in this project is that in most years some portion of each age-0 herring cohort is infected and recovers from VHSV, and that they are capable of surviving subsequent exposures to the virus as they age. To test the hypothesis, the project will capture age-0 herring in Resurrection Bay from July through September 2000 and again in April 2001 and evaluate their condition (K factor) as well as susceptibility (immunity) to VHSV.

Chief Scientist's Recommendation

This project would more clearly define viral infection, disease occurrence, and acquisition of immunity in first-year Pacific herring. Disease is potentially a very important factor in the recovery of herring populations in Prince William Sound, but any new efforts on herring need to be integrated into a coordinated plan that addresses other important research needs for herring and establishes priorities. Project 00374, which is recommended for funding, has been revised to provide such an integration and is a higher priority at present. Do not fund.

Executive Director's Recommendation

Do not fund. A recent workshop held by the Chief Scientist and the core peer reviewers on herring resulted in a recommendation that, before additional work on disease is undertaken, a coordinated plan that identifies research priorities for herring be developed. Project 00374, which will develop such a plan, is recommended for funding.

SPREADSHEET B -- EXECUTIVE DIRECTOR'S RECOMMENDATION: DEFERRED PROJECTS / FY 00 WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	Approved in August	Deferred to Dec.	**RECOM-MENDATION**	FY01 Recom.	FY02 Recom.	Total FY00-02
00563	Kenai River Streambank Habitat Utilization Study	B. Hauser/ADFG	ADFG	New 1st yr. 2 yr. project	$0.0	$74.7	**$0.0**	$0.0	$0.0	$0.0

Project Abstract

The Alaska Department of Fish and Game has received state and federal funding, EVOS criminal settlement funds, and Trustee Council funds to implement streambank restoration activities and acquire key habitats on the Kenai River. Streambank rehabilitation has been accomplished with a new approach called soil bioengineering which uses coir (coconut) fabrics and rolls, live and dead vegetation, seedlings, and other measures to stabilize streambanks and provide cover for fish. This project will compare how bioengineered streambank projects function compared to natural and disturbed sites in terms of providing habitat for fish. The results will document and evaluate habitat variables and fish use of restoration projects with the intent of evaluating and improving installation methodologies.

Chief Scientist's Recommendation

Project withdrawn by proposer.

Executive Director's Recommendation

Project withdrawn by proposer.

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	Approved in August	Deferred to Dec.	**RECOM-MENDATION**	FY01 Recom.	FY02 Recom.	Total FY00-02
00567	Monitoring Environmental Contaminants in the Northern Gulf of Alaska	M. See/ADEC	ADEC	New 1st yr. 1 yr. project	$9.3	$66.9	**$45.4**	$0.0	$0.0	$54.7

Project Abstract

This project will assess needs and priorities for monitoring environmental contaminants in the northern Gulf of Alaska, including the area directly affected by the oil spill. It will evaluate information on water quality, marine species' sensitivities to pollutants, and contaminants that pose potentially adverse effects to the ecosystem and to human health. Recommendations will specify priorities for monitoring of contaminants in order to track lingering oil spill injury, trends and potential effects of pollutants.

Chief Scientist's Recommendation

This project will compile a literature database of existing data on the status and trends of anthropogenic contaminants in the ecosystem of the northern Gulf of Alaska and conduct a workshop to develop priorities regarding environmental contaminants in the gulf. This effort will lay the groundwork for future monitoring designed to track changes in such contamination and its potential effects. Fund.

Executive Director's Recommendation

Fund. This project will contribute to development of a contaminants component for the Trustee Council's long-term monitoring program.

Measure may cut strings from spill settlement

By DAVID WHITNEY
Daily News Washington Bureau

WASHINGTON — Legislation permitting free investment of $170 million in remaining proceeds from the Exxon Valdez oil spill settlement was added this week to a year-end budget deal between Congress and the White House.

The Exxon Valdez Oil Spill Trustee Council had been campaigning for four years to get the settlement fund out from under the federal court system, which imposes heavy administrative fees with low-interest rates on money it oversees from court settlements.

But the council ran into a roadblock: Alaska Sen. Frank Murkowski, chairman of the Senate Energy and Natural Resources Committee, who complained that the federal-state trustee council was buying too much land and that higher-interest earnings would only encourage more purchases.

The council's executive director, Molly McCammon, insisted that most of the council's planned land purchases had gone through and that more interest income would beef up the fund for marine research in Prince William Sound.

A deal came together this summer after the council mapped out a plan for spending the remaining $170 million Exxon owes under the $900 million settlement the company was

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forced to pay for spilling more than 11 million gallons of crude oil into Prince William Sound in 1989. Of that, $115 million would go into a research endowment and $55 million would remain available for land purchases.

Based on that, Murkowski's committee approved legislation allowing the revenue to be openly invested. The next trick was getting the legislation signed into law this fall.

That was solved by Murkowski's appealing to Alaska Sen. Ted Stevens. He is chairman of the Senate Appropriations Committee and a negotiator in this week's budget agreement, expected to bring an end to the congressional session.

Stevens said he was pleased to go to bat for Murkowski and the trustee council.

"There is still much to be learned about the impact of the spill," he said in a written statement Thursday. "With the possibility of greater returns on the investment, Alaskans can look forward to even better opportunities for scientific research on the Sound."

Murkowski said that while he would have preferred that all of the money go into research, he is satisfied with the council's new plan.

"This approach will give us answers, not leave us guessing, about what is happening to the Sound and what we can do to improve the habitat of the region," he said.

McCammon said in an interview that the research endowment, invested at market rates, should produce at least $8 million a year for perpetual marine research.

"This is a great deal for the public," she said. "It will make a lot more projects possible."

Much of the $55 million for land purchases is being set aside for what the trustee council hopes will be a deal with Native-owned Koniag Inc. for prime wildlife habitat on Kodiak Island.

Anchorage Daily News 11/19/99

Anchorage Daily News
11/16/99

Oil spill fund to bankroll Gulf science

By DON HUNTER
Daily News reporter

The last big chunk of money from the Exxon Valdez oil spill settlement will be rolled into a $115 million endowment to finance decades of research into how weather, climate, fish, birds and sea mammals all interact in the Gulf of Alaska.

The endowment program, called GEM, for Gulf Ecosystem Monitoring, will be a sort of permanent fund for research. The capital will be invested. The interest — perhaps $5 million to $6 million a year — will be dedicated to a long-term research and monitoring program intended to augment and link the array of studies conducted by state, federal and university agencies.

The results accumulating year by year should help scientists and fishermen understand and eventually predict what is happening and may happen to populations of salmon, pollock and other species, said Phillip Mundy, science coordinator for the Exxon Valdez Oil Spill Trustee Council.

The council adopted the idea in March. On Monday, council officials briefed reporters on the plan. Mundy and others are traveling the state soliciting comments and suggestions on the draft version of GEM. It will be revised in February and submitted to the National Research Council for a year-long review. The first of the studies should be funded in October 2002.

"The thing that's exciting about this is that I don't know of any agencies that can commit funds into the future," said Molly McCammon, the council's executive director. The continuity of most research depends on annual appropriations by Congress or state legislatures.

"Most people don't have the ability to say, 'Let's commit to doing this for the long run,' and yet everyone I've talked to has pointed to the importance of staying for the long term," she said.

The GEM program also will finance continued tracking of the effects of the 1989 Exxon Valdez spill, look for other contaminants in the ecosystem and analyze their effects, and provide baseline information on species of fish, birds and marine mammals that live in the Gulf, as well as on climate and ocean conditions.

The long-term monitoring and analysis of the Gulf's ecosystem will carry practical benefits for people who live on and fish in Prince William Sound and the Gulf, McCammon and others said. Mundy and Bob Spies, another council scientist, pointed to the experience of trawlers working the Gulf over the last 40 years.

Photographs from the mid-1970s show fishermen bringing in nets heavy with shrimp, but with only an occasional cod or smaller forage fish. By the mid-1980s, photos taken on the same trawlers fishing the same waters show nets filled with cod, pollock and flatfish but with hardly a shrimp to be found.

What happened? One thing that had changed was the temperature of the water in the Gulf, which had risen slightly. Some scientists are coming to suspect that even minor fluctuations in weather and climate may have as big an effect on populations of fish, marine mammals and seabirds as human activities like commercial fishing and pollution, Spies and Mundy said.

That makes the kind of prolonged investigations contemplated in the GEM program more than just academic exercises by marine scientists, said Charles Peterson of the University of North Carolina's Institute of Marine Science, an adviser to the oil spill trustee council.

"In the absence of understanding the natural forces and what's changing the system and its components, we don't have much of a prayer of addressing how human activities are altering those resources," he said.

For example, were subtle climate changes responsible for the boom in salmon returns to Alaska over the past two decades? And if so, does that mean another change in the weather could slice returns for the next 20 years?

"This kind of thinking is really nothing short of revolutionary in terms of the fisheries in particular," said George Rose, a scientist with Memorial University of Newfoundland's Marine Institute and another adviser to the spill council. It means that fisheries experts who believe that careful management can maintain fish populations at given levels may be wrong, he said.

"If this is true, it changes everything," Rose said. "It changes every aspect of what we've known as fisheries science for 100 years. It changes every aspect of what we've called fisheries management for 100 years."

Reporter Don Hunter can be reached at dhunter@adn.com

SeaLife seeks cash advance on grant

By JON LITTLE
Daily News Peninsula Bureau

SOLDOTNA — The Alaska SeaLife Center hopes to get a quick $3 million, with the city of Seward's help, so it can make ends meet until a federal grant bails the center out of its financial jam.

The center has asked the city to issue up to $3 million in so-called grant anticipation notes. The short-term loans are commonly used to allow a grant recipient to spend its money before the grant actually arrives.

"It's a loan against the president's signature until we get the money," said Ben Ellis, the center's development director.

Seward taxpayers would not be responsible for paying off the loan, nor would the city's line of credit be affected, according to an arrangement worked out between the city and SeaLife Center.

The Center expects to get $5.5 million tucked into the federal Department of Commerce spending bill. The appropriation, secured by Sen. Ted Stevens, is intended to help pay down the center's $17.5 million construction debt.

But federal money can take months to wend its way to Seward from Washington, D.C., said Sharon Anderson, president of the center's board of directors.

Seward has scheduled a public hearing to talk about the proposal at 7 p.m. Nov. 15 at the City Council chambers.

President Clinton has yet to sign the Commerce bill, and the grant anticipation loan wouldn't go forward unless he does, Ellis said.

Another $1 million in the Commerce bill has been earmarked for SeaLife Center research into the plummeting Steller sea lion population.

Debt has been a major concern since the SeaLife Center's May 1998 opening.

The combined research facility, aquarium and learning center was built with $26 million from the Exxon Valdez oil spill settlement and a $17.5 million Seward city bond measure. The center expected to repay the city construction debt with aquarium admission fees, but revenues haven't kept pace with the $2 million annual payment schedule.

Center officials say they collect enough through admission fees, sponsors and research funding to pay the annual $4.5 million operating costs, but not the debt payments.

Tens of thousands of people visit the center each summer, but the cash flow slows as tourist season ends. Last winter, when visitor numbers dropped to about 25 a day, the center even turned off its escalator to save electric bills.

Reporter Jon Little can be reached at jlittle@adn.com.

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11/6/99

Branded sea lions travel 900 miles

By Alex DeMarban

Seward Phoenix LOG

Two branded Stellar sea lions have made a long trip from Canada to make regular appearances on television at the Alaska SeaLife Center.

The two adolescent males showed up out of the blue at a sea lion colony at Chiswell Island last weekend. The center has a video camera on the distant island that allows visitors to peek into the pinniped world.

"I sighted both of them on the same day," said Lynda Martin, a project assistant at the center. "They're just hanging out with the rest of them."

The traveling sea lions are two of about 800 pups that were branded by the Alaska Department of Fish and Game on Forrester Island about five years ago. Forrester Island is about 900 coastline miles away, near British Columbia.

The branding was part of a study to determine if sea lions from Southeast Alaska, where populations are stable, would boost numbers in Southwest Alaska, where populations have fallen some 80 to 90 percent in the last three decades.

The answer is no. Since the branding in 1994 and 1995, dozens of males from Forrester have been found from Washington State to the upper reaches of Bristol Bay. But the study has also found that females don't wander far from their birthplace.

"It indicates that the recovery of sea lions in Southwest Alaska will have to come from individuals in that population," said Fish and Game's Ken Pitcher.

The breeding season at Chiswell Island recently ended — the number of sea lions have fallen from about 200 to about 40 — which may explain the recent appearance of the wandering sea lions.

"The more mature males have probably kept them away," Martin said. "That whole territorial thing is not an issue for them now."

SeaLife Center gets $6.5 million federal appropriation

By Nancy Erickson

Seward Phoenix LOG

The Alaska SeaLife Center got a big boost last week with a federal appropriation for $6.5 million, pending President Clinton's signature.

Stellar sea lion research at the facility would receive $1 million. The remaining balance would go toward the center's $17.5 million debt, according to Sharon Anderson, president of the SeaLife Center's board of directors.

The appropriation is part of a more than $100 million worth of Alaska projects Sen. Ted Stevens had written into a federal Commerce Department spending bill.

The center, built with Exxon Valdez oil spill money and a city of Seward bond measure, opened its doors as a research facility and public aquarium in 1998.

The facility expected to repay the city's construction debt with proceeds from admission fees, but revenues have lagged behind projections.

Anderson said the board is working with an independent financial consultant on how best to apply the $5.5 million toward the debt.

Currently, the center pays more than $2 million a year in bond, interest and reserve payments toward the center's debt, she said.

"That's a great deal of money," Anderson said. "It's tough, but we've been doing it."

If given the president's nod of approval, the federal appropriation will be the first ever for the center.

It comes shortly after the appointment of director Mark Lloyd, who has promised to make the pursuit of state and federal grants a top priority.

Sen. Stevens inserted a provision in the Senate version of the bill that would have given the center $8.5 million, but that amount was cut to $5.5 million in House discussions.

The center still hopes to borrow $3 million from the City of Seward, a proposal that has not yet gone before the city council. The debt would be repaid with the appropriation, and could not be paid with taxes levied by the city, according to city documents.

"That's so we can get the money a little quicker than we'd get it from the Feds," Lloyd said.

At this time, Anderson is not sure whether the $1 million in Stellar sea lion funding would go toward new research projects or expanding the center's existing 17 studies.

The research center is currently involved in a wide range of Stellar sea lion projects, from feeding studies to immunology to reproductive studies, said Lynda Martin, project assistant.

Seward Phoenix Log 10/28/99

Anchorage Daily N
10/29/99

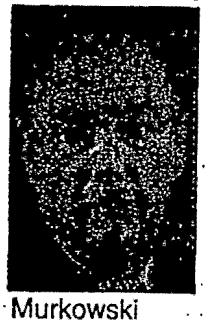
Subsistence persistence

Murkowski offers new bill

By DAVID WHITNEY
Daily News reporter

WASHINGTON — Sen. Frank Murkowski is refusing to take no for an answer on subsistence.

Two days after Interior Secretary Bruce Babbitt told him repeatedly that he would not support the idea, Murkowski on Thursday introduced legislation permitting the state to resume subsistence fish and game management on federal land immediately after the Legislature approves a constitutional amendment on subsistence.


Murkowski

Under the legislation, which Alaska Rep. Don Young introduced in the House, state management could resume long before voters approve such a constitutional amendment.

The Legislature has so far refused to send the question to voters. As a consequence, federal agencies took over subsistence fishing management on Oct. 1. They have managed subsistence hunting since 1990.

Alaska is the only state to lose its authority over fish and game management on federal land.

Federal law requires that rural residents get a subsistence hunting and fishing priority. The state constitution forbids it. If the Legislature were to approve a constitutional amendment conforming to federal law after returning to session in January, the soonest it could be brought before voters would be November.

Murkowski told reporters Thursday that his bill is "a methodology to expedite the process." It's a process that many people think is stone dead, however.

The Legislature has met many times on subsistence, most recently in a special session last month. Each time it has refused a rural preference amendment.

Even if the Legislature sent forward a subsistence amendment, Babbitt made clear this week that voters also would have to approve an amendment before the federal government will hand back control.

"The administration does not, cannot, will not endorse" anything short of a voter-approved amendment, Babbitt said at a Senate Energy and Natural Resources Committee hearing Tuesday.

❑ Reporter David Whitney can be reached at dwhitney@adn.com.

Lesnoi attorney says village status fight isn't over

By SUE JEFFREY
Mirror Writer

The federal judge who determined last week that Leisnoi is not eligible as a Native village corporation did not address several key legal points that could ultimately save Leisnoi, CEO Ed Ward said in a written response from Leisnoi.

To qualify as a recipient of the Alaska Native Claims Settlement Act (ANCSA), Leisnoi applied for certification as a village corporation in 1973, claiming that 25 or more Alaska Natives were residents of a Native village on Woody Island in 1970. But Kodiak rancher Omar Stratman claims Leisnoi's village corporation status is a sham because there was no Native village on Woody Island in 1970.

Stratman's legal efforts over the past 23 years to decertify Leisnoi culminated last week when Interior Board of Land Appeals (IBLA) Judge Harvey Sweitzer ruled that Woody Island is not eligible for Native village status.

But Ward said it is not over yet.

"The recommended decision specifically avoided ruling on a number of key issues (regarding Stratman's legal right to challenge) the village's eligibility," Ward said.

Ward was referring to Judge Sweitzer's statement that he was 'leaving to the board and/or the District Court resolution of (these) potentially dispositive legal issues raised by Leisnoi,'" Ward said.

Stratman attorney Michael Schneider acknowledged the

See ATTORNEY, Page 15

Attorney claims unresolved issues

Continued from Page 1

Interior Board of Land Appeals (IBLA) board decided to "table these standing issues until after Judge Sweitzer's decision."

But he doesn't expect the "standing issues" will result in Leisnoi maintaining its village corporation status because the 9th Circuit Court of Appeals has already ruled in favor of Stratman's right to challenge Leisnoi's ANCSA certification.

In his written statement, Ward also chided Judge Sweitzer for ignoring U.S. Sen. Ted Stevens' efforts that "persuaded the Department of the Interior to adopt a broad definition of 'permanent residence.'

"Because our Native people have been compelled to move about the state to find employment," Stevens wrote to the Interior Department in 1972, "it is most difficult to define the permanent residence of an Alaska Native without regard to the mental attitude of the individual involved."

But Stratman attorney Eric Cossman said Leisnoi is taking the Interior Department's (broader permanent residence definition) language out of context, which does not reflect the the intent of Congress.

ANCSA never intended
lage ties based on place of l
or ancestry to be sufficien
establish permanent residence,
he said.

"If such ties were sufficient, then all Natives who had such ties, and who were living out of state when the roll was prepared, would still be regarded as a permanent resident of that village."

Ward said Judge Sweitzer left another unresolved issue on the table. That is, Congress ratified Woody Island village when it passed Section 1427 of the Alaska National Interest Lands Conservation Act (ANILCA) and named Leisnoi, Inc. in the process.

"The statute specifically referenced Leisnoi, Inc. as being eligible to receive benefits under ANCSA," Ward said.

Cossman, though, said Ward

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eligible to receive benefits un
der ANCSA," Ward said.

Cossman, though, said Wa
is making something out
nothing.

"Because they (Leisnoi) we
mentioned in this act, ipso facto, they (Leisnoi attorneys) consider that a ratification," Cossman said.

But section 1427 of ANILCA did not ratify Leisnoi per se; the act simply identified it as 'one among the many Kodiak area Native village corporations which were eligible for land swaps in 1980 when Congress enacted ANILCA.

Judge Sweitzer's recent decision only recommends Leisnoi be decertified. If the federal government ultimately decertifies Leisnoi, the Alaska State Supreme Court ruled Leisnoi's 115,000 acres, including Termination Point, portions of Long and Woody Islands, Cape Chiniak and property along the Chiniak Highway, would return to the federal government, the original landowner prior to ANCSA.

"If Leisnoi is decertified ... ANCSA would no longer apply at all," the state supreme court ruled in December, 1998. "It would be ironic if Leisnoi (assuming that Stratman is ultimately victorious in the decertification action) could perpetrate a fraud on the public, obtaining title to land under the guise of a legitimate ANCSA corporation, and then avoid making restitution on the grounds that ANCSA provides no explicit remedy for such an occurrence."

Leisnoi would not pay Stratman's court costs, though, Cossman explained, because Stratman's lawsuit is against the Secretary of the Interior.

"If we win, we will be making the claim for attorney's fees to the federal government," Stratman's attorney said.

Kodiak Daily Mirror 10/28/

Cordova Times
10/28/99

Sound herring fisheries canceled

By Alberto Cagliano
The Cordova Times

The recent announcement that there will be no fall and spring herring fishing in Prince William Sound caused little stir among fishermen.

Given the results of the last two seasons, some believe the closure ordered by the Alaska Department of Fish and Game can only benefit the fishery.

"I was expecting that," said Kim Ewers, who fishes the spawn-on-kelp pound fishery. "The last time I had a good herring season was in 1993."

Ewers said he was lucky that year and found himself in the right place at the right time, but for most other fishermen the season was one to forget.

Fishermen recall 1993 as the year of the big herring and pink salmon crash. The record poor season triggered a fishermen protest that culminated in a blockade of the Valdez Narrows.

Fish and Game did not open the fishery between 1994 and 1996. Fisheries where held in the last two years, but the results were not encouraging.

"The in-pound fishery was only marginally successful," Ewers said. "I can't speak for the other fisheries, but I believe they did not make much money."

"We have been optimistic to see a recovery soon. But, in hindsight, it would have been better to close the last two years," he said.

The spawn-on-kelp in-pound fishery is one of the four that target herring roe in the spring.

In the pound fishery, herring are seined and transfered to small bays where kelp hangs from lines. After about six days of spawning, egg-laden kelp leaves are harvested and the herring released.

"I do not know that the current decline is linked to the spill, but the virus is linked to stress and the oil could have been a stressor"
— Fish and Game biologist Dan Sharp

Herring spawn every year after their third year. They can live up to 15 years, but few in the Sound exceed 10.

A newer technique involves hanging kelp in areas where herring come on their own, Ewers said, but it has given widely variable results.

After they are salted, brined and refrigerated, leaves and roe can be preserved for long periods, Ewers said. Most of the harvest is sold on the Japanese market.

"It is kind of a fancy food there, for special occasions," he said. Eggs, eaten with the kelp leaves, are a special New Year's celebration treat.

They are also appreciated in other Asian countries and a market has been developing with the expansion of sushi restaurants in America.

A type of kelp that grows in southeast Alaska, called macrocystis, is particularly appreciated, Ewers said.

"We used to use local kelp, but macrocystis has a so much higher price that it's worth having it flown here," he said. "It is extremely fragile, it can die or spoil. But it's a challenge that we have been able to meet."

Another way to harvest herring roe is called wild spawn on kelp. Divers locate and harvest roe from kelp beds where spawning occurs naturally. Although Fish and Game regulates these openers, divers do not need permits.

Gillnetting and seining herring for roe also occurs in spring. Unlike in the spawn-on-kelp fisheries, female fish die when their sac roe is taken.

Ewers, who sits on the Cordova District Fishermen United board of directors, said there are 24 gillnet permits, 100 for seine and 128 for the in-pound fisheries in Prince William Sound.

The fifth type of fishery that targets herring as food and bait in the fall has also been canceled this year.

Fish and Game manages the whole herring stock in the Sound and allots quotas to the five fisheries.

When Fish and Game announced it was canceling the fishery, it reported a forecast spawning biomass in the Sound of about 24,000 tons.

The number is slightly above the 22,000 threshold to allow a limited fishery. But several factors suggested a conservative approach.

Biologists believe a disease named viral hemorragic septicemia may be causing a decline in the juvenile herring population. In particular among 3- and 4-year-olds, which are the first spawning and marketable ages.

"I do not know that the current decline is linked to the spill, but the virus is linked to stress and the oil could have been a stressor," said Fish and Game biologist Dan Sharp.

"As the saying goes, what does not kill you makes you stronger, but the virus tends to be more lethal on the young. If infected they do not survive," he said.

Kodiak Daily Mirror
10/27/99

160 acres get added to conservation land

By SUE JEFFREY
Mirror Writer

About 160 acres east of Old Harbor known as Bush Point is the latest piece of land to be set aside as conservation land on Kodiak Island. A group of conservation organizations working with the Kodiak Brown Bear Trust purchased the land for $190,700 from owner Ralph Christiansen.

The Conservation Fund, Camp Fire Conservation Fund, the Richard and Rhoda Goldman Fund and the U.S. Fish and Wildlife Service bought the land — Alexandria Christiansen Native allotment property — to add to a 10-mile stretch of coastline on Sitkalidak Strait and already transferred to the Kodiak National Wildlife Refuge.

The land purchase is just one of many small parcel purchases bought over the past several years and transferred to the 1.8 million-acre bear refuge for wildlife habitat protection.

The refuge has acquired 7,316 acres in smaller parcels, mostly funded with a $5.1 million direct appropriation from Congress to

See OTHER LAND, Page 12

Continued from Page 1

Fish and Wildlife specifically to purchase private land within the refuge.

"Small parcels are generally at mouths of streams or wildlife migration routes," Shuck said. "A lot are down in the Old Harbor area, between Old Harbor and Kaguyak and on the west side.

The wildlife refuge has received several other donations from conservation groups similar to the recent acquisition of Bush Point near Old Harbor.

"Wildlife Forever contributed $150,000 for the Humpy Creek parcel," said Steve Shuck, U.S. Fish and Wildlife Service (USFWS) realty specialist.

"The Conservation Fund itself purchased 320 acres at head of Uyak Bay (for $600,000) and donated it to the refuge. And one Kodiak resident recently donated a small parcel — about an acre — at the mouth of Spiridon — to the refuge," he said.

But the Exxon Valdez Oil Spill Trustee Council has purchased the lion's share of recent refuge acquisitions. With Exxon Valdez oil-spill civil- and criminal-settlement funds, the trustee council so far has made "large parcel" purchases of 372,256 acres in the Kodiak Island Archipelago for a total se ing price of $208,799,333.

Of the trustee council's lar parcel purchases, 164,600 acr are now part of the Wildlife Re uge, and the rest went to the stat Shuck said.

"The state got all of Shuyak ar most of Afognak," he said. "Tl parcels that became refuge lar were in-holdings (within the bo ders of the wildlife refuge) befo ANCSA.

Included in the truste council's large parcel purchase is the latest land deal — 41,75 acres on Afognak Island, inclu ing a 400-acre conservation eas

ment — to be purchased for $70.5 million from Afognak Joint Venture (AJV.)

Other large parcel deals the trustee council has made with Kodiak area Native corporations include:

- 115,973 acres, including 42,448 acres in conservation easements, for $46 million from Akhiok-Kaguyak, Inc.
- 118,710 acres, including 59,036 in conservation easements, for $28.5 million from Koniag, Inc.
- 31,609 acres, including 3,000 in easements, for $14.5 million from
- 41,549 acres in Seal Bay on Afognak Bay for $39.5 million from a consortium of Old Harbor and Akhiok-Kaguyak corporations.
- 26,665 acres on Shuyak Island for $42 million from the Kodiak Island Borough.

Seward Phoen
10/14/99

New SeaLife director brimming with plans

By Alex DeMarban

Seward Phoenix LOG

The new director of the debt-heavy Alaska SeaLife Center has taped a message he pulled from a fortune cookie to his office door.

"Your efforts are budding. Results will appear soon," it reads.

The wisdom of that message is open to debate.

"It doesn't say if it's good or bad, but I'm going to assume the best," said veterinarian and zoologist Mark Lloyd, who left the El Paso Zoo in Texas to become the center's second director on Oct. 1.

That kind of positive attitude is already serving him well as he tries to the steer the struggling research facility away from a $17.5 million debt and a persistent image problem.

"This is a new facility, so it's got a lot of things to work out, but there's nowhere to go but up," he said, in the same way that he says everything — in one rapid breath.

A top item on his agenda is forging a closer relationship between the people of Seward and the $56 million research facility that opened to the public in May 1998.

To do that, "the hillbilly from Tennessee" wants to use more interns from the local vocational center. And he's asking Sewardites to open their homes to the volunteers who come to the center from around the world, in exchange for memberships.

"We want to be an asset to Seward, and we want the support of the community," he said.

He also wants the center to host events that would allow local merchants to display their wares, such as a restaurant tour with food-tasting booths.

"We used to do that in Texas, except it was barbecue," he said.

The 39-year-old bachelor left the warmer climes of the Lone Star state because of a long-standing fascination with Alaska and its wildlife, finned versions of which swim outside his office window overlooking Resurrection Bay.

During an interview last Friday after a busy first week, Lloyd was still settling into those new digs. The walls were bare and the furniture Spartan, making the room seem larger than it really is. Placed crudely in the middle of the office were boxes filled with decade-old planners.

The pages date back to his work with the Roger Williams Park Zoo in Rhode Island. There, he established the first U.S. National Veterinary Medical Assistance Team, which responds to environmental disasters that threaten wildlife. After that post, he headed south to be the deputy director at the El Paso Zoo.

The planners chronicle his life-work with animals and the people who manage them, and he hopes to use the contacts within to improve the center's credibility among its peers.

One goal in that vein is getting the center accredited with the American Zoo and Aquarium Association. The status will facilitate exchanges of resources and information, perhaps even animals.

"If you're not accredited, you're basically in the same category as every other roadside menagerie in the country," he said.

The contacts should also help him with one of his biggest challenges: reducing the center's debt. He hopes to do that through a combination of state and federal grants.

"I want to find out where people are coming from and what they're spending money on, and take that to the Legislature and say, 'We brought in this much money, we need your help,' " he said.

Holding true to his message of optimism, he believes education is about possibilities and should be the facility's foremost goal.

He plans to continue rehabilitation efforts threatened by funding. He also wants to extend the SeaLife Center's message of conservation to Native Alaska, with village exchanges of students and teachers.

"This facility has a tremendous opportunity that most zoos and aquariums don't because it doesn't have the legacy of what zoos used to be: a collection of the biggest, the fastest, the slowest, the ugliest," he said. "Zoos didn't educate people until recently. But education is the most important thing we can do."

ALEX DeMARBAN/Seward Phoenix LOG

Mark Lloyd, the new director of the Alaska SeaLife Center, hopes to reflect well on the center's future.

New website offers subsistence information

By NATALIE PHILLIPS
Anchorage Daily News

ANCHORAGE — Wondering what subsistence foods appear to be tainted or where in Alaska salmon are showing up deformed with one eye and tumors? Want to know what changes Native hunters in Kotzebue are observing in the ice pack or about the nutritional value of cloudberries dipped in seal oil?

Some of the answers can be found on a website unveiled last month at a science conference in Denali National Park and Preserve.

The interactive database blends observations from the field by Native subsistence hunters, contaminant research by scientists and health officials, and government data on subsistence harvests.

"There's nothing else quite like it," said Patricia Cochran, executive director of the Alaska Native Science Commission. "We've put together a really unique blend of science and traditional knowledge."

The work took three years and was done by the science commission and the University of Alaska Anchorage's Institute of Social and Economic Research, funded with $300,000 from the Environmental Protection Agency. The database is built to be expanded as new research or additional sources of information become available.

The program was made available on-line just within the past few weeks, so it's too early to measure the reaction, said Cochran, who is scheduled to spend much of next year demonstrating the database around the state and the circumpolar region.

"It's designed for use for both the Native community as well as researchers and scientists," she said.

The project got started when EPA officials in Seattle realized that they were getting repeated questions about the safety of Alaska Native subsistence foods. The EPA contacted ISER and asked if it could survey the existing reports and literature about subsistence foods and contaminants.

"I said, instead of a written report, what if we did a database that we could add to," said Jack Kruse, a project director with ISER.

The first step was to round up studies that had been done over the years in Alaska's far-flung places. It turned out there were few, and the results of those studies were either inconclusive or else they merely identified the presence of lesions or other abnormalities on some fish and wildlife, without saying if they pose a danger to humans.

Step Two involved traveling to communities statewide and talking to locals about their observations about changes in weather patterns and subsistence foods. Their observations were documented and added to the database. They can be called up based on species, location or type of ailment.

For example, in Kotzebue, Enoch Scheidt reported that salmon were showing up with pus inside them and that the collars that scientists put on caribou were rubbing the caribous' necks raw. Eric Iyapana from Little Diomede reported that the taste of local plants has changed and that the fur on seals is coming off as if they are molting when it is not molting season.

The goals of the project are to allay subsistence users' health fears, to direct researchers to specific issues that are a priority to people dependent on subsistence foods and to get information to Native tribes so they can make their own decisions about the safety and nutrition of their food.

Despite gaps, there is a wealth of information in the database. One can find, for instance, that a small serving of agutuk — cloudberries with seal oil — provides 1.8 grams of protein, 22.9 grams of carbohydrate and 2.3 grams of fiber. Clicking another direction through the website, one finds the levels of organic chlorine compounds, a persistent pollutant, in beluga blubber in Point Hope or the mercury levels in the liver of bowhead whales harvested in Barrow or other heavy metal contamination found in fur seals at St. Paul.

"It's far from complete," Kruse said. "We're hoping people with data on contaminants will see that it is worthwhile to get their information into the database."

Eventually, ISER's role in the project will diminish, Kruse said, and the database will most likely fall into the hands of the Alaska Native Science Commission to maintain.

Valdez Vanguard
10/13/99

Around Alaska

$25,000 checks coming to Eyak shareholders

CORDOVA — A typical shareholder of Eyak Corp. will receive $25,000 this month as the Native corporation distributes to its 377 stockholders part of a $45 million payment from the sale of Native land to the Exxon Valdez Oil Spill Trustee Council.

"The average Eyak shareholder, who owns 100 shares, will receive $25,000," said Eyak Corp. administrative manager Amy Brockert.

The distribution is part of the $45 million that the Exxon Valdez trustees paid for about 55,000 acres around Cordova, plus conservation easements on about 20,000 more.

The corporation is setting aside $10 million to create a permanent fund that will benefit shareholders over the years, said Eyak general manager Brian Lettich. Of the 377 stockholders, 100 live in Cordova.

The land involved in the deal includes 150 miles of saltwater shoreline and about 80 salmon streams. The shoreline was not oiled in the 1989 Exxon Valdez spill. But many bird species injured by the spill use the area for nesting, feeding and wintering, according to the trustees.

The package protects wooded shoreline along Nelson Bay, Eyak Lake, and Hawkins Island. Much of the area is visible from Cordova. Some was logged by the Native corporation in 1994 and 1995.

Peninsula Clarion 10/12/99

Eyak shareholders getting $25,000

CORDOVA — A typical shareholder of Eyak Corp. will receive $25,000 this month as the Native corporation distributes to its 377 stockholders part of a $45 million payment from the sale of Native land to the Exxon Valdez Oil Spill Trustee Council.

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The land involved in the deal includes 150 miles of saltwater shoreline and 80 salmon streams.

Peninsula Clarion 10/12/99

Center returns 4 harbor seals to wild

The Associated Press

Four harbor seals fitted with radio transmitters were returned to the wild after being restored to health at the Alaska SeaLife Center in Seward.

The pups made their way to the center after they were found alone or tangled in fishing nets in Prince William Sound or beached on rocks near Ketchikan and the Alaska Peninsula, biologists said.

Each weighed less than 20 pounds and was less than two weeks old when discovered. But they recovered quickly, and weighed from 50 to 70 pounds at the time of their release a couple of months later.

Harbor seal numbers have been in decline over the past couple of decades, dropping 90 percent around Alaska. But the decline has slowed, and some populations are holding steady.

"It looks like they're plateauing out at the bottom," Steve Trumble, a harbor seal researcher at the SeaLife Center, told The Seward Phoenix Log.

Yet the population continues to slide in Prince William Sound, dropping 2.8 percent between 1990 and 1998.

A number of factors could be affecting the harbor seal population, including overfishing and contamination, scientists say.

When representatives of the SeaLife Center propped a wire kennel onto the side of a boat and opened the gate several weeks ago, the first of the four seals splashed into a new world among the ice-blue waters and calving glaciers of Aialaik Bay.

The seal's tubby cousins, in kennels lining the stern of the boat, sniffed at the briny sea air and bounced like gelatin, their eyes darting nervously to every cheer and scuffle made by a boatload of people.

The seals had been named by their benefactors.

Kenai was the most active during the trip. While his mates slept and jiggled with the boat's motion, Kenai clawed at the gate and grunted. When bored, he would roll onto his back to grate the claws of his stubby flippers, like someone twiddling their thumbs.

The center originally had planned to release the group at Northwestern Glacier, where a large population of harbor seals resides. But there, the flukes of killer whales rose and fell in the distance.

Plan B was Aialiak Glacier, where members of the local seal population slinked among the wind-sculped ice floes.

The seals were fitted with radio transmitters that will allow the animals to be tracked until the transmitters fall off with their first molt next spring.

Alex DeMarban/LOG photo

Kenal was one of four rehabilitated harbor seals released into Aialiak Bay last Friday by the Alaska Sealife Center. The most active, Kenal sniffed at the sea air and clawed for freedom while his cohorts slept.

SeaLife Center releases 4 seals

By Alex DeMarban
LOG staff

When representatives with the Alaska SeaLife Center propped a kennel onto the side of a boat and opened the gate two weeks ago the first of four harbor seals splashed into a new world among the ice-blue waters and calving glaciers at Ailaik Bay.

The seal's tubby cousins, in kennels lining the stern of the boat, sniffed at the briny sea-air and bounced gelatinously, their eyes darting nervously to every cheer and scuffle made by a boatload of people.

One observer was Verena Gill, an Anchorage geologist trying to lean past others leaning over the side of the Kenai Fjords boat Misty.

In May, she was beach combing [illegible] upon a pup dying in the driftwood. She didn't know if it was a gift from the sea, or a curse.

Seagulls circling overhead would have started with the pup's eyes, so after searching vainly for the mother, Gill cradled it on her shoulder. On the long journey back to camp, it suckled her neck.

Once there, she and other scientists with the U.S. Geological Survey swaddled the 16-pound newborn in a wet towel. With a water bottle and a nipple cut from a rubber glove, they nursed him through the night using a pediolyte formula for the puffins they were studying.

"The crew wanted to name him but I didn't want to because I thought he was going to die," she said. "He was so small."

But the pup regained strength overnight. The next morning, Security Air flew it to the Alaska SeaLife Center's rehabilitation facility. He got the name Kenai, and three new friends who had arrived from shores as distant as Canada and the Alaska Peninsula.

Less than two weeks old and weighing less than 20 pounds [illegible] the lighter of a dying species. Harbor seal populations dropped some 90 percent in Alaska in the 1970s and 1980s. The decline has slowed, and some populations are holding steady.

"It looks like they're plateauing out at the bottom," said Steve

See Seals, page 10

Seward Phoenix
10/7/99

Seals ...

From page 1

Trumble, a harbor seal researcher for the SeaLife Center.

But the population continues to fall in Prince William Sound, dropping 2.8 percent between 1990 and 1998. A combination of factors could be at play, including over-fishing and contamination.

"Usually, we take so much away," said Gill, explaining why she rescued Kenai. "It gives you a great feeling to have contributed something back to the earth."

Other examples of human compassion include Iggy, found crying and mewing on an Egegik beach. A woman placed her in a tub of water overnight and called the center the next morning. Another is MacKenzie, hauled up in a fishing net at Point MacKenzie. And there's Skippy, the only black seal of the bunch and a story of good intentions almost gone bad.

A well-intentioned but misled kayaker found Skippy alone and crying at Ward Rocks. Unaware of federal laws prohibiting contact with marine mammals, the kayaker stowed the pup in the hull and fed her peanut butter on the three-day paddle to Ketchikan. Once there, he contacted the National Marine Fisheries Service, which in turn contacted the Sealife Center.

Skippy arrived with a severe gastrointestinal infection and vomited the powdered formula funneled into the pups' stomachs. Employees and volunteers worked through the night to keep her hydrated and fed.

"We saved her life," said SeaLife biologist Lynn Aderholt.

When Aderholt began feeding Skippy live fish at four weeks — seals in the wild are completely weaned at six weeks — Skippy had a natural instinct for hunting.

"She was Miss Huntress, Diana of the moon," Aderholt said. "She ate more live fish than anyone."

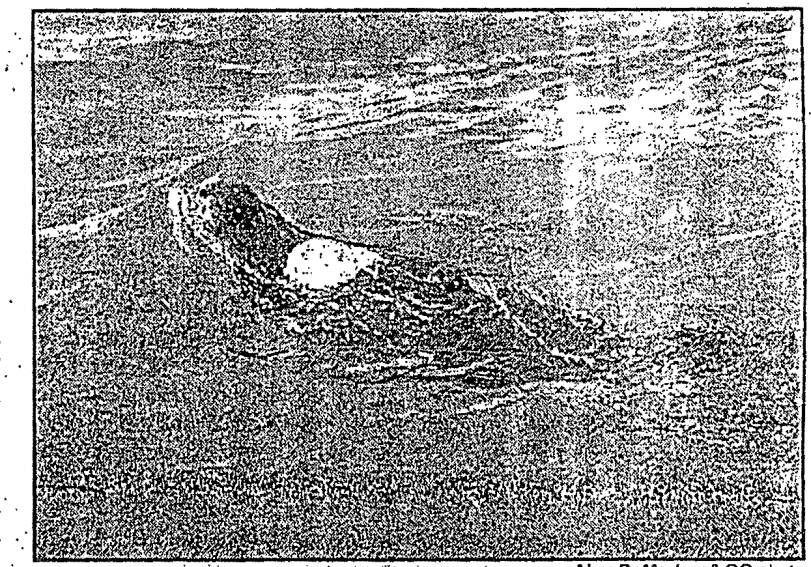
Skippy and the rest of the pinneped quartet gained weight quickly — they needed one month of fat in case they had trouble finding food in the wild. At the time of their release, the seals were about four months old. Skippy was the smallest, at 50 pounds. Kenai was the largest, weighing in about 70 pounds.

Kenai was also the most active during the trip to Aialiak Bay. While his mates slept and jiggled with the boat's motion, Kenai clawed at the gate and grunted. When bored, he'd roll onto his back to grate the claws of his stubby flippers, like someone twiddling thumbs.

The center had originally planned to release the group at Northwestern Glacier, where a large population of harbor seals reside. But there, the flukes of killer whales rose and fell in the distance.

Plan B was Aialiak Glacier, where members of the local seal population slinked among the wind-sculpted ice floes.

The seals were fitted with radio transmitters that will allow the seals to be tracked until the transmitters fall off by their first molt next spring.



Alex DeMarban/LOG photo

Skippy, fed peanut butter after a three-day kayak trip from Southeast Canada, took his time before heading to the ice floes at Alalik Glacier. The patch on Skippy's back is a radio transmitter that will molt with his hide next spring.

MacKenzie was the first to go, and dripped unceremoniously into the water. Iggy's kennel had to be shaken until he tumbled out in a clumsy back flop.

Skippy dove out and resurfaced next to the boat, looking back as if requesting permission to take off.

"That figures," Aderholt said.

And finally, there was Kenai. Gill gave her camera to a friend and watched as Aderholt unlatched the gate. With a splash of water, the life she had saved disappeared into the cold waters.

Seward Phoenix
10/7/99

SeaLife Center wants $3 million loan

By Nancy Erickson
LOG Staff

An Alaska SeaLife Center request for a $3 million grant anticipation note from the city has been postponed.

According to city documents, getting the note would be dependent on the SeaLife Center receiving a $8.5 million federal appropriation currently under consideration in the U.S. Congress, part of which would be used to repay the note.

Seward Association of Advancement of Marine Science, owner and operator of the research facility, would be solely responsible for repaying the note. If approved, the note would not constitute a debt burden to the city, nor could it be paid from taxes levied within the city, according to the documents. But it would allow the center to take advantage of the city's tax-exempt status.

The proposal was scheduled for a public hearing at the Oct. 11 city council meeting, but was temporarily pulled from the agenda earlier this week.

Scott Janke, Seward city manager, said he received a call Monday morning from Sharon Anderson, president of the SeaLife Center's board of directors, asking for the request to be temporarily withdrawn. Wednesday morning was the deadline for a current financial statement needed prior to the Oct. 11 public hearing.

"They didn't have all their information ready yet," Janke said.

"It's like a dance and one partner wasn't ready," explained Teri Namtvedt, the center's finance director.

Though city documents said the $3 million would go toward operation costs, Anderson said it is considered a part of the $8.5 million federal appropriation request, if funded, would be applied toward the center's $17.5 million construction bond debt.

Darryl Schaefermeyer, general manager for the SeaLife Center, when asked how the money would be spent, issued a firm, "I'm not going to comment at this time."

Neither Schaefermeyer or Namtvedt would talk about the state of the center's finances.

The chances of the center receiving the federal appropriation look good, said Janke, although it could take six months before funding is actually received.

Janke said the city is completely supportive of the $56 million research facility which opened to the public last May. At the request of the center, the city postponed a $63,000 payment for about six months until this June, Janke said. That payment has been made to the city, he said.

The payment in lieu of taxes reflected 3 percent of retail sales generated in the center's gift shop for the last two quarters of last year.

Schaefermeyer, said the board of directors plan to re-submit the $3 million request to the city council within the next couple of weeks.

"This is a deliberative process that requires certain things be done in certain steps," he said.

Kris Erchinger, controller for the city's finance department, said it's fairly common for organizations to use a government agency's tax exempt status in obtaining funding.

The status exempts funding recipients from paying taxes on interest earnings for a certain period of time.

The city had a similar agreement with Alaska Pacific University in the early 1990s.

Daily News
11/7/99

Texas vet takes over as director at SeaLife Center

The Associated Press

KENAI — The Alaska SeaLife Center in Seward has hired a Texas veterinarian as its new director.

Mark Lloyd, formerly at the El Paso Zoo, assumed the post last week and already has specific plans for improvements. He acknowledges that managing the facility and improving its cash flow will be major tasks.

"I always go out on limbs and bite off a lot. I tend to be a bit of a workaholic," he said. "That's because I love what I do."

The center is aggressively pursuing grant funding. Most of the grants deal with education, some with research and a few with animal husbandry. It is also working with Alaska's congressional delegation to find federal money to pay off its $17.5 million construction debt.

The center, a combination cold-water marine research facility, sea life aquarium and rehabilitation center, opened 1½ years ago.

Lloyd said he intends to take an active role in expanding the center's marketing and development efforts, including personal outreach to groups around the state.

After a discussion during one of his three job interviews, he sent a letter to the board of directors urging the center to continue treating injured and orphaned wildlife. Last spring, the board had issued a revised business plan stating that the rehabilitation program had lost $1 million and should be suspended until the center developed an endowment to underwrite it.

Rehabilitation has indirect value, Lloyd said, and he is personally committed to it. Releasing successfully rehabilitated animals, such as the two young harbor seals that were returned to the wild recently, helps people appreciate what the SeaLife Center does.

"That kind of publicity yields intangible and long-lasting rewards," he said. "I think when (people) pay their money at the door, they are glad we are doing these other things."

Lloyd's background includes work as a manager and exotic-animal veterinarian at several zoos and aquariums. He is the third director for the $56 million facility, replacing biologist Kim Sundberg.

Alaska SeaLife Center welcomes new director

By SHANA LOSHBAUGH
Peninsula Clarion

The Alaska SeaLife Center in Seward has hired veterinarian Mark Lloyd as its new director.

The public is invited to meet him Sunday, when the center holds its annual Seward Appreciation Day from 1 to 5 p.m. with an open house, free admission and discounted memberships.

Lloyd brings a mix of energy, idealism and pragmatism to the challenging post. He acknowledged that managing the facility and improving its cash flow will be mammoth tasks.

"I always go out on limbs and bite off a lot. I tend to be a bit of a workaholic," he said. "That's because I love what I do."

He officially assumed the post Friday and already has specific plans for improving the center.

Lloyd has worked as an inspector for the American Zoo and Aquarium Association and intends to get the Seward center accredited as soon as possible so it can take advantage of the association's resources.

"It ties you in with a network," he said. "It opens a lot of new doors."

The center is aggressively pursu

See LLOYD, back page

Photo by Shana Loshbaugh

Mark Lloyd took over as director of the Alaska SeaLife Center in Seward on Friday.

Peninsula Clarion
11/6/1999

...Lloyd

Continued from page A-1

ing grant funding. Most of the grants deal with education, some with research and a few with animal husbandry.

"We have over 60 in the works right now," he said.

The center also is working with the Alaska Congressional delegation, seeking federal money to pay off its $17.5 million construction debt.

"We're very optimistic," he said.

Lloyd intends to take an active role in expanding the center's marketing and development efforts, including personal outreach to groups around the state.

"I want to make myself available," he said.

Although Lloyd plans to devote considerable time to stemming the center's financial losses, he emphasized that its value is more than monetary.

After a discussion during one of his three job interviews, he sent a letter to the board of directors urging the center to continue treating injured and orphaned wildlife. Last spring, the board had issued a revised business plan stating that the rehabilitation program had lost $1 million and should be suspended until the center developed an endowment to underwrite it.

Rehabilitation has indirect value, Lloyd said, and he is personally committed to it.

He cited the example of dead and dying sea otters turned in to the center. Autopsies showed they died from fish bones piercing their digestive tracts. Observers confirmed that otters around the Seward harbor were chewing on discarded halibut carcasses. The center earned no revenue from the incident, but it was able to work with the community and set up an alternative way to dispose of fish waste that removed the risk to wildlife.

Releasing successfully rehabilitated animals, such as two young harbor seals recently, helps people appreciate what the SeaLife Center does.

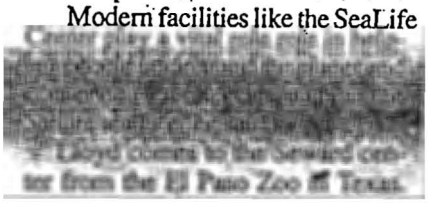
"That kind of publicity yields intangible and long-lasting rewards," he said. "I think when (people) pay their money at the door, they are glad we are doing these other things."

Lloyd said the center's primary mission, public education, matches his own.

"Teaching is one of my favorite things. As far as I am concerned, education is the most important thing zoos and aquariums do," he said.

The days of zoos and aquariums serving as mere menageries are over, in his opinion.

Modern facilities like the SeaLife



Lloyd comes to the Seward center from the El Paso Zoo in Texas.

His background includes work as a manager and exotic animal veterinarian at several zoos and aquariums.

Born in Tennessee, raised and educated in Georgia, he calls himself a "hillbilly." But despite those southern origins, he is jazzed about Alaska.

When he came up for his first interview in late spring, he took time to hike and camp along the Kenai River. An avid paddler, he is eager to explore with his kayaks and canoes. He even claims that the autumn rains of Seward are a welcome change from the dry heat of Texas.

"I am tickled to death to be here," he said.

He is the [illegible] director for the $56-million facility, replacing biologist Kim Sundberg.

The Alaska SeaLife Center opened in May 1998. It pursues a unique mission combining public education, scientific research and wildlife rehabilitation. Most of its funding has come from the Exxon Valdez Oil Spill Trustee Council.

"This place has such incredible potential," Lloyd said. "It has no place to go but up."

Fishermen get lesson in new oil spill tools

y Alberto Cagliano
he Cordova Times

Cordova fishermen tested new oil spill-esponse tools in a drill held in a small bay of orthern Prince William Sound.

Led by an Alyeska Pipeline Service Co. oordinator, most of the local fishing fleet took vo-day turns between Friday and Wednesday i the Ship Escort Response Vessel System rill.

The drill, which has taken place since 1990, as staged this year in Two Moon Bay.

Bowpickers and seiners were familiarized ith new tools, and for the first time, some of iem went ashore on a landing craft to practice each cleaning.

Christine and Jim Gray, aboard their seiner Bligh Reef, were scheduled for the first two lays of the drill.

Christine Gray said the drill included use of *new type of oil skimmer,* the Ropemop, a ind of oversized mop made with oleophilic iaterial that tends to trap oil in its fabric.

Another new tool, she said, was the NOFI *urrent-buster* boom, a boom designed to pre-ent oil from slipping underneath in strong urrents.

As in previous drills, oranges were trapped vith the boom to simulate oil.

"When you deal with oil, it is a whole dif-erent ball game," she said.

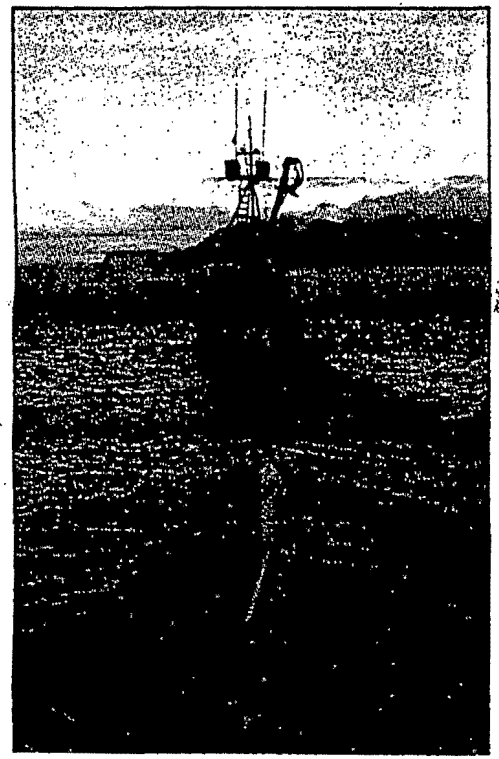
Gray's remark comes from the experience he had in the days following the 1989 Exxon /aldez oil spill.

With other Cordova vessels, they decided o sail to the area of the spill and began pump-ng oil from the ocean surface in 5-gallon

See Fishermen, Page 2

"When you deal with oil, it's a whole different ball game."

— Christine Gray



Christine Gray/Cordova Times

A boat pulls NOFI boom.

Christine Gray/Cordova Times

Jim Gray, owner of the seiner Bligh Reef, poses by a Ropemop oil skimmer during the SERVS drill Sept. 24 in Two Moon Bay.

Cordova Times 9/30/99

Fishermen ...

From Page 1

buckets. The improvised cleaners were soon dubbed "the bounty hunters," Gray said.

They then took their load of oil to Valdez, where nobody was expecting them. Exxon officials agreed to pay $5 a gallon for it.

She recalled the absolute lack of organization in the cleanup operations and the first dramatic moments after news of the spill began to spread.

"I and Jim had just bought our gear for roe-on-kelp diving," she said. "We were in Seattle when we heard about the spill. So we drove up the Alcan, and when we arrived here, we realized we were not going to use our gear."

The fishery for wild herring roe, which attaches to kelp leaves and is harvested underwater, was severely damaged by the spill. Gray said they ended up selling their brand-new diving gear.

She said she noticed a sense of cooperation between fishermen and Alyeska officers who organized the spill response.

"We gave them a couple of suggestions, and they listened," she said.

Refresher classes on oil-spill response were scheduled for Friday through Monday. Drill participants, divided up in groups, would attend a four-hour class.

Daily News
9/25/99

Web project to open way to Inlet data

Software to update page with data base information

By JON LITTLE
Daily News Peninsula Bureau

SOLDOTNA — Reams of scientific and environmental information about Cook Inlet lie hidden amid the jumble on the Internet, but no map shows how to find it. A project funded by the Exxon Valdez Oil Spill Trustee Council aims to write directions.

Unlike a traditional paper map, however, it will be a constantly changing web page, updating itself with its own web crawler, a bit of software that burrows into data bases to find out what's there and what's new.

"It's really about data discovery," said Kelly Zeiner, an analyst and programmer with the state Department of Natural Resources. Zeiner teamed with Russell Kunibe, a state Department of Environmental Conservation programmer, on a two-year project to come up with the dynamic map.

A prototype of the project, called the Cook Inlet Information Management/Monitoring System, or CIIMMS, was unveiled at computer labs this week at the Kenai Peninsula and Homer campuses of the University of Alaska. It's still full of bugs and now is largely limited to information dealing with the Kenai River. Once the system is working reliably, Kunibe said, information from throughout the Inlet watershed will be plugged in.

Municipal planners were the first to take a look Friday in Soldotna, and many came away impressed. Lisa Parker, planning director for the Kenai Peninsula Borough, said the service

Please see Page E-3, WEB

Continued from Page E-1

will give her Soldotna-based staff easy access to information now tough to reach.

For instance, Parker said, she browsed through the state's register of new water wells, something she's never had at her fingertips. "Next week when a guy drills a water well, that information will end up getting put in there, so it'll be continually new information," she said.

The newborn service will toddle onto a public web site in three weeks for another round of testing, Kunibe said. Evaluation will last until December, when Kunibe and Zeiner will go back to the spill trustees to gauge whether CIIMMS warrants a second year of funding. The project cost $300,000 this year.

Behind its web page, with options for browsing or a key-word search, lies much unseen work, Kunibe said. Programmers spent months building a system that can tap six huge data bases full of information about Cook Inlet.

Eventually, it should become a conduit for information about such things as habitat, pollution sources and lists of relevant studies, books, web sites and data bases, he said.

Kunibe said the goal is for CIIMMS to let one agency know what others have already done, eliminating redundant research. But it is not just an agency tool. It will be available to students, researchers or anyone else with an interest.

It relies on various agencies and groups connecting to the site. Besides state agencies, federal agencies supplying information to the project include the U.S. Geological Survey, the Environmental Protection Agency and the U.S. Forest Service.

❑ Reporter Jon Little can be reached at jlittle@adn.com.

Homer News
9/23/99

Refuge research aims to crack Bering Sea ecosystem mysteries

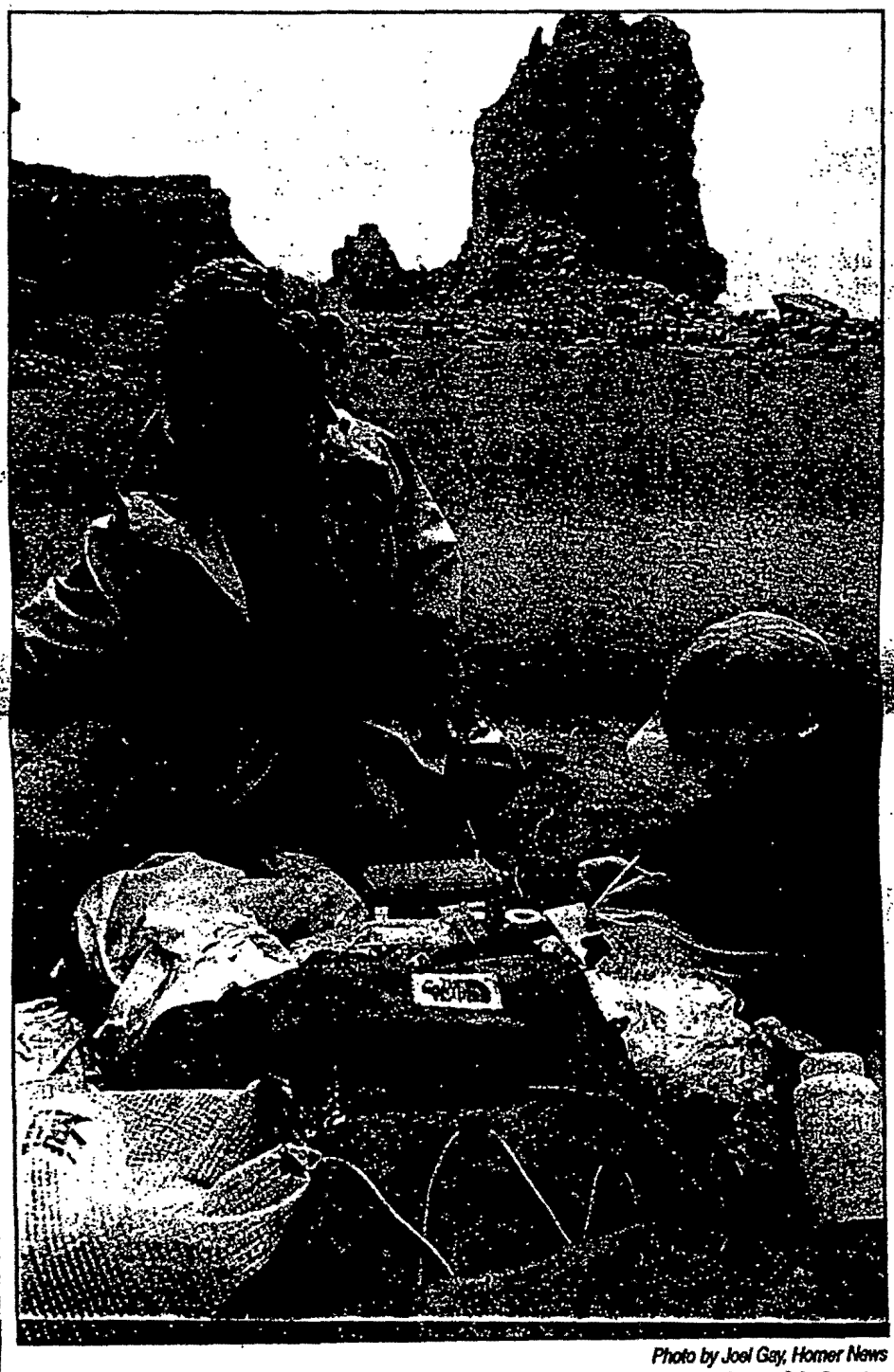


Photo by Joel Gay, Homer News

Alexander Kitaysky and John Piatt record data about stress levels in seabirds at their temporary work station – a beach on Bogoslof Island.

by Joel Gay
Managing Editor

(Second in a two-part series)

BOGOSLOF ISLAND – Walking through chest-high grass, Alaska Maritime National Wildlife Refuge biologist Jeff Williams lead a small group of biologists and helpers to Puffin Slope, where tufted puffin colonies have been monitored since 1973. He located a metal stake in the ground barely visible in the grass, then marched uphill and found its mate. After stretching a stringline between the two, his job was to count the puffin burrows along a meter-wide band up the hill.

"We call this puffin grubbing," he said, as he dropped to his hands and knees with the grass towering overhead.

Grubbing their way uphill, the crew found dozens of puffin burrows, tiny Hobbit holes perhaps 4 to 6 inches high excavated in the hillside. It wasn't so much the holes they sought as signs of occupancy — feathers, feces or food drop-

Williams peered into some burrows with a flashlight, finding a few startled adults and even some downy chicks.

"One occupied," he called out to Fish and Wildlife Service liaison officer Karen Boylan, who was keeping the record. "One unoccupied."

A deckhand on a pollock trawler back in Dutch Harbor would likely scoff at the biologists' work, but Williams is unde terred. Puffins eat juvenile pollock, as d 2,000-pound Steller sea lions, he said, an the size of the puffin population help paint a picture of the overall health of th Bering Sea.

While the Dutch Harbor fisherma could care less about puffins, Steller se lions are another matter. Their numbe have plummeted over the last 30 year though no one knows why, which h forced National Marine Fisheries Servi to declare them a threatened species.

The falling stocks might be due to c mate change, increased predation by kill whales or overfishing by pollock trawle

See SEABIRDS, Page

Seabirds provide easy access to environmental data

FROM PAGE ONE

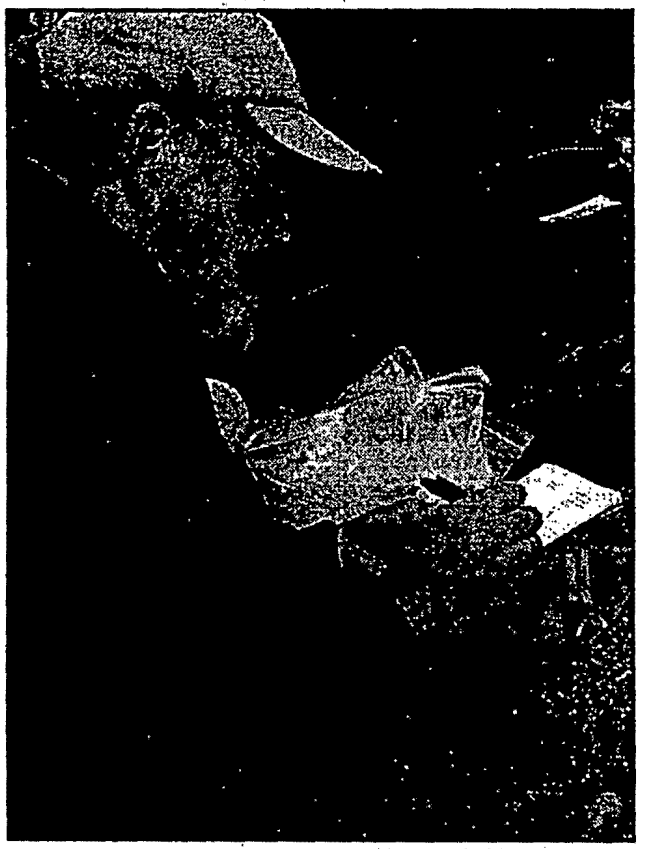
It might also be natural variation.

In the meantime, however, some of the best pollock fishing grounds have been declared off-limits to trawlers in hopes that the marine mammals revive.

Making the connection between puffins and pollock trawlers is no easy task, Williams said during a break.

"When your face is stuck in a puffin burrow, it's sometimes hard to make sense of it all," he said.

Such is the scientific process. The day's work means little by itself. Combined with similar counts on other islands throughout the Bering Sea region, and compared year after year after year, however, the picture starts to clarify.



Photos by Joel Gay, Homer News

U.S. Geological Survey biologist John Piatt keeps close track of the data he is collecting on Bogoslof Island

That is the work of the Tiglax, the research vessel of the wildlife refuge that has hauled Williams and a dozen other scientists to Bogoslof for three days of scientific investigation. Though there are hundreds, if not thousands, of pressing questions about the health of the Bering Sea ecosystem, the Tiglax crews often focus on seabirds, said Vernon Byrd, the refuge's supervisory scientist. More than any other animal, they give biologists a view of what's happening throughout the ecosystem, from the water to the land to the air.

"There's not a seabird out there that doesn't feed or winter at sea," he said. Some feed on the surface, others dive deep. A few species prefer zooplankton, others like fish.

But because they can be captured and analyzed easily, "They're a very cost effective way of monitoring environmental changes," Byrd said.

The next day, John Piatt of the U.S. Geological Survey hauled 150 wire screens up to Puffin Slope, and placed each over an occupied burrow. He returned several hours later to find that several dozen adult puffins had been back. With their burrow blocked, however, they dropped the food they were carrying to their chicks — juvenile pollock, sandlance, even small squid.

"These birds are sampling a lot more fish than National Marine Fisheries Service," Piatt said, as he bagged up each burrow's droppings. He will send the fish to a NMFS lab in Seattle for analysis.

All the information from Puffin Slope is valuable, Piatt said. "These birds are eating fish that are a year old, maybe less. The first time a pollock can be counted by NMFS is when they're 3 or 4 years old. The puffin screens are proving to be, in some places, a very good predictor" of upcoming classes of pollock, he said.

As interesting as puffins are, Piatt and Alexander Kitaysky, of the University of Washington, are more interested in kittiwakes and murres. They want to know why the birds on some islands appear to be faring well, while others that nest relatively nearby are in decline. Specifically, they wonder if the birds are suffering from stress caused by something other than lack of food.

Using a 20-foot-long collapsible fiberglass pole with a noose on the end, Kitaysky crept up on a ledge packed with raucous nesting birds and snagged one by the neck. He quickly swung the flapping kittiwake to the ground, wrapped his big hands around it, and brought it to Piatt. With a sterile needle and glass pipette, they drew a tiny amount of blood, labeled it, and stashed the bird in a pillowcase.

Holding a black-legged kittiwake, Alexander Kitaysky of the University of Washington prepares to take another blood sample.

They took four blood samples from each bird in a 45-minute period, measured its head, beak, lower leg and wing, weighed it, then released it — a little confused and angry, perhaps, but healthy. Back on the Tiglax that night they centrifuged the blood, then cooled the samples for testing in a laboratory. They are looking for certain hormones known to reflect the bird's nutritional history.

"Eventually we'll pull together a picture of the birds' diet and their stress levels," which helps paint a more complete picture of an individual bird's life, Piatt said. Other research has shown the connection between a bird's feed as a juvenile and its health as an adult. He hopes to learn why

See HOMER, Next Page

. . . Homer vessel supports biological investigation

FROM PREVIOUS PAGE

the health of entire colonies varies. Is it a difference in feed, or something else?

As Williams buried his face in puffin burrows, and Piatt and Kitaysky bled birds along Bogoslof's steep cliffs, Bruce Robson of the National Marine Fisheries Service prowled the shoreline. Though he is a fur seal specialist who spends a good portion of the year on the Pribilof Islands, he was there to study Steller sea lions.

Bogoslof was once home to at least 5,000 sea lions, he said, but like rookeries and haulouts throughout western Alaska, that number has dwindled precipitously. In early August, Robson counted fewer than 300. From Cook Inlet to Kiska, the sea lion population has fallen some 80 percent since the 1970s.

NMFS now considers the species "threatened," but environmental groups have sued to have the animals listed as "endangered," which would give them more protection. But protection from what?

"There are a lot of things that could be responsible" for the decline, Robson said. "Water temperature, commercial fisheries, contaminants, predation, global climate change. But what factors can we do something about? Probably the most likely is modifying their habitat to improve foraging for juveniles sea lions." And that means restricting commercial trawling for pollock.

Yet no one knows for certain that eliminating pollock fishing at certain times of year will, in fact, boost sea lion numbers. Robson and others want to know what other factors might be affecting the animals. But while it's easy to inspect puffin burrows and capture kittiwakes, research on 2,000-pound sea lions is a different matter, he said. They are hard to tag, or implant with satellite transponders, or to take blood samples from. So Robson spends part of a day collecting their feces. Analyzed for content and nutrient value, the scat of any animal helps describe what it eats.

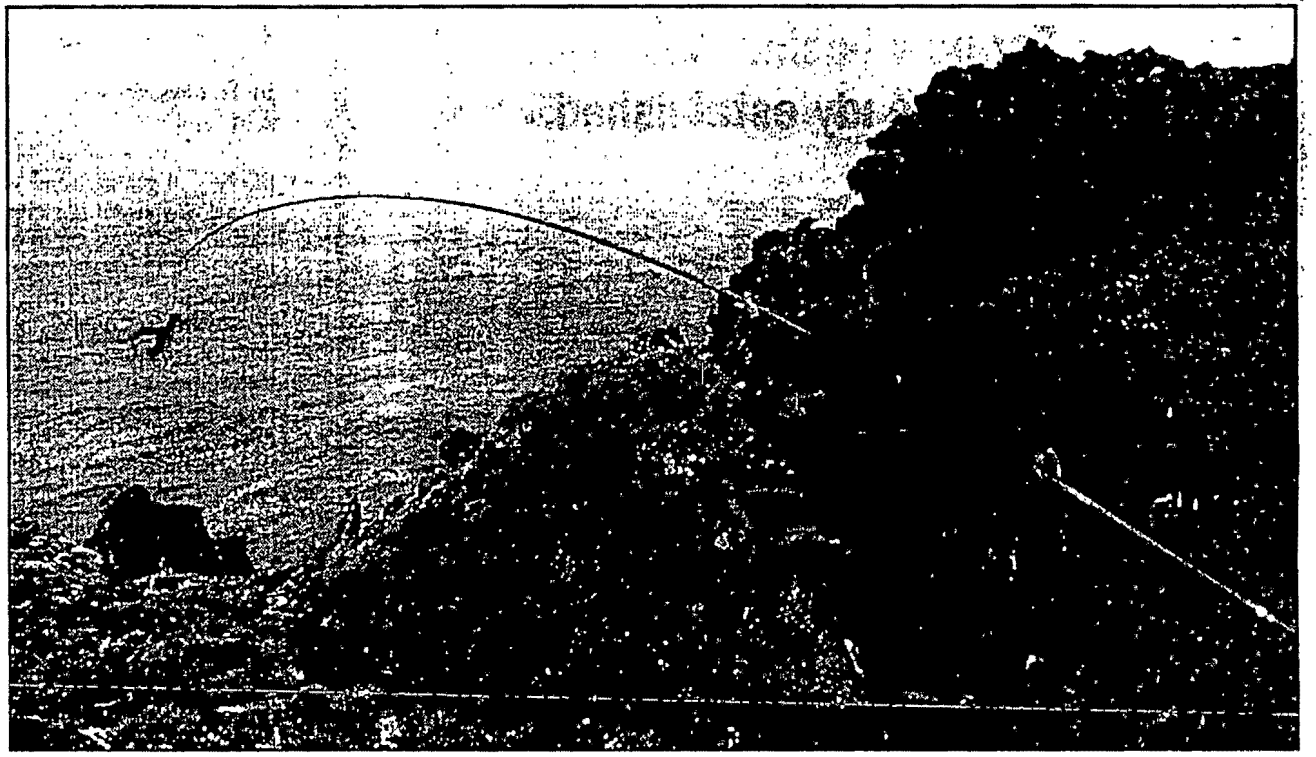


Photo by Joel Gay, Homer News

It takes a long pole and a quick hand to snag seabirds, but Alexander Kitaysky has developed a knack. The birds are released after biologists take blood samples and the birds weight and size measurements.

It may also help to study similar animals, such as Robson's specialty — northern fur seals. Bogoslof is an interesting situation, he said, because as sea lions declined, the fur seal population on the island rose from zero to an estimated 10,000.

Elsewhere along the Aleutians and the Alaska Peninsula, sea otters and harbor seals are in decline, perhaps because of predation by killer whales. Could orcas be responsible for the other populations' drops?

"We often look for one answer to population declines, when it could be a matrix of problems," Robson said, such as increasing predation by whales, reductions in feed by pollock trawlers and perhaps even something else.

For three days at Bogoslof, the scientists fanned out on a variety of missions. Some were long-term, some provided just a snapshot, but all the information was recorded in hopes it can provide someone, sometime, in some lab or office or even wheelhouse, a clue to a different puzzle.

count yet more kittiwakes, puffins and murres.

In a few days the boat would reach Adak, where Piatt and Kitaysky packed up their blood samples, Robson his scats, and Byrd a notebook full of numbers. Their places were taken by 16 sea otter biologists from the U.S. Biological Research Division. Once they got settled into their bunks, the Tiglax spent a week nosing around the island, trying to figure out why sea otters populations have fallen.

In the meantime, however, dinner was on. As the shore crews worked the beaches and cliffs of Bogoslof, those on board were "fishing for science," and hooked several large halibut. The fish were measured and weighed and their stomachs sent to Seattle for analysis of near-shore prey species.

Such scientific scrutiny might eventually help explain what role halibut play in the balance of life in the Bering Sea. That night, however, the fish was smothered in may-

Sale of 75,000 acres nets Eyak Corp. $45 million

y Alberto Cagliano
he Cordova Times

Besides fall rain, dollars are ouring on Eyak Corp. shareholdrs as the Native corporation mails ividends of its profits from land ales to the federal government.

"The average Eyak shareholder, vho owns 100 shares, will receive 25,000," said Eyak Corp. administrative manager Amy Brockert.

The first checks were mailed last week to the corporation's 377 shareholders, 100 of which reside in Cordova. The total number of Eyak Corp. shares is 32,600, Brockert said.

The money for this fall bounty comes from the $45 million sale of 75,000 acres of Native land to the Exxon Valdez Oil Spill Trustee Council.

Eyak General Manager Brian Lettich said the corporation has negotiated with the Trustee Council over the past six years. The land transfer is part of the habitat conservation efforts that followed the 1989 oil spill in Prince William Sound.

A first check was distributed to shareholders in March when the transaction was completed. Brockert said the corporation will receive the money in installments through 2002. She said shareholders will receive payments of varying amounts for three years in the month of October.

Lettich said the corporation also set aside $10 million to create a permanent fund that will benefit shareholders over the years.

"The transaction regarded land in Port Gravina, Sheep Bay, Nelson Bay, Hawkins Island, around the Eyak Lake and by the Mile 13 airport," Lettich said.

"If you are pro-conservation, you will look at the deal in a positive way because we set aside 75,000 acres for conservation," he said. "There will be no additional timber business. Eyak is out of the timber business. Our purpose is conserve land as it is for the shareholders."

Cordova Times
10/7/99

Wildlife Tracks

A Publication of the Humane Society of the United States

Volume 5, Number 3, Summer, 1999

IN THE NAME OF RESTORATION

Has the effort to clean up the Exxon Valdez oil spill turned its back on wildlife?

Marybeth Holleman

This work originally appeared in *Orion*, Spring 1999.
195 Main Street, Great Barrington, MA 01230.

My first time in Prince William Sound, I felt as John Muir must have when, one hundred years ago, he named it a "bright and specious wonderland." I was filled with wonder at long fjords of clear cold waters threading between steep verdant mountains; at vast ice fields held in jagged peaks from which glaciers poured to the sea; at ancient ice calving like thunder from those glaciers; at the abundance of fish and marine mammals that thrived in this rich yet harsh landscape, the northernmost reach of the temperate rainforest.

And I was amazed at how untouched it seemed: so few people ventured into those waters; so few even knew of its existence. On those trips fourteen years ago, I spent days in the Sound without seeing any sign of humans. It is this place that compelled me to stay in Alaska, to settle here, find work and home and community. It is this place to which I return every summer, drawn to it as one is drawn to love.

It is also this place that, ten years ago, suffered the most damaging oil spill in history: forty-thousand tons of crude oil spread along 1,500 miles of remote coastline. Now the mark of a decade is upon it, a decade of attempts to heal the place.

How well have we done? The focal point of public attention has been the billion-dollar natural resource settlement managed by the Exxon Valdez Oil Spill Trustee Council, state and federal agency representatives charged with restoration. This money was not to be used to compensate people harmed by the spill, but solely for the place and its wild inhabitants. To restore the wild, reverse the damage.

Continued on page 10

THE BEACH WASN'T CLEANED SO MUCH AS REBUILT, LEFT SCRUBBED AND STERILE.

See Inside

RESTORATION, cont. from front page

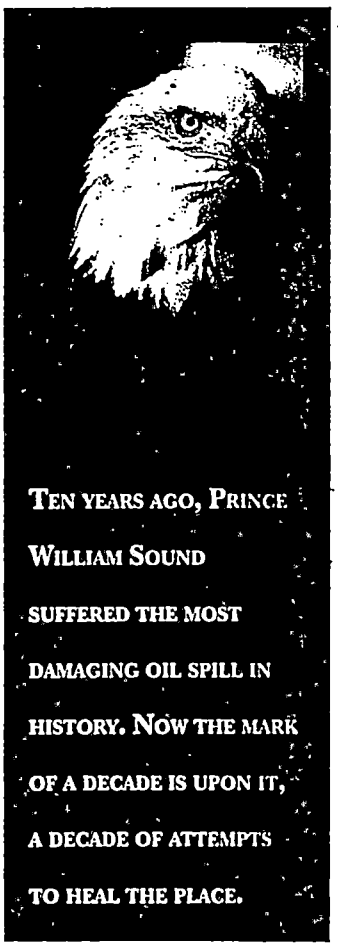
Eight years after the spill, I traveled to southwestern Prince William Sound to write a silver-lining story for a newspaper: $34 million of the restoration money had been used to protect sixty-thousand acres of virgin rainforest from clearcutting. I was elated to return to one of my favorite areas of the Sound, for good news, bright and shining news. This area was "ground zero" of the spill: first and hardest hit. The majority of the oil came ashore here, where most of the Sound's salmon pour into in the spring, where millions of birds migrate through, where orcas and humpbacks and Steller sea lions congregated.

But on that trip to the heart of the spill zone my worst fears were realized: much of what has been funded has not been restoration. It has instead, as *Scientific American* put it, been a "scientific fiasco." We have not acted in the best interests of the place, but have instead fallen prey to short-term self-interest—the same self-interest that caused the spill in the first place.

When I arrived, Roger Stowell, my guide, took me to Ewan Bay, one of five watery fingers off Dangerous Passage, where a reversing waterfall links the bay to an oval lagoon. On an outgoing tide, the water pours into the bay, reaching a height of ten feet. When the tide turns, the water flow reverses. Evening light sifted golden through tall spruce and hemlock, and a bloom of lion's mane jellyfish floated beneath our boat; on our way out we came upon a sea otter mother with a pup on her belly. I felt as if I had returned to paradise.

The next morning we headed to Sleepy Bay, a north-facing curve of beach on Latouche Island. The day was warm and the waters flat; we passed a pod of orcas feeding in Montague Strait. But at Sleepy Bay, the scene shocked and saddened me. Multicolored booms in three parallel half-circles cordoned off a beach. A dozen people, dressed in bright yellow raingear though there wasn't a cloud in the sky, milled around on shore, wielding buckets and long pipes. The intensity of human activity, contrasting with all other beaches we had passed, was all too familiar. In 1989, nearly every beach looked like this.

Sleepy Bay has endured all attempts to get the oil out. In 1990, I watched bulldozers move rocks, digging into the beach to uncover oil for hot water to wash away. The beach wasn't cleaned so much as rebuilt, left scrubbed and sterile. And still it held oil. In the summer of 1998, when other wild salmon stocks finally returned to the Sound, the stream at Sleepy Bay was empty. It should have held hundreds of spawning salmon.



TEN YEARS AGO, PRINCE WILLIAM SOUND SUFFERED THE MOST DAMAGING OIL SPILL IN HISTORY. NOW THE MARK OF A DECADE IS UPON IT, A DECADE OF ATTEMPTS TO HEAL THE PLACE.

I was not surprised oil still stuck to this beach. It clings to Green, Knight, Montague, and many other islands as well. I was surprised, however, that we were still trying to extract it, that after billions spent on cleanup we still had this much faith in the power of technology.

On shore, we were immediately approached by three white men wearing hard hats and jeans. At first they acted guardedly, asking us who we were, what we wanted. But then, lured by the promise of a picture in the paper, they began showing us the latest oil cleanup technology, designed to get oil out from beneath the rocks, oil eight years old, oil that months of hand-scrubbing, summers of cold and hot water washing, years of biochemical treatment, had not budged.

While I listened to them talk of their invention, my attention was drawn beyond them to ten residents of Chenega Bay, Aleuts, dressed in protective gear, trying to clean this beach that, before the oil, they frequented to collect mussels and kelp, fish for salmon, hunt deer. They were silent. Only one spoke briefly, turning over a rock to show me oil glistening beneath, as fresh as if it had washed up yesterday.

On our way to Sleepy Bay we had passed Old Chenega, where the 1964 earthquake's tsunamis swept away twenty-three of the townspeople and so many buildings that the town was abandoned. Now residents of Chenega Bay, the new village, travel there once a year for three days to remember the dead. Now, too, they continue to clean up from the oil spill, which hit them twenty-five years to the day after the earthquake.

When we left, I looked back and saw the villagers sitting in a row on beach logs like cormorants on a rock ledge, eating lunch, staring out to sea. I wondered, did they see a better way to restore the Sound? Or were they as frustrated as I was?

I was grateful to leave that scene and head to Jackpot Bay, where I anticipated experiencing the newly protected place in solitude. Off Dangerous Passage, Jackpot spreads into a series of waterways, some connected like a string of pearls by narrow passages, another widening to embrace a massive waterfall, and one curving back to a small stream. When I'd been there four years earlier, the only evidence of humans I'd seen had been two small fishing boats.

What we found this time, though, made my heart heavy. Near the mouth of the stream, a small settlement had risen: three large wall tents, a couple of buoys on the water, a gas can on the beach, a bright blue tarp covering three fuel barrels, and trails criss-crossing the small headland. This was a research camp, Roger told me, peopled all summer.

We boated ashore and were met by a young graduate student, here for the summer helping with the pigeon guillemot project. Funded by the Trustee Council as restoration work, he and others studied a colony of these seabirds, whose population was devastated by the spill, on an islet in the middle of the bay. Every morn-

ing, these researchers climbed the island, found tunnels in which the birds nest, and reached their hands and arms inside, groping for eggs. They counted them. Later they would capture and band the chicks that hatch.

THE BILLION-DOLLAR NATURAL RESOURCE SETTLEMENT WAS TO BE USED SOLELY FOR THE PLACE AND ITS WILD INHABITANTS. TO RESTORE THE WILD, REVERSE THE DAMAGE.

To my amazement, they weren't able to tell me what they hoped to learn from the project, or how their work might help the bird recover. They wouldn't venture to say whether the forest protection might help the birds. They were uncomfortable with us, edgy. Another boat appeared, with the project director aboard. One of them took the skiff out and didn't return, though I asked her to see if I could talk with the director.

"He's probably giving her a hard time for talking with you," the other two told me. It was strange, as if they were hiding something.

Later I figured it out: They hid nothing. That's the problem. They could show no benefit, no restoration—just data and banded birds. Every day on that trip, we saw research boats and research camps. Before the spill, only a few researchers worked in the Sound. Now, though, with funds from the settlement, cadres of scientists study guillemots, river otters, sea otters, mussels, herring. All a result of the spill, of the $1 billion natural resource settlement. And, few of the many projects have helped the animals.

That evening I lay in my bunk, so upset I couldn't sleep. I recalled the last time I was in this place. It was four years after the oil spill, and I had been aware that there were fewer seals, sea otters, birds. But I had believed it was healing. Wounds take time, undisturbed time, to heal. I thought that, after the frenetic first two years' $2-billion cleanup and $150-million damage assessment, the Sound was now getting that undisturbed time to heal.

I was wrong. Eight years after the spill, more research went on in the Sound than did four years earlier. Now, instead of damage assessment, it is called restoration. Now there is a pot of money to fund it. Now dozens of projects employ hundreds of people during the season. The spill spawned a new industry whose center is here.

But it is not restoration. They are not working in the best interest of the wildlife, the wildlife that exists here and now. They are instead picking at the wound, keeping it open, creating new wounds. Yes, we know more about these animals being counted and darted, poked and prodded. But what good is that knowledge? They aren't more protected from oil spills; their lives aren't better, safer. Of dozens of affected species, only one, the bald eagle, has recovered.

Their lives are, instead, harder for all this research, much of it intensely intrusive. Harlequins, strikingly marked sea ducks, have suffered severe reproductive failure since the spill, and no one knows why. So the Trustee Council funded the "harlequin roundup": in the spring, when the birds are molting and flightless, researchers in kayaks circle a flock of swimming ducks and herd them into nets. Once caught, they have radio transmitters implanted in their bellies, and are released. So far, most have died.

LITTLE HAS BEEN SPENT ON PREVENTION. ATHOUGH THE OIL POLLUTION ACT OF 1990 ESTABLISHED NEW TANKER STANDARDS, INCLUDING DOUBLE HULLS, NONE HAVE BEEN BUILT.

Others have died in the name of restoration as well: sea otters, salmon, scoters, harbor seals. Hundreds of seabirds were shot and strapped with transmitters so researchers could chart where dead birds go. Harbor seals and Steller sea lions—now listed as endangered—were declining before the spill, likely from diminished food sources caused by overfishing. Oil-slicked haulouts exacerbated matters. Shortly after the spill, nearly two dozen seals were "collected" so their stomach contents could be studied. Many others have since been captured and burdened with radios and antennas on their backs.

We define restoration as restitution for a loss, as returning to a previous and more desirable state, as renewing, giving back. These research projects, these vivisections, not only fail to do that—they make things worse. But, as with the high-technology beach cleanup, we continue to put our money—the Sound's money—into them. As one letter to the editor in the *Anchorage Daily News* said, "Research should not be the legacy of the spill: Prince William Sound should."

Unfortunately, intrusive research isn't the most blatant misuse of restoration money. There's the Seward Sealife Center, an aquarium touted as a research facility where tourists can see puffins and river otters and harbor seals. How is caging wild animals considered restoration? Of the $50 million it took to build the aquarium, $38 million came from the restoration fund. Each year, millions of dollars from the fund will go to support it. For one research project, healthy river otters have been captured and caged, and are being fed oiled food, after which their blood is tested—this to give researchers a benchmark for interpreting the blood samples they've already collected from otters in the Sound. In response to a letter in the Daily News denouncing this project, a researcher wrote that "we don't know whether oil affects river otters." Of course we do.

The money has been used to fund other buildings; in fact, nearly every community in the spill zone has a new facility from these funds. In Kodiak, it's a multimillion-dollar industrial technology center; in Seward, a commercial shellfish hatchery. This isn't about restoration; it's about a pot of money, and everyone wants some.

In the latest round, the Trustee Coun-

cil has set aside $140 million for a "Restoration Reserve," money that can be stretched to last for decades to, as one Trustee Council member said, "fund research by scientists who are still in grade school." They ought to be honest. They ought to call it the Research Reserve.

Many who clamor for a piece don't even link their request to restoration. An esteemed former legislator is pushing to use the reserve for science education throughout the state. Letters from University of Alaska professors asking for an endowment ignore restoration as well: one professor says only it "would serve the state well, now and in the future . . . the university lags behind state development." It's about tenure and job security. It's about self-interest, and short-term self-interest at that. It's not about the health of the wild.

RESEARCH SHOULD NOT BE THE LEGACY OF THE SPILL: PRINCE WILLIAM SOUND SHOULD.

(LETTER FROM THE *ANCHORAGE DAILY NEWS*)

At a national Environmental History conference last August, sponsored by the University of Alaska Anchorage, a panel discussed the Exxon Valdez oil spill. Walt Parker, who has worked in oil transportation safety issues since the inception of the Trans-Alaska Pipeline, said the risk of an oil spill in Prince William Sound is greater now than in 1989. While much has been spent on response, little has been spent on prevention. The pipeline is older and less sturdy, and although the Oil Pollution Act of 1990 established new tanker standards, including double hulls, none have been built.

"It was an old fleet in 1989," he said, "and now it's a decade older. These are the roughest waters in the world."

The best we can do for Prince William Sound is to do everything possible to prevent such a spill from recurring. We're not doing that. Instead we're flushing beaches, sticking our hands in burrows, rounding up and capturing and implanting transmitters. All this science isn't restoration. It's science.

At the same panel discussion, Stan Senner, science coordinator for the Trustee Council, said, "Most of the recovery has and will come from natural processes." This is a clear admission that science can't fix it, that humans can't fix it, from those responsible for restoration. So, what good are the buildings, science projects, beach clean-ups paid for with restoration money?

Senner justifies the research by saying it "provides information that will enable us to sustain the ecosystem over time." Rather, we have the illusion that observing animals somehow helps them recover. The bald eagle recovered without any help from science—all science did was record it. And few restorative managment decisions have come from ten years' worth of research.

What's worse, those decisions made are often baffling and contradictory. This year, the river otter was moved to the "recovered" list and six were captured and caged in the aquarium for research, while at the same time river otter trapping in the Sound was, for the first time ever, restricted.

If, as even Senner said, the Sound will recover of itself, the best restoration may be to simply let it be. We could limit the number of people in the Sound, the number of boats and camps—a permit system, like Denali National Park's. I'd be willing, even if it meant I couldn't go there every summer. In the name of restoration, I'd be willing.

But things are heading in the opposite direction. The state is building a road connecting the highway system to Prince William Sound at Whittier, only forty miles south of Anchorage. It's estimated that the numbers of boats and people in the Sound will increase from 100,000 to more than 1.4 million a year. There will be more boats than river otters, more people than pigeon guillemots.

The Trustee Council did not make a move to stop this road, though only four lines in the road's Environmental Impact Statement were devoted to effects on the Sound, though even the researchers in Jackpot Bay said the road may do more damage than the oil. Despite their charge to restore the Sound, the Council did nothing to prevent what promises to be the next disaster.

THIS ISN'T ABOU RESTORATION; IT ABOUT A POT OF MONEY, AND EVERYONE WANTS SOME.

It is hard to accept limits, limits to what we can do, to what we think we can do. It is hard to accept that the best thing may be to do nothing. This is why it's hard for us to see that so much of what goes on in the name of restoration does not help.

Of all that the Trustee Council has funded, habitat protection is the only thing that helps the place without inflicting more damage. Like double hulls and better-trained crews, it is prevention. But as my friend David says, if we consider the Sound a patient, then we ought to remember the healer's hippocratic Oath: First, do no more harm.

With habitat protection, coastal forests slated for clearcutting can be saved. Forests connected to oiled beaches and waterways; forests in whose streams spawning salmon lay eggs, the fry returning to the Sound; forests in whose trees nest birds who feed upon the fish in the Sound; forests along whose edges are fragile intertidal areas, nurseries where fresh- and saltwater meet; forests entwined with the sea in mutually dependent relation: all can be saved.

Habitat protection allows for what we most need to restore: our relationship with the place. Not through management, and the arrogance to think we know what's best: that's what we use to justify science and technology. And not through a total absence of human interaction with the place. Restoring our right relationship with Prince William Sound requires learning, or remembering, a way to be in the natural world that doesn't desecrate or

overrun, but that maintains and respects.

We find it through attentive love: through action based on the love that comes from awareness of what the place and its inhabitants need and desire. Attentive love requires an ethic of humility. It sees excessive control as a liability; it reveres the process of life; it knows that sometimes it's best to do nothing. Scientists like Barbara McClintock and Jane Goodall have shown us this ethic: McClintock says she listened to the corn, Goodall let herself be guided by the chimpanzees.

Attentive love requires a patient regard for another who demands preservation and growth. It is how we raise our children. It requires faith in ourselves and in the beloved. And many people do it, in small and unrecognizable ways each day. Consider Roger who was constantly aware, constantly noticing every small thing about the place he has chosen to inhabit and be inhabited by. Having lived in the Sound eighteen years, Roger knew every inch. As he took me along Dangerous Passage, he stopped near a small island in Paddy Bay.

"There," he pointed to a spruce. "See the eagle's nest? This is the thirteenth summer they've nested here." At the mouth of Eshamy, he pointed out a spit of land. "A few falls ago," he told me, "I caught five bear hunters camped there. I chased them off, told them no hunting allowed." He told me stories of catching kayakers littering and boaters dumping used oil. It had once been his job to patrol these waters. I knew, but I sensed that he would continue no matter who the owner was: in his eyes, the needs of the land don't change.

In attentive love, the natural world remains wild. As Jack Turner says in *The Abstract Wild*, "A place is wild when its order is created according to its own principles of organization—when it is self-willed land." Attentive love enhances this self-willed nature by only doing what is asked.

But we have to listen. Imagine the Trustee Council meeting to decide about research funding not in a conference room in Anchorage, but on the beach at Sleepy Bay, or by the stream at Jackpot Bay. Never before have they gone to the Sound as the Council. Imagine, though, that they each watched harlequin ducks in their habitat before deciding whether to fund another roundup. Imagine a gathering each year like the gathering of earthquake survivors at old Chenega: remembering and honoring. Imagine such a gathering for the tenth anniversary of the oil spill, instead of the two-day technology conference in Valdez or the three-day science conference in Anchorage.

INTRUSIVE RESEARCH ISN'T THE MOST BLATANT MISUSE OF RESTORATION MONEY. THERE'S THE SEWARD SEALIFE CENTER, AN AQUARIUM TOUTED AS A RESEARCH FACILITY WHERE TOURISTS CAN SEE PUFFINS AND RIVER OTTERS AND HARBOR SEALS. OF THE $50 MILLION IT TOOK TO BUILD THE AQUARIUM, $38 MILLION CAME FROM THE RESTORATION FUND.

If we listen, the Sound will tell us that we don't need to capture harlequins, we don't need to band guillemots, we don't need to excavate beaches. The Sound will show us other paths of restoration.

On my last morning, Roger took me to a small beach on Chenega Island. I walked into the forest, following a small stream crossed with fallen logs and bending branches. Abandoning the stream, I followed an animal trail around boulders and up a steep bank. Sounds were muffled by thick moss: at my feet, on the branches, on the trunks around me. Every limb I touched felt mossy soft, wet and green. Walking was slow, for moss hid a tangle of fallen limbs and rocks.

I looked up at shafts of light pouring down upon small patches of the forest. One tree, larger than the rest, held several large moss platforms in its arms. I wondered if any were the nests of marbled murrelets.

Deep in the darkness of trees, marbled murrelets nest. They are small seabirds, indistinguishable as they bob on the ocean. They spend days out at sea, then fly back into the old-growth forests reaching speeds of one hundred miles an hour, little bolts of feather bodies among thick stands of rainforest trees. Into the forest. Zip. Out to the sea, to feed on the fish. Zip. Like needle and thread, sewing together land and sea.

OF ALL THAT THE TRUSTEE COUNCIL HAS FUNDED, HABITAT PROTECTION IS THE ONLY THING THAT HELPS THE SOUND WITHOUT INFLICTING MORE DAMAGE. . . . THIS PURCHASE, AND OTHERS LIKE IT, LEAVE OPEN THE POSSIBILITY FOR THE WILD TO LIVE UNHINDERED. THAT SOUNDS LIKE RESTORATION.

I paused at the base of the tree, and, not able to find steady footing, grabbed hold of the trunk. I leaned into it, tried to encircle it with my arms, but could not. It was more than six arm-lengths in circumference. Over five hundred years old, this tree was now protected. An earthquake might fell it, a tsunami, but not a chainsaw. Even if a murrelet did not now nest in it, one could. Even if a river otter didn't make the trail I followed back down to the stream, one could.

It is the possibility of the wild that gives me hope. This purchase, and others like it, leave open the possibility for the wild to live unhindered. That sounds like restoration.

Marybeth Holleman's work has appeared in venues including *The Best American Essays*, *Sea, American Nature Writing* and *National Wildlife*. She lives in Anchorage, Alaska where she teaches creative writing and women's studies. She is at work on a book about Prince William Sound.

Exxon Valdez Oil Spill Trustee Council

645 G Street, Suite 401, Anchorage, AK 99501-3451 907/278-8012 fax:907/276-7178

AGENDA

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL MEETING **12/16/99**

December 16, 1999 @ 11 a.m. 10:17 am

645 G STREET, ANCHORAGE

DRAFT

Trustee Council Members:

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

MICHELE BROWN
Commissioner
Alaska Department of Environmental Conservation

MARILYN HEIMAN
Special Assistant to the Secretary for Alaska
U.S. Department of the Interior

DAVE GIBBONS
Trustee Representative
U.S. Department of Agriculture
Forest Service

STEVE PENNOYER
Director, Alaska Region
National Marine Fisheries Service

FRANK RUE
Commissioner
Alaska Department of Fish & Game

Teleconferenced Meeting / Juneau Forest Service Room 541A

State Chair

1. Call to Order 11 a.m.
   - Approval of Agenda
   - Approval of October 22 and November 30, 1999 meeting notes

2. Executive Director's Report - Molly McCammon

3. Public Comment Period 11:15 a.m.

4. Deferred FY00 Work Plan Projects*

* indicates tentative action items

Adjourn - 1 p.m. at the latest

raw

National Oceanic and Atmospheric Administration Alaska Department of Law

Exxon Valdez Oil Spill Trustee Council

645 G Street, Suite 401, Anchorage, AK 99501-3451 907/278-8012 fax:907/276-7178

AGENDA

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL MEETING

December 6, 1999 @ 11 a.m.

645 G STREET, ANCHORAGE

12/9/99

8:41 am

DRAFT

DRAFT

Trustee Council Members:

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

MICHELE BROWN
Commissioner
Alaska Department of Environmental Conservation

MARILYN HEIMAN
Special Assistant to the Secretary for Alaska
U.S. Department of the Interior

DAVE GIBBONS
Trustee Representative
U.S. Department of Agriculture
Forest Service

STEVE PENNOYER
Director, Alaska Region
National Marine Fisheries Service

FRANK RUE
Commissioner
Alaska Department of Fish & Game

Teleconferenced Meeting / Juneau Forest Service Room 541A

State Chair

1. Call to Order 11 a.m.
   - Approval of Agenda
   - Approval of October 22 and November 30, 1999 meeting notes

2. Executive Director's Report - Molly McCammon

3. Public Comment Period 11:15 a.m.

4. Deferred FY96 Work Plan Projects*

* indicates tentative action items

Adjourn - 1 p.m. at the latest

raw

Exxon Valdez Oil Spill Trustee Council

645 G Street, Suite 401, Anchorage, AK 99501-3451 907/278-8012 fax:907/276-7178

TRUSTEE COUNCIL MEETING ACTIONS

November 30, 1999 @ 9 a.m.

By Molly McCammon
Executive Director

DRAFT

Trustee Council Members Present:

*Dave Gibbons, USFS
Marilyn Heiman, USDOI
●Bill Hines, NMFS
Frank Rue, ADF&G
●Dan Easton, ADEC
●Craig Tillery, ADOL

* Chair
In Anchorage via teleconference: Gibbons, Heiman and Tillery.
In Juneau via teleconference: Hines, Rue and Easton.

- Alternates:
  Bill Hines served as an alternate for Steve Pennoyer for the entire meeting.
  Dan Easton served as an alternate for Michele Brown for the entire meeting.
  Craig Tillery served as an alternate for Bruce Botelho for the entire meeting.

Meeting convened at 9:06 a.m.

1. Small Parcels on Kodiak Island

APPROVED MOTION: Authorized the purchase of 17 small parcels,(1092, 1093, 1094, 1095, 1096, 1097, 1098, 1099, 2000, 20001, 2002, 2003, 2004, 2005, 2006, 2024) located on Uyak Bay on Kodiak Island for the total purchase price of $254,000. Motion by Heiman, second by Rue.

Meeting adjourned at 9:18 a.m.

raw

Exxon Valdez Oil Spill Trustee Council

645 G Street, Suite 401, Anchorage, AK 99501-3451 907/278-8012 fax:907/276-7178

TRUSTEE COUNCIL MEETING ACTIONS

October 22, 1999 @ 10 a.m.

By Molly McCammon
Executive Director

DRAFT

Trustee Council Members Present:

Dave Gibbons, USFS
Marilyn Heiman, USDOI
*Steve Pennoyer, NMFS
Frank Rue, ADF&G
Michele Brown, ADEC
●Craig Tillery, ADOL

* Chair
In Juneau: Gibbons, Heiman, Pennoyer, Rue, Brown, & Tillery.

● Alternates:
Craig Tillery served as an alternate for Bruce Botelho for the entire meeting.

Meeting convened at 10:01 a.m.

1. Approval of the Agenda

APPROVED MOTION: Approved the Agenda. Unanimous motion.

2. Approval of the Meeting Minutes

APPROVED MOTION: Approved August 9 and September 9, 1999 Trustee Council meeting notes. Unanimous motion.

3. Briefings

The Trustees were given briefings on the Draft Gulf Ecosystem Monitoring program and small parcel issues.

3. Executive Session

APPROVED MOTION: Approved adjourning into executive session for the purpose of discussing habitat protection issues and to solicit and receive legal advice on Gulf Ecosystem Monitoring (GEM) issues. Motion by Tillery, second by Brown.

Off Record 12:35 p.m.
On Record 1:30 p.m.

4. Resolution to Involve Spill Area Natives:

APPROVED MOTION: Approved, with revisions, a resolution stating the intent of the Council to involve and work with the Alaska Natives in the oil spill region in developing the Gulf Ecosystem Monitoring program. Motion by Rue, second by Brown.

Public comments received from four individuals from Anchorage, Juneau, Kodiak, and Cordova.

Meeting recessed at 2:35 p.m.

DRAFT

raw

Exxon Valdez Oil Spill Trustee Council

645 G Street, Suite 401, Anchorage, AK 99501-3451 907/278-8012 fax:907/276-7178

MEMORANDUM

TO: Trustee Council

THROUGH: Molly McCammon
Executive Director

FROM: Traci Cramer
Administrative Officer

DATE: December 8, 1999

RE: Financial Report as of November 30, 1999

Attached is the Statement of Revenue, Disbursements and Fees, and accompanying notes for the *Exxon Valdez* Joint Trust Fund for the settlement period ending September 30, 2002, as of November 30, 1999. The following is a summary of the information incorporated in the notes and contained on the statement.

Liquidity Account Balance	$59,960,756	
Plus: Other Adjustments (Note 5)	7,185,248	
Less: Restoration Reserve Adjustment (Note 6)	-57,574,857	
Liquidity Fund Balance		$9,571,147
Restoration Reserve Accrued Value	$38,535,696	
Plus: Liquidity Fund Adjustment (Note 6)	57,574,857	
Restoration Reserve Balance		$96,110,553
Joint Trust Fund as of November 30, 1999		**$105,681,700**
Plus: Future Exxon Payments (Note 1)	$140,000,000	
Less: Reimbursements (Note 3)	-7,500,000	
Less: Commitments (Note 7)	-80,042,567	
Uncommitted Balance		$52,457,433
Joint Trust Fund as of September 30, 2002		**$158,139,133**

Attachments

cc: Agency Liaisons
Bob Baldauf

NOTES TO THE STATEMENT OF REVENUE, DISBURSEMENTS AND FEES
FOR THE *EXXON VALDEZ* JOINT TRUST FUND
FOR THE SETTLEMENT PERIOD ENDING SEPTEMBER 30, 2002
As of November 30, 1999

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

Received to Date	$760,000,000
Future Payments	$140,000,000

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 $213,485.

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. The remaining reimbursements represent that amount due the State of Alaska.

4. Fees – CRIS charges a fee of 5% of earnings for cash management services. Total paid since the last report is $10,674.

5. Other 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. Unreported interest and estimated lapse is summarized below.

	Interest	Lapse
United States	$710,943	$2,663,228
State of Alaska	$1,962,409	$1,848,668

6. Restoration Reserve/Liquidity Fund Adjustment – Includes the $12,000,000 transfer approved for Fiscal Year 1998, plus $1,325,000 in interest accrued since September 15, 1997, the $12,000,000 transfer approved for Fiscal Year 1999, plus $725,000 in interest accrued since September 15, 1998, and $12,000,000 transfer approved for Fiscal Year 2000, plus $125,000 in interest accrued since September 15, 1999. The proceeds from the securities that matured on November 15, 1998 and November 15, 1999 were deposited to the Liquidity Fund have also been included. This includes $18,727,207, plus $418,892 in interest, less $30,331 in fees. Also included is $284,088 for fees that were assessed against the Restoration Reserve prematurely and deposited in the Liquidity Fund.

7. Commitments - Includes $2,711,000 for the Archaeological Repository and the following land payments.

Seller	Amount	Due
Afognak Joint Venture	$23,025,833	October 2000
Eyak	$18,000,000	September 2000 through 2002
Shuyak	$8,000,000	October 2000 through 2001
Shuyak	$11,805,734	October 2002
Koniag, Incorporated	$16,500,000	September 2002

STATEMENT OF REVENUE, DISBURSEMENT, AND FEES
***EXXON VALDEZ* OIL SPILL JOINT TRUST FUND**
As of November 30, 1999

	1997	1998	1999	To Date 2000	Cumulative Total
REVENUE:					
Contributions: (Note 1)					
Contributions from Exxon Corporation	70,000,000	70,000,000	70,000,000	0	760,000,000
Less: Credit to Exxon Corporation for					(39,913,688)
Deposit of Maturing Securities			9,095,002	9,632,205	18,727,207
Total Contributions	70,000,000	70,000,000	79,095,002	9,632,205	738,813,519
Interest Income: (Note 2)					
Exxon Corporation escrow account					831,233
Joint Trust Fund Account	2,971,070	2,673,585	2,124,921	419,173	23,568,489
Total Interest	2,971,070	2,673,585	2,124,921	419,173	24,399,722
Total Revenue	**72,971,070**	**72,673,585**	**81,219,923**	**10,051,378**	**763,213,240**
DISBURSEMENTS:					
Reimbursement of Past Costs: (Note 3)					
State of Alaska	5,000,000	3,750,000	3,750,000	0	99,059,288
United States	0	0	0	0	69,812,045
Total Reimbursements	5,000,000	3,750,000	3,750,000	0	168,871,333
Disbursements from Liquidity Account:					
State of Alaska	17,846,130	15,686,600	62,457,990	0	250,935,918
United States	60,101,802	39,468,461	32,676,850	0	232,749,633
Transfer to the Restoration Reserve	12,449,552				48,445,783
Total Disbursements	90,397,484	55,155,061	95,134,840	0	532,131,334
FEES:					
U.S. Court Fees - Liquidity Account (Note 4)	254,221	199,946	250,528	20,959	2,249,818
Total Disbursements and Fees	**95,651,705**	**59,105,007**	**99,135,368**	**20,959**	**703,252,484**
Increase (decrease) in Liquidity Account	**(22,680,635)**	**13,568,578**	**(17,915,445)**	**10,030,419**	**59,960,756**
Liquidity Account Balance, beginning balance	76,957,839	54,277,204	67,845,782	49,930,337	
Liquidity Account Balance, end of period	54,277,204	67,845,782	49,930,337	59,960,756	
Other Adjustments: (Note 5)					7,185,248
Restoration Reserve Adjustment: (Note 6)					(57,574,857)
Liquidity Fund Balance					9,571,147
Restoration Reserve Balance					96,110,553
Joint Trust Fund as of June 30, 1999					**105,681,700**
Future Exxon Payments (Note 1)					140,000,000
imbursements (Note 3)					(7,500,000)
Commitments: (Note 7)					(80,042,567)
Joint Trust Fund as of September 30, 2002					**158,139,133**

Statement 1

Statement of *Exxon Valdez* Settlement Funds
As of November 30, 1999

Beginning Balance of Settlement	900,000,000
Receipts:	
Interest Earned on Exxon Escrow Account	337,111
Net Interest Earned on Joint Trust Fund (Note 1)	21,318,671
Interest Earned on United States and State of Alaska Accounts	8,021,264
Total Interest	29,677,045
Disbursements:	
Reimbursements to United States and State of Alaska	168,871,333
Exxon clean up cost deduction	39,913,688
Joint Trust Fund deposits	570,773,419
Total Disbursements	779,558,440
Funds Available:	
Exxon Future Payments	140,000,000
Current Year Payment	0
Balance in Liquidity Account	59,960,756
Other Adjustments (Note 2)	7,185,248
Work Plan Commitments	0
Acquisition Commitments (Note 3)	(77,331,567)
Archaeological Repository (Note 4)	(2,711,000)
Alaska Sealife Center (Note 4)	0
Remaining Reimbursements	(7,500,000)
Restoration Reserve Accrued Value	38,535,696
Joint Trust Fund Balance as of September 30, 2002	158,139,133

Note 1: Gross interest earned less District Court registry fees
Note 2: Adjustment for unreported interest earned and lapse
Note 3: Includes both current year and future year payments
Note 4: Other Authorizations

Footnote:

Statement 2

Cash Flow Statement
***Exxon Valdez* Liquidity Account**
As of November 30, 1999

Receipts:		
Exxon payments		
December 1991	36,837,111	
December 1992	56,586,312	
September 1993	68,382,835	
September 1994	58,728,400	
September 1995	67,303,000	
September 1996	66,708,554	
September 1997	65,000,000	
September 1998	66,250,000	
Deposit of Maturing Securities	9,095,002	
September 1999	66,250,000	
Deposit of Maturing Securities	9,632,205	
Total Deposits	570,773,419	570,773,419
Interest Earned	23,568,489	
Total Interest	23,568,489	23,568,489
Total Receipts		594,341,907
Disbursements:		
Court Requests		
Fiscal Year 1992	12,879,700	
Fiscal Year 1993	27,634,994	
Fiscal Year 1994	50,554,653	
Fiscal Year 1995	89,989,597	
Fiscal Year 1996	74,388,774	
Fiscal Year 1997	77,947,932	
Fiscal Year 1998	55,155,061	
Fiscal Year 1999	95,134,840	
Total Requests	483,685,551	483,685,551
District Court Fees	2,249,818	2,249,818
Transfer to the Restoration Reserve		48,445,783
Total Disbursements		534,381,151
Balance in Joint Trust Fund		59,960,756

Footnote:
A total of $48,445,783 has been disbursed from the Liquidity Account to the Restoration Reserve. Of the total, $48,445,663 was used to purchase laddered securities. The difference of $120 represents costs paid to the Federal Reserve Bank. An additional $10 Federal Reserve Bank fees was assessed the Restoration Reserve on 11/17/97 for costs associated with the reinvestment of maturing securities.

Exxon Valdez Restoration Reserve								
Matured Securities/Outstanding Deposits								
As of November 30, 1999								
		Principal	Adjustment	Earnings	Total			
November 15, 1998 Par Value		9,095,002	284,088					
November 15, 1999 Par Value		9,632,205	0					
Total of Matured Securities		18,727,207	284,088	388,562	19,399,857			
Fiscal Year 1998 Deposit		12,000,000		1,325,000	13,325,000			
Fiscal Year 1999 Deposit		12,000,000		725,000	12,725,000			
Fiscal Year 2000 Deposit		12,000,000		125,000	12,125,000			
Total of Outstanding Deposits		36,000,000		2,175,000	38,175,000			
Total Included in Liquidity Account					57,574,857			
Reserve Portfolio Accrued Value					38,535,696			
Total Accrued Value of the Restoration Reserve					96,110,553			
Interest/Fees associated with the 1998 Security:								
	Reserve	Liquidity	Total	Reserve	Liquidity	Total	Reserve	Liquidity
Period	Balance	Balance	Interest	Interest	Interest	Fees	Fees	Fees
11/19/98 - 11/26/98	9,095,002	47,795,857	40,418	7,691	32,727	4,273	813	3,460
11/27/98 - 12/02/98	9,101,880	47,883,317	37,460	7,121	30,339	4,161	791	3,370
12/03/98 - 12/09/98	9,108,209	47,866,716	33,399	6,355	27,044	3,711	706	3,005
12/10/98 - 12/16/98	9,113,858	48,059,641	26,436	5,013	21,423	2,937	557	2,380
adjustment	284,088							
12/17/98 - 12/23/98	9,402,403	48,089,227	29,586	5,785	23,802	3,287	643	2,645
12/24/98 - 12/30/98	9,407,545	48,117,048	27,821	5,439	22,382	3,091	604	2,487
11/12/99 - 11/17/99	9,726,466	50,222,386	47,265	9,154	38,111	2,488	482	2,006
November 15, 1999 Par Value	9,632,205							
11/18/99 - 11/25/99	19,367,342	59,906,849	52,258	16,895	35,363	2,750	889	1,861
11/04/99 - 11/11/99	19,383,348	59,960,756	53,907	17,426	36,481	2,837	917	1,920
Total				418,892	1,352,874		30,331	96,446

Schedule of Payments from Exxon
As of November 30, 1999

	September 93	September 94	September 95	September 96	September 97	September 98	September 99	Total
Reimbursements:								
United States								
FFY92	0							24,726,280
FFY93	11,617,165							36,117,165
FFY94	0	6,271,600						6,271,600
FFY95	0		2,697,000					2,697,000
Total United States	11,617,165	6,271,600	2,697,000	0	0	0	0	69,812,045
State of Alaska								
General Fund:								
FFY92	0							25,313,756
FFY93	0							16,685,133
FFY94	14,762,703							14,762,703
FFY95	0	0						0
Mitigation Account:								
FFY92	0							3,954,086
FFY93	0							12,314,867
FFY94	5,237,297	5,000,000						10,237,297
FFY95 (Prevention Account)	0		0					0
FFY96 (Prevention Account)				3,291,446				3,291,446
FFY97 (Prevention Account)					5,000,000			5,000,000
FFY98 (Prevention Account)						3,750,000		3,750,000
FFY99 (Prevention Account)							3,750,000	3,750,000
Total State of Alaska	20,000,000	5,000,000	0	3,291,446	5,000,000	3,750,000	3,750,000	99,059,288
Total Reimbursements	31,617,165	11,271,600	2,697,000	3,291,446	5,000,000	3,750,000	3,750,000	168,871,333

	September 93	September 94	September 95	September 96	September 97	September 98	September 99	Total
Deposits to Joint Trust Fund								
FFY92	0							36,837,111
FFY93	68,382,835							124,969,147
FFY94	0							0
FFY95	0	58,728,400	67,303,000					126,031,400
FFY96				66,708,554				66,708,554
FFY97					65,000,000			65,000,000
FFY98						66,250,000	66,250,000	132,500,000
Total Deposits to Joint Trust Fund	68,382,835	58,728,400	67,303,000	66,708,554	65,000,000	66,250,000	66,250,000	552,046,212
Exxon clean up cost deduction	0	0	0	0	0	0	0	39,913,688
Total Payments	100,000,000	70,000,000	70,000,000	70,000,000	70,000,000	70,000,000	70,000,000	690,831,233
Remaining Exxon payments to be made:								
September 1994								
September 1995								
September 1996								
September 1997								
September 1998								
September 1999								
September 2000		70,000,000						
September 2001		70,000,000						
		140,000,000						

The December 1991 payment includes interest accrued on the escrow account. The actual disbursements without interest was $24.5 million to the United States, $29 million to the State of Alaska and $36.5 million to the Joint Trust Fund. The total interest earned on the escrow account was $831,233 which was disbursed proportionately. This included $226,280 to the United States, $267,842 to the State of Alaska and $337,111 to the Joint Trust Fund.

The September 1994 reimbursement to the United States included an over-payment of $80,700 to NOAA. This over-payment is a direct result of final costs for damage assessment activities being lower than what was previously estimated. The funds were returned to the Joint Account by reducing the amount transferred to the United States in Court Request number 15.

Schedule of Disbursements
***Exxon Valdez* Liquidity Account**
As of November 30, 1999

	United States	State of Alaska	Court Request Total	Court Fees	Disbursements Total
Total Fiscal Year 1992	6,320,500	6,559,200	12,879,700	23,000	12,902,700
Total Fiscal Year 1993	9,105,881	18,529,113	27,634,994	154,000	27,788,994
Total Fiscal Year 1994	6,008,387	44,546,266	50,554,653	364,000	50,918,653
Total Fiscal Year 1995	48,019,928	41,969,669	89,989,597	586,857	90,576,454
Court Request 17		3,294,667	3,294,667		
Court Request 18	8,000,000		8,000,000		
Court Request 19	3,222,224	1,968,898	5,191,122		
Restoration Reserve Transfer			35,996,231		
Court Request 20		8,000,000	8,000,000		
Court Request 21	1,007,000	5,520,500	6,527,500		
Court Request 22	18,818,600	24,556,885	43,375,485		
Total Fiscal Year 1996	31,047,824	43,340,950	110,385,004	396,307	110,781,312
Court Request 23	2,613,500	0	2,613,500		
Court Request 24	176,500	3,075,625	3,252,125		
Court Request 25	785,859	442,833	1,228,692		
Court Request 26	24,154,000	530,000	24,684,000		
Court Request 27	324,700	1,470,900	1,795,600		
Restoration Reserve Transfer			12,449,552		
Court Request 28	0	2,627,000	2,627,000		
Court Request 29	5,919,169	5,699,772	11,618,941		
Court Request 30	26,128,074	4,000,000	30,128,074		
Total Fiscal Year 1997	60,101,802	17,846,130	90,397,484	254,221	90,651,705
Court Request 31	445,200	643,800	1,089,000		
Court Request 32	464,300	996,100	1,460,400		
Court Request 33	14,150,000		14,150,000		
Court Request 34	4,000,000		4,000,000		
Court Request 35	20,408,961	14,046,700	34,455,661		
Court Request 35 Correction					
Total Fiscal Year 1998	39,468,461	15,686,600	55,155,061	199,946	55,355,007
Court Request 35 Correctio	-300		-300		
Court Request 36		29,520,000	29,520,000		
Court Request 37	13,000,000		13,000,000		
Court Request 38	451,100	1,613,200	2,064,300		
Court Request 39	156,300		156,300		
98180 Revenue Adjustment	21,400	-21,400	0		
Court Request 40	4,951,500	4,858,800	9,810,300		
Court Request 41	14,096,850	26,487,390	40,584,240		
Total Fiscal Year 1999	32,676,850	62,457,990	95,134,840	250,528	95,385,368
Court Request 42			0		
Total Fiscal Year 2000	0	0	0	20,959	20,959
Total	**232,749,633**	**250,935,918**	**532,131,334**	**2,249,818**	**534,381,151**

Exxon Valdez Liquidity Account
Interest Earned/District Court Registry Fees
As of November 30, 1999

	FFY 1994	FFY 1995	FFY 1996	FFY 1997	FFY 1998	FFY 1999	FFY 2000	Total
Earnings Deposits	33,476	55,809						138,092
Earnings Allocated:								
1991								28,704
1992								1,080,309
1993	1,461,736							2,100,915
1994	1,876,788	1,402,938						3,279,726
1995		3,661,063	1,202,209					4,863,272
1996			2,364,556	810,894				3,175,451
1997				1,905,955	653,461			2,559,416
1998					1,820,177	695,964		2,516,141
1999						1,178,429	398,214	1,576,644
Total	3,338,524	5,064,001	3,566,766	2,716,849	2,473,639	1,874,393	398,214	21,180,579
Total Earnings	3,372,000	5,119,809	3,566,766	2,716,849	2,473,639	1,874,393	398,214	21,318,671
Registry Fees:								
1991								3,189
1992								120,034
1993	179,658							233,435
1994	184,342	180,072						364,414
1995		406,785	133,579					540,364
1996			262,729	90,099				352,828
1997				164,121	52,983			217,105
1998					146,962	166,171		313,134
1999						84,357	20,959	105,315
Total	364,000	586,857	396,307	254,221	199,946	250,528	20,959	2,249,818
Gross Earnings	3,736,000	5,706,667	3,963,073	2,971,070	2,673,585	2,124,921	419,173	23,568,489

Schedule of Interest Earned on United States and State of Alaska Accounts As of November 30, 1999			
	State of Alaska EVOSS Account	United States NRDA& R	Total
January 1996	134,300		134,300
February 1996	122,348		122,348
March 1996	132,469	64,381	196,850
April 1996	126,550		126,550
May 1996	136,732		136,732
June 1996	145,501	73,267	218,768
July 1996	128,195		128,195
August 1996	106,079		106,079
September 1996	110,890	29,042	139,933
October 1996	181,598		181,598
November 1996	162,806		162,806
December 1996	153,991	71,093	225,084
January 1997	147,934		147,934
February 1997	125,137		125,137
March 1997	131,457	24,374	155,831
April 1997	122,111		122,111
May 1997	114,954		114,954
June 1997	99,811	368,523	468,334
July 1997	221,906		221,906
August 1997	36,898		36,898
September 1997	159,695	38,289	197,984
October 1997	119,195		119,195
November 1997	49,120		49,120
December 1997	92,204	130,183	222,387
January 1998	120,038		120,038
February 1998	29,888		29,888
March 1998	59,202	76,715	135,917
April 1998	55,222		55,222
May 1998	59,406		59,406
June 1998	50,136	74,613	124,749
July 1998	37,215		37,215
August 1998	78,178		78,178
September 1998	157,591	(44,921)	112,670
October 1998	61,084		61,084
November 1998	(16,484)		(16,484)
December 1998	74,639	87,633	162,272
January 1999	80,222		80,222
February 1999	(78,738)		(78,738)
March 1999	101,632	172,530	274,162
April 1999	58,096		58,096
May 1999	(12,282)		(12,282)
June 1999	37,975	94,821	132,797
July 1999	28,764		28,764
August 1999	37,133		37,133
September 1999	147,627	100,380	248,007
October 1999	80,400		80,400
November 1999	40,543		40,543
Total	6,319,456	1,701,808	8,021,264

NOTE: The $117,178 NRDA&R interest figure is cummulative.

Interest was earned for the period July 1992 through December 1995, but the specific amounts have been hidden to allow the spreadsheet to print on one page.

Schedule of Interest Adjustments to the Court Requests
As of November 30, 1999

Court Request	United States	State of Alaska	Total	Comments
Adjustment	2		2	Per Robert Baldauf 12/6/96
Court Request 2	39,871	80,775	120,646	
Court Request 3	3,648	35,012	38,660	
Total Fiscal Year 1993	43,521	115,787	159,308	
Court Request 5	51,231	64,944	116,175	
Court Request 6	22,427	180,536	202,963	
Court Request 7		58,554	58,554	
Total Fiscal Year 1994	73,658	304,034	377,692	
Court Request 8	34,621	52,823	87,444	
Court Request 9		117,838	117,838	
Court Request 10	37,618	44,291	81,909	
Court Request 13	3,849	320,837	324,686	
Court Request 15	63,226	449,634	512,860	
Total Fiscal Year 1995	139,314	985,423	1,124,737	
Court Request 19	48,676	262,202	310,878	
Notice 1	37,100	300	37,400	
Notice 2	26,600	289,400	316,000	
Court Request 22	109,666	934,433	1,044,099	
Total Fiscal Year 1996	222,042	1,486,335	1,708,377	
Court Request 25	29,041	398,567	427,608	
Court Request 26a		275,700	275,700	
Court Request 29	463,989	782,501	1,246,490	
Total Fiscal Year 1997	493,030	1,456,768	1,949,798	
Court Request 34a	19,000	8,700	27,700	
Court Request 35	300		300	
Total Fiscal Year 1998	19,300	8,700	28,000	
Adjustments to Date	990,865	4,357,047	5,347,912	
Total Interest Reported	1,701,808	6,319,456	8,021,264	linked to the Int Acct spreadsheet
Unallocated Interest	**710,943**	**1,962,409**	**2,673,352**	

Footnote: The Total Interest Reported is linked to the INT Acct spreadsheet

Schedule of Lapse Adjustments to the Court Requests
As of November 30, 1999

Court Request	United States	State of Alaska	Total
Court Request 6	3,106,555	3,661,600	6,768,155
Total Fiscal Year 1994	3,106,555	3,661,600	6,768,155
Court Request 15	220,858	2,376,950	2,597,808
Total Fiscal Year 1995	220,858	2,376,950	2,597,808
Court Request 22	1,165,334	2,500,448	3,665,782
Total Fiscal Year 1996	1,165,334	2,500,448	3,665,782
Court Request 29	1,102,442	3,549,927	4,652,369
Total Fiscal Year 1997	1,102,442	3,549,927	4,652,369
Adjustments to Date	5,595,189	12,088,925	17,684,114
Total Reported thru FY98	8,258,417	13,937,593	22,196,010
Unallocated Lapse	**2,663,228**	**1,848,668**	**4,511,896**

Schedule of Work Plan Autl tions and Other Authorizations

	FFY 92	FFY 93	FFY 94	FFY 97	FFY 98	FFY 99	FFY 00	Total
Work Plan Authorizations								
United States:								
June 15, 1992	6,320,500	0	0					
January 25, 1993	0	3,113,900	0					
January 25, 1993	0	6,035,500	0					
November 10, 1993	0	0	0					
November 30, 1993	0	0	2,567,300					
June 1994			4,536,800					
June 1994			84,500					
July 1994			1,500,000					
Carry Forward Authorization								
August 1994								
November 1994								
December 1994								
March 1995								
August 1995								
December 1995								
January 1996								
April 1996								
May 1996								
June 1996								
August 1996				7,923,700				
December 1996				310,900				
February 1997				0				
May 1997				0				
August 1997				85,000	7,263,600			
December 1997					445,200			
June 1998					(39,200)			
August 1998						5,397,700		
December 1998						451,100		
May 1999								
August 1999						91,700	4,859,800	
Total	6,320,500	9,149,400	8,688,600	8,319,600	7,669,600	5,940,500	4,859,800	68,431,300

Schedule of Work Plan Auth tions and Other Authorizations

	FFY 92	FFY 93	FFY 94	FFY 97	FFY 98	FFY 99	FFY 00	Total
Work Plan Authorizations								
State of Alaska								
June 15, 1992	6,559,200	0	0					
January 25, 1993	0	3,574,000	0					
January 25, 1993	0	7,570,900	0					
November 30, 1993	0	0	4,454,400					
June 1994			12,391,700					
June 1994			215,800					
July 1994			0					
Carry Forward Authorization								
August 1994								
November 1994								
December 1994								
March 1995								
August 1995								
December 1995								
April 1996								
May 1996								
June 1996								
August 1996				11,606,300				
December 1996				310,400				
February 1997				275,700				
May 1997				0				
August 1997				(85,000)	9,393,200			
December 1997					643,800			
June 1998					66,900			
August 1998						8,131,400		
December 1998						1,613,200		
January 1999						12,700		
May 1999								
August 1999						(13,000)	4,871,800	
September 1999							40,400	
Total	6,559,200	11,144,900	17,061,900	12,107,400	10,103,900	9,744,300	4,912,200	104,544,500

Schedule of Work Plan Autl tions and Other Authorizations

	FFY 92	FFY 93	FFY 94	FFY 97	FFY 98	FFY 99	FFY 00	Total
Other Authorizations								
United States:								
Orca Narrows (6/94)			2,000,000					3,450,000
Eyak Limited Conservation Easement								200,000
Eyak						27,096,850		27,096,850
Kodiak National Wildlife Refuge (3/95, 9/95 AKI)				7,500,000				36,000,000
Kodiak National Wildlife Refuge (3/95, 9/95 Old Harbor)								11,250,000
Koniag				4,500,000				17,000,000
Small Parcels				3,740,200	4,464,300			8,583,500
Chenega Land Acquisition				24,000,000				24,000,000
Chenega-Area Oiling Reduction				157,400	182,000			343,000
Tatitlek					14,150,000			14,150,000
English Bay				14,128,074				14,128,074
Total			2,000,000	54,025,674	18,796,300	27,096,850	0	156,201,424
State of Alaska:								
Kachemak Bay State Park (1/95)		7,500,000						7,500,000
Alutiiq Repository (11/93)		1,500,000						1,500,000
Seal Bay (11/93,11/94,11/95,11/96)			29,950,000	3,075,625				39,549,334
Shuyak (3/96, 10/96 - 10/02				2,194,266	4,000,000	4,000,000		18,194,266
Afognak Joint Ventures (10/98)						50,247,509		50,247,509
Small Parcels				3,738,000	996,100	770,000		10,524,600
Alaska SeaLife Center								24,956,000
Chenega-Area Oiling Reduction				1,732,000				1,732,000
Alaska SeaLife Center Fish Pass				545,600				545,600
Alaska SeaLife Center Equipment				724,000				724,000
Sound Waste Management Plan				1,167,900		1,857,100		3,025,000
Archaeological Repository							89,000	89,000
Total		9,000,000	29,950,000	13,177,391	4,996,100	56,874,609	0	158,498,309
Total Other Authorizations	0	9,000,000	31,950,000	67,203,065	23,792,400	83,971,459	0	314,699,733
Total Work Plan Authorizations	12,879,700	20,294,300	25,750,500	20,427,000	17,773,500	15,684,800	9,772,000	172,975,800
Restoration Reserve				12,449,552	0	0	0	48,445,783
Total Authorized	12,879,700	29,294,300	57,700,500	100,079,617	41,565,900	99,656,259	9,772,000	536,121,316

Exxon Valdez toration Reserve

For the period ending November 30, 1999

	Matured	Purchase Date	Maturity Date	Unit Cost	Bond Yield	Holding Period	Par Value	Purchase Price	Projected Interest	Daily Accrual	Interest Accrued	Fees Accrued
A1	YES	02/15/96	11/15/97	92.014982	4.820%	639	6,520,000	5,999,376.83	520,623.17	814.75	520,623.17	52,062.32
A2	YES	02/15/96	11/15/98	87.582363	4.885%	1004	6,850,000	5,999,391.87	850,608.13	847.22	850,608.13	85,060.81
A3	YES	02/15/96	11/15/99	82.953778	5.050%	1369	7,232,000	5,999,217.22	1,232,782.78	900.50	1,232,782.78	113,642.94
A4		**02/15/96**	**11/15/00**	**78.462785**	**5.175%**	**1735**	**7,646,000**	**5,999,264.54**	**1,646,735.46**	**949.13**	**1,314,540.99**	**120,539.14**
A5		02/15/96	11/15/01	73.993112	5.310%	2100	8,108,000	5,999,361.52	2,108,638.48	1,004.11	1,390,697.28	127,522.42
A6		02/15/96	11/15/02	69.640845	5.435%	2465	8,615,000	5,999,558.80	2,615,441.20	1,061.03	1,469,527.81	134,750.93
B1	YES	06/19/97	11/15/98	92.238000	5.835%	514	2,245,000	2,070,743.10	174,256.90	339.02	174,256.90	17,425.6
B2	YES	06/19/97	11/15/99	86.555000	6.095%	879	2,397,000	2,074,723.35	322,276.65	366.64	322,276.65	28,304.62
B3		**06/19/97**	**11/15/00**	**81.242000**	**6.195%**	**1245**	**2,554,000**	**2,074,920.68**	**479,079.32**	**384.80**	**344,398.39**	**30,014.61**
B4		06/19/97	11/15/01	76.141000	6.285%	1610	2,725,000	2,074,842.25	650,157.75	403.82	361,423.10	31,498.33
B5		06/19/97	11/15/02	71.628000	6.270%	1975	2,896,000	2,074,346.88	821,653.12	416.03	372,344.07	32,450.10
B6		06/19/97	11/15/03	66.930000	6.360%	2340	3,106,000	2,079,915.79	1,026,084.21	438.50	392,455.29	34,202.81
C1		11/17/97	11/15/04	66.629000	5.890%	2555	9,281,000	6,183,837.49	3,097,162.51	1,212.20	903,086.52	76,368.39
											9,649,021.08	883,843.09

Status:

A1 The proceeds were reinvested 11/17/97 (C1).

A2 The proceeds were deposited into the Liquidity Account.

A3 The proceeds were deposited into the Liquidity Account.

B1 The proceeds were deposited into the Liquidity Account.

B2 The proceeds were deposited into the Liquidity Account.

Average CRIS Liquidity Yield 4.84%

Deposits:		FRB
FY 96 (Securities A1-A6)	35,996,170.78	60.00
FY 97 (Securities B1-B6)	12,449,492.05	60.00
FY 98		10.00
Principal	48,445,662.83	
Gross Earnings	9,649,021.08	
Less: Unpaid Fees	831,780.77	
Less: 1998/1999 Securities	18,727,206.69	(Par Value)
Total	38,535,696.45	
Pending Deposits	57,574,856.12	
Balance	96,110,552.57	130.00
Prior Period	95,845,559.45	
Net Change	264,993.12	

	Fees to Date	Unpaid Fees
	52,062.32	831,780.77

	Principal	Adjustment	Interest	Total
FY 1998 Deposit	12,000,000	0	1,325,000	13,325,000
1998/1999 Par Value	18,727,207	284,088	388,561	19,399,856
FY 1999 Deposit	12,000,000	0	725,000	12,725,000
FY 2000 Deposit	12,000,000	0	125,000	12,125,000
Liquidity Account Total	54,727,207	284,088	2,563,561	57,574,856
Fiscal Year 1998 Contribution				
Period Ending	Principal	Interest @ 5%	Total Transfer	
September-97	12,000,000	25,000	12,025,000	
October-97	12,000,000	75,000	12,075,000	
November-97	12,000,000	125,000	12,125,000	
December-97	12,000,000	175,000	12,175,000	
June-99	12,000,000	1,075,000	13,075,000	
July-99	12,000,000	1,125,000	13,125,000	
August-99	12,000,000	1,175,000	13,175,000	
September-99	12,000,000	1,225,000	13,225,000	
October-99	12,000,000	1,275,000	13,275,000	
November-99	12,000,000	1,325,000	13,325,000	
December-99	12,000,000	1,375,000	13,375,000	
Fiscal Year 1999 Contribution				
Period Ending	Principal	Interest @ 5%	Total Transfer	
September-98	12,000,000	25,000	12,025,000	
October-98	12,000,000	75,000	12,075,000	
November-98	12,000,000	125,000	12,125,000	
December-98	12,000,000	175,000	12,175,000	
July-99	12,000,000	525,000	12,525,000	
August-99	12,000,000	575,000	12,575,000	
September-99	12,000,000	625,000	12,625,000	
October-99	12,000,000	675,000	12,675,000	
November-99	12,000,000	725,000	12,725,000	
December-99	12,000,000	775,000	12,775,000	
Fiscal Year 2000 Contribution				
Period Ending	Principal	Interest @ 5%	Total Transfer	
September-99	12,000,000	25,000	12,025,000	
October-99	12,000,000	75,000	12,075,000	
November-99	12,000,000	125,000	12,125,000	
December-99	12,000,001	125,000	12,125,001	

SPREADSHEET C: CHANGES FROM 12/10/99 SPREADSHEETS

December 16, 1999

Total approved in August	$ 7,321.6	*$ 2.6 reduction (correction)*
Total recommended for defers	871.6	*$ 9.0 reduction*
Total Work Plan	$ 8,193.2	*$11.6 reduction*

00195 Pristane Monitoring in Mussels — *$ no change*

Still **FUND CONTINGENT** but revised DPD was received 12/14 and is being peer reviewed

Revised Abstract: Comparison of marine survival determined from adults returning to hatcheries, with pristane concentration increases in mussels collected from sampling stations within 25 kilometers of hatcheries before and two to three weeks after release of juveniles, showed that 33 percent of the interannual survival variability is explained by pristane increases. This is sufficient to provide an independent basis for marine survival forecasts, which may be improved by additional monitoring stations to geographically optimize coverage near hatcheries. Beginning in FY 00, marine survival forecasts will be compared with actual survivals of hatchery-released juvenile pink salmon to evaluate the reliability of these forecasts as a salmon management tool. The applicability of these forecasts to wild-stock management will also be assessed, using hatchery survivals as a regional surrogate for wild-stock survivals.

00256B Solf Lake Sockeye Salmon Stocking — *$ no change*

Still **FUND CONTINGENT** but 2 of 3 conditions (late report and fish transport permit) have been met; detailed engineering designs still need to be submitted

00379 Assessment of Risk in Fishes Using P450 — *$ no change*

Still **FUND CONTINGENT** but revised budget has been submitted and approved; still waiting for DPD

00391 CIIMMS — *- $9.0*

Still **FUND CONTINGENT** but revised budget has been submitted and approved; still waiting for DPD

Exxon Valdez Oil Spill Trustee Council

645 G Street, Suite 401, Anchorage, AK 99501-3451 907/278-8012 fax:907/276-7178

FAX MEMORANDUM

TO: Trustee Council

FROM: Molly McCammon
Executive Director

RE: FY 00 Work Plan: Deferred Projects

DATE: December 10, 1999

In August the Trustee Council deferred action on 18 projects totaling $1,770,100. I am recommending that nine of these projects totaling $880,600 be funded. This brings the total for the FY 00 work plan to $8,204,800. The Council's target for the FY 00 work plan was $8 - 9 million.

Recommended for funding	$ 880.6
Approved by TC in August	7,324.2
TOTAL	8,204.8

My recommendation is outlined in the two attachments. The numbers spreadsheet (A) presents the recommendation in summary form. The text spreadsheet (B) contains the complete text of the Chief Scientist's recommendation and my recommendation for each deferred project, as well as an abstract of each project. Both spreadsheets are arranged numerically.

SPREADSHEET A -- EXECUTIVE DIRECTOR'S RECOMMENDATIONS: DEFERRED PROJECTS / FY 00 WORK PLAN

Proj. No.	Project Title	Lead Agency	New or Cont'd	Approved in Aug.	Deferred to Dec.	RECOM-MENDATION	FY 01 Recom.	FY 02 Recom.	Total FY00-02	Exec. Director's Recommendation
00127	Tatitlek Coho Salmon Release	ADFG	Cont'd	$0.0	$11.4	**$11.4**	$0.0	$0.0	$11.4	Fund contingent
00195	Pristane Monitoring in Mussels	NOAA	Cont'd	$0.0	$30.2	**$54.9**	$55.0	$55.0	$164.9	Fund contingent
00222	Chenega Bay: Stream 667	USFS	New	$0.0	$55.0	**$0.0**	$0.0	$0.0	$0.0	Do not fund
00256B	Solf Lake Sockeye Salmon Stocking	USFS	Cont'd	$0.0	$159.5	**$159.5**	$40.0	$40.0	$239.5	Fund contingent
00339-CLO	Western PWS Human Use Model	USFS	Cont'd	$14.0	$21.2	**$0.0**		$0.0	$14.0	Do not fund
00366	Remote Video and Time-Lapse Recording	ADFG	Cont'd	$0.0	$46.5	**$46.5**	$12.3	$0.0	$58.8	Fund
00374	Regional Analysis of Juvenile Herring in PWS	ADFG	New	$0.0	$35.5	**$35.5**	$0.0	$0.0	$35.5	Fund contin
00379-CLO	Assessment of Risk to Residual Oil Using P450	ADFG	Cont'd	$0.0	$114.5	**$32.1**	$0.0	$0.0	$32.1	Fund contingent
00389	3-D Ocean State Simulations	ADFG	New	$0.0	$130.0	**$125.3**	$72.2	$0.0	$197.5	Fund
00391	CIIMMS: Cook Inlet Information/Monitoring System	ADNR	Cont'd	$0.0	$600.0	**$370.0**	$230.0	$0.0	$600.0	Fund contingent
00396	Salmon Sharks, Sleeper Sharks, and Spiny Dogfish	NOAA	New	$0.0	$41.9	**$0.0**	$0.0	$0.0	$0.0	Do not fund
00416	Chenega Bay: O'Brien Creek Restoration	USFS	New	$0.0	$27.2	**$0.0**	$0.0	$0.0	$0.0	Do not fund
00453	Recovery Following Removal of Introduced Foxes	DOI	New	$0.0	$47.4	**$0.0**	$0.0	$0.0	$0.0	Do not fund
00478	Testing Satellite Tags	DOI	New	$0.0	$106.1	**$0.0**	$0.0	$0.0	$0.0	Do not fund
00481	Documentary on Intertidal Resources	ADFG	New	$0.0	$120.0	**$0.0**	$0.0	$0.0	$0.0	Do not fund
00562	VHSV, Overwinter Survival, and Year-Class Strength	ADFG	New	$0.0	$82.1	**$0.0**	$0.0	$0.0	$0.0	Do not fund
00563	Kenai River Streambank Habitat Utilization Study	ADFG	New	$0.0	$74.7	**$0.0**	$0.0	$0.0	$0.0	Do not fund
00567	Monitoring Environmental Contaminants	ADEC	New	$9.3	$66.9	**$45.4**	$0.0	$0.0	$54.7	Fund
	Total:			$23.3	$1,770.1	**$880.6***	$409.5	$95.0	$1,408.4	
						+ 7,324.2	*Approved in August*			
						$ 8,204.8	*TOTAL*			

**Total deferred in August $1,770.1*

DRAFT 12/10/99

SPREADSHEET B -- EXECUTIVE DIRECTOR'S RECOMMENDATION: DEFERRED PROJECTS / FY 00 WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	Approved in August	Deferred to Dec.	**RECOM-MENDATION**	FY01 Recom.	FY02 Recom.	Total FY00-02
00127	Tatitlek Coho Salmon Release	G. Kompkoff/Tatitlek IRA Council	ADFG	Cont'd 6th yr. 6 yr. project	$0.0	$11.4	**$11.4**	$0.0	$0.0	$11.4

Project Abstract

This project is creating a coho salmon return to Boulder Bay near Tatitlek village. Enough coho eggs to produce 50,000 smolt will be collected from an Alaska Department of Fish and Game approved stream, incubated and reared to smolt at the Solomon Gulch Hatchery, transported and held for two weeks in net pens in Boulder Bay before release. Release will produce a 2,000 to 3,000 adult return to Boulder Bay for harvest in a subsistence fishery. FY 00 funding will extend the project for an additional year beyond the originally scheduled termination date. Funds for continuation of the project beyond FY 00 will be obtained from other sources.

Chief Scientist's Recommendation

This funding would extend this successful and popular subsistence project for one more year at a very nominal cost. Fund.

Executive Director's Recommendation

Fund contingent on submittal of the report for 98127 and the revised reports for 96127 and 97127. Although the Trustee Council had initially planned to fund this temporary replacement project only through FY 99 (through one coho life cycle), one additional year of Council funding will keep the project going until fund from other sources become available in FY 01. Tatit residents report that the coho salmon produced through this project are being used by subsistence and sport fishermen.

SPREADSHEET B -- EXECUTIVE DIRECTOR'S RECOMMENDATION: DEFERRED PROJECTS / FY 00 WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	Approved in August	Deferred to Dec.	**RECOM-MENDATION**	FY01 Recom.	FY02 Recom.	Total FY00-02
00195	Pristane Monitoring in Mussels	J. Short, P. Harris/NOAA	NOAA	Cont'd 5th yr. 7 yr. project	$0.0	$30.2	**$54.9**	$55.0	$55.0	$164.9

Project Abstract	Chief Scientist's Recommendation	Executive Director's Recommendation
For the last four years, this project has focused on elucidating the transport mechanism of pristane from *Neocalanus spp.* copepods into mussels during spring in Prince William Sound, and on monitoring the seasonal variation of pristane in these mussels. Results from these prior years indicate that the current network of stations sampled twice during May is sufficient to provide a one-year advance indication of significant failure in the production of these copepods within the sound. Because these copepods are the key species linking primary productivity with higher trophic levels, a population failure would have serious ecosystem effects, including reduced catches of salmonids. Beginning in FY 00, the research component of this project will be dropped and the sampling effort reduced considerably as guided by previous research. The objective of this monitoring effort is to provide advance warning of a "reverse regime shift" in Prince William Sound.	This project will continue previously funded work on pristane concentrations in mussels as a tool for monitoring copepod concentrations available to pink salmon juveniles. Recent analyses have revealed a relationship between pristane concentrations in mussels near hatcheries and survival of hatchery-released pink salmon (as returning adults). The increase in the budget from the original request is justified based on the need for increased sampling to further refine the predictive relationships. Fund.	Fund contingent on approval of a revised Detailed Project Description that increases the sampling frequency during April and May and increase the density of monitoring stations near the hatcheries. This increase in scope will increase the precision of pristane monitoring as a forecasting tool. This project is developing a relatively inexpensive measure of marine productivity, thus allowing predictions about future fisheries production and harvest levels.

SPREADSHEET B -- EXECUTIVE DIRECTOR'S RECOMMENDATION: DEFERRED PROJECTS / FY 00 WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	Approved in August	Deferred to Dec.	**RECOM-MENDATION**	FY01 Recom.	FY02 Recom.	Total FY00-02
00222	Chenega Bay Dump Rehabilitation and Salmon Habitat Enhancement (Stream 667 Fish Pass)	R. Spangler /USFS	USFS	New 1st yr. 3 yr. project	$0.0	$55.0	**$0.0**	$0.0	$0.0	$0.0

Project Abstract

The revised proposal seeks to help the recovery of subsistence in Chenega Bay by developing alternatives for rehabilitating the village solid waste dump and reducing marine pollution. This project was proposed by the village as a fish enhancement project, but during initial project feasibility investigations the water quality problems associated with the community dump were identified. The creek flows through the dump of Chenega Bay causing water quality problems. By identifying alternatives and costs for rehabilitating the solid waste facility and long term management of solid waste at the village, marine pollution can be reduced and the potential for enhancing the stream can be realized.

Chief Scientist's Recommendation

This project has been revised to evaluate ways to clean up the dump that surrounds Stream 667 (also known as Anderson Creek) and to provide long-term management of solid wastes from the village of Chenega Bay. The proposed project is a good first step toward restoring the stream and reducing stream pollution if the Trustee Council determines that this project is a funding priority.

Executive Director's Recommendation

Do not fund. This proposal has been revised as expected to focus on assessing rehabilitation of the village solid waste dump and to postpone the fish enhancement component until after the dump has been cleaned up and the water quality of the stream improved. Although the proposal is consistent with the Trustee Council's restoration objectives regarding reduction of marine pollution, it is a lower priority for funding in FY 00. As proposed, funds for actual dump cleanup would be sought from non-EVOS sources. The Chenega Corporation and Village Council are encouraged to seek funds for the assessment phase from other sources as well.

SPREADSHEET B -- EXECUTIVE DIRECTOR'S RECOMMENDATION: DEFERRED PROJECTS / FY 00 WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	Approved in August	Deferred to Dec.	RECOM-MENDATION	FY01 Recom.	FY02 Recom.	Total FY00-02
00256B	Sockeye Salmon Stocking at Solf Lake	D. Gillikin/USFS, P. Shields/ADFG	USFS	Cont'd 5th yr. 7 yr. project	$0.0	$159.5	**$159.5**	$40.0	$40.0	$239.5

Project Abstract

This project will benefit subsistence, recreation, and commercial users of western Prince William Sound. There are two phases to the project: Phase 1, which began in FY 96, verified the ability of Solf Lake to support a sustainable population of sockeye salmon. Phase 2 included stocking the lake with approximately 100,000 sockeye salmon fry, then ensuring access to the lake for returning adult salmon. The stocking program began in 1997 along with modification to the two outlets to control water levels. However, further modifications to the eastern channel are still required to ensure adult returns to Solf Lake.

Chief Scientist's Recommendation

This is the proposed continuation of a sockeye supplementation project for Solf Lake. Enhanced production of sockeye salmon in the lake may be of importance to subsistence users, and should provide substantial recreational benefits for the expected increased number of visitors to Prince William Sound in the near future. Funds in FY 00 will be used to complete improvements to the channel providing access to Solf Lake for returning adults, to continue stocking the lake with sockeye fry, and to monitor food resources in the lake for rearing salmon. Project funding should be contingent on verification of a reliable source of broodstock that is acceptable to the Alaska Department of Fish and Game, provision of detailed engineering drawings for the fish pass prior to construction, and submittal of the final report for Project 98043B.

Executive Director's Recommendation

Fund contingent on (1) the U.S. Forest Service providing a copy of the fish transfer permit for the stocking component of the project from the Alaska Department of Fish and Game, (2) provision of detailed engineering drawings for the fish pass prior to construction, and (3) submittal of the final report for Project 98043B. This project is intended to provide sockeye salmon as a replacement for resources lost or reduced due to the oil spill. The Alaska Department of Fish and Game has determined that Solf Lake can support a sustainable run of 10,000 sockeye salmon. Stocking began in FY 98; the first adult sockeye are expected to return in FY 02. Recreational, commercial, and subsistence fishers should all benefit from this project.

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	Approved in August	Deferred to Dec.	RECOM-MENDATION	FY01 Recom.	FY02 Recom.	Total FY00-02
00339-CLO	Western Prince William Sound Human Use and Wildlife Disturbance Model	L. Suring/USFS, K. Murphy/USFWS	USFS	Cont'd 3rd yr. 3 yr. project	$14.0	$21.2	**$0.0**	$0.0		$14.0

Project Abstract

This project is the continuation of the application of geographic information system (GIS) techniques to describe current human-use patterns in western Prince William Sound. A model of potential use patterns as a result of additional development (e.g., increased access) will also be developed. Funds for preparation of manuscripts for publication in professional journals may be requested in FY 01.

Chief Scientist's Recommendation

This project will complete the development of the human use model and provide a final report. The objective of preparing manuscripts for a journal, which was deferred by the Trustee Council in August, has been delayed by the U.S. Forest Service and may be resubmitted in FY 01.

Executive Director's Recommendation

Consider funding the deferred component of this project (manuscript preparation) in FY 01 after the final report has been completed and reviewed. Completion of the final report was funded by the Trustee Council in August. Originally scheduled to be completed in FY 99, the report has been delayed by the departure from the U.S. Forest Service of one of the principal investigators, as well as key staff from other agencies. The U.S. Forest Service expects to complete the final report later in FY 00 and may resubmit the request for funds for manuscript preparation in FY 01.

SPREADSHEET B -- EXECUTIVE DIRECTOR'S RECOMMENDATION: DEFERRED PROJECTS / FY 00 WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	Approved in August	Deferred to Dec.	RECOM-MENDATION	FY01 Recom.	FY02 Recom.	Total FY00-02
00366	Improved Salmon Escapement Enumeration Using Remote Video and Time-Lapse Recording Technology	E. Otis/ADFG	ADFG	Cont'd 2nd yr. 3 yr. project	$0.0	$46.5	**$46.5**	$12.3	$0.0	$58.8

Project Abstract

Salmon resources and services within the spill area, and particularly within Prince William Sound, were injured by the oil spill and have not fully recovered. To monitor the recovery of salmon stocks in the spill area and improve escapement information used to set spawning escapement goals, this project will develop remote video and time-lapse recording technology for enumerating salmon escapement. Remote video has the potential to provide accurate, archivable documentation of salmon escapements well beyond the capacity of aerial survey indices, and well below the cost of weir and sonar projects. Videotapes can be retrieved and reviewed weekly to facilitate in-season management of commercial fisheries.

Chief Scientist's Recommendation

In this project's first year (FY 99), the remote video technology was shown to be a promising tool for monitoring salmon escapements. Accuracy of salmon escapement estimations compared favorably with weir counts despite some interruptions in the video power supply. Continued improvement in power sources for the video cameras will allow further improvements in accuracy and reliability. Objectives in FY 00 include implementing microwave transmission to provide near real-time data on escapements. The project personnel should apprise those researchers monitoring marine mammals and seabirds of progress in implementing improvements in remote video techniques so that the fruits of this project will benefit a variety of wildlife monitoring efforts. Fund.

Executive Director's Recommendation

This project is developing a new technique for estimating spawner abundance that could potentially advance salmon management. The technique was tested on Delight Creek (sockeye escapement in a small stream) in FY 99. Results have been promising, and warrant funding application of the technique to Dick Creek (pink and chum escapement in a tidally influenced stream) in FY 00. Also in FY 00, as recommended by the Chief Scientist, the principal investigator should apprise, perhaps by working with the agency liaison, those researchers monitoring marine mammals and seabirds of progress in implementing remote video techniques.

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	Approved in August	Deferred to Dec.	RECOM-MENDATION	FY01 Recom.	FY02 Recom.	Total FY00-02
00374	Regional Analysis of Juvenile Herring in Prince William Sound	B. Norcross/UAF	ADFG	New 1st yr. 1 yr. project	$0.0	$35.5	**$35.5**	$0.0	$0.0	$35.5

Project Abstract

This project has been reconfigured to focus on synthesizing existing information on the relationship between stock structure and recruitment in Pacific herring in Prince William Sound. The project will also identify and prioritize future research needs for Pacific herring. A part of the funds will be used to continue an informal working group that will provide the expertise needed to carry out the project objectives.

Chief Scientist's Recommendation

The need for further synthesis and priority setting was apparent as a result of the November 1999 workshop on Pacific herring. The principal investigator will use and further develop a life-history-based model for the Prince William Sound herring population and prioritize research needs with the assistance of a working group. The focus of the effort should be the relationship between stock structure, spawning, and recruitment. Fund contingent on submittal of a revised set of objectives.

Executive Director's Recommendation

Fund contingent on approval of a revised Detailed Project Description that focuses on the synthesis and prioritization recommended by the Chief Scientist. The project will continue work on a key species injured by the oil spill and provide a firmer basis for future ecosystem-level work in GEM (Gulf Ecosystem Monitoring, the Council's long-term research and monitoring program currently under development) and for management of the fishery over the long term.

SPREADSHEET B -- EXECUTIVE DIRECTOR'S RECOMMENDATION: DEFERRED PROJECTS / FY 00 WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	Approved in August	Deferred to Dec.	**RECOM-MENDATION**	FY01 Recom.	FY02 Recom.	Total FY00-02
00379-CLO	Assessment of Risk Caused by Residual Oil in Prince William Sound Using P450 Activity in Fishes	S. Jewett/UAF	ADFG	Cont'd 2nd yr. 2 yr. project	$0.0	$114.5	**$32.1**	$0.0	$0.0	$32.1

Project Abstract

FY 00 funding will close out this project, which is determining the spatial extent of potential exposure to hydrocarbons in western Prince William Sound by examining P450 activity in two coastal fishes, masked greenling and crescent gunnel taken mainly adjacent to oiled mussel beds in 1998, 1999, and 2000. These fishes live and feed in the nearshore zone, and provide an index of exposure for fishes and other vertebrates. In addition, the project will examine the relationship between P450 levels in these fishes, hydrocarbon concentrations in sediments, and hydrocarbon metabolites in these fishes to help determine if exposure is from residual oil from the *Exxon Valdez* spill.

Chief Scientist's Recommendation

Recently obtained data indicate that the nearshore fishes analyzed in the first year of this project had very low levels of exposure to contaminants. Some oiled areas showed declines and levels of enzyme induction are now similarly low across a series of oiled and reference stations in Prince William Sound. Although some induction may be occurring in selected oiled sites, induction does not appear to be widespread in western Prince William Sound and continued study of fish oil exposure is a lower priority for Trustee Council funding. Fund closeout only.

Executive Director's Recommendation

Fund closeout of this project contingent on submittal of a revised Detailed Project Description and budget that reflect closeout only. Preliminary results from FY 99 work do not indicate a level of contamination sufficient to justify another year of sampling.

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	Approved in August	Deferred to Dec.	**RECOM-MENDATION**	FY01 Recom.	FY02 Recom.	Total FY00-02
00389	3-D Ocean State Simulations for Ecosystem Applications from 1995-98 in Prince William Sound	J. Wang/UAF	ADFG	New 1st yr. 2 yr. project	$0.0	$130.0	**$125.3**	$72.2	$0.0	$197.5

Project Abstract

Using the observed data collected from 1995-98 in Prince William Sound and the forcing of tide, coastal current inflow/outflow, freshwater discharge, and wind stress, a 3-D Prince William Sound model developed from the Sound Ecosystem Assessment project (SEA, /320) will be used to produce a continuous four year, 3-D fields of velocity, temperature, salinity and mixing coefficients for resource managers, fishing industry and biological applications (in SEA, only 1996 physical forcing has been provided). In addition, the interannual variability of Prince William Sound ocean circulation, temperature, and salinity due to interannually variable atmospheric forcing will be studied. This will allow identification of the key environmental parameters to be included in a long-term monitoring program to assist resource managers.

Chief Scientist's Recommendation

This project will simulate larval transport of herring during three of the years of the Sound Ecosystem Assessment project (/320). Further application and testing of this three-dimensional circulation model will likely provide a better understanding of larval herring dispersion under different annual conditions. The model could play an important role in monitoring of Prince William Sound in the future. Fund.

Executive Director's Recommendation

Fund. This project will improve understanding of larval herring transport, which is essential for predicting productivity in Prince William Sound and which has been in demand by commercial fishers as well as fisheries managers. In addition, the project will contribute to development of a long-term monitoring program for the sound.

SPREADSHEET B -- EXECUTIVE DIRECTOR'S RECOMMENDATION: DEFERRED PROJECTS / FY 00 WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	Approved in August	Deferred to Dec.	**RECOM-MENDATION**	FY01 Recom.	FY02 Recom.	Total FY00-02
00391	CIIMMS: Cook Inlet Information Management/Monitoring System	K. Zeiner/ADNR, J. Hock/ADEC	ADNR	Cont'd 2nd yr. 3 yr. project	$0.0	$600.0	**$370.0**	$230.0	$0.0	$600.0

Project Abstract

The Cook Inlet Information Management/Monitoring System (CIIMMS) will provide a wide range of users the opportunity to share and access valuable information and data about the Cook Inlet watershed and Cook Inlet-related activities. CIIMMS potential users include educators, scientists, students, researchers, resource managers, private organizations and individual citizens. CIIMMS will provide an interactive website for the Cook Inlet community to efficiently and effectively contribute, identify and access relevant information from a distributed network of providers. The CIIMMS website is at *http://www.dec.state.ak.us/ciimms*.

Chief Scientist's Recommendation

This project has developed a very good prototype website for the Cook Inlet watershed that is an entry point to distributed information on the ecosystem. The web harvest approach uses a searchable metadata archive to index distributed data resources--an impressive feature and a cost-effective and efficient way to construct and maintain system capability by shifting the responsibility for data maintenance and access to the owners and generators of the data. This also makes the design of the interface between CIIMMS and the users a critical element. Continuing refinement of the user interface is in order to improve user friendliness and serviceability. The strategy of promoting system viability through wide user support is a good one for the long-term. Although the investigators have responded thoughtfully and substantively to previous reviews and suggestions, I still am greatly concerned that inadequate attention has been given to the long-term operation and maintenance (O&M) of the system. The current proposal indicates that developing an O&M plan is the final task for the project, but I would recommend that the O&M plan be developed jointly with the final design specifications in order to verify that the system as finally conceived can be adequately maintained by the departments of Environmental Conservation and Natural Resources. To provide the investigators with the flexibility to accomplish this, I would suggest that more of the budget be shifted into FY 01. In addition, a number of very specific suggestions contained in the individual peer reviews should be considered by the project team. Fund at reduced level.

Executive Director's Recommendation

Fund contingent on approval of a revised Detailed Project Description and budget that (1) include development of a long-range maintenance plan concurrent with development of the final system specifications and implementation plan and (2) shift some additional tasks, and the funds associated with those tasks, into FY 01. This project aims to improv management of injured and other marine natural resources by facilitating data sharing, resource management, and planning within the Cook Inlet watershed. The review of the prototype developed in Year 1 has been positive, with some specific recommendations for technical improvements outlined in the peer review memoranda. In addition, the project team is encouraged to continue its high-energy outreach efforts to ensure the system meets the needs of the broader user community.

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	Approved in August	Deferred to Dec.	RECOM-MENDATION	FY01 Recom.	FY02 Recom.	Total FY00-02
00396	Diet, Trophic Interactions, and Historical Trends in Occurrence of Salmon Sharks, Sleeper Sharks, and Spiny Dogfish in Prince William Sound and the Eastern Gulf of Alaska	L. Hulbert/NOAA	NOAA	New 1st yr. 2 yr. project	$0.0	$41.9	**$0.0**	$0.0	$0.0	$0.0

Project Abstract

The revised proposal will investigate spatial and temporal movements, residency, diet composition, ecology, and trophic impacts of salmon sharks and Pacific sleeper sharks in Prince William Sound and will quantify refinements to shark parameters in the ECOPATH model (Project /330). The project will assess evidence of ecological implications of shark populations on the recovery of oil spill injured species through fatty acids and stable isotope tracer analyses and use of simulations based upon the refined ECOPATH model. Acoustic and satellite-linked telemetry will be utilized to determine shark movements and migrations, critical feeding areas and depths, and behavioral data. The research will address the role of the predominant shark species in the dynamic trophic structures in the Prince William Sound region.

Chief Scientist's Recommendation

This is a well conceived proposal for work on two species of sharks that appear to be of growing ecological importance in Prince William Sound. It is well integrated with other efforts in fisheries research. However, the proposal would initiate a new line of research, and other ecological work is presently of higher priority. Do not fund.

Executive Director's Recommendation

Do not fund. This project would fill in data gaps in understanding the ecosystem of Prince William Sound and the Gulf of Alaska, but other significant data gaps would remain. In addition, it is not essential that this work be done in FY 00, making it a lower priority for funding this year. Furthermore, the proposed study may more appropriately be a normal agency management function given the growing fishing pressure on salmon sharks and the other species proposed for study. [NOTE: Revised proposal included budget of $86.0.]

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	Approved in August	Deferred to Dec.	RECOM-MENDATION	FY01 Recom.	FY02 Recom.	Total FY00-02
00416	O'Brien Creek Restoration	R. Spangler/USFS	USFS	New 1st yr. 3 yr. project	$0.0	$27.2	**$0.0**	$0.0	$0.0	$0.0

Project Abstract

This project will help the recovery of subsistence in Chenega Bay by restoring the water flow to O'Brien Creek. The 1964 earthquake resulted in out-wash deposits that caused the stream to become subterranean at low flow levels. This project will restore the stream channel to increase access for migrating salmon, thereby increasing the number of salmon available for subsistence harvest. Additional benefits will be gained through education of Chenega Bay residents on fish habitat restoration techniques.

Chief Scientist's Recommendation

This project would remove a berm from O'Brien Creek, return the creek channel to conditions that existed before the 1964 earthquake, and otherwise provide more suitable habitat for chum and pink salmon. It is estimated that these improvements might provide an average increase of 1,500 pink and 1,000 chum salmon annually as a replacement for subsistence resources lost or reduced as a result of the oil spill. Given the local availability of salmon from other sources this is viewed as a lower priority for Trustee Council funding. Do not fund.

Executive Director's Recommendation

Do not fund. This project would enable O'Brien Creek to produce more pink and chum salmon as a replacement for subsistence resources lost or reduced as a result of the oil spill. Given the availability of salmon from other sources there appears to be little need for increased production. In addition, the stability of reconstructed streambeds is not guaranteed and the long-term prospects for this project in terms of increased production of fish are uncertain.

SPREADSHEET B -- EXECUTIVE DIRECTOR'S RECOMMENDATION: DEFERRED PROJECTS / FY 00 WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	Approved in August	Deferred to Dec.	**RECOM-MENDATION**	FY01 Recom.	FY02 Recom.	Total FY00-02
00453	Monitoring Recovery of Injured Species Following Removal of Introduced Foxes	V. Byrd/USFWS	DOI	New 1st yr. 2 yr. project	$0.0	$47.4	**$0.0**	$0.0	$0.0	$0.0

Project Abstract

Introduced arctic foxes were removed from Simeonof and Chernabura islands in the outer Shumagin Island group in 1994 and 1995 (projects 94041, 95041, 96101) to restore populations of black oystercatchers and pigeon guillemots, two species of birds injured by the oil spill. Oystercatcher and guillemot populations were much lower on Simeonof and Chernabura than on nearby fox-free islands in 1995, but they are expected to recover to historic levels following fox removal. This project will resurvey populations of oystercatchers and guillemots at Simeonof and Chernabura and at nearby reference sites in FY 00, five years after fox removal, to determine whether restoration is underway.

Chief Scientist's Recommendation

This project would carry out follow-up seabird surveys to determine if fox eradication efforts in 1994 and 1995 in the outer Shumagin Island group (Project /041) were successful in restoring seabird populations. This is a worthy project, but there are higher priorities for the FY 00 work plan. Do not fund.

Executive Director's Recommendation

Do not fund. Although this project's objective (documenting the degree to which fox removal on Simeonof and Chernabura islands in 1994-95 was effective in restoring populations of pigeon guillemots and black oystercatchers) is worthwhile, it is not a high priority for funding in FY 00.

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	Approved in August	Deferred to Dec.	**RECOM-MENDATION**	FY01 Recom.	FY02 Recom.	Total FY00-02
00478	Testing Satellite Tags as a Tool for Identifying Critical Habitat	J. Nielsen/USGS-BRD	DOI	New 1st yr. 1 yr. project	$0.0	$106.1	**$0.0**	$0.0	$0.0	$0.0

Project Abstract

The definition of "critical habitat" in the marine environment is essential to the development of reserves or protected areas in relationship to a sustainable commercial or sport fishery. This project will investigate the temporal and spatial distribution of one key fish species, the Pacific halibut. Technology needed to monitor individual fish will be tested and applied. Satellite pop-up and archival satellite tags will be used on live halibut, monitoring their seasonal movements and critical habitats in nearshore and marine environments in the Gulf of Alaska.

Chief Scientist's Recommendation

This is a very good proposal by a highly qualified investigator. Satellite tag technology will contribute greatly to understanding more about important wide-ranging stocks of fish in the Gulf of Alaska and what is needed for their conservation. It is also apparent that tagging technology needs further laboratory-based validation for local application. This work could be delayed a year given higher priorities in the work plan. Do not fund.

Executive Director's Recommendation

Do not fund. This study, which would test the satellite tag technology for its utility in defining critical habitat, would improve understanding of certain stocks of fish in the Gulf of Alaska. However, it is not essential that this work be done in FY 00, making it a lower priority for funding this year. [NOTE: Amount deferred include $31.1 for Alaska SeaLife Center bench fees.]

SPREADSHEET B -- EXECUTIVE DIRECTOR'S RECOMMENDATION: DEFERRED PROJECTS / FY 00 WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	Approved in August	Deferred to Dec.	**RECOM-MENDATION**	FY01 Recom.	FY02 Recom.	Total FY00-02
00481	Documentary Film on the Oil Spill Impacts on Subsistence Use of Intertidal Resources	G. Evanoff/Chenega Bay IRA Council, P. Panamarioff/ Ouzinkie Tribal Council	ADFG	New 1st yr. 1 yr. project	$0.0	$120.0	**$0.0**	$0.0	$0.0	$0.0

Project Abstract

This project (as revised) will produce a 27 minute documentary film on the impacts of the oil spill on the subsistence use of intertidal resources, including mussels, clams, chitons, and octopus, by residents of two predominantly Alaska Native communities: Chenega Bay in Prince William Sound and Ouzinkie on Kodiak Island. This project will build on two previous subsistence documentaries (projects 96214 and 98274) and will focus on the use of resources in the intertidal, the area hardest hit by oil, and broaden the discussion by bringing in the perspective of the residents of Chenega Bay, the first community directly in the path of the spilled oil, and Ouzinkie, the first Kodiak-area community to see the oil arrive. The documentary will compare the impact the spill has had on the use of intertidal resources in each community as well as the ongoing EVOS restoration efforts to help residents mitigate these impacts.

Chief Scientist's Recommendation

This project would document impacts of the oil spill on the subsistence use of intertidal resources in the Chenega Bay and Ouzinkie areas. The documentary film would supplement two previous films funded by the Trustee Council on the spill's impacts to harbor seals and Pacific herring/nearshore resources. This is a worthy project, but there are higher priorities for the FY 00 work plan. Do not fund.

Executive Director's Recommendation

Do not fund. This project, which is patterned after two previous video projects funded by the Trustee Council (96214/Harbor Seals and 98274/Herring and Nearshore Resources), is intended to contribute to the restoration of intertidal resources and subsistence uses by transmitting local knowledge about these resources t the scientific community and others. Within the funding constraints for the FY 00 work plan, production of a third video is a lower priority at this time than those projects recommended for funding. In addition, one issue to be addressed by the video is PSP (paralytic shellfish poisioning) and the use of test kits to detect PSP in the field. These test kits are still in the development phase (see Project 00482), and it would be more appropriate to consider this video once the test kits are available.

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	Approved in August	Deferred to Dec.	RECOM-MENDATION	FY01 Recom.	FY02 Recom.	Total FY00-02
00562	Effect of Viral Hemorrhagic Septicemia Virus on Overwinter Survival of Juvenile Herring in Resurrection Bay: Implications for Year-Class Strength	R. Kocan/Univ. of Washington	ADFG	New 1st yr. 3 yr. project	$0.0	$82.1	**$0.0**	$0.0	$0.0	$0.0

Project Abstract

Viral hemorrhagic septicemia virus (VHSV) has been identified in age-0 Pacific herring soon after metamorphosis (about three months), and has been shown to be highly pathogenic, causing mortality in excess of 50 percent in captive fish. Herring that survive initial exposure have been shown to develop a solid immunity to reinfection, even when challenged with high concentrations of virus. The hypothesis to be tested in this project is that in most years some portion of each age-0 herring cohort is infected and recovers from VHSV, and that they are capable of surviving subsequent exposures to the virus as they age. To test the hypothesis, the project will capture age-0 herring in Resurrection Bay from July through September 2000 and again in April 2001 and evaluate their condition (K factor) as well as susceptibility (immunity) to VHSV.

Chief Scientist's Recommendation

This project would more clearly define viral infection, disease occurrence, and acquisition of immunity in first-year Pacific herring. Disease is potentially a very important factor in the recovery of herring populations in Prince William Sound, but any new efforts on herring need to be integrated into a coordinated plan that addresses other important research needs for herring and establishes priorities. Project 00374, which is recommended for funding, has been revised to provide such an integration and is a higher priority at present. Do not fund.

Executive Director's Recommendation

Do not fund. A recent workshop held by the Chief Scientist and the core peer reviewers on herring resulted in a recommendation that, before additional work on disease is undertaken, a coordinated plan that identifies research priorities for herring be developed Project 00374, which will develop such a plan, is recommended for funding.

SPREADSHEET B -- EXECUTIVE DIRECTOR'S RECOMMENDATION: DEFERRED PROJECTS / FY 00 WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	Approved in August	Deferred to Dec.	RECOM-MENDATION	FY01 Recom.	FY02 Recom.	Total FY00-02
00563	Kenai River Streambank Habitat Utilization Study	B. Hauser/ADFG	ADFG	New 1st yr. 2 yr. project	$0.0	$74.7	**$0.0**	$0.0	$0.0	$0.0

Project Abstract

The Alaska Department of Fish and Game has received state and federal funding, EVOS criminal settlement funds, and Trustee Council funds to implement streambank restoration activities and acquire key habitats on the Kenai River. Streambank rehabilitation has been accomplished with a new approach called soil bioengineering which uses coir (coconut) fabrics and rolls, live and dead vegetation, seedlings, and other measures to stabilize streambanks and provide cover for fish. This project will compare how bioengineered streambank projects function compared to natural and disturbed sites in terms of providing habitat for fish. The results will document and evaluate habitat variables and fish use of restoration projects with the intent of evaluating and improving installation methodologies.

Chief Scientist's Recommendation

Project withdrawn by proposer.

Executive Director's Recommendation

Project withdrawn by proposer.

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	Approved in August	Deferred to Dec.	RECOM-MENDATION	FY01 Recom.	FY02 Recom.	Total FY00-02
00567	Monitoring Environmental Contaminants in the Northern Gulf of Alaska	M. See/ADEC	ADEC	New 1st yr. 1 yr. project	$9.3	$66.9	**$45.4**	$0.0	$0.0	$54.7

Project Abstract

This project will assess needs and priorities for monitoring environmental contaminants in the northern Gulf of Alaska, including the area directly affected by the oil spill. It will evaluate information on water quality, marine species' sensitivities to pollutants, and contaminants that pose potentially adverse effects to the ecosystem and to human health. Recommendations will specify priorities for monitoring of contaminants in order to track lingering oil spill injury, trends and potential effects of pollutants.

Chief Scientist's Recommendation

This project will compile a literature database of existing data on the status and trends of anthropogenic contaminants in the ecosystem of the northern Gulf of Alaska and conduct a workshop to develop priorities regarding environmental contaminants in the gulf. This effort will lay the groundwork for future monitoring designed to track changes in such contamination and its potential effects. Fund.

Executive Director's Recommendation

Fund. This project will contribute to development of a contaminants component for the Trustee Council's long-term monitoring program.

00391 /CIIMMS
Peer Review
(1 of 2)

A Review of the November 3, 1999, Proposal for the Cook Inlet Information Management and Monitoring System"
Prepared for
The Chief Scientist, *Exxon Valdez* Oil Spill Trustee Council

The following is a review of the FY00 proposal (dated November 3, 1999) for the Cook Inlet Information Management and Monitoring System (CIIMMS). This proposal, submitted by a consortium of agencies to the Exxon Valdez Oil Spill Trustee Council, has a cost of $600,000 over two years. In preparing this review, I have also had access to the CIIMMS prototype website (www.dec.state.ak.us/ciimms), and a memo dated May 28, 1999, from Robert B. Spies to Molly McCammon, that provides an assessment of the CIIMMS program.

As a reviewer of the CIIMMS program for the Trustee Council, I have had the benefit of watching the project evolve from its earliest stages through the prototype website. The investigators are to be congratulated for establishing an inclusive process within their region, considering the comments of peer reviewers, and adjusting their project to meet the needs of stakeholders and the concerns of the Chief Scientist. I am especially pleased to see the focus on providing access to data and information rather than the original concepts for data analysis and integration. I have not seen any document distributed by the CIIMMS project team (including the prototype web site) that has not provided a readily available means for providing feedback. While I am not a Cook Inlet resident, I would expect that the potential users of the system feel that the project team is listening to their concerns.

At present, I believe the prototype website meets it's goal of providing a "clearinghouse of clearinghouses" or a "front door" to many existing data sources on the web. This a powerful way to provide access to available information, and can be kept updated in a cost effective manner without the need to manage and maintain large data sets. I particularly liked the ability to select one or several servers to search, with the results provided as links to other sites, and their providing the results of robotic web searches (the "CIIMMS Web harvest") for their users. I provide some specific comments on the web site for the investigators to consider below.

I have two general points for consideration by the Chief Scientist in preparing his recommendation to the Executive Director.

1. I find the actual link of this project to the restoration program rather obscure and poorly implemented. It seems clear to me from reading the DPD that the principal investigators are pounding a square-peg into a round hole when linking the project to the EVOS restoration program. Indeed, the objectives presented on page 8 do not mention the oil spill or injured resources or services. The discussion of why this project is not normal agency management is quite vague and unconvincing.

The link that I see to restoration is that this system could provide for more informed land use decisions that could prevent further injury to recovering resources in the Cook Inlet region (for example, development impacting harbor seal haulouts, oystercatcher nesting sites, or subsistence hunting grounds). It is my opinion, however, that such care for natural resources and services should already be part of EIRs for permit or zoning decisions.

In reviewing the web site, there is no ability to browse by injured resource, for example, and the only reference I could find to injured resources was the implementation on the web of the EVOS project database previously developed by DNR. I would recommend that the Chief Scientist and the principal investigators (or their advisory committee) identify the key injured resources and services in the region, and then consider particular ways that CIIMMS might be revised to most effectively deliver information about the status of these resources or services to the user community.

2. I remain gravely concerned that inadequate attention is being paid to the ongoing operations and maintenance of CIIMMS. I now notice that the funding request has spilled over into a third year (although the overall amount remains the same), and I think that trend could continue with consideration of O&M at the end of the process (step 9, page 8). The investigators have created a useful and innovative tool, but there are many examples of such tools withering for lack of O&M support. There also appears to be no appreciation of the fact that the O&M costs will go up with "future development efforts" (p. 15).

I suggest that one of the tests of the final system specifications (step 3) should be to project the O&M budget and get a commitment from DEC/DNR to multi-year funding of that budget. The criteria identified on p. 15 that "long-term maintenance requirements are reasonable and within the budgetary scope of each agency" should be verified before proceeding to Step 4. If the cost appears too large, the design should be refined until the O&M costs are acceptable.

Specific Comments on Web-site

1. Links page should have themes at the top linked to the list below so users don't have to scroll through the page.
2. The Kenai river sample search results didn't provide much information. For example, items were listed w/o any abstract, and I clicked on one to see what it was and found myself downloading a one megabyte file. For those of us still with 56k dial-up access, it would be nice to have access to small text descriptions to decide if we need to download the big files (size indications of the files would also be nice to see).
3. While I eventually found my way to a screen that allowed me to contribute my information to the system, I had to move through screens making selections about what database to select, or what type of information I had, that were rather confusing. A little more development (probably just text instructions) are needed to guide potential contributors to the correct spot for inputting data.
4. On the search page, a short description of each data base should be included in the box where the user selects them. There seems to be room on the page, and most people will be unable to decide if they want to search the "local" database or the "project" database. I realize that you can move to another page with the descriptions, but putting something on the main page should save the user some time.
5. I'd suggest adding a link to www.fisbase.org, especially the portion dealing with fishes of Alaska.
6. A "stop searching" button on the search page would be really nice, as it refreshes constantly to show progress, and several times I decided it has done enough but couldn't get it to stop.

Evaluation of EVOSTC Project 00391 December 8, 1999

00391/CIIMMS Peer Review (2 of 2)

SUMMARY

The goals of the CIIMMS project are commendable. Initiatives for large scale integrated information services such as this one are needed and important. The year 1 prototype demonstrates significant progress consistent with these goals. Deficits apparent in the prototype from the user perspective are remediable, provided that Phase 2 adheres to a mandate for focus above all on the end user. Concerns about larger scale evolution and long term maintenance of the system are critical to its success and need to be addressed. Specific suggestions made here include (1) attention to the usability of the interface, (2) examination of similar server solutions in use elsewhere, and (3) a requirement for a final technical report regarding the rationale for systems selected so that applicability to GEM and other future needs can be assessed.

SPECIFIC COMMENTS

1. User and resource diversity

The CIIMMS prototype phase has done an excellent job of broadening the program mandate with respect to diversity of users and data types. A good effort has been made thus far in soliciting input from a broad user base and a highly commendable level of responsiveness to input has been visible through the first year and in the prototype. In the second development year there is a risk of waning attention from broader groups of potential users. This would lead to a growing weighting by default on the needs of core participants, predominantly agency specialists. The project team is encouraged to continue high energy outreach efforts to guard against this.

2. Database model

Following the January 1999 workshop, CIIMMS settled on a two-tiered database system using a centralized searchable metadata archive to index distributed data resources. This is a model favored by this reviewer, who feels that the approach offers the best chance of meeting CIIMMS objectives. The bi-layered system shifts the burden of data housing, maintenance, access parameters and retrieval formats to the data owners, and allows CIIMMS to focus on providing a value-added catalog and data portal. This gives CIIMMS the dual benefits of (1) mission feasibility and (2) minimized duplication of data efforts and minimized territorial obstacles over data stewardship.

However, use of this approach requires the patching together of some very disparate elements which can lead to confusing inconsistencies in the interface. The ambitious scope of data resources targeted by CIIMMS accentuates the problem. Selection of this database model places a heavy imperative on the CIIMMS component to serve the user at a high standard with regard to ease of discovery of data and format usefulness/usability of elements retrieved by searches. This imperative is not yet fully realized in the prototype and needs to remain at the forefront of Phase 2 efforts.

3. Prototype function

Overall: The prototype successfully demonstrates an implementation of a two-tiered system for access to a variety of Cook Inlet data resources, and it usefully illustrates the kinds of information types that a user might retrieve. On that score it can be considered a success. However in this reviewer's opinion there remains considerable room for improvement in both serviceability and friendliness of the user interface. In this regard the prototype has not fully realized potential. Some larger aspects of the latter assessment are touched on briefly here; a set of specific, and hopefully constructive, observations/suggestions regarding the interface is attached (Appendix 1).
The most noticeable shortcoming in the current prototype is that the search function fails totally for this reviewer in a Windows 95 environment using Netscape 3.02 (see results of a search on keyword "salmon" below, Fig.1). This appears to be a Javascript incompatibility with that browser version, a serious shortcoming since as many as half of targeted users (including this reviewer on 2 of 3 machines) are likely to still be using Netscape V.3. The prototype does function as advertised in Netscape 4.7 running on Windows 98. It appears to run even better under MS-Explorer v 4, but this is likely attributable to the use of FrontPage in the actual web page generation. Testing on a range of platforms is clearly essential and doubtless on the imminent task list of the CIIMMS group.

Browse mode is currently a disappointment, probably because still incomplete. In the current version users are directed through several levels of topic refinement to a pre-keyed search, but the final browse screen terminates at the same search interface as in the search area, which is targeted to people who "know what they want" (thus browse also is unusable in Netscape 3.0). Clearly the browse area will be an excellent forum for value-added features in data discovery. The browse concept offers rich promise for providing high level, metadata-based information organization and retrieval assistance. Pre-configured searches are a beginning but logical features would suggest menu-based mix-and-matching of keywords presented after navigating the topic refinement tree, and selection of both search goal and data level from among clearly-explained choices. It would then seem preferable to run the search transparently for the user, without requiring him/her to deal with the search interface or to manually select the data sources to search. It is presumed that expansion of this area's tools and menus is high on the CIIMMS team priority list. Data level codes and the "data drilling" concept described in the May 18 Implementation Plan could be showcased in this area to advantage when combined with some skillful programming or clever software.

The forms interface for online metadata contribution is a good idea, an innovative approach to grass roots contribution. As in other components, however, detailed description of the technology behind the function is required to assess its efficacy, reliability, safety and extensibility. These are particularly important issues when considering direct data upload functions.

4. Phase 2 priorities and timeline

The decision to defer development of online visualization and analysis tools beyond Phase 2 was wise and deemed essential by this reviewer. Narrowing the focus just to cataloging and providing "front door access" to data resources was a prudent choice.

The scope and timeline of tasks listed for fy00 is ambitious. In the likely that event all cannot be

accomplished, it is suggested that the program complete higher priorities in full first rather than seeking to cover all tasks in superficial mode. To that end, specification of a minimum set of guaranteed deliverables would be beneficial.

5. Concerns

a) Expansion issues.

Data Sources: Incorporation of less readily accessible, but valuable or required, data resources may present potentially non-trivial delaying or obstructive problems. The CIIMMS project team has demonstrated awareness and sensitivity to these issues and appears at least as well equipped as anyone else to continue striving to surmount them. The level of agency support will help, as will EVOSTC backing. The concept of "critical mass" as applied to contributor participation was alluded to in the proposal. This is a real phenomenon with positive effect, but it can be counted on only for small incremental momentum. The sustaining drive to voluntary participation must continue to be fueled with other advantages/rewards that are kept visible to the data contributors.
System Capacity: Extensibility of the current prototype system should include attention to speed and operations feasibility concerns. Current search speed is satisfactory but this uses a highly centralized example set of data sources. Even in the current prototype there is variability in search success rates associated with physical system function. For example, timeout disconnects aborted searching sporadically during searches conducted by this reviewer at off-peak hours using standard dialup hardware at 36kbs connection. Curiously, the CIIMMS search result table also timed out - while this reviewer was exploring "hits" from one database, the link to hits for an internal CIIMMS database collection (Harvest elements) timed out, necessitating re-running of search - seemingly a bug rather than a feature. Some rough edges and inconsistencies are expected in the prototype, however. It is expected that the final implementation plan will spell out system capacity and speed specifications/limitations.

b) Data delivery issues

The uncountable technical issues related to retrieval and delivery of data to the user are not addressed in any technical detail in the present proposal. Presumably these will be finalized in the Phase 2 Implementation Plan. It is strongly recommended that the Plan include detailed technical description of the final methods.

c) Long term sustainability

Identifying means of long term sustainability is perhaps the greatest concern. To remain viable the system will require at least minimal maintenance beyond Phase 2. To remain useful it will need continuing expansion. Support for these needs is presently unidentified. However in this reviewer's opinion that fact should not preclude seed money support at this stage. The program has demonstrated the ability to deliver and the final product holds promise of substantive utility. While it is recognized that there are no certainties, continuing to stake CIIMMS to this early support of development money will increase the likelihood that the CIIMMS product will be able to secure long-term institutional support for itself in following years.

d) Cost effectiveness

While the program price tag seems high, the extent is difficult to judge because of lack of budget detail. Assessment of cost effectiveness would be aided by further breakout of the budget, particularly of the $129K contract to SAIC, and by information on the roles of personnel from the participating agencies.

5. Suggestions

----1 Request that the system developer provide, as part of the final project report, a technical description and discussion of the final CIIMMS system. This should include: identification of competing technologies considered for the various elements of CIIMMS; brief feature comparisons among the alternatives considered; discussion of the decision process underlying the system components ultimately chosen; detailed technical description of the final system; and ideally an assessment from the developer of problems, pitfalls, failures and successes encountered in building the CIIMMS system. This would provide EVOSTC with an invaluable technological resource as a product in addition to the functioning Cook Inlet data system. The CIIMMS effort could thus be leveraged as a starting point in planning for future EVOSTC information management needs.

----2 Suggest that CIIMMS team-members at all levels give generous time to investigating existing systems developed elsewhere to address similar data problems. The purpose would be to seek to leverage experience from what is already working, avoid reinventing too many wheels, and also to highlight cases where rationale may be needed for explaining CIIMMS' choices among competing approaches. Multi-scale information delivery is an area receiving much attention and some excellent initiatives have recently come into full use. One example particularly worth looking at is the new NOAA Server for "Access to Distributed Data and Information",
(http://www.esdim.noaa.gov/noaaserver-bin/NOAAServer). This is a relatively new offering from NOAA that uses a sophisticated JAVA front end for both temporal and spatial referencing of dataset queries and for organizing retrieved data sets for display or download. The NOAA server provides a highly intuitive user-friendly interface, and their back end technology supports response times faster than most other systems with comparable goals, including the CIIMMS prototype. The result is extremely efficient access to raw datasets in useable formats for scientists, as well as broad searchability of reports, citations, images and other data elements. At the other end of the needs spectrum, the NOAA server gives helpful direction toward more integrated information, via access organized as lists of targeted questions that are culled from actual FAQ files. The questions attempt to phrase information searches in the language and from the perspective of end users -- examples...:

Q: Where can I get Aeronautical Charts in the government?
Q: Do you have information on Air Pollution?
Q: I'm interested in determining times of sunrise and sunset for my city. Where do I get Astronomical Tables?
Q: Can you provide me with information on the average weather conditions in my region?
Q: How frequently do Earthquakes happen?
Q: It seems that El Nino is in the news every day. Where in NOAA can I find out more about it?
Q: Does NOAA list its job openings on-line?
Q: Is the earth getting warmer?
Q: How many Hurricanes hit the East coast last year?

Q: I'm planning a sailing vacation. Where can I get Navigation Charts for U.S. coastal waters?
Q: How do I find NOAA Publications on the environment?
Q: How do Oil Spills affect the environment?
Q: Where can I get information on Ozone and the "Ozone Hole?"
Q: Where can I see more satellite pictures like those on the television weather reports?
Q: What is the temperature of water in the oceans?
Q: Who can provide me data on solar particles, flares, and sunspots?
Q: I need tomorrow's times of high and low Tide where I sail.
Q: What causes Tornadoes?
Q: Are there any Volcanoes erupting right now?
Q: I am interested in past, present, and future Weather conditions in various parts of the country.

NOAA's achievement with this server is mentioned only as an example, relevant because it's one solution to many of the same problems now faced by the CIIMMS team. Scrutiny of sites like this by the CIIMMS group (project staff at all levels, not just the technical developers) will almost certainly yield ideas for desirable features for CIIMMS.

6. Conclusion

A great deal has been accomplished by CIIMMS in just one year. The program offers promise and deserves continued support subject to the concerns listed above.

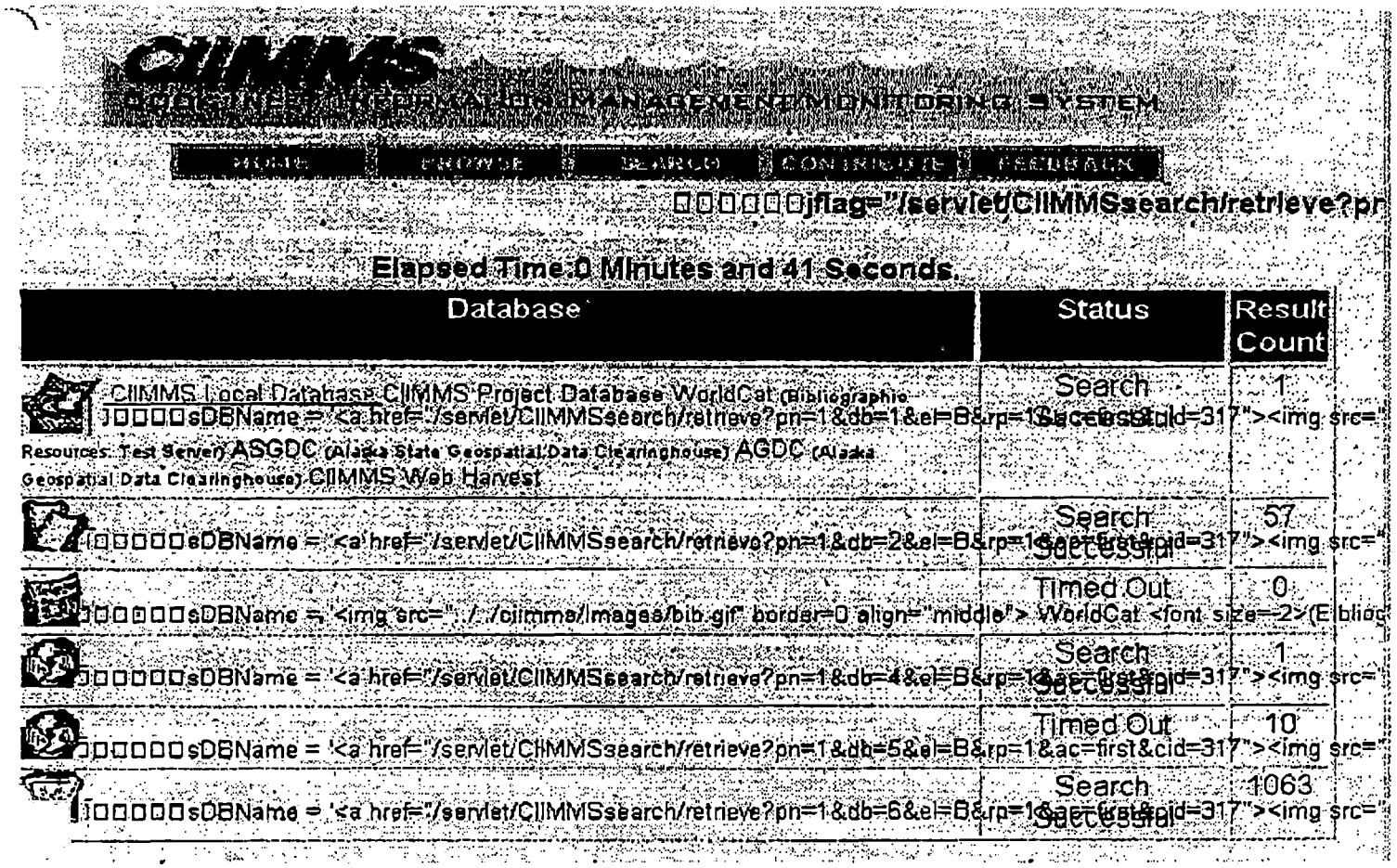


Figure 1: Screen grab of result of search on keyword "salmon" conducted using Netscape 3.0. The search aborted with no useful links to follow. The same search executed successfully in Netscape-4 and IE-4

Kodiak Area Native Association

3449 Rezanof Dr. East
Kodiak, Alaska 99615
Phone (907) 486-9800

December 16, 1999

EVOS Trustee Council
Restoration Office
645 G Street, Room 401
Anchorage, AK 99501-3451

To Whom It May Concern,

The purpose of this letter is to offer support to the Chenga Bay Tribal Council and the Ouzinkie Tribal Council in their efforts to obtain funding for producing a documentary film on the oil spill impacts on subsistence use of intertidal resources.

The EVOS Trustee Council's bibliography of published research dated September, 1999, contains 287 funded projects. Although the Chief Scientist's recommendation and Executive Director's recommendation agree that two previous video projects, one on Harbor Seals and the other on Herrings near shore resources, were enough about our local and traditional concerns, 34 of the 287 funded projects were to study river and sea otters. In addition, the Council has funded more otter projects in FY 2000 and future otter projects are also being considered.

On behalf of the Kodiak Area Native Association, I encourage the EVOS Trustee Council to reconsider funding the Chenga Bay and Ouzinkie proposal to produce a documentary film on the oil spill impacts on subsistence use of intertidal resources. This information is not only of value, but critical to our people and our region.

Sincerely,

KODIAK AREA NATIVE ASSOCIATION

Fred Christiansen
Chairman of the Board

FC/jmt

Exxon Valdez Restoration Office
645 G Street Suite 401
Anchorage, AK 99501-3451

Scott Welch
Blue Valley H.S
ATTN Mrs. Moulin
6001 W. 159th
Stilwell, KS 66085

Dear Exxon Valdex,

I am a student at Blue Valley High School. I write to you because I am concerned about water pollution. I am sure you already know the definition of water pollution but ill refresh your memory. It is contamination of water by foreign matter such as microorganisms, chemicals, industrial or other wastes, or sewage. Such matter deteriorates the quality of the water and renders it unfit to its intended uses. Did you know that marines pollute our water? Well they do. Wastes that are discharged directly into U.S. Marine waters are estimated conservatively to exceed 45 million metric tons per year. About 80 percent of this amount is waste produced by dredging, 10 percent is industrial waste, and 9 percent is sewage sludge. Oil Spills are also a huge factor in water pollution.

All of the information in the first paragraph gives the people concerns about life in the waters and contamination of waters. Because of all the chemicals and wastes there are many fish are dieing. We the people need to figure out a way to stop this. One way is by reducing the pollution humans do to the water. Have more strict rules on the beaches about where your trash goes. We need to figure out a way to prevent pollution by the marines. I believe this can easily be changed if we do something about it.

What I think should happen is there should be more laws inforced about polluting our water. But I am just a student and I can't do much so I leave it up to you guys to do something about it. If you would send me information about what you guys actually do that would be very helpful. Thank you for taking the time to read my paper. I know that in the years to come water pollution will be reduced to nothing.

Sincerely,
Scott Welch

Native Village of Perryville
P.O. Box 101, Perryville, Alaska 99648

November 18, 1999

EVOS Trustee Council
Mark Kuwada and Bill Hauser
ADF&G - H&R
333 Raspberry Road
Anchorage, AK 99518

RE: Kametolook Coho Restoration Projecty # 00247

This is to inform you, as project managers of the EVOS projects, that the Native Village of Perryville fully supports the Kametolook River Coho Restoration Project.

Add any verbiage you feel is appropriate.

Sincerely,

Gerald Kosbruk

Gerald Kosbruk - Native Village of Perryville President

cc: Jim McCullough - ADF&G, Kodiak

Molly McCammon
Restoration Office
645 G Street #401
Anchorage, AK 99501

9 Kingsmill Road
Basingstoke
Hampshire
RG21 3JJ
Great Britain

November 16th 1999

Dear Ms. McCammon:

I am a college student studying in Illinois and I am writing in reference to the work of you and your colleagues over the Exxon Valdez disaster. I have recently completed a paper for my Environmental Chemistry class concerning what has been learned from the incident. It struck me greatly what good the Exxon Valdez Trustee Council has done to restore the area and promote education and action in order that such incidents are not recurring.

I was very much disturbed by what information I uncovered about the effects of the Exxon Valdez oil spill. It surprised me as to how much was touched by the event and especially how extensive the long-term effects were. I was shocked by the extent to which the residents' lives altered and also as to the way the entire surrounding eco-system was challenged. I would like to complement the Council over the positive difference that they are making to the communities in and around Prince William Sound. Without such societies it is difficult to imagine how the residents would be re-building their lives successfully in the midst of the turmoil that still remains.

Not being an American citizen it has pleased me how the United States are taking steps toward controlling such serious environmental problems ina way which will ultimately benefit people around the globe. Thank you for the work you are doing, I wish you luck in the future in continuing to educate people over the extreme negativity created by a 'simple' oil spill.

Yours Sincerely,

Ruth Weaver

"The mission of the Council is to represent the citizens of Cook Inlet in promoting environmentally safe marine transportation and oil facility operations in Cook Inlet."

November 12, 1999

Ms. Molly McCammon, Executive Director
Exxon Valdez Oil Spill Trustee Council
645 G. Street, Suite 401
Anchorage, AK 99501-3451

Dear Ms. McCammon,

This letter is in support of the Cook Inlet Information Management and Monitoring System (CIIMMS) which was funded as part of the Trustee Council's FY99 Work Plan and is currently under review and consideration for funding in the FY 00 Work Plan. The Cook Inlet Regional Citizens Advisory Council (CIRCAC) has supported this project since it's inception and has been impressed and pleased with the progress that the project team has demonstrated to date.

As stated in our previous letters of support for the CIIMMS, CIRCAC believes that the project will provide access to information and data that are needed by scientists, managers, and citizens to improve their planning and decision-making processes. Ultimately, we hope that plans and decisions will be based on the best information available and that the CIIMMS will go a long way towards reaching that goal.

As described in their project plans, and as demonstrated by the Kenai River Watershed prototype, the CIIMMS project should continue to grow into a method for providing access to previously unavailable, or at least difficult to access, data and information from across ecosystem boundaries within the entire Cook Inlet watershed. In addition, information about data that is currently available will be combined and coordinated in a way that it will be easier to access and combine with similar studies. Many of these existing databases have been generated by Trustee Council-funded projects. CIRCAC also has a database from their environmental monitoring program for Cook Inlet that will be accessible through the CIIMMS. In addition, we are currently working on another database that will compile facilities information from all oil industry operations in Cook Inlet. Our contractor has already discussed with Ms. Kelly Zeiner how that database can be incorporated into CIIMMS as well.

CIRCAC took part in organizing and attending the recent CIIMMS demonstrations on the Kenai Peninsula. At these "hands-on" meetings, it was obvious that the CIIMMS project personnel had made a strong effort towards providing an easy, user-friendly computer interface, which made the program easily accessible to all users. This allowed people who didn't have a technical background to use the system and provide feedback. We think it is especially notable that any user will be able to access the information without requiring special software.

Thank-you for this opportunity to encourage you to continue to fund this valuable project. On a slightly different subject, we look forward to your presentation to the CIRCAC Board of Directors in Anchorage at our meeting on December 10th. We have you scheduled to speak at 9:00 a.m.

Sincerely,

James E. Carter, Sr.,
Executive Director, CIRCAC

*Cook Inlet Regional Citizens Advisory Council * 910 Highland Avenue, Kenai, AK 99611-8033*
*Phone: (907)283-7222 * Fax (907) 283-6102*

WWF

October 27, 1999

Exxon Valdez Oil Spill Trustee Council
Attn: Molly McCammon
645 G Street
Anchorage, AK 99501

Re: WWF support for proposed Sitkalidak Island and Shearwater Peninsula land exchange.

Dear Trustee Council Members:

World Wildlife Fund has been actively involved in the Exxon Valdez oil spill restoration public process since 1991 and have been extremely pleased at the progress you have made in wisely spending the largest environmental fine in U.S. history. Your record is second to none in working out a comprehensive approach that includes habitat protection and marine research and is geographically balanced with the political support or a wide range of public and economic interests. Hopefully the EVOS example will serve as a model for other large-scale environmental projects, whether or not they are connected to a tragic event on the scale of the *Exxon Valdez* disaster.

As you know, WWF's primary interest has been in habitat protection through either land acquisition or conservation easements within the oil spill region. We have repeatedly supported habitat protection throughout the oil spill region but have paid particular attention to the Kodiak Archipelago because of its conservation importance to injured species and unique opportunities to achieve ecosystem-scale conservation. Thus, we have provided the Trustee Council with public comment, analysis of the EVOS parcel rankings and public endorsement of your impressive record of successes. This is all the more meaningful to us since or global eco-region mapping process has been completed and ranked the Kodiak Archipelago (and Prince William Sound) as qualifying among the "Global 200" status in terms of its biological distinctiveness and conservation importance to the Gulf of Alaska and Bering Sea ecoregions in particular.

World Wildlife Fund
116 Lithia Way, Suite 7 Ashland, OR 97520
Tel: (541) 482-4878 Fax: (541) 482-4895
Affiliated with World Wide Fund for Nature
E-Mail:Dhile@internetcds.com or DellaSal@internetcds.com
www.worldwildlife.org

With that involvement in mind we are pleased to learn that the EVOS Trustee Council may help facilitate a land trade involving the State of Alaska giving up upland habitat on Sitkalidak Island in exchange for Old Harbor Native Corporation inholdings on the Shearwater Peninsula.

The Old Harbor lands have, by all accounts, much higher biological resources than the lands they would receive on Sitkalidak Island. I can personally attest from a prior visit to Kiliuda Bay to having seen approximately 80 harbor seals resting on a beach on a summer day in the North Arm of Kiliuda Bay very close to the inholdings the State of Alaska would pick up in the proposed land exchange. Clearly these sea mammals would reap benefits from habitat protection measures on the adjoining Old Harbor Native Corp. inholdings.

I am sure that you know that this area has been recently recognized as the second highest area in the Kodiak Archipelago for brown bear density, and that it contains numerous salmon spawning rivers and creeks whereas the Sitkalidak Island area the State is considering giving up has far lower density of fish and wildlife resources.

Therefore on behalf of WWF's 1.2 million members, and in keeping with your admirable record to date of habitat protection, I strongly urge you to help facilitate the Sitkalidak Island and Shearwater Peninsula land exchange.

Thank you for the wisdom you have displayed in your past decisions and please call on me if you have any questions about WWF's interest in the EVOS process.

Sincerely,

Dominick DellaSala, Ph.D.
Director WWF Klamath-Siskiyou Regional Office

Ana E. Cox
10800 W. 155th Terrace
Overland Park, KS 66221

October 23, 1999

Exxon Valdez Restoration Office
645 G Street #401
Anchorage, AK 99501

Dear Sir, Madam:

My name is Ana Cox and I did some research concerning the oil spill that happened at Alaska. I would like to congratulate you on your efforts to restore the damage done to the environment. Although you are trying to restore the condition of the environment there are many things I have learned that have made me realize there are some things that will never recover.

I found out from your website and other sources that the oil stays in the environment for over 10 years! In that time many fishermen and people who rely on tourists have lost their jobs and what they probably have been doing their whole lives. I think that this is very saddening, but they will recover faster because they can move to other areas.

The saddest thing to me, is the animals who have lost their lives and home to the oil spill. The most badly hit were the shore-nesting birds and the sea otters. It killed most of the birds because they got covered in oil, could not fly, and therefore starved to death. The sea otters died because the oil got in their fur making it hard for them to stay afloat. Many other animals have died because of the oil and the lack of food from organisms that died in the oil spill also. This is including many important fish such as

salmon and herring that the fishermen, birds, and all other kinds of organisms animals need to survive.

Is this preventable? I think that in order to save many peoples' jobs and animals lives we should find a way to stop this from happening. Could you steer clear of the reefs? I know that humans are not perfect, but would extra care to where reefs are help? It would save the environment and keep it healthy without having to spend billions of dollars cleaning up the damage done. Stopping these things from happening is also beneficial to the organisms that live in the environment. It would save innumerable lives of animals, fish and organisms. Many of the earth's ecosystems are being destroyed because of other things in the environment. Why not stop oil spills before they happen so that the environment in that area can stay healthy without the need to clean up the damage?

Please, make an effort to stop oil spills before they happen. Do it for the environment, people, animals, and the world.

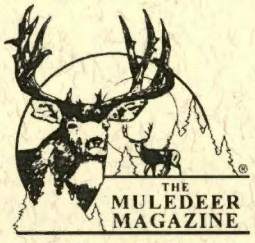
Sincerely,

Ana Cox

Ana Cox

Scott Stouder
EDITOR

l) 929-5844
lders@peak.org



Official Publication of
The Mule Deer Foundation

Holly Endersby
ADVERTISING SALES MGR.

(541) 929-4413
hollye@peak.org

October 21, 1999

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

Dear Council Members:

This letter is intended to provide a hunter's perspective on the land swap being proposed for state lands on Sitkalidak Island going to Old Harbor Native Corporation (OHNC) in exchange for OHNC giving up their inholdings inside Kiliuda Bay.

My qualifications for offering this opinion stem from my position as editor of *Mule Deer* magazine, board member of The Mule Deer Foundation, past board member of The Oregon Hunters Association, and the perspective of someone who hunts four months out of the year.

I'm also a freelance outdoor writer and the outdoor columnist for the Corvallis (Oregon) Gazette-Times. I've won regional and national awards for my newspaper stories about deer hunting on land the Trustee Council has protected through your historic habitat protection agreements on Kodiak and Afognak Islands.

In short, I am a dedicated hunter and an extremely grateful advocate for what you have been able to accomplish to date regarding protection for, and public access to, outstanding wildlife habitat and wilderness hunting destinations on Kodiak.

It's my opinion that Kodiak and Afognak Islands offer the best deer hunting anywhere in America today. Not only does Kodiak support the highest density deer population in Alaska, its wilderness setting, unparalleled season length and liberal bag limits rivals anyplace I've hunted or read about. The deer season starts August 1st and ends December 31st and offers up to four deer per hunter. A typical deer hunting season will have 6,000 hunters harvesting 10,000 deer on a 5,000 square mile wilderness landscape with 3,000 bears roaming around at will. There is no other place like it on earth. And it will only become more unique in the future.

Please consider this perspective when you weigh the merits of the Sitkalidak/Shearwater land swap.

The State of Alaska has a chance to eliminate development threats in an extremely wild yet delicate area of the Shearwater Peninsula that will offer generations of citizens the same experiences I've had on lands in Three Saints Bay and Sitkalidak Island that you've already protected through agreements with Old Harbor. This is the kind of good thing we can't have too much of, and the fact you can get it through exchange instead of purchase is all the better.

Again, thank you for the outstanding record of habitat protection that you have achieved.

Sincerely,

Scott Stouder
Editor *Mule Deer*

CC: Ms. Marty Rutherford, Deputy Commissioner
Alaska Department of Natural Resources

NATIONAL RIFLE ASSOCIATION OF AMERICA
INSTITUTE FOR LEGISLATIVE ACTION
11250 WAPLES MILL ROAD
FAIRFAX, VA 22030-7400

October 20, 1999

Exxon Valdez Oil Spill Trustee Council
C/O Molly McCammon, Executive Director
645 G Street
Anchorage, AK 99501

Dear Members of the EVOS Trustee Council:

On behalf of our members and in accord with the conservation goals we share with you, the NRA strongly urges the Trustee Council to support and facilitate the completion of the proposed land exchange between the Old Harbor Native Corporation (OHNC) and the State of Alaska involving Sitkalidak Island and Shearwater Peninsula in Kiliuda Bay.

Based on recent and historic data on the fish and wildlife values of the Shearwater Peninsula and Kiliuda Bay region of Kodiak Island, it is clear that accepting the proposed land exchange would benefit the State's fish and wildlife management and public use objectives.

Advantages from the proposed land exchange to the State of Alaska are many and the disadvantages few.

First, the State would gain high value coastal and riparian habitat on the Shearwater Peninsula in exchange for comparatively lower value upland and alpine habitat on Sitkalidak Island.

Second, the benefit to oil spill injured wildlife, natural resources and human services would be significant since the OHNC Shearwater Peninsula lands and adjacent tidelands and nearshore waters provide habitat for: pink salmon, Dolly Varden, herring, bald eagle, black oystercatcher, common murre, harbor seals, harlequin duck, pigeon guillemot, rockfish, clams, mussels, intertidal/subtidal biota, marbled murrelet, river otter, commercial fishing, recreation/tourism, archaeological sites and subsistence.

By contrast, the lands the State would exchange on Sitkalidak Island contain little coastline and the potential for benefit only for bald eagle among the EVOS injured

resources. The subsistence, recreation and tourism values of the State's land on Sitkalidak Island are less than the Shearwater Peninsula lands at Kiliuda Bay due to remoteness, difficulty of access, and divided ownership on adjacent lands.

Third, a 1996 brown bear population assessment on the Shearwater Peninsula and Kiliuda Bay areas shows that this region supports the second densest bear population in the Kodiak Archipelago making it one of the best brown bear habitats in Alaska and the world.

Fourth, the State would gain complete management control of three significant anadromous systems and give up none.

Fifth, the public would obtain the right of access to areas that are more easily accessible by boat and airplane than the Sitkalidak Island lands where access rights would be relinquished by the land exchange.

For these reasons, the NRA strongly urges the EVOS Trustee Council to complete the Sitkalidak Island and Shearwater Peninsula land exchange. Such a success would add significantly to your already remarkable record in habitat protection and would be greatly appreciated by our members and the general public.

Thank you for consideration of our views, we have appreciated the open and responsive style by which the Exxon Valdez restoration process has been conducted.

Sincerely,

Susan R. Lamson

Susan R. Lamson
Director
Conservation, Wildlife and Natural Resources

cc: Marty Rutherford, Deputy Commissioner, Alaska Department of Natural Resources

New York State Conservation Council Inc.
5115 Baer Road
Sanborn, NY 14132

October 21, 1999

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

Dear Trustee Council Members,

It was a pleasure to learn that Old Harbor Native Corporation is willing to exchange their land holdings on the Shearwater Peninsula at Kiliuda Bay in exchange for upland habitat on Sitkalidak Island.

On my first trip to the Kodiak National Wildlife Refuge in 1991 I went on a fishing trip at dawn, up the stream at the North Arm of Kiliuda Bay. It was an unforgettable morning because the mountains across the bay (behind Old Harbor) were brilliant red from alpenglow as first light reflected off their summits. We proceeded to our salmon fishing site and as we approached the stream a very large chocolate brown Kodiak bear stood up in the grass ahead of us to see who was entering his domain.

This bear was not only my first Kodiak bear sighting, it was a magnificent ten-footer. The kind one dreams of seeing "once in a lifetime". He soon dropped to all fours and ambled away rising three more times in the distance to look back as we entered his stream choked with humpback salmon.

In the eight years since that morning, I've had the pleasure of visiting Kodiak on three other occasions and have been an ardent supporter of your habitat protection measures using the oil spill fund. I have requested and received the support of the 350,000 member New York State Conservation Council to protect as much brown bear, salmon and bald eagle habitat as possible in the Kodiak Archipelago and we are thrilled at the achievement of the Trustee Council to date.

I am also a past president of the Outdoor Writers Association of America and recipient of the New York State Conservationist of the Year award in 1998. It is with these personal experiences on Kodiak and with a lifetime of involvement in conservation that I hope you can facilitate the land exchange between Old Harbor Corporation and the State of Alaska.

It has been my pleasure to support the comprehensive restoration you are continuing to achieve from America's worst environmental accident and to have first hand

experience of the spectacular lands and abundant waters at stake in the proposed land swap.

Thank you for considering this important conservation land swap to benefit Kodiak bears, pink salmon and the many fish and wildlife species and natural resources that will be better off by leaving the Shearwater Peninsula undeveloped.

Being Alaskans, you may find bear sightings like the one I had to be almost routine, but for those of us from less wild country I want you to know how much we treasure those experiences and how much we know the need to conserve every possible place in which these remarkable adventures can be had.

They aren't making any more land like this! Please do your best to keep it the way it is for the wildlife and for future generations to enjoy.

Sincerely,

Bill Hilts
Editor, New York State Conservation Council Comments newspaper

cc: Marty Rutherford, Deputy Commissioner, Alaska Department of Natural Resources

THE WILDLIFE LEGISLATIVE FUND OF AMERICA
To protect the Heritage of the American Sportsman to hunt, to fish and to trap.

October 19, 1999

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

Dear Members of the EVOS Trustee Council:

The Wildlife Legislative Fund of America urges the Trustee Council to support and facilitate the completion of the proposed land exchange between the Old Harbor Native Corporation (OHNC) and the State of Alaska involving Sitkalidak Island and Shearwater Peninsula in Kiliuda Bay.

Based on recent and historic data on the fish and wildlife values of the Shearwater Peninsula and Kiliuda Bay region of Kodiak Island it is clear that accepting the proposed land exchange would benefit the State's fish and wildlife management and public use. The State (and the public) would gain high value coastal and riparian habitat on the Shearwater Peninsula in exchange for comparatively lower value upland and alpine habitat on Sitkalidak Island. In contrast, the lands the State would trade on Sitkalidak Island contain little coastline and minimal wildlife values. The recreation values of the State's land on Sitkalidak Island are less than the Shearwater Peninsula lands at Kiliuda Bay due to remoteness, difficulty of access and divided ownership on adjacent lands.

The publicly acquired lands have significant fish and wildlife resources. A 1996 brown bear population assessment on the Shearwater Peninsula and Kiliuda Bay areas shows that this region supports the second densest bear population in the Kodiak Archipelago making it one of the best brown bear habitats in Alaska and the world. The acquired lands would also provide the State with complete management control of three significant anadromous fish systems. All of these important lands and resources would be open to public access and are more easily accessible by boat and airplane than the Sitkalidak Island lands where access rights would be relinquished by the land swap.

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National Headquarters:
801 Kingsmill Parkway, Columbus, OH 43229
Ph. (614) 888-4868 Fax (614) 888-0326
E-Mail - info@wlfa.org
Internet Website - http://www.wlfa.org

Washington Office:
1155 Connecticut Ave., NW, Suite 1200
[Entrance on M Street]
Washington, DC 20036
Ph. (202) 862-8364 Fax (202) 659-1027

For these reasons we strongly urge the EVOS Trustee Council to complete the Sitkalidak Island and Shearwater Peninsula land trade.

Sincerely,

William P. Horn
Director, National/International Affairs and
Washington Counsel

cc: Marty Rutherford
Deputy Commissioner
Alaska Department of Natural Resources

KODIAK REGIONAL AQUACULTURE ASSOCIATION

BOX 3407 KODIAK, ALASKA 99615 (907) 486-6555

SALMON ENHANCEMENT
"Dedicated to Fisheries Development"
KODIAK REGIONAL AQUACULTURE ASSOCIATION

October 20, 1999

Exxon Valdez Oil Spill Trustee Council
Attn: Molly McCammon
645 G Street
Anchorage, AK 99501

Dear Trustees,

On behalf of the Kodiak Regional Aquaculture Association (KRAA), I commend the EVOS Trustee Council on your historic restoration efforts to date. As commercial salmon fishermen we deeply appreciate the ample funding your comprehensive restoration plan has allocated toward habitat protection. The KRAA is dedicated to maximum sustained yield in Kodiak's salmon industry and we believe there is no higher priority for our long-term success than the protection of anadromous streams and rivers.

We also strongly support the proposed Shearwater Peninsula – Sitkalidak Island land exchange because it would protect three important salmon producing streams in Kiliuda Bay and provide for better state management. By contrast, the lands the state would swap have zero salmon production.

According to aerial surveys conducted by the Alaska Department of Fish and Game, the proposed exchange would allow for long term protection of three of Kiliuda Bay's five most productive salmon spawning systems. Two of these streams have significant runs of chum salmon (20,000 – 30,000 fish) and the other has a strong run of pinks (20,000 to 30,000).

Prior EVOS agreements have already protected Kiliuda Bay's best salmon streams with the Kodiak National Wildlife Refuge. Approval of the proposed land swap would mean that all the major salmon spawning systems in Kiliuda Bay would be protected. That's a win for sustainable fisheries, KRAA members and Kodiak's economy.

Thank you for your conservation leadership and for consideration of our views.

Sincerely,

Lawrence M. Malloy

Lawrence M. Malloy
KRAA Executive Director

College of the Atlantic

Office of the President
Steven K. Katona

105 Eden Street
Bar Harbor, Maine 04609-1105

TEL (207) 288-5015
FAX (207) 288-4126

Molly
FYI

October 6, 1999

Bruce A. Wright
U.S. Department of Commerce
National Marine Fisheries
11305 Glacier Highway
Juneau, AK 99801

Dear Bruce Wright:

Thank you for sending me a copy of The Exxon Valdez Oil Spill Trustee Council's 1999 Status Report, "Legacy of an Oil Spill–10 Years after Exxon Valdez."

The report gives a good summary of the many positive gains made since that tragedy. It also gives an honest assessment of the resources which have failed to recover. The illustrations and photographs provide an excellent visual summary of important aspects of the spill and the recovery efforts.

I have passed this book on to members of our faculty in biology so that they and their students can benefit from this publication.

Sincerely,

Steven K. Katona
President

UNITED STATES
DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL MARINE FISHERIES SERVICE
OFFICE OF OIL SPILL DAMAGE ASSESSMENT AND RESTORATION
11305 GLACIER HIGHWAY
JUNEAU, ALASKA 99801-8626

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, $300

Measure may cut strings from spill settlement

By DAVID WHITNEY
Daily News Washington Bureau

WASHINGTON — Legislation permitting free investment of $170 million in remaining proceeds from the Exxon Valdez oil spill settlement was added this week to a year-end budget deal between Congress and the White House.

The Exxon Valdez Oil Spill Trustee Council had been campaigning for four years to get the settlement fund out from under the federal court system, which imposes heavy administrative fees with low-interest rates on money it oversees from court settlements.

But the council ran into a roadblock: Alaska Sen. Frank Murkowski, chairman of the Senate Energy and Natural Resources Committee, who complained that the federal-state trustee council was buying too much land and that higher-interest earnings would only encourage more purchases.

The council's executive director, Molly McCammon, insisted that most of the council's planned land purchases had gone through and that more interest income would beef up the fund for marine research in Prince William Sound.

A deal came together this summe after the council mapped out a plan for spending the remaining $170 million Exxon owes under the $900 million settlement the company was

Please see Page D-3, **SPILL**

Continued from Page B-1

forced to pay for spilling more than 11 million gallons of crude oil into Prince William Sound in 1989. Of that, $115 million would go into a research endowment and $55 million would remain available for land purchases.

Based on that, Murkowski's committee approved legislation allowing the revenue to be openly invested. The next trick was getting the legislation signed into law this fall.

That was solved by Murkowski's appealing to Alaska Sen. Ted Stevens. He is chairman of the Senate Appropriations Committee and a negotiator in this week's budget agreement, expected to bring an end to the congressional session.

Stevens said he was pleased to go to bat for Murkowski and the trustee council.

"There is still much to be learned about the impact of the spill," he said in a written statement Thursday. "With the possibility of greater returns on the investment, Alaskans can look forward to even better opportunities for scientific research on the Sound."

Murkowski said that while he would have preferred that all of the money go into research, he is satisfied with the council's new plan.

"This approach will give us answers, not leave us guessing, about what is happening to the Sound and what we can do to improve the habitat of the region," he said.

McCammon said in an interview that the research endowment, invested at market rates, should produce at least $8 million a year for perpetual marine research.

"This is a great deal for the public," she said. "It will make a lot more projects possible."

Much of the $55 million for land purchases is being set aside for what the trust council hopes will be a deal with Native-owned Koniag Inc. for prime wildlife habitat on Kodiak Island.

Anchorage Daily News
11/19/99

Anchorage Daily News
11/16/99

Oil spill fund to bankroll Gulf science

By DON HUNTER
Daily News reporter

The last big chunk of money from the Exxon Valdez oil spill settlement will be rolled into a $115 million endowment to finance decades of research into how weather, climate, fish, birds and sea mammals all interact in the Gulf of Alaska.

The endowment program, called GEM, for Gulf Ecosystem Monitoring, will be a sort of permanent fund for research. The capital will be invested. The interest — perhaps $5 million to $6 million a year — will be dedicated to a long-term research and monitoring program intended to augment and link the array of studies conducted by state, federal and university agencies.

The results accumulating year by year should help scientists and fishermen understand and eventually predict what is happening and may happen to populations of salmon, pollock and other species, said Phillip Mundy, science coordinator for the Exxon Valdez Oil Spill Trustee Council.

The council adopted the idea in March. On Monday, council officials briefed reporters on the plan. Mundy and others are traveling the state soliciting comments and suggestions on the draft version of GEM. It will be revised in February and submitted to the National Research Council for a year-long review. The first of the studies should be funded in October 2002.

"The thing that's exciting about this is that I don't know of any agencies that can commit funds into the future," said Molly McCammon, the council's executive director. The continuity of most research depends on annual appropriations by Congress or state legislatures.

"Most people don't have the ability to say, 'Let's commit to doing this for the long run,' and yet everyone I've talked to has pointed to the importance of staying for the long term," she said.

The GEM program also will finance continued tracking of the effects of the 1989 Exxon Valdez spill, look for other contaminants in the ecosystem and analyze their effects, and provide baseline information on species of fish, birds and marine mammals that live in the Gulf, as well as on climate and ocean conditions.

The long-term monitoring and analysis of the Gulf's ecosystem will carry practical benefits for people who live on and fish in Prince William Sound and the Gulf, McCammon and others said. Mundy and Bob Spies, another council scientist, pointed to the experience of trawlers working the Gulf over the last 40 years.

Photographs from the mid-1970s show fishermen bringing in nets heavy with shrimp, but with only an occasional cod or smaller forage fish. By the mid-1980s, photos taken on the same trawlers fishing the same waters show nets filled with cod, pollock and flatfish but with hardly a shrimp to be found.

What happened? One thing that had changed was the temperature of the water in the Gulf, which had risen slightly. Some scientists are coming to suspect that even minor fluctuations in weather and climate may have as big an effect on populations of fish, marine mammals and seabirds as human activities like commercial fishing and pollution, Spies and Mundy said.

That makes the kind of prolonged investigations contemplated in the GEM program more than just academic exercises by marine scientists, said Charles Peterson of the University of North Carolina's Institute of Marine Science, an adviser to the oil spill trustee council.

"In the absence of understanding the natural forces and what's changing the system and its components, we don't have much of a prayer of addressing how human activities are altering those resources," he said.

For example, were subtle climate changes responsible for the boom in salmon returns to Alaska over the past two decades? And if so, does that mean another change in the weather could slice returns for the next 20 years?

"This kind of thinking is really nothing short of revolutionary in terms of the fisheries in particular," said George Rose, a scientist with Memorial University of Newfoundland's Marine Institute and another adviser to the spill council. It means that fisheries experts who believe that careful management can maintain fish populations at given levels may be wrong, he said.

"If this is true, it changes everything," Rose said. "It changes every aspect of what we've known as fisheries science for 100 years. It changes every aspect of what we've called fisheries management for 100 years."

Reporter Don Hunter can be reached at dhunter@adn.com

SeaLife seeks cash advance on grant

By JON LITTLE
Daily News Peninsula Bureau

SOLDOTNA — The Alaska SeaLife Center hopes to get a quick $3 million, with the city of Seward's help, so it can make ends meet until a federal grant bails the center out of its financial jam.

The center has asked the city to issue up to $3 million in so-called grant anticipation notes. The short-term loans are commonly used to allow a grant recipient to spend its money before the grant actually arrives.

"It's a loan against the president's signature until we get the money," said Ben Ellis, the center's development director.

Seward taxpayers would not be responsible for paying off the loan, nor would the city's line of credit be affected, according to an arrangement worked out between the city and SeaLife Center.

The Center expects to get $5.5 million tucked into the federal Department of Commerce spending bill. The appropriation, secured by Sen. Ted Stevens, is intended to help pay down the center's $17.5 million construction debt.

But federal money can take months to wend its way to Seward from Washington, D.C., said Sharon Anderson, president of the center's board of directors.

Seward has scheduled a public hearing to talk about the proposal at 7 p.m. Nov. 15 at the City Council chambers.

President Clinton has yet to sign the Commerce bill, and the grant anticipation loan wouldn't go forward unless he does, Ellis said.

Another $1 million in the Commerce bill has been earmarked for SeaLife Center research into the plummeting Steller sea lion population.

Debt has been a major concern since the SeaLife Center's May 1998 opening.

The combined research facility, aquarium and learning center was built with $26 million from the Exxon Valdez oil spill settlement and a $17.5 million Seward city bond measure. The center expected to repay the city construction debt with aquarium admission fees, but revenues haven't kept pace with the $2 million annual payment schedule.

Center officials say they collect enough through admission fees, sponsors and research funding to pay the annual $4.5 million operating costs, but not the debt payments.

Tens of thousands of people visit the center each summer, but the cash flow slows as tourist season ends. Last winter, when visitor numbers dropped to about 25 a day, the center even turned off its escalator to save electric bills.

❑ Reporter Jon Little can be reached at jlittle@adn.com.

Anchorage Daily News
11/6/99

Branded sea lions travel 900 miles

By Alex DeMarban
Seward Phoenix LOG

Two branded Stellar sea lions have made a long trip from Canada to make regular appearances on television at the Alaska SeaLife Center.

The two adolescent males showed up out of the blue at a sea lion colony at Chiswell Island last weekend. The center has a video camera on the distant island that allows visitors to peek into the pinniped world.

"I sighted both of them on the same day," said Lynda Martin, a project assistant at the center. "They're just hanging out with the rest of them."

The traveling sea lions are two of about 800 pups that were branded by the Alaska Department of Fish and Game on Forrester Island about five years ago. Forrester Island is about 900 coastline miles away, near British Columbia.

The branding was part of a study to determine if sea lions from Southeast Alaska, where populations are stable, would boost numbers in Southwest Alaska, where populations have fallen some 80 to 90 percent in the last three decades.

The answer is no. Since the branding in 1994 and 1995, dozens of males from Forrester have been found from Washington State to the upper reaches of Bristol Bay. But the study has also found that females don't wander far from their birthplace.

"It indicates that the recovery of sea lions in Southwest Alaska will have to come from individuals in that population," said Fish and Game's Ken Pitcher.

The breeding season at Chiswell Island recently ended — the number of sea lions have fallen from about 200 to about 40 — which may explain the recent appearance of the wandering sea lions.

"The more mature males have probably kept them away," Martin said. "That whole territorial thing is not an issue for them now."

SeaLife Center gets $6.5 million federal appropriation

By Nancy Erickson

Seward Phoenix LOG

The Alaska SeaLife Center got a big boost last week with a federal appropriation for $6.5 million, pending President Clinton's signature.

Stellar sea lion research at the facility would receive $1 million. The remaining balance would go toward the center's $17.5 million debt, according to Sharon Anderson, president of the SeaLife Center's board of directors.

The appropriation is part of a more than $100 million worth of Alaska projects Sen. Ted Stevens had written into a federal Commerce Department spending bill.

The center, built with Exxon Valdez oil spill money and a city of Seward bond measure, opened its doors as a research facility and public aquarium in 1998.

The facility expected to repay the city's construction debt with proceeds from admission fees, but revenues have lagged behind projections.

Anderson said the board is working with an independent financial consultant on how best to apply the $5.5 million toward the debt.

Currently, the center pays more than $2 million a year in bond, interest and reserve payments toward the center's debt, she said.

"That's a great deal of money," Anderson said. "It's tough, but we've been doing it."

If given the president's nod of approval, the federal appropriation will be the first ever for the center.

It comes shortly after the appointment of director Mark Lloyd, who has promised to make the pursuit of state and federal grants a top priority.

Sen. Stevens inserted a provision in the Senate version of the bill that would have given the center $8.5 million, but that amount was cut to $5.5 million in House discussions.

The center still hopes to borrow $3 million from the City of Seward, a proposal that has not yet gone before the city council. The debt would be repaid with the appropriation, and could not be paid with taxes levied by the city, according to city documents.

"That's so we can get the money a little quicker than we'd get it from the Feds," Lloyd said.

At this time, Anderson is not sure whether the $1 million in Stellar sea lion funding would go toward new research projects or expanding the center's existing 17 studies.

The research center is currently involved in a wide range of Stellar sea lion projects, from feeding studies to immunology to reproductive studies, said Lynda Martin, project assistant.

Seward Phoenix Log 10/28/99

Anchorage Daily News
10/29/99

Subsistence persistence

Murkowski offers new bill

By DAVID WHITNEY
Daily News reporter

WASHINGTON — Sen. Frank Murkowski is refusing to take no for an answer on subsistence.

Two days after Interior Secretary Bruce Babbitt told him repeatedly that he would not support the idea, Murkowski on Thursday introduced legislation permitting the state to resume subsistence fish and game management on federal land immediately after the Legislature approves a constitutional amendment on subsistence.


Murkowski

Under the legislation, which Alaska Rep. Don Young introduced in the House, state management could resume long before voters approve such a constitutional amendment.

The Legislature has so far refused to send the question to voters. As a consequence, federal agencies took over subsistence fishing management on Oct. 1. They have managed subsistence hunting since 1990.

Alaska is the only state to lose its authority over fish and game management on federal land.

Federal law requires that rural residents get a subsistence hunting and fishing priority. The state constitution forbids it. If the Legislature were to approve a constitutional amendment conforming to federal law after returning to session in January, the soonest it could be brought before voters would be November.

Murkowski told reporters Thursday that his bill is "a methodology to expedite the process." It's a process that many people think is stone dead, however.

The Legislature has met many times on subsistence, most recently in a special session last month. Each time it has refused a rural preference amendment.

Even if the Legislature sent forward a subsistence amendment, Babbitt made clear this week that voters also would have to approve an amendment before the federal government will hand back control.

"The administration does not, cannot, will not endorse" anything short of a voter-approved amendment, Babbitt said at a Senate Energy and Natural Resources Committee hearing Tuesday.

Reporter David Whitney can be reached at dwhitney@adn.com.

Lesnoi attorney says village status fight isn't over

By SUE JEFFREY
Mirror Writer

The federal judge who determined last week that Leisnoi is not eligible as a Native village corporation did not address several key legal points that could ultimately save Leisnoi, CEO Ed Ward said in a written response from Leisnoi.

To qualify as a recipient of the Alaska Native Claims Settlement Act (ANCSA), Leisnoi applied for certification as a village corporation in 1973, claiming that 25 or more Alaska Natives were residents of a Native village on Woody Island in 1970. But Kodiak rancher Omar Stratman claims Leisnoi's village corporation status is a sham because there was no Native village on Woody Island in 1970.

Stratman's legal efforts over the past 23 years to decertify Leisnoi culminated last week when Interior Board of Land Appeals (IBLA) Judge Harvey Sweitzer ruled that Woody Island is not eligible for Native village status.

But Ward said it is not over yet.

"The recommended decision specifically avoided ruling on a number of key issues (regarding Stratman's legal right to challenge) the village's eligibility," Ward said.

Ward was referring to Judge Sweitzer's statement that he was 'leaving to the board and/or the District Court resolution of (these) potentially dispositive legal issues raised by Leisnoi,'" Ward said.

Stratman attorney Michael Schneider acknowledged the

See ATTORNEY, Page 15

Attorney claims unresolved issues

Continued from Page 1

Interior Board of Land Appeals (IBLA) board decided to "table these standing issues until after Judge Sweitzer's decision."

But he doesn't expect the "standing issues" will result in Leisnoi maintaining its village corporation status because the 9th Circuit Court of Appeals has already ruled in favor of Stratman's right to challenge Leisnoi's ANCSA certification.

In his written statement, Ward also chided Judge Sweitzer for ignoring U.S. Sen. Ted Stevens' efforts that "persuaded the Department of the Interior to adopt a broad definition of 'permanent residence.'

"Because our Native people have been compelled to move about the state to find employment," Stevens wrote to the Interior Department in 1972, "it is most difficult to define the permanent residence of an Alaska Native without regard to the mental attitude of the individual involved."

But Stratman attorney Eric Cossman said Leisnoi is taking the Interior Department's (broader permanent residence definition) language out of context, which does not reflect the the intent of Congress.

ANCSA never intended lage ties based on place of or ancestry to be sufficien establish permanent residence, he said.

"If such ties were sufficient, then all Natives who had such ties, and who were living out of state when the roll was prepared, would still be regarded as a permanent resident of that village."

Ward said Judge Sweitzer left another unresolved issue on the table. That is, Congress ratified Woody Island village when it passed Section 1427 of the Alaska National Interest Lands Conservation Act (ANILCA) and named Leisnoi, Inc. in the process.

"The statute specifically referenced Leisnoi, Inc. as being eligible to receive benefits under ANCSA," Ward said.

Cossman, though, said Ward left another unresolved issue on the table. That is, Congress ratified Woody Island village when it passed Section 1427 of the Alaska National Interest Land Conservation Act (ANILCA and named Leisnoi, Inc. in the process.

"The statute specifically referenced Leisnoi, Inc. as being eligible to receive benefits under ANCSA," Ward said.

Cossman, though, said Ward is making something out of nothing.

"Because they (Leisnoi) were mentioned in *this act, ipso facto,* they (Leisnoi attorneys) consider that a ratification," Cossman said.

But section 1427 of ANILCA did not ratify Leisnoi per se; the act simply identified it as one among the many Kodiak area Native village corporations which were eligible for land swaps in 1980 when Congress enacted ANILCA.

Judge Sweitzer's recent decision only recommends Leisnoi be decertified. If the federal government ultimately decertifies Leisnoi, the Alaska State Supreme Court ruled Leisnoi's 115,000 acres, including Termination Point, portions of Long and Woody Islands, Cape Chiniak and property along the Chiniak Highway, would return to the federal government, the original landowner prior to ANCSA.

"If Leisnoi is decertified ... ANCSA would no longer apply at all," the state supreme court ruled in December, 1998. "It would be ironic if Leisnoi (assuming that Stratman is ultimately victorious in the decertification action) could perpetrate a fraud on the public, obtaining title to land under the guise of a legitimate ANCSA corporation, and then avoid making restitution on the grounds that ANCSA provides no explicit remedy for such an occurrence."

Leisnoi would not pay Stratman's court costs, though, Cossman explained, because Stratman's lawsuit is against the Secretary of the Interior.

"If we win, we will be making the claim for attorney's fees to the federal government," Stratman's attorney said.

Kodiak Daily Mirror 10/28/99

Cordova Times
10/28/99

Sound herring fisheries canceled

By Alberto Cagliano
The Cordova Times

The recent announcement that there will be no fall and spring herring fishing in Prince William Sound caused little stir among fishermen.

Given the results of the last two seasons, some believe the closure ordered by the Alaska Department of Fish and Game can only benefit the fishery.

"I was expecting that," said Kim Ewers, who fishes the spawn-on-kelp pound fishery. "The last time I had a good herring season was in 1993."

Ewers said he was lucky that year and found himself in the right place at the right time, but for most other fishermen the season was one to forget.

Fishermen recall 1993 as the year of the big herring and pink salmon crash. The record poor season triggered a fishermen protest that culminated in a blockade of the Valdez Narrows.

Fish and Game did not open the fishery between 1994 and 1996. Fisheries where held in the last two years, but the results were not encouraging.

"The in-pound fishery was only marginally successful," Ewers said. "I can't speak for the other fisheries, but I believe they did not make much money."

"We have been optimistic to see a recovery soon. But, in hindsight, it would have been better to close the last two years," he said.

The spawn-on-kelp in-pound fishery is one of the four that target herring roe in the spring.

In the pound fishery, herring are seined and transfered to small bays where kelp hangs from lines. After about six days of spawning, egg-laden kelp leaves are harvested and the herring released.

"I do not know that the current decline is linked to the spill, but the virus is linked to stress and the oil could have been a stressor"
— Fish and Game biologist Dan Sharp

Herring spawn every year after their third year. They can live up to 15 years, but few in the Sound exceed 10.

A newer technique involves hanging kelp in areas where herring come on their own, Ewers said, but it has given widely variable results.

After they are salted, brined and refrigerated, leaves and roe can be preserved for long periods, Ewers said. Most of the harvest is sold on the Japanese market.

"It is kind of a fancy food there, for special occasions," he said. Eggs, eaten with the kelp leaves, are a special New Year's celebration treat.

They are also appreciated in other Asian countries and a market has been developing with the expansion of sushi restaurants in America.

A type of kelp that grows in southeast Alaska, called macrocystis, is particularly appreciated, Ewers said.

"We used to use local kelp, but macrocystis has a so much higher price that it's worth having it flown here," he said. "It is extremely fragile, it can die or spoil. But it's a challenge that we have been able to meet."

Another way to harvest herring roe is called wild spawn on kelp. Divers locate and harvest roe from kelp beds where spawning occurs naturally. Although Fish and Game regulates these openers, divers do not need permits.

Gillnetting and seining herring for roe also occurs in spring. Unlike in the spawn-on-kelp fisheries, female fish die when their sac roe is taken.

Ewers, who sits on the Cordova District Fishermen United board of directors, said there are 24 gillnet permits, 100 for seine and 128 for the in-pound fisheries in Prince William Sound.

The fifth type of fishery that targets herring as food and bait in the fall has also been canceled this year.

Fish and Game manages the whole herring stock in the Sound and allots quotas to the five fisheries.

When Fish and Game announced it was canceling the fishery, it reported a forecast spawning biomass in the Sound of about 24,000 tons.

The number is slightly above the 22,000 threshold to allow a limited fishery. But several factors suggested a conservative approach.

Biologists believe a disease named viral hemorragic septicemia may be causing a decline in the juvenile herring population. In particular among 3- and 4-year-olds, which are the first spawning and marketable ages.

"I do not know that the current decline is linked to the spill, but the virus is linked to stress and the oil could have been a stressor," said Fish and Game biologist Dan Sharp.

"As the saying goes, what does not kill you makes you stronger, but the virus tends to be more lethal on the young. If infected they do not survive," he said.

Kodiak Daily Mirror
10/27/99

160 acres set added to conservation land

By SUE JEFFREY
Mirror Writer

About 160 acres east of Old Harbor known as Bush Point is the latest piece of land to be set aside as conservation land on Kodiak Island. A group of conservation organizations working with the Kodiak Brown Bear Trust purchased the land for $190,700 from owner Ralph Christiansen.

The Conservation Fund, Camp Fire Conservation Fund, the Richard and Rhoda Goldman Fund and the U.S. Fish and Wildlife Service bought the land — Alexandria Christiansen Native allotment property — to add to a 10-mile stretch of coastline on Sitkalidak Strait and already transferred to the Kodiak National Wildlife Refuge.

The land purchase is just one of many small parcel purchases bought over the past several years and transferred to the 1.8 million-acre bear refuge for wildlife habitat protection.

The refuge has acquired 7,316 acres in smaller parcels, mostly funded with a $5.1 million direct appropriation from Congress to

See OTHER LAND, Page 12

Continued from Page 1

Fish and Wildlife specifically to purchase private land within the refuge.

"Small parcels are generally at mouths of streams or wildlife migration routes," Shuck said. "A lot are down in the Old Harbor area, between Old Harbor and Kaguyak and on the west side.

The wildlife refuge has received several other donations from conservation groups similar to the recent acquisition of Bush Point near Old Harbor.

"Wildlife Forever contributed $150,000 for the Humpy Creek parcel," said Steve Shuck, U.S. Fish and Wildlife Service (USFWS) realty specialist.

"The Conservation Fund itself purchased 320 acres at head of Uyak Bay (for $600,000) and donated it to the refuge. And one Kodiak resident recently donated a small parcel — about an acre — at the mouth of Spiridon — to the refuge," he said.

But the Exxon Valdez Oil Spill Trustee Council has purchased the lion's share of recent refuge acquisitions. With Exxon Valdez oil-spill civil- and criminal-settlement funds, the trustee council so far has made "large parcel" purchases of 372,256 acres in the Kodiak Island Archipelago for a total selling price of $208,799,333.

Of the trustee council's large parcel purchases, 164,600 acres are now part of the Wildlife Refuge, and the rest went to the state, Shuck said.

"The state got all of Shuyak and most of Afognak," he said. "The parcels that became refuge land were in-holdings (within the borders of the wildlife refuge) before ANCSA.

Included in the trustee council's large parcel purchases is the latest land deal — 41,750 acres on Afognak Island, including a 400-acre conservation easement — to be purchased for $70.5 million from Afognak Joint Venture (AJV.)

Other large parcel deals the trustee council has made with Kodiak area Native corporations include:

- 115,973 acres, including 42,448 acres in conservation easements, for $46 million from Akhiok-Kaguyak, Inc.
- 118,710 acres, including 59,036 in conservation easements, for $28.5 million from Koniag, Inc.
- 31,609 acres, including 3,000 in easements, for $14.5 million from Old Harbor Native Corporation.
- 41,549 acres in Seal Bay on Afognak Bay for $39.5 million from a consortium of Old Harbor and Akhiok-Kaguyak corporations.
- 26,665 acres on Shuyak Island for $42 million from the Kodiak Island Borough.

Seward Phoenix
10/14/99

New SeaLife director brimming with plans

By Alex DeMarban

Seward Phoenix LOG

The new director of the debt-heavy Alaska SeaLife Center has taped a message he pulled from a fortune cookie to his office door.

"Your efforts are budding. Results will appear soon," it reads.

The wisdom of that message is open to debate.

"It doesn't say if it's good or bad, but I'm going to assume the best," said veterinarian and zoologist Mark Lloyd, who left the El Paso Zoo in Texas to become the center's second director on Oct. 1.

That kind of positive attitude is already serving him well as he tries to the steer the struggling research facility away from a $17.5 million debt and a persistent image problem.

"This is a new facility, so it's got a lot of things to work out, but there's nowhere to go but up," he said, in the same way that he says everything — in one rapid breath.

A top item on his agenda is forging a closer relationship between the people of Seward and the $56 million research facility that opened to the public in May 1998.

To do that, "the hillbilly from Tennessee" wants to use more interns from the local vocational center. And he's asking Sewardites to open their homes to the volunteers who come to the center from around the world, in exchange for memberships.

"We want to be an asset to Seward, and we want the support of the community," he said.

He also wants the center to host events that would allow local merchants to display their wares, such as a restaurant tour with food-tasting booths.

"We used to do that in Texas, except it was barbecue," he said.

The 39-year-old bachelor left the warmer climes of the Lone Star state because of a long-standing fascination with Alaska and its wildlife, finned versions of which swim outside his office window overlooking Resurrection Bay.

During an interview last Friday after a busy first week, Lloyd was still settling into those new digs. The walls were bare and the furniture Spartan, making the room seem larger than it really is. Placed crudely in the middle of the office were boxes filled with decade-old planners.

The pages date back to his work with the Roger Williams Park Zoo in Rhode Island. There, he established the first U.S. National Veterinary Medical Assistance Team, which responds to environmental disasters that threaten wildlife. After that post, he headed south to be the deputy director at the El Paso Zoo.

The planners chronicle his life-work with animals and the people who manage them, and he hopes to use the contacts within to improve the center's credibility among its peers.

One goal in that vein is getting the center accredited with the American Zoo and Aquarium Association. The status will facilitate exchanges of resources and information, perhaps even animals.

"If you're not accredited, you're basically in the same category as every other roadside menagerie in the country," he said.

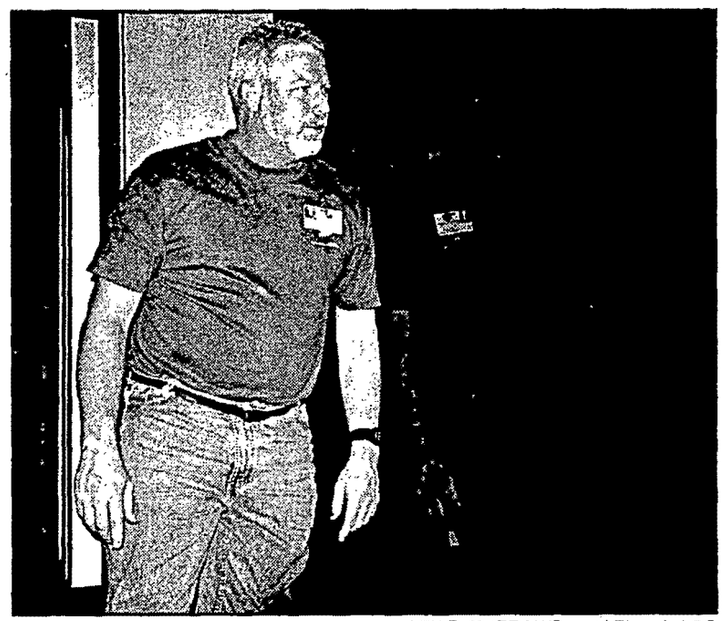
The contacts should also help him with one of his biggest challenges: reducing the center's debt. He hopes to do that through a combination of state and federal grants.

"I want to find out where people are coming from and what they're spending money on, and take that to the Legislature and say, 'We brought in this much money, we need your help,' " he said.

Holding true to his message of optimism, he believes education is about possibilities and should be the facility's foremost goal.

He plans to continue rehabilitation efforts threatened by funding. He also wants to extend the SeaLife Center's message of conservation to Native Alaska, with village exchanges of students and teachers.

"This facility has a tremendous opportunity that most zoos and aquariums don't because it doesn't have the legacy of what zoos used to be: a collection of the biggest, the fastest, the slowest, the ugliest," he said. "Zoos didn't educate people until recently. But education is the most important thing we can do."



ALEX DeMARBAN/Seward Phoenix LOG

Mark Lloyd, the new director of the Alaska SeaLife Center, hopes to reflect well on the center's future.

New website offers subsistence information

By NATALIE PHILLIPS

Anchorage Daily News

ANCHORAGE — Wondering what subsistence foods appear to be tainted or where in Alaska salmon are showing up deformed with one eye and tumors? Want to know what changes Native hunters in Kotzebue are observing in the ice pack or about the nutritional value of cloudberries dipped in seal oil?

Some of the answers can be found on a website unveiled last month at a science conference in Denali National Park and Preserve.

The interactive database blends observations from the field by Native subsistence hunters, contaminant research by scientists and health officials, and government data on subsistence harvests.

"There's nothing else quite like it," said Patricia Cochran, executive director of the Alaska Native Science Commission. "We've put together a really unique blend of science and traditional knowledge."

The work took three years and was done by the science commission and the University of Alaska Anchorage's Institute of Social and Economic Research, funded with $300,000 from the Environmental Protection Agency. The database is built to be expanded as new research or additional sources of information become available.

The program was made available on-line just within the past few weeks, so it's too early to measure the reaction, said Cochran, who is scheduled to spend much of next year demonstrating the database around the state and the circumpolar region.

"It's designed for use for both the Native community as well as researchers and scientists," she said.

The project got started when EPA officials in Seattle realized that they were getting repeated questions about the safety of Alaska Native subsistence foods. The EPA contacted ISER and asked if it could survey the existing reports and literature about subsistence foods and contaminants.

"I said, instead of a written report, what if we did a database that we could add to," said Jack Kruse, a project director with ISER.

The first step was to round up studies that had been done over the years in Alaska's far-flung places. It turned out there were few, and the results of those studies were either inconclusive or else they merely identified the presence of lesions or other abnormalities on some fish and wildlife, without saying if they pose a danger to humans.

Step Two involved traveling to communities statewide and talking to locals about their observations about changes in weather patterns and subsistence foods. Their observations were documented and added to the database. They can be called up based on species, location or type of ailment.

For example, in Kotzebue, Enoch Scheidt reported that salmon were showing up with pus inside them and that the collars that scientists put on caribou were rubbing the caribous' necks raw. Eric Iyapana from Little Diomede reported that the taste of local plants has changed and that the fur on seals is coming off as if they are molting when it is not molting season.

The goals of the project are to allay subsistence users' health fears, to direct researchers to specific issues that are a priority to people dependent on subsistence foods and to get information to Native tribes so they can make their own decisions about the safety and nutrition of their food.

Despite gaps, there is a wealth of information in the database. One can find, for instance, that a small serving of agutuk — cloudberries with seal oil — provides 1.8 grams of protein, 22.9 grams of carbohydrate and 2.3 grams of fiber. Clicking another direction through the website, one finds the levels of organic chlorine compounds, a persistent pollutant, in beluga blubber in Point Hope or the mercury levels in the liver of bowhead whales vested in Barrow or other heavy metal contamination found in fur seals at St. Paul.

"It's far from complete," Kruse said. "We're hoping people with data on contaminants will see that it is worthwhile to get their information into the database."

Eventually, ISER's role in the project will diminish, Kruse said, and the database will most likely fall into the hands of the Alaska Native Science Commission to maintain.

Valdez Vanguard
10/13/99

Around Alaska

$25,000 checks coming to Eyak shareholders

CORDOVA — A typical shareholder of Eyak Corp. will receive $25,000 this month as the Native corporation distributes to its 377 stockholders part of a $45 million payment from the sale of Native land to the Exxon Valdez Oil Spill Trustee Council.

"The average Eyak shareholder, who owns 100 shares, will receive $25,000," said Eyak Corp. administrative manager Amy Brockert.

The distribution is part of the $45 million that the Exxon Valdez trustees paid for about 55,000 acres around Cordova, plus conservation easements on about 20,000 more.

The corporation is setting aside $10 million to create a permanent fund that will benefit shareholders over the years, said Eyak general manager Brian Lettich. Of the 377 stockholders, 100 live in Cordova.

The land involved in the deal includes 150 miles of saltwater shoreline and about 80 salmon streams. The shoreline was not oiled in the 1989 Exxon Valdez spill. But many bird species injured by the spill use the area for nesting, feeding and wintering, according to the trustees.

The package protects wooded shoreline along Nelson Bay, Eyak Lake, and Hawkins Island. Much of the area is visible from Cordova. Some was logged by the Native corporation in 1994 and 1995.

Peninsula Clarion 10/12/99

Eyak shareholders getting $25,000

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Peninsula Clarion 10/12/99

Center returns 4 harbor seals to wild

The Associated Press

Four harbor seals fitted with radio transmitters were returned to the wild after being restored to health at the Alaska SeaLife Center in Seward.

The pups made their way to the center after they were found alone or tangled in fishing nets in Prince William Sound or beached on rocks near Ketchikan and the Alaska Peninsula, biologists said.

Each weighed less than 20 pounds and was less than two weeks old when discovered. But they recovered quickly, and weighed from 50 to 70 pounds at the time of their release a couple of months later.

Harbor seal numbers have been in decline over the past couple of decades, dropping 90 percent around Alaska. But the decline has slowed, and some populations are holding steady.

"It looks like they're plateauing out at the bottom," Steve Trumble, a harbor seal researcher at the SeaLife Center, told The Seward Phoenix Log.

Yet the population continues to slide in Prince William Sound, dropping 2.8 percent between 1990 and 1998.

A number of factors could be affecting the harbor seal population, including overfishing and contamination, scientists say.

When representatives of the SeaLife Center propped a wire kennel onto the side of a boat and opened the gate several weeks ago, the first of the four seals splashed into a new world among the ice-blue waters and calving glaciers of Aialaik Bay.

The seal's tubby cousins, in kennels lining the stern of the boat, sniffed at the briny sea air and bounced like gelatin, their eyes darting nervously to every cheer and scuffle made by a boatload of people.

The seals had been named by their benefactors.

Kenai was the most active during the trip. While his mates slept and jiggled with the boat's motion, Kenai clawed at the gate and grunted. When bored, he would roll onto his back to grate the claws of his stubby flippers, like someone twiddling their thumbs.

The center originally had planned to release the group at Northwestern Glacier, where a large population of harbor seals resides. But there, the flukes of killer whales rose and fell in the distance.

Plan B was Aialiak Glacier, where members of the local seal population slinked among the wind-sculped ice floes.

The seals were fitted with radio transmitters that will allow the animals to be tracked until the transmitters fall off with their first molt next spring.

Alex DeMarban/LOG photo

Kenai was one of four rehabiliated harbor seals released into Aialiak Bay last Friday by the Alaska Sealife Center. The most active, Kenai sniffed at the sea air and clawed for freedom while his cohorts slept.

SeaLife Center releases 4 seals

By Alex DeMarban

LOG staff

When representatives with the Alaska SeaLife Center propped a kennel onto the side of a boat and opened the gate two weeks ago the first of four harbor seals splashed into a new world among the ice-blue waters and calving glaciers at Ailaik Bay.

The seal's tubby cousins, in kennels lining the stern of the boat, sniffed at the briny sea-air and bounced gelatinously, their eyes darting nervously to every cheer and scuffle made by a boatload of people.

One observer was Verena Gill, an Anchorage geologist trying to lean past others leaning over the side of the Kenai Fjords boat Misty.

In May, she was beach combing the storm-swept shore of Middleton Island when she came upon a pup dying in the driftwood. She didn't know if it was a gift from the sea, or a curse.

Seagulls circling overhead would have started with the pup's eyes, so after searching vainly for the mother, Gill cradled it on her shoulder. On the long journey back to camp, it suckled her neck.

Once there, she and other scientists with the U.S. Geological Survey swaddled the 16-pound newborn in a wet towel. With a water bottle and a nipple cut from a rubber glove, they nursed him through the night using a pediolyte formula for the puffins they were studying.

"The crew wanted to name him but I didn't want to because I thought he was going to die," she said. "He was so small."

But the pup regained strength overnight. The next morning, Security Air flew it to the Alaska SeaLife Center's rehabilitation facility. He got the name Kenai, and three new friends who had arrived from shores as distant as Canada and the Alaska Peninsula.

Less than two weeks old and weighing less than 20 pounds, the pup was small even for a dying species. Harbor seal populations dropped some 90 percent in Alaska in the 1970s and 1980s. The decline has slowed, and some populations are holding steady.

"It looks like they're plateauing out at the bottom," said Steve

See Seals, page 10

Seward Phoenix
10/7/99

Seals ...

From page 1

Trumble, a harbor seal researcher for the SeaLife Center.

But the population continues to fall in Prince William Sound, dropping 2.8 percent between 1990 and 1998. A combination of factors could be at play, including over-fishing and contamination.

"Usually, we take so much away," said Gill, explaining why she rescued Kenai. "It gives you a great feeling to have contributed something back to the earth."

Other examples of human compassion include Iggy, found crying and mewing on an Egegik beach. A woman placed her in a tub of water overnight and called the center the next morning. Another is MacKenzie, hauled up in a fishing net at Point MacKenzie. And there's Skippy, the only black seal of the bunch and a story of good intentions almost gone bad.

A well-intentioned but misled kayaker found Skippy alone and crying at Ward Rocks. Unaware of federal laws prohibiting contact with marine mammals, the kayaker stowed the pup in the hull and fed her peanut butter on the three-day paddle to Ketchikan. Once there, he contacted the National Marine Fisheries Service, which in turn contacted the Sealife Center.

Skippy arrived with a severe gastrointestinal infection and vomited the powdered formula funneled into the pups' stomachs. Employees and volunteers worked through the night to keep her hydrated and fed.

"We saved her life," said SeaLife biologist Lynn Aderholt.

When Aderholt began feeding Skippy live fish at four weeks — seals in the wild are completely weaned at six weeks — Skippy had a natural instinct for hunting.

"She was Miss Huntress, Diana of the moon," Aderholt said. "She ate more live fish than anyone."

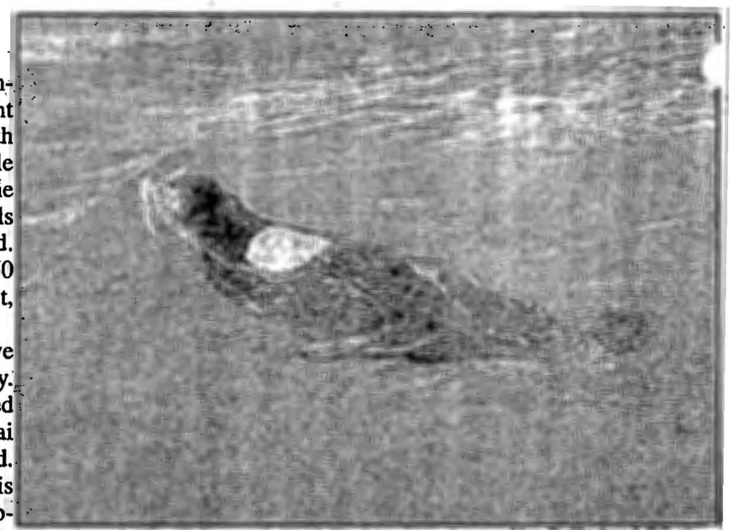
Skippy and the rest of the pinneped quartet gained weight quickly — they needed one month of fat in case they had trouble finding food in the wild. At the time of their release, the seals were about four months old. Skippy was the smallest, at 50 pounds. Kenai was the largest, weighing in about 70 pounds.

Kenai was also the most active during the trip to Aialiak Bay. While his mates slept and jiggled with the boat's motion, Kenai clawed at the gate and grunted. When bored, he'd roll onto his back to grate the claws of his stubby flippers, like someone twiddling thumbs.

The center had originally planned to release the group at Northwestern Glacier, where a large population of harbor seals reside. But there, the flukes of killer whales rose and fell in the distance.

Plan B was Aialiak Glacier, where members of the local seal population slinked among the wind-sculpted ice floes.

The seals were fitted with radio transmitters that will allow the seals to be tracked until the transmitters fall off by their first molt next spring.



Skippy, fed peanut butter after a three-day kayak trip fro... Southeast Canada, took his time before heading to the ice floes at Alaiik Glacier. The patch on Skippy's back is a radio transmitter that will molt with his hide next spring.

MacKenzie was the first to go, and dripped unceremoniously into the water. Iggy's kennel had to be shaken until he tumbled out in a clumsy back flop.

Skippy dove out and resurfaced next to the boat, looking back as if requesting permission to take off.

"That figures," Aderholt said.

And finally, there was Kenai. Gill gave her camera to a friend and watched as Aderholt unlatched the gate. With a splash of water, the life she had saved disappeared into the cold waters.

Seward Phoenix
10/7/99

SeaLife Center wants $3 million loan

By Nancy Erickson
LOG Staff

An Alaska SeaLife Center request for a $3 million grant anticipation note from the city has been postponed.

According to city documents, getting the note would be dependent on the SeaLife Center receiving a $8.5 million federal appropriation currently under consideration in the U.S. Congress, part of which would be used to repay the note.

Seward Association of Advancement of Marine Science, owner and operator of the research facility, would be solely responsible for repaying the note. If approved, the note would not constitute a debt burden to the city, nor could it be paid from taxes levied within the city, according to the documents. But it would allow the center to take advantage of the city's tax-exempt status.

The proposal was scheduled for a public hearing at the Oct. 11 city council meeting, but was temporarily pulled from the agenda earlier this week.

Scott Janke, Seward city manager, said he received a call Monday morning from Sharon Anderson, president of the SeaLife Center's board of directors, asking for the request to be temporarily withdrawn. Wednesday morning was the deadline for a current financial statement needed prior to the Oct. 11 public hearing.

"They didn't have all their information ready yet," Janke said.

"It's like a dance and one partner wasn't ready," explained Teri Namtvedt, the center's finance director.

Though city documents said the $3 million would go toward operation costs, Anderson said it is considered a part of the $8.5 million federal appropriation request, if funded, would be applied toward the center's $17.5 million construction bond debt.

Darryl Schaefermeyer, general manager for the SeaLife Center, when asked how the money would be spent, issued a firm, "I'm not going to comment at this time."

Neither Schaefermeyer or Namtvedt would talk about the state of the center's finances.

The chances of the center receiving the federal appropriation look good, said Janke, although it could take six months before funding is actually received.

Janke said the city is completely supportive of the $56 million research facility which opened to the public last May. At the request of the center, the city postponed a $63,000 payment for about six months until this June, Janke said. That payment has been made to the city, he said.

The payment in lieu of taxes reflected 3 percent of retail sales generated in the center's gift shop for the last two quarters of last year.

Schaefermeyer, said the board of directors plan to re-submit the $3 million request to the city council within the next couple of weeks.

"This is a deliberative process that requires certain things be done in certain steps," he said.

Kris Erchinger, controller for the city's finance department, said it's fairly common for organizations to use a government agency's tax exempt status in obtaining funding.

The status exempts funding recipients from paying taxes on interest earnings for a certain period of time.

The city had a similar agreement with Alaska Pacific University in the early 1990s.

Daily News
11/7/99

Texas vet takes over as director at SeaLife Center

The Associated Press

KENAI — The Alaska SeaLife Center in Seward has hired a Texas veterinarian as its new director.

Mark Lloyd, formerly at the El Paso Zoo, assumed the post last week and already has specific plans for improvements. He acknowledges that managing the facility and improving its cash flow will be major tasks.

"I always go out on limbs and bite off a lot. I tend to be a bit of a workaholic," he said. "That's because I love what I do."

The center is aggressively pursuing grant funding. Most of the grants deal with education, some with research and a few with animal husbandry. It is also working with Alaska's congressional delegation to find federal money to pay off its $17.5 million construction debt.

The center, a combination cold-water marine research facility, sea life aquarium and rehabilitation center, opened 1½ years ago.

Lloyd said he intends to take an active role in expanding the center's marketing and development efforts, including personal outreach to groups around the state.

After a discussion during one of his three job interviews, he sent a letter to the board of directors urging the center to continue treating injured and orphaned wildlife. Last spring, the board had issued a revised business plan stating that the rehabilitation program had lost $1 million and should be suspended until the center developed an endowment to underwrite it.

Rehabilitation has indirect value, Lloyd said, and he is personally committed to it. Releasing successfully rehabilitated animals, such as the two young harbor seals that were returned to the wild recently, helps people appreciate what the SeaLife Center does.

"That kind of publicity yields intangible and long-lasting rewards," he said. "I think when (people) pay their money at the door, they are glad we are doing these other things."

Lloyd's background includes work as a manager and exotic-animal veterinarian at several zoos and aquariums. He is the third director for the $56 million facility, replacing biologist Kim Sundberg.

Alaska SeaLife Center welcomes new director

By SHANA LOSHBAUGH
Peninsula Clarion

The Alaska SeaLife Center in Seward has hired veterinarian Mark Lloyd as its new director.

The public is invited to meet him Sunday, when the center holds its annual Seward Appreciation Day from 1 to 5 p.m. with an open house, free admission and discounted memberships.

Lloyd brings a mix of energy, idealism and pragmatism to the challenging post. He acknowledged that managing the facility and improving its cash flow will be mammoth tasks.

"I always go out on limbs and bite off a lot. I tend to be a bit of a workaholic," he said. "That's because I love what I do."

He officially assumed the post Friday and already has specific plans for improving the center.

Lloyd has worked as an inspector for the American Zoo and Aquarium Association and intends to get the Seward center accredited as soon as possible so it can take advantage of the association's resources.

"It ties you in with a network," he said. "It opens a lot of new doors."

The center is aggressively pursu-

See LLOYD, back page

Photo by Shana Loshbaugh

Mark Lloyd took over as director of the Alaska SeaLife Center in Seward on Friday.

Peninsula Clarion
11/6/99

...Lloyd

Continued from page A-1

ing grant funding. Most of the grants deal with education, some with research and a few with animal husbandry.

"We have over 60 in the works right now," he said.

The center also is working with the Alaska Congressional delegation, seeking federal money to pay off its $17.5 million construction debt.

"We're very optimistic," he said.

Lloyd intends to take an active role in expanding the center's marketing and development efforts, including personal outreach to groups around the state.

"I want to make myself available," he said.

Although Lloyd plans to devote considerable time to stemming the center's financial losses, he emphasized that its value is more than monetary.

After a discussion during one of his three job interviews, he sent a letter to the board of directors urging the center to continue treating injured and orphaned wildlife. Last spring, the board had issued a revised business plan stating that the rehabilitation program had lost $1 million and should be suspended until the center developed an endowment to underwrite it.

Rehabilitation has indirect value, Lloyd said, and he is personally committed to it.

He cited the example of dead and dying sea otters turned in to the center. Autopsies showed they died from fish bones piercing their digestive tracts. Observers confirmed that otters around the Seward harbor were chewing on discarded halibut carcasses. The center earned no revenue from the incident, but it was able to work with the community and set up an alternative way to dispose of fish waste that removed the risk to wildlife.

Releasing successfully rehabilitated animals, such as two young harbor seals recently, helps people appreciate what the SeaLife Center does.

"That kind of publicity yields intangible and long-lasting rewards," he said. "I think when (people) pay their money at the door, they are glad we are doing these other things."

Lloyd said the center's primary mission, public education, matches his own.

"Teaching is one of my favorite things. As far as I am concerned, education is the most important thing zoos and aquariums do," he said.

The days of zoos and aquariums serving as mere menageries are over, in his opinion.

Modern facilities like the SeaLife Center play a vital role role in helping people understand the planet and conserving rare species such as the Steller sea lion, he said.

Lloyd comes to the Seward center from the El Paso Zoo in Texas. His background includes work as a manager and exotic animal veterinarian at several zoos and aquariums.

Born in Tennessee, raised and educated in Georgia, he calls himself a "hillbilly." But despite those southern origins, he is jazzed about Alaska.

When he came up for his first interview in late spring, he took time to hike and camp along the Kenai River. An avid paddler, he is eager to explore with his kayaks and canoes. He even claims that the autumn rains of Seward are a welcome change from the dry heat of Texas.

"I am tickled to death to be here," he said.

Lloyd is the [illegible] director for the $56-million facility, replacing biologist Kim Sundberg.

The Alaska SeaLife Center opened in May 1998. It pursues a unique mission combining public education, scientific research and wildlife rehabilitation. Most of its funding has come from the Exxon Valdez Oil Spill Trustee Council.

"This place has such incredible potential," Lloyd said. "It has no place to go but up."

Fishermen get lesson in new oil spill tools

By Alberto Cagliano

The Cordova Times

Cordova fishermen tested new oil spill-response tools in a drill held in a small bay of northern Prince William Sound.

Led by an Alyeska Pipeline Service Co. coordinator, most of the local fishing fleet took two-day turns between Friday and Wednesday in the Ship Escort Response Vessel System drill.

The drill, which has taken place since 1990, was staged this year in Two Moon Bay.

Bowpickers and seiners were familiarized with new tools, and for the first time, some of them went ashore on a landing craft to practice beach cleaning.

Christine and Jim Gray, aboard their seiner Bligh Reef, were scheduled for the first two days of the drill.

Christine Gray said the drill included use of a new type of oil skimmer, the Ropemop, a kind of oversized mop made with oleophilic material that tends to trap oil in its fabric.

Another new tool, she said, was the NOFI current-buster boom, a boom designed to prevent oil from slipping underneath in strong currents.

As in previous drills, oranges were trapped with the boom to simulate oil.

"When you deal with oil, it is a whole different ball game," she said.

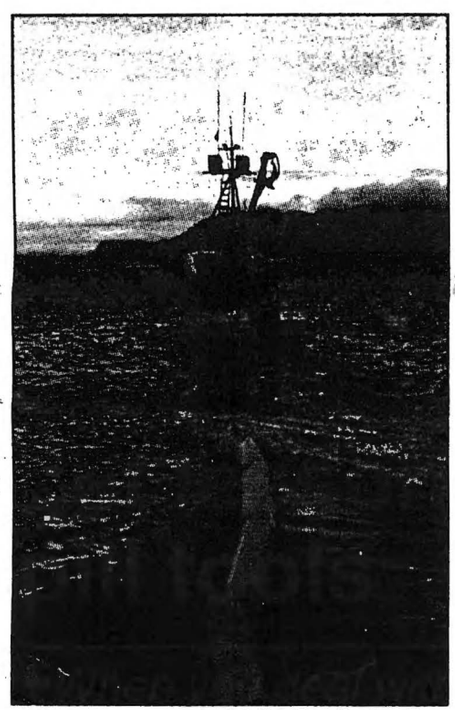
Gray's remark comes from the experience she had in the days following the 1989 Exxon Valdez oil spill.

With other Cordova vessels, they decided to sail to the area of the spill and began pumping oil from the ocean surface in 5-gallon

See Fishermen, Page 2

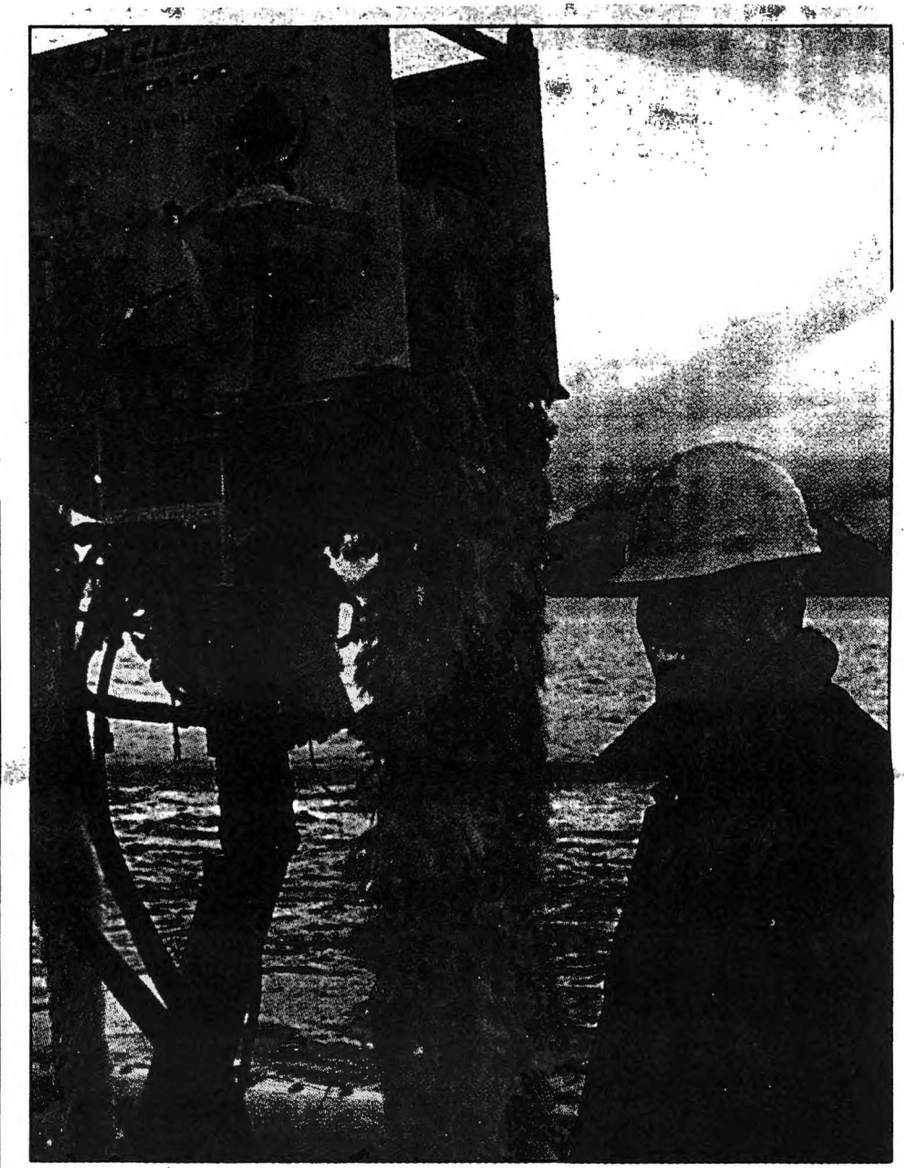
"When you deal with oil, it's a whole different ball game."

— Christine Gray



Christine Gray/Cordova Times

A boat pulls NOFI boom.



Christine Gray/Cordova Times

Jim Gray, owner of the seiner Bligh Reef, poses by a Ropemop oil skimmer during the SERVS drill Sept. 24 in Two Moon Bay.

Cordova Times 9/30/99

Fishermen ...

From Page 1

buckets. The improvised cleaners were soon dubbed "the bounty hunters," Gray said.

They then took their load of oil to Valdez, where nobody was expecting them. Exxon officials agreed to pay $5 a gallon for it.

She recalled the absolute lack of organization in the cleanup operations and the first dramatic moments after news of the spill began to spread.

"I and Jim had just bought our gear for roe-on-kelp diving," she said. "We were in Seattle when we heard about the spill. So we drove up the Alcan, and when we arrived here, we realized we were not going to use our gear."

The fishery for wild herring roe, which attaches to kelp leaves and is harvested underwater, was severely damaged by the spill. Gray said they ended up selling their brand-new diving gear.

She said she noticed a sense of cooperation between fishermen and Alyeska officers who organized the spill response.

"We gave them a couple of suggestions, and they listened," she said.

Refresher classes on oil-spill response were scheduled for Friday through Monday. Drill participants, divided up in groups, would attend a four-hour class.

Daily News
9/25/99

Web project to open way to Inlet data

Software to update page with data base information

By JON LITTLE
Daily News Peninsula Bureau

SOLDOTNA — Reams of scientific and environmental information about Cook Inlet lie hidden amid the jumble on the Internet, but no map shows how to find it. A project funded by the Exxon Valdez Oil Spill Trustee Council aims to write directions.

Unlike a traditional paper map, however, it will be a constantly changing web page, updating itself with its own web crawler, a bit of software that burrows into data bases to find out what's there and what's new.

"It's really about data discovery," said Kelly Zeiner, an analyst and programmer with the state Department of Natural Resources. Zeiner teamed with Russell Kunibe, a state Department of Environmental Conservation programmer, on a two-year project to come up with the dynamic map.

A prototype of the project, called the Cook Inlet Information Management/Monitoring System, or CIIMMS, was unveiled at computer labs this week at the Kenai Peninsula and Homer campuses of the University of Alaska. It's still full of bugs and now is largely limited to information dealing with the Kenai River. Once the system is working reliably, Kunibe said, information from throughout the Inlet watershed will be plugged in.

Municipal planners were the first to take a look Friday in Soldotna, and many came away impressed. Lisa Parker, planning director for the Kenai Peninsula Borough, said the service

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will give her Soldotna-based staff easy access to information now tough to reach.

For instance, Parker said, she browsed through the state's register of new water wells, something she's never had at her fingertips. "Next week when a guy drills a water well, that information will end up getting put in there, so it'll be continually new information," she said.

The newborn service will toddle onto a public web site in three weeks for another round of testing, Kunibe said. Evaluation will last until December, when Kunibe and Zeiner will go back to the spill trustees to gauge whether CIIMMS warrants a second year of funding. The project cost $300,000 this year.

Behind its web page, with options for browsing or a key-word search, lies much unseen work, Kunibe said. Programmers spent months building a system that can tap six huge data bases full of information about Cook Inlet.

Eventually, it should become a conduit for information about such things as habitat, pollution sources and lists of relevant studies, books, web sites and data bases, he said.

Kunibe said the goal is for CIIMMS to let one agency know what others have already done, eliminating redundant research. But it is not just an agency tool. It will be available to students, researchers or anyone else with an interest.

It relies on various agencies and groups connecting to the site. Besides state agencies, federal agencies supplying information to the project include the U.S. Geological Survey, the Environmental Protection Agency and the U.S. Forest Service.

❑ Reporter Jon Little can be reached at jlittle@adn.com.

Homer News
9/23/99

Refuge research aims to crack Bering Sea ecosystem mysteries

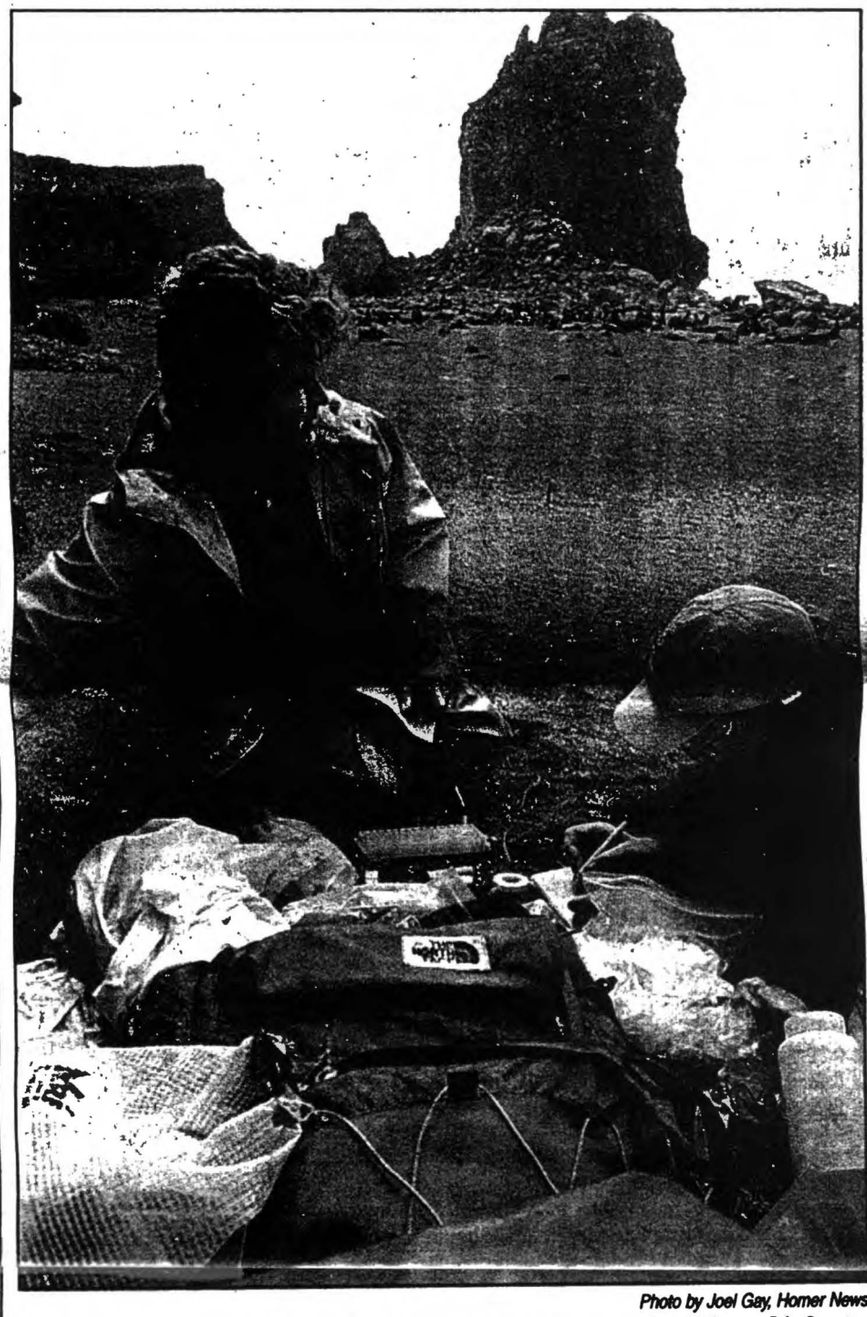

Photo by Joel Gay, Homer News

Alexander Kitaysky and John Piatt record data about stress levels in seabirds at their temporary work station – a beach on Bogoslof Island.

by Joel Gay
Managing Editor

(Second in a two-part series)

BOGOSLOF ISLAND – Walking through chest-high grass, Alaska Maritime National Wildlife Refuge biologist Jeff Williams lead a small group of biologists and helpers to Puffin Slope, where tufted puffin colonies have been monitored since 1973. He located a metal stake in the ground barely visible in the grass, then marched uphill and found its mate. After stretching a stringline between the two, his job was to count the puffin burrows along a meter-wide band up the hill.

"We call this puffin grubbing," he said, as he dropped to his hands and knees with the grass towering overhead.

Grubbing their way uphill, the crew found dozens of puffin burrows, tiny Hobbit holes perhaps 4 to 6 inches high excavated in the hillside. It wasn't so much the holes they sought as signs of occupancy — feathers, feces or food droppings.

Williams peered into some burrows with a flashlight, finding a few startled adults and even some downy chicks.

"One occupied," he called out to Fish and Wildlife Service liaison officer Karen Boylan, who was keeping the record. "One unoccupied."

A deckhand on a pollock trawler back in Dutch Harbor would likely scoff at the biologists' work, but Williams is undeterred. Puffins eat juvenile pollock, as do 2,000-pound Steller sea lions, he said, and the size of the puffin population helps paint a picture of the overall health of the Bering Sea.

While the Dutch Harbor fisherman could care less about puffins, Steller sea lions are another matter. Their numbers have plummeted over the last 30 years, though no one knows why, which has forced National Marine Fisheries Service to declare them a threatened species.

The falling stocks might be due to climate change, increased predation by killer whales or overfishing by pollock trawlers.

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. . . Seabirds provide easy access to environmental data

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It might also be natural variation.

In the meantime, however, some of the best pollock fishing grounds have been declared off-limits to trawlers in hopes that the marine mammals revive.

Making the connection between puffins and pollock trawlers is no easy task, Williams said during a break.

"When your face is stuck in a puffin burrow, it's sometimes hard to make sense of it all," he said.

Such is the scientific process. The day's work means little by itself. Combined with similar counts on other islands throughout the Bering Sea region, and compared year after year after year, however, the picture starts to clarify.

Photos by Joel Gay, Homer News

U.S. Geological Survey biologist John Piatt keeps close track of the data he is collecting on Bogoslof Island.

That is the work of the Tiglax, the research vessel of the wildlife refuge that has hauled Williams and a dozen other scientists to Bogoslof for three days of scientific investigation. Though there are hundreds, if not thousands, of pressing questions about the health of the Bering Sea ecosystem, the Tiglax crews often focus on seabirds, said Vernon Byrd, the refuge's supervisory scientist. More than any other animal, they give biologists a view of what's happening throughout the ecosystem, from the water to the land to the air.

"There's not a seabird out there that doesn't feed or winter at sea," he said. Some feed on the surface, others dive deep. A few species prefer zooplankton, others like fish.

But because they can be captured and analyzed easily, "They're a very cost effective way of monitoring environmental changes," Byrd said.

The next day, John Piatt of the U.S. Geological Survey hauled 150 wire screens up to Puffin Slope, and placed each over an occupied burrow. He returned several hours later to find that several dozen adult puffins had been back. With their burrow blocked, however, they dropped the food they were carrying to their chicks — juvenile pollock, sandlance, even small squid.

"These birds are sampling a lot more fish than National Marine Fisheries Service," Piatt said, as he bagged up each burrow's droppings. He will send the fish to a NMFS lab in Seattle for analysis.

All the information from Puffin Slope is valuable, Piatt said. "These birds are eating fish that are a year old, maybe less. The first time a pollock can be counted by NMFS is when they're 3 or 4 years old. The puffin screens are proving to be, in some places, a very good predictor" of upcoming classes of pollock, he said.

As interesting as puffins are, Piatt and Alexander Kitaysky, of the University of Washington, are more interested in kittiwakes and murres. They want to know why the birds on some islands appear to be faring well, while others that nest relatively nearby are in decline. Specifically, they wonder if the birds are suffering from stress caused by something other than lack of food.

Using a 20-foot-long collapsible fiberglass pole with a noose on the end, Kitaysky crept up on a ledge packed with raucous nesting birds and snagged one by the neck. He quickly swung the flapping kittiwake to the ground, wrapped his big hands around it, and brought it to Piatt. With a sterile needle and glass pipette, they drew a tiny amount of blood, labeled it, and stashed the bird in a pillowcase.

Holding a black-legged kittiwake, Alexander Kitaysky of the University of Washington prepares to take another blood sample.

They took four blood samples from each bird in a 45-minute period, measured its head, beak, lower leg and wing, weighed it, then released it — a little confused and angry, perhaps, but healthy. Back on the Tiglax that night they centrifuged the blood, then cooled the samples for testing in a laboratory. They are looking for certain hormones known to reflect the bird's nutritional history.

"Eventually we'll pull together a picture of the birds' diet and their stress levels," which helps paint a more complete picture of an individual bird's life, Piatt said. Other research has shown the connection between a bird's feed as a juvenile and its health as an adult. He hopes to learn why

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. . . Homer vessel supports biological investiga on

FROM PREVIOUS PAGE

the health of entire colonies varies. Is it a difference in feed, or something else?

As Williams buried his face in puffin burrows, and Piatt and Kitaysky bled birds along Bogoslof's steep cliffs, Bruce Robson of the National Marine Fisheries Service prowled the shoreline. Though he is a fur seal specialist who spends a good portion of the year on the Pribilof Islands, he was there to study Steller sea lions.

Bogoslof was once home to at least 5,000 sea lions, he said, but like rookeries and haulouts throughout western Alaska, that number has dwindled precipitously. In early August, Robson counted fewer than 300. From Cook Inlet to Kiska, the sea lion population has fallen some 80 percent since the 1970s.

NMFS now considers the species "threatened," but environmental groups have sued to have the animals listed as "endangered," which would give them more protection. But protection from what?

"There are a lot of things that could be responsible" for the decline, Robson said. "Water temperature, commercial fisheries, contaminants, predation, global climate change. But what factors can we do something about? Probably the most likely is modifying their habitat to improve foraging for juveniles sea lions." And that means restricting commercial trawling for pollock.

Yet no one knows for certain that eliminating pollock fishing at certain times of year will, in fact, boost sea lion numbers. Robson and others want to know what other factors might be affecting the animals. But while it's easy to inspect puffin burrows and capture kittiwakes, research on 2,000-pound sea lions is a different matter, he said. They are hard to tag, or implant with satellite transponders, or to take blood samples from. So Robson spends part of a day collecting their feces. Analyzed for content and nutrient value, the scat of any animal helps describe what it eats.

Photo by Joel Gay, Homer News

It takes a long pole and a quick hand to snag seabirds, but Alexander Kitaysky has developed a knack. The birds are released after biologists take blood samples and the birds weight and size measurements.

It may also help to study similar animals, such as Robson's specialty — northern fur seals. Bogoslof is an interesting situation, he said, because as sea lions declined, the fur seal population on the island rose from zero to an estimated 10,000.

Elsewhere along the Aleutians and the Alaska Peninsula, sea otters and harbor seals are in decline, perhaps because of predation by killer whales. Could orcas be responsible for the other populations' drops?

"We often look for one answer to population declines, when it could be a matrix of problems," Robson said, such as increasing predation by whales, reductions in feed by pollock trawlers and perhaps even something else.

For three days at Bogoslof, the scientists fanned out on a variety of missions. Some were long-term, some provided just a snapshot, but all the information was recorded in hopes it can provide someone, sometime, in some lab or office or even wheelhouse, a clue to a different puzzle.

Then it was time for the Tiglax to turn west, headed for Koniuji and Kasatochi, Kagalaska and Ulak islands to count yet more kittiwakes, puffins and murres.

In a few days the boat would reach Adak, where Piatt and Kitaysky packed up their blood samples, Robson hi scats, and Byrd a notebook full of numbers. Their places were taken by 16 sea otter biologists from the U.S. Biological Research Division. Once they got settled into their bunks, the Tiglax spent a week nosing around the island, trying to figure out why sea otters populations have fallen.

In the meantime, however, dinner was on. As the shore crews worked the beaches and cliffs of Bogoslof, those on board were "fishing for science," and hooked several large halibut. The fish were measured and weighed and their stomachs sent to Seattle for analysis of near-shore prey species.

Such scientific scrutiny might eventually help explain what role halibut play in the balance of life in the Bering Sea. That night, however, the fish was smothered in mayonnaise and mustard and baked, which the hungry biologists devoured with particular relish.

Sale of 75,000 acres nets Eyak Corp. $45 million

By Alberto Cagliano

The Cordova Times

Besides fall rain, dollars are pouring on Eyak Corp. shareholders as the Native corporation mails dividends of its profits from land sales to the federal government.

"The average Eyak shareholder, who owns 100 shares, will receive $25,000," said Eyak Corp. administrative manager Amy Brockert.

The first checks were mailed last week to the corporation's 377 shareholders, 100 of which reside in Cordova. The total number of Eyak Corp. shares is 32,600, Brockert said.

The money for this fall bounty comes from the $45 million sale of 75,000 acres of Native land to the Exxon Valdez Oil Spill Trustee Council.

Eyak General Manager Brian Lettich said the corporation has negotiated with the Trustee Council over the past six years. The land transfer is part of the habitat conservation efforts that followed the 1989 oil spill in Prince William Sound.

A first check was distributed to shareholders in March when the transaction was completed. Brockert said the corporation will receive the money in installments through 2002. She said shareholders will receive payments of varying amounts for three years in the month of October.

Lettich said the corporation also set aside $10 million to create a permanent fund that will benefit shareholders over the years.

"The transaction regarded land in Port Gravina, Sheep Bay, Nelson Bay, Hawkins Island, around the Eyak Lake and by the Mile 13 airport," Lettich said.

"If you are pro-conservation, you will look at the deal in a positive way because we set aside 75,000 acres for conservation," he said. "There will be no additional timber business. Eyak is out of the timber business. Our purpose is conserve land as it is for the shareholders."

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Wildlife Tracks®

A Publication of the Humane Society of the United States

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IN THE NAME OF RESTORATION

Has the effort to clean up the Exxon Valdez oil spill turned its back on wildlife?

Marybeth Holleman

This work originally appeared in *Orion*, Spring 1999, 195 Main Street, Great Barrington, MA 01230.

My first time in Prince William Sound, I felt as John Muir must have when, one hundred years ago, he named it a "bright and specious wonderland." I was filled with wonder at long fjords of clear cold waters threading between steep verdant mountains; at vast ice fields held in jagged peaks from which glaciers poured to the sea; at ancient ice calving like thunder from those glaciers; at the abundance of fish and marine mammals that thrived in this rich yet harsh landscape, the northernmost reach of the temperate rainforest.

And I was amazed at how untouched it seemed; so few people ventured into those waters; so few even knew of its existence. On those trips fourteen years ago, I spent days in the Sound without seeing any sign of humans. It is this place that compelled me to stay in Alaska, to settle here, find work and home and community. It is this place to which I return every summer, drawn to it as one is drawn to love.

It is also this place that, ten years ago, suffered the most damaging oil spill in history: forty-thousand tons of crude oil spread along 1,500 miles of remote coastline. Now the mark of a decade is upon it, a decade of attempts to heal the place.

How well have we done? The focal point of public attention has been the billion-dollar natural resource settlement managed by the Exxon Valdez Oil Spill Trustee Council, state and federal ency representatives charged with restoration. This money was t to be used to compensate people harmed by the spill, but solely for the place and its wild inhabitants. To restore the wild, reverse the damage.

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THE BEACH WASN'T CLEANED SO MUCH AS REBUILT, LEFT SCRUBBED AND STERILE.

See Inside

RESTORATION, cont. from front page

Eight years after the spill, I traveled to southwestern Prince William Sound to write a silver-lining story for a newspaper: $34 million of the restoration money had been used to protect sixty-thousand acres of virgin rainforest from clearcutting. I was elated to return to one of my favorite areas of the Sound, for good news, bright and shining news. This area was "ground zero" of the spill: first and hardest hit. The majority of the oil came ashore here, where most of the Sound's salmon pour into in the spring, where millions of birds migrate through, where orcas and humpbacks and Steller sea lions congregated.

But on that trip to the heart of the spill zone my worst fears were realized: much of what has been funded has not been restoration. It has instead, as *Scientific American* put it, been a "scientific fiasco." We have not acted in the best interests of the place, but have instead fallen prey to short-term self-interest—the same self-interest that caused the spill in the first place.

When I arrived, Roger Stowell, my guide, took me to Ewan Bay, one of five watery fingers off Dangerous Passage, where a reversing waterfall links the bay to an oval lagoon. On an outgoing tide, the water pours into the bay, reaching a height of ten feet. When the tide turns, the water flow reverses. Evening light sifted golden through tall spruce and hemlock, and a bloom of lion's mane jellyfish floated beneath our boat; on our way out we came upon a sea otter mother with a pup on her belly. I felt as if I had returned to paradise.

The next morning we headed to Sleepy Bay, a north-facing curve of beach on Latouche Island. The day was warm and the waters flat; we passed a pod of orcas feeding in Montague Strait. But at Sleepy Bay, the scene shocked and saddened me. Multicolored booms in three parallel half-circles cordoned off a beach. A dozen people, dressed in bright yellow raingear though there wasn't a cloud in the sky, milled around on shore, wielding buckets and long pipes. The intensity of human activity, contrasting with all other beaches we had passed, was all too familiar. In 1989, nearly every beach looked like this.

Sleepy Bay has endured all attempts to get the oil out. In 1990, I watched bulldozers move rocks, digging into the beach to uncover oil for hot water to wash away. The beach wasn't cleaned so much as rebuilt, left scrubbed and sterile. And still it held oil. In the summer of 1998, when other wild salmon stocks finally returned to the Sound, the stream at Sleepy Bay was empty. It should have held hundreds of spawning salmon.

I was not surprised oil still stuck to this beach. It clings to Green, Knight, Montague, and many other islands as well. I was surprised, however, that we were still trying to extract it, that after billions spent on cleanup we still had this much faith in the power of technology.

TEN YEARS AGO, PRINCE WILLIAM SOUND SUFFERED THE MOST DAMAGING OIL SPILL IN HISTORY. NOW THE MARK OF A DECADE IS UPON IT, A DECADE OF ATTEMPTS TO HEAL THE PLACE.

On shore, we were immediately approached by three white men wearing hard hats and jeans. At first they acted guardedly, asking us who we were, what we wanted. But then, lured by the promise of a picture in the paper, they began showing us the latest oil cleanup technology, designed to get oil out from beneath the rocks, oil eight years old, oil that months of hand-scrubbing, summers of cold and hot water washing, years of biochemical treatment, had not budged.

While I listened to them talk of their invention, my attention was drawn beyond them to ten residents of Chenega Bay, Aleuts, dressed in protective gear, trying to clean this beach that, before the oil, they frequented to collect mussels and kelp, fish for salmon, hunt deer. They were silent. Only one spoke briefly, turning over a rock to show me oil glistening beneath, as fresh as if it had washed up yesterday.

On our way to Sleepy Bay we had passed Old Chenega, where the 1964 earthquake's tsunamis swept away twenty-three of the townspeople and so many buildings that the town was abandoned. Now residents of Chenega Bay, the new village, travel there once a year for three days to remember the dead. Now, too, they continue to clean up from the oil spill, which hit them twenty-five years to the day after the earthquake.

When we left, I looked back and saw the villagers sitting in a row on beach logs like cormorants on a rock ledge, eating lunch, staring out to sea. I wondered, did they see a better way to restore the Sound? Or were they as frustrated as I was?

I was grateful to leave that scene and head to Jackpot Bay, where I anticipated experiencing the newly protected place in solitude. Off Dangerous Passage, Jackpot spreads into a series of waterways, some connected like a string of pearls by narrow passages, another widening to embrace a massive waterfall, and one curving back to a small stream. When I'd been there four years earlier, the only evidence of humans I'd seen had been two small fishing boats.

What we found this time, though, made my heart heavy. Near the mouth of the stream, a small settlement had risen: three large wall tents, a couple of buoys on the water, a gas can on the beach, a bright blue tarp covering three fuel barrels, and trails criss-crossing the small headland. This was a research camp, Roger told me, peopled all summer.

We boated ashore and were met by a young graduate student, here for the summer helping with the pigeon guillemot project. Funded by the Trustee Council as restoration work, he and others studied a colony of these seabirds, whose population was devastated by the spill, on an islet in the middle of the bay. Every morn-

ing, these researchers climbed the island, found tunnels in which the birds nest, and reached their hands and arms inside, roping for eggs. They counted them. ater they would capture and band the chicks that hatch.

To my amazement, they weren't able to tell me what they hoped to learn from the project, or how their work might help the bird recover. They wouldn't venture to say whether the forest protection might help the birds. They were uncomfortable with us, edgy. Another boat appeared, with the project director aboard. One of them took the skiff out and didn't return, though I asked her to see if I could talk with the director.

"He's probably giving her a hard time for talking with you," the other two told me. It was strange, as if they were hiding omething.

Later I figured it out: They hid nothing. That's the problem. They could show no benefit, no restoration—just data and banded birds. Every day on that trip, we saw research boats and research camps. Before the spill, only a few researchers worked in the Sound. Now, though, with funds from the settlement, cadres of scientists study guillemots, river otters, sea otters, mussels, herring. All a result of the spill, of the $1 billion natural resource settlement. And, few of the many projects have helped the animals.

That evening I lay in my bunk, so upset I couldn't sleep. I recalled the last time I was in this place. It was four years after the oil spill, and I had been aware that there were fewer seals, sea otters, birds. But I had believed it was healing. Wounds take time, undisturbed time, to heal. I thought that, after the frenetic first two ears' $2-billion cleanup and $150-million amage assessment, the Sound was now getting that undisturbed time to heal.

I was wrong. Eight years after the spill, more research went on in the Sound than did four years earlier. Now, instead of damage assessment, it is called restoration. Now there is a pot of money to fund it. Now dozens of projects employ hundreds of people during the season. The spill spawned a new industry whose center is here.

THE BILLION-DOLLAR NATURAL RESOURCE SETTLEMENT WAS TO BE USED SOLELY FOR THE PLACE AND ITS WILD INHABITANTS. TO RESTORE THE WILD, REVERSE THE DAMAGE.

But it is not restoration. They are not working in the best interest of the wildlife, the wildlife that exists here and now. They are instead picking at the wound, keeping it open, creating new wounds. Yes, we know more about these animals being counted and darted, poked and prodded. But what good is that knowledge? They aren't more protected from oil spills; their lives aren't better, safer. Of dozens of affected species, only one, the bald eagle, has recovered.

Their lives are, instead, harder for all this research, much of it intensely intrusive. Harlequins, strikingly marked sea ducks, have suffered severe reproductive failure since the spill, and no one knows why. So the Trustee Council funded the "harlequin roundup": in the spring, when the birds are molting and flightless, researchers in kayaks circle a flock of swimming ducks and herd them into nets. Once caught, they have radio transmitters implanted in their bellies, and are released. So far, most have died.

Others have died in the name of restoration as well: sea otters, salmon, scoters, harbor seals. Hundreds of seabirds were shot and strapped with transmitters so researchers could chart where dead birds go. Harbor seals and Steller sea lions—now listed as endangered—were declining before the spill, likely from diminished food sources caused by overfishing. Oil-slicked haulouts exacerbated matters.

LITTLE HAS BEEN SPENT ON PREVENTION. ATHOUGH THE OIL POLLUTION ACT OF 1990 ESTABLISHED NEW TANKER STANDARDS, INCLUDING DOUBLE HULLS, NONE HAVE BEEN BUILT.

Shortly after the spill, nearly two dozen seals were "collected" so their stomach contents could be studied. Many others have since been captured and burdened with radios and antennas on their backs.

We define restoration as restitution for a loss, as returning to a previous and more desirable state, as renewing, giving back. These research projects, these vivisections, not only fail to do that—they make things worse. But, as with the high-technology beach cleanup, we continue to put our money—the Sound's money—into them. As one letter to the editor in the *Anchorage Daily News* said, "Research should not be the legacy of the spill: Prince William Sound should."

Unfortunately, intrusive research isn't the most blatant misuse of restoration money. There's the Seward Sealife Center, an aquarium touted as a research facility where tourists can see puffins and river otters and harbor seals. How is caging wild animals considered restoration? Of the $50 million it took to build the aquarium, $38 million came from the restoration fund. Each year, millions of dollars from the fund will go to support it. For one research project, healthy river otters have been captured and caged, and are being fed oiled food, after which their blood is tested—this to give researchers a benchmark for interpreting the blood samples they've already collected from otters in the Sound. In response to a letter in the Daily News denouncing this project, a researcher wrote that "we don't know whether oil affects river otters." Of course we do.

The money has been used to fund other buildings; in fact, nearly every community in the spill zone has a new facility from these funds. In Kodiak, it's a multimillion-dollar industrial technology center; in Seward, a commercial shellfish hatchery. This isn't about restoration; it's about a pot of money, and everyone wants some.

In the latest round, the Trustee Coun-

cil has set aside $140 million for a "Restoration Reserve," money that can be stretched to last for decades to, as one Trustee Council member said, "fund research by scientists who are still in grade school." They ought to be honest. They ought to call it the Research Reserve.

Many who clamor for a piece don't even link their request to restoration. An esteemed former legislator is pushing to use the reserve for science education throughout the state. Letters from University of Alaska professors asking for an endowment ignore restoration as well: one professor says only it "would serve the state well, now and in the future . . . the university lags behind state development." It's about tenure and job security. It's about self-interest, and short-term self-interest at that. It's not about the health of the wild.

RESEARCH SHOULD NOT BE THE LEGACY OF THE SPILL: PRINCE WILLIAM SOUND SHOULD.
(LETTER FROM THE *ANCHORAGE DAILY NEWS*)

At a national Environmental History conference last August, sponsored by the University of Alaska Anchorage, a panel discussed the Exxon Valdez oil spill. Walt Parker, who has worked in oil transportation safety issues since the inception of the Trans-Alaska Pipeline, said the risk of an oil spill in Prince William Sound is greater now than in 1989. While much has been spent on response, little has been spent on prevention. The pipeline is older and less sturdy, and although the Oil Pollution Act of 1990 established new tanker standards, including double hulls, none have been built.

"It was an old fleet in 1989," he said, "and now it's a decade older. These are the roughest waters in the world."

The best we can do for Prince William Sound is to do everything possible to prevent such a spill from recurring. We're not doing that. Instead we're flushing beaches, sticking our hands in burrows, rounding up and capturing and implanting transmitters. All this science isn't restoration. It's ence.

At the same panel discussion, Stan Senner, science coordinator for the Trustee Council, said, "Most of the rec ery has and will come from natural processes." This is a clear admission that science can't fix it, that humans can't fix it, from those responsible for restoration. So, what good are the buildings, science projects, beach clean-ups paid for with restoration money?

Senner justifies the research by saying it "provides information that will enable us to sustain the ecosystem over time." Rather, we have the illusion that observing animals somehow helps them recover. The bald eagle recovered without any help from science—all science did was record it. And few restorative managment decisions have come from ten years' worth of research.

What's worse, those decisions made are often baffling and contradictory. This year, the river otter was moved to the "recovered" list and six were captured and caged in the aquarium for research, while at the same time river otter trapping in the Sound was, for the first time ever, restricted.

If, as even Senner said, the Sound will recover of itself, the best restoration may be to simply let it be. We could limit the number of people in the Sound, the number of boats and camps—a permit system, like Denali National Park's. I'd be willing, even if it meant I couldn't go there every summer. In the name of restoration, I'd be willing.

But things are heading in the opposite direction. The state is building a road connecting the highway system to Prince William Sound at Whittier, only forty miles south of Anchorage. It's estimated that the numbers of boats and people in the Sound will increase from 100,000 to more than 1.4 million a year. There will be more boats than river otters, more people than pigeon guillemots.

The Trustee Council did not make a move to stop this road, though only four lines in the road's Environmental Impact Statement were devoted to effects on the Sound, though even the researchers in Jackpot Bay said the road may do more damage than the oil. Despite their charge to restore the Sound, the Council did nothing to prevent what promises to be the next disaster.

THIS ISN'T ABOUT RESTORATION; IT'S ABOUT A POT OF MONEY, AND EVERYONE WANTS SOME.

It is hard to accept limits, limits to what we can do, to what we think we can do. It is hard to accept that the best thing may be to do nothing. This is why it's hard for us to see that so much of what goes on in the name of restoration does not help.

Of all that the Trustee Council has funded, habitat protection is the only thing that helps the place without inflicting more damage. Like double hulls and better-trained crews, it is prevention. But as my friend David says, if we consider the Sound a patient, then we ought to remember the healer's hippocratic Oath: First, do no more harm.

With habitat protection, coastal forests slated for clearcutting can be saved. Forests connected to oiled beaches and waterways; forests in whose streams spawning salmon lay eggs, the fry returning to the Sound; forests in whose trees nest birds who feed upon the fish in the Sound; forests along whose edges are fragile intertidal areas, nurseries where fresh- and saltwater meet; forests entwined with the sea in mutually dependent relation: all can be saved.

Habitat protection allows for what we most need to restore: our relationship with the place. Not through management, and the arrogance to think we know what's best: that's what we use to justify science and technology. And not through a total absence of human interaction with the place. Restoring our right relationship with Prince William Sound requires learning, or remembering, a way to be in the natural world that doesn't desecrate or

overrun, but that maintains and respects.

We find it through attentive love: through action based on the love that comes from awareness of what the place and its inhabitants need and desire. Attentive love requires an ethic of humility. It sees excessive control as a liability; it reveres the process of life; it knows that sometimes it's best to do nothing. Scientists like Barbara McClintock and Jane Goodall have shown us this ethic: McClintock says she listened to the corn, Goodall let herself be guided by the chimpanzees.

Attentive love requires a patient regard for another who demands preservation and growth. It is how we raise our children. It requires faith in ourselves and in the beloved. And many people do it, in small and unrecognizable ways each day. Consider Roger who was constantly aware, constantly noticing every small thing about the place he has chosen to inhabit and be inhabited by. Having lived in the Sound eighteen years, Roger knew every inch. As he took me along Dangerous Passage, he stopped near a small island in Paddy Bay.

"There," he pointed to a spruce. "See the eagle's nest? This is the thirteenth summer they've nested here." At the mouth of Eshamy, he pointed out a spit of land. "A few falls ago," he told me, "I caught five bear hunters camped there. I chased them off, told them no hunting allowed." He told me stories of catching kayakers littering and boaters dumping used oil. It had once been his job to patrol these waters. I knew, but I sensed that he would continue no matter who the owner was: in his eyes, the needs of the land don't change.

In attentive love, the natural world remains wild. As Jack Turner says in *The Abstract Wild*, "A place is wild when its order is created according to its own principles of organization—when it is self-willed land." Attentive love enhances this self-willed nature by only doing what is asked.

But we have to listen. Imagine the Trustee Council meeting to decide about research funding not in a conference room in Anchorage, but on the beach at Sleepy Bay, or by the stream at Jackpot Bay. Never before have they gone to the Sound as the Council. Imagine, though, that they each watched harlequin ducks in their habitat before deciding whether to fund another roundup. Imagine a gathering each year like the gathering of earthquake survivors at old Chenega: remembering and honoring. Imagine such a gathering for the tenth anniversary of the oil spill, instead of the two-day technology conference in Valdez or the three-day science conference in Anchorage.

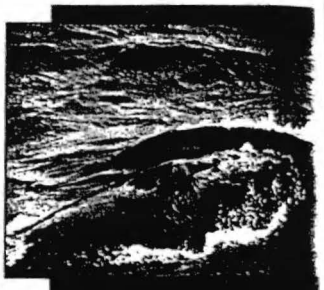
INTRUSIVE RESEARCH ISN'T THE MOST BLATANT MISUSE OF RESTORATION MONEY. THERE'S THE SEWARD SEALIFE CENTER, AN AQUARIUM TOUTED AS A RESEARCH FACILITY WHERE TOURISTS CAN SEE PUFFINS AND RIVER OTTERS AND HARBOR SEALS. OF THE $50 MILLION IT TOOK TO BUILD THE AQUARIUM, $38 MILLION CAME FROM THE RESTORATION FUND.

If we listen, the Sound will tell us that we don't need to capture harlequins, we don't need to band guillemots, we don't need to excavate beaches. The Sound will show us other paths of restoration.

On my last morning, Roger took me to a small beach on Chenega Island. I walked into the forest, following a small stream crossed with fallen logs and bending branches. Abandoning the stream, I followed an animal trail around boulders and up a steep bank. Sounds were muffled by thick moss: at my feet, on the branches, on the trunks around me. Every limb I touched felt mossy soft, wet and green. Walking was slow, for moss hid a tangle of fallen limbs and rocks.

I looked up at shafts of light pouring down upon small patches of the forest. One tree, larger than the rest, held several large moss platforms in its arms. I wondered if any were the nests of marbled murrelets.

Deep in the darkness of trees, marbled murrelets nest. They are small seabirds, indistinguishable as they bob on the ocean. They spend days out at sea, then fly back into the old-growth forests, reaching speeds of one hundred miles an hour, little bolts of feather bodies among thick stands of rainforest trees. Into the forest. Zip. Out to the sea, to feed on the fish. Zip. Like needle and thread, sewing together land and sea.



OF ALL THAT THE TRUSTEE COUNCIL HAS FUNDED, HABITAT PROTECTION IS THE ONLY THING THAT HELPS THE SOUND WITHOUT INFLICTING MORE DAMAGE. . . . THIS PURCHASE, AND OTHERS LIKE IT, LEAVE OPEN THE POSSIBILITY FOR THE WILD TO LIVE UNHINDERED. THAT SOUNDS LIKE RESTORATION.

I paused at the base of the tree, and, not able to find steady footing, grabbed hold of the trunk. I leaned into it, tried to encircle it with my arms, but could not. It was more than six arm-lengths in circumference. Over five hundred years old, this tree was now protected. An earthquake might fell it, a tsunami, but not a chainsaw. Even if a murrelet did not now nest in it, one could. Even if a river otter didn't make the trail I followed back down to the stream, one could.

It is the possibility of the wild that gives me hope. This purchase, and others like it, leave open the possibility for the wild to live unhindered. That sounds like restoration.

Marybeth Holleman's work has appeared in venues including *The North American Review*, *Solo*, *American Nature Writing* and *National Wildlife*. She lives in Anchorage, Alaska where she teaches creative writing and women's studies. She is at work on a book about Prince William Sound.