RESOLUTION 02-07 OF THE
***EXXON VALDEZ* OIL SPILL TRUSTEE COUNCIL**
REGARDING THE FY 03 WORK PLAN

We, the undersigned, duly authorized members of the *Exxon Valdez* Oil Spill Trustee Council do hereby certify that, in accordance with the Memorandum of Agreement and Consent Decree entered as settlement of United States of America v. State of Alaska, No. A91-081 Civil, U.S. District Court for the District of Alaska, and after public meetings, unanimous agreement has been reached to expend funds received in settlement of State of Alaska v. Exxon Corporation, et al., No. A91-083 CIV, and United States of America v. Exxon Corporation, et al., No. A91-082 CIV, U.S. District Court for the District of Alaska, for necessary natural resource damage assessment and restoration activities. The Fiscal Year 2003 Work Plan Phase I is funded at $3,725,200 as described in Attachment A. The monies are to be distributed according to the following schedule:

Alaska Department of Fish & Game	2,240,000
Alaska Department of Natural Resources	329,500
SUBTOTAL TO STATE OF ALASKA	$2,569,500
U.S. Department of the Interior	687,300
National Oceanic & Atmospheric Administration	468,400
SUBTOTAL TO UNITED STATES OF AMERICA	$1,155,700
TOTAL APPROVED	$3,725,200

Funds must be spent in accordance with Attachments A and B, with the following conditions: (1) If a Principal Investigator (PI) has an overdue report or manuscript from

a previous year, no funds may be expended on a project involving the PI unless the report is submitted or a schedule for submission is approved by the Executive Director; (2) a project's lead agency must demonstrate to the Executive Director that requirements of the National Environmental Policy Act (NEPA) are met before any project funds may be expended (with the exception of funds spent to prepare NEPA documentation); and (3) a PI for each project must submit a signed form to the Executive Director indicating their agreement to abide by the Trustee Council's data and report requirements before any project funds may be expended.

By unanimous consent, we hereby request the Alaska Department of Law and the Assistant Attorney General of the Environmental and Natural Resources Division of the United States Department of Justice to take such steps as may be necessary for withdrawal of the Fiscal Year 2003 Work Plan Phase I amount ($3,725,200) from the appropriate account designated by the Executive Director.

Approved by the Council at its meeting of August 6, 2002 held in Anchorage, Alaska as affirmed by our signatures affixed below.

DAVE GIBBONS
Forest Supervisor
Forest Service Alaska Region
U.S. Department of Agriculture

CRAIG J. TILLERY
Assistant Attorney General
State of Alaska

DRUE PEARCE
Senior Advisor to the Secretary
for Alaskan Affairs
U.S. Department of the Interior

JAMES W. BALSIGER
Administrator, Alaska Region
National Marine Fisheries Service

FRANK RUE
Commissioner
Alaska Department of Fish and Game

MICHELE BROWN
Commissioner
Alaska Department of Environmental Conservation

Attachments:
A Funding Distribution
B Executive Director's Recommendation

Attachment A to Resolution 02-07
***EXXON VALDEZ* OIL SPILL TRUSTEE COUNCIL**
2003 Federal Fiscal Year Project Budgets
October 1, 2002 - September 30, 2003

Agency	Cooperating Agency(s)	GEM	Project Number	Project Title	First FY 03 Court Notification
ADF&G			030052	Tribal Natural Resource Stewardship and Meaningful Tribal Involvement in GEM	30.1
	DOI-USGS, DOI-O/S		030100	Public Information and Administration	950.2
			030190	Construction of a Linkage Map for the Pink Salmon Genome	54.5
		G	030210	Youth Area Watch	98.6
	ADNR, DOI-USGS, NOAA	G	030250	Project Management	50.0
		G	030340	Toward Long-Term Oceanographic Monitoring of the Gulf of Alaska Ecosystem	51.6
		G	030455	Gulf Ecosystem Monitoring and Research Program Data System	212.9
		G	030550	Alaska Resources Library and Information Services	95.1
			030558	Harbor Seal Recovery: Application of New Technologies for Monitoring Health (including Bench Fees)	286.7
		G	030584	Evaluation of Airborne Remote Sensing Tools for GEM Monitoring	39.3
		G	030596	Securing Flow Data for a Lower Kenai Peninsula Salmon Stream	22.6
		G	030610	Kodiak Archipelago Youth Area Watch	63.0
		G	020614	Monitoring Program for Near-Surface Temperature, Salinity, and Fluorescence in the Northern Pacific Ocean	18.1
	ADNR	G	020630	Scientific Management under GEM	174.8
		G	030649	Reconstructing Sockeye Populations in the Gulf of Alaska over the Last Several Thousand Years	92.5
				ADF&G Total	**2,240.0**
ADNR	ADFG, DOI-USGS, NOAA	G	030250	Project Management	10.0
		G	030600	Synthesis of the Ecological Findings from the EVOS Damage Assessment and Restoration Programs,1989-2001	215.9
	ADFG	G	030630	Scientific Management under GEM	103.6
				ADNR Total	**329.5**
DOI-NPS	DOI-USGS	G	030656	Retrospective Analysis of Nearshore Marine Communities Based on Analysis of Archaeological Material & Isotopes	4.7
				DOI-NPS Subtotal	**4.7**
DOI-FWS	DOI-USGS		030423	Patterns and Processes of Population Change in Selected Nearshore Vertebrate Predators	11.5
		G	030561	Community-Based Forage Fish Sampling	17.0
				DOI-FWS Subtotal	**28.5**

Dollar Amounts are shown in thousands of dollars

Attachment A to Resolution 02-07
***EXXON VALDEZ* OIL SPILL TRUSTEE COUNCIL**
2003 Federal Fiscal Year Project Budgets
October 1, 2002 - September 30, 2003

Agency	Cooperating Agency(s)	GEM	Project Number	Project Title	First FY 03 Court Notification
DOI-USGS	ADFG, DOI-O/S		030100	Public Information and Administration	139.9
	ADFG, ADNR, NOAA	G	030250	Project Management	27.9
	DOI-FWS		030423	Patterns and Processes of Population Change in Selected Nearshore Vertebrate Predators	205.1
	NOAA		030585	Lingering Oil: Bioavailability & Effects to Prey & Predators	15.7
	NOAA		030620	Lingering Oil & Predators: Pathways of Exposure & Population Status	192.3
	DOI-NPS	G	030656	Retrospective Analysis of Nearshore Marine Communities Based on Analysis of Archaeological Material & Isotopes	49.0
				DOI-USGS Subtotal	**629.9**
DOI-O/S	ADFG, DOI-USGS		030100	Public Information and Administration	24.2
				DOI-O/S Subtotal	**24.2**
				DOI Total	**687.3**
NOAA			030012	Photographic and Acoustic Monitoring of Killer Whales in Prince William Sound and Kenai Fjords	18.1
	ADFG, ADNR, DOI-USGS	G	030250	Project Management	49.7
			030290	Hydrocarbon Database and Interpretation Service	22.5
			030476	Effects of Oiled Incubation Substrate on Pink Salmon Reproduction	37.1
			030574	Assessment of Bivalve Recovery on Treated Mixed-soft Beaches in Prince William Sound	36.0
		G	030575	Designing a Community Involvement/Community-based Monitoring Plan for GEM	109.6
	USGS		030585	Lingering Oil: Bioavailability & Effects to Prey & Predators	105.9
		G	030607	Geographic Information Systems (GISs) Map of Water Quality Monitoring Sites Across the Gulf of Alaska	13.1
		G	030625	Prince William Sound Isotope Ecology Synthesis	25.5
		G	030636	Management Applications: Commercial Fishing	50.9
				NOAA Total	**468.4**
				Total	**3,725.2**

Dollar Amounts are shown in thousands of dollars

Attachment A to Resolution 02-07
***EXXON VALDEZ* OIL SPILL TRUSTEE COUNCIL**
2003 Federal Fiscal Year Project Budgets
October 1, 2002 - September 30, 2003

Agency	Cooperating Agency(s)	GEM	Project Number	Project Title	First FY 03 Court Notification
	CHECK ONLY			SUMMARY	
	CHECK ONLY				
	CHECK ONLY			ADF&G	2,240.0
	CHECK ONLY			ADNR	329.5
	CHECK ONLY			ADEC	0.0
	CHECK ONLY			State of Alaska	2,569.5
	CHECK ONLY				
	CHECK ONLY				
	CHECK ONLY			USFS	0.0
	CHECK ONLY			DOI	687.3
	CHECK ONLY			NOAA	468.4
	CHECK ONLY			United States	1,155.7
	CHECK ONLY				
	CHECK ONLY			Total	3,725.2
	CHECK ONLY		01100	Public Information and Administration	1,114.3
	CHECK ONLY		01126	Habitat Protection and Acquisition Support	0.0
			02154	Archaeology Support Costs	0.0
			02514	Lower Cook Inlet Waste Management Plan	0.0
	CHECK ONLY			Work Plan Total (w/o the projects reflected above)	2,610.9
				Sandra's number	4,178.9
				includes deferred projects	480.8
					3,698.1

Dollar Amounts are shown in thousands of dollars

SPREADSHEET B: TRUSTEE COUNCIL ACTION (TEXT SPREADSHEET)--FY 03 PHASE I WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	FY 03 Approved 8/6/02	FY 03 Deferred to 11/25/02	FY 04 Request	FY 04 Recom.
Oil Spill: Lingering Injury					$428.0	$151.3	$52.7	$52.7
030190	Construction of a Linkage Map for the Pink Salmon Genome	F. Allendorf/Univ. Montana	ADFG	Cont'd 8th yr. 8 yr. project	$54.5	$0.0	$0.0	$0.0

Project Abstract

This is the final year of a project based upon experiments conducted at the Alaska SeaLife Center that use a linkage map that was constructed to test for effects of regions of the genome on traits that are important to the recovery of pink salmon (e.g., growth and survival). In summer 2001, 259 sexually mature adults were collected in Resurrection Bay from the 1999 cohort produced from wild pink salmon collected from Likes Creek. In FY 03, the analysis of the genotypes in the returning adults will be completed to test for genetic differences in marine survival and other life history traits (e.g., body, size, egg number, and egg size) and a final report/manuscript will be prepared.

Chief Scientist's Recommendation

This is the final year of a long-term project that has done a good job overcoming unexpected technical challenges. The genome map will be a benefit to a variety of future studies of pink salmon, and will be useful for future pink salmon management in Southcentral Alaska. Based on the proposal, it appears that the data analysis is in the process of completion, and it seems appropriate to provide the principal investigator with funding to complete the identified data analysis and prepare manuscripts. Fund.

Trustee Council Action

Fund revised proposal, which reduces the cost of the remaining data analysis and manuscript/final report preparation. This project is important for understanding the genetic traits of pink salmon that affect growth and survival. In addition, the work being done under this project will contribute to answering questions important to fisheries management about hatchery/wild fish interactions. For example, are hatchery fish changing the gene pool in a way that makes wild fish maladapted to their environment? Are enough hatchery fish getting into streams to affect productivity of wild fish? How adapted are wild fish to particular streams?

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	FY 03 Approved 8/6/02	FY 03 Deferred to 11/25/02	FY 04 Request	FY 04 Recom.
030290	Hydrocarbon Database and Interpretation Service	J. Short, B. Nelson/NOAA	NOAA	Cont'd 12th yr.	$22.5	$0.0	$22.7	$22.7

Project Abstract

This ongoing project provides data and sample archiving services for all samples collected for hydrocarbon analysis in support of Trustee Council projects. These data represent samples collected since the oil spill in 1989 to the present and include environmental and laboratory National Resource Damage Assessment and restoration data. Additionally, this project provides interpretive services for hydrocarbon analysis, public releases of the hydrocarbon and pristane databases, and storage and maintenance of the hydrocarbon sample archives.

Chief Scientist's Recommendation

This is a small project, but critical to tracking remaining oil and its fate. Studies that will focus on whether the remaining intertidal subsurface oil in Prince William Sound is contaminating the food web require the support of this service project. As the amount of oil from the spill subsides, the identity of the hydrocarbon sources is a question that assumes greater importance. This project makes source identification determinations based on the chemical analyses that are stored in the database. The technical approach is sound, as has been demonstrated by more than ten years of successes. The approach and products from this study have appeared in many peer reviewed publications. Fund.

Trustee Council Action

Fund contingent on submittal of overdue reports (00195, 01195, 01599) and manuscript (00598). This project provides the ongoing analysis and interpretation of hydrocarbon data for other Trustee Council funded studies.

SPREADSHEET B: TRUSTEE COUNCIL ACTION (TEXT SPREADSHEET)--FY 03 PHASE I WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	FY 03 Approved 8/6/02	FY 03 Deferred to 11/25/02	FY 04 Request	FY 04 Recom.
030476	Effects of Oiled Incubation Substrate on Pink Salmon Reproduction	R. Heintz/NOAA	NOAA	Cont'd 5th yr. 5 yr. project	$37.1	$0.0	$0.0	$0.0

Project Abstract

Populations are maintained through successful reproduction; this study is designed to determine if exposure to oil impairs pink salmon reproduction. This experiment began in the fall of 1998 when pink salmon eggs were incubated in oil contaminated water. Fish that survived exposure were marked and released in the spring of 1999. They reached maturity at sea and returned to spawn in the fall of 2000. Return rates confirmed previous observations of reduced marine survival among exposed fish, but evaluations of offspring (F1) survival rates did not indicate any reproductive impact. The F1 were incubated in clean water until spring 2001 when they were marked and released. They will mature and return to the hatchery in the fall of 2002 and their reproductive ability will be evaluated by generating an F2 generation. A diminished ability to produce the F2 generation represents a genetic effect of oil transmitted to unexposed generations. Such an effect was demonstrated for similarly treated pink salmon in 1997, but corroborating data do not exist. This project is designed to retest that experiment; if diminished reproductive ability is corroborated, it would demonstrate a significant and unanticipated effect of oil pollution.

Chief Scientist's Recommendation

This is an important project because it rigorously tests the hypothesis that pink salmon have herritable damage expressed as reduced survival. The Trustee Council should complete this project, as it has been fundamental for understanding the damage to pink salmon from the oil spill. The FY 03 work will complete a two-generation experiment started in 1998 with exposure of salmon eggs to oil. Fund.

Trustee Council Action

Fund closeout of this project contingent on submittal of overdue reports (99347, 01476). This project is validating the effects of oil contamination on pink salmon, thus contributing to our understanding of the injury and recovery status of this injured species.

SPREADSHEET B: TRUSTEE COUNCIL ACTION (TEXT SPREADSHEET)--FY 03 PHASE I WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	FY 03 Approved 8/6/02	FY 03 Deferred to 11/25/02	FY 04 Request	FY 04 Recom.
030585	Lingering Oil: Bioavailability and Effects to Prey and Predators	J. Rice, J. Short/NOAA; J. Bodkin, B. Ballachey/USGS; D. Esler/Simon Fraser Univ.	NOAA & DOI	Cont'd 2nd yr. 2 yr. project	$121.6	$0.0	$0.0	$0.0

Project Abstract

About 20 acres of contaminated beach were found in 2001 surveys of western Prince William Sound conducted under Project 01543. In these areas, sea otters and harlequin ducks have not recovered, raising concerns that continued oil exposure may be affecting their survival. Biochemical assays and mortality patterns are consistent with continuing oil exposures, but prior to this study, linkages between oil persistence and impacts at higher trophic levels had not been attempted. In this study, shoreline contamination, exposure and effects were examined simultaneously by choosing a common set of sites at which to assess oil persistence and biological impacts on sea otters and harlequin ducks. Fieldwork was conducted in FY 02, and closeout activities, including data analyses and writing of reports and publications, will be done in FY 03. The National Oceanic and Atmospheric Administration's Auke Bay Lab has been leading the studies of oil bioavailability and impacts to prey species; Department of Interior-U.S. Geological Survey has been directing the studies on sea otters and harlequin ducks.

Chief Scientist's Recommendation

This is a very good to excellent proposal that addresses the potential effects of remaining intertidal oil deposits (mainly subsurface) on the food web, including clams and intertidal fish, sea ducks (harlequin ducks) and sea otters, which are apparently still exposed to lingering oil. This is a closeout of the two-year project to document oil remaining in the intertidal and how it may be available to higher trophic levels. The request for funds to analyze oil-exposed bivalves is warranted, as this may establish an exposure pathway to higher trophic levels. The project is related to Project 03620, but the latter project focuses more closely on relating foraging area to exposure. Fund, including funds for additional chemical analyses and analysis of interstitial water samples.

Trustee Council Action

Fund closeout of this project, including funds for additional chemical analyses and analysis of interstitial water samples, contingent on (a) approval of the revised Detailed Project Description, which reflects this additional work and (b) submittal of overdue reports (00195, 00454, 01195, 01599) and manuscript (00598). This project, which integrates studies of sea otters and harlequin ducks with continued assessment of oil persistence, is the product of a workshop convened in 2001 to review results from Project 01543/Evaluation of Oil Remaining in the Intertidal and to identify information gaps. The project's objective is to determine if the signs of continued oil exposure in sea otters and harlequin ducks are linked to the oil remaining in intertidal sediments.

SPREADSHEET B: TRUSTEE COUNCIL ACTION (TEXT SPREADSHEET)--FY 03 PHASE I WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	FY 03 Approved 8/6/02	FY 03 Deferred to 11/25/02	FY 04 Request	FY 04 Recom.
030594	Development of an Alaska Standard Species for Marine Toxicity Testing - The Alaska Green Urchin	R. Perkins/UAF	ADFG	New 1st yr. 1 yr. project	$0.0	$0.0	$0.0	$0.0

Project Abstract	Chief Scientist's Recommendation	Trustee Council Action
This project will develop a standard marine toxicity testing procedure using cold water and an Alaska species. None of the standard test procedures required or recommended by the Environmental Protection Agency and other environmental regulators use cold-water test animals. Use of typical warm-water species to make decisions about Alaska conditions and species is unsatisfactory from a scientific standpoint, and this practice also interferes with public acceptance of the results. Decisions requiring toxicity testing include crude oil components and cleanup chemicals, such as dispersants and beach cleaners. This project proposes developing the Alaska green urchin as a test species. Tests of urchin fertilization and embryo development are sensitive indicators of toxicity.	The core tasks in this proposal have already been done and extensively published by Dinnel and his colleagues at the University of Washington during the 1980s. The project also has limited links to restoration. Do not fund.	Do not fund based on Chief Scientist's recommendation.

SPREADSHEET B: TRUSTEE COUNCIL ACTION (TEXT SPREADSHEET)--FY 03 PHASE I WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	FY 03 Approved 8/6/02	FY 03 Deferred to 11/25/02	FY 04 Request	FY 04 Recom.
030620	Lingering Oil and Predators: Pathways of Exposure and Population Status	S. Rice, J. Short, M. Lindeberg/NOAA; J. Bodkin, B. Ballachey/USGS-DOI	NOAA & DOI	New 1st yr. 2 yr. project	$192.3	$151.3	$30.0	$30.0

Project Abstract

Lingering oil and continued effects to sea otters and sea ducks are the most surprising and best documented long term impacts of the oil spill. Strong evidence is accumulating which implicates lingering oil as a factor constraining recovery of the nearshore ecosystem in western Prince William Sound. Acute and chronic contamination of sediments and prey species were well documented during the years following the spill. Twelve years later, elevated biomarker levels in sea otters and sea ducks have indicated continued exposures to hydrocarbons. Evidence implicating a route of exposure to date has been largely circumstantial. However, in 2001 and 2002, extensive sampling was undertaken to document the distribution, abundance, and bioavailability of lingering oil along those shorelines most heavily impacted by the spill. This has paved the way for identifying specific areas where sea otters and sea ducks could be currently foraging and exposed to lingering oil. This project is an outgrowth of the earlier studies and will focus on the direct pathways of lingering oil to sea otter and sea duck populations in two heavily impacted bays in the western sound.

Chief Scientist's Recommendation

This is an important project for understanding the lingering effects of the oil spill in some of the most heavily oiled localities from 1989. It is a very good to excellent proposal that addresses the potential effects of remaining intertidal oil deposits (mainly subsurface) on the food web, including sea ducks (harlequins) and sea otters, which have not recovered from the effects of the spill and are apparently still exposed to lingering oil. There is some concern about the experimental design for the prey base study (the National Oceanic and Atmospheric Administration (NOAA) component), particularly being able to relate the location of foraging activities to the contamination of the forage base. The means of contamination--eating versus external contact--is also a question. Fund USGS (U.S. Geological Survey) component; defer decision on funding NOAA component pending consultation with the peer review team.

Trustee Council Action

Fund USGS (U.S. Geological Survey) component on sea otters and harlequin ducks ($192,300); defer decision on funding NOAA (National Oceanic and Atmospheric Administration) component on habitat and lingering oil ($151,300) pending a workshop to be held Fall 2002 on the results to date from Project 03585/Lingering Oil: Bioavailability and Effects to Prey and Predators. If funded, funding for the NOAA component will be contingent on submittal of the principal investigators' overdue reports (00195, 00454, 01195, 01599) and manuscript (00598) from prior years. This project follows on Project 02585, which is integrating studies of sea otters and harlequin ducks with findings of the lingering oil survey conducted Summer 2001 (Project 01543). The project is designed to address additional objectives related to the potential effects of remaining intertidal oil deposits--specifically in regard to the food web--on sea otters and harlequin ducks, both of which have not recovered from the oil spill and are apparently still exposed to lingering oil.

SPREADSHEET B: TRUSTEE COUNCIL ACTION (TEXT SPREADSHEET)--FY 03 PHASE I WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	FY 03 Approved 8/6/02	FY 03 Deferred to 11/25/02	FY 04 Request	FY 04 Recom.
Oil Spill: Recovery Monitoring					$340.8	$25.0	$18.2	$0.0
030012	Photographic Monitoring of Resident Killer Whales	C. Matkin/North Gulf Oceanic Society	NOAA	Cont'd 11th yr.	$18.1	$0.0	$18.2	

Project Abstract

This project will support monitoring of the resident AB pod of killer whales and other resident pods as part of a cooperative program with the Alaska SeaLife Center and various foundations. Monitoring has occurred on a yearly basis since 1984; this long-term data set was crucial in evaluating the oil spill effects on killer whales.

Chief Scientist's Recommendation

This project will monitor an important killer whale pod. Killer whales are a top trophic-level, sentinel species that is dependent on the integrity of the marine ecosystem. Killer whales are also an increasingly important species for tourism, an industry that is worth many millions of dollars per year. The killer whale population in the Gulf of Alaska has been increasing and overall the population appears to be healthy. However, the AB pod declined precipitously at the time of the spill and, for a time after the spill, appeared to be in danger of complete disintegration. The AB pod has grown since about 1994 and pod disintegration now seems less likely. The continuation of this monitoring project will provide continuing data about the status of the AB pod. Fund, lower priority.

Trustee Council Action

Fund FY 03 only contingent on completion of manuscripts funded in prior years (mating systems and niche partitioning). A decision on funding in FY 04 and beyond has not yet been made. Funding in FY 03 is reduced from earlier years to reflect the additional sources of funds available to the principal investigator for continued monitoring of killer whales in Prince William Sound and Kenai Fjords.

SPREADSHEET B: TRUSTEE COUNCIL ACTION (TEXT SPREADSHEET)--FY 03 PHASE I WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	FY 03 Approved 8/6/02	FY 03 Deferred to 11/25/02	FY 04 Request	FY 04 Recom.
030462	Effect of Disease on Pacific Herring Population Recovery in Prince William Sound	G. Marty/Univ. of California, Davis	ADFG	Cont'd 5th yr. 5 yr. project	$0.0	$25.0	$0.0	$0.0

Project Abstract

In spring 2001, prevalence of *Ichthyophonus hoferi* (38 percent) in the Pacific herring population of Prince William Sound was more than 50 percent greater than in any year studied (1989-2000). *I. hoferi* causes severe, disseminated, chronic disease in Pacific herring that is best diagnosed using histopathology. Before 2001, *I. hoferi* was not associated with unexpected declines in population biomass, but during the last century increases in *I. hoferi* prevalence in Atlantic herring have been associated with several disease outbreaks. To understand the significance of the 2001 *I. hoferi* outbreak, this project will analyze samples already collected in fall 2001 and spring 2002 as part of Project 02462.

Chief Scientist's Recommendation

Herring remain one of the key non-recovered species and are of substantial commercial importance, in addition to being a key component of the pelagic ecosystem. This study has contributed much to our understanding of disease expression in herring. In the opinion of the reviewers, most of the value of this project has been obtained through the contributions already made to the literature and to the management of the herring fishery by work on the VHS (viral hemorrhagic septicemia) virus. The reviewers feel there is insufficient justification for substantial investment of further research money in sample processing for determining the presence of a second pathogen (*Ichthyophonus hoferi)*. However, a modest contribution of matching funds to a larger effort would be in order. Fund at level of $25,000 if matching funds are obtained.

Trustee Council Action

Defer decision on funding this project until November, pending contribution of funds from non-EVOS sources to carry out the project as proposed. This project, which has made an important contribution to management of the herring fishery, will complete its work on viral hemorrhagic septicemia in FY 02 (Project 02462). The proposer has requested funds to conduct new work on *Icthyophonus hoferi* in FY 03. The reviewers consider the organ-by-organ pathobiological study proposed to be of lower priority at this stage of the restoration program, but a modest contribution of $25,000 to the project may be worthwhile. Deferring the project until November will provide the proposer an opportunity to secure funds from other sources. The project objective is to determine whether disease continues to limit recovery of the Prince William Sound herring population.

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	FY 03 Approved 8/6/02	FY 03 Deferred to 11/25/02	FY 04 Request	FY 04 Recom.
030558	Harbor Seal Recovery: Application of New Technologies for Monitoring Health	S. Atkinson/UAF	ADFG	Cont'd 3rd yr. 3 yr. project	$286.7	$0.0	$0.0	$0.0

Project Abstract

This study is a continuation of the study to assess the potential for new technologies to monitor the endocrine and immune systems for the health of harbor seals. During year one, baseline samples were collected from both permanently captive and rehabilitation seals at the Alaska SeaLife Center. Analysis of thyroxine (T4), triiodothyronine (T3), and cortisol (metabolic and gluconeogenic hormones), and measurement of immunoglobulins (IgG, IgM, and IgA) and organochlorine contaminants are currently being assessed. Cell lines to quantify immunoglobulins have been initiated, and baseline hormones have been established. FY 03 will compare the profiles of free-ranging seals and those failing to thrive in their environment in an effort to restore this species.

Chief Scientist's Recommendation

This is an excellent proposal investigating contaminant effects on reproductive biology of harbor seals. Previous concerns about the pace of assay development have been addressed and the project is on track to complete its objectives. Fund.

Trustee Council Action

Fund; previous concerns about the pace of assay development have been addressed and budget questions have been resolved. FY 03 was to be this project's closeout year (data analysis and final report writing only) but additional sample collection--and the corresponding bench fees for housing the research animals at the Alaska SeaLife Center--has also been proposed and is recommended for funding along with closeout activities. This project is employing new technologies at the Alaska SeaLife Center to assess and monitor the health of harbor seals. [Note: The funding amount includes $167,600 for Alaska SeaLife Center bench fees.]

SPREADSHEET B: TRUSTEE COUNCIL ACTION (TEXT SPREADSHEET)--FY 03 PHASE I WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	FY 03 Approved 8/6/02	FY 03 Deferred to 11/25/02	FY 04 Request	FY 04 Recom.
030574	Assessment of Bivalve Recovery on Treated Mixed-Soft Beaches in Prince William Sound	D. Lees/Littoral Eco.& Environ. Services	NOAA	Cont'd 2nd yr. 2 yr. project	$36.0	$0.0	$0.0	$0.0

Project Abstract

Studies from 1989 through 1997 suggest that bivalve assemblages on beaches in Prince William Sound with high-pressure hot-water washing remain severely damaged in terms of species composition and function. This project will assess the generality of this apparent injury to these assemblages. A finding that our conclusions are accurate will indicate that a considerable proportion of mixed-soft beaches in treated areas of the sound remains extremely disturbed and that these beaches are functionally impaired in terms of their ability to support foraging by damaged nearshore vertebrate predators such as sea otters and harlequin ducks.

Chief Scientist's Recommendation

This is the second and final year of funding for this intertidal project. The need for this work has long been recognized in the Restoration Plan, but not until last year did an affordable project appear. Fund.

Trustee Council Action

Fund closeout of this project, which will extend sampling initiated under the National Oceanic and Atmospheric Administration's HAZMAT program to document continuing effects of shoreline cleanup on populations of important bivalves, thus allowing the results to be generalized over a larger geographic range.

SPREADSHEET B: TRUSTEE COUNCIL ACTION (TEXT SPREADSHEET)--FY 03 PHASE I WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	FY 03 Approved 8/6/02	FY 03 Deferred to 11/25/02	FY 04 Request	FY 04 Recom.
Oil Spill: Ecosystem Recovery & Function					$216.6	$148.9	$0.0	$0.0
030423	Patterns and Processes of Population Change in Selected Nearshore Vertebrate Predators	J. Bodkin, B. Ballachey/USGS-BRD, D. Esler/Simon Fraser Univ.	DOI	Cont'd 5th yr 5 yr. project	$216.6	$0.0	$0.0	$0.0

Project Abstract

Sea otters and harlequin ducks have not fully recovered from the oil spill, based on population-level demographic differences between oiled and unoiled areas. Further, in oiled areas, both species show elevated cytochrome P4501A, almost certainly reflecting continued exposure to oil. This project is exploring links between oil exposure and the lack of population recovery, with the intent of understanding constraints to full recovery of these species and the nearshore environment generally. The results also serve to monitor the progress of recovery of the species and the system. To date, the work has consisted of field components for both species, and a captive component for harlequin ducks. Proposed activities for FY 03 include (a) the third and final year of harlequin duck field studies quantifying oil exposure and survival of females during winter and (b) closeout of all project components and preparation of the final report.

Chief Scientist's Recommendation

This is a high quality project that has made outstanding contributions to the EVOS Nearshore Vertebrate Predator (NVP) program (Project 99025). Sea otters and harlequin ducks have shown ongoing injury. The experimental work with harlequins to derive dose-response results is especially valuable (although procedurally challenging). Fund closeout of sea otter component as proposed; fund an additional year of harlequin field work/data collection in order to determine if there is a link between P4501A exposure and survival of individual female harlequin ducks.

Trustee Council Action

Fund revised proposal, which reduces the cost of the sea otter component slightly. The questions raised by the reviewers in regard to the harlequin duck component have been addressed through a review of the project's FY 02 preliminary results--it is now apparent that a third year of field study is necessary to meet project objectives. This project is an important extension of the Nearshore Vertebrate Predator project (Project 99025) work on two still-injured species, sea otters and harlequin ducks. The FY 03 funding request includes closeout activities (final data analysis and report writing) for both the sea otter and harlequin duck components.

SPREADSHEET B: TRUSTEE COUNCIL ACTION (TEXT SPREADSHEET)--FY 03 PHASE I WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	FY 03 Approved 8/6/02	FY 03 Deferred to 11/25/02	FY 04 Request	FY 04 Recom.
030587	Understanding the Cellular Processes of Recovery and Its Utility in Oil-Spill Restoration Efforts	C. Downs/EnVirtue Biotechnologies, Inc.	NOAA	New 1st yr. 1 yr. project	$0.0	$148.9	$0.0	$0.0

Project Abstract

This project will elucidate the cellular and genomic mechanisms that affect the rate of recovery in bivalve species impacted by the oil spill. The project will (a) determine the adverse affects of a long-term oil-spill exposure on specific processes of cellular physiology and genomic integrity that could potentially impede or slow the rates of recovery in populations of *Protothaca staminea* and (b) determine the link between cellular-physiological condition with PAH-body burden in these two species of bivalves by characterizing these parameters in populations from sites that exhibit different levels of oil contamination. Completion of this work may provide a foundation to address questions critical to the issue of variable rates of recovery in both invertebrate and vertebrate species in oil-impacted areas. It will provide new and powerful tools to improve monitoring methodologies, as well as potentially providing valuable information for restoration efforts.

Chief Scientist's Recommendation

This project will apply a battery of biomarkers to determine the sublethal impact of residual oil to mollusk physiology. Some interesting data is presented in the proposal. However, there is no proof of principle for the effects postulated, the proposal lacks a strong justification from the existing biomarker literature, and it is not entirely clear how experienced the investigators are in this area. In light of the preliminary data submitted in the proposal, however, the investigators should be encouraged to address these weaknesses in a revised proposal. Defer pending submittal and review of a revised Detailed Project Description that addresses the peer reviewers' concerns.

Trustee Council Action

Defer decision on funding this project until November pending submittal and review of (a) a revised Detailed Project Description that addresses the Chief Scientist's concerns (proof of principal, reference to existing biomarker literature, and principal investigators' experience) and (b) a revised budget that clarifies (and probably reduces) contractual and travel costs (the amount in the recommended column above is a placeholder). This project is designed to determine the sublethal impact of residual oil to mollusk physiology and how exposure to residual oil might be slowing recovery of mollusks.

SPREADSHEET B: TRUSTEE COUNCIL ACTION (TEXT SPREADSHEET)--FY 03 PHASE I WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	FY 03 Approved 8/6/02	FY 03 Deferred to 11/25/02	FY 04 Request	FY 04 Recom.
GEM Cross-Habitat Linkage: Synthesis					$254.5	$0.0	$214.3	$184.8
G- 030600	Synthesis of the Ecological Findings from the EVOS Damage Assessment and Restoration Programs, 1989-2001	R. Spies/EVOS Chief Scientist, et al	ADNR	Cont'd 2nd yr. 3 yr. project	$215.9	$0.0	$184.8	$184.8

Project Abstract

This project is synthesizing the results from 12 years of post-spill study in the EVOS damage assessment and restoration programs in the context of anthropogenic and natural factors causing change in the northern Gulf of Alaska ecosystem. The result of the work will be an integrated synthesis book. The book will consist of three major sections: (a) the basic structure and function of the ecosystem, (b) how it changes over time and how it responds in disturbances, and (c) the effect of the spill: how our understanding of the ecosystem has matured and what future path will help us better understand this valuable marine ecosystem. The book will be a major product of the EVOS restoration program and help set the foundation for GEM.

Chief Scientist's Recommendation

Proposal will not be reviewed by Chief Scientist. Two independent reviews have been conducted.

Trustee Council Action

Fund. This project will integrate what has been learned from more than a decade's worth of science following the oil spill. Such a synthesis will fulfill at least two purposes: (a) inform the public about the EVOS legacy in a scientifically rigorous yet readable volume and (b) provide a foundation for GEM. A detailed outline for the synthesis will be completed shortly and will be supplied to the Trustee Council for comment. In addition, the principal investigator should work closely with the Trustee Council Office in designing the multimedia presentation to ensure that it will be a useful tool for Council staff in communicating the results of the restoration program to the public and others.

G- 030607	Geographic Information Systems (GIS) Map of Water Quality Monitoring Sites Across the Gulf of Alaska	M. Gracz/Cook Inlet Keeper	NOAA	New 1st yr. 1 yr. project	$13.1	$0.0	$0.0	$0.0

Project Abstract

This project will synthesize existing data to create a comprehensive Geographic Information Systems (GIS) map and database of monitoring sites across the Gulf of Alaska. This map will be published in hardcopy and will be linked to CIIMMS (Cook Inlet Information Management and Monitoring System, Project 01391) and STORET, through which the map and data can be easily updated and made available to monitoring entities as well as policy makers, scientists, and the general public. This map and the accompanying data will serve as a lasting tool for the restoration and protection of the Gulf of Alaska's resources by coordinating diverse monitoring efforts and establishing a framework into which information about current and future monitoring programs can be entered.

Chief Scientist's Recommendation

This proposal will create a database and map of water quality sites in the Gulf of Alaska. Such a database will be useful in meeting GEM objectives. Fund contingent on clarification by the proposer of the geographic area to be included (the database should include the entire geographic area encompassed by the GEM program).

Trustee Council Action

Fund contingent on clarification by the proposer of the geographic area to be covered by the project (the database should include the entire geographic area encompassed by the GEM program). This project will create a GIS map of water quality monitoring sites (including physical, chemical, and biological parameters) by identifying existing sites across the Gulf of Alaska and incorporating this information into CIIMMS (the Cook Inlet Information Management and Monitoring System created under Project 01391). This information will be useful for GEM planning.

SPREADSHEET B: TRUSTEE COUNCIL ACTION (TEXT SPREADSHEET)--FY 03 PHASE I WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	FY 03 Approved 8/6/02	FY 03 Deferred to 11/25/02	FY 04 Request	FY 04 Recom.
G- 030625	Prince William Sound Isotope Ecology Synthesis	T. Kline/PWSSC	NOAA	New 1st yr. 1 yr. project	$25.5	$0.0	$0.0	$0.0

Project Abstract

This project will provide a 'big picture' synthesis of the present structure of the pelagic ecosystem of Prince William Sound through preparation of a scientific paper with tentative title: "A stable isotope based trophic structure of the pelagic community of Prince William Sound, Alaska". The documentation of a 'before picture' will be useful because the recently documented regional change in species composition is likely to alter pelagic trophic structure during GEM.

Chief Scientist's Recommendation

The proposed synthesis could be a worthwhile product, and the principal investigator is certainly the most knowledgeable individual to prepare this synthesis. Fund revised proposal, which reduces the cost of the project to a more appropriate level.

Trustee Council Action

Fund revised proposal, which reduces the project's scope and budget as directed by the Chief Scientist. This project will prepare a synthesis manuscript on the pelagic ecosystem of Prince William Sound, using stable isotope ratio data from biota samples collected and analyzed by the principal investigator under previous EVOS projects (Project 98320/Sound Ecosystem Assessment; Project 01393/Prince William Sound Food Webs: Structure and Change).

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	FY 03 Approved 8/6/02	FY 03 Deferred to 11/25/02	FY 04 Request	FY 04 Recom.
G- 030631	Top-Down Process Synthesis	T. Kline/PWSSC	NOAA	New 1st yr. 2 yr. project	$0.0	$0.0	$29.5	$0.0

Project Abstract

This project will synthesize information that suggests ontogenetic increases of the trophic position of the walleye pollock such that they contribute to top-down processes when >600mm in length, using stable isotope analysis of archived samples and data. Pollock feed at multiple trophic levels depending on their size, with larger pollock cannibalizing smaller pollock, especially those that are age-0. Preliminary analysis suggested that pollock of this size range have a high potential for cannibalism. Pollock of this size range are presently being removed from Prince William Sound since the discovery of a mostly undisturbed population during the SEA project (Sound Ecosystem Assessment, Project /320.) The proposed documentation of a 'before picture' will be useful to GEM, because fishing pressure may effectively remove the larger size class pollock from the sound as has happened in the Bering Sea.

Chief Scientist's Recommendation

This proposal from qualified investigators does not present a convincing case that confounding factors can be adequately controlled to resolve the questions it poses. The potential contribution to restoration objectives is thus likely to be limited. Do not fund.

Trustee Council Action

Do not fund based on Chief Scientist's recommendation. This project would use stable isotope analysis to examine the trophic position of walleye pollock under different conditions. The reviewers expressed concern about the experimental design of the project and whether unambiguous results could be obtained using the methods proposed.

SPREADSHEET B: TRUSTEE COUNCIL ACTION (TEXT SPREADSHEET)--FY 03 PHASE I WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	FY 03 Approved 8/6/02	FY 03 Deferred to 11/25/02	FY 04 Request	FY 04 Recom.
GEM Cross-Habitat Linkage: Community Involvement					$369.2	$150.5	$340.0	$0.0
G- 030052	Tribal Natural Resource Stewardship and Meaningful Tribal Involvement in GEM	P. Brown- Schwalenberg/CRRC	ADFG	Cont'd 9th yr.	$30.1	$150.5	$192.6	

Project Abstract

In FY 03, this project will focus on four objectives: (a) establishing Core Action Plans for the Tribal Natural Resource Plans being developed in FY 02, (b) identifying priority regional and community-specific research and monitoring issues and concerns and fitting them to community-based research and monitoring activities, especially those related to GEM, (c) conducting a "Wisdomkeeper Series" for discussing and sharing research and monitoring issues with selected biologists, scientists, elders, and traditional knowledge experts, and (d) developing pilot community-based research and monitoring projects for potential implementation in FY 04. Communities involved in the project are Tatitlek, Chenega Bay, Port Graham, Nanwalek, Cordova/Eyak, Seward/Qutekcak, Seldovia, Valdez, Kodiak Island Region/Ouzinkie, and the Alaska Peninsula Region/Chignik Lake.

Chief Scientist's Recommendation

The Trustee Council has committed to community involvement in both the GEM and ongoing oil spill programs. This proposal cannot be fully evaluated until the Tribal Natural Resource Plans scheduled for completion in FY 02 from this project have been reviewed by the Trustee Council. These need to be reviewed for their content, relationship to GEM, and community commitment to implementation of the plans. Defer funding pending receipt of these plans.

Trustee Council Action

Fund interim amount--$30,100 for Resource Program Planner first quarter salary ($15,000), WisdomKeeper Workshop scheduled for November ($7,000), tribal participation in GEM planning meetings ($2,000), and related overhead ($3,600) and general administration ($2,500) costs; defer decision on balance of funding pending a review of FY 02 results (completion of Tribal Natural Resource Plans; tribal participation in technical workshops/training sessions; communication of EVOS results to villages). The Detailed Project Description and budget need to be revised to more directly build on the work performed in FY 02 and to avoid duplication with Project 03575, Designing a Community Involvement/Community Based Monitoring Plan for GEM. The overall goal of this project--community involvement and development of local stewardship capacity--is a priority of the Trustee Council and an essential component of GEM.

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Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	FY 03 Approved 8/6/02	FY 03 Deferred to 11/25/02	FY 04 Request	FY 04 Recom.
G- 030210	Youth Area Watch	R. DeLorenzo/Chugach School District	ADFG	Cont'd 8th yr.	$98.6	$0.0	$85.6	

Project Abstract

This project links students in the oil spill impacted area with research and monitoring projects funded by the Trustee Council. The project involves students in the restoration process and provides these individuals the skills to participate in restoration now and in the future. Youth conduct research identified and delegated by principal investigators who have indicated interest in working with students. Youth Area Watch fosters long-term commitment to the goals set out in the restoration plan and is a positive community investment in that process. Participating communities in FY 03 will be Tatitlek, Chenega Bay, Cordova, Nanwalek, Port Graham, Seldovia, Seward, Valdez, and Whittier.

Chief Scientist's Recommendation

This project is a success story for community involvement in EVOS research, through the participation of young people in the public school system. The proposers recognize EVOS projects will be changing with implementation of GEM and are willing to adapt. The proposers also have done an excellent job of obtaining supplemental funding and reducing reliance on EVOS funding. However, the proposal provides insufficient information to judge progress. It could be strengthened with greater attention to the results of prior efforts, such as Youth Area Watch students choosing to pursue higher education in science. In addition, the annual reports are not a useful gauge of program accomplishments and progress, so accountability is lacking. By contrast, the Kodiak Youth Area Watch annual reports (Project /610) provide specific information on accomplishments, problems encountered and solutions. Fund contingent on receipt of a revised annual report (01210) that indicates that satisfactory progress is being made.

Trustee Council Action

Fund contingent on submittal and review of (a) a revised FY 01 annual report (01210) that addresses the Chief Scientist's concerns and (b) a satisfactory annual report for FY 02 (02210). Youth Area Watch involves local youth in restoration projects. In FY 03, youth in Chenega Bay, Cordova, Nanwalek, Port Graham, Seldovia, Seward, Tatitlek, Valdez, and Whittier will participate.

SPREADSHEET B: TRUSTEE COUNCIL ACTION (TEXT SPREADSHEET)--FY 03 PHASE I WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	FY 03 Approved 8/6/02	FY 03 Deferred to 11/25/02	FY 04 Request	FY 04 Recom.
G- 030561	Evaluating the Feasibility of Developing a Community-Based Forage Fish Sampling Project for GEM	D. Roseneau/USFWS	DOI	Cont'd 2nd yr. 2 yr. project	$17.0	$0.0	$0.0	$0.0

Project Abstract

This project will close out Project 02561, which is evaluating the feasibility of developing a community-based forage fish sampling project for GEM. The work in FY 03 will consist of compiling and analyzing information collected during FY 02, and writing a final report.

Chief Scientist's Recommendation

The concept of this project--community-based sampling of predator fish to monitor their prey (forage fish)--is scientifically sound and economically viable. It addresses GEM's objective of community involvement with potential to contribute to several aspects of long-term monitoring. This project will produce a useful plan for the Kachemak Bay-lower Cook Inlet region and Prince WilliaM Sound. Fund.

Trustee Council Action

Fund closeout of this project, which is visiting spill-area communities to explore involving local residents in long-term forage fish monitoring studies. This effort builds on work successfully begun under APEX (Alaska Predator Ecosystem Experiment, Project 99163). It will contribute to understanding the feasibility of community-based sampling programs in general, and therefore is an important part of GEM transition. It should be noted that the Council's interest in this project is not in the particular data that might be gathered relevant to forage fish, but in the techniques and strategies that might be developed in regard to designing a community involvement component for GEM.

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	FY 03 Approved 8/6/02	FY 03 Deferred to 11/25/02	FY 04 Request	FY 04 Recom.
G- 030575	Designing a Community Involvement/Community-Based Monitoring Plan for GEM	M. Sigman/Center for Alaskan Coastal Studies, et al	NOAA	New 1st yr. 1 yr. project	$109.6	$0.0	$0.0	$0.0

Project Abstract

This project will design and produce a draft GEM community involvement and community-based monitoring plan to address the needs of diverse communities in the region. This initiative will be informed by (a) a case history review of working models of community-based monitoring efforts relevant to the GEM conceptual foundation, (b) a regional capacity assessment to identify potential partnerships, (c) issues and indicators as identified by Chugach Regional Resource Commission's Tribal Natural Resource Planning Process and other community planning processes. Recommendations will include identifying new approaches to melding Western science and local and traditional knowledge and pilot community-based monitoring projects.

Chief Scientist's Recommendation

This project promises to produce a case-study review of other similar programs, undertake a regional capacity assessment, identify issues and indicators from Chugach Regional Resource Commission's Tribal Natural Resource Plans, and identify new approaches to link western science and local ecological knowledge. These deliverables will address a very important aspect of the GEM program. Despite some problems (lack of detail and clarity in portions of the proposal), this is a good proposal. Fund.

Trustee Council Action

Fund, with authorization of funds for Phase II (development of framework document and development of possible pilot projects; $57,800) contingent on satisfactory completion of Phase I (community monitoring capacity assessment, literature review, and planning; $51,800). This project addresses the Trustee Council's interest in a strong and meaningful role for community involvement/community monitoring in GEM. It will build on some of the efforts funded in earlier years under Project /052 (Community Involvement/Traditional Knowledge/Tribal Stewardship) but with (a) a different emphasis--development of a regionwide community monitoring plan as opposed to development of specific tribes' stewardship capacity and (b) a broader focus --Project /052 has been limited to tribes only; this project will include non-tribal community groups and add Homer and Cordova to the list of participating communities.

SPREADSHEET B: TRUSTEE COUNCIL ACTION (TEXT SPREADSHEET)--FY 03 PHASE I WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	FY 03 Approved 8/6/02	FY 03 Deferred to 11/25/02	FY 04 Request	FY 04 Recom.
G- 030610	Kodiak Archipelago Youth Area Watch	T. Schneider/Kodiak Island Borough School District	ADFG	Cont'd 4th yr.	$63.0	$0.0	$61.8	

Project Abstract

This project will engage students in projects with goals aligned with the general restoration efforts of the Trustee Council. Students and site coordinators will conduct interviews with local experts and document traditional ecological knowledge, publishing it in a Kodiak School District oral history magazine. Participation of Youth Area Watch adults and students in the annual Academy of Elders/Science Camp will be strongly encouraged. Such participation will serve as another avenue for more tribal members to learn about restoration efforts, scientific monitoring techniques, and occupations related to such work. The value and implications of traditional ecological knowledge will be strongly emphasized throughout the implementation of the project.

Chief Scientist's Recommendation

This ongoing project has shown solid evidence of success, including influencing the curriculum of the Kodiak School District, and has attracted additional funding from other sources. This popular and successful program is achieving its objectives. Fund.

Trustee Council Action

Fund. This project, which involves local youth in restoration projects, addresses the Trustee Council's commitment to community involvement in GEM. In FY 03, students in Akhiok, Old Harbor, Port Lions, Ouzinki, Chiniak, and Kodiak City will participate.

SPREADSHEET B: TRUSTEE COUNCIL ACTION (TEXT SPREADSHEET)--FY 03 PHASE I WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	FY 03 Approved 8/6/02	FY 03 Deferred to 11/25/02	FY 04 Request	FY 04 Recom.
G- 030636	Management Applications: Commercial Fishing	K. Adams, R. Mullins/Cordova	NOAA	Cont'd 2nd yr. 2 yr. project	$50.9	$0.0	$0.0	$0.0

Project Abstract

This project is intended to build a bridge between the scientific commuinty, which is describing and attempting to predict variation in biological production, and the commercial fishing community, which is attempting to find management applications for this new information. In addition, the project seeks to provide community presence to participate in development of GEM.

Chief Scientist's Recommendation

The need for a "bridge project" between science and users, related to EVOS, is quite clear. If the project can identify useful applications from EVOS-based science it will be money well spent. One important criterion of success will be the ability to formulate credible and scientifically well supported proposals to the Alaska Board of Fisheries. The project is off to a strong start in FY 02 with two successful meetings with well-documented outcomes and setting up an office in Cordova. Prospects for serving the needs of those who depend on resources damaged by the oil spill are very good. Prospects for success are improved with the proposed creation in FY 03 of an advisory science panel, for which commitments have already been obtained from four persons knowledgeable in the academic and professional side of natural resource management and/or oceanography. Fund.

Trustee Council Action

Fund FY 03 only; the proposers have obtained the participation of a panel of scientific advisors, as recommended by the Chief Scientist. In FY 02 this project formed a Prince William Sound Fisheries Research Applications and Planning Group to provide a forum for developing fisheries management applications for all interested parties (Cordova District Fishermen United, Alaska Department of Fish and Game, Prince William Sound Aquaculture Corporation, Valdez Fisheries Development Association, commercial fishers, and others). The objectives of this group in FY 03 are to (a) identify a fisheries relevant subset of EVOS projects, (b) develop criteria and guidelines for making information gathered by GEM relevant for fisheries management and shore-based communities, and (c) develop a plan showing the cycle of movement from basic science to management application. At the end of FY 03, the success of the project will be evaluated and a decision made on whether to continue the project into future years. As recommended by the Chief Scientist, one measure of success will be the project's ability to formulate credible and scientifically well supported proposals to the Alaska Board of Fisheries. The EVOS program can benefit from the commercial fishing community's perspective on restoration results and interaction with fishers on how to incorporate the results into fisheries management practices. In addition, the project could form a foundation for working with Prince William Sound fishers as GEM develops.

SPREADSHEET B: TRUSTEE COUNCIL ACTION (TEXT SPREADSHEET)--FY 03 PHASE I WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	FY 03 Approved 8/6/02	FY 03 Deferred to 11/25/02	FY 04 Request	FY 04 Recom.
GEM: Watershed Habitat					$115.1	$0.0	$26.6	$26.6
G- 030596	Securing Flow Data for a Lower Kenai Peninsula Salmon Stream	J. Cooper/Cook Inlet Keeper	ADFG	New 1st yr. 1 yr. project	$22.6	$0.0	$0.0	$0.0

Project Abstract

Since August 1998, Cook Inlet Keeper and the Homer Soil and Water Conservation District have been collecting discharge and water quality data from four important salmon streams on the lower Kenai Peninsula: Ninilchik River, Anchor River, Deep Creek, and Stariski Creek. With the loss of funding, the U.S. Geological Survey (USGS) no longer can maintain the Ninilchik River gauge. Keeper, Homer Soil and Water Conservation District, Ninilchik Traditional Council and others depend on this gauge for the flow data needed to achieve a complete picture of water quality in these watersheds. This project will provide funds for Keeper to contract with USGS to maintain the gauge for one year, during which time long-term funding will be secured.

Chief Scientist's Recommendation

This is a very cost-effective proposal for "bridge funding." Funding in FY 03 will prevent loss of a year in a time-series of physical data--freshwater runoff in the Ninilchik River--that is expected to be useful in understanding differences in natural forcing. Fund, lower priority.

Trustee Council Action

Fund revised proposal, which clarifies the matching funds available for the gauge's FY 03 (October 2002-September 2003) operation. The revised proposal also includes a small amount of funding to cover the costs of retrieving and processing gauge data for the period May-September 2002 and clarifies that the cost of operating the gauge during this period will be covered by the U.S. Geological Survey. This project will provide interim funding (FY 03 only) for maintenance of the Ninilchik River stream-flow gauge while a permanent, long-term funding source is sought. Cook Inlet Keeper relies on this gauge in monitoring the water quality of the Ninilchik River, which the Alaska Department of Environmental Conservation has rated as at high risk from nonpoint source pollution and as having a high need for data collection. Water quality is a key element in understanding the watershed and nearshore environments of the spill-impacted region and the overall health and productivity of such resources as salmon, herring, and sea otters which were seriously impacted by the oil spill.

SPREADSHEET B: TRUSTEE COUNCIL ACTION (TEXT SPREADSHEET)--FY 03 PHASE I WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	FY 03 Approved 8/6/02	FY 03 Deferred to 11/25/02	FY 04 Request	FY 04 Recom.
G-030649	Reconstructing Sockeye Populations in the Gulf of Alaska over the Last Several Thousand Years	B. Finney/UAF	ADFG	Cont'd 2nd yr. 3 yr. project	$92.5	$0.0	$26.6	$26.6

Project Abstract

This project is reconstructing changes in sockeye salmon abundance over the last 5,000 years using the ^{15}N record left by salmon carcasses in the sediments of spawning lakes in Prince William Sound, the Kenai Fjords, the Kenai River watershed, and on Kodiak Island. The research question is: What is the normal variability in sockeye salmon populations in the Gulf of Alaska and how does it relate to climatic changes in the Gulf of Alaska region? The results will provide a valuable background for future monitoring studies within GEM and for fisheries managers working to preserve and restore natural salmon runs.

Chief Scientist's Recommendation

This outstanding project is revealing a 3,500 year record of sockeye salmon abundances in the northern Gulf of Alaska. Previous work with other investigators has established the correlation of salmon abundance with PDO (Pacific decadal oscillation) variations on the decadal scale. The importance of this work is that it describes a much longer record of PDO variation than the European historical record compiled during the 20th century. The project is being executed with the highest scientific standards. Fund, including the proposed addition of three other Kenai Peninsula lakes.

Trustee Council Action

Fund, including new objectives related to core collection from Hidden Lake, Skilak Lake, and a control lake on the Kenai Peninsula. This project is conducting a retrospective study of sockeye abundance in certain lakes in the spill region and developing hypotheses about how changes in the atmosphere/ ocean system affect salmon populations.

GEM: Intertidal/Subtidal Habitat

					$93.0	$0.0	$0.0	$0.0
G-030584	Evaluation of Airborne Remote Sensing Tools for GEM Monitoring	E. Brown/UAF, J. Churnside/NOAA	ADFG	Cont'd 2nd yr. 2 yr. project	$39.3	$0.0	$0.0	$0.0

Project Abstract

This is the year-two completion of a project initiated in FY 02. The main objective is an evaluation of airborne remote sensing tools for GEM ecological interpretation of the data collected. The instrument package consists of (a) a pulsed lidar to map subsurface features to a maximum of 50 m, (b) an infrared radiometer to map Sea Surface Temperature (SST) day, (c) two three-chip digital video systems to map ocean color (chlorophyll), birds, mammals, surface fish schools, and ocean frontal structure, and (d) an infrared digital video to map birds and mammals at night. Shipboard and buoy data will be used for validation and interpretation of remotely sensed data.

Chief Scientist's Recommendation

Monitoring forage fish abundance is a challenge for the GEM program. This is a highly innovative project to do such monitoring, and is therefore more risky than others. However, it deserves support through the proposed development phase, as the pay-off of success would be great. Fund.

Trustee Council Action

Fund closeout of this project, which is exploring airborne remote sensing instrumentation as a monitoring tool for GEM. This highly innovative project is working on a challenging question, which is how to effectively and efficiently monitor forage fish abundance under the GEM program. If the project is successful, the pay-off will be great.

SPREADSHEET B: TRUSTEE COUNCIL ACTION (TEXT SPREADSHEET)--FY 03 PHASE I WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	FY 03 Approved 8/6/02	FY 03 Deferred to 11/25/02	FY 04 Request	FY 04 Recom.
G- 030656	Retrospective Analysis of Nearshore Marine Communities Based on Analysis of Archaeological Material and Isotopes	G. Irvine/USGS, J. Schaaf/NPS, D. Mann/UAF, J. Southon/Univ. Calif.	DOI	Cont'd 2nd yr. 2 yr. project	$53.7	$0.0	$0.0	$0.0

Project Abstract

This project will investigate long-term (6,300 year) patterns of productivity and relative species abundances in nearshore, intertidal communities via retrospective analyses. These analyses will focus on excavated midden remains of very rich, well-dated archaeological sites along the Katmai National Park and Preserve coast. Changes in nearshore marine communities will be assessed through examination of relative species abundances, size-frequency analysis, and other indicators of habitat changes. Isotopic analysis of shells will provide an assessment of long-term productivity patterns in the nearshore marine environment as related to major periods of climate change.

Chief Scientist's Recommendation

This pilot project has the potential to produce innovative data of great interest and relevance to understanding natural variation in ocean systems and the human use of resources over long time frames. The originality of this work is very high, although there is a risk that the coarse temporal resolution of the method will prevent precise conclusions. The addition of funds for a paleoceanographer is justified in order to add needed expertise to the project team. Fund.

Trustee Council Action

Fund closeout of this project contingent on submittal of overdue report (99459). A portion of the increase ($15,900) in funding over the expected amount is due to a delay in the stable isotope analyses scheduled for FY 02; an equivalent amount of funds will be lapsed back to the Trustee Council at the end of FY 02. This project is designed to improve understanding of long-term change in nearshore marine communities and investigate the relationship between productivity and climate.

GEM: Alaska Coastal Current Habitat					$51.6	$0.0	$32.1	$32.1
G- 030340	Toward Long-Term Oceanographic Monitoring of the Gulf of Alaska Ecosystem	T. Weingartner/ UAF	ADFG	Cont'd 6th yr.	$51.6	$0.0	$32.1	$32.1

Project Abstract

Interannual variations in temperature and salinity on the northern Gulf of Alaska shelf reflect environmental changes that affect this marine ecosystem. Quantifying and understanding this variability require long time series such as the 32-year record at hydrographic station GAK1 near Seward. This project continues this time series, quantifies the synoptic, seasonal, and interannual variability, and seeks to understand the reasons for this variability. It will also begin to examine interannual variations in near-surface stratification and the timing of the spring bloom on the inner Gulf of Alaska shelf. The data will be used to predict the baroclinic component of the mass and freshwater transport variability in the Alaska Coastal Current in the northern gulf.

Chief Scientist's Recommendation

This excellent project provides new insights into physical forcing/control of primary production and mass transport. The synthesis efforts are allowing new insights into proxy measures that might be applied to the 35-year historical record to understand long-term ecosystem variability. This is an excellent investment in a long-term data set that will pay future dividends in fish and wildlife management. Fund.

Trustee Council Action

Fund, including proposed upgrade of mooring (addition of another temperature/conductivity recorder with fluorometer and transmissometer) contingent on (a) receipt of a description of the deployment procedure intended to insure against loss of data and (b) submittal of the manuscript promised in FY 02 analyzing the relationship between atmospheric pressure, precipitation, and density structure of the Alaska Coastal Current. This project provides for continued Trustee Council support of hydrographic station GAK1 and the accompanying retrospective analyses of the station's data record. GAK1 provides a long-term data set that allows characterization of the Alaska Coastal Current, which is essential to understanding climatological forcing of productivity and will be important for GEM.

SPREADSHEET B: TRUSTEE COUNCIL ACTION (TEXT SPREADSHEET)--FY 03 PHASE I WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	FY 03 Approved 8/6/02	FY 03 Deferred to 11/25/02	FY 04 Request	FY 04 Recom.
GEM: Offshore Habitat					$18.1	$0.0	$0.0	$0.0
G- 030614	Monitoring Program for Near-Surface Temperature, Salinity, and Fluorescence in the Northern Pacific Ocean	S. Okkonen/UAF	ADFG	Cont'd 2nd yr. 2 yr. project	$18.1	$0.0	$0.0	$0.0

Project Abstract

This project will use a thermosalinograph and fluorometer, to be installed on a crude oil tanker, to acquire continuous, long-term measurements of the near-surface temperature, salinity, and fluorescence fields along the tanker route between Valdez, Alaska and Long Beach, California.

Chief Scientist's Recommendation

This is a continuation of an innovative and cost-effective project that provides data to assess the long-term recovery of resources impacted by the oil spill against the background of climate-driven variability. The potential for the proposal to provide data from a key area of Prince William Sound and the adjacent ocean relevant to long-term evaluation and interpretation of population trends for birds, fish and mammals is excellent. Fund.

Trustee Council Action

Fund closeout of this project (data analysis and preparation of final report/manuscript). In FY 02, this project installed a thermosalinograph and fluorometer on a crude oil tanker traveling between Valdez and Long Beach. Vessels of opportunity such as this are a cost-effective method that may be useful to GEM, and the data collected by this project on ocean conditions in Alaskan waters will be extremely useful to GEM.

Data Management & Information Transfer					$308.0	$0.0		
G- 030455	GEM Data System	Trustee Council Office	ALL	Cont'd 2nd yr.	$212.9	$0.0		

Project Abstract

This project supports the data management and information transfer system for GEM. Data collection, quality control and documentation, archiving, transfer, delivery, and presentation are critical components of GEM. Project funding will allow the GEM Data Systems Manager to provide the leadership and expertise necessary for this essential part of the GEM program, and hire support staff to make initial aspects of the program operational.

Chief Scientist's Recommendation

Data management will be a critical component of GEM.

Trustee Council Action

Fund. This project provides funding for the GEM Data Systems Manager and related data system costs. Data collection, quality control and documentation, archiving, transfer, delivery, and presentation are critical components of GEM.

SPREADSHEET B: TRUSTEE COUNCIL ACTION (TEXT SPREADSHEET)--FY 03 PHASE I WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	FY 03 Approved 8/6/02	FY 03 Deferred to 11/25/02	FY 04 Request	FY 04 Recom.
G- 030550	Alaska Resources Library and Information Services (ARLIS)	All Trustee Council Agencies	ALL	Cont'd	$95.1	$0.0		

Project Abstract	Chief Scientist's Recommendation	Trustee Council Action
This project represents the Trustee Council's contribution to the Alaska Resources Library and Information Services (ARLIS). ARLIS serves as a central access point for information generated through the Trustee Council restoration process and the GEM program. In addition, ARLIS acts as the public repository for reports and other materials generated from and related to the cleanup, damage assessment and restoration efforts following the oil spill. ARLIS supports the research efforts and information needs of the Restoration Office, principal investigators, natural resources professionals, and the general public.	The oil spill collection at ARLIS (Alaska Resources Library and Information Services) is a legacy of the spill and an important means of providing the public with oil spill information. Defining how ARLIS might support GEM needs to be better addressed. GEM's library needs will likely be oriented more toward electronic formats and processes and away from paper documents, with an emphasis on web-based services. The funds currently going toward Project 03550 might be more effectively spent in the future on a service or services more tailored to the specific research and data needs of GEM. Fund for FY 03 only.	Fund continuation of one librarian at the Alaska Resources Library and Information Services (ARLIS). Trustee Council contributions in FY 04 and beyond may be reduced as the transition to GEM is completed. ARLIS provides an important service for documents and other materials produced through the damage assessment and restoration processes. The Council's original funding commitment to ARLIS was through FY 01 only; how ARLIS might relate to the GEM program in FY 04 and beyond is not clear at this time.

Science Management					$416.0	$0.0		
G- 030250	Project Management	All Trustee Council Agencies	ALL	Cont'd	$137.6	$0.0		

Project Abstract	Chief Scientist's Recommendation	Trustee Council Action
Project management supports those Trustee agencies that administer and/or implement EVOS projects on behalf of the Trustee Council. Tasks performed by project managers include coordinating activities between principal investigators and the Trustee Council Office, reviewing project expenditure activity, assisting in the development of project proposals, and tracking project reports.	Proposal not reviewed.	Fund. Project management helps provide accountability for the work plan process.

SPREADSHEET B: TRUSTEE COUNCIL ACTION (TEXT SPREADSHEET)--FY 03 PHASE I WORK PLAN

Proj.No.	Project Title	Proposer	Lead Agency	New or Cont'd	FY 03 Approved 8/6/02	FY 03 Deferred to 11/25/02	FY 04 Request	FY 04 Recom.
G- 030630	Scientific Management under GEM	Trustee Council Office	ALL	Cont'd	$278.4	$0.0		

Project Abstract

This project will provide scientific oversight of implementation of the GEM program, as well as scientific oversight of lingering effects of oil on injured resources. In FY 03, the project will support the Science and Technical Advisory Committee (STAC) and other aspects of the scientific review and advisory process, develop the FY 04 Invitation to Submit Proposals, provide peer review recommendations and scientific support for the FY 03 and FY 04 work plans, continue developing a "State of the Gulf Report", provide regional input to a status report on North Pacific resources now being developed by PICES (North Pacific Marine Science Organization), and support the Lingering Oil Effects Subcommittee and review process.

Chief Scientist's Recommendation

Proposal will not be reviewed by Chief Scientist.

Trustee Council Action

Fund interim amount of $278,400; additional funds may be necessary later in FY 03 for additional GEM planning activities and for some Scientific and Technical Advisory Committee (STAC) and subcommittee meetings that are not yet scheduled. This project is designed to ensure that the GEM program is implemented with a high degree of scientific integrity through establishment of an advisory committee of independent experts (the STAC), whose work will be supported by subcommittees composed of scientists, resource managers, and community members. The project will also support continued independent peer review of project proposals and reports, as well as the dissemination of research results at an annual meeting at which Council-funded scientists will present their findings to their peers and the public.

Public Information/Administration

					$1,114.3	$0.0		
030100	Public Information and Administration	All Trustee Council Agencies	ALL	Cont'd	$1,114.3	$0.0		

Project Abstract

This project provides overall support for public involvement and administration of the restoration program, including GEM. It includes funding for the Trustee Council staff working at the direction of the Executive Director, public involvement efforts including the active participation of the Public Advisory Committee (PAC), and management of the EVOS Investment Fund.

Chief Scientist's Recommendation

Proposal not reviewed.

Trustee Council Action

Fund. This project provides overall support for administration and implementation of the Trustee Council's programs.