# Invitation to Submit Restoration Proposals for Federal Fiscal Year 1998

Prepared by:

#### Exxon Valdez Oil Spill Trustee Council

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February 15, 1997

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Exxon Valdez Oil Spill
Trustee Council

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#### DATES TO REMEMBER in 1997

April 15: Proposals and project reports due

If you have questions about the proposal process, or would like help converting a good idea into a proposal, call the Anchorage Restoration Office:

1-907-278-8012 1-800-478-7745 toll free within Alaska 1-800-283-7745 toll free outside Alaska

June 9: Draft Work Plan released

⇒ July 15: Comments due on Draft Work Plan

August 4\*: Trustee Council decision

\*Tentative

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#### INTRODUCTION

In 1989, the T/V Exxon Valdez spilled 11 million gallons of crude oil into Prince William Sound. In 1991, the U.S. District Court approved a civil settlement that required Exxon Corporation to pay the United States and the State of Alaska \$900 million over ten years to restore the resources injured by the spill, and the reduced or lost services (human uses) they provide. Under the court-approved terms of the settlement, a Trustee Council of three federal and three state members administers the restoration fund to restore the resources and services injured by the spill.

The Trustee Council invites individuals, private industry, government agencies, and other interested parties to submit proposals for restoration projects to be included in the annual work plan for federal fiscal year 1998 (FY 98), which is the period October 1, 1997, through September 30, 1998. The annual work plan includes monitoring, research, and general restoration projects. In addition to funding projects through the annual work plan, the Trustee Council authorizes funds for the administrative costs of the restoration program, habitat protection and acquisition, and the Restoration Reserve. In some years, the Council may also authorize funds for capital expenditures, such as it did in 1995 for the Alaska SeaLife Center.

#### This invitation has three parts:

- Imtroduction. This section describes the work plan process, funding targets, cost estimates for restoration projects for FY 98, and the Trustee Council's approach to project management. This section also includes a notice for a Broad Agency Announcement (BAA) that is being issued by the National Oceanic and Atmospheric Administration (NOAA) concurrently with the invitation.
- Invitation and Restoration Strategies. This section is organized by 13 "resource clusters." It describes the status of injury and recovery for injured resources and services in each cluster, summarizes current strategies for restoring these resources and services, specifies the continuing projects for which proposals are invited, and describes new projects for which proposals are encouraged.
- Instructions for Submitting a Proposal. This section gives detailed instructions for preparing and submitting a proposal. It also describes how proposals will be evaluated.

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#### Work Plan Process

Milestones in the development of the FY 98 work plan are described in Table 1. The work plan process begins each year with a restoration workshop. The Trustee Council usually makes funding decisions in August so that projects can begin on October 1.

Table 1. Milestones for FY 98 Work Plan

	Jan. 23-25, 1997	Annual Restoration Workshop discussed results of FY 96 work and directions for FY 98.
-	Feb. 15, 1997	Invitation to Submit Restoration Proposals for Federal Fiscal Year 1998 is issued.
	April 15, 1997	Proposals due.
	May 11-13, 1997	Chief Scientist and core reviewers meet to discuss the scientific and technical merits of proposals.
	June 9, 1997	FY 98 Draft Work Plan is distributed for public comment.
	July 15 1997	Comments due on FY 98 Draft Work Plan.
	Aug. 4, 1997*	Trustee Council expected to decide on FY 98 Final Work Plan.
	Oct. 1, 1997	Fiscal year 1998 begins.
	*Tentative	•

#### **Funding Targets**

After considering the cash flow for restoration funds, the Trustee Council has tentatively set a funding target of \$14 million for the FY 98 work plan, which includes all research, monitoring, and general restoration projects. As illustrated in Table 2, the target for the annual work plan is lower in FY 98 than in FY 97 and will continue to decline through FY 2002, when the final payment from Exxon Corporation will be spent and funding for the restoration program will rely solely on the Restoration Reserve.

Table 2. Tentative Work Plan Funding Targets

-	FY 96	\$18.2 million (authorized)
	FY 97	\$16.0 million (authorized)
	FY 98	\$14.0 million
*	FY 99	\$12.0 million
	FY 00.	\$10.0 million
	FY 01	\$8.0 million
	FY 02	\$6.0 million
	FY 03+	Restoration Reserve

#### Project Cost Estimates for FY 98

The amount of funding allocated to individual projects is determined each year by the Trustee Council through the work plan process. However, each annual work plan includes estimates of future costs for approved projects. The FY 97 work plan estimated that the FY 98 cost for 38 projects continuing from FY 97 will be about \$11 million. Ten additional projects funded in FY 97 may continue into FY 98, but no cost estimates are included for these projects because the Council has not made a long-term funding commitment to them, due to uncertainty about either their future scope, cost, or priority in terms of the overall restoration program.

Given a total funding target of \$14 million for FY 98, these estimates suggest that roughly \$3 million will be available for a combination of new projects and projects which may continue but for which the Council has not made a long-term funding commitment. These estimates are summarized in Table 3. The individual projects which make up these estimates are discussed in the Invitation and Restoration Strategies section of this invitation.

Table 3. Projections of New and Continuing Projects for FY 98

	Number of Projects	Estimated Cost/ Funds Available
Continuing Projects	38	\$10,837,700
Potential Continuing Projects	10	#2.4 <i>C</i> 0.200
New Projects	Unknown	\$3,162,300
Funding Target:	,	\$14,000,000

#### **Project Management**

One of the continuing projects included in Table 3 is project management (\250). Project management is provided by staff in the Trustee agencies and provides essential accountability to the work plan process. It includes such functions as tracking the progress of restoration projects; ensuring that projects meet their stated goals, objectives, and schedules; monitoring project expenditures; and ensuring that all reports and other contract deliverables are properly performed. In FY 97, the Trustee Council authorized \$641,600 for project management, or 4 percent of project costs. The estimated cost of project management for FY 98 is \$560,000.

#### Notice of Broad Agency Announcement (BAA)

As part of this invitation, the National Oceanic and Atmospheric Administration (NOAA) is issuing a Broad Agency Announcement on behalf of the Trustee Council requesting proposals for any of the <u>research or monitoring</u> topics identified in this invitation. <u>See page 32 for information on the BAA process and instructions on submitting a proposal under the BAA.</u>

#### **INVITATION AND RESTORATION STRATEGIES**

This part of the invitation contains a one- to three-page entry that looks like this page for each resource cluster. The opening paragraphs describe the status of injury and recovery for the injured resources and services in each cluster. The description is followed by a section called "Strategies for FY 98 and Beyond" and a section called "Invitation for FY 98."

#### STRATEGIES FOR FY 98 AND BEYOND

This section summarizes the current strategies for restoring the resources and services in each resource cluster. In 1994 the Trustee Council adopted the Restoration Plan, which established recovery objectives for each of the resources injured by the oil spill and strategies for achieving those objectives. In 1996 the Council updated the objectives to reflect the results of the scientific research and review that had occurred during the previous two years. Each year through this invitation and the annual work plan the Council updates the strategies for achieving the objectives. This section identifies the restoration strategies the Council plans to implement in FY 98, and describes the projects the Council funded in FY 97 and expects to continue funding in FY 98 to implement the strategies. (NOTE: The *Update on Injured Resources and Services*, September 1996, is available from the Anchorage Restoration Office.)

#### **INVITATION FOR FY 98**

For each resource cluster, this section invites a proposal for each of the projects the Trustee Council expects to continue from FY 97. Before making FY 98 funding decisions on continuing projects, the Council will reassess each project's progress, information gained during the year, and restoration needs and project budgets. See Appendix B for the history of funding allocations to each project and resource cluster, and an estimate of future costs for projects expected to continue from FY 97.

#### Potential Continuing Projects.

Each resource cluster includes, in a shaded box, a description of additional projects funded in FY 97 that may be continued in FY 98. The Trustee Council has not made a commitment to continue these projects because of uncertainty about their scope, cost, or priority in terms of the overall restoration program.

#### New Projects.

Also included in the shaded box is text describing new projects for which proposals are invited.

The Trustee Council will give serious consideration to all proposals received in response to the projects and project ideas listed in the shaded box. In addition to the projects listed here, the Council hopes that proposers will use this invitation to come up with new ideas and proposals to aid the recovery of resources and services injured by the spill.

#### Pink Salmon

Injuries to populations of wild pink salmon are difficult to detect because of the natural variation in their run strength. In the years preceding the spill, the total return varied widely from year to year, from a maximum return of 21 million fish in 1984 to a minimum of 1.8 million fish in 1988. Because of this large variation, research to understand the oil spill injury has focused on understanding the injury to pre-adult life stages and on investigating the ecological factors that influence the strength of adult returns. In addition, the restoration program has provided new information and tools for fisheries managers to use to protect injured runs and has supplemented pink salmon populations for commercial, sport, and subsistence use.

#### STRATEGIES FOR FY 98 AND BEYOND

#### Research and Monitor the Toxic Effect of Oil.

Monitor Egg Mortality of Wild Pink Salmon (191A). After the oil spill, research documented that pink salmon eggs in oiled streams were dying at higher rates than in unoiled streams. Monitoring of the even-year run in 1994 and 1996 and of the odd-year run in 1995 showed that the levels of egg mortalities in oiled streams had returned to levels that were not statistically different from those of the unoiled streams. Monitoring is expected to conclude in FY 98 provided that egg mortalities in oiled and unoiled streams are not significantly different in that year. The Trustee Council anticipates providing only close-out funding in FY 99.

Heritability of Egg Mortality and Effect of Oil on Straying (1076). In 1995, researchers exposed fertilized eggs to oil in a simulated intertidal gravel environment and found a dose-related relationship between egg mortality and exposure to oil: the greater the exposure, the greater the mortality. In FY 96, fry from oil-exposed and control groups were released in Southeast Alaska and will return as adults in FY 97. At that time, the effect of oil on straying, which is the tendency of adult pink salmon to return to streams other than where they were spawned, will be investigated. FY 98 is expected to be the final year of Trustee Council funding for this project.

#### Provide Stock Separation and Management Information and Tools.

Marking Salmon: Coded Wire Tag & Otolith Thermal Marking (186, 188). FY 98 will be the second year of overlap between use of coded-wire tags, which is being phased out, and otolith thermal marking, which is a more accurate and efficient technique for marking salmon. Marking allows fisheries managers to adjust harvest limits, locations, and timing to direct commercial harvest away from injured wild stocks. In FY 99, the Council expects to provide only close-out funding for these projects. Responsibility for long-term funding will shift to other organizations.

Genetics and Stock Structure Investigations (196). FY 97 is the fourth year of a six-year project to determine the degree and geographic extent of genetic differences among Prince William Sound pink salmon. Knowing if there are one or many stocks among these salmon will help refine pink salmon management areas and goals.

Supplement Populations (139A2). In FY 96, a spawning channel was constructed at Port Dick Creek on the outer Kenai Peninsula to increase spawning habitat for pink and chum salmon. Monitoring the success of this improvement is expected to continue through FY 2000.

Investigate Ecological Factors that Influence Adult Pink Salmon Returns (\320). This project is described under the Sound Ecosystem Assessment cluster.

Additional projects designed to restore pink salmon are discussed in the Subsistence cluster.

#### INVITATION FOR FY 98

The Trustee Council expects that the following projects will be continued from FY 97 and invites proposals for work planned in FY 98. Their FY 98 costs are estimated below.

FY 98	\076	Oiled Incubation Substrate on Straying and Survival	\$234,600	
	\139A2	2 Port Dick Spawning Channel	\$49,700	
	\186	Coded Wire Tag Recoveries - PWS Pink Salmon	\$279,400	
	\188	Otolith Thermal Marking of Hatchery-reared Pinks	\$108,400	
	\191A	Oil-related Embryo Mortalities	\$164,200	
	<b>\196</b>	Genetic Structure of PWS Pink Salmon	\$130,000	
		Total FY 98:		\$966,300

Potential Continuing Projects. The following three projects were funded in FY 97. The Trustee Council has not made a commitment to continue them in FY 98 because of uncertainty about either their scope, cost, or priority in terms of the overall restoration program. The Council expects to receive proposals to fund these projects in FY 98.

Little Waterfall Creek Supplementation (\139A1). Additional monitoring of a barrier bypass constructed on Little Waterfall Creek on Afognak Island will be considered by the Trustee Council in FY 98 if questions raised by the Chief Scientist concerning interspecific competition and interactions with other species are addressed.

Genetic Linkage Map (190). FY 97 is the second year of a multi-year program to construct a detailed genetic linkage map for pink salmon. The Trustee Council will consider approving additional funds in FY 98 if there is substantive progress toward project objectives and evidence of cost sharing by other funding sources.

Pink Salmon Spawning Habitat Recovery (\194). This project was begun in FY 97 to tie actual concentrations of oil in stream sediments to embryo mortalities in pink salmon. Only a single year of laboratory work is required, but some funds may be requested in FY 98 to integrate data from this study with those from Project /191A.

#### New Projects (box continued from previous page).

Alaska SeaLife Center. The Alaska SeaLife Center will be available for research in FY 98. This state-of-the-art facility, which includes a fish pass, will be appropriate for a variety of studies, including projects on toxicology, genetics (including gene flow), and disease. See page 32 for more information on the Alaska SeaLife Center.

Proposals for additional projects are welcome. Any new supplementation proposal must comply with the Trustee Council's Supplementation Criteria, available from the Anchorage Restoration Office.

#### **Pacific Herring**

The estimated peak biomass of spawning Pacific herring in Prince William Sound in 1993 was 60 percent less than the record level in 1992. The low biomass levels continued during 1994 and 1995, but in the spring of 1996 it was evident that the spawning biomass had rebounded. The Prince William Sound commercial herring fishery was curtailed in 1993. In Fall 1996 there was a limited "food-and-bait" fishery, and the Alaska Department of Fish and Game anticipates a commercial harvest in 1997 as well. Pacific herring is an important food source for injured predators, such as harbor seals and some seabirds, that are not recovering. The sharp decline in the Prince William Sound herring population may be a factor limiting recovery of these resources.

#### STRATEGIES FOR FY 98 AND BEYOND

Investigate Herring Disease as a Cause of the 1993 Crash (\162). This project focuses on the causes and impact of the virus (Viral Hemorrhagic Septicemia or VHS) and the fungus (*Ichthyophonus*) that were found in herring populations after the crash. The study tests the hypothesis that oil-induced stress is linked to the disease outbreaks. The project was first approved in FY 94 and is expected to be completed in FY 98.

Provide Management Information (\165). This project is delineating the genetic structure of Prince William Sound herring population(s) and related North Pacific populations. When setting harvest limits, it is important to know whether the manager must protect one or more genetically distinct populations. The project has been underway for three years and has substantially met its objectives. Investigators will complete the lab work in FY 97 and produce a final report in FY 98. Further implementation of this management tool will be taken over by the Alaska Department of Fish and Game.

Investigate Ecological Factors that Influence Populations of Pacific Herring (\320). This project is described under the Sound Ecosystem Assessment cluster.

#### Invitation for FY 98

The Trustee Council expects that the following projects will be continued from FY 97 and invites proposals for work planned in FY 98. Their FY 98 costs are estimated below.

FY 98 \162 Herring Disease \165 Genetic Discrimination of PWS Herring

\$437,600

\$56,000

Total FY 98:

\$493,600

Potential Continuing Projects. The following project was funded in FY 97. The Trustee council has not made a commitment to continue it in FY 98 because of uncertainty about its scope, cost, or priority in terms of the overall restoration program. The Council expects to receive a proposal to fund this project in FY 98.

Herring Natal Habitats (166). Since FY 94, this project has been monitoring the abundance of spawning herring in Prince William Sound and comparing techniques for estimating their biomass in order to improve the ability of fisheries managers to forecast population strength when establishing commercial harvest levels. In FY 97, the Trustee Council funded two survey techniques, herring spawn deposition and hydroacoustics. In FY 98, the Council intends to support only one technique and anticipates a proposal from the Alaska Department of Fish and Game to conduct the survey. The Department has provided a plan to take over full support of this work after FY 98, and the Council expects to provide only report writing funds in FY 99.

#### New Projects.

Distribution and Turnover in Juvenile Pacific Herring Populations. Understanding movements of juvenile Pacific herring and the turnover of their populations at nursery areas is necessary to more fully develop models of herring growth, survival, and productivity. It also is important to understand the distribution of herring populations in relation to predation by harbor seals and other top predators. The Trustee Council will consider proposals, possibly using tracer technologies or other innovative techniques, such as fatty acid analysis, to address these issues. Any proposal would need to dovetail with hypotheses being addressed through the SEA (\\320) project and other on-going work on herring.

Alaska SeaLife Center. The Alaska SeaLife Center will be available for research in FY 98. This state-of-the-art facility will be appropriate for a variety of studies, including, for example, studies on herring disease and physiological ecology. Proposals for such studies would be strongest if linked to ongoing field studies, such as the SEA (\320) project. See page 32 for more information on the Alaska SeaLife Center.

Proposals for additional projects are welcome.

## Sound Ecosystem Assessment (SEA) and Related Projects

The poor returns of pink salmon in 1992 and 1993 in Prince William Sound, the collapse of the Prince William Sound Pacific herring population in 1993, and long-term declines of several marine bird and mammal populations led the Trustee Council in FY 94 to initiate a collaborative effort known as the Sound Ecosystem Assessment (SEA, \320). This project involves the University of Alaska, the Prince William Sound Science Center, the Alaska Department of Fish and Game, and other institutions, and it stems from the need to better understand the large-scale ecosystem processes that influence the recovery from oil-spill injuries.

SEA is developing models of the processes influencing productivity of pink salmon and Pacific herring in Prince William Sound. This information is expected to benefit long-term management and recovery of salmon and herring in the Sound in several ways. For example, if SEA identifies key parameters influencing survival of juvenile salmon and herring that can be monitored efficiently on an annual basis, it should enable managers to develop more accurate forecasts of salmon and herring returns for the benefit of commercial fishing interests and resource managers. Monitoring these parameters, which may include such factors as the size and timing of plankton blooms or changes in the temperature or circulation of the Gulf of Alaska, also may yield insights about the status of fish-eating predators (for example, harbor seals) and enable better use and management of many marine resources.

#### STRATEGIES FOR FY 98 AND BEYOND

Investigate Ecological Factors: Sound Ecosystem Assessment (SEA, \320). Most of the early efforts in the SEA project (FY 94 and 95) were devoted to the physical and biological oceanography and other factors (e.g., predation) related to survival of juvenile pink salmon. In FY 96, the project was restructured internally into three overlapping working groups: Ocean State and Plankton Dynamics, Pink Salmon Recruitment Dynamics, and Pacific Herring Recruitment Dynamics. There will be a substantial field component for the SEA project again in FY 97, including work on factors influencing the recruitment of Pacific herring. However, as the project matures and continues to amass large volumes of data, there is increasing emphasis on integration and development of predictive ecological models. This emphasis is expected to continue in FY 98, while field work will be sharply reduced. FY 99 will be devoted to synthesis and modeling, reporting, and preparation of manuscripts and will be the final year of the SEA project in its current form.

Monitor Pristane Levels (195). Pristane is a hydrocarbon which is naturally synthesized from chlorophyll by certain plant-eating copepods, the only proven marine source of pristane. By measuring levels of pristane in species that prey on juvenile pink salmon and larval Pacific herring, it is possible to determine the dietary dependence of these predators on the copepods as alternative prey. These results will help with the evaluation of SEA project hypotheses. Monitoring pristane levels also provides an indirect index of potential year-class strength for pink salmon and herring, because the copepods that synthesize the pristane potentially provide an inexpensive measure of food availability. The Trustee Council began funding this project in FY 96. FY 2000 is expected to be the final year of Council funding.

#### INVITATION FOR FY 98

The Trustee Council expects that the following projects will be continued from FY 97 and invites proposals for work planned in FY 98. Their FY 98 costs are estimated below.

\195 Pristane Monitoring in Mussels FY 98 \320 Sound Ecosystem Assessment (SEA)

\$115,000

\$1,947,200

Total FY 98:

\$2,062,200

#### New Projects.

Role of Jellyfish in the Marine Ecosystem. Observations by SEA (\320) and APEX (\163) researchers suggest that there are large numbers and a great biomass of jellyfish in Prince William Sound. Jellyfish are predators that consume zooplankton, fish eggs, and larval fish. As such, they are both competitors with and predators on species injured by the oil spill, including pink salmon and Pacific herring, and on forage fish species important to the recovery of seabird populations. As the SEA and APEX projects move into their final stages, it could be valuable to have a better understanding of the magnitude and significance of jellyfish predation on the species and processes being addressed in SEA and APEX. The Trustee Council is willing to consider a proposal to begin to address this need in FY 98.

Proposals for additional projects are welcome.

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#### Sockeye Salmon

Commercial fishing for sockeye salmon in 1989 was curtailed in many locations throughout the spill area. Research indicated that the resulting escapements reduced the nursery capability of Kenai and Skilak lakes and affected the productivity of the Red and Akalura lake systems in the Kodiak Archipelago. There also was overescapement at Chignik Lake on the Alaska Peninsula, but the impact was not measured.

Beginning in FY 93, the Trustee Council sponsored a study (\258) of the effects of the overescapement of sockeye in the Kenai River drainage and the mechanisms underlying the effects. The study identified the critical link between the number of fry produced by a given escapement of adults and the number of zooplankton available to sustain fry emerging from eggs in the subsequent spring. Coupled with application of in-season stock assessment and genetic separation techniques developed with Council support (\255), this research should give the Department of Fish and Game a solid basis for on-going management of the Kenai/Skilak sockeye fishery.

Research on sockeye overescapement in the Kodiak Archipelago focused on Red and Akalura lakes, where monitoring sponsored by the Trustee Council documented reductions in lake-rearing productivity and smolt migrations following the overescapement events of 1989. By 1996, Red Lake was recovering in terms of production of both smolts and adults, but Akalura Lake still showed signs of depressed smolt production and adult escapements far below pre-spill levels. The Council is sponsoring a final year of monitoring of smolt outmigration at Akalura Lake in FY 97.

In FY 96, the Trustee Council sponsored a one-year study (/048) to synthesize existing information on sockeye overescapement, based on samples of scales from adult sockeye salmon. This analysis will include Chignik Lake, located on the Alaska Peninsula, which had not previously been studied following a large overescapement after the oil spill. A final report on this project is anticipated in Spring 1997.

#### STRATEGIES FOR FY 98 AND BEYOND

Restore Habitat and Enhance Recreation Along the Kenai River (\180). In FY 96, the Trustee Council initiated the Kenai River Habitat Restoration and Recreation Enhancement project (\180; see Habitat Improvement cluster, page 28). In addition, the Council has supported the acquisition of key parcels of private lands along the Kenai River (see discussion of Habitat Protection and Acquisition, page A1). These efforts are expected to continue in FY 98 and are now the Council's focus with respect to fisheries restoration and enhancement in the Kenai River drainage.

One additional project (\256B) to restore sockeye salmon is discussed in the Subsistence cluster.

#### Invitation for FY 98

The Council's efforts in regard to sockeye are discussed in the Habitat Improvement cluster.

New Projects. No new projects have been identified, but project proposals are welcome.

#### Cutthroat Trout and Dolly Varden

Prince William Sound is the northern- and western-most limit of the cutthroat trout's range, and this species does not exist elsewhere in the spill area. The cutthroat stocks known to exist within the Sound are few, rarely more than 1,000 fish, and are geographically isolated from each other. Studies conducted from 1989 to 1991 indicate that cutthroat trout and Dolly Varden growth rates were less in oiled than in unoiled areas.

Past restoration projects have emphasized habitat improvement activities for cutthroat trout. In FY 96 and 97, the program focused on monitoring previously constructed habitat improvements and on research on the species' life history in order to enhance management of injured populations.

#### STRATEGIES FOR FY 98 AND BEYOND

Research and Monitor Populations (1145). In FY 96 the Trustee Council authorized the first year of a three-year program to determine the relationship between resident and anadromous cutthroat trout and Dolly Varden within and among watersheds. This research will provide information to enable the Alaska Department of Fish and Game to better manage these species in Prince William Sound.

Improve Habitat (043B). Four previous projects to provide additional rearing habitat for cutthroat trout and Dolly Varden in Prince William Sound are being monitored in FY 97 to determine their physical and biological success. The Trustee Council anticipates providing only close-out funds in FY 98.

#### INVITATION FOR FY 98

The Trustee Council expects that the following projects will be continued from FY 97 and invites proposals for work planned in FY 98. Their FY 98 costs are estimated below.

FY 98 \043B Habitat Improvements to Supplement Populations \$8,000 \145 Anadromous and Resident Populations \$100,000

Total FY 98:

\$108,000

New Projects. No new projects have been identified, but project proposals are welcome. Consideration of additional supplementation and monitoring of cutthroat and Dolly Varden populations will await the results of Project \145, which is scheduled to be completed in FY 98.

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### Marine Mammals (harbor seals and killer whales)

Harbor seal populations in Prince William Sound were declining before the oil spill and have continued to decline since the spill at an annual rate of about six percent. The effects of the oil spill on harbor seals added to their on-going decline. More than 300 harbor seals are estimated to have died as a result of the oil spill, and the decline has been greater in oiled areas than in unoiled areas.

There were 23 whales in the AB pod of killer whales in Prince William Sound in 1996, compared to 36 before the oil spill. This pod experienced two births and one death in 1996 and clearly has not recovered during a time when all other major "resident" pods in the Sound have increased in number. In addition, there is continued concern about the AT1 "transient" pod, which has been sighted infrequently and apparently has sustained major losses since 1989.

Sea otters were also injured by the oil spill. This species is discussed in the Nearshore Ecosystem cluster.

#### STRATEGIES FOR FY 98 AND BEYOND

Monitor Harbor Seals and Research the Decline in Harbor Seals. Since FY 95, the Trustee Council has sponsored research into possible causes of the on-going decline in harbor seals, including disease, reproduction, food limitations, and killer whale predation.

Condition and Health Status (1001). This research compares blood chemistry, blubber quality, and other indicators of condition and health for seals within Prince William Sound and between the Sound and sites in Southeast Alaska. To date, the results indicate clear seasonal and regional differences in many parameters, which may arise from food-related impacts or other factors. FY 98 is expected to be the final year of Trustee Council funding for this project.

Monitoring and Research (1064). This project provides basic data on trends, movements, structure, and behavior in the Prince William Sound harbor seal population and researches various factors, such as changes in diet, which may account for the on-going decline. Monitoring is expected to continue through FY 99. Originally, the research component was to conclude in FY 98, but see New Projects in the shaded box below.

Isotope Studies (170). This laboratory study uses stable isotope ratio analyses of marine mammal tissues to assess changes in the food webs and carrying capacity of the North Pacific marine ecosystem. To date, the results indicate a significant decrease in the productivity of the ecosystem, which may have contributed to the observed declines in harbor seals and other marine mammals and marine birds. This work is expected to conclude in FY 98.

One additional project (\244) designed to restore harbor seals is discussed in the Subsistence cluster.

Monitor Killer Whales. See Potential Continuing Projects in the shaded box below.

#### Invitation for FY 98

The Trustee Council expects that the following projects will be continued from FY 97 and invites proposals for work planned for FY 98. Their FY 98 costs are estimated below.

FY 98	\001 Condition and Health of Harbor Seals	\$48,100
	\064 Monitoring of Harbor Seals in PWS	\$150,000
	\170 Isotope Ratio Studies of Marine Mammals	\$110,000

Total FY 98:

\$308,100

Potential Continuing Projects. The following project was funded in FY 97. The Trustee Council has not made a commitment to continue it in FY 98 because of uncertainty about its scope, cost, or priority in terms of the overall restoration program. The Council expects to receive a proposal to fund this project in FY 98.

Monitor Killer Whales (1012). Since FY 93, the Trustee Council has supported annual monitoring of resident and transient killer whales in Prince William Sound. This work has included research on genetic characteristics and contaminant levels of killer whales, and a GIS-based study on their movements and predation on harbor seals. Most of this research is expected to conclude in FY 97. In FY 98, the Trustee Council invites a proposal to continue data analysis and manuscript preparation, as well as monitoring by the photo ID technique.

In addition, the Council will consider a proposal to explore and develop an audio-based monitoring technique, building on current work using the photo ID technique and the hydrophone at Chenega Bay. Research on killer whales in British Columbia indicates that it is possible to identify individual pods and families and to track their movements on the basis of sound. Such an approach may provide a cost-effective basis for a long-term monitoring program.

#### New Projects.

Research Harbor Seal Declines Using Fatty Acids. Recent advances in the analysis of fatty acids in marine mammals, including preliminary work on harbor seals as part of project \064, suggest that this technique is an excellent tool for studying the diet and trophic status of harbor seals. This information may be crucial in determining the factors responsible for the continued decline of harbor seals. The Trustee Council invites a proposal that extends the preliminary analyses of fatty acids in harbor seals and their prey.

Alaska SeaLife Center. The Alaska SeaLife Center will be available for research in FY 98. This state-of-the-art facility will be appropriate for a variety of studies, including, for example, effects of nutrition, oil, or other variables on the fatty acids, blood chemistry, physiology, behavior, and productivity of marine mammals. Work on population genetics also may be appropriate. See page 32 for more information on the Alaska SeaLife Center.

Proposals for additional projects are welcome.

#### Nearshore Ecosystem

(sea otters, river otters, harlequin ducks, pigeon guillemots, black oystercatchers, mussels, clams, intertidal/subtidal communities)

The nearshore ecosystem includes the community of plants and animals that inhabit the intertidal and shallow subtidal waters along shorelines. Much of the spilled oil was deposited in this zone, and there were additional disturbances during clean-up activities. The status of individual resources for which there is new (FY 96) information follows.

Based on the insights of local observers, it is evident that the sea otter is abundant in much of Prince William Sound. However, surveys continue to indicate that recovery has not occurred in the heavily oiled area around northern Knight Island. Studies conducted during 1989-91 found several biochemical and behavioral differences between river otters in oiled and unoiled areas in Prince William Sound. Some of the biochemical differences persist through 1996, suggesting the possibility of continued exposure to hydrocarbons. There were no differences in 1996 in river otter body mass between oiled and unoiled areas.

No harlequin broods were observed in oiled areas of western Prince William Sound in FY 94, FY 95, and FY 96, and it seems evident that harlequin productivity is lower in western than in eastern Prince William Sound. In addition, data from adult females carrying radio transmitters suggest lower survival at oiled versus unoiled sites. Whether these differences are a result of the oil spill or other factors has not yet been determined. Surveys of pigeon guillemots have not shown any statistically significant evidence of a post-spill population increase. The results of FY 96 analyses of blood chemistry are not yet available.

#### STRATEGIES FOR FY 98 AND BEYOND

#### Research Mechanisms Constraining Recovery.

Nearshore Vertebrate Predator Project (1025). This research was initiated in FY 95 as an integrated approach to determine whether sea otters, river otters, harlequin ducks, and pigeon guillemots are recovering and whether recruitment processes, continuing exposure to oil, or food availability are factors limiting recovery. FY 96 was the first year of full-scale effort on this project, and it already is yielding important insights. For example, initial results do not indicate that food is constraining recovery of sea otters, even though numbers remain lower than pre-spill levels on Knight Island. Field work is expected to continue through FY 98; only closeout funding is anticipated in FY 99.

Harlequin Duck Genetics (161). This research, initiated in FY 96, involves analyzing genetic characteristics of harlequin ducks and tracking color-marked individuals in Prince William Sound and on Kodiak Island and the Alaska Peninsula, to determine the extent and degree of population interchange among the different regions within the spill area. If population interchange is limited, recovery of injured populations can occur only through recruitment of young into these regional populations. Field and laboratory work for this project will be complete in FY 97; only closeout funding is anticipated in FY 98.

Monitor the Fate and Persistence of Oil (\290). The oil that remains in the environment and the extent and significance of any biological exposure continues to be an important concern of direct relevance to the recovery status of injured resources and services. The Trustee Council initiated development of a hydrocarbon database in FY 93 as a way to bring together and integrate data on hydrocarbon concentrations and biological exposure from several thousand sediment, tissue, and other samples. The Council expects to continue to support maintenance of this electronic database for the life of the restoration program (through FY 02).

Pigeon guillemots are also discussed in the Seabird/Forage Fish cluster. One additional project (\131) to restore clams is discussed in the Subsistence cluster.

#### Invitation for FY 98

The Trustee Council expects that the following projects will be continued from FY 97 and invites proposals for work planned for FY 98. Their FY 98 costs are estimated below.

FY 98	\025 Nearshore Vertebrate Predators	\$1,669,400
	\161 Harlequin Genetic Stock I.D.	<b>\$9,500</b>
	\290 Hydrocarbon Database	\$74,800

Total FY 98

\$1,753,700

Potential Continuing Projects. The following project was funded in FY 97. The Trustee Council has not made a commitment to continue it in FY 98 because of uncertainty about its scope, cost, or priority in terms of the overall restoration program. The Council expects to receive a proposal to fund this project in FY 98.

Harlequin Duck Monitoring and Research (\427). Since FY 92, the Trustee Council has funded the monitoring of harlequin ducks in Prince William Sound to determine reproductive success and population trends and structure (\427). Research on population interchange within regions of the spill area (\161) will be closed out in FY 98; work on the survival, blood chemistry, and body condition of adults (\025) will continue through FY 98. Because the status of harlequin ducks continues to be of concern, the Council will consider supporting research in FY 98 on factors limiting recovery or other work that will aid their recovery and long-term management. Proposals must build upon and go beyond prior work and be designed to dovetail with the harlequin component of NVP (\025).

#### New Projects.

Black Oystercatcher Monitoring. The Council may consider additional monitoring of black oystercatchers in FY 98, following a review of the final report on the FY 96 marine bird boat surveys in Prince William Sound (\159).

Alaska SeaLife Center. The Alaska SeaLife Center will be available for research in FY 98. This state-of-the-art facility will be appropriate for a variety of studies; for example, the effects of nutrition or oil on the blood chemistry, physiology, behavior, and productivity of nearshore vertebrate predators. See page 32 for more information on the SeaLife Center.

Proposals for additional projects are welcome.

## Seabird/Forage Fish & Related Bird Projects (bald eagles, common loons, common murres, cormorants [3 species], Kittlitz's and marbled murrelets, pigeon guillemots)

Boat surveys in Prince William Sound in FY 96 do not provide statistically significant evidence for a recovery of marbled murrelet, pigeon guillemot, common loon, and cormorant populations. The status of Kittlitz's murrelets in Prince William Sound is under investigation. There have been no investigations focusing on common loons or cormorants.

Most of the injury to common murres occurred along the outer Kenai coast and around the Barren Islands in lower Cook Inlet. Common murre productivity at the Barren Islands has been within normal bounds since 1993, and in 1996 the Trustee Council classified the common murre as a "recovering" species. The bald eagle was declared as fully "recovered" in 1996.

#### STRATEGIES FOR FY 98 AND BEYOND

Research Mechanisms Limiting Recovery of Marine Bird Populations.

Populations of several fish-eating marine birds and mammals, including marbled murrelets, pigeon guillemots, and harbor seals, had declined in Prince William Sound and the Gulf of Alaska before the oil spill. The oil-related injuries to these species added to the earlier declines, but it is the underlying causes of the pre-spill declines that may now be limiting recovery from the spill. The causes of the pre-spill declines are not known.

Alaska Predator Ecosystem Experiment (APEX, \163). Following a pilot project in FY 94, APEX was initiated to explore the distribution of forage fish in relation to the behavior and distribution of foraging seabirds and measures of their productivity in Prince William Sound and lower Cook Inlet. This study involves the common murre, pigeon guillemot, and black-legged kittiwake. Results to date show that the availability and quality of forage fish are correlated with productivity of guillemots and other seabirds. Long-term trawl data suggest that in the late 1970s there was a major change in the composition of the northern Gulf of Alaska ecosystem, such that abundant shrimp, other crustaceans, and forage fish were replaced by predatory bottom fish, such as pollock and cod, which are less available and less energy-rich as prey for seabirds. Thus, the preliminary results of the APEX project support the hypothesis that changes in food supply are limiting recovery of seabird populations. The Trustee Council anticipates funding the APEX project through FY 99, with closeout funding only in FY 2000.

Seabird Genetics (169). In FY 97, the Trustee Council funded this project to examine genetic relationships within populations of common murres, pigeon guillemots, and marbled and Kittlitz's murrelets. This work will enable a better understanding of the geographic extent of spill-affected populations, which will aid in understanding recovery processes and factors limiting recovery. The Trustee Council expects this work to continue through FY 99, with closeout funding only in FY 00.

Sand Lance Ecology and Natural History (\306). In FY 97, the Trustee Council funded a basic study of the ecology, distribution, and population structure of this forage fish in lower Cook Inlet. This study will provide important background information for the

benefit of the APEX project, and it is expected to conclude in FY 99.

Monitor Marine Bird Populations (144). The Trustee Council has supported monitoring of common murre productivity (or numbers) since 1989. In FY 97, the Trustee Council is supporting what is expected to be the final year of monitoring at the Barren Islands. In FY 98, the Trustee Council anticipates support for one season's work in the Chiswell Islands, near Resurrection Bay, which have not been visited in several years. No funding for this project is anticipated beyond FY 98.

Pigeon guillemots are also discussed in the Nearshore Ecosystem cluster.

#### INVITATION FOR FY 98

The Trustee Council expects that the following projects will be continued from FY 97 and invites proposals for work planned in FY 98. Their FY 98 costs are estimated below.

	Total FY 98	<b>S</b> :	\$1,958,100
	\306 Ecology and Demographics of Pacific Sand Lance	\$30,000	
	\169 Genetics: Murres, Guillemots, Murrelets	\$78,100	
	\163 APEX Predator Experiment	\$1,800,000	
FY 98	\144 Common Murre Population Monitoring	\$50,000	

Potential Continuing Projects. The following three projects were funded in FY 97. The Trustee Council has not made a commitment to continue them in FY 98 because of uncertainty about either their scope, cost, or priority in terms of the overall restoration program. The Council expects to receive proposals to fund these projects in FY 98.

Status and Ecology of Kittlitz's Murrelet (\142). In FY 96 and FY 97, the Trustee Council funded a pilot study on the distribution and ecology of this little-known marine bird in Prince William Sound, which was added to the list of injured resources in 1995. No recovery objective has been identified for the Kittlitz's murrelet, and it is hoped that the initial study will suggest directions for future restoration work, if any. The Council will consider a proposal for what is expected to be the final year of field work in FY 98.

Prince William Sound Marine Bird Surveys (\159). The Trustee Council last funded a series of boat surveys of marine birds and sea otters in Prince William Sound in FY 96; a final report and several manuscripts are being prepared on this work in FY 97. These surveys provide basic population trends for an entire suite of marine birds, and the U.S. Fish and Wildlife Service has proposed conducting them every other year. The Council will evaluate the need for additional boat surveys in FY 98 following review of the final report being prepared in FY 97.

(box continued from previous page)

Marbled Murrelet Productivity (\231). In FY 95, the Trustee Council supported a pilot project to develop a productivity index for monitoring marbled murrelet populations. For FY 97 the Trustee Council tentatively approved additional marbled murrelet work, pending final consideration in the context of the APEX project (\163) which will be reviewed in late February 1997. Depending on the final decision on FY 97 field work, a renewal proposal for FY 98 may be appropriate.

New Projects.

Alaska SeaLife Center. The Alaska SeaLife Center will be available for research in FY 98. This state-of-the-art facility will be appropriate for a variety of studies, including, for example, studies on prey selection and the effects of nutrition, oil, or other variables on the blood chemistry, physiology, behavior, and productivity of marine birds. There also may be opportunity to study processes leading to formation of nesting colonies of pigeon guillemots, a species which readily nests on artificial structures (e.g., docks). See page 32 for more information on the Alaska SeaLife Center.

Proposals for additional projects are welcome.

#### Archaeological Resources

Twenty-four archaeological sites on public land are known to have been adversely affected by cleanup activities, or by looting and vandalism linked to the spill. Additional sites on private land may have been injured, but, in the civil settlement, the state and federal governments agreed to use funds received from Exxon Corporation for the restoration of public resources.

Documented injuries to archaeological resources include the theft of artifacts, disturbance that masked clues used to identify and classify sites, violation of ancient burial sites, and destruction of evidence in layered sediments. At some sites, vegetation was disturbed, which exposed the sites to accelerated erosion. In addition, the effect of oil on soil chemistry and organic remains may reduce or eliminate the utility of radiocarbon dating in some sites.

Most of the vandalism linked to the spill occurred in 1989 before adequate constraints were put into place over the activities of oil spill cleanup personnel. Archaeological site monitoring in 1994 and 1995 revealed no new disturbance or vandalism. However, in 1996, one site on the Kenai Peninsula and several sites in the Kodiak Island area suffered new damage from vandalism.

#### STRATEGIES FOR FY 98 AND BEYOND

Monitor Archaeological Sites.

Index Site Monitoring (1007A). The monitoring program for archaeological resources consists of periodic checks on sample ("index") sites to detect further damage from vandalism and looting, and to gauge the effect of oiling on archaeological deposits. Annual monitoring began in FY 94 and is expected to continue through 2002 unless injuries diminish to an insignificant level.

Site Stewardship (149). A three-year site stewardship pilot program began in FY 96 for Kachemak Bay, Uganik Bay, Uyak Bay, and the Chignik area of the Alaska Peninsula. The program has selected 24 volunteer site stewards and trained them to monitor vandalized archaeological sites in these areas. So far, 21 injured archaeological sites have been identified for monitoring by volunteer site stewards. What is learned from the project will help in the design of similar volunteer programs elsewhere in the spill area. FY 98 will be the final year of Trustee Council funding for this program. After FY 98 expenses will be assumed by either volunteer stewards or agency budgets. The FY 98 proposal should describe plans for continuation of the program after FY 98.

#### INVITATION FOR FY 98

The Trustee Council expects that the following projects will be continued from FY 97 and invites proposals for work planned in FY 98. Their FY 98 costs are estimated below:

FY 98 \007A Archaeological Site Monitoring \149 Archaeological Site Stewardship

\$135,000

\$66,300

Total FY 98:

\$201,300

New Projects.

Initial Site Assessments on Newly Acquired Land. The Trustee Council will consider a proposal to conduct an initial assessment of archaeological sites of concern on land recently acquired by the Trustee Council. The purpose of the assessment would be to confirm spill-related injuries and ascertain the extent of damage. The principal investigators would report their findings to the Trustee Council early in 1999. If the assessment indicates that certain sites warrant further monitoring, a proposal may be invited to incorporate these sites into the Index Site Monitoring Project (\(\text{\text{007A}}\)) for FY 99.

Before a proposal is submitted for FY 98, the Anchorage Restoration Office would like to hold a pre-proposal meeting with affected Trustee agencies to discuss 1) archaeological sites of concern in each parcel already acquired or under negotiation, 2) whether the site has been or is likely to be acquired in fee simple, 3) the value of the site for restoration, and 4) projected costs over the long-term for both the initial assessment and subsequent monitoring.

Archaeological Repositories. The Trustee Council is considering whether to invite proposals for facilities to store and display archaeological artifacts recovered as a result of the spill cleanup, damage assessment, and restoration. If the Council decides to invite proposals for these types of facilities, a separate invitation will be issued. Consequently, please do not submit proposals for archaeological repositories or display areas at this time.

Proposals for additional projects are welcome. However, at this time no data recovery efforts are planned for future years although the monitoring program (\007A) may reveal the need for further data recovery.

#### Subsistence

Subsistence harvests of fish and wildlife in most of the villages in the oil spill region declined substantially following the spill. The estimated size of the subsistence harvest in pounds per person now appears to have returned to prespill levels in some communities, according to subsistence users through household interviews conducted by the Alaska Department of Fish and Game. However, the interviews show that the relative contributions of certain important subsistence resources remain unusually low. Subsistence users also report that they have to travel farther and expend more time and effort to harvest the same amount as they did before the spill.

#### STRATEGIES FOR FY 98 AND BEYOND

Restore Injured Resources Used for Subsistence. The most important strategy for subsistence is restoration of the injured resources that are important to subsistence. In that sense, all projects which address resources used by subsistence harvesters are subsistence restoration projects.

Enhance/Replace Subsistence Resources. Project \131 is aimed at reestablishing local clam populations. The other projects are aimed at increasing the availability of salmon near subsistence communities as a replacement resource for subsistence resources injured by the spill.

Chugach Region Clam Restoration (131). This pilot project is designed to reestablish local populations of littleneck clams near the Native villages of Port Graham, Nanwalek, Tatitlek, and Eyak. The Trustee Council anticipates providing a continuation level of funding in FY 98 (\$365,000). While the project is expected to continue through FY 99, a decision on funding beyond FY 98 will be made following an assessment of the project's results at that time.

Remote Release of Salmon (127). This project is creating a coho salmon run near Tatitlek through the remote release of 20,000 smolt annually in Boulder Bay. Coho are currently returning to Tatitlek and are being used by subsistence and sport fishermen. Trustee Council funding is expected through one coho life cycle (through FY 99).

Instream Habitat Improvements (\220,\247,\263). Project \220 is striving to increase wild salmon production in eastern Prince William Sound through instream fisheries habitat improvements, such as creation of deeper pools, protected backwaters, and additional cover. The Trustee Council expects to provide only closeout funding in FY 98. Project \247, first funded by the Council in FY 97, will install instream incubation boxes in the Kametolook River near the Alaska Peninsula village of Perryville in an effort to enhance a coho salmon run. Council funding is anticipated through FY 2002. In FY 97, Project \263 is evaluating enhancement possibilities for four salmon streams near Port Graham. Enhancement techniques are anticipated to be implemented in FY 98, with closeout funding provided in FY 99.

Sockeye Salmon Stocking (\256B). In FY 96, a feasibility study funded by the Trustee Council verified the ability of Solf Lake, located on Knight Island near the community of Chenega Bay, to support a population of sockeye salmon. Stocking of the lake will begin in FY 98 and is expected to continue through FY 2002.

Port Graham Pink Salmon Project (\225). This project will supply pink salmon in the Port Graham area during the broodstock development phase of the Port Graham hatchery. Five years of Council funding (through FY 2000) are expected.

#### Increase Involvement of Subsistence Users in the Restoration Process.

Community Facilitators (1052A). Since FY 96, the Trustee Council has funded a spill-area-wide community coordinator, as well as community facilitators in Tatitlek, Chenega Bay, Cordova, Valdez, Port Graham, Nanwalek, Seldovia, Seward, Kodiak Island region, and Alaska Peninsula region, to facilitate communication and interaction among the Council, scientists, and community residents. The Council anticipates funding this effort throughout the life of the restoration program (FY 2002).

Youth Area Watch (\210). FY 97 is the second year of a pilot program that involves students from Chenega Bay, Tatitlek, Cordova, Valdez, Whittier, and Seward in ongoing restoration projects. FY 98 is the final year of this pilot effort. A decision on funding beyond FY 98 will be made following an assessment of the project's results at that time, including evidence of commitments from other funding sources.

Subsistence Conference (\286). In FY 97 the Trustee Council provided planning funds for a Community Conference on Subsistence and the Oil Spill (a follow-up to the conference sponsored by the Council in FY 95). The Council anticipates providing funds for the conference itself in FY 98.

Community-based Harbor Seal Management (\244). Since FY 94, the Council has funded an effort to involve subsistence hunters in harbor seal management. Efforts in FY 97 include biosampling by Native seal hunters and workshops for hunters and scientists to exchange knowledge. FY 98 is expected to be the final year of Council support for this project, with future efforts to be undertaken by the Alaska Native Harbor Seal Commission using non-Trustee Council funding.

Test for Food Safety. Results of tests on food samples conducted during 1989-94 indicated that most resources contained no or very low concentrations of petroleum hydrocarbons (that is, levels that pose no risk to human health). However, residual oil exists on some beaches near subsistence communities, and users continue to voice concerns about the safety of subsistence foods. In FY 95, volunteers were trained in 19 communities in the spill area to ship samples of abnormal resources to participating scientists for analysis (95279). In addition, a resource abnormalities hotline has been established at the Alaska Department of Fish and Game. In FY 97, funding was provided to continue the hotline, the shipment of samples, and the replacement of sampling kit components (\052A). The need for funding in FY 98 and beyond will be determined following a review of the FY 97 project.

#### INVITATION FOR FY 98

The Trustee Council expects that the following projects will be continued from FY 97 and invites proposals for work planned in FY 98. Their FY 98 costs are estimated below.

FY 98	\052A	Community Involvement		\$250,000	
	\127	Tatitlek Coho Salmon Release		\$12,000	
	\131	Chugach Native Region Clam Restoration	on	\$365,000	
	\210	Youth Area Watch		\$150,000	
	\220	Eastern PWS Habitat Restoration		\$12,000	
	\225	Port Graham Pink Salmon Project		\$75,000	
	\244	Community-Based Harbor Seal Mgt.		\$85,000	2
	\247	Kametolook River Coho Salmon Project		\$13,800	
	\256B	Sockeye Salmon Stocking at Solf Lake		\$143,500	
	\263	Port Graham Stream Enhancement		\$115,000	
	\286	Elders/Youth Conference		\$111,100	
			Total FY 98:		\$1,332,400

Potential Continuing Projects. The following project was funded in FY 97. The Trustee Council has not made a commitment to continue this pilot project in FY 98.

Traditional Ecological Knowledge (052B). As part of its community involvement effort, in FY 97 the Trustee Council funded this pilot project to explore and facilitate the use of traditional ecological knowledge (TEK) in the restoration of injured resources and services. The Council anticipates receiving a proposal to continue the project in FY 98. Funding in FY 98 will be contingent upon a favorable review of the results of the FY 97 project.

New Projects. The Trustee Council anticipates submittal of additional projects from spill area communities as a result of community outreach underway through Project \052. To be considered by the Council, proposals must be designed to restore the resources or services listed on page 38 of this invitation. Proposals to restore the service of subsistence must aim to restore the natural resources (that is, the fish and wildlife) upon which subsistence depends.

Project proposals should follow the guidelines which begin on page 31. If you would like help in preparing your proposal, please contact Martha Vlasoff, the Community Involvement Coordinator, at the Anchorage Restoration Office (phone 907-278-8012 or 800-478-7745).

#### Reduction of Marine Pollution

Most coastal communities in the spill area have a limited ability to collect and properly dispose of wastes such as oily bilge water, used engine oil, paints, solvents, and lead-acid batteries. Improper disposal of these types of wastes in community landfills adversely affects the quality of nearby marine waters through runoff and leachate. In some cases, these wastes are discharged directly into marine waters.

Chronic marine pollution places added stress on fish and wildlife resources and thereby may delay the recovery of resources injured by the oil spill. In fact, with regard to the mortality of seabirds, chronic marine pollution is believed to be at least as important as large-scale spills.

#### STRATEGIES FOR FY 98 AND BEYOND

Reduce Marine Pollution. The Trustee Council has funded two projects to reduce marine pollution: the Sound Waste Management Plan (\115) and the Kodiak Island Borough Master Waste Management Plan (\304). A final report for the Kodiak project will be submitted in November 1997; a proposal for implementation of the plan may be considered after review of the final report.

Sound Waste Management Project (115). In FY 95 and FY 96, the Trustee Council funded development of the Sound Waste Management Plan for waste streams entering Prince William Sound. In FY 97, the Council funded the acquisition of waste oil management equipment and the construction of environmental operating stations in each of the five communities in the Sound (Cordova, Valdez, Chenega, Tatitlek, Whittier). Although the project is expected to be completed in FY 97, it may be necessary to consider a modest request for funding in FY 98 for a project completion report and project review meetings or briefings by the community oversight committee.

#### Invitation for FY 98

The Trustee Council expects that the following project will be continued from FY 97 and invites a proposal for work planned in FY 98. The project's sponsors estimated \$75,000 for project closeout in FY 98, but this figure has not been reviewed and may be high. It is presented here as a maximum for planning purposes.

FY 98 \115 Sound Waste Management Plan

\$75,000

Total FY 98:

\$75,000

New Projects. No new projects have been identified, but project proposals are welcome.

#### Habitat Improvement

The Trustee Council protects the habitat of injured resources and services primarily by acquiring land that would otherwise be used in ways that might hinder recovery. The Council also supports other means of protecting and restoring habitat. For example, habitat along fish spawning streams could be restored by diverting foot traffic or by revegetating trampled shorelines. Projects in this cluster protect habitat by means other than acquiring land.

#### STRATEGIES FOR FY 98 AND BEYOND

Restore Habitat and Enhance Recreation along the Kenai River (\180). This project, first approved by the Trustee Council in FY 96, will protect and restore degraded shoreline habitat on public land needed for maintenance of a healthy salmon run on the Kenai River. The project also will enhance and direct recreational use of the riverbanks. Techniques include revegetation, streambank restoration, elevated boardwalks, floating docks, access stairs, fencing, signs, and interpretive displays. In FY 96, the emphasis was on planning and design. In FY 97 and FY 98, the emphasis will be on construction and implementation. FY 98 is expected to be the final year of Council funding for this project.

#### **INVITATION FOR FY 98**

The Trustee Council expects that the following project will be continued from FY 97 and invites a proposal for work planned for FY 98. The FY 98 cost of this project is estimated below.

FY 98 \180 Kenai Habitat Restoration/Recreation

\$834,000

#### Potential Continuing Projects.

Valdez Duck Flats (\230). In FY 97, the Trustee Council funded a one-year project to identify sensitive habitats for injured species using the Valdez Duck Flats and to explore ways to minimize impacts of increased visitor use on those habitats. Implementation of the habitat improvement plan being developed through this effort may be appropriate for Council funding in FY 98. Funding will be contingent upon a review of the FY 97 results and the restoration value of the improvements proposed.

New Projects. No new projects have been identified, but project proposals are welcome.

#### **Ecosystem Synthesis**

The restoration program has reached the stage at which integration and synthesis of what is being learned from various restoration projects is appropriate. This synthesis effort will enable the Trustee Council and the public to view the effects of the oil spill and the long-term restoration and management of injured resources and services from an ecosystem-level perspective. This is particularly important now that three large-scale projects are underway (the Sound Ecosystem Assessment\320, the Nearshore Vertebrate Predator Project\025, and the Apex Predator Ecosystem Experiment\163) and many of the projects on individual species are mature and producing solid results. As we approach the final payment from Exxon Corporation in the year 2001, the restoration program will increasingly focus on an integrated, ecological approach.

#### STRATEGIES FOR FY 98 AND BEYOND.

Prepare a Model of Research Results (\300). In FY 97 the Trustee Council is supporting a preliminary effort to work with various principal investigators (some of whom are modeling experts associated with the three ecosystem projects -- SEA, NVP, and APEX) and several modelers at academic institutions to identify potential data sets and possible approaches for development of one or more models integrating the results of ecological studies sponsored by the Council. This preliminary effort is being managed by the Council's Chief Scientist.

For FY 98, the Council invites proposals for actual modeling work. To be considered by the Council, any modeling proposal must help address practical management questions and identify cost-effective indicators of the status and health of the ecosystem. A decision to fund a proposal in FY 98 will depend on the results of the planning and explorations underway in FY 97.

#### **INVITATION FOR FY 98**

The following project may be continued from FY 97. A decision to fund a proposal in FY 98 will depend on the results of the planning and explorations underway in FY 97. The project's FY 98 cost is estimated below.

FY 98 \300 Synthesis of Scientific Findings from EVOS Program \$260,000

New Projects. No new projects have been identified, but project proposals are welcome.

#### GENERAL INSTRUCTIONS FOR SUBMITTING A PROPOSAL

- All proposals must be received in the Anchorage Restoration Office by <u>April 15, 1997</u>. <u>Proposals are required for all continuing projects, as well as for new projects.</u>
- All proposals should be for federal fiscal year 1998 (FY 98), which is the period October 1, 1997 through September 30, 1998.
- Three paper copies and one electronic copy of a Detailed Project Description (DPD), prepared per the format and content instructions (pages 36-45), must be submitted. Electronic copies must be on an IBM compatible disk in WordPerfect for DOS or WordPerfect for Windows.
- Three paper copies and one electronic copy of the Detailed Budget, prepared per the format and content instructions (pages 46-59), must be submitted. An IBM-formatted disk containing the Excel budget form is available from the Anchorage Restoration Office.
- Send your proposal by mail to:

Exxon Valdez Oil Spill Trustee Council Anchorage Restoration Office 645 G Street, Suite 401
Anchorage, AK 99501

The electronic copy may be sent by e-mail to Sandra Schubert at: sandras@oilspill.state.ak.us

No faxes, please.

- All proposals and budgets submitted to the Trustee Council are considered public documents and will be available for public review.
- If you have questions about submitting a proposal, or would like help converting a good idea into a proposal, call the Anchorage Restoration Office:

907-278-8012 1-800-478-7745 toll free within Alaska 1-800-283-7745 toll free outside Alaska

If the Trustee Council funded your project in FY 96, by April 15, 1997 you must submit your annual or final report for peer review unless other arrangements have been made with the Anchorage Restoration Office. Work with your lead agency to submit your report or request an extended due date. FY 98 projects will not be authorized for any investigator who has an overdue report.

### ADDITIONAL INSTRUCTIONS FOR CERTAIN PROPOSERS

→ If you represent a private organization, a non-profit group, or a state agency or university from a state other than Alaska...

and your proposal is for a research or monitoring project, you may want to submit your proposal through the Broad Agency Announcement (BAA) process, as well as to the Anchorage Restoration Office.

Requirements of state and federal law preclude the Trustee Council from giving project funds directly to private entities, including non-profit organizations, and to state agencies or universities from states other than Alaska. Rather, a competitive solicitation process is required. This solicitation can occur after the Council approves funding for a project, through issuance of a Request for Proposals (RFP). Under the RFP approach, you would compete against other bidders for the funds to implement your proposal. Or this solicitation can occur before the Council approves funding for a project, through issuance of a Broad Agency Announcement (BAA) by the National Oceanic and Atmospheric Administration (NOAA). Under the BAA approach, if the Council approves funding for your project, you can begin contract negotiations with NOAA without a further competitive solicitation.

As part of this Invitation, NOAA is issuing a BAA on behalf of the Trustee Council, requesting proposals for any of the research or monitoring topics identified in this invitation. To submit your proposal through the BAA process, submit a paper copy of your DPD and budget to NOAA at the address below by 2:00 p.m. on April 15, 1997. (This is in addition to the three copies of the DPD and budget that must be submitted to the Anchorage Restoration Office.) Include the words "submitted under the BAA" as part of your project's title.

More information, including proposal evaluation criteria, is contained in the Broad Agency Announcement itself (BAA #52ABNA700049), which is available from NOAA:

Ms. Heide Sickles NOAA, WASC, Procurement Division, WC33 7600 Sand Point Way NE, Bin C15700 Seattle, WA 98115 Telephone (206) 526-6262

Research or monitoring proposals submitted to NOAA under the BAA will be evaluated by the Trustee Council at the same time as other proposals submitted to the Council.

*Please note:* State of Alaska and federal agencies, including the University of Alaska, can be funded directly by the Trustee Council and should <u>not</u> submit proposals through the BAA process.

If you would like to conduct your work at the Alaska SeaLife Center...
indicate this in the designated place on the first page of your Detailed Project Description. The Alaska SeaLife Center is scheduled to open for research in FY 98, presently January 1998, with some access as early as November 1997. In order to ensure that space at the Center is

available and appropriate, proposals that indicate use of the Center in FY 98 or future years will be forwarded to the Center's Executive Director for screening before the Trustee Council makes its funding decisions.

The Alaska SeaLife Center is a non-profit research center being built in Seward, about 120 miles south of Anchorage. The site is on the Gulf of Alaska at the head of Resurrection Bay on the Kenai Peninsula coast, west of Prince William Sound. The Center is connected with Anchorage by road and air. It is owned by the City of Seward and operated as an independent 501(c)(3) with an independent board and management staff. The University of Alaska Fairbanks presently provides peer review services for scientific proposals for work to be conducted at the Center. The Trustee Council contributed \$25 million toward its construction.

The Alaska SeaLife Center is dedicated to the study of the marine ecosystems of Alaskan waters through a combined program of research, rehabilitation, and public education. The focus is on Alaskan marine mammals, marine birds, and fish, and especially on species injured by the *Exxon Valdez* oil spill. The Center has three major components: (1) a section dedicated to research, that includes wet and dry laboratories and holding tanks, and animal handling, food preparation, quarantine, and necropsy areas, (2) a large and integrated rehabilitation section, where critically injured or sick animals can be treated and studied for the purpose of improving rehabilitation techniques, and (3) a visitor section where the public can view the Center's scientific program, see the species involved, and learn about the marine environment and research in Alaska.

The Alaska SeaLife Center is designed to simultaneously support multiple research projects. The Center itself does not at this time fund research projects, but will make facilities available to scientific investigators for a modest bench fee. The Center will also have office, conference, and library space available for resident and visiting scientists.

Proposers interested in using the Alaska SeaLife Center are encouraged to discuss their proposals with its scientific director, Dr. Mike Castellini, before submitting a proposal to the Trustee Council.

Dr. Mike Castellini
Institute of Marine Sciences
University of Alaska Fairbanks
Fairbanks, AK 99775
Telephone (907) 474-6825
e-mail: mikec@ims.alaska.edu.

→ If you are an employee of a Trustee Council agency...
your agency may have additional, internal requirements related to the preparation and submittal of proposals. Contact your agency liaison about internal requirements.

#### Policy and Legal Review...

To be eligible for funding, proposals must be designed to restore, replace, enhance, or acquire the equivalent of natural resources injured as a result of the oil spill or the reduced or lost services provided by such resources. In addition, proposals must be consistent with the policies in the Restoration Plan adopted by the Trustee Council in November 1994 (available upon request from the Anchorage Restoration Office). Trustee Council staff will also review each proposal for completeness and for adherence to the format and content instructions contained in pages 36-45 of this document.

#### Scientific Review...

All proposals are subject to independent scientific review, conducted by the Council's Chief Scientist and nationally recognized scientific reviewers who are familiar with past restoration work and are experts in their scientific fields. The scientific reviewers evaluate proposals according to the following criteria:

- 1. The scientific merits of the proposal as demonstrated through (a) understanding of the problem, (b) soundness of the technical approach, (c) innovation and uniqueness of the proposal, and (d) feasibility (i.e., prospects for the proposal's success).
- 2. The extent to which the proposal will help achieve the restoration objectives identified for a given resource.
- 3. The proposer's capabilities, experience, and record of past performance, as well as the experience and qualifications of key personnel, and whether facilities or other factors integral to the proposal's success are available to support the proposal.
- 4. The cost effectiveness of the proposal.

You may be asked to respond to scientific review comments on your proposal, or to revise your proposal to address concerns of the scientific reviewers.

#### Budget Review...

Trustee Council staff will examine each proposal's budget for consistency with its proposed research/restoration objectives, and for adherence to the budget instructions contained in pages 46-59 of this document. You may be asked to respond to budget review questions, or to revise your budget to address budgetary concerns.

#### Public Advisory Group Review...

Proposals will also be reviewed by the Trustee Council's Public Advisory Group, a 17-member group representing a cross-section of interest groups affected by the oil spill.

#### Public Comment and Funding Decision...

The Council's Executive Director will use the recommendations of the Chief Scientist, the Public Advisory Group, and staff to compile a draft work plan that identifies projects recommended for funding in FY 98. The draft plan will be circulated for public comment in June 1997. The Council is expected to decide on the final FY 98 work plan in August 1997. Unanimous agreement of all six Council members is required to fund a proposal.

# IF YOUR PROPOSAL IS FUNDED BY THE TRUSTEE COUNCIL

Funds approved by the Trustee Council in August 1997 should be available for expenditure on October 1, 1997 (the beginning of federal fiscal year 1998). Authorization to spend will be provided by the Council's Executive Director on a project-by-project basis once a project's compliance with the National Environmental Policy Act (NEPA) is documented, any specific conditions spelled out by the Council in their approval motion are addressed, and the principal investigator is current on the Council's reporting requirements.

During project implementation, principal investigators (PIs) will be required to do the following:

- Provide a quarterly report on your project's progress to the Anchorage Restoration Office. The report must indicate whether your project's major tasks (as identified in the Detailed Project Description) are being accomplished according to schedule and flag any significant problems being encountered. The report typically consists of a few sentences on a form supplied by the Anchorage Restoration Office through the lead Trustee agency.
- Attend the Annual Restoration Workshop in Anchorage. Next year's workshop will be held in Anchorage, for three days during the period January 15-24 (actual dates to be announced later). For the workshop, all PIs must submit an abstract describing their most recent year's work. PIs may also be asked to prepare a poster or give a presentation at the workshop.
- Possibly attend a technical review session. Each year, the Trustee Council's Chief Scientist schedules workshops on several areas of research. Review sessions are usually held in the fall or early winter in Anchorage, but may occur at other times and locations. Selection of the dates of the review sessions takes into account PIs' schedules.
- By April 15 of each year, submit for peer review an annual or final report. Annual reports are required on multi-year projects. Final reports are required upon project completion. Reports on projects funded for FY 98 will be due April 15, 1999. Pls must revise all final reports to respond to peer review comments, if any; revision of annual reports is not required. All reports are made available to the public through the Oil Spill Public Information Center. (For more information, see *Procedures for the Preparation and Distribution of Reports* available from the Anchorage Restoration Office). Pls are also strongly encouraged to publish results of their work in the peer reviewed literature.
- Maintain any data recorded during the course of the project and make it available to
  other researchers and interested parties upon request. The Trust funds are public funds;
  therefore, all data collected must be accessible to the public.

All project funds are administered by one of the six Trustee agencies. Pls will be notified of which agency will administer their project (who will be the Lead Trustee Agency) after all proposals have been reviewed.

# FORMAT AND CONTENT: DETAILED PROJECT DESCRIPTION (DPD)

This section contains instructions for preparing Detailed Project Descriptions (DPDs). As discussed earlier, DPDs will be reviewed for scientific merit, consistency with Trustee Council legal requirements and policies, and adherence to the content and format instructions that follow. Following these instructions will facilitate proposal review and assist Trustee Council staff in compiling the DPDs for publication in the FY 98 Work Plan.

## General Formatting Instructions

- Program. WordPerfect for Windows or WordPerfect for DOS, IBM compatible
- Font. Times Roman 12 point, or similar
- Margins. Top and bottom 0.75"; left and right 1.0"
- Justification. Left
- Header. None
- Footer. On each page -- date prepared, page number, project number
- First page. Must be a stand-alone page. The information on the first page will be entered into the Restoration Office database so that it can be revised as needed by Trustee Council staff -- for example, when a number is assigned to a new project, when a lead agency is assigned to a project proposed by a non-Trustee organization, when budget numbers are revised, or when a change in the project's scope necessitates a change in the abstract. Staff will then produce an up-to-date first page when needed -- for example, when publishing the FY 98 Work Plan.
- Personnel information and literature citations. Use a separate page at the conclusion of the DPD. These pages may be detached from the DPD prior to its publication in the FY 98 Work Plan.
- Cover letters. Will be accepted, but will not be published.

The following pages contain additional formatting instructions and content requirements.

Project Title (Descriptive; Maximum 80 Characters); if the Project is Submitted Under the Broad Agency Announcement, add "Submitted Under the BAA" to the Title (see page 32 for a discussion of the BAA)

Bold; large font

## 1 2 carriage returns

Project Number: vernember

(For continuing projects, the last three digits of the 1997 project

number preceded by "98"; otherwise, leave blank)

Restoration Category: (Research, Monitoring, or General Restoration if known;

otherwise, leave blank)

Proposer:

(Name of Trustee Council agency or other organization --

University, individual, etc.)

Lead Trustee Agency:

(If known -- ADEC, ADFG, ADNR, DOI, NOAA, USFS)

Cooperating Agencies: (Trustee agencies in addition to the lead agency, if any, that will

receive funding under the project in FY 98)

Alaska SeaLife Center:

(Type "yes" if this project intends to use the Alaska SeaLife

Center in FY 98 or future years; otherwise, leave blank)

(What year in the project's life FY 98 is, and the number of

Duration:

(What year in the project's life FY 98 is, and the number of federal fiscal years -- October 1st to September 30th -- during which funding has been received or will be requested from the Trustee Council: for example, "2nd year, 3-year project" or "1st

year, 1-year project")

Cost FY 98:

(The amount of funding requested for expenditure in FY 98;

show all dollar amounts in \$000,000 format)

Cost FY 99:

(An estimate of the amount of funding, if any, that will be

requested for expenditure in FY 99)

Cost FY 00:

(An estimate of the amount of funding, if any, that will be

requested for expenditure in FY 00)

Cost FY 01:

(An estimate of the amount of funding, if any, that will be

requested for expenditure in FY 01)

Cost FY 02:

(An estimate of the amount of funding, if any, that will be

requested for expenditure in FY 02)

Geographic Area:

(Locations where field work will be conducted: e.g., Prince

William Sound, Kodiak, Kenai Peninsula)

Injured Resource/Service:

(The resource -- or related service, if applicable -- injured by the oil spill that the project is designed to restore; see Table 4 on the next page for a list of injured resources and services)

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ABSTRACT

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Provide a brief (8 lines or less) abstract of the project -- basically, what the project would do. If the project is simply a close-out of previous years' work, say so. The abstract may be edited for clarity, brevity and readability by Trustee Council staff.

Please start a new page after the abstract.

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Project 98

Please make sure this is the beginning of a new page.

#### INTRODUCTION

**₩** 1

What is the restoration effort being proposed? If the proposal is a continuation of a previous project, include a description of past efforts and results (reference projects funded in previous fiscal years and describe what has been done and what has been learned and accomplished to date), a description of the work being undertaken in FY 97, a description of the proposed FY 98 project, and the work planned for the future (each year until project completion). Also identify any other restoration projects to which the proposal is linked. Provide other background necessary to understanding the proposal.

& 2 carriage returns before each heading

#### NEED FOR THE PROJECT

VI carriage return before each sub-heading

A. Statement of Problem > sub-headings in bold

What is the problem the project is designed to address? Discuss which injured resource or service the project is designed to restore. Only projects that are designed to restore the resources or services identified in Table 4 will be evaluated for FY 98 unless new scientific or local knowledge shows that other resources experienced a population-level injury or continuing sublethal effect. However, a project may address resources not listed in Table 4 if it will benefit an injured resource or service. For example, it may be permissible to focus activities on a resource not listed in Table 4 if the activities will help subsistence or commercial fishing.

Table 4. Resources and Services Injured by the Spill

J	LOST or REDUCED SERVICES		
Recovered Bald eagle  Recovering Archaeological resources Common murres Intertidal communities Mussels Pink salmon Sediments Sockeye salmon Subtidal communities	Not Recovered Cormorants (3 species) Harbor seal Harlequin duck Killer whale (AB pod) Marbled murrelet Pacific herring Pigeon guillemot Sea otter (in oiled western PWS)	Recovery Umknown Black oystercatcher Clams Common loon Cutthroat trout Designated wilderness areas Dolly Varden Kittlitz's murrelet River otter Rockfish	Commercial fishing Passive uses Recreation and Tourism including sport fishing, sport hunting, and other recreation uses Subsistence

Source: Exxon Valdez Oil Spill Restoration Plan, Update on Injured Resources and Services,

September 1996

#### B. Rationale/Link to Restoration

1. 1.

Why should the work be done? Discuss how the project would address the problem -- that is, help recovery. The Trustee Council's comprehensive approach to the restoration of injured resources and services, as outlined in the Restoration Plan, includes research, monitoring, general restoration, habitat protection/acquisition, and establishment of a restoration reserve. This invitation invites proposals for research projects (which provide information needed to restore an injured resource or service), monitoring projects (which gather information about how resources and services are recovering or whether restoration activities are successful), and general restoration projects (which improve the rate of natural recovery by directly manipulating the environment, managing human uses, or reducing pollution).

If your proposal is for a <u>research</u> project, describe how the information developed by the proposal will contribute to achieving recovery objectives. Give specific examples whenever possible. For <u>monitoring</u> projects, explain why monitoring needs to be done this year or on the schedule being proposed. For <u>general restoration</u> projects, describe what will be produced or accomplished that will contribute to achieving recovery objectives.

#### •

#### C. Location

11

Where will the project be undertaken? Where will the project's benefits be realized? List communities that may be affected by the project.

1 2

## COMMUNITY INVOLVEMENT AND TRADITIONAL ECOLOGICAL KNOWLEDGE

1

How will affected communities be contacted about the project and provide their input? How will research findings and other project information be communicated in non-technical language to local communities? To what extent will local hire be used for the acquisition of vessels, technicians, equipment, and other locally available resources? Will traditional and local knowledge be incorporated into the project?

In response to concerns expressed by residents of spill-area communities, particularly subsistence users, the Trustee Council is making a concerted effort to increase communication with spill-area residents about restoration efforts and to encourage principal investigators to use traditional and local knowledge in the development and implementation of restoration projects. Principal investigators, particularly those whose projects involve work in or near a community or resources and services which are of particular interest to local residents, are asked to assist the Trustee Council in this effort.

If you would like assistance in developing a <u>community involvement</u> component for your proposal, contact:

Martha Vlasoff
Spill Area-Wide Coordinator
Anchorage Restoration Office
Telephone (907) 278-8012
e-mail: mvlasoff@oilspill.state.ak.us

Ms. Vlasoff has been hired under contract to the Chugach Regional Resources Commission as the Spill Area-Wide Coordinator for the Trustee Council. She works with a network of community facilitators hired to serve as local contacts for EVOS activities:

<i>a</i>		
Alaska Peninsula	Virginia Aleck	907-845-2233
Chenega Bay	Don Kompkoff, Sr.	907-573-5132
Cordova	Bob Henrichs	907-424-3604
Kodiak	Hank Eaton	907-486-4002
Nanwalek	Nancy Yeaton	907-281-2274
Port Graham	Walter Meganack, Jr.	907-284-2227
Seldovia	Lillian Elvsaas	907-234-7898
Seward	Mollie Burton	907-224-3118
Tatitlek	Gary Kompkoff	907-325-2311
Valdez	Carl Calugan	907-835-4951

If you would like assistance in developing a <u>traditional ecological knowledge (TEK)</u> component for your proposal, contact either of the following:

Dr. Henry P. Huntington Dr. Pam Colorado P.O. Box 773564 573 Wainee Street

Eagle River, AK 99577 Lahaina, Maui, HI 96761 Telephone: (907) 696-3564 Telephone: (808) 661-3378

Fax: (907) 696-3565 Fax: (808) 661-3469

Dr. Huntington and Dr. Colorado have been hired under contract to the Chugach Regional Resources Commission as the TEK Specialists for the Trustee Council. One of their tasks is to assist project proposers in developing and implementing TEK components for their projects.

Protocols for including indigenous knowledge in the restoration process were adopted by the Trustee Council in December 1996. These protocols are appended to this invitation as Appendix C. In addition to the proposal evaluation process outlined on page 34 of this invitation, the protocols call for all research proposals involving indigenous knowledge to be reviewed by the TEK Specialists and the community facilitators.

J 2

#### PROJECT DESIGN

41

A. Objectives

41

What are the project's research/restoration objectives, both for FY 98 and throughout the life of the project?

If your project has multiple objectives, please format them like the example below. Use this same format any time you include a list in your DPD.

- 1. Determine the foraging range of common murres.
- 2. Measure abundance and distribution of intertidal invertebrates that prey on herring eggs.
- 3. Determine the age and sex distribution of harlequin ducks.

## B. Methods

J l

1

For <u>research</u> and <u>monitoring</u> projects, what specific hypotheses will be tested and what data do you need to test these hypotheses? For hypotheses that will be tested in FY 98, what methods will be used to generate the data? Include a description of scientific methods, field sites, data sets to be generated, and statistical procedures to be used to test hypotheses. To the extent that the variation to be expected in the response variable(s) is known or can be approximated, proposers should demonstrate that the sample sizes and sampling times (for dynamic processes) are of sufficient power or robustness to adequately test the hypotheses.

For <u>monitoring</u> projects, what is the statistical power of the proposed sampling program for detecting a significant change in numbers?

For general restoration projects, what specific actions will be taken to restore the injured resource/service? For actions that will be undertaken in FY 98, include a description of scientific methods, field sites, data sets to be generated, the statistical procedures that will be used to test performance, and the time over which results will be measured.

For projects that would <u>supplement wild fishery stocks</u>, what are the benefits and risks of the proposed supplementation effort? The criteria and guidelines used by the Trustee Council when evaluating supplementation proposals are available from the Anchorage Restoration Office.

For projects that would involve the <u>lethal collection of birds or mammals</u>, contact the Anchorage Restoration Office for a copy of the Trustee Council policy on collections. Your project's compliance with the collections policy should be addressed in a memo submitted with your DPD.

For <u>all projects</u>, if applicable, discuss alternative methodologies considered, and explain why the proposed methods were chosen.

## C. Cooperating Agencies, Contracts, and Other Agency Assistance

If more than one Trustee agency is requesting funds for this project, describe each agency's duties and responsibilities under the project. Also explain why more than one agency is involved.

Which components of the project will be contracted to the private sector? Describe each

contract, including which tasks will be contracted and why.

Which components of the project will be contracted to other governmental agencies, including state universities? Describe each contract, including which tasks will be contracted and why.

1, 2

#### SCHEDULE

11

### A. Measurable Project Tasks for FY 98 (October 1, 1997 - September 30, 1998)

When in FY 98 will major project tasks (for example, development of contract proposals and evaluation of bids, community meetings, sample collection, data analysis, etc.) be undertaken? Include a schedule of work for FY 98 that specifies the dates for major tasks. This information will be used to measure project progress for the project status report which is submitted quarterly to the Restoration Office.

Please format your schedule (here, and in part B below) like the following example.

Oct. 1- December 31 Analyze data from FY 97 field season January 15-24 (3 of these days): Attend Annual Restoration Workshop

February 1-March 15: Arrange logistics (boats, equipment, contracts, etc.)

March 15 - April 10: Submit annual report (FY 97 findings)

May 14 - 20: § Conduct initial surveys

June 5 - 16: Consult with experts and conduct second survey

July - September: Analyze field data

B. Project Milestones and Endpoints

When will each project objective be addressed and met? (Objectives listed here should be the objectives already listed under PROJECT DESIGN, Part A.) Include a schedule, covering the entire life of the project (FY 98 and beyond). This information will be used by project reviewers to assess whether projects are meeting their objectives and are suitable for continued funding.

## C. Completion Date

11

When will the work be completed? That is, during which fiscal year will all of the project's objectives have been met?

12

#### PUBLICATIONS AND REPORTS

1

What manuscripts do you plan to submit for publication in FY 98, if any? Provide the subject/title of each manuscript, the name of the peer-reviewed journal(s) to which you plan to submit it, and when the manuscript(s) will be submitted.

The Trustee Council strongly encourages publication of project results in peer-reviewed journals as soon as scientifically appropriate and logistically possible. Toward this end, in FY 98 the Council will support page costs of publications anticipated to appear in print during FY 98. For close-out projects, the Council will consider funding a portion of a principal investigator's time specifically for preparation of a manuscript for publication. (See page 48 of the budget instructions for more information.) Please note that the Council has adopted a policy regarding an acknowledgment and disclaimer to be used in publishing results of restoration projects. Contact the Anchorage Restoration Office for more information.

In addition to publications, the Council requires that an annual report be prepared for each continuing project, and that a final report be prepared for each project upon completion. These reports are due on April 15 of the year following the year in which the research project or restoration activity takes place (for example, reports on projects funded for FY 98 are due April 15, 1999.) With approval of the Chief Scientist and the Executive Director, on a project-by-project basis, the publications referenced above may satisfy a portion of the report requirements. (For a copy of the Council's *Procedures for the Preparation and Distribution of Reports*, contact the Anchorage Restoration Office.)

1 2

#### PROFESSIONAL CONFERENCES

11

The Trustee Council encourages presentation of project results at professional conferences, and is prepared to provide limited travel support for particularly important opportunities. If you are requesting travel funds for conference attendance in FY 98 (see page 48 of the budget instructions for more information), provide in this section the name and sponsor of the conference, when and where the conference will be held, and your anticipated role in the conference. If you plan to present a paper at the conference, what will be the topic?

13

NORMAL AGENCY MANAGEMENT (NOTE: Proposers who are not employees of government agencies should skip this section. However, the issue of normal agency management will be evaluated for all proposals during the proposal review process.)

Why should the Trustee Council, rather than the agency proposing the project, be the source of funds for this project? It is the policy of the Council that government agencies be funded only for restoration projects that they would not have conducted had the spill not occurred. In addressing the above question, briefly discuss the following: Is the project something the agency is required to do by statute or regulation regardless of whether the oil spill had occurred? What, if any, similar projects have been conducted by the agency in the past without funds from the Trustee Council?

1 2

## COORDINATION AND INTEGRATION OF RESTORATION EFFORT

How will the project be coordinated and integrated with other restoration efforts? Describe with whom coordination has taken or will take place (other Trustee Council funded projects,

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Project 98

ongoing agency operations, etc.) and what form the coordination will take (shared field sites, research platforms, sample collection, data management, equipment purchases, etc.). Also describe efforts to obtain matching funds from non-Trustee Council sources, and related or complementary work being undertaken by other entities.

1/2

EXPLANATION OF CHANGES IN CONTINUING PROJECTS (NOTE: Proposers of projects that were not funded in FY 97 should skip this section)

How does the proposal described in this DPD differ from the DPD approved by the Trustee Council for FY 97? Briefly summarize major changes in objectives or methods, and any changes in the project's milestones, endpoints, or completion date. Explain why these changes were made (for example, in response to peer reviewer comments, results of prior year, etc.).

1,2

PROPOSED PRINCIPAL INVESTIGATOR, IF KNOWN

Name Affiliation

Mailing address

Phone number

Fax number

E-mail address

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### PRINCIPAL INVESTIGATOR

11

What are the qualifications of the proposed principal investigator? For projects with more than one PI, identify which PI will be responsible for which project objectives and tasks.

**√**2

#### OTHER KEY PERSONNEL

1

Provide a list of key personnel who will be working on the project in FY 98 and describe what their responsibilities will be.

1/2

#### LITERATURE CITED

11

If appropriate, include literature citations here.

### FORMAT AND CONTENT: DETAILED BUDGET

This section contains instructions for preparing detailed budgets.

Part I. Instructions for all Proposers: Pages 46-48

Part II. Additional Instructions for Trustee Agencies: Pages 49-54

Part III. Additional Instructions for Non-Trustee Organizations: Pages 55-59

## Part I. Instructions for All Proposers

The Detailed Budget should represent probable expenditures to implement the objectives described in your Detailed Project Description (DPD). Your Detailed Budget should clearly communicate how much funding is needed to implement the project in FY 98, and should contain an estimate of future years' costs through FY 02 or the end of the project, whichever comes first.

It is the responsibility of the proposer to submit a budget that is both reasonable and justified. In an effort to ensure wise and proper use of the *Exxon Valdez* Oil Spill trust funds, each proposal's budget will be reviewed by Trustee Council staff for consistency with the objectives contained in the DPD and for adherence to the budget instructions that follow. In regard to continuing projects, particular scrutiny will be given to funding requests that exceed what was approved for FY 97 or what was projected in FY 97 for FY 98. Each budget form contains a comments or description field. Using this field to explain the proposed budget and justify any increases should enable staff to understand how the budget was developed and why. Proposers may be asked to respond to budget review questions, or to revise their budgets to address budgetary concerns.

#### Fiscal Year...

The Trustee Council operates on the federal fiscal year (FY). The FY 98 budget is for the period October 1, 1997 through September 30, 1998.

#### Project Number...

For continuing projects, use the last three digits of the 1997 project number preceded by "98". For new projects, leave the number blank.

#### Rules for Numbers...

- 1. Unless otherwise noted, show costs in thousands of dollars. For example, show \$1,869,489 as \$1,869.5.
- 2. When the number "5" follows the digit to be rounded, round to the higher amount. For example, round \$326,752 to \$326.8.
- 3. Report number of positions as full-time equivalent positions (FTE), by converting the number of months to a decimal. For example, show six months (half of a year) as .5 FTE.

#### Indirect Costs..

Indirect costs are those costs that are incurred for common or joint purposes and therefore cannot be identified readily and specifically with a particular project. Trustee agencies should cover these costs through the general administration formula (see page 49). Non-Trustee organizations should cover these costs through their indirect rate.

Examples of indirect costs are maintenance and operation of space (i.e., least costs), office supplies, copying, phones, faxes, equipment maintenance and repair, vehicle leasing, software, and training. Additional examples are the costs of payroll and personnel functions, data processing, clerical support, various levels of administrative supervision, administrative contract monitoring, accounting, budgeting, auditing, and mail and messenger services. These items should be budgeted for separately only if they are incurred because of a specific project and documentation of the expense is maintained. The documentation must demonstrate to a financial auditor that the expense was directly attributable to the project, and was necessary and reasonable.

#### Direct Project Costs...

Direct costs are those costs that are identified with or linked to a specific project. Examples of direct costs are compensation of employees for the time devoted to execution of the project, acquisition of materials or equipment for purposes outlined in the DPD, project-specific travel, and contractual services specified in the DPD. For most projects, the following direct costs should be included:

- 1. NEPA (National Environmental Policy Act) Compliance. Due to the research nature of many projects funded by the Trustee Council, most projects are determined to be categorically excluded (a CE) from NEPA. However, for a few projects, an environmental assessment (EA) has been required. If a project is likely to require an EA, include the costs for preparation of the EA in the project budget. Describe on the appropriate budget forms how much funding has been included for this purpose.
- 2. Workshop Attendance. All principal investigators are required to attend the Trustee Council's Annual Restoration Workshop. Next year's workshop will be held in Anchorage, for three days during the period January 15-24 (actual dates to be announced later). Unless you reside in Anchorage, include in your budget funds for travel and three days per diem for the PI (and co-PI, if appropriate) to attend this workshop. In addition to the annual workshop, technical review sessions are held on many projects. Also include funds for travel and two days per diem for the PI (and co-PI, if appropriate) to attend a technical review session in Anchorage. If no technical session is held on your project, you may be asked at a later date to remove these funds from your budget. Describe on the appropriate budget forms how much funding has been included for attendance at each of these workshops.
- 3. Report Writing. Principal investigators are required to prepare a report on their project by April 15 of each year. Reports are due on April 15 of the year following the year in which the research project or restoration activity takes

place. If you represent a State of Alaska or federal agency, include in your FY 98 budget the cost of preparing a report on your FY 97 activity. If you represent another type of organization, include in your FY 98 budget the cost of both performing the project in FY 98 and preparing a report on your FY 98 activity. Describe on the appropriate budget forms how much funding has been included for report writing. (For futher information, see *Procedures for the Preparation and Distribution of Reports* available from the Anchorage Restoration Office.)

- 4. Manuscript Preparation and Publication. The Trustee Council will contribute a maximum of \$1,000 in page costs per project and 1.5 months of personnel time per manuscript toward publication of study results in the peer reviewed literature. Funds budgeted for this purpose in FY 98 must be for manuscripts that will be published (i.e., appear in print) in FY 98. Describe on the appropriate budget forms how much funding has been included for each of these purposes.
- 5. Professional Conferences. If a PI will be presenting results of his or her restoration project at a professional conference, or if attendance at a conference is integral to the project, the Trustee Council will fund attendance at one professional conference for each PI (and co-PI, if appropriate). Identify on the appropriate budget forms which conference will be attended and how much funding has been included for this purpose.
- 6. Community Involvement and Traditional Ecological Knowledge (TEK). Identify on the appropriate budget forms any funds included to involve local communities in your project, or to collect traditional or local knowledge.

#### Future Year Budget Estimates...

The estimated future year costs (FY 99 through 2002 or the end of the project, whichever comes first) should be as reliable as possible in order to enable the Trustee Council to conduct long-range planning. The estimate of FY 99 funding that you make this year will be used by Council staff as a benchmark for reviewing your FY 99 budget when it is submitted in April of 1998. Trustee agencies should include general administration costs in future year estimates.

#### IBM Disks Available...

An IBM-formatted disk containing the budget forms (created in Excel 4.0) is available from the Anchorage Restoration Office. Where appropriate, the forms contained on the disk have been linked. This means that as data on one form is updated or changed, it will automatically be updated on the related forms. The only exceptions are the Proposed FY 98 Trustee Agency Totals, located on the Multi-Trustee Agency Summary (Form 2A). If more than one Trustee Agency is participating on a project, the agencies will have to link the forms themselves. Please do not alter the forms in any way.

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## Part II. Additional Instructions for Trustee Agencies

This section provides additional instructions for Trustee Agencies (listed below). Non-Trustee organizations should skip this section and continue on to page 55.

#### Agency Abbreviations...

Use the following agency abbreviations:

AK Dept. of Environmental Conservation	ADEC
AK Dept. of Fish & Game	ADFG
AK Dept. of Natural Resources	ADNR
Dept. of Agriculture, Forest Service	USFS
Dept. of Interior	DOI
Dept. of Interior, Fish & Wildlife Service	DOI-FWS
Dept. of Interior, Biological Resources Division	DOI-BRD
Dept. of Interior, National Park Service	DOI-NPS
National Oceanic & Atmospheric Administration	NOAA

#### General Administration...

The general administration (GA) formula, established in the Trustee Council's Financial Operating Procedures, reimburses government agencies for indirect costs (see page 47) incurred in implementing the restoration program. The formula consists of 15% of each project's personnel costs, plus 7% of the first \$250,000 of each project's contractual costs, plus 2% of contractual costs in excess of \$250,000. The Excel budget forms automatically calculate GA for FY 98. In estimating future years' costs (FY 99 and beyond), remember to include the appropriate amount of GA.

#### Project Management...

Project management represents the costs required to ensure that individual projects are managed consistent with Trustee Council procedures. As in FY 97, project management costs for each Trustee agency will be compiled into a separate budget, to be submitted at a later date. Do not include project management costs in the individual project budgets.

#### · Equipment...

Equipment previously purchased by the Trustee Council should be used to the maximum extent possible. Before requesting funds for new equipment, contact your Lead Trustee Agency liaison to determine if suitable equipment is available.

#### Budget Forms...

Instructions for completing the individual budget forms follow:

Multi-Trustee Agency Summary (Form 2A) is used to summarize the total funds requested for a project when multiple Trustee agencies are cooperating on a project.

<u>Trustee Agency Summary (Form 3A)</u> summarizes each agency's proposed expenditures from the Detail Forms.

<u>Trustee Agency Detail (Form 3B)</u> provides detailed expenditure information on personnel, travel, contractual, commodities, and equipment for each agency.

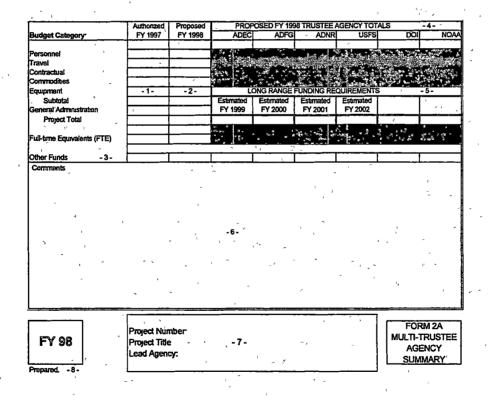
## Multi-Trustee Agency Summary (Form 2A)

#### How the Form will be Used...

This form is used when multiple Trustee agencies are cooperating on a project. If only one Trustee agency is involved, this form is not required.

#### How to Complete the Form...

- 1. Authorized FY 1997 No input required. All the information is linked to individual agency forms.
- 2. *Proposed FY 1998* No input required. All the information is linked to individual agency forms.
- 3. Other Funds No input required. All the information is linked to individual agency forms.
- 4. Proposed FY 1998 Trustee Agency Totals Total requested by each cooperating agency. Agencies must link the 3A forms.
- 5. Long Range Funding Requirements No input required. All the information is linked to individual agency forms.
- 6. Comments Use this space to explain the proposed budget. For continuing projects, explain any increases over projections made in FY 97.
- 7. Project Identification Field Enter the project number (if known), title, and lead agency.
- 8. Prepared Enter the date this budget was prepared.



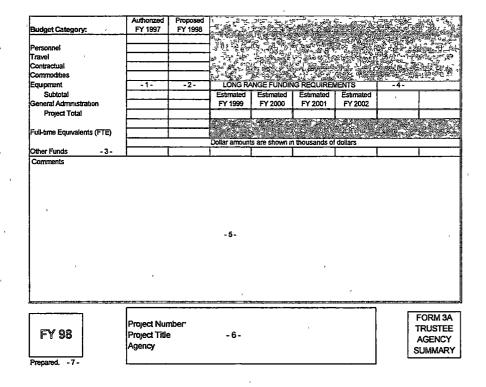
### Trustee Agency Summary (Form 3A)

How the Form will be Used...

This form summarizes the proposed expenditures contained on the Trustee Agency Detail Forms.

#### How to Complete the Form...

- 1. Authorized FY 1997 If the project was funded in FY 97, enter the total authorized by lineitem. Otherwise, leave blank.
- 2. Proposed FY 1998 No input required. All the information is linked to the Detail Forms.
- 3. Other Funds Enter the amount of funds from other sources that the project leverages and any agency contribution.
- 4. Long Range Funding Requirements Estimate future year costs through FY 02 or the end of the project, whichever comes first. Remember to include funding for general administration costs.
- 5. Comments At a minimum:
  - · Identify what portion of the project cost, if any, is for NEPA compliance, report writing, publications, community involvement, professional conferences, and workshop attendance;
  - If other funds are anticipated, explain the source of the funding, any matching requirement, and any conditions tied to those funds;
  - · For continuing projects, explain any increases over projections made in FY 97.
- 6. Project Identification Field Enter the project number, title, and your agency's name.
- 7. *Prepared* Enter the date this budget was prepared.



## Trustee Agency Detail (Form 3B) Personnel & Travel

#### How the Form will be Used...

This form documents the personnel and travel costs of the proposed project. "Personnel" means the compensation of employees, including benefits, for the time and effort devoted to the execution of the project. "Travel" means the cost of transportation by public conveyance and per diem.

#### How to Complete the Form...

- 1. Name Enter the first initial and last name of each person budgeted. If the name is unknown, enter vacant. (For positions GS7/Range 14 or below, names are not required.)
- 2. Position Description Include the position title and a brief description of responsibilities.
- 3. GS/Range/Step- Enter the appropriate general schedule (GS) and step, or range and step.
- 4. Months Budgeted Enter the number of months for each position.
- 5. Monthly Costs Enter the monthly sum of salaries and benefits for each position.
- 6. Overtime Enter the estimated overtime cost for each position.
- 7. Proposed FY 1998 Personnel Costs No input necessary. The form automatically calculates: (Month's Budgeted x Monthly Costs) + Overtime
- 8. Travel Description Include the destination and purpose of any trips budgeted.
- 9. Ticket Price Enter the round trip ticket price.
- 10. Round Trips Enter the number of round trips. Use whole numbers.
- 11. Total Days Enter the total number of days in travel status. Use whole numbers.
- 12. Daily Per Diem Enter the daily per diem rate.
- 13. Proposed FY 1998 Travel Costs No input necessary. The form automatically calculates: (Ticket Price x Round Trips) + (Total Days x Daily Per Diem)
- 14. Project Identification Field Enter the project number, title, and your agency's name.
- 15. Prepared Enter the date this budget was prepared.

Personnel Costs	-	GS/Range/	Months	Monthly		Propose
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FY 98	Project Title - 14 -					& Travel
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ı						

## Trustee Agency Detail (Form 3B) Contractual & Commodities

How the Form will be Used...

This form documents the contractual and commodities costs of the proposed project. "Contractual" covers such items as communication, printing, advertising, charters, equipment rental or lease, and professional services. "Commodities" are consumable supplies with an estimated life of less than one year and a unit value of less than \$500.

#### How to Complete the Form...

- 1. Contractual Description Describe what is being purchased and its purpose. If a significant portion of the project will be performed under contract, and the likely contractor is known, the Non-Trustee Organization forms are also required.
- 2. Proposed FY 1998 Enter the proposed FY 1998 contractual cost.
- 3. Commodities Description Describe what is being purchased and its purpose.
- 4. Proposed FY 1998 Enter the proposed FY 1998 commodities cost.
- 5. Project Identification Field Enter the project number, title, and your agency's name.
- 6. *Prepared* Enter the date this budget was prepared.

Contractual Costs	~		Proposed
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-1-		-	-2-
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Commodities Costs			Proposed
Description			FY 1998
-3-	-		-4-
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		200	
FY 98	Project Number Project Title - 5 - Agency	Col	ORM 3B ntractual & mmodities DETAIL
Prepared -6-	L		

## Trustee Agency Detail (Form 3B) Equipment

#### How the Form will be Used...

This form documents the equipment costs of the proposed project. "Equipment" means non-consumable items having an estimated life of more than one year and a unit value greater than \$500. Equipment previously purchased by the Trustee Council should be used to the maximum extent possible.

#### How to Complete the Form...

- 1. Replacement Equipment Put an R in this column if the request replaces equipment previously purchased by the Trustee Council.
- 2. New Equipment Description Describe the equipment, its purpose, and how the cost estimate was obtained.
- 3. Number of Units Enter the number of units. Use whole numbers.
- 4. Unit Price Enter the unit price.
- 5. Proposed FY 1998 New Equipment No input necessary. The form automatically calculates: Number of Units x Unit Price
- 6. Existing Equipment Usage Describe existing equipment which will be used.
- 7. Number of Units Enter the number of existing units which will be used. <u>Use whole</u> numbers.
- 8. Inventory Agency Enter the agency which currently has the equipment on inventory.
- 9. Project Identification Field Enter the project number, title, and your agency's name.
- 10. Prepared Enter the date this budget was prepared.

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Project Number Project Title9-	,	. Б	ORM 3B quipment DETAIL

# Part III. Additional Instructions for Non-Trustee Organizations

A non-Trustee organization is any organization (state, federal, private, or non-profit) other than the Alaska Department of Environmental Conservation, the Alaska Department of Fish and Game, the Alaska Department of Natural Resources, the National Oceanic and Atmospheric Administration, the U.S. Forest Service, and the U.S. Department of Interior. The University of Alaska is considered a non-Trustee organization.

#### • Lead Trustee Agency...

The Trustee Council does not have the authority to give project funds directly to private entities or to state entities from states other than Alaska. All project funds are administered by one of the six Trustee agencies listed above. Proposers will be notified of which agency will administer their project (who will be the Lead Trustee Agency) after all proposals have been reviewed. Do not include any Lead Trustee Agency costs in your budget.

#### • Indirect Cost Rate...

Proposers' indirect cost rates will be reviewed on a case-by-case basis. However, proposers affiliated with the University of Alaska should use the 25 percent indirect rate agreed to by the University for Exxon Valdez oil spill restoration projects. The agreement states that the University will use an "indirect cost rate of 25 percent of total direct costs (TDC). TDC shall include all direct costs except equipment for which ownership resides with the University and subcontract costs in excess of \$25,000. Subcontract costs in excess of \$25,000 but less than \$250,000 shall be subject to an indirect cost charge of 5 percent. Subcontract costs in excess of \$250,000 shall be subject to an indirect cost charge of 2 percent."

#### • Equipment...

All equipment purchased remains the property of the Lead Trustee Agency and must be returned to the agency upon completion of the project.

#### Budget Forms...

Instructions for completing the individual budget forms follow:

Non-Trustee Organization Summary (Form 4A) summarizes the proposed expenditures from the Detail Forms.

<u>Trustee Agency Detail (Form 4B)</u> provides detailed expenditure information on personnel, travel, contractual, commodities, and equipment.

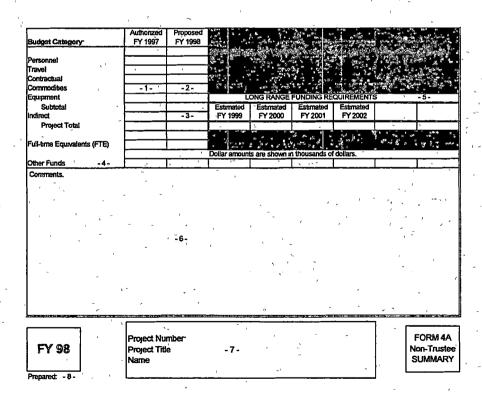
### Non-Trustee Organization Summary (Form 4A)

#### How the Form will be Used...

This form summarizes the proposed expenditures contained on the Non-Trustee Organization Detail Forms.

#### How to Complete the Form...

- 1. Authorized FY 1997 If the project was funded in FY 97, enter the total authorized by lineitem. Otherwise, leave blank.
- 2. Proposed FY 1998 No input required. All the information is linked to the Detail Forms.
- 3. *Indirect* Enter the proposed indirect project costs. Explain the amount and the rate in the comments field.
- 4. Other Funds Enter the amount of funds from other sources that the project leverages.
- 5. Long Range Funding Requirements Estimate future year costs through FY 02 or the end of the project, whichever comes first.
- 6. Comments At a minimum:
  - · Describe your indirect rate;
  - · Identify what portion of the project cost, if any, is for NEPA compliance, report writing, publications, community involvement, professional conferences, and workshop attendance;
  - · If other funds are anticipated, explain the sources of the funding, any matching requirement, and any conditions tied to those funds;
  - For continuing projects, explain any increases over projections made in FY 97.
- 7. Project Identification Field Enter the project number, title, and your organization's name.
- 8. Prepared Enter the date this budget was prepared.



## Non-Trustee Organization Detail (Form 4B) Personnel & Travel

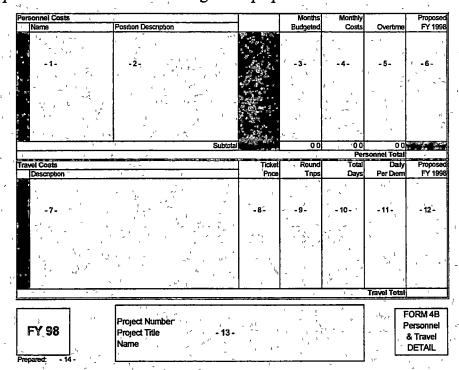
#### How the Form will be Used...

This form documents the personnel and travel costs of the proposed project. "Personnel" means the compensation of employees, including benefits, for the time and effort devoted to the execution of the project and includes tuition for students. "Travel" means the cost of transportation by public conveyance and per diem.

#### How to Complete the Form...

- 1. Name Enter the first initial and last name of each person budgeted. If the name is unknown, enter vacant.
- 2. Position Description Include the position title and a brief description of responsibilities.
- 3. Months Budgeted Enter the number of months for each position.
- 4. Monthly Costs Enter the monthly sum of salaries and benefits for each position.
- 5. Overtime Enter the estimated overtime cost for each position.
- 6. Proposed FY 1998 Personnel Costs No input necessary. The form automatically calculates:
  - (Months Budgeted x Monthly Costs) + Overtime
- 7. Travel Description Include the destination and purpose of any trips budgeted.
- 8. Ticket Price Enter the round trip ticket price.
- 9. Round Trips Enter the number of round trips. Use whole numbers.
- 10. Total Days Enter the total number of days in travel status. Use whole numbers.
- 11. Daily Per Diem Enter the daily per diem rate.
- 12. Proposed FY 1998 Travel Costs No input necessary. The form automatically calculates:

  (Ticket Price x Round Trips) + (Total Days x Daily Per Diem)
- 13. Project Identification Field Enter the project number, title, and your organization's name.
- 14. Prepared Enter the date this budget was prepared.



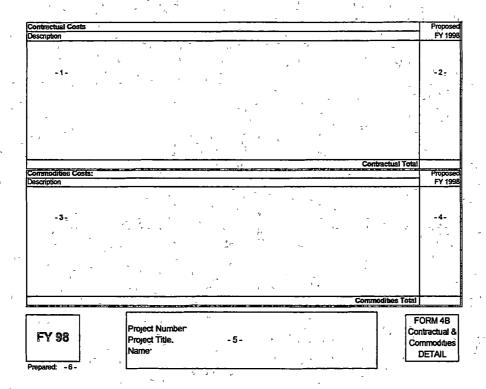
## Non-Trustee Organization Detail (Form 4B) Contractual & Commodities

#### How the Form will be Used...

This form documents the contractual and commodities costs of the proposed project. "Contractual" covers such items as communication, printing, advertising, charters, equipment rental or lease, utilities, and professional services. "Commodities" are consumable supplies with an estimated life of less than one year and a unit value of less than \$500.

#### How to Complete the Form...

- 1. Contractual Description Describe what is being purchased and its purpose.
- 2. *Proposed FY 1998* Enter the proposed FY 1998 contractual cost.
- 3. Commodities Description Describe what is being purchased and its purpose.
- 4. Proposed FY 1998 Enter the proposed FY 1998 commodities cost.
- 5. Project Identification Field Enter the project number, title, and your organization's name.
- 6. Prepared Enter the date this budget was prepared.



## Non-Trustee Organization Detail (Form 4B) Equipment

#### How the Form will be Used...

This form documents the equipment costs of the proposed project. "Equipment" means non-consumable items having an estimated life of more than one year and a unit value greater than \$500. All equipment purchased remains the property of the Lead Trustee Agency and must be returned to the agency upon completion of the project.

#### How to Complete the Form...

- 1. Replacement Equipment Put an R in this column if the request replaces equipment previously purchased by the Trustee Council.
- 2. New Equipment Description Describe the equipment, its purpose, and how the cost estimate was obtained.
- 3. Number of Units Enter the number of units. Use whole numbers.
- 4. Unit Price Enter the unit price.
- 5. Proposed FY 1998 New Equipment No input necessary. The form automatically calculates:
  - Number of Units x Unit Price
- 6. Existing Equipment Usage Describe existing equipment which will be used.
- 7. Number of Units Enter the number of existing units which will be used. <u>Use whole</u> numbers.
- 8. Project Identification Field Enter the project number, title, and your organization's name.
- 9. Prepared Enter the date this budget was prepared.

New Equipmen Description	t Purchases:	Number of Units	Unit Price	
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Those purchase	s associated with replacement equipment should be indicated by placement of an R.	New Equ	upment Total	_
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# APPENDIX A OTHER TRUSTEE COUNCIL ACTIVITIES

In addition to funding monitoring, research, and general restoration projects through the annual work plan, the Trustee Council authorizes funds for habitat protection and acquisition, the administrative costs of the restoration program, and the Restoration Reserve.

## Habitat Protection and Acquisition

The Trustee Council funds the acquisition and protection of land in order to protect the habitat of injured resources and services. The goals of habitat protection are to prevent additional injury to resources and services while recovery is taking place and to provide a long-term safety net for these resources.

The Council has spent \$161.4 million to protect habitat on 361,000 acres of large parcels of land. This includes acquisition of private inholdings within Kachemak Bay State Park, land adjacent to Seal Bay/Tonki Cape on Afognak Island, commercial timber rights along Orca Narrows near Cordova, a parcel on Shuyak Island and lands owned by Akhiok-Kaguyak, Inc., Old Harbor Native Corporation, and Koniag, Inc. A purchase agreement has been signed for the acquisition of 59,520 acres of land from Chenega Corporation. An offer to acquire 68,888 acres from the Tatitlek Corporation depends on a shareholder vote. Negotiations continue with five landowners — Afognak Joint Ventures, Eyak Corporation, English Bay Corporation, Port Graham Corporation and Koniag, Inc.— to protect additional habitat in large parcels.

In addition to the large parcels that have been acquired, 22 small parcels of land have been acquired for \$8.6 million. These acquisitions protect about 2,400 acres of habitat. Owners of 8 additional small parcels (under 1,000 acres each) have accepted offers for a total of \$3.9 million. Landowners are considering \$1.3 million in offers on an additional five small parcels.

The Council has also authorized contributions of \$4 million toward the acquisition of 3,254 acres owned by the Kenai Natives Association and up to \$1 million for key waterfront parcels forfeited to the Kodiak Island Borough for tax delinquency. Finalization of the Kenai Natives Association Package is pending. The Kodiak Island Borough Tax Parcels are being appraised.

Support activities for the habitat protection program include negotiating, surveying, appraising, clearing title, conducting hazardous materials surveys, and recording court documents. An estimate of FY 98 funding is given below, although the amount actually needed will depend upon the Council's habitat protection decisions. Decisions about habitat protection—which lands to purchase and funding for acquisition support activities—are being addressed through a separate process and are not subject to this invitation.

FY 98 \126 Habitat Acquisition Support

\$770,000

Total FY 98:

\$770,000

## Public Information/Science Management/Administration

This project (\100) provides the management and administration necessary to efficiently implement the Trustee Council's restoration program. Project \100 includes funding for:

- Operations and staff support for the Trustee Council, including the Anchorage Restoration Office and Trustee agency liaisons;
- Operations and staff support for the 17-member Public Advisory Group, established in the civil settlement between Exxon Corporation and the state and federal governments;
- Independent scientific review of project proposals and reports, including the Chief Scientist and peer reviewers;
- The Oil Spill Public Information Center (OSPIC), whose collection -- roughly 10,000 titles plus videotapes, maps, and photographic slides -- is cataloged in the online database of the Western Library Network;
- Publications, including this invitation; annual work plans; the *Restoration Update*, a bimonthly newsletter distributed to approximately 2,500 people; and the *Annual Status Report*, which reports to the public on the progress of restoration;
- Workshops, including the Annual Restoration Workshop (which is attended by all Trustee
   Council researchers and the public) and more intensive technical review workshops;
- Public meetings, including meetings in communities in the spill area and elsewhere, on the restoration program and other topics of interest to the general public;
- Development of a geobibliography/electronic database of studies funded by the Council;
- Additional communication efforts, such as the Council's radio series, Alaska Coastal Currents, and notebook series, which consists of papers describing the results of scientific studies conducted on each injured resource;
- An annual financial audit (beginning in FY 95) of expenditures from the trust fund.

For the most part, this work effort is conducted by Council staff. However, the Council contracts with the private sector for some of these services and products. For example, the services of the Chief Scientist and the financial auditor are obtained through renewable contracts. Printing of publications, graphics work, and space for the Annual Restoration Workshop are put out to bid when needed. Contracts are advertised and awarded in accordance with state procurement laws.

It is anticipated that most of the activities described above will continue at some level throughout the life of the restoration effort. Consistent with the projected decline in the size of the annual work plan through FY 2002, when the final payment from Exxon Corporation will be spent, the Council intends to reduce the amount of funds spent on this component as well. The Council forecasts the future funding needs as follows:

FY 98	\100	Public Information/Science Mgmt./Administration	\$2,800,000	-
FY 99	\100	Public Information/Science Mgmt./Administration	\$2,500,000	
FY 00	\100	Public Information/Science Mgmt./Administration	\$1,700,000	~
FY 01	\100	Public Information/Science Mgmt./Administration	\$1,500,000	,
FY 02	\100	Public Information/Science Mgmt./Administration	\$1,500,000	
				~4~

Total FY 98-02:

\$10,000,000

### Restoration Reserve

Complete recovery from the Exxon Valdez oil spill may not occur for decades, yet annual payments by Exxon Corporation end September 2001. To ensure restoration activities needed after that time have a source of funding, the Trustee Council places a portion of the annual payments into the Restoration Reserve.

The exact amount placed into the Reserve each year is determined by the Trustee Council after considering the funding needs for restoration for that year. Twelve million dollars were allocated to the reserve in each of the last four years (FY 94–97). It is anticipated that \$12 million will be allocated to the Reserve in FY 98 and in each of the four years remaining through FY 02. If so, \$108 million plus interest would be available for funding restoration activities after Exxon's payments end.

In FY 97, the Trustee Council began planning for the long-term management and use of the Reserve. In FY 98, the Council is expected to select options to consider further. Council staff will conduct public workshops and other forms of outreach throughout the spill area and in Anchorage, Fairbanks and Juneau. The Council is expected to make its decision about the future management and use of the Restoration Reserve by the fall of 1998.

	Allocations through FY 97 (excluding interest):		\$48,000,000
FY 98	\424 Exxon Valdez Restoration Reserve Fund	\$12,000,000	· · · · · · · · · · · · · · · · · · ·
FY 99	\424 Exxon Valdez Restoration Reserve Fund	\$12,000,000	- %_
<b>FY 00</b>	\424 Exxon Valdez Restoration Reserve Fund	\$12,000,000	3
FY 01	\424 Exxon Valdez Restoration Reserve Fund	\$12,000,000	·
FY 02	\424 Exxon Valdez Restoration Reserve Fund	\$12,000,000	100
, ,	Subtotal FY 98-02 (excluding interest):	1 1 1 1	\$60,000,000
, 144,	Total FY 94-02 (excluding interest):		\$108,000,000

# APPENDIX B HISTORY OF PROJECT COSTS

This appendix consists of two tables that summarize the cost of restoration projects undertaken since the civil settlement. Table B-1 presents actual and projected costs for monitoring, research, and general restoration projects that have been funded in the past. This table does not list new projects that may be proposed for FY 98. Table B-2 presents costs for projects outside of the annual work plan and, therefore, over and above the target spending level. For FY 97, this table includes capital expenditures for implementation of the Sound Waste Management Plan and construction of the Alaska SeaLife Center Fish Pass, in addition to funds for public information/science management/administration, habitat protection and acquisition support, and the Restoration Reserve.

These tables record the history of funding allocations to each project and each resource cluster. For example, Table B-1 shows that the Sound Ecosystem Assessment (SEA) began in FY 94, received about \$19 million between FY 92 and FY 97, and is expected to cost an additional \$2 million in FY 98, for a total project cost of \$21 million.

The tables in this appendix also estimate future costs for projects. Table B-1 projects the FY 98 cost of 38 continuing projects to be about \$11 million. The FY 98 cost of 10 additional projects funded in FY 97 is left blank because of uncertainty about the projects' future scope, cost, or priority in terms of the overall restoration program. The amount of funding actually allocated to individual projects will be determined each year by the Trustee Council through the invitation/work plan process.

Fiscal Years. The first year of funding by the Trustee Council was FY 92, which spanned the period March 1, 1992, through February 28, 1993. The second year of funding was FY 93, a seven-month transition period between February 28, 1993, and the end of the federal fiscal year on September 30, 1993. Thereafter, the funding cycle for restoration activities has been the federal fiscal year which begins on October 1 and ends on September 30.

FY 92-96: Expenditures. Costs shown for FY 92-96 are expenditures on restoration projects as reported in the September 30, 1996 quarterly financial report. Expenditures reported for FY 92 in Table B-1 do not include \$6.8 million that was spent that year to conclude damage assessment studies.

FY 97: Authorized Amounts. The figures for FY 97 are the amounts authorized by the Trustee Council in August and December 1996.

FY 98-02: Estimated Costs. The figures for FY 98-02 are estimates of future costs of continuing projects. A blank space means that the Trustee Council has not made a long-term funding commitment because of uncertainty about the project's future scope, cost, or priority in terms of the overall restoration program.

Table B-1. History of Project Costs / FY 98 Invitation

	· ·						_1		,		I .		
	- <u>Project</u>	<u>FY92</u>	<u>FY93</u>	<u>FY94</u>	, <u>FY95</u>	<u>FY96</u>	FY97	<u>FY98</u>	<u>FY99</u>	FY00-02	Subtotal FY92-97	Subtotal FY98-02	<u>Total</u> <u>FY92-02</u>
	Pink Salmon	\$1,834.7	\$847.6	\$1,512.6	\$2,371.0	\$1,797.5	\$1,921.7	\$966.3	\$293.4	\$32.0	\$10,285.1	\$1,291.7	\$11,576.8
	076 / Effect of Oil on Straying and Survival	- \$0.0	\$0.0	\$0.0	\$189.8	\$374.4	\$618.8	\$234.6	\$0.0	\$0.0	\$1,183.0	-\$234.6	\$1,417.6
	093 / Diversion of Harvest Effort	\$0.0	\$0.0	\$0.0	\$57.8	\$0.0	\$0.0	<b>\$0.0</b>	\$0.0	\$0.0	\$57.8	\$0.0	\$57.8
	139 / Salmon Instream Habitat Restoration	\$0.0	\$0.0	\$222.1	\$31.3	\$0.0	\$0.0	<b>\$0.0</b>	\$0.0	\$0.0	- \$253.4	\$0.0	\$253.4
	139-A1 / Little Waterfall Barrier Bypass Improvement	\$0.0	\$0.0	\$0.0	\$96.7	\$30.2	\$26.4		\$0.0	\$0.0	\$153.3	<b>\$0.0</b>	\$153.3
	139-A2 / Port Dick Spawning Channel	\$0.0	\$0.0	\$0.0	\$32.9	\$209.4	\$76.5	\$49.7	\$39.7	\$32.0	\$318.8	\$121.4	\$440.2
-	139-C1 / Montague Riparian Rehabilitation Monitoring	\$0.0	\$0.0	\$0.0	\$49.3	\$8.4	\$9.3	\$0.0	\$0.0	\$0.0	\$67.0	\$0.0	\$67.0
	186 / Coded-wire Tagging and Recovery	\$1,421.8	\$148.6	\$237.7	\$254.5	\$217.8	\$273.8	\$279.4	\$90.0	\$0.0	\$2,554.2	\$369.4	\$2,923.6
	188 / Otolith Thermal Mass Marking	<b>,\$0.0</b>	\$0.0	\$48.9	\$637.2	\$80.8	\$120.1	\$108.4	\$55.0	\$0.0	\$887.0	\$163.4	\$1,050.4
	190 / Linkage Map for the Pink Salmon Genome	\$0.0	\$0.0	\$0.0	\$0.0	\$155.4	\$254.5		-	*	\$409.9		\$409.9
	191 / Oil-Related Embryo Mortalities	\$412.9	\$699.0	\$823.5	\$798.5	\$572.0	\$208.5	\$164.2	\$58.7	\$0.0	\$3,514.4	\$222.9	\$3,737.3
	194 / Spawning Habitat Recovery	\$0.0	\$0.0	· <b>\$0.0</b>	\$0.0	\$0.0	\$138.3		\$0.0	\$0.0	\$138.3	\$0.0	\$138.3
	196 / Genetic Structure	\$0.0	\$0.0	\$180.4	\$223.0	\$149.1	\$195.5	\$130.0	\$50.0	\$0.0	\$748.0	\$180.0	\$928.0

NOTES: 1) Costs are shown in thousands of dollars.

<sup>2)</sup> Figures for FY 92-96 are expenditures/obligations on restoration projects; an additional \$6.8 million were spent on damage assessment studies in FY 92.

<sup>3)</sup> Costs projected for FY 98-02 are for planning purposes and have not yet been approved by the Trustee Council.

<sup>4)</sup> A blank space means the Trustee Council has not made a long-term funding commitment due to uncertainty about a project's future cost, scope, or priority.

<u>Project</u>	<u>FY92</u>	FY93	<u>FY94</u>	<u>FY95</u>	<u>FÝ96</u>	<u>FY97</u>	<u>FY98</u>	<u>FY99</u> ]	FY00-02	Subtotal FY92-97	Subtotal FY98-02	<u>Total</u> <u>FY92-02</u>
Herring	-\$0.0	\$0.0	\$514.5	\$1,279.9	\$1,210.6	\$899.6	\$493.6	\$0.0	ु́- <b>\$0.0</b>	\$3,904.6	\$493.6	\$4,398.2
074 / Herring Reproductive Impairment	\$0.0	\$0.0	\$0.0	\$397.5	\$138.9	\$0.0	\$0.0	\$0.0	\$0.0	\$536.4	\$0.0	\$536.4
162 / Disease Affecting Declines	\$0.0	\$0.0	- \$85.5	\$389.4	\$606.7	<b>** \$517.7</b> -	\$437.6	\$0.0	\$0.0	\$1,599.3	\$437.6	\$2,036.9
165 / Genetic Discrimination	, ° ° \$0.0	\$0.0	\$6.4	\$98.3	\$87.3	\$41.6	\$56.0	<b>\$0.</b> 0	\$0.0	\$233.6	\$56.0	\$289.6
166 / Herring Natal Habitats	\$0.0	\$0.0	\$422.6	\$394.7	\$377.7	\$340.3	· ~ , , ,		\$0.0	\$1,535.3	\$0.0	\$1,535.3
Sound Ecosystem Assessment	\$0.0	\$0.0	\$5,618.5	\$5,007.7	\$5,118.8	\$3,733.6	\$2,062.2	\$115.0	\$75.0	\$19,478.6	\$2,252.2	\$21,730.8
195 / Pristane Monitoring in Mussels	\$0.0	\$0.0	\$0.0	\$0.0	\$119.0	\$115.3°	\$115.0	\$115.0	\$75.0	\$234.3	\$305.0	\$539.3
320 / Sound Ecosystem Assessment (SEA)	\$0.0	\$0.0	\$5,618.5	\$5,007.7	\$4,999.8	\$3,618.3	\$1,947.2		- , , ,	\$19,244.3	\$1,947.2	\$21,191.5
Sockeye Salmon	\$1,052.6	\$1,466.3	\$1,614.7	\$1,445.9	\$1,071.3	\$462.8	*, <b>\$0.0</b>	\$0.0	-\$0.0	\$7,113.6	\$0.0	\$7,113.6
048-BAA / Historical Analysis of Sockeye Salmon Growth	\$0.0	\$0.0	\$0.0	\$0.0	\$67.7	\$0.0	\$0.0	\$0.0	\$0.0	\$67.7	\$0.0	\$67.7
251 / Akalura Lake Restoration	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$43.7	<b>\$0.0</b>	\$0.0	\$0.0	\$43.7	· - \$0.0	\$43.7
255 / Kenai River Sockeye Salmon Restoration	\$687.4	\$405.2	\$348.7	\$454.9	\$280.5	\$158.3	<b>\$0.0</b> 5	\$0.0	\$0.0	\$2,335.0	<b>\$0.0</b>	\$2,335.0
258 / Sockeye Salmon Overescapement	\$0.0	\$621.9	\$762.3	\$724.5	\$505.5	\$214.0	\$0.0	\$0.0	\$0.0	\$2,828.2	\$0.0	\$2,828.2
259 / Restoration of Coghill Lake Sockeye Salmon	\$0.0	\$145.1	\$240.8	\$266.5	\$217.6	\$46.8	\$0.0	_ \$0.0	\$0.0	\$916.8	\$0.0	\$916.8
504 / Genetic Stock ID of Kenai River Sockeye	\$310.9	\$294.1	\$262.9	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$867.9	<b>\$0.0</b>	\$867.9
R113 / Red Lake Sockeye Salmon Restoration	\$54.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$54.3	\$0,0	\$54.3

NOTES: 1) Costs are shown in thousands of dollars.

<sup>2)</sup> Figures for FY 92-96 are expenditures/obligations on restoration projects; an additional \$6.8 million were spent on damage assessment studies in FY 92.

<sup>3)</sup> Costs projected for FY 98-02 are for planning purposes and have not yet been approved by the Trustee Council.

<sup>4)</sup> A blank space means the Trustee Council has not made a long-term funding commitment due to uncertainty about a project's future cost, scope, or priority.

Project	<u>FY92</u>	<u>FY93</u>	<u>FY94</u>	<u>FY95</u>	<u>FY96</u>	<u>FY97</u>	<u>FY98</u>	<u>FY99</u> ]	FY00-02	Subtotal FY92-97	Subtotal FY98-02	<u>Total</u> FY92-02
Cutthroat and Dolly Varden	\$132.1	\$0.0	\$0.0	\$136.9	\$222.3	\$266.5	\$108.0	\$0.0	\$0.0	\$757.8	\$108.0	\$865.8
043-B / Habitat Improvement Monitoring	\$0.0	\$0.0	\$0.0	\$136.9	\$22.3	\$24.0	\$8.0	\$0.0	\$0.0	\$183.2	\$8.0	\$191.2
145 / Anadromous and Resident Forms	\$0.0	\$0.0	\$0.0	\$0.0	\$200.0	\$229.7	\$100.0	\$0.0	\$0.0	\$429.7	\$100.0	\$529.7
302 / PWS Inventory	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$12.8	\$0.0	\$0.0	\$0.0	\$12.8	\$0.0	\$12.8
R106 / Dolly Varden Restoration	\$37.9	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$37.9	\$0.0	\$37.9
R90 / Dolly Varden Char Monitoring	\$94.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$94.2	\$0.0	\$94.2
Marine Mammals	\$24.7	\$332.8	\$279.7	\$894.9	\$703.6	\$810.6	\$308.1	\$50.0	\$0.0	\$3,046.3	\$358.1	\$3,404.4
001 / Harbor Seal Condition and Health Status	\$0.0	\$0.0	\$0.0	\$170.1	\$202.7	\$192.0	\$48.1	\$0.0	\$0.0	\$564.8	\$48.1	\$612.9
012 / Killer Whale Investigation	\$0.0	\$113.5	\$30.8	\$289.3	\$99.8	\$157.5				\$690.9		\$690.9
064 / Harbor Seal Monitoring, Habitat Use, Trophic Interactions	\$24.7	\$219.3	\$248.4	\$340.9	\$259.2	\$317.8	\$150.0	\$50.0	\$0.0	\$1,410.3	\$200.0	\$1,610.3
117-BAA / Harbor Seal Blubber and Lipids	\$0.0	\$0.0	\$0.0	\$94 6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$94.6	\$0.0	\$94.6
170 / Isotope Ratio Studies of Marine Mammals	\$0.0	\$0.0	\$0.0	\$0.0	\$141.9	\$143.3	\$110.0	\$0.0	\$0.0	\$285.2	\$110.0	\$395.2
425 / Marine Mammal Book Publication	\$0.0	\$0.0	\$0.5	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.5	\$0.0	\$0 5
Nearshore Ecosystem	\$1,725.4	\$2,756.3	\$2,688.0	\$2,994.6	\$2,867.0	\$2,232.0	\$1,753.7	\$524.8	\$224.4	\$15,263.3	\$2,502.9	\$17,766.2
025 / Nearshore Vertebrate Predators (NVP)	\$0.0	\$0.0	\$0.0	\$710.4	\$1,818.3	\$1,736.3	\$1,669.4	\$450.0	\$0.0	\$4,265.0	\$2,119.4	\$6,384.4
026 / Hydrocarbon Monitoring	\$0.0	\$0.0	\$0.0	\$143.1	\$0.0	\$15.1	\$0.0	\$0.0	\$0.0	\$158.2	\$0.0	\$158.2

<sup>2)</sup> Figures for FY 92-96 are expenditures/obligations on restoration projects; an additional \$6.8 million were spent on damage assessment studies in FY 92.

<sup>3)</sup> Costs projected for FY 98-02 are for planning purposes and have not yet been approved by the Trustee Council.

<sup>4)</sup> A blank space means the Trustee Council has not made a long-term funding commitment due to uncertainty about a project's future cost, scope, or priority.

<b>Project</b>	FÝ92	FY93	FY94	FY95	FY96	FY97	FY98	FY99`	FY00-02	Subtotal FY92-97	Subtotal FY98-02	<u>Total</u> FY92-02	
027 / Kodiak Shoreline Assessment	\$0.0	\$0.0	\$0.0	\$180.9	\$34.2	\$0.0	\$0.0	\$0.0	\$0.0	\$215.1	\$0.0	\$215.1	
034 / Pigeon Guillemot Recovery Monitoring	\$0.0	\$165.9	\$225.7	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$391.6	,	\$391.6	
035 / Black Oystercatcher Recovery Monitoring	\$0.0	\$109.1	\$75.3	<b>, , , \$0.0</b>	\$0.0	\$0.0	\$0.0	<b>\$0.</b> 0	<b>\$0.0</b>	\$184.4	\$0.0	\$184.4	
038 / PWS Shoreline Assessment	\$0.0	\$316.8	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$316.8	\$0.0	: \$316.8`	
043 / Sea Otter Demographics and Habitat	\$0.0	\$144.1	\$188.6	\$0.0	\$0.0	- \$0.0	\$0.0	\$0.0		\$332.7	\$0.0	\$332.7	,
086-C / Herring Bay Experimental and Monitoring Studies	\$0.0	\$504.6	\$697.9	\$733.9	\$172.6	\$0.0	\$0.0	\$0.0	\$0.0	\$2,109.0	\$0.0	\$2,109.0	
090 / Mussel Bed Restoration	\$769.3	. \$31 <b>8.6</b> -	\$446.0	\$436.5	\$196.2	\$10.0	\$0.0	\$0.0	\$0.0	\$2,176.6	\$0.0	\$2,176.6	
106 / Eelgrass Monitoring	\$0.0	\$0.0	\frac{*}{\$0.0}	\$197.4	\$224.5	\$0.0	\$0.0	\$0.0	\$0.0	\$421.9	\$0.0	\$421.9	
161 / Differentiation/Interchange of Harlequins	\$0.0	\$0.0	\$0.0	\$0.0	\$80.6	\$98.8	<b>\$9.5</b>	\$0.0	<b>\$0.0</b>	\$179.4	\$9.5	\$188.9	-
223-BAA / Publication of Sea Otter Data	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$43.0	\$0.0	\$0.0	\$0.0	- \$43.0	\$0.0	\$43.0	,
266 / Experimental Oil Removal	\$0.0	\$0.0	\$185.8	\$146.9	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$332.7	\$0.0	\$332.7	٠,
285 / Subtidal Monitoring	\$0.0	\$882.8	\$583.4	\$117.7	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1,583.9	\$0.0	\$1,583.9	
290 / Hydrocarbon Database	≂ <mark>,\$0.0</mark>	\$120.1	\$113.5	<b>\$154.9</b>	\$111.6	\$76.3	\$74.8	\$74.8	\$224.4	\$576.4	\$374.0	\$950.4	
326 / Data Re-Analysis for MM6	\$0.0	, a \$0.0	\$0.0	\$0.0	\$11.4	\$0.0	\$0.0	\$0.0	\$0.0	\$11.4	\$0.0	\$11.4	
427 / Harlequin Duck Monitoring	\$470.5	\$194.3	\$171.8	\$172.9	\$217.6	\$252.5	1 2	4, (, , , , , ,	0,	\$1,479.6	7125	\$1,479.6	*,
R102 / Coastal Habitat Restoration	\$485.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$485.6	\$0.0	\$485.6	
Seabird/Forage Fish and Related Projects	\$743.4	\$442.1	\$1,193.4	\$2,086.4	\$2,296.7	\$2,366.7	\$1,958.1	\$1903.8	\$189.2	\$9,128.7	\$4,051.1	\$13,179.8	
021 / Seasonal Movements by Common Murres	\$0.0	\$0.0	\$0.0	\$53.9	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$53.9	\$0.0	\$53.9	¢
029 / Population Survey of Bald Eagles in PWS	\$0.0	\$0.0	\$0.0	\$49.3	\$0.0	\$0.0	\$0.0	<b>\$0.0</b>	\$0.0	\$49.3	\$0.0	\$49.3	

<sup>2)</sup> Figures for FY 92-96 are expenditures/obligations on restoration projects; an additional \$6.8 million were spent on damage assessment studies in FY 92.

<sup>3)</sup> Costs projected for FY 98-02 are for planning purposes and have not yet been approved by the Trustee Council.

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	Project 031 / Reproductive Success of	<u>FY92</u> \$0.0	FY93 \$0.0	<u>FY94</u> \$0.0	<u>FY95</u> \$246.0	<u>FY96</u> \$77.8	<u>FY97</u> \$0.0	FY98 \$0.0	FY99 ] <b>\$0.</b> 0	FY00-02 \$0.0	Subtotal <u>FY92-97</u> \$323.8	Subtotal <u>FY98-02</u> \$0.0	Total FY92-02 \$323.8	-
	Murrelets in PWS	*>	-	t	-	π T	1	2	- 1	, , "	,	~ , ,		
	038 / Symposium/Publication on Seabird Restoration	, \$0.0	\$0.0	\$0.0	- \$74.5	\$17.7	\$0.0	\$0.0	<b>\$0.0</b>	\$0.0	\$92.2	\$0.0	\$92.2	
,	039-B / Common Murre Productivity Monitoring	\$0.0	\$0.0	\$0.0	\$27.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$2 <b>7.4</b>	\$0.0	\$27.4	
	041 / Introduced Predator Removal	\$0.0	\$0.0	<b>\$77.0</b>	\$66.5	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$143.5	\$0.0	\$143.5	
	101 / Removal of Introduced Foxes from Islands	\$0.0	\$0.0	\$0.0	\$0.0	\$6.7	\$0.0	\$0.0	\$0.0	\$0.0	\$6.7	\$0.0	\$6.7	ı
	102 / Murrelet Prey and Foraging Habitat	\$428.5	\$0.4	\$239.7	\$53.1	\$0.0	\$0.0	\$0.0	<b>\$0.0</b>	\$0.0	\$721.7	\$0.0	\$721.7	, ,
	121 / Fatty Acid Signatures of Forage Fish	\$0.0	\$0.0	\$0.0	\$29.7	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$29.7	\$0.0	\$29.7	
	142-BAA / Status and Ecology of Kittlitz's Murrelet	\$0.0	\$0.0	\$0.0	\$0.0	\$157.4	\$188.5		\$0.0	\$0.0	\$345.9	\$0.0	\$345.9	7
	144 / Common Murre Population Monitoring	\$314.9	\$181.0	\$250.0	\$0.0	\$66.2	\$73.8	\$50.0	\$0.0	\$0.0	\$885.9	\$50.0	\$935.9	
-	159 / Marine Bird Abundance Surveys	\$0.0	\$260.7	\$142.8	\$0.0	\$261.0	\$60.1	t t	p 4	,	\$724.6	i.	\$724.6	
	163 / Alaska Predator Ecosystem Experiment (APEX)	\$0.0	\$0.0	\$483.9	\$1,486.0	\$1,709.9	\$1,800.0	\$1,800.0	\$1800.0	\$176.4	\$5,479.8	\$3,776.4	\$9,256.2	
,	167-BAA / Curation of Seabirds Salvaged from EVOS	\$0.0	\$0.0	- \$0.0	\$0.0	\$0.0	\$32.1	\$0.0	\$0.0	\$0.0	\$32.1	\$0.0	\$32.1	
	169 / Genetics of Murres, Guillemots, Murrelets	<b>\$0.0</b> ,	\$0.0	\$0.0	\$0.0	<b>\$0.0</b>	\$59.4	\$78.1	\$83.8	\$12.8	\$59.4	\$174.7	\$234.1	٠
	231 / Marbled Murrelet Productivity	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$120.0	j.			\$120.0	,	\$120.0	
	306 / Ecology and Demographics of Sand Lance	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$32.8	\$30.0	\$20.0	\$0.0	\$32.8	\$50.0	\$82.8	

<sup>2)</sup> Figures for FY 92-96 are expenditures/obligations on restoration projects; an additional \$6.8 million were spent on damage assessment studies in FY 92.

<sup>3)</sup> Costs projected for FY 98-02 are for planning purposes and have not yet been approved by the Trustee Council.

<sup>4)</sup> A blank space means the Trustee Council has not made a long-term funding commitment due to uncertainty about a project's future cost, scope, or priority.

Project	<u>FY92</u>	<u>FY93</u>	<u>FY94</u>	<u>FY95</u>	<u>FY96</u>	<u>FY97</u>	<u>FY98</u>	<u>FY99</u>	<u>FY00-02</u>	Subtotal FY92-97	Subtotal FY98-02	<u>Total</u> FY92-02
Archaeological Resources	\$123.3	\$1,581.9	\$246.7	\$274.5	\$496.0	\$231.2	\$201.3	\$158.9	\$415.0	\$2,953.6	\$775.2	\$3,728.8
007-A / Archaeological Index Site Monitoring	\$0.0	\$81.9	- \$246.7	\$162.5	\$138.8	\$145.0	\$135.0	\$145.0	\$415.0	\$774.9	\$695.0	\$1,469.9
007-B / Site Specific Archaeological Restoration	\$0.0	\$0.0	\$0.0	\$112.0	\$78.2	\$19.9 <sub>~</sub>	\$0.0	\$0.0	\$0.0	\$210.1	\$0.0	\$210.1
066 / Alutiiq Archaeological Repository	\$0.0	\$1,500.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1,500.0	\$0.0	\$1,500.0
149 / Archaeological Site Stewardship	\$0.0	\$0.0	\$0.0	\$0.0	\$78.2	\$66.3	\$66.3	\$13.9	\$0.0	\$144.5	\$80.2	\$224.7
154 / Archaeological Resource Restoration Plan	\$0.0	\$0.0	\$0.0	\$0.0	\$200.8	\$0.0	<b>\$0.0</b>	\$0.0	\$0.0	\$200.8	\$0.0	\$200.8
R104-A / Site Stewardship	\$123.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$123.3	\$0.0	\$123.3
Subsistence	-	\$241.7	\$430.4	\$896.5	\$1,254.3	\$1,433.6	\$1,332.4	\$441.6	\$1,054.2	\$4,256.5	\$2,828.2	\$7,084.7
009-D / Survey of Octopuses in Intertidal Habitats	\$0.0	\$0.0	\$0.0	\$125.0	\$141.2	\$48.0	\$0.0	\$0.0	\$0.0	\$314.2	\$0.0	\$314.2
052A / Community Involvement	\$0.0	\$0.0	\$0.0	\$79.0	\$267.5	\$248.4	\$250.0	\$250.0	\$750.0	\$594.9	\$1,250.0	\$1,844.9
052B / Traditional Knowledge	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$94.5			<u> </u>	\$94.5		\$94.5
127 / Tatitlek Coho Salmon Release	\$0.0	<b>\$0.0</b> -	\$0.0	\$4.8	\$23.6	\$11.1	\$12.0	\$12.0	\$0.0	\$39.5	\$24.0	\$63.5
131 / Clam Restoration	\$0.0	\$0.0	\$0.0	\$223.6	\$256.5	\$365.0	\$365.0	, ,	, ,	\$845.1	\$365.0	\$1,210.1
138 / Elders/Youth Conference	\$0.0	\$0.0	\$0.0	\$75.1	\$0.0	- \$0.0	\$0.0	\$0.0	\$0.0	\$75.1	\$0.0	* \$75.1
210 / Youth Area Watch	\$0.0	\$0.0	\$0.0	\$0.0	\$111.2	\$150.0	\$150.0	,	- 1 -	\$261.2	\$150.0	\$411.2
214 / Harbor Seal Documentary	\$0.0	\$0.0	\$0.0	\$0.0	-\$69.0	\$12.1	\$0.0	\$0.0	\$0.0	\$81.1	\$0.0	\$81.1
220 / Eastern PWS Salmon Habitat Restoration	\$0.0	\$0.0	<b>\$0.0</b>	\$0.0	\$70.4	\$115.0	\$12.0	\$0.0	\$0.0	\$185.4	\$12.0	\$197.4
222 / Chenega Bay Salmon Habitat Enhancement	\$0.0	\$0.0	\$0.0	\$0.0	\$3.8	\$0.0	\$0.0	\$0.0	\$0.0	\$3.8	\$0.0	\$3.8

 <sup>2)</sup> Figures for FY 92-96 are expenditures/obligations on restoration projects; an additional \$6.8 million were spent on damage assessment studies in FY 92.
 3) Costs projected for FY 98-02 are for planning purposes and have not yet been approved by the Trustee Council.
 4) A blank space means the Trustee Council has not made a long-term funding commitment due to uncertainty about a project's future cost, scope, or priority.

	-,			, 		·		#2 <b>2100</b>	FY00-02	Subtotal FY92-97	Subtotal FY98-02	<u>Total</u> FY92-02
<u>Project</u> 225 / Port Graham Pink Salmon  Project	<u>FY92</u> \$0.0	<u>FY93</u> \$0.0	<u>FY94</u> \$0.0	<u>FY95</u> \$0.0	<u>FY96</u> \$87.9	<u>FY97</u> \$74.4	<u>FY98</u> \$75.0	\$75.0	\$75.0	\$162.3	\$225.0	<u>\$387.3</u>
244 / Community Harbor Seal Sampling/Management	\$0.0°	\$0.0	\$44.9	\$76.1	\$123.0	\$114.9	\$85.0	\$0.0	\$0.0	\$358.9	\$85.0	\$443.9
247 / Kametolook River Coho Salmon	\$0.0	\$0.0	\$0.0°	\$0.0	\$0.0	\$31.4	\$13.8	\$14.1	\$44.1	\$31.4	\$72.0	\$103.4
256 / Solf Lakes Sockeye Salmon Stocking	\$0.0	\$0.0	\$0.0	<b>\$0.0</b>	\$52.4	\$50.0	\$143.5	\$78.5	\$185.1	\$102.4	\$407.1	\$509.5
263 / Port Graham Salmon Stream Enhancement	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$58.0	\$115.0	\$12.0	\$0.0	\$58.0	\$127.0	\$185.0
272 / Chenega Chinook Release Program	\$0.0	\$10.7	\$55.4	\$43.4	\$47.8	\$45 <b>.</b> 0	\$0.0	<b>\$0.0</b>	\$0.0	\$202.3	\$0.0	\$202.3
279 / Food Safety Testing	\$0.0	\$231.0	\$272.2	\$175.7	\$0.0	\$0.0	\$0.0	<b>\$0.0</b> ,	\$0.0	\$678.9	\$0.0	\$678.9
286 / Elders/Youth Conference	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$15.8	\$111.1	<b>. \$0.0</b>	\$0.0	\$15.8	\$111.1	\$126.9
428 / Community Planning Project	\$0.0	~ <b>\$0.0</b>	\$57.9	\$93.8	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$151.7	\$0.0	\$151.7
Recreation	\$0.0	\$40.8	\$75.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$115.8	\$0.0	\$115.8
065 / Prince William Sound Recreation Project	\$0.0	\$40.8	\$75.0	\$0.0	\$0.0	\$0.0	<b>\$0.0</b>	\$0.0	\$0.0	\$115.8	\$0.0	\$115.8
Reduction of Marine Pollution	\$0.0	\$0.0	\$0.0	\$1.4	\$0.0	\$267.5	\$0.0	\$0.0	\$0.0	\$268.9	\$0.0	\$268.9
304 / Kodiak Waste Management Plan	\$0.0	\$0.0	\$0.0	\$0.0	, \$0.0	\$267.5	\$0.0	\$0.0	<b>\$0.</b> 0	\$267.5	\$0.0	\$267.5
417 / Waste Oil Disposal Facilities	\$0.0	_\$0.0	\$0.0	\$1.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1.4	\$0.0	\$1.4
Habitat Improvements	\$0.0	\$0.0	\$0.0	\$117.5	\$474.8	\$667.2	\$834.0	\$0.0	\$0.0	\$1,259.5	\$834.0	\$2,093.5
058 / Landowner Assistance Program	<b>\$0.0</b>	\$0.0	\$0.0	\$90.7	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$90.7	\$0.0	\$90.7

<sup>2)</sup> Figures for FY 92-96 are expenditures/obligations on restoration projects; an additional \$6.8 million were spent on damage assessment studies in FY 92.

<sup>3)</sup> Costs projected for FY 98-02 are for planning purposes and have not yet been approved by the Trustee Council.

<sup>4)</sup> A blank space means the Trustee Council has not made a long-term funding commitment due to uncertainty about a project's future cost, scope, or priority.

Solid   Spruce Bark Beetle Impacts   Solid	<u>Project</u>	<u>FY92</u>	- <u>FY93</u>	<u>FY94</u>	<u>FY95</u>	<u>FY96</u>	<u>FY97</u>	<u>FY98</u>	<u>FY99</u>	FY00-02	Subtotal FY92-97	Subtotal FY98-02	<u>Total</u> FY92-02
230 / Valdez Duck Flats Restoration   \$0.0	060 / Spruce Bark Beetle Impacts	, ਾ ੂ-\$0.0	\$0.0	<b>~</b> ⁻ -\$0.0	\$26.8	. * . 1	\$0.0	- ,	\$0.0				-,
Habitat Protection and Acquisition  S633.0 \$1,098.8 \$965.6 \$150.1 \$0.0 \$0.0 \$0.0 \$0.0 \$0.0 \$0.0 \$2,847.5 \$0.0 \$2,847.5 \$0.0 \$2,847.5 \$0.0 \$1/140/140/140/140/140/140/140/140/140/14	180 / Kenai Habitat Restoration	\$0.0		\$0.0	,\$0:0				\$0.0	\$0.0	,		1 1
Acquisition    \$633.0	230 / Valdez Duck Flats Restoration	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$67.8	\$0.0	\$0.0	\$0.0	\$67.8	\$0.0	\$67.8
059 / Habitat Identification         \$0.0         \$23.1         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$23.1         \$0.0         \$23.1           Workshop         060 / Accelerated Data Acquisition         \$0.0         \$43.9         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$43.9         \$0.0         \$43.9           064 / Imminent Threat Habitat Protection         \$0.0         \$89.8         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$89.8         \$0.0         \$89.8           110 / Habitat Data Acquisition and Support         \$0.0         \$0.0         \$43.9         \$134.4         \$0.0         \$0.0         \$0.0         \$572.3         \$0.0         \$572.3           Ecosystem Synthesis         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$64.9         \$260.0         \$64.9         \$260.0         \$324.9           300 / Synthesis of Scientific Findings from EVOS         \$0.0         \$0.0         \$0.0         \$0.0         \$69.4         \$0.0         \$35.0         \$0.0         \$0.0         \$104.4         \$0.0         \$324.9           507 / EVOS Symposium Publication         \$0.0         \$69.4         \$0.0         \$35.0         \$0.0 <td></td> <td>\$633.0</td> <td>\$1,098.8</td> <td>\$965.6</td> <td>\$150.1</td> <td>\$0.0</td> <td>\$0.0</td> <td>\$0.0</td> <td>\$0.0</td> <td>\$0.0</td> <td>\$2,847.5</td> <td>\$0.0</td> <td>\$2,847.5</td>		\$633.0	\$1,098.8	\$965.6	\$150.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$2,847.5	\$0.0	\$2,847.5
059 / Habitat Identification         \$0.0         \$23.1         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$23.1         \$0.0         \$23.1           Workshop         060 / Accelerated Data Acquisition         \$0.0         \$43.9         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$43.9         \$0.0         \$43.9           064 / Imminent Threat Habitat Protection         \$0.0         \$89.8         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$89.8         \$0.0         \$89.8           110 / Habitat Data Acquisition and Support         \$0.0         \$0.0         \$43.9         \$134.4         \$0.0         \$0.0         \$0.0         \$572.3         \$0.0         \$572.3           Ecosystem Synthesis         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$64.9         \$260.0         \$64.9         \$260.0         \$324.9           300 / Synthesis of Scientific Findings from EVOS         \$0.0         \$0.0         \$0.0         \$0.0         \$69.4         \$0.0         \$35.0         \$0.0         \$0.0         \$104.4         \$0.0         \$324.9           507 / EVOS Symposium Publication         \$0.0         \$69.4         \$0.0         \$35.0         \$0.0 <td>051 / Habitat Assessments</td> <td>\$633.0</td> <td>\$942.0</td> <td>\$527.7</td> <td>\$15.7</td> <td>\$0.0</td> <td>\$0.0</td> <td>\$0.0</td> <td><b>\$0.0</b></td> <td>\$0.0</td> <td>\$2,118.4</td> <td>\$0.0</td> <td>\$2,118.4</td>	051 / Habitat Assessments	\$633.0	\$942.0	\$527.7	\$15.7	\$0.0	\$0.0	\$0.0	<b>\$0.0</b>	\$0.0	\$2,118.4	\$0.0	\$2,118.4
064 / Imminent Threat Habitat         \$0.0         \$89.8         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$89.8         \$0.0         \$89.8           Protection         110 / Habitat Data Acquisition and Support         \$0.0         \$0.0         \$437.9         \$134.4         \$0.0         \$0.0         \$0.0         \$572.3         \$0.0         \$564.9         \$260.0         \$0.0         \$564.9         \$260.0         \$564.9         \$260.0         \$564.9         \$260.0         \$564.9         \$260.0 </td <td>059 / Habitat Identification</td> <td>\$0.0</td> <td>\$23.1</td> <td></td> <td>\$0.0</td> <td>\$0.0</td> <td>\$0.0</td> <td>\$0.0</td> <td>\$0.0</td> <td>\$0.0</td> <td>\$23.1</td> <td>\$0.0</td> <td>\$23.1</td>	059 / Habitat Identification	\$0.0	\$23.1		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$23.1	\$0.0	\$23.1
Protection 110 / Habitat Data Acquisition and Support  Ecosystem Synthesis  \$0.0 \$0.0 \$0.0 \$0.0 \$0.0 \$0.0 \$0.0 \$0.	060 / Accelerated Data Acquisition	\$0.0	\$43.9	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	<b>. \$43.9</b>	\$0.0	\$43.9
Ecosystem Symthesis   \$0.0		\$0.0	\$89.8	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$89.8	\$0.0	\$89.8
300 / Synthesis of Scientific So.0 \$0.0 \$0.0 \$0.0 \$0.0 \$0.0 \$0.0 \$0.0 \$		\$0.0	\$0.0	\$437.9	\$134.4	\$0.0	\$0.0	<b>\$0.0</b>	\$0.0	\$0.0	\$572.3	\$0.0	\$572.3
Findings from EVOS  Admin./Sci.Mgt./Pub.Info.	Ecosystem Synthesis	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$64.9	\$260.0	27 :	,	\$64.9	\$260.0	\$324.9
507 / EVOS Symposium Publication         \$0.0         \$69.4         \$0.0         \$35.0         \$0.0         \$0.0         \$104.4         \$0.0         \$104.4           Project Management         \$0.0         \$0.0         \$0.0         \$0.0         \$89.9         \$641.6         \$560.0         \$480.0         \$960.0         \$731.5         \$2,000.0         \$2,731.5           250 / Project Management         \$0.0         \$0.0         \$0.0         \$0.0         \$641.6         \$560.0         \$480.0         \$960.0         \$641.6         \$2,000.0         \$2,641.6           600 / NOAA Program Management         \$0.0         \$0.0         \$0.0         \$89.9         \$0.0         \$0.0         \$0.0         \$89.9         \$0.0         \$0.0         \$89.9         \$0.0         \$0.0         \$89.9         \$0.0         \$0.0         \$89.9         \$0.0         \$0.0         \$89.9         \$0.0         \$0.0         \$89.9         \$0.0         \$0.0         \$89.9         \$0.0         \$0.0         \$89.9         \$0.0         \$0.0         \$89.9         \$0.0         \$0.0         \$0.0         \$89.9         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0         \$0.0 <td< td=""><td>· · · · · · · · · · · · · · · · · · ·</td><td>\$0.0</td><td>\$0.0</td><td>\$0.0</td><td>\$0.0</td><td>\$0.0</td><td>\$64.9</td><td>\$260.0</td><td></td><td></td><td>\$64.9</td><td>\$260.0</td><td>\$324.9</td></td<>	· · · · · · · · · · · · · · · · · · ·	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$64.9	\$260.0			\$64.9	\$260.0	\$324.9
Project Management         \$0.0         \$0.0         \$0.0         \$0.0         \$89.9         \$641.6         \$560.0         \$480.0         \$960.0         \$731.5         \$2,000.0         \$2,731.5           250 / Project Management         \$0.0         \$0.0         \$0.0         \$0.0         \$641.6         \$560.0         \$480.0         \$960.0         \$641.6         \$2,000.0         \$2,641.6           600 / NOAA Program Management         \$0.0         \$0.0         \$0.0         \$89.9         \$0.0         \$0.0         \$89.9         \$0.0         \$89.9	Admin./Sci.Mgt./Pub.Info.	. \$ò.0	\$0.0	\$69.4	\$0.0	\$35.0	<b>\$0.0</b>	\$0.0	\$0.0	\$0.0	- \$104.4	·- \$0.0°	\$104.4
250 / Project Management \$0.0 \$0.0 \$0.0 \$0.0 \$0.0 \$0.0 \$641.6 \$560.0 \$480.0 \$960.0 \$641.6 \$2,000.0 \$2,641.6 600 / NOAA Program Management \$0.0 \$0.0 \$0.0 \$0.0 \$89.9 \$0.0 \$0.0 \$0.0 \$89.9	507 / EVOS Symposium Publication	\$0.0	\$0.0	\$69.4	\$0.0	\$35.0	\$0.0	\$0.0	\$0.0	- \$0.0	\$104.4	\$0.0	\$104.4
600 / NOAA Program Management \$0.0 \$0.0 \$0.0 \$0.0 \$89.9 \$0.0 \$0.0 \$89.9 \$0.0 \$89.9	Project Management	\$0.0	\$0.0	\$ <b>0.0</b>	\$0.0	\$89.9	\$641.6	\$560.0	\$480.0	\$960.0	\$731.5	\$2,000.0	\$2,731.5
Total Cost: \$6,269.2 \$8,808.3 \$15,208.5 \$17,657.3 \$17,637.8 \$15,999.5 \$10,837.7 \$3,967.5 \$2,949.8 \$81,580.6 \$17,755.0 \$99,335.6		, ,	, , ,		- " "					, Ç		" "	=======================================
	Total Cost:	\$6,269.2	\$8,808.3	\$15,208.5	\$17,657.3	\$17,637.8	\$15,999.5 \$	10,837.7	\$3,967.5	\$2,949.8	\$81,580.6	\$17,755.0	\$99,335.6

Figures for FY 92-96 are expenditures/obligations on restoration projects; an additional \$6.8 million were spent on damage assessment studies in FY 92.
 Costs projected for FY 98-02 are for planning purposes and have not yet been approved by the Trustee Council.
 A blank space means the Trustee Council has not made a long-term funding commitment due to uncertainty about a project's future cost, scope, or priority.

Table B-2. History of Project Costs / Projects Outside FY 98 Invitation

<u>Project</u>	<u>FY92</u>	<u>FY93</u>	<u>FY94</u>	<u>FY95</u>	<u>FY96</u>	<u>FY97</u>	<u>FY98</u>		<u> Y00-02</u>	Subtotal FY92-97	Subtotal FY98-02	FY92-02
291 / Chenega Area Shoreline Residual Oiling Reduction	\$0.0	\$0.0	\$0.0	\$0.0	\$260.0	\$1,640.0	\$0.0	\$0.0	\$0.0	\$1,900.0	\$0.0	\$1,900.0
115 / Sound Waste Management	\$0.0	\$0.0	\$0.0	\$260.8	\$49.7	\$1,167.9	\$75.0	\$0.0	\$0.0	\$1,478.4	\$75.0	\$1,553.4
126 / Habitat Prot./Acq. Support	\$0.0	\$0.0	\$2,031.1	\$1,309.7	\$2,073.9	\$1,282.6	\$770.0	\$565.0	\$215.0	\$6,697.3	\$1,550.0	\$8,247.3
100 / Administration, Science Management, Public Information	\$4,293.9	\$2,659.3	\$4,107.6	\$3,211.8	\$2,957.6	\$2,857.1	\$2,800.0	\$2,500.0	\$4,700.0	\$20,087.3	\$10,000.0	\$30,087.3
197 / SeaLife Center Fish Pass	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$545.6	\$0.0	\$0.0	\$0.0	\$545.6	\$0.0	\$545.6
424 / Restoration Reserve	\$0.0	\$0.0	\$12,000.0	\$12,000.0	\$12,000.0	\$12,000.0	\$12,000.0	\$12,000.0 \$3	36,000.0	\$48,000.0	\$60,000.0	\$108,000.0
Total Cost:	\$4,293.9	\$2,659.3	\$18,138.7	\$16,782.3	\$17,341.2	\$19,493.2	\$15,645.0	\$15,065.0 \$4	40,915.0	\$78,708.6	\$71,625.0	\$150,333.6

<sup>2)</sup> Figures for FY 92-96 are expenditures/obligations on restoration projects; an additional \$6.8 million was spent on damage assessment studies in FY 92.

<sup>3)</sup> Costs projected for FY 98-02 are for planning purposes and have not yet been approved by the Trustee Council.

<sup>4)</sup> A blank space means the Trustee Council has not made a long-term funding commitment due to uncertainty about a project's future cost or scope.

# APPENDIX C PROTOCOLS FOR INCLUDING INDIGENOUS KNOWLEDGE IN THE EXXON VALDEZ OIL SPILL RESTORATION PROCESS

# Exxon Valdez Oil Spill Trustee Council Adopted December 6, 1996

# Introduction, Purpose, and Objectives

Indigenous knowledge, including traditional ecological knowledge (TEK), provides an important perspective that can help the Exxon Valdez Oil Spill (EVOS) restoration effort by providing information and analysis of the environment and resources affected by the oil spill. Fishers, hunters, and gatherers have detailed descriptions of animal behavior and ecology. For many species, subsistence harvesters possess the following information:

- where it is found in any season
- what it eats
- how it moves from place to place
- when it mates
- where its young are born
- what preys on it
- how it protects itself
- how best to hunt for it
- population cycles

As astute observers of the natural world and as repositories of knowledge on the long term changes in their biophysical environment, practitioners of TEK can provide western biologists and ecologists with systematic and analytical observations that cover many years. While the differences between indigenous and scientific ways of knowing must be understood, restoration projects which successfully incorporate both perspectives will improve our collective understanding of the natural processes involved in the EVOS-affected region.

Working in and with Alaska Native communities requires sensitivity to their cultures, customs, traditions, and history. Successful working relationships are built on mutual respect and trust. The people of the communities of the oil spill area have experienced severe dislocations in their lives due to the *Exxon Valdez* Oil Spill. Subsistence and commercial fishing activities have been interrupted. Researchers and agency personnel have used the communities as logistical bases. Disruptions related to the clean up, litigation, and increased bureaucratic demands have impacted the people's ability to conduct their daily business.

As a consequence of these stresses to their privacy and out of concern to preserve respect for their traditions, the Alaska Native communities of the area affected by the spill, assisted by EVOS staff, the Chugach Regional Resources Commission, and staff from Trustee Council agencies, have developed a series of protocols formalizing their relationship with outside

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researchers. These protocols provide a set of guidelines that will facilitate collaboration between Alaska Natives and scientists in meeting the goals of EVOS restoration. The protocols describe the major elements of a research partnership, but their application depends on common sense and courtesy. For those researchers planning to collaborate with local respondents in the collection of indigenous knowledge or whose proposed research directly affects subsistence activities, the EVOS Trustee Council requires consideration of these protocols prior to the initiation of research.

# The objectives of these protocols are:

- 1. Provide guidelines for restoration project planning and review
- 2. Identify a set of ethical principles that establishes the parameters for a research partnership between Alaska Native communities and restoration scientists
- 3. Establish procedures for facilitating the collection of indigenous knowledge in restoration projects
- 4. Provide guidance on the development of research agreements between Alaska Native communities and researchers.

#### Protocols

- 1. Project planning and review.
- a) In developing projects that include the collection and use of indigenous knowledge, researchers and community residents should keep in mind how this information will be used in improving restoration, management, education, and future research.
- b) In designing restoration projects that include indigenous knowledge, researchers should recognize that local communities' knowledge of and interest in natural resources extends beyond the physical boundaries of the communities themselves to their harvest areas and beyond.
- c) All research proposals involving indigenous knowledge will be reviewed by the TEK Specialist, the Community Facilitators, and village councils, and their recommendations will be forwarded to the Executive Director. The overall program of research involving indigenous knowledge will be reviewed annually.
- d) Costs for incorporating TEK in a restoration project should be reflected in the project's budget.
- 2. <u>Ethical principles</u>. EVOS research which involves the collection and use of indigenous knowledge should follow the ethical principles for research listed below, which are based upon guidelines adopted by the Alaska Federation of Natives (AFN) Board of Directors in May 1993 (attached).
- e) Advise Alaska Native communities and people who are to be involved in or affected by the study of the purpose, goals, and time-frame of the research, the proposed data-gathering techniques, and the potential positive and negative implications and impacts of the research.
- f) Obtain the informed consent of the appropriate governing bodies and of individual participants
- g) Protect the knowledge and cultural/intellectual property of the Alaska Native people
- h) Seek to hire local community research assistants, and provide meaningful training to Alaska Native people to develop research skills, as appropriate

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- i) Use the local Alaska Native language in oral communications whenever English is the second language
- j) Address issues of confidentiality of sensitive material
- k) Include Alaska Native viewpoints in the final study report
- 1) Acknowledge the contributions of local research assistants and respondents in project reports
- m) Provide the communities with a summary of the major findings of the study in non-technical language.
- n) Provide copies of the annual and final project reports and related publications to the local library

The AFN Guidelines also include establishing and funding a "Native Research Committee." This may not be necessary in most EVOS Restoration Projects, depending upon the scope of the collection of indigenous knowledge and the wishes of the local community. Also, a new entity may not be necessary. For example, the traditional council may serve as such a review body. This point should be addressed in a "research agreement," as discussed in #4, below.

# 3. Facilitating the collection of indigenous knowledge.

- o) Initial contacts should be made through the TEK Specialist hired under Project 97052B to discuss the potential collection of indigenous knowledge in a project. The TEK Specialist will then pass the requests on to the communities concerned, and assist in establishing contact between the researcher and the Community Facilitator. The TEK Specialist will also inform the Spill Area Wide Coordinator of such requests.
- p) Once contact has been established through the TEK Specialist, researchers should use the Community Facilitator or designee as the primary community contact.
- q) The Community Facilitator or designee will arrange for the researcher to meet with the Village Council (or other appropriate body authorized by the Village Council) to discuss the project's goals, scope, methods, expectations, benefits and risks. The Facilitator or designee will help orient the researcher to the community and its customs.

#### 4. Research agreements.

The researcher and the Village Council (or other appropriate body authorized by the Village Council), assisted by the Community Facilitator, will work together to set up a research agreement. In developing the agreement, the following topics should be considered: the nature of the research, the form of consent that will be required, the need for local research assistants, compensation of participants, acknowledgments, anonymity and confidentiality of personal and other sensitive information, project monitoring, project review, final disposition of data, and provision of study results. The agreement may take one of several forms, such as a binding contract, a memorandum of agreement, a letter of agreement, or a village resolution. In any agreement, the responsibility and expectations of the researcher and the community should be spelled out. Terms and conditions should be clear and understandable to all parties, should not place unreasonable or unfair burdens on the participants, and must be consistent with applicable laws.

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#### AFN BOARD ADOPTS POLICY GUIDELINES FOR RESEARCH

At its quarterly meeting in May, the AFN Board of Directors adopted a policy recommendation that includes a set of research principles to be conveyed to scientists who plan to conduct studies among Alaska Natives.

The principles will be sent to all Native organizations and villages in the hope that compliance by researchers will deter abuses such as those committed in the past which lately have come to light.

Alaska Natives share with the scientific community an interest in learning more about the history and culture of our societies. The best scientific and ethical standards are obtained when Alaska Natives are directly involved in research conducted in our communities and in studies where the findings have a direct impact on Native populations.

AFN recommends to public and private institutions that conduct or support research among Alaska Natives that they include a standard category of funding in their projects to ensure Native participation.

AFN conveys to all scientists and researchers who plan to conduct studies among Alaska Natives that they must comply with the following research principles:

- \* Advise Native people who are to be affected by the study of the purpose, goals, and timeframe of the research, the data-gathering techniques, the positive and negative implications and impacts of the research.
- \* Obtain the informed consent of the appropriate governing body.
- \* Fund the support of a Native Research Committee appointed by the local community to assess and monitor the research project and ensure compliance with the expressed wishes of Native people.
- \* Protect the sacred knowledge and cultural/intellectual property of Native people.
- \* Hire and train Native people to assist in the study.
- Use Native language whenever English is the second language.
- \* Guarantee confidentiality of surveys and sensitive material.
- \* Include Native viewpoints in the final study.
- \* Acknowledge the contributions of Native resource people.
- \* Inform the Native Research Committee in a summary and in non-technical language of the major findings of the study.
- \* Provide copies of studies to the local library.

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

ADDRESS CORRECTION REQUESTED

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