

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

Title of Project:

3 projects UO of A FBX - final disposition of oil spill collections

Justification: (Link to Injured Resource or Service)

Description of Project: (e.g. goal(s), objectives, location, rationale, and technical approach)

- 1) Coastal habitat specimens
- 2) Birds and mammals
- 3) Archaeological

Estimated Duration of Project:

Estimated Cost per Year:

Other Comments:

Name, Address, Telephone:

Wendy Redman
UO of A FBX
ATC

Oil spill restoration is a public process. Your ideas and suggestions will not be proprietary, and you will not be given any exclusive right or privilege to them.

fold here

PLACE
STAMP
HERE

Exxon Valdez Trustee Council
645 G St.
Anchorage, Alaska 99501

Attn: 1993 Work Plan

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UNIVERSITY OF ALASKA

920601049

TO: Dave Gibbons
Trustee Council

FROM: Wendy Redman, Vice President *WRedman*
University of Alaska Statewide System

RE: Proposal for Archiving Biological and Archeological Specimens

Included here is the formal proposal from the UAF Museum on the archiving proposals. You may recall that I had hand delivered a copy of this proposal to you in Anchorage last month. This formal copy has all of the appropriate signatures included on the cover sheet. If there are any questions, or concerns, you should call Gordon Jarrell at 474-6947.

Thank you for your attention and consideration.

**ARCHIVING OF BIOLOGICAL AND ARCHEOLOGICAL SPECIMENS
FROM VALDEZ OIL-SPILL COLLECTIONS
AT THE UNIVERSITY OF ALASKA MUSEUM**

Submitted to:

**Trustees Council
Exxon Settlement Funds**

Submitted by:

**Gordon H. Jarrell
Research Associate
University of Alaska Museum**

and

**E. James Dixon
Curator of Archeology
University of Alaska Museum**

Proposed Amount: \$427,603 (in three components)

Duration: Calendar year 1992

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G.H. Jarrell 7 Feb 92

Gordon H. Jarrell
Research Associate
University of Alaska Museum
907-474-6947

Paul B. Reichardt

Paul B. Reichardt, Dean
College of Natural Sciences
University of Alaska Fairbanks

E. James Dixon

E. James Dixon
Curator of Archeology
University of Alaska Museum
907-474-7818

Luis M. Proenza

Luis M. Proenza, Vice Chancellor for
Research & Advanced Study
University of Alaska Fairbanks

Wallace A. Steffan

Wallace A. Steffan, Director
University of Alaska Museum
University of Alaska Fairbanks

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INTRODUCTION

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As a result of various spill-related surveys in the Gulf of Alaska, huge collections of zoological, botanical, and archeological specimens have been amassed. These collections are a unique scientific resource, but no provision has been made for their final disposition. We request support to incorporate these specimens into the permanent collections of the University of Alaska Museum.

This request is divided into three parts describing the first year of accessioning specimens in three discrete projects. Archeological specimens will be completely accessioned with the requested funds, but final requests from the two biological projects are contingent on appraisals to be completed during this first year of funding.

At the University of Alaska Museum, our research collections serve two basic functions:

- 1) Specimens are vouchers for work that has been done. Specifically, they verify identifications and descriptions made in studies of biodiversity, distribution, and evolutionary relationships. Often, later studies require further evaluation of original descriptions or identifications. This function is basic scientific bookkeeping and analogous to the publication of scientific findings.
- 2) Well-documented specimens are used in independent collection-based science. For example, a scientist studying variation in a wide-spread species, or group of species, may visit or request loans from several regional collections. Such work would be prohibitively expensive if all of the locations represented in museum collections had to be resampled. Also, in an era of declining biodiversity and impending global climate change, resampling may be impossible. Museum collections often contain the only primary evidence of historically-altered biota.

Thus, natural history collections make past work verifiable and much future work feasible. Our museum is analogous to a library; our collections are the physical documentation on which understanding of regional natural history is based. The work proposed here will be a permanent contribution to Alaska's scientific infrastructure.

Museum accessions are maintained in perpetuity, and the oil-spill collections will substantially expand the Museum's curatorial responsibilities. Therefore, when we can better estimate the extent of the biological specimens, we may request an endowment, the interest from which will be used to maintain these collections.

COASTAL-HABITAT SPECIMENS

The oil spill from the Exxon Valdez mandated a monumental reconnaissance of the biota of Prince William Sound and adjacent parts of the Gulf of Alaska. As in most good biological surveys, tremendous numbers of specimens have been collected, in this case at tremendous expense (>\$17 million). The principal investigators, mostly at UAF's School of Fisheries and Ocean Sciences, have expressed the hope that the Museum will accept the bulk of their "coastal habitat specimens."

The number of specimen lots (mostly in vials) to be handled is on the order 64,000. At least 200 species have been identified, including several major range extensions. The number of species, and presence of new species, are almost certainly under-detected.

Shallow-subtidal invertebrates represent a similar collection made using divers. The logistics of collecting this material are staggering and essentially unrepeatable. Intertidal and subtidal algae are

represented by about 5000 specimens representing two or three hundred species. About a third of this material appears to represent range extensions or new species.



The task of incorporating these materials into our collections will be far greater than might be imagined. Some existing collections will increase in size several fold and will have to be reorganized. Additional space for both handling and storing specimens must be found. Technicians are needed to physically arrange specimens and to enter specimen data into the Museum's computer catalogs.

We would like to begin this massive curation process in 1992 by (1) hiring two full-time and one half-time technicians, (2) installing a fume hood (necessary under OSHA regulations for handling formaldehyde-prepared specimens), (3) installing shelving along one wall of our main collections-storage area, and (4) purchasing two PC-sized computers. With the University's 43% overhead, this effort will cost about \$314K. By the end of 1992 we would have a good idea of total effort and funding required to complete the task. Now, we can only estimate that two more years of funding at a similar level are probably necessary.

Collections from the Exxon Valdez oil-spill represent the most extensive surveys of the coastal biota from the Gulf of Alaska region, and they represent a huge investment of scientific resources that will not be repeated. Unless collections are brought into the Museum, they can be lost, neglected and ruined, or they could end up in major museum collections outside of Alaska. The latter scenario would represent a setback both to the Museum and to the academic heritage of Alaska.

If the specimens are properly accessioned into UAM collections, we will have accomplished a major step in establishing the Museum's reputation as the center for the study of northern biodiversity. We will have acquired major strengths in several new areas, and those strengths can be leveraged into funding for research, and even into support for permanent curatorial positions.

BIRDS AND MAMMALS

Obtaining specimens of marine birds and mammals is logistically and politically difficult. Because they generally have low reproductive rates, both are protected under federal and even international law. Statistically adequate samples of skeletal material and of tissues for molecular-genetic analysis are not generally available in any museum.

Approximately 37,000 seabird carcasses and 1000 marine mammal carcasses were recovered as a result of direct kill by oil. These are in the custody of the U.S. Fish and Wildlife Service (USFWS) and are stored in freezer trailers in Anchorage. Present plans call for them to be incinerated in October.

These specimens represent a unique opportunity to further build Alaskan natural history collections and should be high-graded for museum specimens. Many museums from outside of Alaska have inquired about the availability of specimens from the oil spill. Merely incinerating this material will be seen as irresponsible by many professional ornithologists (See Appendix I). We would like other museums to receive representative specimens, but research-quality series of specimens should be retained at UAM. The long-term effect of developing North Pacific collections in museums outside of Alaska is to weaken our own Museum's development.

Many of the birds have not been identified, and many are in poor condition, so we do not know how many will be worth saving. Our intention is to prepare as many as 100 skeletal specimens with associated frozen tissues from each of the common species, and as many of the rarer

specimens as are suitable. We estimate that there could be 100 usable specimens from each of 15 species, and as many as 2000 specimens worthy of accessioning as museum specimens.

In two bids that were prepared during preparations for litigation, the task of transporting, thawing, sorting, and identifying this material was estimated at over \$300K. We do not know how the USFWS will dispose of the material, and we are not eager to take on the full task. But we need someone to work with the USFWS to see that museum-quality specimens are handled accordingly.

We would like to start a technician (Tech II) on negotiating and preparing for this accession. This would phase into working with the specimens and supervising another technician (Tech I) as the specimens become physically available, presumably in six months. Thus, we request funding for a Tech II half-time for one year, and funding for a Tech I full time for six months. We also request funds for 2000 museum boxes for bird skeletons and funding for miscellaneous supplies and services. Again, this is a first-year effort and we would require further funding at about the same level in calendar year 93.

ARCHEOLOGICAL

The University of Alaska Museum is designated as the repository for cultural artifacts recovered as a result of the Exxon Valdez oil spill. The State of Alaska Field Archaeology Permit 89-5 and the Memorandum of Agreement between the State of Alaska, the U. S. Federal Government and appropriate Alaska Native Corporations entitled "*EXXON VALDEZ OIL SPILL CLEANUP IN PRINCE WILLIAM SOUND, THE GULF OF ALASKA AND BEYOND*" (CONTROL NO. 89-412) recognize and designate the University of Alaska Museum as the appropriate repository for these materials (Appendix 2). The University of Alaska Museum accepts its role as the appropriate and legal repository for these collections providing adequate resources are made available to curate, in perpetuity, these collections in a manner consistent with federal regulations 36 CFR part 79 and professional curatorial standards.

As a result of the cultural resource surveys of the Gulf of Alaska, important collections of archeological specimens were acquired by Exxon and its subcontractors. The collections consist of 353 artifacts and samples collected from approximately 64 archeological sites in the Gulf of Alaska. One item, a large buoy bell, is of particular interest to the Valdez Museum (Appendix 3), and the University of Alaska Museum is willing to enter into a long term loan agreement with the Valdez Museum so that it may be displayed there. However, immediate financial support is required to incorporate the remaining cultural collections resulting from the Oil-spill studies into the permanent collections of the University of Alaska Museum.

To provide immediate curatorial care for these materials they must be fumigated, assessed for conservation treatment, inventoried, accessioned, photographed, cataloged, entered into the museum's data retrieval system, stabilized and finally incorporated into the collection storage area. Files must be established for the supporting documentation associated with each specimen.

It is estimated that approximately 3 months technician time and .5 month by the curator will be required to complete these tasks. Approximately \$1500 in supplies will be required. Also, two round trips to Valdez will be necessary to complete arrangements with the Valdez Museum for long term display and care of the buoy bell. Conservation is required to preserve the historic bell buoy to be displayed by the Valdez Museum. It is estimated that it will take a qualified conservator approximately 200 hours to stabilize and conserve the bell buoy. An estimated \$1350 is needed for conservation supplies for the bell buoy and \$2,224 is required for travel.

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**BUDGET
COASTAL-HABITAT SPECIMENS**

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SALARIES

Project Supervisor (Museum Tech II) half-time, one year @ \$13.76/hr.	14,310	
ASH (19.1% of salary)	2,733	
Staff Benefits (28.2% of salary and ASH)	4,806	
Data-entry technician (Museum Tech I) full time @ \$13.02	27,082	
ASH (19.1% of salary)	5,173	
Staff Benefits (28.2% of salary and ASH)	9,096	
Biological tech (Museum Tech I) full time @ \$13.02	27,082	
ASH (19.1% of salary)	5,173	
Staff Benefits (28.2% of salary and ASH)	9,096	
TOTAL SALARIES		\$104,551

SERVICES/COMMODITIES

Fume hood	75,000	
Shelving	8,000	
Herbarium cabinets, 4 @ 950	3,800	
Paint walls behind shelving	10,000	
Computers	11,200	
<u>Supplies:</u>		
Alcohol	1,500	
Jars	2,000	
Miscellaneous	1,000	
TOTAL SERVICES/COMMODITIES		\$112,500
TOTAL DIRECT COSTS		\$217,051
OVERHEAD (43% of Direct Costs)		<u>\$93,332</u>
GRAND TOTAL		<u>\$310,383</u>

**BUDGET
BIRDS AND MAMMALS**

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SALARIES

Project Supervisor (Museum Tech II)	
half-time, one year @ \$13.76/hr.	14,310
ASH (19.1% of salary)	2,733
Staff Benefits (28.2% of salary and ASH)	4,806

Tech I	
full-time, six months @ \$13.02/hr.	13,541
ASH (19.1% of salary)	2,586
Staff Benefits (28.2% of salary and ASH)	4,548

TOTAL SALARIES **\$42,524**

SERVICES/COMMODITIES

Boxes, 2000 @ \$4.50	9,000
Miscellaneous Supplies & Service	2,000

TOTAL SERVICES/COMMODITIES **\$11,000**

TOTAL DIRECT COSTS **\$53,524**

OVERHEAD (43% of Direct Costs) **\$23,015**

GRAND TOTAL **\$76,539**

**BUDGET
ARCHEOLOGICAL**

SALARIES

Curator of Archeology	
80 hrs @ \$30.62	\$2,450
ASH (16.1% of salary)	395
SB (31% of salary and ASH)	882
 Museum Technician I	
520 hrs. @ \$13.41	\$6,973
ASH (19.1% of salary)	1,332
SB (28.2% of salary and ASH)	2,342

TOTAL SALARIES **\$14,374**

TRAVEL

2 RT Fairbanks/Valdez @ 492 ea.	\$984
10 days per diem @ \$124/day	1,240

TOTAL TRAVEL **\$2,224**

CONSERVATION SERVICES/COMMODITIES

Conservation services, 200 hrs @ \$45/hr.	\$9,000
Miscellaneous supplies	1,350

TOTAL CONSERVATION SERVICES/COMMODITIES **10,350**

COMMODITIES

Curatorial Supplies	1,500
---------------------	-------

TOTAL COMMODITIES **\$1,500**

TOTAL DIRECT COSTS **\$28,448**

OVERHEAD (43% of Direct Costs) **\$12,233**

GRAND TOTAL **\$40,681**

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APPENDIX 1

Letter from Western Foundation of Vertebrate Zoology

Letter from the Field Museum of Natural History

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WESTERN FOUNDATION
OF VERTEBRATE ZOOLOGY

1100 GLENDON AVENUE · LOS ANGELES, CALIFORNIA 90024 · (213) 208-8003



A NON-PROFIT CORPORATION

28 January 1992

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Mr. Dave Gibbons
 USDA Forest Service
 709 W 9th St.
 Room 54B
 Juneau, AK 99802-1628

Dear Mr. Gibbons:

I am writing to express my concern about the rumor that the avian specimens salvaged after the Valdez oil spill might be discarded, rather than properly inventoried and distributed to the many scientific institutions which have expressed an interest in them.

In my opinion, this would represent a tragic wasted opportunity to turn one aspect of this extraordinary disaster into something productive. Not only would many of the specimens serve short-term educational and reference needs in museums throughout the U.S., but the long-term scientific pay-off from housing the specimens is tremendous. In fact, given the potential importance of these materials, I am astonished that any responsible official would consider discarding them.

I would appreciate you conveying my views (and those of many colleagues who are also doubtlessly writing to you on this issue) to the Trustees representing the State of Alaska. If needed, I will be glad to contribute to a detailed listing of the immediate and potential uses of the specimens.

Thanks for your consideration of my views.

Sincerely,

Lloyd Kiff,
Director

ID # 049

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

Checked for Completeness

ID stamped/Input completed
Name
Affiliation
Costs

Category

Technical Support

Lead Agency

USDA

Cooperating Agency(ies)

FWS

Y

Passed initial screening criteria

RANKING

H M L

Rank Within Categories

H M L

Rank Overall

_____ Project Number - if assigned _____

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FIELD MUSEUM
OF NATURAL HISTORY

January 29, 1992

Mr. Dave Gibbons
USDA Forest Service
7009 W 9th Street
Room 54B
Juneau, AK 99802-1628

COPY

Dear Mr. Gibbons,

I am writing concerning the fate of the approximately 35,000 specimens that resulted from the Exxon Valdez oil spill. My understanding is that Dr. Brina Kessel of the University of Alaska has submitted a proposal to re-inventory these specimens and to arrange for the scientifically valuable specimens to be sent to museums and other appropriate institutions.

With the increasing pressures on natural populations of organisms as a result of pollution and changing land use practices, the scientific community is attempting to provide detailed information about natural populations. Large series of specimens that can be the subject of genetic and morphological studies are essential components of this endeavor. The best series, and those most difficult to obtain, are comprised of specimens obtained during a relatively brief interval and from a relatively restricted geographic range. The Exxon Valdez tragedy and the foresight of the individuals involved in the clean-up following the spill, produced just such series for some important species of birds.

As a scientist and as an administrator at an institution charged with conducting this kind of research I encourage you to give Dr. Kessel's proposal serious consideration. I understand that there is a chance that these specimens will otherwise be incinerated later this year. Were these specimens to be destroyed, duplication of this series would be unthinkable both financially and ethically.

Thank you for your time and consideration.

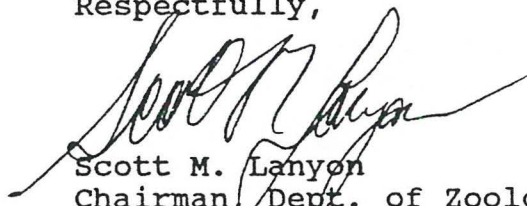
Brina,

I hope this helps.

Good luck with the proposal
and let me know if I can help
in any way.



Respectfully,



Scott M. Lanyon
Chairman Dept. of Zoology

APPENDIX 2

Excerpts from the 1989 Exxon Valdez Cultural Resource Program

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4. Follow the regulations of 36 CFR 296.18 regarding the requirements for confidentiality of archaeological resource information and for involving concerned Native groups in a timely manner.
5. Provide the SHPO, and if requested, the responsible land owner or managing agency, with Shoreline Cleanup Assessment Team reports, field surveys and documentation at all command centers of data gathering (Valdez, Kodiak, Homer and Seward) when they are generated.
6. Exxon will provide the SHPO, land managing agency or upland owner, supplementary data to reach an adequate level of identification or documentation of historic properties in those cases where the SHPO, the upland owner or land managing agency, in consultation, determine that the documentation used to support Spill Response and mitigation recommendations is inadequate.

C. IT IS MUTUALLY AGREED AND UNDERSTOOD BY AND BETWEEN THE SAID PARTIES THAT:

1. To the extent of their respective authorities, all parties, other than Exxon will provide Exxon with the access, permits and supporting data necessary to expedite the Effort. Indexes or other finding aids of documents, photographs, videos, and artifacts will be made available to Exxon, the SHPO, and responsible landowners or managing agencies as they become available or are revised.
2. SHPO review of the Block Assessments and Work Orders will be done in an expeditious manner, waiving the standard DNR and 36 CFR 800 review periods.
3. Exxon shall enter into a curation agreement with the University of Alaska, Fairbanks for the housing and care of artifacts and records collected during the Effort, in keeping with 36 CFR Part 79.
4. Information and artifacts collected from lands selected under the provisions of Section 14(h)(1) of the Alaska Native Claims Settlement Act will be curated in a state of trust in a certified depository as arranged by the responsible Federal land manager in consultation with the affected Native corporation until ownership has been resolved.
5. Nothing in this Agreement shall be construed as holding any party responsible for the health and safety of the members of the others during any phase of the Effort.
6. Nothing in this Agreement is intended to modify in any manner the present cooperative programs of the parties with States, other public agencies or educational institutions.
7. All parties will execute this Agreement and carry out its provisions. This Agreement evidences that the Council has been afforded an opportunity to comment on the Effort and that consideration has been given to the effects of the Effort on Historic Properties.

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Memorandum of Agreement

Page 6

8. At any time during implementation of measures stipulated in this Agreement, should any objection to any measure be raised by a member of the public or members of the ISCC, the Coast Guard, with the advice of the Forest Service shall take into account and consult as needed with the objecting party, the SHPO or the Council to resolve the objection.

9. Any party to this Agreement may request that the other signatories consider amending it. Amendments will be executed in the same manner as the original Agreement.

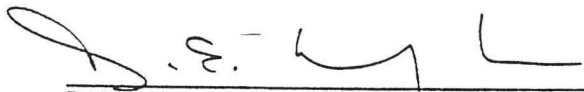
10. Any signatory party to this Agreement may terminate it by providing 30 days written notice to the other parties, provided that the other parties will consult during the period prior to termination to seek agreement on amendments or other action that would avoid termination. In the event of termination, the Coast Guard, with the advice of the Forest Service, will consult with interested persons, including the Council.

11. Unless terminated under the conditions set forth above, this Agreement and related plans shall remain in effect until the Coast Guard, in accordance with the National Contingency Plan, determines that the Spill Response has been completed. The Coast Guard will notify the Council of the determination.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the last date set out under SIGNATORY PARTIES below.

SIGNATORY PARTIES

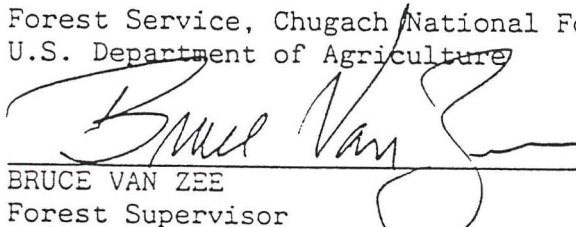
U.S. Coast Guard
U.S Department of Transportation



RADM David E. Ciancaglini, USCG
Federal On Scene Coordinator
Commander, Pacific Area

8 June 1990
Date

Forest Service, Chugach National Forest
U.S. Department of Agriculture



BRUCE VAN ZEE
Forest Supervisor

May 9, 1990
Date

Memorandum of Agreement

Alaska Department of Natural Resources
Division of Parks and Outdoor Recreation

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Judith E. Bittner
 JUDITH BITTNER
 Alaska State Historic Preservation Officer

May 8, 1990
Date

Exxon Company, U.S.A.
A Division of Exxon Corporation, as
Contractor for Exxon Shipping Corporation

JRH
[Signature]
 OTTO R. HARRISON
 General Manager

May 7, 1990
Date

Advisory Council on Historic Preservation

[Signature]
 ROBERT D. BUSH
 Executive Director

6/15/90
Date

CONCURRING PARTIES

National Park Service, Alaska Region
U.S. Department of the Interior

[Signature]
 BOYD EVISON
 Regional Director

5/11/90
Date

U.S. Fish and Wildlife Service, Region 7
U.S. Department of the Interior

WOS
[Signature]
 WALTER O. STIEGLITZ
 Regional Director

5/9/90
Date

ADNR within the Division of Parks and Outdoor Recreation.

In addition to its claim of jurisdiction over 69 million acres of tidelands and submerged land, the State of Alaska owns 85 million acres of uplands granted under the Alaska Statehood Act of 1959. State ownership of uplands in the oil spill area includes five major parcels and some smaller tracts (Figure 29). The five consist of: 1) a long stretch of shoreline on Blying Sound in the Gulf of Alaska just southwest of Prince William Sound, bracketed by the Chugach National Forest to the northeast and Kenai Fjords National Park to the southwest; 2) another stretch of shoreline along the Gulf of Alaska to the southwest of Kenai Fjords National Park, including Nuka Island and Gore Point; 3) Shuyak Island in the Kodiak Archipelago, and the northern tip of Afognak Island just south of Shuyak Island and across Peravalnie Passage; 4) a large area of shoreline on the east side of Kodiak Island, on both sides of Ugak Bay; and 5) lands between Kodiak Island and Raspberry and Afognak islands, on either side of Kupreanof Strait, at its junction with Shelikof Strait.

Access to state-owned tide and submerged lands during the 1989 field season was authorized April 21, 1989, under ADNR Land Use Permit SCV 89-004. Examination of these lands for historic, prehistoric and archaeological resources in the area of the oil spill was authorized

July 18, 1989, under State of Alaska Field Archaeology Permit 89-5. The following stipulations were included in the permit: 1) a report was due January 15, 1990 (subsequently extended), following the guidelines established by the Secretary of the Interior (36CFR, Part 66); 2) the data was to be placed in the University of Alaska Museum in Fairbanks under a formal curation agreement; 3) all EXXON VALDEZ Cultural Resource Program field personnel were to meet or exceed standards established by the Secretary of the Interior (FR 48:190, p. 44739); and 4) provisions pertaining to cultural resources in the ADNR Land Use Permit SCV 89-004 were to be included as stipulations in the field archaeology permit.

The State of Alaska has claimed management responsibility for tide and submerged lands, recognizing that ownership of adjacent uplands is divided among many and varied private, state, and federal jurisdictions. Tide and submerged lands are defined by the state as all land between the mean high tide line and three miles offshore, which represents -- in terms of total area -- the majority of land potentially affected by the oil spill. The USFS does not concur with the state's view of ownership of the tidelands. This issue is currently under review before the Interior Board of Land Appeals and the US Supreme Court.

The Alaska Division of Parks and Outdoor Recreation administers state and federal grant programs for

Table 10
**Responsibilities of the Alaska Office of History and Archaeology
and the State Historic Preservation Officer**

Responsibilities of the Office of History and Archaeology:

- 1) Administer the State Historic Preservation Program, which provides for the identification, evaluation, and protection of Alaska's prehistoric and historic resources;
- 2) promote the study and understanding of Alaska's history and prehistory;
- 3) sponsor, engage in, and coordinate fundamental research relating to the archaeology and history of the state;
- 4) issue permits for cultural resources investigations on state lands;
- 5) investigate and assess the information potential of reported historic, prehistoric, or archaeological resources;
- 6) locate, identify, and preserve information on sites threatened by public construction and improvements;
- 7) serve as a central clearinghouse for information relating to Alaska's cultural resources;
- 8) provide citizen input through the Historic Sites Advisory Committee and Alaska Historical Commission to the state's history programs; and
- 9) provide technical assistance to Alaska state parks.

Responsibilities of the State Historic Preservation Officer:

- 1) Prepare and implement comprehensive statewide preservation planning;
- 2) survey and inventory prehistoric and historic properties;
- 3) administer the National Register of Historic Places Program;
- 4) administer federal preservation grants for the state;
- 5) assist local governments in developing historic preservation programs;
- 6) assist state and federal agencies and local governments in carrying out historic preservation responsibilities;
- 7) participate in the review of federal and state undertakings that may affect historic properties; and
- 8) provide public information, education, training, and technical assistance in historic preservation.

Locations of Controlled Fires to Burn Oily Debris

Location	Segment	ADEC Permitted	Used
Ushagat Island	US-10	Yes	Yes
Elizabeth Island	EL-1	Yes	Yes
Sleepy Bay	LA-20	No	Yes
Petrof Point	PP-1	Yes	Yes
Tonsina Bay	TB-1 & TB-3	Yes	Yes
Windy Bay	WB-1	Yes	Yes
Rocky Bay	RB-5	Yes	Yes
Port Dick	---	Yes?	No
Chugach Bay	CB-3	Yes	No
Yalik Glacier Beach	YG-2	Yes	Yes
Hoof Point	PY-6	Yes	Yes
Bear Glacier Beach	BG-1	Yes	No
Verdant Cove	HA-3	Yes	No

given the kinds of treatment being implemented and the sensitivity of cleanup personnel. With a limited number of qualified archaeologists available, the fact that other sites and segments needed attention encouraged redefinition of the monitoring constraint. With the agreement of the SHPO, a less intensive constraint was devised allowing for periodic visits by an archaeological monitor while treatment activities were being conducted in the vicinity. For cases in which the need for oil removal had not yet been decided, the language was made conditional: "If cleanup is conducted, inspection by an archaeological monitor is required."

One exceptional constraint, requiring detailed mapping of historic artifacts in the intertidal zone, was devised for the Latouche Mine (SEW-026). Although its implementation is discussed in detail later, it is mentioned here as an example of the process used to arrive at mutually acceptable constraints. The basic conflict was the presence of light amounts of oil (recommended for cleanup), amid numerous historic industrial and domestic artifacts in the intertidal zone. Given the complexity of the artifact scatter, the original recommendation made by Exxon's cultural resource director was that cleanup avoid cultural materials. This was unacceptable to the SHPO signatory in Valdez, who recommended that the material be surface collected. After hours of discussion, a compromise was reached:

Archaeological monitor required prior to and during cleanup. Cleanup is to avoid historic archaeological material (to be flagged with an approximate 20 m buffer) in the intertidal zone, as per direction of on-site archaeological monitor. Monitor is to prepare a site map depicting location and nature of historic artifacts and features in the intertidal zone as per a Work Plan for Archaeological Monitoring.

This language was submitted to the ISCC for review, who approved it with one addition: "Notify Exxon Archaeological Director 48 hours prior to beginning work on this segment." The intertidal artifact scatter was mapped by an archaeologist over several days. Later, the Coast Guard judged the two segments to be so lightly oiled as to require no treatment, and none was conducted. But the example illustrates the consultation process by which constraints were devised to adequately protect identified resources in some of the more complex circumstances.

Artifact Collection

Artifact collection was limited to circumstances in which either the material was in a primary context within an exploratory test pit dug by the archaeologist, or the material was on the surface and in potential danger of damage or removal due to treatment operations. In the latter case, judgment was required on the part of the archaeologist in the field. If an isolated artifact was discovered in the intertidal zone slated for treatment, it was sometimes collected during the survey since the primary information potential could be realized if the artifact's location was plotted with sufficient precision (Figure 52). Conversely, if more than several artifacts were present, preservation in place was often considered desirable until site-specific mitigation options could be specified. Visibility and desirability (from a collector's perspective) of the artifacts, ease of mapping, and feasibility of later visitation were all factors taken into account.

Procedures for collecting artifacts varied, but in every case an attempt was made to document artifact locations using field maps that tied the locations into some permanent data points above the high tide mark. Field numbers were assigned, and the artifacts placed in individual plastic bags for transport back to Valdez. Cultural material collected in the Kodiak region was also sent back to Valdez for centralized processing. On occasion, artifacts were retrieved from the field by parties other than archaeologists with the EXXON VALDEZ Cultural Resource Program, such as agents of CAC or the SHPO's office.

Once received in Valdez, the collections were inventoried and stored in a safe deposit box. Laboratory procedures consisted of washing, labeling, and cataloging the artifacts. Most items were relatively clean, having been retrieved from the intertidal zone where they had been subjected to wave action for years. A few artifacts had been oiled, in which case -- after being photographed -- the items were scrubbed with a detergent. Because the artifacts were almost universally from surface proveniences, the presence of analyzable organic residues was not considered sufficiently likely to preclude washing.

Artifacts were labeled using the standard white base paint, black India ink, and a covering of clear nail polish. Catalog numbers followed the Smithsonian system, beginning with the number "49" to indicate Alaska, then the AHRS number (example, SEW-072), then the specimen number. Artifacts were numbered beginning with Specimen #1, with no attempt to determine whether artifacts had been collected earlier by other researchers



Michael Yarborough 19:12, Exxon

Figure 52. Chipped stone artifacts amid intertidal cobbles at AFG-117.

from previously known sites. Thus the possibility exists that there will be two artifacts with the same catalog number, for example 49SEW-072-1. To avoid confusion should this have happened, artifacts that could be confused with those of earlier collections were marked with an "X" (as in 49SEW-072-1x).

Once the artifacts were labeled and cataloged, they were photographed using still and videotape formats. New plastic bags were labeled to hold the specimens. A master catalog was compiled and included as an appendix in the interim report (Mobley and Haggarty 1989b). Then the artifacts were turned over to archaeologists William B. Workman and Karen Wood Workman for detailed description (see appendix entitled *Artifact Descriptions*).

Initially, several different perspectives on artifact curation were registered by the various cultural resource parties. The Special Use permit from the USFS stated the repository to be the Anchorage Museum of History and Art, while the State of Alaska permit specified the University of Alaska Museum. Interest in curating the cultural resource documents and/or artifacts was expressed by the Valdez Historical Museum, the Kodiak Area Native Association Heritage Museum and Cultural Center, the Anchorage Museum of History and Art, and the University of Alaska Museum. Chugach Alaska Corporation issued a state-

ment that "CAC and several Chugach village corporations have passed resolutions which claim ownership to artifacts of Native origin (both historic and prehistoric) throughout the Chugach region." The curation matter was resolved through the Section 106 process, whereby the MOA states:

Exxon shall enter into a curation agreement with the University of Alaska, Fairbanks for the housing and care of artifacts and records collected during the Effort, in keeping with 36 CFR Part 79. Information and artifacts collected from lands selected under the provisions of Section 14(h)(1) of the Alaska Native Claims Settlement Act will be curated in a state of trust in a certified depository as arranged by the responsible Federal land manager in consultation with the affected Native corporation until ownership has been resolved.

Signature of the MOA by signatory and consulting parties supersedes earlier stipulations and statements concerning artifact curation. Draft curation agreements have been developed with the University of Alaska Museum for the artifacts and site-specific supporting documents, and with the Archive of the University of Alaska's Rasmuson Library for the original documents, videotape, photographs, and other archival materials.

Document ID Number	<input type="checkbox"/> A-92 WPWG	<input type="checkbox"/> B-93 WPWG	<input type="checkbox"/> C-RPWG	<input type="checkbox"/> D-PAG	<input type="checkbox"/> E-MISC.
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APPENDIX 3

Loan Agreement Between the University of Alaska Museum and the Valdez Museum

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<input type="checkbox"/>	E-MISC.



UNIVERSITY OF ALASKA MUSEUM

Document ID Number	
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<input type="checkbox"/>	C-RPWG
<input type="checkbox"/>	D-PAG
<input type="checkbox"/>	E-MISC.

February 3, 1992

M. Joseph Leahy, Director
Valdez Museum
Heritage Services Department
P.O. Box 307
Valdez, Alaska 99886

Dear Mr. Leahy,

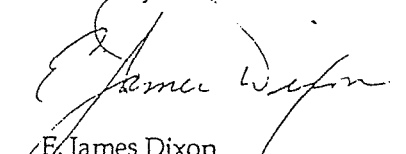
Please find enclosed two record of loan forms. Please complete and sign both forms and return them to the UA Museum. When they have been countersigned here, one completed form will be returned to the Valdez Museum for your records.

The University of Alaska Museum accession number assigned to the bell buoy is UA92-52. Each separate part or component of the buoy should receive an individual catalogue number which should be recorded on, or affixed directly to, the object. For example, the bell might receive the first catalog number and a clapper the second. Thus the bell would be labeled UA92-52-1 and the clapper UA92-52-2, etc. A description of the object(s) along with relevant provenience and contextual data should be recorded in a corresponding catalog and the original sent to us along with the loan forms.

As noted on the loan form, the loan is conditional upon making this historic object available for public education and enjoyment and providing adequate curatorial care to protect it from loss due to vandalism, theft, fire, poor record keeping, or inadequate storage. The Valdez Museum is also authorized to undertake whatever conservation and/or stabilization measures which, in its professional judgement, are required to preserve the bell buoy and arrest its further deterioration. The University Museum is requesting support for this purpose from the State of Alaska's oil spill settlement with Exxon.

Thank you for your cooperation and we are pleased that the bell buoy has found a caring home.

Sincerely



E. James Dixon
Curator of Archeology
University of Alaska Museum

cc: Judith E. Bittner, State Historic and Preservation Officer

UNIVERSITY OF ALASKA FAIRBANKS
907 Yukon Drive Fairbanks, Alaska 99775-1200 (907)474-7505 FAX(907)474-5469

STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF PARKS AND OUTDOOR RECREATION

WALTER J. HICKEL, GOVERNOR

3601 C STREET, SUITE 1200
ANCHORAGE, ALASKA 99503
PHONE: (907) 762-2600

MAILING ADDRESS:
P.O. BOX 107001
ANCHORAGE, ALASKA 99510-7001

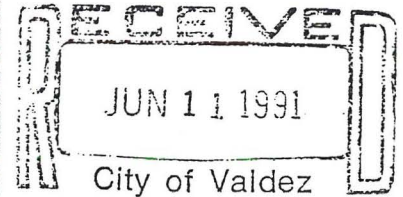
June 6, 1991

RE: 3500-1-VOS Artifacts

M. Joseph Leahy, Director
Valdez Museum
Heritage Services Department
P.O. Box 307
Valdez, AK 99886

Dear Mr. Leahy:

Document ID Number
920601049
<input type="checkbox"/> A-92 WPWG
<input checked="" type="checkbox"/> B-93 WPWG
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This letter constitutes your loan agreement for the brass bell from a navigation buoy collected by Exxon Corporation as part of the oil spill cleanup activities in Prince William Sound. Because the bell was found on State tide lands, the State asserts ownership of the bell under AS41.35. This loan is authorized under Alaska Administrative Code 11ACC16.010 and .020 which establishes the Division of Parks and Outdoor Recreation as the State agency that administers historic and prehistoric resources of the State.

Rather than issuing the permit for six months as you requested, I am issuing the loan from June 20, 1991 to March 20, 1992. As Bob Shaw of my staff discussed with you on June 5, Exxon is negotiating a curation agreement with the University of Alaska Museum for the long term curation of the entire collection of artifacts collected by Exxon during oil spill cleanup. Upon completion of their agreement, control of the bell rests with the UAF Museum. I understand that you are negotiating with the UAF Museum staff for a long term loan for the bell; I expect you to complete that agreement with the Museum before expiration of this loan agreement. If you are unable to do so, I will expect you to arrange transportation of the bell to a destination of my choice before March 20, 1992. It is my understanding that Exxon has agreed to transport the bell to your facility.

By accepting this loan agreement, the Valdez Museum agrees to:

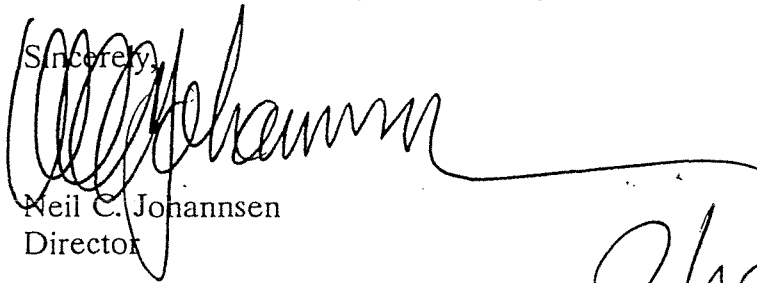
1. Transport the bell to an Alaskan destination of my choice by the end of the loan period.
2. House the bell within the secure portion of the Valdez Museum throughout the loan period and credit Division of Parks and Outdoor Recreation via a small sign within the display as having loaned the bell.
3. Secure, display and conserve the bell as may be necessary to prevent degradation of its component parts and accompanying fixtures while it is in your care.

4. Negotiate with the University of Alaska Museum for a long term loan agreement upon completion of their agreement with Exxon.

I have consulted with Judy Bittner, the State Historic Preservation Officer, and she has advised me that she has no objection to Exxon providing 8x10 prints of the Smith Island lighthouse site for your display use provided that the photographs used do not compromise the site location any more than the historic photographs you use in the display. Her concern is to prevent site vandalism. Please keep this issue in mind in developing your displays. Ask Exxon staff to send the prints to Judy for review; she will forward them to you after her review for sensitive issues.

Thank you for your continuing interest in Alaska's cultural heritage. We wish you every success with your oil spill displays. If the Division of Parks and Outdoor Recreation may be of further assistance to your efforts, please contact Judy Bittner or Bob Shaw at 762-2622.

Sincerely,



Neil C. Johannsen
Director

Thanks

cc Dr. Jim Haggarty, Exxon
Ms. Judy Bittner, OHA
Dr. James Dixon, UAF Museum

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COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

✓ Checked for Completeness

- ✓ ID stamped/Input completed
- ✓ Name
- ✓ Affiliation
- ✓ Costs

✓ Category

Tech Support - database and handling

✓ Lead Agency

USFS

Cooperating Agency(ies)

Y N Passed initial screening criteria

RANKING H M L Rank Within Categories

 H M L Rank Overall

Project Number - if assigned _____



UNIVERSITY OF ALASKA MUSEUM

27 November 1991

Dave Gibbons, Regional Fisheries Biologist
U. S. Forest Service Regional Office
P. O. Box 21628
Juneau, Alaska 99802

Document ID Num	9206010
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Dear Dave,

I was surprised and pleased that you were so current on the idea of depositing biological specimens from the coastal habitat samples at the University of Alaska Museum (UAM). I am spearheading the effort from the Museum, but my applicable expertise is restricted to organizing and computerizing large natural history collections. I have been outside of Alaska for the past year, and have followed the oil-spill work and politics only through the popular media.

There is no question that samples collected in the work by Highsmith, Stekoll, Barber, and also Howard Feder and Steve Jewett, should be incorporated into scientific collections; preferably the regional collections at UAM. The task of doing this will be far greater than might be imagined. Some of our existing collections will increase in size several fold and will have to be completely reorganized. We estimate that the cost could be on the order \$500K over the next three to four years. We believe that the collections are so important that, if necessary, funds to support this work could be pursued from several sources, including the National Science Foundation. But ideally, the cost of archiving significant specimens is part of documenting survey findings.

Our immediate need is to begin handling invertebrate specimens and developing collection databases so that we can quickly get a more realistic grasp of our total needs. To do this, we need to be certain we can legally handle specimens, and we need shelving (~\$8K) and computers (~\$5K). We could put one and a half full-time equivalents (FTEs) to work immediately (~\$60K w/benefits for one year).

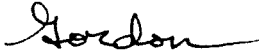
In other words, we could use about \$104K (\$73K + 42% OH) immediately. In the meantime, we would develop a good estimate of the total cost for the whole project within a year. If I have to cost-out the project without such a preliminary effort, it will involve guess work, but it can be done.

UNIVERSITY OF ALASKA FAIRBANKS

907 Yukon Drive Fairbanks, Alaska 99775-1200 (907)474-7505 FAX(907)474-5469

I am open to your suggestions as to how to best proceed. No doubt there are good reasons to seek the full cost immediately. In which case, I need to know who will review a full-cost proposal that you could champion for us. I will probably also produce proposals to the PWS Citizens' Advisory Council, Exxon, and probably to Biological Research Resources (BRR) at NSF.

Sincerely,



Gordon H. Jarrell
Research Assistant Professor

cc: Ray Highsmith

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EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

Title of Project: University of Alaska Museum

Justification: (Link to Injured Resource or Service) Immediate needs - Handling and developing database for invertebrate collection

Description of Project: (e.g. goal(s), objectives, location, rationale, and technical approach)

Series of horizontal dotted lines for project description.

Estimated Duration of Project:

Estimated Cost per Year:

Other Comments: Series of horizontal dotted lines.

Name, Address, Telephone: Gordon Jamell, U of A Museum, U of A Fbx, Fbx, AK

Oil spill restoration is a public process. Your ideas and suggestions will not be proprietary, and you will not be given any exclusive right or privilege to them.

fold here

PLACE
STAMP
HERE

Exxon Valdez Trustee Council
645 G St.
Anchorage, Alaska 99501

Attn: 1993 Work Plan

920601049-

02

title : Birds + mammals - U.S. Museum

type : birds + ~~FM~~

ID # 920601065

SCC 920601054

920601049

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

Title of Project:

Archiving of Biological and Archeological Specimens From EVOS collection

Justification: (Link to Injured Resource or Service)

Preserve specimens collected during response activities

Description of Project: (e.g. goal(s), objectives, location, rationale, and technical approach)

A revised project proposal similar to project ID # 920601049

Estimated Duration of Project: \$ 500,000 est

Estimated Cost per Year: 1 year

Other Comments: submitted for calendar year 1992

Name, Address, Telephone:

Wallace A. Steffen
University of Alaska Museum
University of Alaska Fairbanks
Fairbanks, AK 99775
907 474 7505

Oil spill restoration is a public process. Your ideas and suggestions will not be proprietary, and you will not be given any exclusive right or privilege to them.

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Exxon Valdez Trustee Council
645 G St.
Anchorage, Alaska 99501

Attn: 1993 Work Plan

920601065

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

Title of Project:

Final proposal - U of A Museum - Biological Collection

Justification: (Link to Injured Resource or Service)

Description of Project: (e.g. goal(s), objectives, location, rationale, and technical approach)

(duplicates Jarrell letter - dated 27 November 1991)

Estimated Duration of Project:

Estimated Cost per Year:

Other Comments:

Name, Address, Telephone:
Wallace Steffan
Gordon Jarrell
U of A Museum
Fbx.

Oil spill restoration is a public process. Your ideas and suggestions will not be proprietary, and you will not be given any exclusive right or privilege to them.

fold here

PLACE
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Exxon Valdez Trustee Council
645 G St.
Anchorage, Alaska 99501

Attn: 1993 Work Plan

To: Dave Gibbons

ARCHIVING OF BIOLOGICAL SPECIMENS
FROM VALDEZ OIL-SPILL COLLECTIONS

at the

UNIVERSITY OF ALASKA MUSEUM

Wallace A. Steffan
Director
University of Alaska Museum
474-7505

Gordon H. Jarrell
Research Associate
University of Alaska Museum
474-6947

Document ID Number
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<input type="checkbox"/> E-MISC.	

Support is needed to incorporate biological specimens from oil-spill studies in the Gulf of Alaska into the permanent natural history collections of the University of Alaska Museum. As a result of biological surveys of the Gulf of Alaska, huge collections of zoological and botanical specimens have been amassed. These collections are a unique scientific resource, but no provision has been made for their final disposition.

At the University of Alaska Museum, our research collections serve two basic functions:

1.) Specimens are vouchers for work that has been done. Specifically, they verify identifications and descriptions made in studies of biodiversity, distribution, and evolutionary relationships. Often, later studies require further evaluation of original descriptions or identifications. This function is basic scientific bookkeeping.

2.) Well-documented specimens are used in independent collection-based science. For example, a scientist studying variation in a wide-spread species, or group of species, may visit or request loans from several regional collections. Such work would be prohibitively expensive if all of the locations represented in museum collections had to be resampled. Also, in an era of declining biodiversity and impending global climate change, resampling may be impossible. Museum collections often contain the only primary evidence of historically-altered biota.

Thus, natural history collections make past work verifiable and much future work feasible. Our museum is analogous to a library; our collections are the documentation on which understanding of Alaska's biodiversity is based.

The oil spill from the Exxon Valdez mandated a monumental reconnaissance of the biota of Prince William Sound and adjacent parts of the Gulf of Alaska. As in most good biological surveys, tremendous numbers of specimens have been collected, in this case at tremendous expense (>\$17 million). Five investigators, mostly at UAF's Institute of Marine Science, have expressed the hope that the Museum will accept the bulk of their "coastal habitat specimens."

There are about 3200 carefully collected sediment samples for intertidal invertebrates, less than 40% of which have been sorted to species. These are averaging about twenty species per sample, so the number of specimen lots (mostly in vials) to be handled is on the order 64,000. At least 200 species have been identified, including several major range extensions. The number of species, and presence of new species, are almost certainly underdetected.

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92060/06	A-92 WPW	B-93 WPV	C-RPWG	D-PAG	E-MISC.	

Shallow-subtidal invertebrates represent a similar collection made using divers. The logistics of collecting this material are staggering and essentially unrepeatable. Intertidal and subtidal algae are represented by about 5000 specimens representing two or three hundred species. About a third of this material appears to represent range extensions or new species.

The task of incorporating these materials into our collections will be far greater than might be imagined. Some existing collections will increase in size several fold and will have to be reorganized. Additional space for both handling and storing specimens must be found. Technicians are needed to physically arrange specimens and to enter specimen data into the Museum's computer catalogs.

We would like to begin this massive curation process in 1992 by (1) hiring two full-time and one half-time technicians, (2) building a new fume hood (necessary under OSHA regulations for handling formaldehyde-prepared specimens), (3) installing shelving along one wall of our main collections-storage area, and (4) purchasing two PC-sized computers. With the University's 42% overhead, these things will cost about \$304K. By the end of 1992 we would have a good idea of total effort and funding required required to complete this task. Now, we can only estimate that two more years of funding at a similar level are probably necessary.

Collections from the Valdez oil spill represent the most extensive surveys of the coastal biota from the Gulf of Alaska, and they represent a huge investment of scientific resources that will not be repeated. Unless they are brought into the Museum, they can be lost, neglected and ruined, or they could end up in major museum collections outside of Alaska. The latter scenario would represent a setback both to the Museum and to the academic heritage of Alaska.

If the specimens are properly accessioned into UAM collections, we will have accomplished a major step in establishing the Museum's reputation as the center for the study of northern biodiversity. We will have acquired major strengths in several new areas, and those strengths can be leveraged into funding for research, and even into support for permanent curatorial positions.

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INCREMENT FOR BIRDS & MAMMALS:

Obtaining specimen material from marine birds and mammals is logistically and politically difficult; both are protected under federal and even international law. Statistically adequate samples of skeletal material and of tissues for molecular-genetic analysis are not generally available in any museum.

Approximately 37,000 seabird carcasses and 1000 marine mammal carcasses were recovered as a result of direct kill by oil. These are in the custody of the U.S. Fish and Wildlife Service (USFWS) and are stored in freezer trailers in Anchorage.

These specimens represent a unique opportunity to further build Alaskan natural history collections and should be high-graded for museum specimens. Many museums from outside of Alaska have inquired about the availability of specimens from the oil spill. We would like these museums to receive representative specimens, but research-quality series of specimens should be retained at UAM. The long-term effect of developing North Pacific collections in museums outside of Alaska is to weaken our own Museum's development.

Many of the birds have not been identified, and many are in poor condition, so we do not know how many will be worth saving. Our intention is to prepare as many as 100 skeletal specimens with associated frozen tissues from each of the common species, and as many of the rarer specimens as are suitable. We estimate that there could be 100 usable specimens from each of 15 species, and as many as 2000 specimens worthy of accessioning as museum specimens.

In two bids which were prepared during preparations for litigation, the task of transporting, thawing, sorting, and identifying this material was estimated at over \$300K. We do not know how the USFWS will dispose of the material, and we are not eager to take on the full task. But we need someone to work with the USFWS to see that museum-quality specimens are handled accordingly. Even if we must take on the full task, the costs should be negotiated with the USFWS.

We would like to start a technician (Tech II) on negotiating and preparing for this accession. This would phase into working with the specimens and supervising another technician (Tech I) as the specimens become physically available, presumably in six months. Thus, we request funding for a Tech II half-time for one year, and funding for a Tech I full time for six months. We also request funds for 2000 museum boxes for bird skeletons and funding for miscellaneous supplies and services. Again, this is a first-year effort and we would require further funding at about the same level in calendar year 93.

A-92 WPWG B-93 WPWG C-RPWG D-PAG E-MISC.

B U D G E T
C Y 1 9 9 2

SALARIES & WAGES:

Project Supervisor (Museum Tech II) half-time, one year	17,045
Data-entry technician (Museum Tech I) full time	32,252
Biological tech (Museum Tech I) full time	32,252
	<u>81,549</u>
Benefits (31% of \$81,549)	25,280
Total S&W	106,829

DIRECT COSTS:

Fume hood	75,000
Shelving	8,000
Paint walls behind shelving	10,000
Computers	11,200
Supplies:	
Alcohol	800
Jars	1,200
Miscellaneous	1,000
Total DC	<u>107,200</u>

TOTAL S&W + DIRECT =	214,029
----------------------	---------

OVERHEAD: 42% of total =	89,892
--------------------------	--------

TOTAL COST [S&W + DC + 0.42(S&W + DC)]:	\$303,921
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Document ID Number	
920601065	
<input type="checkbox"/>	A-92 WPWG
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<input type="checkbox"/>	D-PAG
<input type="checkbox"/>	E-MISC.

B U D G E T
 INCREMENT FOR BIRDS & MAMMALS

SALARIES & WAGES:

Project Supervisor (Museum Tech II) half-time, one year	17,045
Tech I full-time, six months	16,126
	<u>33,171</u>
Benefits (31% of \$33,171)	10,283
Total S&W	43,454

DIRECT COSTS:

Boxes, 2000 @ \$4.50	9,000
Miscellaneous Supplies & Service	2,000
Total DC	11,000

TOTAL S&W + DIRECT = 54,454

OVERHEAD: 42% of total = 22,871

TOTAL COST [S&W + DC + 0.42(S&W + DC)]: \$77,325



UNIVERSITY OF ALASKA MUSEUM

M E M O R A N D U M

Document ID Number

920601065

- A-92 WPWG
- B-93 WPWG
- C-RPWG
- D-PAG
- E-MISC.

TO: Wendy Redman
Vice President for University Relations
University of Alaska

FROM: Gordon Jarrell *Gordon*
Research Associate
University of Alaska Museum
(Tel: 6947)

DATE: 18 December 1991

SUBJECT: Exxon settlement funds for Museum

I need your advice regarding Exxon settlement funds coming to Alaska. I am trying to find funding for bringing biological collections made in the course of oil-spill work into the permanent natural history collections here at the Museum. These collections are unique, massive, and could constitute a major addition to the Museum --the sort of addition that could form the basis of funded research or even curatorial positions.

We will need something like \$500K to properly accession and house these collections. I can't really tell what it will take until we get started, but I could put together a one-shot proposal in a pinch. There's a chance that the Forest Service, which funded much of the work that produced the collections, will help us get some or all of what we need from the settlement funds. I've been playing telephone tag with their main man (Dave Gibbons, in Juneau), and though I am sure his intention is to be helpful, I cannot tell what is going on.

I think we should be pursuing the possibility of getting this funding from settlement funds payed to the state, but I don't know where to start. I'm sure there are a lot of hungry programs down in Juneau. And I'm also sure that we have about as appropriate a claim to some of that money as anyone else.

Could I discuss this with you sometime soon?

UNIVERSITY OF ALASKA FAIRBANKS

907 Yukon Drive Fairbanks, Alaska 99775-1200 (907)474-7505 FAX(907)474-5469

Document ID Number	920601065
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<input type="checkbox"/> C-RFWG	
<input type="checkbox"/> D-PAG	
<input type="checkbox"/> E-MISC.	

D:EXXON.MSS (WS)

Dear Exxon:

We are seeking support to incorporate biological specimens from oil-spill work in Prince William Sound into the permanent natural history collections of the University of Alaska Museum. As a result of biological surveys of Prince William Sound, huge collections of zoological and botanical specimens have been amassed. These collections are a unique scientific resource, but no provision has been made for their final disposition.

At the University of Alaska Museum, our research collections serve two basic functions:

- 1.) Specimens are vouchers for the work that has been done. Specifically, they serve to verify identifications and descriptions made in studies of biodiversity, distribution, and evolutionary relationships. Often, later studies require further evaluation of original descriptions or identifications. This function is basic scientific bookkeeping.
- 2.) Well-documented specimens are used in independent collection-based science. For example, a scientist studying variation in a wide-spread species, or group of species, may visit or request loans from several regional collections. Such work would be prohibitively expensive if all of the locations represented in museum collections had to be resampled. Also, in an era of declining biodiversity and impending global climate change, resampling may be impossible. Museum collections often contain the only primary evidence of historically-altered biota.

Document ID Num	92060106
A-92 WPKW	
B-93 WPKW	
C-RPWG	
D-PAG	
E-MISC.	

Thus, natural history collections make past work verifiable and much future work feasible. Our museum is analogous to a library; our collections are the documentation on which understanding of Alaska's biodiversity is based.

The oil spill from the Exxon Valdez mandated a monumental reconnaissance of the biota of Prince William Sound and adjacent parts of the Gulf of Alaska. As in most good biological surveys, tremendous numbers of specimens have been collected, in this case at tremendous expense (>\$17 million). Five investigators, mostly at UAF's Institute of Marine Science, have expressed the hope that the Museum will accept the bulk of their "coastal habitat specimens."

There are about 3200 carefully collected sediment samples for intertidal invertebrates, less than 40% of which have been sorted to species. These are averaging about twenty species per sample, so the number of specimen lots (mostly in vials) to be handled is on the order 64,000. At least 200 species have been identified, including several major range extensions. The number of species, and presence of new species, are almost certainly underdetected.

Shallow-subtidal invertebrates represent a similar collection made using divers. The logistics of collecting this material are staggering and essentially unrepeatable. Intertidal and subtidal algae are represented by about 5000 specimens representing two or three hundred species. About a third of this material appears to represent range extensions or new species.

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The task of incorporating these materials into our collections will be far greater than might be imagined. Some existing collections will increase in size several fold and will have to be reorganized. Additional space for both handling and storing specimens must be found. Technicians are needed to physically arrange specimens and to enter specimen data into the Museum's computer catalogs.

We would like to begin this massive curation process in 1992 by (1) hiring two full-time and one half-time technicians, (2) building a new fume hood (necessary under OSHA regulations for handling formaldehyde-prepared specimens), (3) installing shelving along one wall of our main collections-storage area, and (4) purchasing two PC-sized computers. With the University's 42% overhead, these things will cost about \$240K. By the end of 1992 we would have a good idea of total effort and funding required required to complete this task. Now, we can only estimate that two more years of funding at a similar level are probably necessary.

Collections from the Valdez oil spill represent the most extensive surveys of the coastal biota from the Gulf of Alaska, and they represent a huge investment of scientific resources that will not be repeated. Unless they are brought into the Museum, they can be lost, neglected and ruined, or they could end up a major museum collections outside of Alaska. The latter scenario would represent a setback both to the UAM and to the academic

heritage of Alaska.

Document ID Num	<i>92060106</i>
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If the specimens are properly accessioned into UAM collections, we will have accomplished a major step in establishing the Museum's reputation as the center for the study of northern biodiversity. We will have acquired major strengths in several new areas, and those strengths can be leveraged into funding for research, and even into support for permanent curatorial positions.

I'm sorry I don't
have a copy of the
cover-letter (from
UA Pres. Komisar) w/
me that accompanied
the original.

I will be in Portland
on Mon-Tuesday &
would appreciate a
call if you have time.
Thanks for your help.

Wendy Feldman

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<input type="checkbox"/>	A-92 WPWG
<input checked="" type="checkbox"/>	B-93 WPWG
<input type="checkbox"/>	C-RPWG
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<input type="checkbox"/>	E-MISC.

ID # 980601065



Wendy Redman

*Vice President, University Relations
University of Alaska Statewide Administration*

910 Yukon Drive
Fairbanks, Alaska 99775-5560

(907) 474-7582
Fax: (907) 474-7570

Dave -

I sent a copy of this to you several weeks ago (per your suggestion here to Anch. address).

Since I have not heard from you (Nor has Gordon) I was worried it may have been lost in the shuffle.

There is some wiggle room re: proposal since there is no current funding for any archive activity & Gordon will have to make or up some indication of funding probabilities.

ID # 920601054
SER 920601049
920601065

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

Title of Project:

Archiving biological and archeological specimens at UAF

Justification: (Link to Injured Resource or Service)

Preserve specimens collected during response activities

Description of Project: (e.g. goal(s), objectives, location, rationale, and technical approach)

Supports U of A P proposal to archive specimens

Estimated Duration of Project: multi year (3 to 4 years)

Estimated Cost per Year: \$104,000 first year \$500,000+ over project

Other Comments: submitted for calendar year 1992

Name, Address, Telephone:

Gordon H. Tarrell
University of Alaska Museum
University of Alaska - Fairbanks
Fairbanks, AK 99775-1800
907 474 7505

Oil spill restoration is a public process. Your ideas and suggestions will not be proprietary, and you will not be given any exclusive right or privilege to them.

fold here

PLACE
STAMP
HERE

Exxon Valdez Trustee Council
645 G St.
Anchorage, Alaska 99501

Attn: 1993 Work Plan

ID # 920601054

see 1049

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

1065

✓
Checked for Completeness

- ✓ ID stamped/Input completed
- ✓ Name
- ✓ Affiliation
- ✓ Costs

✓
Category

Tech Support - Arch

✓
Lead Agency

~~ADNR~~ ~~NOAA~~ USDA

✓
Cooperating Agency(ies)

~~ADNR~~ ~~NOAA~~ All

N Passed initial screening criteria

type - CH

RANKING H M L Rank Within Categories

 H M L Rank Overall

_____ Project Number - if assigned _____

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

Title of Project:

Archiving of Biological and Archeological Specimens From EVOS Collections

Justification: (Link to Injured Resource or Service)

Preserve specimens collected during Response activities

Description of Project: (e.g. goal(s), objectives, location, rationale, and technical approach)

Treat, stabilize, and preserve biological specimens collected during the first three years of EVOS response, assessment, and restoration activity.

These will be saved for future research and for display in museums. Thousands of specimens are involved

Estimated Duration of Project: \$427,003

Estimated Cost per Year: 1 year

Other Comments: submitted for calendar year 1992

Name, Address, Telephone:

Estimate Dixon
Curator of Archeology
University of Alaska - Fairbanks
Fairbanks, AK 99775
907 474 7818

Oil spill restoration is a public process. Your ideas and suggestions will not be proprietary, and you will not be given any exclusive right or privilege to them.

fold here

PLACE
STAMP
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Exxon Valdez Trustee Council
645 G St.
Anchorage, Alaska 99501

Attn: 1993 Work Plan

1993 PROJECT SCORING SHEET

Critical Factors

Potential projects must meet all of the following to be considered further. Check the blank for "yes", "no", or "unknown".

YES NO UNKNOWN

- 1. Linkage to resources and/or services injured by the Exxon Valdez oil spill.
- 2. Technical feasibility.*
- 3. Consistency with applicable Federal and State laws and policies.*

Comments:

* Restoration Framework, 1992, pp 43-44.

ID # 049

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

Checked for Completeness

ID stamped/Input completed
Name
Affiliation
Costs

Category
~~Restoration Mgmt (?)~~ Rest. Tech Support

Lead Agency
~~USFS~~ NOAA

Cooperating Agency(ies)
DNR

Y N Passed initial screening criteria

RANKING H M L Rank Within Categories

 H M L Rank Overall

_____ Project Number - if assigned _____

EXXON VALDEZ - SPILL RESTORATION PROJECT

Document ID Number	92061527
<input type="checkbox"/> A-92 WPWG	
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<input type="checkbox"/> C-94 WPWG	
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Title of Project:
"13 Species" - Commercial Species Assessment

Justification:

Alaskan seafood marketing in an intensely competitive worldwide market was aided by perception of production in clean unspoiled waters. Basis for that image may still exist, but perception may have been altered by the highly publicized Exxon Valdez spill.

There is also the lingering possibility that some commercial (or potentially commercial) species may in some predictable spill affected areas have contamination levels that would restrict commercial harvest.

Description of Project:

Goal Compare selected commercial species from high and low risk sites within the spill area to an Alaskan site outside the spill area, a site off the U.S. west coast, a site off the U.S. Gulf of Mexico, and a site off the U.S. northeast coast. Look for evidence of elevated petroleum hydrocarbons and of secondary impacts possibly caused by spill treatments (natural biological toxics at increased concentrations from bioremediation efforts, etc.).

Objectives A) Select sites for comparison. An example of a potential highrisk site for crabs would be the 20 fathom hole off Hallo Bay. A low risk site within the spill zone might be found off the east side of Kodiak. Sites that have been proposed for commercial shellfish harvesting or relaying would merit special consideration. Determine whether sample compositing will be used for area wide comparisons.

B) Select species for evaluation. Species proposed are: razor clams, little neck clams, urchins, mussels, butter clams, red salmon, king salmon, dungeness crab, a tanner crab species, pacific cod, a flatfish species, herring, sablefish. [Note: there is nothing magical about the 13 species -- it is just being put on the table] Choose counterpart commercial species for areas of comparison -- say Atlantic blue crabs as counterparts for dungeness, etc.

C) Select basis of comparisons based both on possible public perceptions and risks. Examples would be high publicity compounds such as PCBs, more predictable compounds such as total aromatic petroleum hydrocarbons, and possible secondary biological toxics such as PSP compounds and domoic acid.

D) Determine courses of action based on possible concentrations of various pollutants to be discovered.

E) Sample and perform assessments. For many analyses, contract laboratories may be the most feasible and cost effective. The University of Alaska School of Fisheries and Ocean Sciences may be able to perform some assessments and the Palmer DEC seafood lab, being the only FDA certified lab, may be the best option for PSP and Domoic acid analyses.

F) Follow up on courses of action determined in Objective D.

G) Repeat sequence at least once -- at 3 to 5 years after initial assessment if no serious spill area contaminations are found. (Additional or more specialized assessments as necessary).

Rational The highest probability is that contaminant levels remain lower in Alaskan waters -- including the spill zone -- than found in most other seafood

producing areas. If that is correct, it needs to be verified and claimed. It is also an obligation to evaluate and react to risks such as possible spill contaminations that may apply to Alaskan commercial species. In some instances, such as certifying shellfish harvesting areas, the U.S. Food and Drug Administration is likely to insist as a prerequisite on verification that oil contamination is not an issue in spill affected areas (The spill region has many potential shellfish harvesting areas having commercial quantities).

Technical Approach Recommend that technical approach be overseen by the University of Alaska School of Fisheries and Ocean Sciences (or Kodiak Fisheries and Industrial Technology Center subsidiary to this school).

Estimated Duration of Project: 10 years (50% completed within first 2 years)

Estimated Cost per year: 200K (10 year average - revised estimate)

Other Comments: Organizations and agencies having a close interest in this project will include the Kodiak Area Native Association, Alaska Department of Environmental Conservation, KRAA, Fisheries Industrial Technology Center, Alaska Department of Fish & Game, U.S. Fish and Wildlife Service, and National Marine Fisheries Service.

This proposal addresses Options 3 and 30 in the Exxon Valdez Restoration Framework, Volume I.

Name, Address, Telephone:

- A) Mark Donahue
Kodiak Area Native Association
402 Center Ave., Kodiak, Alaska 99615
(907-486-1992)

- B) Arn Shryock
Kodiak Field Office, ADEC
P.O. Box 515, Kodiak, AK 99615
(907-486-6760)

Document ID Number
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ID # _____

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

Checked for Completeness

ID stamped/Input completed
Name
Affiliation
Costs

Category
Restoration Monitoring

Lead Agency
~~NOAA~~ USDA

Cooperating Agency(ies)
ADF&G DEC

Y N Passed initial screening criteria

type - CH

RANKING H M L Rank Within Categories

H M L Rank Overall

Project Number - if assigned _____

Valid

ID # 920601050-14

*Increase access to PWS
\$25 million
\$1 million/yr.*

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

✓ Checked for Completeness

- ID stamped/Input completed
- Name
- Affiliation
- Costs

✓ Category
Restoration - Manipulation w/so Enhancement

 Lead Agency
USFS

 Cooperating Agency(ies)

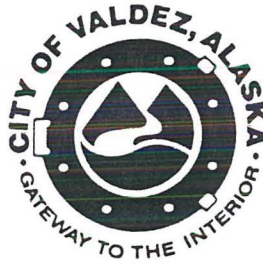
(Y) N Passed initial screening criteria

type: Recreation

RANKING H M L Rank Within Categories

 H M L Rank Overall

 Project Number - if assigned



Document ID Number
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<input type="checkbox"/> C-RPWG
<input type="checkbox"/> D-PAG
<input type="checkbox"/> E-MISC.

January 27, 1992

Mr. William Walker
HUGHES, THORSNESS, GANTZ,
POWELL & BRUNDIN
509 West 3rd Avenue
Anchorage, Alaska 99501

Dear Bill:

I know you will be working on preparing information for the City Council regarding its input into considerations for use of Exxon settlement funds. The City has scheduled a work session at 6:30 p.m. prior to the February 3rd meeting to allow us to speak more informally with the Council about the direction they wish to pursue. There is also a hearing in Valdez on February 4th.

My thoughts are similar to yours regarding the need to explore "enhancement" of Prince William Sound, but I have other ideas which may also fit under the restoration aspects of the settlement.

Restoration and/or enhancements include, in no particular order:

- 1) Oil and grease separators to treat Valdez storm water (and improve storm water collection) before it goes into Port Valdez, thus reducing pollution of Prince William Sound waterways from this source.
- 2) Assistance to assure the most optimum solid waste disposal in Valdez (and other Prince William Sound communities) to reduce hazardous waste contamination of groundwater that also contributes to Port Valdez pollution. Improved landfills and solid waste collection systems may also reduce litter in Prince William Sound.
- 3) Funding for construction of a maritime wing in the Valdez Museum to include interpretation and education regarding the Exxon Valdez incident and oil spill prevention and response technology.
- 4) Funding to assist in the establishment of an oil spill cooperative and training facility for cold water oil spill response.

Mr. William Walker
January 27, 1992
Page 2

Document ID Number	920601052
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- 5) Assistance to the City of Valdez so that it may provide improved local government oversight of the oil and gas industry operating within its jurisdiction.
- 6) Funding to provide increased sport fishing and commercial fishing opportunities by increasing access to Prince William Sound and marketing abundant fish supplies.
- 7) Improving State marine parks located in Prince William Sound.
- 8) Improving transportation facilities to include roads, marine highway facilities, airports, and boat harbors will improve response to future spills, allow for easier collection and handling of hazardous materials from around Prince William Sound, and reduce accidents which may contribute to pollution of Prince William Sound waterways.
- 9) Funding to assist communities in handling waste oil from boaters and others.
- 10) Funding to allow local governments to train and equip firefighters, oil response personnel, and others responsible for responding to safety and environmental incidents.
- 11) Public health facilities to assure that personnel involved in the oil transportation business and those responsible for review and oversight of the oil industry are healthy and well cared for to reduce the potential for future accidents.

This is not a complete list by any means, but rather are items I could come up with off the top of my head. More detailed justification could be presented for each, and other items or variations of those presented could be enumerated.

I believe local governments that live and breathe (no pun intended) the oil industry every day need to have a say in incremental improvements that can cumulatively have a dramatic impact on improving the environment. Perhaps a portion of the Exxon settlement should be established in a sub-fund to be controlled by Prince William Sound municipalities and Native villages to address local steps that can improve the handling of wastes, transportation, and public health.

Many people will be skeptical of this approach, but I believe it has as much merit as purchasing trees and conducting studies. The idea of a healthy, restored, and enhanced Prince William Sound includes restored and enhanced communities located along the shores of the Sound. If environmental and health issues are not dealt

Mr. William Walker
January 27, 1992
Page 3

with in these communities, they will eventually migrate out into Prince William Sound,

I would appreciate your response to this line of reasoning, which is a departure from the discussions that have been proposed in Exxon settlement funding debates to date.

Sincerely,



Doug Griffin
City Manager

DG:blp

cc: Mayor John Harris
City Councilmembers
Senator Jalmar Kerttula
Senator Curt Menard
Representative Gene Kubina

Document ID Number
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<input type="checkbox"/> A-92 WPWG
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EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

Several proposals in this pack

Title of Project:

Develop "user friendly" synopsis of Trustee's oil spill data annually.

Justification: (Link to Injured Resource or Service)

Fulfills part of settlement document mandate for public participation

Description of Project: (e.g. goal(s), objectives, location, rationale, and technical approach)

See letter in

10402

Estimated Duration of Project: annually during restoration

Estimated Cost per Year: _____

Other Comments: _____

Name, Address, Telephone:

Riki Ott
Oil Spill Alliance
Reform
211 - 4th St. Suite 112
Juneau, AK
99801

Oil spill restoration is a public process. Your ideas and suggestions will not be proprietary, and you will not be given any exclusive right or privilege to them.

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PLACE
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Exxon Valdez Trustee Council
645 G St.
Anchorage, Alaska 99501

Attn: 1993 Work Plan

1993 PROJECT SCORING SHEET

Critical Factors

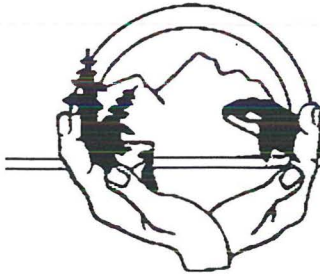
Potential projects must meet all of the following to be considered further. Check the blank for "yes", "no", or "unknown".

YES NO UNKNOWN

- | | | | |
|-------------------------------------|--------------------------|--------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. Linkage to resources and/or services injured by the <u>Exxon Valdez</u> oil spill. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2. Technical feasibility.* |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3. Consistency with applicable Federal and State laws and policies.* |

Comments:

* Restoration Framework, 1992, pp 43-44.



Oil Reform Alliance

Document ID Number	920604104
<input checked="" type="checkbox"/> A-92 WPWG	
<input checked="" type="checkbox"/> B-93 WPWG	
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<input type="checkbox"/> D-PAG	
<input type="checkbox"/> E-MISC.	

*also covered
42 - MBE*



June 4, 1992

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

JUN 04 REC'D

The Oil Reform Alliance^{1/} would like to recommend that the Trustee Council incorporate the following two issues as part of the Restoration Framework.

Issue #1: "User Friendly" Synopsis of Oil Spill Data

The Oil Reform Alliance recommends that the Trustee Council develop a "user friendly" synopsis of its oil spill data that is oriented towards, and widely distributed to, the public.

The Trustee Council released in April 1992 the latest and most informative of a series of restoration documents. Most of the information compiled by the Trustee Council starkly contrasts information released by Exxon during the last three years, yet the public may be unaware of the importance of these data because the presentation is not oriented to the lay person. The Trustee Council's report is geared more for scientists and technical persons.

In contrast, Exxon's unending barrage of "spill science" is attractively laid out in short glossy brochures with color photographs and drawings: this misinformation campaign specifically targets the public^{2/}.

Part of the goals and objectives of the public participation plan of the Trustee Council is to:

- * provide the public with information and resources to evaluate proposals and programs independently; and

^{1/}The Oil Reform Alliance is a coalition of environmental, recreational user and commercial fishing groups which formed after the Exxon Valdez oil spill to reform oil industry activities that can adversely impact communities on social, economic and environmental levels.

^{2/}For example, refer to "Sea Otters Thrive in Prince William Sound, Alaska" (February 1991); "Water Quality In Prince William Sound and the Gulf of Alaska" (March 1991); "Two Years After Conditions in Prince William Sound and the Gulf of Alaska" (October 1991).

* disseminate information to the public concerning the restoration process in a timely manner" (pg. 11 Vol. I)

Development of a "user friendly" synopsis of the Trustee's oil spill data on an annual basis is a justifiable expense of restoration funds to increase the public's independent comprehension of spill-related injuries and evaluation of restoration programs.

Issue #2: Long-Term Epidemiology Study of Clean Up Workers

The Oil Reform Alliance recommends that the Trustee Council develop and implement a long-term epidemiology study to monitor health of workers involved with oil spill clean up, including those who worked with the bioremediation compound Inipol.

In April 1992, the Boston Globe reported that "a handful" of Alaska oil-spill workers have filed lawsuits claiming latent health problems from exposure to crude oil vapor and Inipol (attached). Followup stories by the Boston Globe, the Anchorage Daily News and the Anchorage Times (attached) and extensive interviews by KCHU radio Valdez have revealed one confirmed death from Inipol and possibly "hundreds" more victims of petroleum- or Inipol-related poisonings from the oil spill clean up. According to the articles and interviews, Veco and Exxon are denying that Inipol is toxic and downplaying the importance of the pending toxic exposure lawsuits.

The settlement documents specify that the use of restoration trust funds must be linked to injuries resulting from the Exxon Valdez oil spill. A study of latent health problems incurred by clean up workers relating to over exposure to crude oil vapors and clean up chemicals is clearly a justifiable use of restoration funds.

An epidemiology study would increase the public's understanding of spill-related injuries, specifically, the health risks associated with exposure to crude oil vapors and clean up compounds. Further, an epidemiology study could minimize such human health risks in future spills by leading to improvements in protective clothing and safety training, and to development of bioremediation compounds which do not contain carcinogens like Inipol.

The Oil Reform Alliance appreciates the opportunity to participate in the restoration process.

Sincerely,

Riki Ott

Riki Ott, President

Document ID Number

920604104

- A-92 WPWG
- B-93 WPWG
- C-RPWG
- D-PAG
- E-MISC.

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

✓ Checked for Completeness

- ✓ ID stamped/Input completed
- ✓ Name
- ✓ Affiliation
- Costs

- Education
Info.

✓ Category Management Action

~~Restoration Management's Enhancement~~

✓ Lead Agency

USDA

✓ Cooperating Agency(ies)

DOI (USPS)

Y N Passed initial screening criteria

type: educ.

RANKING H M L Rank Within Categories

 H M L Rank Overall

_____ Project Number - if assigned _____

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

29805

Document ID Number
920615298

A-92 WPWG
 B-93 WPWG
 C-RPWG
 D-PAG
 E-MISC.

Title of Project:

PRINCE WILLIAM SOUND FAMILY OF BROCHURES

Justification: (Link to Injured Resource or Service)

Recreational visits to Prince William Sound and the quality of the experience decreased as a result of the Oil Spill. This proposed project will enhance the recreational experience, will inform and educate as well provide users with information on how to avoid further damage to the resources.

Description of Project:

Goals: 1.) To provide an accurate\balanced view of the existing conditions in PWS after the Exxon Valdez oil spill. 2.) To enhance eco-tourism recreation opportunities and experiences through interpretation of the natural resources and the environment in PWS.

Project: We are proposing the development and printing of a family of brochures on PWS. The focus of the brochures will be on how the different subject areas were or were not affected by the oil spill, and on educating recreationists and other users of PWS about minimum impact use, including ways to avoid further damage to resources injured by the oil spill. Subjects to be covered by the brochures would include Cultural Resources, Man's Impact on Prince William Sound Through History, Marine Mammals, Plants, Anadromous fish, Upland Wildlife, Waterbirds and Upland Birds.

Estimated Duration of Project: 2 years

Estimated Cost per Year: \$145,000.00 (\$65,000 in 1993 and \$80,000 in 1994)

Other Comments _____

Name, Address Telephone:

Bruce Van Zee _____
Forest Supervisor _____
201 East 9th _____
Anchorage, AK 99501 _____

Oil Spill restoration is a public process. Your ideas and suggestions will not be proprietary, and you will not be given any exclusive right or privilege to them.

Technical Contact _____
Anne Jeffery, Public Affairs Officer
271-2508

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

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ID stamped/Input completed
Name
Affiliation
Costs

Category
Mgmt Actions

Lead Agency
USFS

Cooperating Agency(ies)

Y N Passed initial screening criteria

type: educ.

RANKING H M L Rank Within Categories

 H M L Rank Overall

Project Number - if assigned _____

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

02
03
04
05

Title of Project:

5 Projects

Justification: (Link to Injured Resource or Service)

Description of Project: (e.g. goal(s), objectives, location, rationale, and technical approach)

- ~~01) Habitat Acquisition - a component~~
- ~~02) Restore shorelines damaged by beach berm relocation~~
- ~~03) Institute program to annually clean garbage from oil spill impacted area beaches~~
- 04) Publish + distribute brochures on damaged species and ways to prevent additional stress.
- ~~05) Institute watchable wildlife survey program to give and receive information with Tourism and Recreation users.~~

Estimated Duration of Project:

Estimated Cost per Year:

Other Comments:

Name, Address, Telephone:

Nancy Lethrope, Pres.
 Alaska Wilderness
 Sailing Safaris
 Alaska Wilderness
 Recreation and Tourism
 Assoc.

PO Box 1353
 Valdez, AK 99686

Oil spill restoration is a public process. Your ideas and suggestions will not be proprietary, and you will not be given any exclusive right or privilege to them.

ID # 920612240-4

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

Checked for Completeness

- ID stamped/Input completed
- Name
- Affiliation
- Costs

Category
Restoration Management Actions

Lead Agency
USFS

Cooperating Agency(ies)

Y N Passed initial screening criteria

type - educ.

RANKING H M L Rank Within Categories

 H M L Rank Overall

Project Number - if assigned _____

Alaska Wilderness Recreation and Tourism Association

Document ID Number
920612237
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<input checked="" type="checkbox"/> B-93 WPWG
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Board of Directors

Nancy Lethcoe
President
Alaskan Wilderness
Sailing Safaris

Carol Kasza
Vice President
Arctic Treks

Todd Miner
Secretary
Alaska Wilderness Studies
U of A Anchorage

Don Ford
Treasurer
National Outdoor
Leadership School

Bob Dittrick
Wilderness Birding

Eruk Williamson
Eruk's Wilderness
Float Trips

Tom Garrett
Alaska Discovery

Dennis Eagan
Recreation

Kirk Hoessle
Alaska Wildlands
Adventures

Bob Jacobs
St. Elias Alpine Guides

Karla Hart
Rainforest Treks & Tours

Marcie Baker
Alaska Mountaineering &
Hiking

Gayle Ranney
Fishing & Flying

Dave Gibbons
EVOS Restoration Team
645 "G" Street,
Anchorage, AK 99501

Dear Dave,

On behalf of our members operating tourism businesses or recreationally using the oil spill impacted area, AWRTA would appreciate it if the Restoration Team would consider recommending to the Trustee Council the following projects designed to restore lost natural resources and services:

1. Timber buybacks to provide habitat protection for recovery of species damaged by the spill and to protect the area's scenic qualities damaged by the spill from additional harm. — 01
2. Restoration of shorelines damaged by beach berm relocation including the removal of logs and rock debris pushed into adjacent uplands areas and re-planting of damaged beach and uplands areas with local species. — 02
3. Institution of a program to annually clean garbage from oil spill impacted area beaches to help enhance damaged visual quality and habitat. — 03
4. Publication of high quality, full-color brochures on damaged species aimed at recreational users and tourism operators that give information on the following topics: 1) significant aspects of a species' life history and behavior that may be adversely affected by human contact; 2) damages suffered by the species from spill and other causes (disease, human disturbance, etc.); 3) ways to prevent additional stress such as not disturbing seals during pupping and molting periods, use of hydrophones to enhance whale watching at a distance, etc. Distribute the fliers to harbors, Visitor Centers, Tour and Charter boat operators, kayak rental outlets, recreational equipment stores, etc. — 04
5. Institution of a watchable wildlife survey program soliciting input from tourism companies and others on the following topics: a) species observed, — 05

date and number; and b) anecdotal information on human/animal encounters. This information could help document the possible changes and movements in marine mammal populations, give tourism operators and tourists a chance to "participate" in the recovery, 3) document changes, both positive and adverse, in human/animal encounters, and 4) provide planners with information that may be helpful in developing additional programs.

Tourism and recreational users have suffered considerably from the visual damage done to marine and shoreline areas through the loss of marine mammals, removal of intertidal and shoreline zone flora and fauna, beach relocation, and staining and sterilization of beaches. The U.S. F.S. recognizes visual quality as a natural resource; the state and tour operators have spent considerable amounts of money to market Alaska's superscenery and superwildlife viewing opportunities, and consumers choose destinations on the bases of visual quality and wildlife viewing experiences. The ability of the tourism industry to recover from economic damages sustained as a result of the spill depends on the ability of tour operators to deliver a product that lives up to consumer expectations and is competitive with other supersenecry/superwildlife areas in the world.

Respectfully submitted,

Nancy R. Lethcoe

Nancy R. Lethcoe

Document ID Number	
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Category - man actions

type: education

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

920610229-10	
<input type="checkbox"/>	A-92 WPWG
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<input type="checkbox"/>	C-RPWG
<input type="checkbox"/>	D-PAG
<input type="checkbox"/>	E-MISC.

Title of Project: *Fucus* Recovery in the Upper Intertidal Zones

Justification: (Link to Injured Resource or Service)

The dominant algal species, *Fucus*, in the intertidal was severely damaged by the oil spill and subsequent clean-up.

Description of Project: (e.g. goal(s), objectives, location, rationale, technical approach)

Goals: To understand what factors limit the recolonization of the intertidal by *Fucus* and to predict the recovery rate for the *Fucus* population in various habitats.

Objectives:

1. To determine the population structure and population dynamics of *Fucus* in oiled, oiled/cleaned, and control (un-oiled) areas in order to assess the time needed for recovery of these populations, especially in the upper intertidal zone.
2. To determine the ability of *Fucus* plants to recolonize the upper intertidal areas made bare by the oil spill and subsequent clean-up activities.

Location: Experiments will be conducted in Herring Bay, Knight Island, Prince William Sound.

Rationale: Experiments conducted at Herring Bay and throughout the Prince William Sound area over the last two+ years give strong support to the fact that one of the consequences of the Exxon Valdez oil spill and clean-up activities was serious damage to the intertidal algal populations. The perennial brown alga, *Fucus gardneri* which can make up to 90% of the biomass of the algae in the intertidal was adversely affected, especially in the upper intertidal zone. Results from our experiments indicate that it may be several years before the upper edges of the *Fucus* beds are restored by natural means. Many of the experiments conducted at Herring Bay in Prince William Sound were designed to facilitate long-term monitoring of the recovery of the intertidal. We propose to continue to monitor some of these experiments and to extend and refine others from the 1990-92 field seasons.

Technical Approach: Monitor existing population dynamics plots to follow the status of various size classes of *Fucus*. Measure growth rates of tagged *Fucus* plants. Continue studies on *Fucus* recruitment and egg dispersal and survival.

Estimated Duration of Project: Two Years

Estimated Cost per Year: \$160,000

Other Comments: This project would be a continuation of the Herring Bay restoration work being done in cooperation with Dr. Ray Highsmith of the University of Alaska Fairbanks and Dr. Larry Deysher of Coastal Resources Associates.

Name, Address, Telephone

Dr. Michael S. Stekoll
 University of Alaska
 11120 Glacier Highway
 Juneau, AK 99801
 907-789-4579

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ID # 920610229-02

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

Checked for Completeness

- ID stamped/Input completed
- Name
- Affiliation
- Costs

Category

Monitoring

Lead Agency

USFS

Cooperating Agency(ies)

Y N Passed initial screening criteria

type: CH

RANKING H M L Rank Within Categories

H M L Rank Overall

Project Number - if assigned _____

Project Title: Low Impact Recreation Development in the Nellie Juan College
Fjord Wilderness Study Area

2985
SS

Justification: (1) As a result of the oil spill, recreation users were displaced to other locations, increasing use in existing sites, and creating resource damage. (2) Provide low impact recreation facilities/site to redistribute use away from heavily used sites and back into areas affected by the oil spill and accommodate increased recreation use as a result of the publicity since William Sound received.

Project Description: This project will involve the development of four types of recreation facilities to handle the increased use in the Sound.

(1) Recreation Cabins - Recreation cabins of typical forest service style will be constructed at the following locations:

- *Three Finger Bay (off Cochrane Bay)
- *Port Audry (head of Drier Bay)
- *Herring Bay (Knight Island)
- *Head of Eaglek Bay
- *Miners Bay/Lake (Unakwik Inlet)
- *Snug Harbor (Knight Island)
- *Cabin Bay (Naked Island)
- *Cedar Bay

(2) Mooring Buoys - Mooring buoys will be placed at the following locations:

- *Disk Island
- *Solf Bay (off Herring Bay)
- *Miners Bay
- *Granite Bay (off Wells Bay)

(3) Tent Platforms and Outhouse Facilities

- *Willard Island
- *Barry Arm
- *Applegate Beach

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~~Woods~~
~~to be removed~~

(4) Hiking Trails - Hiking trails built to wilderness standards (maximum 2' wide, minimum cut/fill, boardwalk across muskeg, timber bridges, etc.) will be constructed as follow:

- *From Threefinger Bay to Shrodelake Cabin (1 1/2 miles)
- *From Mines Bay to east end of Mines Lake (4 miles)
- *Paulson Cabin to Paulson Creek (3/4 mile)
- *Port Audry/Drier Bay to S. Thumb/Bay of Isles (3 miles)
(coop with CAC)
- *Siwash Bay to head of Eaglek Bay (3 miles)
(coop with State of Alaska)
- Pigot Bay (3 miles)

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E-MISC.

Project Duration: Estimate project to last 5 to 8 years.

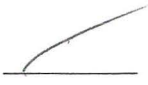
Estimated Cost Per Year: Year 1: \$100,000 for environmental analysis; following year finding is based on projects for each year. Following is the estimated cost for each project:

Cabins (each)	\$ 35,000
Mooring Buoys (each)	15,000
Tent Platforms and outhouse Facilities (each)	12,000
Trails:	
Three Fingers	90,000
Miners Bay	400,000
Paulson Creek	20,000
Port Audry	100,000
Siwash Bay	75,000
Pigot Bay	150,000

Bruce VAN Zee
201 East 9th
Anchorage Alaska 99501

Steve Hennig
783-3242

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS



Checked for Completeness

ID stamped/Input completed
Name
Affiliation
Costs

Category
Manip Enhance

Lead Agency
USFS

Cooperating Agency(ies)
ADNR

Y N Passed initial screening criteria

type: recreation

RANKING H M L Rank Within Categories
H M L Rank Overall

Project Number - if assigned

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

Title of Project:

ENVIRONMENTAL EDUCATION CENTER IN PRINCE WILLIAM SOUND

Justification: (Link to Injured Resource or Service)

The Exxon Valdez Oil Spill impacted the ecology of Prince William Sound. The oil spill had negative impacts on some species and eco-systems moderate impacts on other eco-systems and minor impacts on upland eco-systems. An educational center in the sound would allow for long term studies of eco-systems in the sound

Description of Project:

This project would entail the establishment of an educational research center in Prince William Sound. The center would focus on providing a hands on educational experience for Elementary, Junior High and High School students. It would be an inter-agency run center located on Forest Service land in Prince William Sound. The center would include a bunkhouse, a mess hall with study area, and a lab and classroom building. As part of the proposal the Forest Service would pursue a partnership with Disney Corporation, who has already expressed an interest in partnering with the Forest Service on educational endeavors.

The objective of the project would be to take students out into the sound and give them the opportunity to work on projects relating to the ecology of Prince William Sound and related impacts from the oil spill. The center could handle twenty-five students at a time and they could stay for as little time as one day or as long as two weeks.

Estimated Duration of Project: 3 Years before it would be operational

Estimated Cost per Year: \$90,000 for '93, \$5,000,000 for '94 & '95
\$200,000 for each year for operation

Other Comments _____

Name, Address Telephone:
Bruce Van Zee _____
Forest Supervisor _____
201 East 9th _____
Anchorage, AK 99501 _____

Oil Spill restoration is a public process. Your ideas and suggestions will not be proprietary, and you will not be given any exclusive right or privilege to them.

Technical Contact _____
Anne Jeffery, Public Affairs Officer
271-2508

Document ID Number
920615298
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COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

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Name
Affiliation
Costs

_____ Category *Manage Action Education*
~~_____ *Management Enhancement*~~

_____ Lead Agency

_____ *USFS*

_____ Cooperating Agency(ies)

Y N Passed initial screening criteria

_____ *type: education*

RANKING H M L Rank Within Categories

H M L Rank Overall

_____ Project Number - if assigned _____

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL
FORMAT FOR IDEAS FOR RESTORATION PROJECTS

Title of Project:

Restoration and Mitigation of Essential Wetland Habitats for Injured Prince William Sound (PWS) Fish and Wildlife Species

Justification: (Link to Injured Resource or Service)

Intertidal marine habitats adversely affected by the Exxon Valdez oil spill, especially tidally influenced wetland vegetation, would be supplemented by long term enhancement activities in both riparian and floodplain habitats in San Juan Bay, Montague Island.

Description of Project:(e.g. goal(s), objectives, location, rationale, and technical approach)

Goal:

To improve the status of waterfowl, anadromous fish and furbearing species impacted by the oil spill in Prince William Sound.

Objective:

Create pools and ponds in riparian and flood plain areas to restore associated aquatic vegetation. Minimize large mammal predation on waterbirds through use of appropriate nesting islands and cover distribution. A broad spectrum of Prince William Sound species will benefit.

Location: San Juan Bay, Montague Island

Rationale:

Past events associated with the 1964 earthquake drained the former lake within the San Juan Bay Drainage. Periodic flooding occurs, but this is a temporal event which happens during periods of high, nearly continuous rainfall or in combination with melt of the snowpack and high volume runoff. Downcutting of the channel has changed the character of the stream along a major portion of its course through lake bed deposits. The amount of pool habitat has been reduced and adjacent sedge meadow, some containing temporary ponds, is undergoing plant succession to shrub and forest growth. Opportunities exist for long term improvement of PWS waterfowl, furbearer and anadromous fish habitat within the stream and in the adjacent wet meadow zones. Eventual outcomes would be a stream and adjacent pond/wetland system within newly established spruce/hemlock forest.

Technical Approach:

- Year 1. Feasibility, including soils, hydrology and project planning work. If acceptable, Complete an EA and/or EIS. Submit for public review.
- Year 2. If approved, complete project design and cost estimates and submit for the Corps of Army Engineers 404 permit.
- Year 3. Commence the project construction activity leading to appropriate instream structures and adjacent wetland habitat formation.
- Year 4. Monitor the project relative to meeting the objectives and to assure soil stability and acceptable revegetation of the site.
- year 5. Continue to monitor the project and assess wildlife/fisheries activity.

Estimated Duration of Project: 5 to 10 years (possibly two or more phases)

Estimated Cost per Year: \$200,000 Average over 5 years (approximate estimate)

Other Comments: Coordinate project logistics with the Montague road access.

Name, Address Telephone:

Bruce Van Zee
Forest Supervisor
201 East 9th, Suite 206
Anchorage, AK 99501

Oil Spill restoration is a public process. Your ideas and suggestions will not be proprietary, and you will not be given any exclusive right or privilege to them.

Technical Contact: Ken Holbrook

Document ID Number	<u>92061528</u>
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COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS



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ID stamped/Input completed
Name
Affiliation
Costs

Category
Manip + Enhance

Lead Agency
USFS

Cooperating Agency(ies)

Y

Passed initial screening criteria

type: CH

RANKING H M L Rank Within Categories

 H M L Rank Overall

Project Number - if assigned _____

Title of Project:

SURVEYS TO DETERMINE DISTRIBUTION, ABUNDANCE AND FOOD HABITS OF MIGRATORY WATERFOWL STAGING IN INTERTIDAL HABITATS OF THE WESTERN COPPER RIVER DELTA DURING SPRING AND FALL

Justification: (Link to Injured Resource or Service)

Sea ducks, in particular the 3 species of scoters, were injured by the Exxon Valdez Oil Spill. All three species of scoters (white-winged, surf and black), as well as 6 other diving duck species and 4 dabbling duck species occur as migrants in the intertidal and shallow subtidal zone of western Copper River Delta. Baseline information is needed on food resources available, food habits, and the numbers and distribution of dabbling and sea ducks staging in the intertidal and shallow subtidal habitats on the Copper River Delta.

Description of Project:

Baseline information on sea and dabbling duck relative abundance, spatial and temporal distribution patterns, and key concentration areas in intertidal and shallow subtidal zones can be used to direct and monitor restoration efforts, and enable effective response in the event of a future spill. The numbers, distribution and species composition of staging waterfowl in intertidal habitats will be determined using a combination of aerial and boat surveys along the western Copper River delta shoreline and barrier islands. Aerial shoreline surveys at high tide and aerial fixed-strip transects for shallow subtidal habitats will be used to estimate waterfowl abundance. Extensive exposed intertidal areas will be surveyed in their entirety.

A data base describing spring and fall food habits of sea and dabbling ducks staging in the intertidal and shallow subtidal zone will be compiled. Food habits of dabbling and sea ducks will be determined from collections in the intertidal and shallow subtidal zone of the western Copper River Delta throughout spring and fall migration. Gizzards and stomach contents will be analyzed for frequency of occurrence and percent volume of prey items. Based on waterfowl distribution, a stratified random sampling design will be used to sample prey availability and waterfowl habitat use.

Estimated Duration of Project: Three years.

Estimated Cost per Year: \$91,000 Year1. \$78,000 Year2. \$20,000 Year 3.

Other Comments: This project falls within the confines of Restoration Option No. 31 in terms of the development of a comprehensive monitoring program

Name, Address, Telephone:

Dr. Mary Anne Bishop, Acting Manager,
Copper River Delta Institute, Pacific Northwest Research Station
USDA Forest Service,
P.O. Box 1460, Cordova, AK 99574,
(907) 242-7212, fax (907) 424-7214

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ID # 920615298-31

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

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ID stamped/Input completed
Name
Affiliation
Costs

Category

~~Agri~~ Monitoring

Lead Agency

USFS

Cooperating Agency(ies)

FWS

Y

Passed initial screening criteria

type: Birds

RANKING

H

M

L

Rank Within Categories

H

M

L

Rank Overall

Project Number - if assigned _____

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

4850

Document ID Number:
920615298

A-92 WPWG

B-93 WPWG

C-RPWG

D-PAG

E-MISC.

Title of Project:

ABUNDANCE, DISTRIBUTION, HABITAT USE AND FOOD HABITS OF STAGING SHOREBIRDS IN INTERTIDAL HABITATS ON THE WESTERN COPPER RIVER DELTA

Justification: (Link to Injured Resource or Service)

Shorebirds staging on intertidal mudflats were injured by the Exxon Valdez oil spill.

Description of Project: (goal(s), objectives, location, rationale, approach)

The extensive 500+km² tidalflats on the Copper River Delta are the largest staging area for an estimated 10+million shorebirds migrating on the Pacific Coast of North America. Over 30 species stage on the Copper River Delta during the spring, including nearly 100% of the western sandpiper (Calidris mauri) and dunlin (Calidris alpina pacifica) populations on the Pacific coast, the two largest Pacific coast shorebird populations. Low reproductive rates, high energy requirements for migration, and precise timing create a critical dependence on the environmental conditions on the Delta during spring migration. The recent Exxon Valdez oil spill in Prince William Sound has underscored the vulnerability of the western delta to catastrophic oil spills. Shorebird stopover areas on the the western end of the delta, including Orca Inlet and mudflats adjacent to Hawkins Island Cutoff, overlap with areas that could be impacted by a future oil spill in Prince William Sound.

This study would gather information that would enable efficient and effective deployment of response and containment resources to best protect shorebird habitats in the event of a spill. Numbers, distribution, key concentration areas and species composition of shorebirds can be determined using aerial shoreline surveys combined with ground transects. Prey availability for shorebirds can be sampled using a stratified random sampling design in the intertidal zone weekly during spring migration. Prey availability will be correlated with food habits as determined by examination of esophageal contents. Two years of sampling has refined aerial methodology and provided initial baseline information on numbers and distribution. Long-term monitoring is necessary to determine population trends, key concentration areas, and to assess habitat use patterns in relation to habitat type and prey availability.

Estimated Duration of Project: Five years.

Estimated Cost per Year: \$35,000

Other Comments: This project falls within the confines of Restoration Option No. 31 in terms of the development of a comprehensive monitoring program. Data collection and analysis could be coordinated with intertidal ecology studies.

Name, Address, Telephone:

Dr. Mary Anne Bishop, Acting Manager,
Copper River Delta Institute, Pacific Northwest Research Station
USDA Forest Service,
P.O. Box 1460, Cordova, AK 99574, phone (907) 242-7212, fax (907) 424-7214.

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS



Checked for Completeness

ID stamped/Input completed
Name
Affiliation
Costs

Category
monitoring

Lead Agency
USFS

Cooperating Agency(ies)
FWS

N Passed initial screening criteria

type: birds

RANKING H M L Rank Within Categories

 H M L Rank Overall

Project Number - if assigned _____

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL
IDEAS FOR RESTORATION PROJECTS

29843

Title of Project:

Stream Channel Capability Modeling

Justification:

Capability modeling would allow us to address those channels that would give the best benefits to Oilspill restoration strategies.

Description of Project:

Goal: Develop model to analyze stream channel capabilities for supporting fish in Prince William Sound.

Objectives:

- stratify channel types using maps developed, ground-truthed and digitized in project proposed above (Vegetation and stream classification mapping of western Prince William Sound).
- measure fish habitat capability characteristics on representative sample of each channel type most likely to support fish.
- document fish numbers and use on a representative sample of each channel type
- product a capability model for use in conjunction with the stream channel type database
- field test the capability model

Estimated Duration of Project:

Four years

Estimated Cost per Year:

\$110,000

Other Comments:

Name, Address, Telephone:

Kate Wedemeyer, Fisheries Biologist
US Forest Service Glacier Ranger Station
PO Box 129
Girdwood, AK 99587
907-783-3242

Document ID Number
920615298
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COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

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Name
Affiliation
Costs

Category
Manip & Enhancement

Lead Agency
USFS

Cooperating Agency(ies)

N Passed initial screening criteria
typos: F/S

RANKING H M L Rank Within Categories

 H M L Rank Overall

Project Number - if assigned _____

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

- A-92 WPWG
- B-93 WPWG
- C-RPWG
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Title of Project:

Stream Channel Type Classification and Fish Habitat Assessment

Justification: (Link to Injured Resource or Service)

The Oil Spill triggered substantial changes in the fisheries resources and fishing industry. The need for an accurate assessment of fish habitat and production capabilities has never been higher.

Description of Project: (e.g. goal(s), objectives, location, rationale, and technical approach)

The channel typing program will enable resource managers to better predict the effects of land management activities on any given watershed on the District. It also allows managers to predict fisheries habitat capability by channel type. Stream channel type classification was initiated on the District in 1989. Since 1989, mapping and data collection techniques have been refined to produce high quality baseline information on watersheds on the District. In 1993, the District will finalize all manuscripts for data entry into the Forest GIS data base, and will have information available to all management agencies. In addition, the District will be moving into the next phase of the program and begin looking at fisheries habitat components within specific channel types, and develop habitat capability models for watersheds. Channel typing information will be completed using Forest Service, Region 10 (R10) standards, and those standards more specifically outlined by the Chugach National Forest Channel Type User Guide. Habitat data will be collected using Hankin and Reeves methods refined by Olsen and Wenger for use in R10. Habitat data will be collected on Montague Island and the West Copper River Delta initially. Sample locations in Eastern Prince William Sound and the East Copper River Delta will be established in successive field seasons.

Estimated Duration of Project: 1993 - 1997

Estimated Cost per Year: 1993-1995 \$50,000; 1996 \$25,000; 1997 \$10,000

Other Comments:

This project will provide baseline information needed to implement Restoration Option No. 2 (Intensify Management of Fish and Shellfish), No. 3 (Increase Management for Fish and Shellfish that Previously Did Not Require Intensive Management), and No. 11 (Improve or Supplement Stream and Lake Habitats for Spawning and Rearing of Wild Salmonids). Since it is part of the Forest GIS data base, there is great potential for synthesizing and transfer of information between agencies, especially as data from other studies becomes available.

Name, Address, Telephone:

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Cordova Ranger District, Box 280, Cordova, AK 99574
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EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL
IDEAS FOR RESTORATION PROJECTS

29841

Title of Project:

Feasibility of Fishpasses as oilspill restoration

Justification:

Restoration of several fish species could be aided by improved fish passage to previously underutilized habitat.

Description of Project:

Goal: -Restore injured species by improving access to unused or utilized fish habitat

Objective:

- survey PWS for potential fishpasses
- conduct feasibility studies and develop engineering designs

Estimated Duration of Project:

3 years

Estimated Cost per Year:

\$25,000

Other Comments:

Name, Address, Telephone:

Kate Wedemeyer, Fisheries Biologist
US Forest Service Glacier Ranger Station
PO Box 129
Girdwood, AK 99587
907-783-3242

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COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

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Name
Affiliation
Costs

Follow-up R106 ?

✓

Category

manip + Enhancement

Lead Agency

USFS

Cooperating Agency(ies)

ADFG

Y

N

Passed initial screening criteria

type: F/S

RANKING

H

M

L

Rank Within Categories

H

M

L

Rank Overall

Project Number - if assigned

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

29878

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

Title of Project:

Anadromous Cutthroat and Dolly Varden Char Habitat Inventory, Evaluation and Restoration

Justification: (Link to Injured Resource or Service)

Anadromous cutthroat trout and dolly varden char were determined to be an injured species as a result of the Exxon Valdez oil spill. Strong downward trends in cutthroat population numbers have been observed since the spill. Emergency clousures have been inacted by ADF&G in some areas of PWS.

Description of Project: (e.g. goal(s), objectives, location, rationale, and technical approach)

The project goal is to determine habitat capability as it relates to population status of sea-run cutthroat trout and dolly varden char on the Copper River Delta and eastern Prince William Sound. Through project development we will gain critical information required to make sound management decisions and direct enhancement and mitigation efforts at maintaining viable populations of sea-run cutthroat trout. Habitat evaluations and inventory work will be completed using the Chugach National Forest stream channel type classification, as well as modified Hankin and Reeves methods for relating habitat to stream type.

While information on population status is limited, strong downward trends have been observed since the oil spill. During the 1991 field season the District began working closely with ADF&G, Division of Sport Fish, in their assessment of population status. The District will continue to work closely with ADF&G in the future. The District will also develop habitat capability models to relate habitat components to population.

Estimated Duration of Project: 1993 - 1995

Estimated Cost per Year: 1993 - \$35,000; 1994-1995 - \$55,000

Other Comments:

Habitat capability modeling must be a vital part of population modeling. This project will provide critical information on habitat components related to population of two injured fish species. It provides the information needed for Restoration Option Nos. 2 (Intensify Management of Fish and Shellfish) and 5 (Reduce Harvest by Re-directing Sport-Fishing Pressure). Once habitat capability models are developed for various watersheds within Prince William Sound and the Copper River Delta, they will provide the information needed to implement Restoration Option No. 11 (Improve or Supplement Stream and Lake Habitats for Spawning and Rearing of Wild Salmonids).

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Affiliation
Costs

_____ Category

_____ Manip + Enhance

_____ Lead Agency

_____ USFS

_____ Cooperating Agency(ies)

_____ ADFG

(Y) N Passed initial screening criteria

_____ type: F/S

RANKING H M L Rank Within Categories

 H M L Rank Overall

_____ Project Number - if assigned _____

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

24837

Document ID Number

920615298

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

A-92 WPWG

B-93 WPWG

C-RPWG

D-PAG

E-MISC.

Title of Project:

Montague Island Chum Salmon Restoration

Justification: (Link to Injured Resource or Service)

Chum salmon were determined to be an injured species as a result of the Exxon Valdez oil spill. Montague Island remains as one of the best PWS locations for improving wild chum salmon production.

Description of Project: (e.g. goal(s), objectives, location, rationale, and technical approach)

Prior to the 1964 earthquake, Montague Island streams accounted for nearly 8% of the total chum salmon production in Prince William Sound. Habitat alterations caused by the uplift, combined with a number of environmental and man-induced factors, led to the virtual extirpation of chums on the Island. Many of the Island's historic chum producing streams are thought to have stabilized over time to once again support chum salmon populations. However, there is a lack of a sufficient brood source to re-establish numbers of chums within those same streams

The goals of this project are, 1) to re-establish wild stock populations of chum salmon on Montague Island and maintain the genetic diversity of wild chum salmon stocks in Prince William Sound; and 2) to provide mitigation to identified injured species. Once the project is established it could contribute an estimated 300,000 pounds of salmon annually to the common property fishery.

A four-year cooperative chum fry stocking effort in Chalmers river was completed in 1990. This stocking proved successful when more than 1,000 chums were observed returning to Chalmers river. Pending favorable spawning success of these fish, stocking efforts will be expanded to include all historic chum producing streams on Montague Island. Cooperative work with Alaska Department of Fish and Game and Prince William Sound Aquaculture Corporation will continue to identify a source for brood stock and eggs will be collected for culture by 1994.

During 1991, spawning habitat surveys were conducted at proposed stocking locations. Based on the information collected recommendations were made on possible habitat restoration projects for several of the chum salmon streams. These projects will be further evaluated in 1992 for implementation in 1993.

The goals of habitat restoration projects are to accelerate natural stream stabilization, and promote a healthy riparian forest. Projects will include in-stream structure placement, various spawning and rearing habitat improvement structures, and development of a riparian forest prescription. Riparian forest management will include tree planting and tree thinning of selected zones. Through effective silvicultural management these areas can be rehabilitated to provide excellent habitat not only for fish species, but many wildlife species as well.

29837

Project: Montague Island Chum Salmon Restoration (continued)

Estimated Duration of Project: 5 years (1993 - 1997)

Estimated Cost per Year: 1993 - \$80,000; 1994-1997 - \$75,000

Other Comments:

This project offers a means of minimizing impacts on fisheries within PWS by increasing chum salmon production. This meets the goals of restoration Option Nos. 2 (Intensify Management of Fish and Shellfish) and 18 (Replace Fisheries Harvest Opportunities by Establishing Alternative Salmon Runs). It also provides a means for implementing Restoration Option No. 11 (Improve or Supplement Stream and Lake Habitats for Spawning and Rearing of Wild Salmonids). The Forest Service has expertise in a variety of established techniques for salmonid habitat improvement.

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COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

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Name
Affiliation
Costs

Category
Manip + Enhance

Lead Agency
USFS

Cooperating Agency(ies)
ADFG

Y N Passed initial screening criteria

type: F/S

RANKING H M L Rank Within Categories

 H M L Rank Overall

Project Number - if assigned _____

Title of Project: Fish Limiting Factors Analysis

Justification: Identification of habitat limiting factors for cutthroat, dolly varden, coho and pink salmon that can guide restoration activities.

Description of Project: Identification of mitigation, protection and restoration measures for injured fish species will require adequate knowledge of the habitat limiting features. For example, if a restoration project proposes to enhance spawning habitat for sea run cutthroat, when in fact freshwater rearing habitat for young of the year fish is limiting their production then, obviously, the restoration efforts will not accomplish the end goal.

Currently, the Chugach National Forest has mapped channel types for most of Prince William Sound. These channel types, which identify broad physical characteristics (e.g., gradient, width, surrounding landforms, and hydrologic process) for a given segment of stream, were mapped using aerial photographs and topographic maps. With ground verification and further delineations of specific habitats present within channel types, this habitat inventory technique could be used to conduct limiting factors analysis to guide restoration, mitigation, and protection measures. We propose to field verify channel type designations and to define specific fish habitat characteristics within channel types used by injured fish species. This information will be used to conduct limiting habitat factors analysis for species such as sea run cutthroat and to predict where non documented populations of injured fish species may exist should mitigation measures be proposed.

The study area will focus on the Nellie Juan, College Fiord, Big Islands, and Gravina management areas of the Chugach National Forest but may be expanded to other areas. Initially, using ADF&G anadromous water maps, along with other sources, streams known to provide habitat for injured fish species will be identified. The fish distribution information will be overlaid on USFS channel type maps to identify areas to focus field verification and habitat surveys.

Habitat surveys will be tiered to channel type designations. A statistically valid sample of each channel type within the drainages known to contain injured fish species will be sampled for presence of habitat and cover. The final step will involve predicting habitat limiting factors for the injured species. Using known habitat requirements along with the habitat surveys that have been tiered to channel types, limiting habitat factors analyses will be developed for the injured fish species.

Project Duration: 2.5 years.

Estimated Cost per Year: Years one and two \$125,000/year, Year three \$30,000.

Other Comments: None

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Technical contact: Kim Barber 271-2836

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Name
Affiliation
Costs

 Category ~~Mon. Feas.~~ Monip. + Enhance

 Lead Agency USFS

 Cooperating Agency(ies) ADFG

(Y) N Passed initial screening criteria

 type: F/S

RANKING H M L Rank Within Categories

 H M L Rank Overall

 Project Number - if assigned

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

29828

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

Title of Project: POST-OIL SPILL RECREATION BASED USER SURVEY FOR PRINCE WILLIAM SOUND

Justification: (Link to Injured Resource or Service)

The oil spill altered lifestyles of those who live, work and recreate in Prince William Sound. Since that time, public scrutiny and involvement with management of resources has increased. Our efforts will focus on recreational opportunities, resources affected by the spill and how management and planning can meet the needs and desires of the public.

Description of Project: (e.g. goal(s), objectives, location, rationale, and technical approach)

The goal of this project would be to collect and synthesize information concerning resource conditions, post-oil spill recreation use, user needs, and perceptions in order to develop long term management plans.

We plan on utilizing the services and expertise of Customer Survey personnel who are presently conducting recreation surveys for the Forest Service nationwide. This particular survey would focus on the effects of the spill in relation to recreational opportunities and resources. The survey would also continue to monitor post-oil spill recreational use in Prince William Sound.

Estimated Duration of Project: Three Years, 1993-1995

Estimated Cost per Year: \$58,000

Other Comments:

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Cordova Ranger District
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COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

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Name
Affiliation
Costs

Category mgmt Actions

Lead Agency USFS

Cooperating Agency(ies) _____

Y N Passed initial screening criteria

type: recreation

RANKING H M L Rank Within Categories

 H M L Rank Overall

Project Number - if assigned _____

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

Title of Project:
INVENTORY, MONITOR, AND PROTECT PERMANENT MONITORING SITES

Justification:

Permanent monitoring sites, including non-oiled control sites, can determine the extent and rate of recovery of habitats injured by the Exxon Valdez Oil Spill.

Description of Project: (e.g. goal(s), objectives, location, rationale, and technical approach)

This project would establish permanent study sites, including non-oiled control areas for monitoring of marine, intertidal, and upland habitats as suggested by Restoration Option 27. In addition to habitat, the wildlife, fish, recreation and other cultural values can be inventoried, monitored, and protected. Any restoration-funded study would include the permanent monitoring sites in their sampling schemes. Low-impact field camp facilities will be provided when possible.

Control areas should include areas of high vulnerability to oil spills, including the following locations: a) near the Alyeska terminal; 2) in the PWS Vessel Traffic System; and c) on the western Copper River Delta.

Estimated Duration of Project: Ten years.

Estimated Cost per Year: \$500,000

Other Comments: This project falls within the confines of Restoration Option No. 27, and No. 31 in terms of the development of a comprehensive monitoring program. Data collection and analysis could be coordinated between all studies.

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EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

29824

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

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Title of Project: GREEN ISLAND CABIN REPLACEMENT

Justification: (Link to Injured Resource or Service)

Green Island and the Green Island recreational cabin were directly impacted by the Exxon Valdez oil spill. Green Island was in the path of Exxon Valdez crude oil as it flowed out of Prince William Sound. The Chugach National Forest Cabin Use Study showed that Green Island cabin was the most heavily used cabin on the forest for administrative oil spill activities. Oil spill related use exceeded public use in 1989 and 1990. Because of extensive administrative use, few public fees have been collected for the continued maintenance of the cabin.

The cabin continues to provide overnight facilities for post-cleanup activities and monitoring. Green Island is one of the few Prince William Sound locations with significant pre-spill information and is the site of a proposed Research Natural Area. Green Island is centrally located in Prince William Sound with easy access to oil impacted beaches and oil injured resources.

Description of Project: (e.g. goal(s), objectives, location, rationale, and technical approach)

This proposal will fund the replacement of the Green Island recreational cabin. Due to the increase in oil spill related administrative use at the cabin during the last three years and with no cabin maintenance income from these users, the condition of the Green Island cabin has deteriorated. This cabin was acquired from the USF&WS in 1985 in fair to moderate condition. The cabin is constructed from primarily plywood. Plywood cabins generally do not withstand the Prince William Sound elements well, and deteriorate quickly.

Replacement of the existing Green Island recreational cabin will insure that post oil spill researchers, and the recreating public will have a useable cabin in which to base oil spill related work operations while meeting the needs of the recreating public

Estimated Duration of Project: Two Years, 1993 & 1994

Estimated Cost per Year:

FY 1993	FY 1994	FY 1995	FY 1996	FY 1997
Phase 1	Phase 2	Phase 3	Phase 4	Phase 4
Purchase	Construction			
\$20,000	\$25,000	--	--	--

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ID # 920615298-24

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Name
Affiliation
Costs

Category Manipul. & Enhancement

Lead Agency USFS

Cooperating Agency(ies)

Y N Passed initial screening criteria

type: recreation

RANKING H M L Rank Within Categories

 H M L Rank Overall

Project Number - if assigned _____

29822

Title of Project: Passports in Time: Cultural Resource Patterns in Prince William Sound

Justification:

One of the most significant injuries to Cultural Resources as a result of the Valdez Oil Spill was vandalism resulting from increased knowledge of site location. Mitigation of this injury involves educating the public as to why they should not loot or deface sites and why archaeological sites are important. Including the public in such archaeological work through Forest Service Passports in Time projects will provide valuable educational experience, and aid in the goal of interpreting cultural resources in the Sound.

Description of Project:

The project's goals are to 1) evaluate the usefulness of the data gathered through Exxon's intensive archaeological surveys of the Oil Spill area, in understanding settlement patterns and cultural development in Prince William Sound as a whole; and 2) provide educational and recreational experiences for members of the public who volunteer for the Passports in Time projects.

The Forest Service Passports in Time (PIT) is an extremely popular program which provides volunteers the opportunity to work on archaeological projects. Five field seasons of PIT projects are included in this proposal. Specifically, this proposal would 1) develop a project plan for three seasons of survey within and outside the Oil Spill area, and two seasons of excavation at sites identified as endangered through vandalism and/or erosion, 2) implement this plan using Passports in Time volunteers, and 3) analyse and interpret the results of the PIT program fieldwork.

The Exxon Cultural Resource program and increasing Native awareness of the importance of archaeological sites has led to increasing public awareness of the importance of cultural resources both within and outside the Oil Spill Area. Because the prehistoric and historic inhabitants of the Oil Spill area had interactions with residents of the Kenai Peninsula, the Northwest Coast, the Kodiak Archipelago, and the Copper River, effective interpretation of Oil Spill area cultural resources must take these relations into account.

Estimated Duration of Project: 10 years (5 yrs. field season/analysis, 5 yrs. analysis)

Estimated Cost per Year: \$230,000 annually, Years 1-5;
\$125,000 annually, Years 6-10

Other Comments: Likely partners for PIT projects on the Chugach NF include Chugach Alaska Corporation, Alaska Pacific University, University of Wisconsin

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Chugach NF
201 East 9th
Anchorage, AK 99501

Technical Advisor:
Linda Yarborough

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COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

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Name
Affiliation
Costs

Category Mgmt Action

Lead Agency USFS

Cooperating Agency(ies)

Y N Passed initial screening criteria

type: archaeology

RANKING H M L Rank Within Categories

H M L Rank Overall

Project Number - if assigned

Title of Project: Prince William Sound Site Stewardship Program

Justification:

One of the most significant injuries to Cultural Resources as a result of the Valdez Oil Spill was vandalism resulting from increased knowledge of site location. Because of the irretrievable nature of archaeological data once a site has been disturbed, increased vigilance over sites, and public education as to why people should not loot or deface sites, should be an aspect of the restoration process. A site stewardship program of local residents is feasible and has been initiated by Fish and Wildlife Service, but needs cooperation with other agencies and Native organizations to be effective.

Description of Project:

Knowledge of archeological site locations in the Oil Spill area has increased because of the Exxon Valdez Oil Spill and related cleanup and assessment activities. The site stewardship program (104a) as initially funded in 1992, with Fish and Wildlife Service as the lead agency, involves the development of educational material and the set-up of a preliminary education and training program.

Forest Service participation is necessary to identify sites to include in the program, and to assist in recruiting potential stewards. The interest of local residents in nearby sites can provide a long-term source of valuable information on changes in the condition of those sites. Because lost information from archaeological sites is irretrievable, the site stewardship program offers a means for protection, as well as for reducing impacts to sites which are damaged, and swift restoration of site integrity.

Estimated Duration of Project: The project will be ongoing, with initial development phase estimated at 2-3 years.

Estimated Cost per Year: \$12,000 annually, Years 1-3.

Other Comments: Preliminary program development by Fish and Wildlife Service and the Alaska State Office of History and Archaeology make this program quite likely to succeed, in cooperation with interested Native associations.

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Oil Spill restoration is a public process. Your ideas and suggestions will not be proprietary, and you will not be given any exclusive right or privilege to them.

Technical Advisor:

Linda Finn Yarborough

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COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

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Affiliation
Costs

 Category E mgmt Action

 Lead Agency USFS

 Cooperating Agency(ies) DNR

 (x) N Passed initial screening criteria

RANKING H M L Rank Within Categories

 H M L Rank Overall

 Project Number - if assigned

29819

Title of Project: Prince William Sound Landmarks: Evaluation and Interpretation

Justification:

One of the most significant injuries to Cultural Resources as a result of the Valdez Oil Spill was vandalism resulting from increased knowledge of site locations. Mitigation of this injury involves educating the public as to why they should not loot or deface sites. Vandalized and otherwise injured sites discovered during the course of the Oil Spill have not yet been evaluated for their significance in understanding the prehistory of Prince William Sound. It is likely that some may be eligible for National Landmark status. Recognition and interpretation of cultural resources that could be included in the National Landmark program would be an excellent way of demonstrating to the public the significance of and necessity for protection of cultural resources.

Description of Project:

This project will fund a Forest archaeologist and three assistants to conduct field evaluations of archaeological sites, which may be eligible for National Landmark Status, on national forest lands in Prince William Sound. The goals of the project would be to obtain archaeological information through testing which will allow a determination of each site's significance, and its applicability in terms of the National Landmark program criteria.

Estimated Duration of Project: 6 years

Estimated Cost per Year: \$400,000 annually, Years 1-3
\$200,000 annually, Years 4-6

Other Comments: Work would be accomplished in conjunction with interested Native and Historical organizations.

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Technical Advisor:
 Linda Yarborough

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Critical Factors

Potential projects must meet all of the following to be considered further. Check the blank for "yes", "no", or "unknown".

YES NO UNKNOWN

- | | | | |
|-------------------------------------|--------------------------|--------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. Linkage to resources and/or services injured by the <u>Exxon Valdez</u> oil spill. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2. Technical feasibility.* |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3. Consistency with applicable Federal and State laws and policies.* |

Comments:

* Restoration Framework, 1992, pp 43-44.

Title of Project: Vandalized Cultural Resources: Inventory, Evaluation, and Interpretation

29818

Justification:

One of the most significant injuries to Cultural Resources as a result of the Valdez Oil Spill was vandalism resulting from increased knowledge of site location. Mitigation of this injury involves educating the public as to why they should not loot or deface sites. Understanding the extent of injury and interpreting cultural resources for the public requires an inventory and on-the-ground evaluation of vandalized sites by professional archaeologists. Vandalized and otherwise injured sites discovered during the course of the Oil Spill have not yet been evaluated for their significance in understanding the prehistory of Prince William Sound.

Because sites of Native Alaskan and Euro-American importance did not occur only within the Oil Spill area, it is necessary to consider such sites outside the Oil Spill area as well as within it. Once a field assessment of such sites both within and outside the Oil Spill area has been completed, public interpretation and education efforts regarding cultural resources in Prince William Sound will be possible and worthwhile.

Description of Project:

The Exxon Cultural Resource program identified a variety of previously unknown sites relating to both prehistoric and historic human use of Prince William Sound. Many of these sites, as well as previously known sites both within and outside the Oil Spill area, are eroding or have been/continue to be vandalized.

As evaluation of only those sites discovered or noted by the Exxon program will result in a skewed perspective of the prehistory of the Sound, this project will fund a Forest Archaeologist and five assistants to 1) prepare a work plan and carry out a field evaluation of those sites identified as endangered by vandalism or at risk of erosion in Prince William Sound, 2) to report on the evaluations and provide a balanced view of the significance of such sites in the Oil Spill area in relation to those sites outside the Spill area and 3) to interpret the resulting information for public educational purposes. Field evaluation of sites will include archaeological testing to determine the extent of damage and the nature of the significance of the remaining portion of each site.

Both field work, evaluation and resulting public interpretation of information resulting from the evaluations will occur in conjunction with the appropriate Native organizations.

Estimated Duration of Project: 6 years

Estimated Cost: \$400,000 annually, Years 1-3; \$200,000 annually, Years 4-6

Other Comments: Preliminary discussions with Chugach Alaska Corporation, NPS, Alaska Pacific University and University of Wisconsin-Madison staff/faculty indicate opportunities for cooperation and partnerships.

Name, Address Telephone:

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Chugach NF
201 East 9th
Anchorage, AK 99501

Technical Contact:

Linda Finn Yarborough

Document ID Number	
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COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

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Affiliation
Costs

Category

Mgmt Action

Lead Agency

USFS

Cooperating Agency(ies)

NPS

Y

N

Passed initial screening criteria

RANKING H M L Rank Within Categories

 H M L Rank Overall

_____ Project Number - if assigned _____

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

29826

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Title of Project: INTERPRETATION OF PRINCE WILLIAM SOUND

Justification: (Link to Injured Resource or Service)

Each year, tens of thousands of visitors travel through Prince William Sound. However, there is no present program for presenting the oil spill and recovery story to those visitors. People throughout the United States and the world shared the experience of the Exxon Valdez oil spill through the ongoing media coverage. Past surveys have shown that people care deeply about the Sound, the oil spill, and the continued efforts to discover the effects of the spill and the efforts to mitigate those effects.

Description of Project: (e.g. goal(s), objectives, location, rationale, and technical approach)

This proposal would fund the development of interpretive services and products that would supplement existing programs in Prince William Sound. Although the Chugach National Forest manages a successful interpretive program aboard the Alaska Marine Highway ferries in Prince William Sound, there are many other interpretive opportunities available to provide information to other audiences. For example, existing FS kiosks are located in Cordova, Valdez and Whittier.

These "missed" audiences include recreational boaters, private charter boat patrons, airline passengers, foreign visitors, and handicapped visitors. Several specific projects targeted for each unique audience will be developed to interpret Prince William Sound and our effects upon it.

One project will be the development of a 90 minute audio-cassette tape "travelogue" of a voyage through Prince William Sound. This interpretation will be available to a wide-range of "under-served" customers, including visually impaired visitors, recreational boaters, cruise ship passengers and international visitors. The project would also fund the purchase of inexpensive tape players that will be loaned to travelers.

Another project will be the development of an aerial map of Prince William Sound to be used by airline passengers in their trip over the area. This map would integrate natural and cultural information with information about our impacts upon the ecosystem. Initial reaction to this information has been very favorable by the airlines.

Through planning and public scoping, other projects will be developed that meet the needs of the resource, the public and the responsible agencies.

Estimated Duration of Project: Five years +, 1993-1997

Estimated Cost per Year: \$10,000

Other Comments: This proposal can be easily and effectively combined with other areas' and agencies' interpretive proposals. Any interpretation about the Exxon Valdez Oil Spill should be coordinated throughout the region to maximize efficiency and effectiveness.

This proposal addresses item #7 - increase management in parks and refuges and #33 - develop integrated public information and education program identified in the Restoration Framework.

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

✓ Checked for Completeness

✓ ID stamped/Input completed
NO Name
NO Affiliation
✓ Costs

Category Manage - Actions
~~Manipulation & Enhancement~~

Lead Agency USFS

Cooperating Agency(ies)

(Y) N Passed initial screening criteria

type: recreation

RANKING H M L Rank Within Categories

 H M L Rank Overall

Project Number - if assigned _____

2905

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL
FORMAT FOR IDEAS FOR RESTORATION PROJECTS

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Title of Project: INTERPRETATION FOR CRUISE SHIP VISITORS

Justification: (Link to Injured Resource or Service)

Each year thousands of visitors pass through Prince William Sound aboard a growing armada of cruise ships. With their travel originating and ending outside of Prince William Sound there is no current mechanism to educate visitors on the oil spill. These visitors are missed by the region's interpretive and education efforts. While these visitors experience Prince William Sound and oil impacted areas, we have no mechanism to aid in their understanding of the Prince William Sound ecosystem or our effects upon it.

Description of Project: (e.g. goal(s), objectives, location, rationale, and technical approach)

This project would fund the planning, development and implementation of a broad-based interpretive and education program aimed at the numerous cruiseships that ply the waters of Prince William Sound. Through this program, Chugach National Forest visitors travelling aboard cruise ships will be given a chance to learn about the Prince William Sound ecosystem and our impacts upon it.

Although this initiative reflects a new step in the interpretive efforts in Prince William Sound, experience with a similar program in Southeast Alaska attests to its viability. In southeast Alaska, the USDA Forest Service and the National Park Service work cooperatively with the cruise ship industry to provide training, staffing and educational materials to the ships. Response to initial contacts with the cruise ship industry has been very favorable. A partnership with these companies would be an effective method to contact the cruise ship visitors.

The first year of this multi-year project would fund the planning of the program. Phase 1 would include establishing contacts with the cruise ship industry, networking with other agencies and interested parties, developing an interpretive plan for the initiative and establishing an implementation timeline.

The following years of the program would include implementation of the cruise ship interpretive program through training, publications, personal services and products. All of these interpretive avenues may be valuable in the implementation of the program. Individual projects and a program strategy will be developed in the first year's work.

Estimated Duration of Project: Five years, 1993 - 1997

Estimated Cost per Year: \$15,000

Other Comments: This proposal addresses item #7 - *increase management in parks and refuges* and #33 - *develop integrated public information and education program* identified in the Restoration Framework.

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

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- ID stamped/Input completed
- Name
- Affiliation
- Costs

Category

Manage Actions

~~*Management & Evaluation*~~

Lead Agency

USFS

Cooperating Agency(ies)

Y N

Passed initial screening criteria

type: education

RANKING H M L Rank Within Categories

 H M L Rank Overall

Project Number - if assigned

Title of Project: Enhanced Trail Opportunities, including Columbia Glacier and Blackstone Glacier National Scenic Trails

Justification:

Recreation use in Prince William Sound decreased or was displaced following the spill. Enhanced recreation opportunities provided by an expanded trail system will increase use, as well as increase accessibility to a portion of the Sound for the less skilled user.

Description of Project:

GOAL: To develop a system of trails serving a range of user skill levels and activities in and around the Sound. The proposal includes a minimum of four components: (1) trails providing access to PWS from the Seward Highway Scenic Byway; (2) a National Scenic Trail along portions of the shoreline of the Sound; (3) connecting trails between salt water recreation facilities, such as mooring bouys and landing sites, and inland recreation attractions; and (4) designated saltwater routes, or "kayak trails".

Potential routes in the system include: Anchorage to the Sound with feeder trails from Girdwood, Portage, and Bird Creek; a shoreline National Scenic Trail through Whittier connecting Point Doran and Blackstone Glacier; a shoreline trail from Valdez to Columbia Glacier; and a network of trails on Montague Island. The total system would be 150-200 miles, and would be designed and managed to accommodate a variety of users including hikers, mountain bikers, and kayakers. Support facilities such as cabins, mooring bouys, and signage would also be provided at appropriate locations.

Estimated Duration of Project: 10-12 year feasibility and construction phase, followed by ongoing operation and maintenance.

Estimated Cost per Year: The project would be funded over a 10-12 year period as follows: FY 93 - \$150,000, FY 94 - \$200,000, FY 95-05 - \$1,000,000 per year.

Other Comments: Implementation of this proposal would require partnerships with other agencies, regional and village corporations, interest and user groups, and private citizens.

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Technical contacts:

Susan Rutherford, Staff Officer
 Dave Hackett, Recreation Specialist

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COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

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Name
Affiliation
Costs

_____ Category

~~Agent Actions~~ Manipul Enhancement

_____ Lead Agency

USFS

_____ Cooperating Agency(ies)

(Y)

N Passed initial screening criteria

type: recreation

RANKING H M L Rank Within Categories

 H M L Rank Overall

_____ Project Number - if assigned _____

29815

Title of Project: Prince William Sound Recreation Facilities

Justification:

Recreation visits to Prince William Sound (PWS) decreased or were displaced as a result of the Oil Spill. Identifying and providing a range of recreation facilities in the Sound will restore lost use and accomodate displaced users. This will enhance the recreation experience of current and future visitors to PWS.

Description of Project:

GOALS: (1) To enhance recreation opportunities in PWS by providing additional recreation facilities, and (2) to maintain the existing character of PWS and the quality of the recreation experience. Facilities would include mooring bouys, public recreation cabins, hardened tent sites, trails, interpretive and informative signs.

PROJECT: To ensure that the quality of the current setting and opportunities is not degraded, the "Limits of Acceptable Change" (LAC) system will be used to determine the best locations and numbers of each type of facility. LAC requires managers, in consultation with the public, to define desired conditions in the recreation setting, and to undertake actions to maintain or achieve these conditions. Results of past planning efforts will also be incorporated, including AK DNR's Prince William Sound Area Plan, Recreation & Tourism Element (June 1987); Potential Units of the AK Marine Parks System (March 1983), and past Forest Service inventories of recreation use areas and potential facilities. Cabins and signs may be located inland along trails that connect Anchorage and the Kenai Penninsula to PWS. Locations will avoid areas that remain impacted by oil, critical waterfowl and wildlife habitats, and other sites which may be affected by increased human use. Interpretation will be used to encourage minimum impact behavior by visitors.

Estimated Duration of Project: 5 years

Estimated Cost per Year: \$250,000

Other Comments: outyear costs will be revised as actual facility needs, sites, sizes and types are decided.

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Technical Contact:
 Susan Rutherford, Staff Officer
 Alison Rein, Landscape Architect

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Title of Project: Sustainable Tourism in Prince William Sound

Justification:

Recreational use decreased or was displaced as a result of the oil spill, and the quality of the experience for visitors was degraded. Negative perceptions of the Sound were also created as a result of the media coverage of the spill and clean-up. Such lingering perceptions may continue to affect people's choice of PWS as a recreational destination.

Description of Project:

GOAL: 1) To research perceptions of PWS as a recreation destination among the travel industry and key segments of the public in Alaska, the lower 48, and international markets; (2) to develop sustainable tourism opportunities in PWS; and (3) to market and promote existing and new opportunities in such a way as to counteract negative perceptions.

PROJECT: Existing perceptions about the desirability of PWS as a recreation destination may be affecting the level of visitation. Lost or displaced recreation use may be restored by a focused effort to determine existing perceptions and then undertaking promotional efforts to overcome inaccurate, negative perceptions.

In addition to promotional efforts for existing opportunities, recreation use may be enhanced by careful development of sustainable tourism. Sustainable tourism is an approach to tourism development that seeks to provide opportunities at a level consistent with "limits of acceptable change", for both the natural environment and the social environment. In other words, resource and land managers working with local populations and interested groups define the amount of change that is acceptable, both environmentally and socially, in an area due to tourism development. For a remote and relatively untouched area such as PWS, low impact tourism such as eco-, heritage, and adventure tourism, provided in such a way that economic benefits stay in the local area, would probably be the most sustainable types of tourism opportunities.

Developing and marketing sustainable tourism would require three-way partnerships between land managers, native corporations, commercial operators, and tourism promoters. Low-interest loans and/or grants would aid in the start-up costs for new ventures.

Estimated Duration of Project: Five years

Estimated Cost per Year: \$240,000 per year (average)

Name, Address, Telephone:

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Technical contact:

Susan Rutherford, Rec Staff Office

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COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

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Name
Affiliation
Costs

Category Mgmt Actions

Lead Agency USFS

Cooperating Agency(ies) ADNR

Y N Passed initial screening criteria

type: recreation

RANKING H M L Rank Within Categories

 H M L Rank Overall

Project Number - if assigned _____

Title of Project: Protect Resources and Enhance Visitor Enjoyment through Increased Administrative Presence

Justification:

Attention drawn to Prince William Sound due to the oil spill has resulted in publicity for sensitive resources, including cultural resources. On-site agency employees can reduce additional human impacts to injured resources through public contact, education, and law enforcement.

Description of Project

GOAL: To reduce additional adverse impacts to wildlife, fisheries, and archeologic resources caused by unintentional or willful actions of visitors.

PROJECT: Current efforts by agencies to protect the resources of PWS are hindered by the remoteness and difficulty of travel in the Sound, as well as low staffing levels. This project would direct additional resources to responsible agencies to enable them to maintain a greater presence in PWS.

Specifically, kayak and powerboat rangers would be stationed throughout the Sound to contact visitors, educate them about the resources of the Sound, and provide guidance on minimizing their impacts through 'Leave No Trace' practices. Additional law enforcement officers would be assigned to the Sound, with cross-jurisdictional authority to enforce all resource protection statutes.

Estimated Duration of Project: Ten years

Estimated Cost per Year: \$500,000

Other Comments:

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Technical contacts:

Susan Rutherford, Staff Officer
 Jim Davis, Special Agent

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EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

29809

Document ID Number
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- B-93 WPWG
- C-RPWG
- D-PAG
- E-MISC.

Title of Project:

PRINCE WILLIAM SOUND IMPLEMENTAION OF INTERPRETIVE PLAN

Justification: (Link to Injured Resource or Service)

There is a need to interpret the extent and effects of the oil spill, what has been done to ameliorate the effects of the spill, what type of research is and has been done and there is a need to enhance the recreational experience through interpretation.

Description of Project:

Goals: 1) To provide an accurate/balanced view of the existing conditions in the sound after the Exxon Valdez oil spill. 2) To provide recreation users information necessary to find their desired recreation experience particularly those experiences affected by the oil spill. 3) To develop eco-tourism recreation opportunities through interpretation of the natural resources and environment in Prince William Sound. 4) To educate the recreation users about minimum impact use of the sound including ways to avoid further damage to resources injured by the oil spill and Leave No Trace camping techniques. 5) To educate and inform the public about the oil spill and its effects on the total environment of the sound including the physical effects on wildlife, the environment, the cultural and historical resources and on the communities in the sound.

Project: The Chugach National Forest is in the process of developing a comprehensive interpretive plan for Prince William Sound which will be completed by June '93. We are looking here for funding to implement the plan. Implementation could include such projects as Forest interpreters on cruise ships in the sound, informational kiosks, interpretive signs and trails at sites throughout the sound, videos, brochures, watchable wildlife sites, etc.

Estimated Duration of Project: 5 years

Estimated Cost per Year: \$150,000 for 5 years

Other Comments _____

Name, Address Telephone:

Bruce Van Zee _____
Forest Supervisor _____
201 East 9th _____
Anchorage, AK 99501 _____

Oil Spill restoration is a public process. Your ideas and suggestions will not be proprietary, and you will not be given any exclusive right or privilege to them.

Technical Contact _____
Anne Jeffery, Public Affairs Officer
271-2508

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

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Title of Project:

PRINCE WILLIAM SOUND KAYAK TRAIL

Justification: (Link to Injured Resource or Service)

Recreational visits to Prince William Sound decreased and the quality of the experience was degraded because of the Exxon Valdez oil spill. We are proposing the creation of a kayak trail system to enhance the recreational experience in Prince William Sound.

Description of Project:

Goal: 1) To enhance the kayaking publics recreational experience in Prince William Sound. 2) To direct the kayaking public to identified camping locations. 3) To provide a variety of interpretive sites on a variety of resources.

Project: We are proposing the development of a system of kayak or other watercraft trails in Prince William Sound. Chugach National Forest will work cooperatively with the state on developing the water routes and will develop primitive campsites and interpretive sites along the selected routes. This project will involve a two-year planning phase and then a five year implementation phase.

Estimated Duration of Project: 7 years

Estimated Cost per Year: \$100,000

Other Comments _____

Name, Address Telephone:

Bruce Van Zee _____
Forest Supervisor _____
201 East 9th _____
Anchorage, AK 99501 _____

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Technical Contact _____

Anne Jeffery, Public Affairs Officer
271-2508

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

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Affiliation
Costs

Category
~~Agmt Action~~ Manip Enhance

Lead Agency
USFS

Cooperating Agency(ies)
ADNR

Y N Passed initial screening criteria

type: recreation

RANKING H M L Rank Within Categories

 H M L Rank Overall

Project Number - if assigned _____

Title of Project:

Eyes on Wildlife - Inured Resources and Their Restoration

Justification:

As a public land management agency, the FS has the responsibility to make available information regarding natural resources and their management to facilitate informed public involvement in decision making. Extensive efforts have been made to assess effects to resources in Prince William Sound by the 1989 oil spill, and efforts are ongoing to assure a full recovery. The Exxon Valdez oil spill was and still is of international significance, and holds a prominent position in the debate over oil production and transport as opposed to alternative energy sources.

Description of Project:

Goal: To provide objective, complete information on the natural resources of western Prince William Sound, the effects to these resources as a result of the 1989 Exxon Valdez oil spill, and the cooperative efforts by agencies and organizations to restore resources injured in this event.

Objective: Develop interpretive programs, videos and displays for use on Alaska Marine Highway Ferry System.

Objective: Work cooperatively with guide operators in Prince William Sound to provide interpretive services (biologists, interpreters, information) on tours.

Objective: Develop interpretive videos and displays for the Glacier Ranger Station, the Beggich-Boggs Visitor Center, and the International Airport.

Objective: Provide education opportunities for area schools and childrens and adult groups and organizations.

Objective: Conduct a Prince William Sound Ecology Tour which would take visitors to oil spill effected areas, describe resources injured due to oiling, and discuss efforts being made to restore habitat and dependent species.

Location: The scope of this project would include but not be limited to western Prince William Sound, Anchorage municipality, Whittier, Seward and Girdwood.

Estimated Duration of Project:

Ongoing.

Estimated Cost per Year:

\$200,000

Other Comments:

Name, Address, Telephone:

Charla Sterne
 Wildlife Biologist
 Glacier Ranger Station
 PO Box 129
 Girdwood, AK 99587
 907-783-3242

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EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

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Title of Project:

PBS PROGRAM ON PRINCE WILLIAM SOUND

Justification: (Link to Injured Resource or Service)

We are proposing an hour-long PBS program which will look at the oil spill itself, the injured resources (wildlife, birds, fish, scenic, recreational, economic), restoration and research efforts and where the sound is today.

Description of Project:

The Exxon Valdez oil spill was an event that had national significance. The impact the oil spill had on Prince William Sound, what has and is being done to mitigate the effects of the spill, what we have learned from this experience and what the sound is like today are of national interest and concern. We have targeted PBS because this is the type of programming that they use and we could reach a national audience through PBS.

Since PBS relies on independent producers for much of their programming the focus of this proposal will be on preparing an information packet, contacting potential producers, providing potential producers access to information and chances to travel to the sound, and looking for other sources of funding or services to cover the cost of actual production.

Estimated Duration of Project: 1 year

Estimated Cost per Year: \$70,000 for 1993 only

Other Comments _____

Name, Address Telephone:
Bruce Van Zee _____
Forest Supervisor _____
201 East 9th _____
Anchorage, AK 99501 _____

Oil Spill restoration is a public process. Your ideas and suggestions will not be proprietary, and you will not be given any exclusive right or privilege to them.

Technical Contact _____
Anne Jeffery, Public Affairs Officer
271-2508

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

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Name
Affiliation
Costs

Category

Mgmt Action

Lead Agency

USFS

Cooperating Agency(ies)

(Y)

N

Passed initial screening criteria

type: education

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Rank Overall

Project Number - if assigned _____

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

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FORMAT FOR IDEAS FOR RESTORATION PROJECTS

Title of Project:

PRINCE WILLIAM SOUND FAMILY OF VIDEO PROGRAMS

Justification: (Link to Injured Resource or Service)

Recreational visits to Prince William Sound and the quality of the experience decreased as a result of the oil spill. This proposed project will enhance the recreational experience as well as provide a mechanism to inform not only the recreational users of the sound but a diverse audience of other interested publics about the sound and its recovery from the spill.

Description of Project:

Goals: 1) To provide an accurate/balanced view of the existing conditions in PWS after the Exxon Valdez oil spill. 2) To enhance eco-tourism recreational opportunities and experiences through the interpretation of the natural resources and the environment in PWS. 3) To provide a media that can be presented to a wide variety of audiences for the purpose of informing the public about the oil spill and the sound.

Project: We are proposing the development and production of a family of videos on PWS. The focus of the videos will be on how different subject areas were or were not affected by the oil spill. These will be short (5-10 minute) videos that can be used in visitor centers, in kiosks, taken to schools, public meetings or can be sent off as stand alone entities to whomever has a need for this type of information. Subjects to be covered by the videos would include Cultural Resources, People's Impact on Prince William Sound Over Time, Marine Mammals of the Sound, Plants, Anadromous Fish, Upland wildlife, Water Birds, Upland Birds. and Recreational Opportunities in Prince William Sound.

Estimated Duration of Project: 3 years

Estimated Cost per Year: \$100,000 a year for three years

Other Comments _____

Name, Address Telephone:

Bruce Van Zee _____
Forest Supervisor _____
201 East 9th _____
Anchorage, AK 99501 _____

Oil Spill restoration is a public process. Your ideas and suggestions will not be proprietary, and you will not be given any exclusive right or privilege to them.

Technical Contact _____
Anne Jeffery, Public Affairs Officer
271-2508

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

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Name
Affiliation
Costs

 Category Mgmt Action

 Lead Agency USFS

 Cooperating Agency(ies)

(Y) N Passed initial screening criteria

RANKING H M L Rank Within Categories

 H M L Rank Overall

 Project Number - if assigned

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

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Title of Project:

PRINCE WILLIAM SOUND LARGE FORMAT PHOTOGRAPHIC BOOK

Justification: (Link to Injured Resource or Service)

The Exxon Valdez oil spill injured those resources (scenic, wildlife, wilderness...) that drew people to Prince William Sound. This perception of the sound as soiled and blemished, remains because of the power of the photographs and visual images that came out at the time of the spill. Recreational visits to PWS have decreased as a result of the spill and the desirability of PWS as a travel destination has also decreased.

Description of Project:

Goal: The goal for this project is to combat the persistent image of Prince William Sound as it was during the oil spill with images of how it is today. To present in a visual media that even though the Sound was injured from the oil spill it is recovering and should again be considered as a travel and recreational destination.

Project: We are proposing the creation of a large format coffee table style photographic book on Prince William Sound. The book would be long on photographs and short on text, it would use the power of the visual image to demonstrate that Prince William Sound is recovering from the effects of the spill and should be considered as a travel destination. Subjects to be covered in the book would include cultural and historical resources, wildlife, fish, commercial fishing, local communities and of course the incredible scenery of the sound.

Estimated Duration of Project: 2 1/2 Years

Estimated Cost per Year: \$100,00 for '93 & '94 and \$50,000 for '95

Other Comments _____

Name, Address Telephone:
Bruce Van Zee _____
Forest Supervisor _____
201 East 9th _____
Anchorage, AK 99501 _____

Oil Spill restoration is a public process. Your ideas and suggestions will not be proprietary, and you will not be given any exclusive right or privilege to them.

Technical Contact _____
Anne Jeffery, Public Affairs Officer
271-2508

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS



Checked for Completeness

ID stamped/Input completed
Name
Affiliation
Costs

Category

Mgt Action

Lead Agency

USFS

Cooperating Agency(ies)

Y N

Passed initial screening criteria

type: education

RANKING H M L Rank Within Categories

 H M L Rank Overall

Project Number - if assigned

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

Title of Project:

Oil Spill Injured Resources Literature Research and Review

Justification:

A voluminous amount of information on resources injured in the 1989 oil spill is becoming available to managers. Remaining abreast of the currently growing knowledge base is a time consuming effort, but necessary to assure effective restoration activities.

Description of Project:

Goal: To remain updated on life history and habitat requirements of injured resources, and habitat and species response to oiling and restoration efforts.

Objective: Take two weeks each year to research and review literature on injured species biology and habitat restoration, enhancement and maintenance.

Objective: Update literature files of non-oilspill information on populations in Prince William Sound from other state and federal agencies.

Objective: Obtain Department of Fish and Game data base of streams in National Forest Land and update yearly; this would be maintained in a data file easily accessible at the district office.

Objective: Maintain information gathered in a computer-based reprint library to facilitate retrieval and use.

Location: Research would be conducted both at the oil spill library located in the Simpson Building, Anchorage, and at the Federal Building Library. Information gathering would not be limited, however, to literature review as consultation with experts should also be pursued. The reprint library would be maintained at the district office.

Estimated Duration of Project:

Ongoing.

Estimated Cost per Year:

\$6,500

Other Comments:

Name, Address, Telephone:

Charla Sterne
Wildlife Biologist,
Glacier Ranger Station
PO Box 129
Girdwood, AK 99587
907-783-3242

Kate Wedemeyer
or
Fisheries Biologist

Document ID Number	
920615218	03
<input type="checkbox"/>	A-92 WPWG
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<input type="checkbox"/>	E-MISC.

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

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Name
Affiliation
Costs

 Category
 Tech Support

 Lead Agency
 USFS

 Cooperating Agency(ies)

 Y N Passed initial screening criteria

 type : services

RANKING H M L Rank Within Categories

 H M L Rank Overall

 Project Number - if assigned

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL
FORMAT FOR IDEAS FOR RESTORATION PROJECTS

Document ID Number	920622326
<input type="checkbox"/> A-92 WPWG	
<input checked="" type="checkbox"/> B-93 WPWG	
<input type="checkbox"/> C-RFWG	
<input type="checkbox"/> D-PAG	
<input type="checkbox"/> E-MISC.	

Title of Project: A multi-agency/university ecosystem study of Prince William Sound.

Justification: The need for testable, functional response models of ecosystem processes in Prince William Sound were identified as necessary to determine impacts of the oil spill in the 1990 conference on research in the Prince William Sound, the 1991 workshop on Hatchery and Wild Salmon, and by the oil spill damage assessment program.

Description of the Project:

There is a need for more comprehensive, large scale, high resolution, and synoptic information than is available to truly understand the oil spill impacts on the ecosystem. This view is corroborated by the National Science Foundation GLOBEC reports on determining the impact of climate change on ocean ecosystems (1991).

The development of ecosystem models requires the use of many different measurement tools which have the power to provide large-scale and high-resolution information which is quasi-continuous in space, synoptic in time, rapid, and cost-effective. The accepted measurement technologies for such a task are optical and acoustical data acquisition systems.

We propose the use of satellite, aerial, and underwater acoustic-optical sampling to map habitats, stationary resources, and mobile resource to determine their response to environmental changes. Data will be fused into a GIS using geo-time coding information.

The research team is multi-organizational:

- Dr. G.L. Thomas (Director, acoustics, Science Center),
- Dr. Ted Cooney (Professor, biological oceanographer, University of Alaska Fairbanks),
- Dr. Larry Pank (M. Mammals and Birds, USFWS, Anchorage),
- Dr. Douglas Eggers (population models, ADF&G),
- Auke Bay Laboratory, NMFS, Marine Resources, Juneau,
- U.S. Forest Service, coastal watersheds, Juneau.

Estimated Duration of Project: 9 years

Estimated costs per Year: \$6,000,000 (\$1,000,000 each organization)

Other comments: The Science Center, as an independent non-profit, will take the lead, but all parties will participate in the modeling.

Name, Address, Telephone:

Dr. G.L. Thomas, Director
Prince William Sound Science Center
P.O. Box 705
Cordova, AK 99574
(907) 424-5800 - FAX 424-5820

Dr. R.T. Cooney, Professor
Institute of Marine Science
University of Alaska Fairbanks
Fairbanks, Alaska
(907) 474-7407

Document ID Number	
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Oil spill restoration is a public process. Your ideas and suggestions will not be proprietary, and you will not be given any exclusive right or privilege to them.

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

Document ID Number
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<input type="checkbox"/> A-92 WPWG
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<input type="checkbox"/> C-RPWG
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<input type="checkbox"/> E-MISC.

Title of Project: Coastal Habitat Injury Assessment - Intertidal Algae

Justification: (Link to Injured Resource or Service)

This is a continuation of the NRDA CHIA project which is documenting the injury from the EVOS in the intertidal zone, funded through the U.S. Forest Service.

Description of Project: (e.g. goal(s), objectives, location, rationale, technical approach)

Goals: To quantify damage to the algal resources in the intertidal zones in Prince William Sound (PWS), Cook Inlet/Kenai (CIK) and Kodiak/Alaskan Peninsula (KAP) caused by the EVOS and clean-up.

Objectives:

1. To quantify the damage to the intertidal algae in four different habitats of the three areas affected by the EVOS.
2. To compare percent covers of all algal genera in oiled and control sites.
3. To assess the biomass of all algal genera from oiled and control sites.
4. To determine damage to *Fucus* in oiled areas.
5. To determine differences in biodiversity between oiled and control sites.
6. To determine the persistence of the damage over time.

Location: Field work is completed in PWS, CIK, and KAP. Lab work-up will be done at the Juneau Center for Fisheries and Ocean Sciences.

Rationale: The intertidal zone was the major area of impact as a result of the EVOS. Substantial amounts of oil hit the coastline from Prince William Sound to the Alaskan Peninsula. Extensive cleaning activities following the spill were concentrated in the intertidal zone, creating large bare areas. The intertidal areas are habitat to hundreds of species of algae, invertebrates, fish, birds, and mammals. The foundation of the intertidal is composed of the algal and sessile invertebrate communities. Impact to this foundation will have far-reaching ramifications to the other users of the habitat. A quantitative assessment of the impact of the EVOS and clean-up is essential to understand the true effects (damage) of the spill.

Technical Approach: Samples have already been collected for the field seasons of 1989-91 according to previously submitted Standard Operating Procedures. Lab work-up is partially finished. For this proposal the lab work-up, data entry, data analyses, and preparation of a final report will be completed.

Estimated Duration of Project: One Year

Estimated Cost per Year: \$620,000

Other Comments: This is a cooperative project with Dr. Ray Highsmith of the University of Alaska, Fairbanks and Coastal Resources Associates.

Name, Address, Telephone:

Dr. Michael S. Stekoll
University of Alaska
11120 Glacier Highway
Juneau, AK 99801
907-789-4579

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ID # 920610229-03

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

✓ Checked for Completeness

- ✓ ID stamped/Input completed
- ✓ Name
- ✓ Affiliation
- ✓ Costs

✓ Category
Damage Assessment

✓ Lead Agency
USFS

Cooperating Agency(ies)

Y N Passed initial screening criteria

type - CH

RANKING H M L Rank Within Categories

H M L Rank Overall

Project Number - if assigned _____

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

Document ID Number
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<input type="checkbox"/> A-92 WPWG
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<input type="checkbox"/> D-PAG
<input type="checkbox"/> E-MISC.

Title of Project: Remote Monitoring of Intertidal Recovery at Affected Sites

Justification: (Link to Injured Resource or Service)

The mid to upper intertidal zone in Prince William Sound has been damaged by the EVOS and subsequent clean-up activities.

Description of Project: (e.g. goal(s), objectives, location, rationale, technical approach)

Goals: To quantify the extent of the damage to the mid and upper intertidal zones in Prince William Sound caused by the EVOS.

Objective: To quantify the damage to the intertidal areas in Herring Bay using remote sensing techniques.

Location: Experiments will be conducted in Herring Bay, Prince William Sound.

Rationale: Extrapolating the damage we have documented inside of Herring Bay to similar habitats outside of Herring Bay indicates that a substantial loss of habitat and productivity occurred within Prince William Sound. It will be important to quantify the restoration of Fucus and other algal populations (and mussel beds) over the entire Prince William Sound area. The loss of Fucus from the upper intertidal habitat has created large areas of bare substrate. The CASI (Compact Airborne Spectrographic Imager) studies conducted in Herring Bay during the summer of 1990 showed that Fucus and other algal populations can be easily discerned from bare substrate. The area and location of these barren regions can be mapped by remote sensing instruments sensitive to radiation in the near infrared region of the spectrum. There are now a number of new, low cost video techniques being developed for this type of monitoring. These techniques would be ideal for covering the large amount of shoreline within PWS that was impacted by the EVOS. Images taken on an annual basis would allow accurate monitoring of the recovery of all of the affected beaches.

Technical Approach: The current Herring Bay studies offer an extensive set of data with which to ground-truth video techniques for monitoring Fucus populations. We propose using Herring Bay as a model to test the more extensive use of this type of monitoring technique in the areas affected by the EVOS. Both the correlation with the ground surveys and the ease of inputting this type of data into a GIS format will be tested.

Estimated Duration of Project: One Year

Estimated Cost per Year: \$90,000

Other Comments: This project could be combined with the *Fucus* recovery monitoring studies to realize cost savings, especially with respect to logistics. This is a cooperative project with Coastal Resources Associates.

Name, Address, Telephone:

Dr. Michael S. Stekoll
University of Alaska
11120 Glacier Highway
Juneau, AK 99801
907-789-4579

Oil spill restoration is a public process. Your ideas and suggestions will not be proprietary, and you will not be given any exclusive right or privilege to them.

ID # 9206/0229-04

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

_____ Checked for Completeness

- ID stamped/Input completed
- Name
- Affiliation
- Costs

_____ Category
monitoring

_____ Lead Agency
USFS

_____ Cooperating Agency(ies)

Y N Passed initial screening criteria

type - CTT

RANKING H M L Rank Within Categories

 H M L Rank Overall

_____ Project Number - if assigned _____

IDEAS FOR RESTORATION PROJECTS

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15260

Title: Restoration Recovery Monitoring of Stream-Rearing Anadromous Salmonids

Justification: Anadromous populations of cutthroat trout and Dolly Varden char and, perhaps, coho salmon suffered significant impacts from the oil spill when they migrated from streams to forage in Prince William Sound (PWS). This study will assess the current condition of stream-rearing populations and their habitats and establish baselines to monitor restoration recovery. Determination of critical riparian habitat will enable managers to effectively acquire land to enhance and protect recovery.

Description: Objectives are to 1) determine condition of riparian habitat, availability of instream habitat, and abundance of stream-rearing anadromous salmonids in oiled and non-oiled areas of PWS; 2) identify streams that are below estimated carrying capacity and needing restoration; 3) implement restoration work to increase fry recruitment or improve habitat in streams with depressed stocks; and 4) establish baselines to monitor recovery of fish populations during restoration efforts in PWS. All streams in oiled and non-oiled areas of PWS will be stratified using the FS Channel Type Classification System, and randomly selected reaches in each stratum will be sampled for habitat and fish populations. Study reaches will be distributed among 10-20 watersheds, one-quarter in non-oiled areas and three-quarters in oiled areas. Habitat measurements will include pool-riffle area, stream flow, water quality (temperature, DO, nutrients), and large woody debris. Late-summer fish densities in oiled and non-oiled areas will be compared to determine if streams are fully seeded. Condition of fish will be examined for indirect oil-related injuries. With information from this study, we will develop and implement a plan to increase fry recruitment or improve habitat in streams needing restoration.

Estimated Duration: 3 years

Estimated Cost per Year: \$200,000

Comments: This study will be a cooperative study with the FS Chugach National Forest and complement proposal #39, by Robert Olsen entitled "Fish Limiting Habitat Factor Analysis". Forest Service expertise is required for mapping and ground verification of Channel Types. Additional funds will be required for the FS portion of this study.

Contact: Dr. K V. Koski
 NMFS Auke Bay Laboratory
 11305 Glacier Hwy
 Juneau, AK 99801-8626 (907) 789-6024

ID # 920615260

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

✓ Checked for Completeness

- ✓ ID stamped/Input completed
- ✓ Name
- ✓ Affiliation
- ✓ Costs

✓ Category Monitoring

✓ Lead Agency USFS

Cooperating Agency(ies)

Y N Passed initial screening criteria

type F/S

RANKING H M L Rank Within Categories

H M L Rank Overall

Project Number - if assigned

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Exxon Valdez Trustee Council
645 G St.
Anchorage, Alaska 99501

Attn: 1993 Work Plan

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL
FORMAT FOR IDEAS FOR RESTORATION PROJECTS

Document ID Number	920617314
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Title of Project:

Justification: (Link to Injured Resource or Service)

Description of Project: (e.g. goal(s), objectives, location, rationale, and technical approach)

GOALS TO Provide TIMELY AND ACCURATE AND Full descriptions of The work OF The 'EXXON VALDEZ OIL SPILL RESTORATION TEAM' TO The NEWS MEDIA.
OBJECTIVES Provide Press Releases AND summaries OF The Council's work THAT ARE OBJECTIVE AND produced INDEPENDENTLY OF The Council.
PURPOSE: ENHANCE COMMUNICATIONS BETWEEN The Council AND The MEDIA VIA AN EXPERIENCED JOURNALIST.
RATIONALE: EDITORS + REPORTERS WILL HAVE THEIR NEED FULFILLED FOR ACCURATE, UNBIAS INFORMATION ABOUT The Council's work. The Press Releases would be produced by AN INDEPENDENT JOURNALIST, AND distributed TO The ALASKAN MEDIA.

Estimated Duration of Project: Life OF The Council

Estimated Cost per Year: \$85,000

Other Comments: EXPENSES INCLUDE Travel, DATA COMMUNICATIONS AND MANAGEMENT, PHONE, POSTAGE AND PRINTING. ERIC R. MUEHLING IS AN EXPERIENCED ALASKAN JOURNALIST (12 YEARS).

Name, Address, Telephone:

ERIC R. MUEHLING
201 BARNETTE ST.
FRIEBANKS, AK 99701

Oil spill restoration is a public process. Your ideas and suggestions will not be proprietary, and you will not be given any exclusive right or privilege to them.

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Exxon Valdez Trustee Council
645 G St.
Anchorage, Alaska 99501

Attn: 1993 Work Plan

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

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ID stamped/Input completed
Name
Affiliation
Costs

Category ~~Tech. Support~~ Management Action

Lead Agency USFS (ADMIN. DIR OFF)

Cooperating Agency(ies) ~~Whose~~ DEC

Y N Passed initial screening criteria

type - education

RANKING H M L Rank Within Categories

H M L Rank Overall

Project Number - if assigned _____



MOSS LANDING MARINE LABORATORIES

CALIFORNIA STATE UNIVERSITY FRESNO. HAYWARD. SACRAMENTO. SAN FRANCISCO. SAN JOSE. STANISLAUS

P. O. BOX 450
MOSS LANDING, CA USA
95039-0450
(408) 633-3304

10 June 1992

To: Exxon Valdez Oil Spill Trustee Council
Re: Format For Ideas For Restoration Projects

Document ID Number
920616307
<input type="checkbox"/> A-92 WPWG
<input checked="" type="checkbox"/> B-93 WPWG
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<input type="checkbox"/> E-MISC.

Title: Restoration of high intertidal Fucus following the Exxon Valdez oil spill.

Justification:

The upper intertidal zone in Prince William Sound is dominated by the brown alga Fucus gardneri. The upper half vertical meter of the Fucus zone has not recovered from the Exxon Valdez oil spill. After three years, we estimate that 10 hectares of rocky shore in Herring Bay alone are still nearly barren, while control areas average 80 percent cover of Fucus. This high intertidal habitat is unique because it is almost always exposed to air. This means that it is a harsh environment for recruitment and recovery, but also important to shorebirds and terrestrial organisms that frequent the intertidal habitat.

Description of project:

The purpose of this project is to learn how to restore Fucus to the upper intertidal regions of the rocky shores of Prince William Sound. Once the techniques are developed, they can then be used at a larger scale on damaged locations, or immediately following future oil spills.

We are currently involved with projects developed to test the success and cost versus benefit of transplanting individuals and whole assemblages of Fucus. These studies should be continued to determine long term results.

We have also developed, based on our current studies, two methods of temporarily modifying the upper rocky shore to enhance Fucus recruitment and growth. However, there have been no funds for field tests. The methods include a simple seawater trickle irrigation system and seeded mesh substratum modifier. Details are discussed in our past proposals and will be fully developed again when there is more space allotment in upcoming proposal requests.

Estimated duration of project: 2-3 years

Estimate Cost per Year: \$ 65,000

Name, Address, Telephone:

Dr. Andrew De Vogelsere
P.O. Box 450
Moss Landing, CA 95039
(408) 633-5856
(408) 728-2822
FAX (408) 728-1056

Dr. Michael Foster
P.O. Box 450
Moss Landing, CA 95039
(408) 633-3304
FAX (408) 753-2826

ID # 920616307

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

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Name
Affiliation
Costs

Category
Rest. Manipulation or Enhancement

Lead Agency
USFS

Cooperating Agency(ies)

Y N Passed initial screening criteria

_____ type - Ctt _____

RANKING H M L Rank Within Categories

 H M L Rank Overall

Project Number - if assigned _____

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

2-10-93

Document ID Number
920615298

A-92 WPWG

B-93 WPWG

C-RFWG

D-PAG

E-MISC.

Title of Project: VALDEZ VISITOR CENTER

Justification: (Link to Injured Resource or Service)

The community of Valdez was directly injured by the oil spill. Not only were the resources of the area impacted by the spill, but the community suffered a social upheaval during the spill, and tourism to the area declined. The construction of a Valdez visitor facility focused on interpretation of the oil spill and its effects, would provide economic growth for the community and would provide a forum to disseminate information about the event. There is a manifest need for facilities in which information about the Prince William Sound ecosystem and the oil spill can be shared. Valdez is logically the primary port of call for visitor exposure to oil spill information.

Description of Project: (e.g. goal(s), objectives, location, rationale, and technical approach)

Each year, approximately one out of every ten Alaska visitors (100,000) passes through Valdez to explore the area and travel through Prince William Sound. Little information on Prince William Sound, agency management, or the Exxon Valdez Oil Spill is available to these visitors. A Forest Service Visitor Center in Valdez would fill this obvious niche and provide a forum to objectively discuss human impacts on the Prince William Sound ecosystem. Previous proposals and evaluations have been completed for the Valdez facility.

The goal of an interpretive facility in Valdez is to tell the oil spill story from start to finish, to supplement existing interpretive programs and to create additional programs covering the complex Prince William Sound and the Copper River Delta ecosystems. These programs would not only explain humans' role in the ecosystem and our impacts on those systems, but also explain the natural and cultural history of the area. Previous discussions have occurred with key people in Valdez. The proposal is highly supported in the Valdez community.

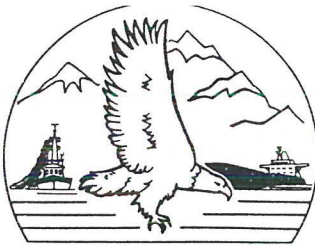
Although planning and public involvement will determine the scope of a Valdez center, a likely facility would be a modest log cabin-style structure incorporating a rustic Alaskan appearance. Public, work, storage and office space would be included in the design. This proposal suggests a five year funding strategy, with Phase 1, Planning and Design, occurring in FY 1993. Construction of the facility and accompanying exhibits is covered in FY 1994. Operation of the facility and the interpretive program is covered under FY 1995-1997.

Estimated Duration of Project: Five Years, 1993-1997

Estimated Cost per Year:

FY 1993	FY 1994	FY 1995	FY 1996	FY 1997
Phase 1	Phase 2	Phase 3	Phase 4	Phase 4
\$25,000	\$150,000	\$40,000	\$40,000	\$40,000

Other Comments: Cooperating agencies include; City of Valdez, Copper River Delta Institute Glacier Ranger District, Alaska Marine Highway System, Alaska State Parks, Prince William Sound Science Center, Alyeska Corporation, US Coast Guard. This proposal addresses Items #7, 12, and 33 of the potential restoration options identified in the Restoration Framework.



VALDEZ CHAMBER OF COMMERCE

June 11, 1992

Document ID Number	920617312
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<input checked="" type="checkbox"/> B-93 WPWG	
<input type="checkbox"/> C-RFWG	
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<input type="checkbox"/> E-MISC.	

*Exxon Valdez Oil Spill Restoration Team
645 G Street
Anchorage, Ak 99501
ATTN: Dave R. Gibbons*

Dear Mr. Gibbons,

The Valdez Chamber of Commerce would like to respond to your inquiry for Ideas and Restoration Projects Format. We are sure you are aware the oil spill still carries an impact for all the areas of Prince William Sound. People are still very concerned as to the long term effect on the land, wildlife and other environmental issues. Valdez, being the main hub of tourist activity is the primary source of information request. A fund allocation from your organization would enable us to construct a much needed enlarged visitor center. The present facility is a rental property and with the increased tourist traffic since the oil spill fails to meet the progressive needs of expansion.

This site would serve primarily as the visitor's center and secondly as a consolidated non-profit center. A consolidation of facility space would decrease operational costs for all involved. The ability to share staff, maintenance and utilities would allow these groups to utilize a larger percentage of their funds to obtain the group's express purpose.

The community has joined forces to map out a unified strategy to ensure the protection of this important economic industry, TOURISM. It certainly seems the base funding for this plan should be ensured from the origin creating the need. Plans are underway for the construction of a facility with a minimum of ten thousand square feet. The organization listed below have been directly impacted by the spill and are currently working to bring this project to fruition.

*The Valdez Chamber of Commerce
The Valdez Convention and Visitors Bureau
The Valdez Fisheries Development Association
The Prince William Sound Economic Development Council*

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*Exxon Oil Spill Restoration Team
Page 2*

The projected cost of this undertaking is \$850,000 with a targeted time line of:

- 1992 - Approval of Funding*
- 1993 - Spring Purchase of Land*
- 1993 - Summer, Construction of Building*
- 1994 - Fully Operational*

*The City of Valdez has received world wide recognition as the focal point of the most impacted area of the Exxon Oil Spill that occurred on March 25, 1989. The great state of Alaska, the City of Valdez, and the entire Prince William Sound Area must undertake the task of ensuring that our state's fast growing economic resource, **TOURISM**, suffers no long term damage from this most unfortunate incident. For this goal to be obtained, there must be a strong commitment effort from many private enterprises, government (local, state, and federal) as well as tourist and economic developed non profit agencies. The project will take years of solid marketing to dissipate the negative impact of the oil spill.*

Valdez alone has a growing tourism economy that is understanding substantial growth in cruise ships, planes, rubber tire traffic of over ten percent annually. The number of tourist into our city for 1991 was 130,000 people. Expectations this year are for 150,000. We are the entry port for Prince William Sound as well as the northern most ice-free port in the state, allowing year round marine access to the entire State of Alaska. Should a state park be developed in the Sound area as currently being proposed we would also be the gateway for that park facility.

As the center of the spill impacted area, Valdez is crucial to communicating to the general public the area's recovery from the oil spill and the strong bond for promoting tourism throughout Alaska. Numerous world wide dignitaries as well as thousands of other tourist visit Valdez and Prince William Sound. Many base the state's environmental status by the survival of wildlife, industry, and its people after this tragic event.

The Valdez Chamber of Commerce, acting as a representative and liaison for the business community of our city, as well as the many businesses within Prince William Sound, urges your organization to list this a priority consideration for funding.

Sincerely and Respectfully,

*V. E. (Rick) Collins
President
Valdez Chamber of Commerce*

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL
FORMAT FOR IDEAS FOR RESTORATION PROJECTS

Document ID Number 920615298
 A-92 WPWG
 B-93 WPWG
 C-RPWG
 D-PAG
 E-MISC.

Title of Project:

MULTI-AGENCY LIBRARY ON PRINCE WILLIAM SOUND AND COPPER RIVER DELTA

Justification:

PWS communities, along with public and private agencies in PWS need scientific information on Prince William Sound and the Copper River Delta that is readily and publicly available in order to plan and assess restoration activities. A multi-agency public library in Cordova would mitigate the impact of services lost because of the Exxon Valdez oil spill. The U.S. Forest Service, Alaska Department of Fish and Game, U.S. Fish and Wildlife Service, Alaska Department of Environmental Conservation, PWS Science Center and associated Oil Spill Recovery Institute, and PWS Community College are located in Cordova and would benefit from the library along with the general public.

Description of Project:

A multi-agency, public library administered by the Copper River Delta Institute, USDA Forest Service would be established. The library would maintain a complete list of existing data files on research, inventory, and monitoring information on Prince William Sound and Copper River Delta. Whenever possible, data would be housed in the library. Otherwise, the library would maintain a catalogue that identified the owner and location of the data, the content, when it was collected, and the geographic area data pertained to. The library would also include a complete bibliography of published research, and major development activities that have been conducted in Prince William Sound and the Copper River Delta. The library would maintain a current list of active administrative and research studies in Prince William Sound and on the Copper River Delta, including off-site studies that have direct connections to current studies.

This proposal suggests a ten-year funding strategy. First year activities include acquisition of reference materials and operation of a temporary facility. Planning and design for a newly constructed or long-term leased facility would also take place in Year One. In the second year, construction or renovation would be undertaken, followed by operation in the permanent facility. Operations are covered under Years Three to Ten.

Estimated Duration of Project: 10 Years.

Estimated Cost per Year:

First Year \$150,000. Second year \$200,000. Third-Tenth Year \$100,000.

Other Comments:

Cooperating agencies include: U.S. Forest Service, Alaska Dept. Fish and Game, U.S. Fish and Wildlife Service, Alaska Dept. Environmental Conservation, PWS Science Center and the Oil Spill Recovery Institute.

Name, Address, Telephone:

Dr. Mary Anne Bishop, Acting Manager,
Copper River Delta Institute, Pacific Northwest Research Station
USDA Forest Service,
P.O. Box 1460, Cordova, AK 99574,
(907) 424-7212, (907) 424-7214 FAX.

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

Checked for Completeness

ID stamped/Input completed
Name
Affiliation
Costs

Category Tech Support

Lead Agency USFS

Cooperating Agency(ies)

Y N Passed initial screening criteria

type - service

RANKING H M L Rank Within Categories

 H M L Rank Overall

Project Number - if assigned _____

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

Title: Establishment of a natural resource library and computer support technical service in Cordova to assist the management and research of oil spill damaged natural resources.

Justification: Needed for researchers in the Cordova area to carry-out damage assessment and restoration activities.

Description of Project: Build a natural sciences library of relevant journals and books to support local researchers and managers and hire a full-time computer/librarian to provide technical support. About 100 researchers, managers, and teachers work in the Cordova area with the responsibility to conduct projects on renewable natural resources. A science library and reading room is desperately needed to improve the quality of the research and management responsibilities. The continuation of damage assessment and startup of restoration projects would be greatly enhanced by the development of a library with current periodicals on timber, fish and wildlife subjects, and a full-time a computer support/librarian to provide needed technical support.

Estimated Duration of Project: 9 years

Estimated costs per Year: First year \$450,000, subsequent years \$100,000.

Other comments: This project will be conducted in cooperation with Mr. Sam Sharr and Mr. Wayne Donaldson at Alaska Fish and Game, Dr. Mary Anne Bishop at the Copper River Delta Institute, Mr. Jeff Olsen at the Prince William Sound Aquaculture Corporation, Mr. Randy Hagenstein, Science Center consultant.

Name, Address, Telephone:

Dr. G.L. Thomas, Director
Prince William Sound Science Center
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Cordova, AK 99574
(907) 424-5800

Oil spill restoration is a public process. Your ideas and suggestions will not be proprietary, and you will not be given any exclusive right or privilege to them.

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COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

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- ✓ Name
- ✓ Affiliation
- ✓ Costs

✓
Category
Technical Support

✓
Lead Agency
USJA

Cooperating Agency(ies)

Y N Passed initial screening criteria

RANKING H M L Rank Within Categories

H M L Rank Overall

Project Number - if assigned _____

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

Title of Project: Development of a video library of intertidal habitat and biota to assess the magnitude of the oil spill impact and determine long-term recovery.

Justification: The development of a video library of the intertidal habitat in Prince William Sound would be linked to damaged resources and provide a service to continued damage assessment and future restoration projects.

Description of Project: The difficulty in obtaining large-scale information to classify and map intertidal habitat has been overcome with the use of geo-time coded video recorders. Just as satellites and aerial photography provide maps of information on terrestrial habitats, geo-time coded video can be used to develop libraries of shoreline habitat and the biota for specific analysis or post-processing assessments.

The quantification of the intertidal substrate and classifying substrate by testing the "substrate-dependence hypothesis" is directly applicable to the long-term assessment of the oil spill and evaluation of future spill impacts.

I propose to video-scan intertidal areas of Prince William Sound to develop an optical record of the type and quality of intertidal habitat and organisms present. Video-scanning will be systematically conducted to cover the entire shoreline of Prince William Sound and optimally placed subsamples will be collected for biological information by zooming in a standard quadrat. This video library can be poststratified and processed using multi-media and digitizing software to create highly accurate maps of intertidal habitat and stock assessment of organisms. However, I propose only to analyze large scale data for this task, and not process the subsample information. This data will be available for processing at a future date if needed for damage or restoration assessment.

Other comments: The Science Center would work cooperatively with University of Alaska Fairbanks to produce a testable intertidal model for Prince William Sound. Intertidal habitat maps will be generated with the Center's GIS facility. A detailed proposal on the model and field testing procedures are available from Dr. G.L. Thomas at the Science Center.

Estimated Duration of Project: 10 years

Estimated costs per Year: \$155,111

Name, Address, Telephone:

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COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

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- Name
- Affiliation
- Costs

Category
Technical Support

Lead Agency
USDA

Cooperating Agency(ies)

Y N Passed initial screening criteria

RANKING H M L Rank Within Categories

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Project Number - if assigned _____

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TITLE OF PROJECT:

Chenega Bay Replacement Subsistence Resource Project.

JUSTIFICATION:

Due to oil spill, subsistence resources are either grossly polluted or populations are seriously reduced.

DESCRIPTION OF PROJECT:

- A. Goals: To replace subsistence resources by permitting residents of Chenega Bay to travel to the Eastern Prince William Sound area for subsistence resources, to provide funding for such travel, to provide funding for other villages, e.g. Yakatat, to assist us in gathering, preserving, sending subsistence goods from other villages, until either the resources in areas we use are no longer polluted or are in sufficient quantities for our use.
- B. Objective: To preserve the health and welfare of residents of Chenega Bay and their subsistence way of life and to restore injured subsistence resources.
- C. Location: Southwestern Prince William Sound.
- D. Rationale: The NRDA studies have established the depletion of subsistence resources in our area.
- E. Technical Approach: None.

ESTIMATED DURATION OF PROJECT:

10-15 years in most areas; others, up to 25 years.

ESTIMATED COST PER YEAR:

\$50,000.

OTHER COMMENTS:

This approach was suggested to Exxon in 1989 and to the State, D.C.R.A. in 1990. Budgets are available.

NAME, ADDRESS, TELEPHONE:

CHENEGA CORPORATION
 Charles W. Totemoff, President
 P.O. Box 60
 Chenega Bay, Alaska 99574
 (907) 573-5118

CHENEGA CORPORATION

Post Office Box 8060
Chenega Bay, Alaska 99574-8060
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June 15, 1992

Exxon Valdez Oil Spill
Trustees Council
645 "G" Street
Anchorage, Alaska 99501

Dear Ladies and Gentlemen:

Chenega Corporation responds to the Trustees' Request for Restoration Proposal for 1993 per the attached proposed Restoration Projects.

If you have questions, please contact either the undersigned or Charles W. Totemoff at Chenega Corporation.

Very truly yours,

CHENEGA CORPORATION

By: 
Gail Evanoff, V.P. Operations

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

Checked for Completeness

ID stamped/Input completed
Name
Affiliation
Costs

Category Rest. Manage Action

Lead Agency USFS

Cooperating Agency(ies) DOI - FWS

Y N Passed initial screening criteria

Type - F/S

RANKING H M L Rank Within Categories

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Project Number - if assigned _____

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL
FORMAT FOR IDEAS FOR RESTORATION PROJECTS

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13

Title of Project: Science of the Sound education program

Justification: Service and education -- To understand the impacts of the EXXON VALDEZ oil spill and ongoing activities to restore the damage.

Description of Project: (e.g. goals(s), objectives, location, rationale and technical approach)

Cordova's physical location provides tremendous opportunities for learning about both terrestrial and marine ecosystems. There are few places left in the world that can boast of such a variety of pristine habitats. A major shock to the ecosystem occurred in 1989 when the Exxon Valdez spilled nearly 11 million gallons of crude oil into Prince William Sound. The spill affected hundreds of miles of marine waters and beaches and severely impacted fish, seabird, waterfowl and marine mammal populations. This oil spill dramatically reinforced the benefits of pollution prevention and oil spill related education.

Goals for the *Science of the Sound* environmental education program are to: 1) foster a better understanding of the local environment through hands-on learning, 2) improve the science education curriculum available to students, 3) establish a community science resource room in a central location providing easy access for the general public, teachers and students to science education books, interactive displays and multi-media materials, 4) provide a forum where residents and visiting scientists can share knowledge with students and the general public, 5) building partnerships with local agencies, and 6) serve as a pilot community environmental education program, particularly for other coastal towns in Prince William Sound and the oil-spill impacted region. The *Science of the Sound* program will consist of three major activities: 1) The After-school Science Club, 2) the Science Resource Room/Adopt-a-Scientist program and 3) an Evening Science Lecture Series.

Estimated Duration of Project: 10 years

Estimated Cost per Year: \$52,546

Other Comments: The After-School Science Club was piloted during 1991-92 school year with great success. Additional funding is needed to continue into the next school year. The Science Resource Room and Adopt-a-Scientist program has been in the planning stages and has wide, strong support from the local school district and teachers. The Evening Science Lecture Series was successfully run during 1990 but needs additional funding to continue. More detailed descriptions of these programs can be obtained from the Prince William Sound Science Center.

Name, Address, Telephone:

Dr. G.L. Thomas, Director
Beth Trowbridge, Education Coordinator
Prince William Sound Science Center
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Cordova, AK 99574
(907) 424-5800 -- FAX 424-5820

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COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

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- ✓ Name
- ✓ Affiliation
- ✓ Costs

✓ Category
Management Activities - Education

✓ Lead Agency
~~ISDI/USDI~~ USFS

Cooperating Agency(ies)

(Y) N Passed initial screening criteria

type - educ

RANKING H M L Rank Within Categories

H M L Rank Overall

Project Number - if assigned _____

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL
FORMAT FOR IDEAS FOR RESTORATION PROJECTS

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Title of Project: Cordova's Mini Imaginarium

Justification: Service and education -- To understand the impacts of the EXXON VALDEZ oil spill and ongoing activities to restore the damage.

Description of Project: (e.g. goals(s), objectives, location, rationale and technical approach)

Everyone loves "hands-on" experiences. The best possible way to help someone learn is to provide them with an experience they can see, hear, smell and feel. The oil spill had a tremendous impact upon Prince William Sound and its communities. A mini-imaginarium in Cordova would provide the perfect means to help residents and visitors, young and old, learn more about the Sound and the impacts of the oil spill.

The mini-imaginarium would be modelled after the very successful Anchorage Imaginarium. Realistic displays and hands-on activities exploring our abundant and diverse wildlife, varied habitats, oil spills and other hazardous waste problems, impacts, response mechanisms, clean-up technology, energy conservation, among others, would be exhibited.

The project would be completed over a period of two years. The first year would be dedicated to planning which would include building plans and renovations. The second year would be dedicated to creating exhibits and interpretive displays, acquiring educational materials and hiring and training staff.

The mini-imaginarium, potentially located on the docks of Cordova next to the Prince William Sound Science Center, would be a first-rate creative learning environment providing valuable experiences in oil-related areas, encouraging a better understanding of Prince William Sound and promoting educated decision-making for all ages.

Estimated Duration of Project: Two years for planning and set-up; ongoing support will be sought from other funding sources.

Estimated Cost per Year: \$62,589 each year

Other Comments: A cooperative agreement is being established with the U.S. Forest Service, Chugach Ranger District, acknowledging 1) the need for an imaginarium/environmental education center, and 2) the willingness of both parties to work together to fulfill this need. Negotiations are underway for the use of a Forest Service warehouse as the basic structure.

More detailed information is available from the Science Center's Education Coordinator, Beth Trowbridge.

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Beth Trowbridge, Education Coordinator
Prince William Sound Science Center
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COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

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- ✓ Affiliation
- ✓ Costs

✓ Category
Management Actions

✓ Lead Agency
~~OSD~~ USFS

Cooperating Agency(ies)
USDI

Y N Passed initial screening criteria

type - educ.

RANKING H M L Rank Within Categories

H M L Rank Overall

Project Number - if assigned _____

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EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL
FORMAT FOR IDEAS FOR RESTORATION PROJECTS

Title of Project: Alaska Oil Spill Curriculum Rewrite and Reprint

Justification: Service and education -- To understand the impacts of the EXXON VALDEZ oil spill and ongoing activities to restore the damage.

Description of Project: (e.g. goals(s), objectives, location, rationale and technical approach)

The goal of this project is to: 1) complete a revision for each of the four sections of the Alaska Oil Spill Curriculum (pre-school, Kindergarten-3rd grade, 4th-6th grade, and 7th-12th grade) using evaluations received and comments from workshop attendees and instructors; and 2) provide a series of teacher-training workshops in key locations in Prince William Sound, Alaska and the Lower-48 to give guidance on usage of the curriculum materials.

In order to be truly effective, the pilot curriculum was designed to be tested in the classroom, then revised based on teachers' responses and updated to include current relevant events. This curriculum was written by a group of concerned educators in 1989-90 and has been distributed nationally. Evaluation forms have been received from some of the users and will be reviewed by the writing team. We propose the project to also include a series of workshops will be held during the first year to gather more specific input for the revision. These comments will be reviewed with the evaluation forms and improvements to the curriculum will be refined. Once revised, the curriculum will be reprinted and distributed nationally.

Educators throughout Alaska, the Lower-48, and even internationally, have requested copies of this curriculum. The lesson plans emphasize both prevention measures and energy conservation. The curriculum is accompanied by two videos and other background materials.

A rewrite is absolutely critical to ensure that educators have the best possible tool to help our future decision-makers understand oil-related issues and concerns.

Estimated Duration of Project: 2 years

Estimated Cost per Year: \$49,500

Other Comments: During the spring of 1990, the Prince William Sound Science Center, in cooperation with the Prince William Sound Community College, published the pilot curriculum. The curriculum includes hands-on activities presented in an easy-to-read, easy-to-use format.

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Beth Trowbridge, Education Coordinator
Prince William Sound Science Center
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- ✓ Affiliation
- ✓ Costs

✓ Category
Management Areas - Education

✓ Lead Agency
~~USDI - NPS~~ USFS

Cooperating Agency(ies)

(Y) N Passed initial screening criteria
type - educ.

RANKING H M L Rank Within Categories

 H M L Rank Overall

Project Number - if assigned _____

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

Document ID Number
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Title of Project: Cordova Environmental Education Center

Justification: (Link to Injured Resource or Service)

Perhaps no other community in Prince William Sound was as injured by the Exxon Valdez oil spill as was Cordova. The oil spill damaged the economic, social and psychic fabric of the community. Although oil never hit the shores of the Cordova area, many Cordovans were dependent upon the fisheries of impacted areas. The oil spill and subsequent impacts associated with the spill continue to adversely affect the town. The local economy is resource-based, and community members depend upon Prince William Sound for their livelihood, recreation and lifestyle.

Description of Project: (e.g. goal(s), objectives, location, rationale, and technical approach)

Perched on the margin between the wetlands of the Copper River Delta and the marine ecosystem of Prince William Sound, Cordova is the ideal community in Prince William Sound from which to improve an existing integrated natural resource education program. Not only is the area intimately tied to the resources of the Sound, but it has also established a strong, community-based natural resource initiative. The Oil Spill Recovery Institute was recently established at the Prince William Sound Science Center. This project would be accomplished in partnership with the PWSSC.

Since 1989, a group of partners, including the Prince William Sound Science Center, USDA Forest Service, Copper River Delta Institute, Alaska Department of Fish & Game, Cordova Public Schools, and the Prince William Sound Community College have cooperatively worked at developing a strong and aggressive resource education program for area children. This program has included development of an Oil Spill Education Curriculum, after-school Science Club, Lecture Series, Adopt-A-Scientist Program and extensive involvement in school activities. Funding for the existing program has been provided through fund-raisers, grants, and federal contributions. The community of Cordova has supported these efforts through funding and logistical support. The community and agency support necessary for an expanded NRE program already exist in Cordova.

The growth of the existing program is limited by the lack of suitable facilities. This proposal would fund the planning, public involvement, design and construction of a natural resource education facility in Cordova. The goal of the facility would be to educate children about the oil spill and human's effects upon the environment, while integration information about the natural and cultural resources of Prince William Sound. The facility would be used by Cordovans, but would also serve as a "hub" of information for children from throughout the Sound and the region. The scope of the facility would be determined through the planning process but would incorporate interactive educational techniques when possible.

Estimated Duration of Project: Five + Years, 1993-1997

Estimated Cost per Year:

FY 1993	FY 1994	FY 1995	FY 1996	FY 1997
Phase 1	Phase 2	Phase 3	Phase 4	Phase 4
Planning	Construction	Operation	Operation	Operation
\$15,000	\$100,000	\$20,000	\$20,000	\$20,000

Other Comments: The Prince William Sound Science Center would be a partner in the implementation

of the project. Additional funding from other sources would be solicited. This proposal addresses Items #7 -increase management in parks and refuges, #12-creation of new recreation facilities and #33-develop integrated public information and education program identified in the Restoration Framework.

ID # 920615298-27

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

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- Affiliation
- Costs

_____ Category

Mgmt Action

_____ Lead Agency

USFS

_____ Cooperating Agency(ies)

Y N Passed initial screening criteria

RANKING H M L Rank Within Categories

 H M L Rank Overall

_____ Project Number - if assigned _____

Title of Project:

Migratory Waterfowl and Shorebird Monitoring

Justification:

Of 36,000 bird carcasses recovered following the spill, 31,000 of the deaths were attributable to oil, with the total number of birds killed by the spill estimated to be between 375,000 and 435,000. Approximately 1,200 miles of coastline were effected by the oil spill. Many of the sheltered bays and inlets of western Prince William Sound contain wetland habitat important as staging and nesting areas for numerous species. Effected species which commonly use these areas as nesting beaches, feeding areas and staging areas include black oystercatcher and harlequin duck. In the event of additional natural or man-caused catastrophes, this baseline information will facilitate damage assessment and response.

Description of Project:

Goal: To assess and monitor use of Prince William Sound wetland habitats by migratory waterfowl and shorebirds.

Objective: Complete initial wetland map based on aerial photo interpretation.

Objective: Ground truth wetland identification and suitability as monitoring site via aerial reconnaissance.

Objective: Conduct land- and boat-based inventories of species composition and use of identified wetlands during migration.

Objective: Conduct land- and boat-based inventories of species composition and use of identified wetlands during breeding season.

Objective: Continue monitoring use of these wetlands.

Objective: Transfer ecological information (identified nesting beaches, staging areas, feeding areas) by species and species groups into Geographical Information System database for easy retrieval and maintenance.

Estimated Duration of Project:

Three years.

Estimated Cost per Year:

\$150,000

Other Comments:**Name, Address, Telephone:**

Charla Sterne
Wildlife Biologist
Glacier Ranger Station
PO Box 129
Girdwood, AK 99587
907-783-3242

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EXXON VALDEZ OIL SPILL RESTORATION COUNCIL
FORMAT FOR IDEAS FOR RESTORATION PROJECTS

29832

Title of Project:

MIGRATORY SHOREBIRDS STAGING IN ROCKY INTERTIDAL HABITATS OF PRINCE WILLIAM SOUND

Justification: (Link to Injured Resource or Service)

Up to one half-million shorebirds, representing 5 species, stage each spring in rocky intertidal habitats of Prince William Sound, feeding primarily on small crustaceans, blue mussels, and herring spawn deposition. These species include black turnstone, ruddy turnstone, surfbirds, rock sandpiper and wandering tattler. The rocky intertidal zone at Montague and Green Islands have been particularly important to black turnstones and surfbirds with as many as 75,000 birds representing 20-45% of their respective breeding populations observed staging in this area during spring. Shorebirds and their prey base on rocky intertidal habitats were injured by the Exxon Valdez oil spill.

Description of Project: (e.g. goal(s), objectives, location, rationale, and technical approach)

Baseline information on shorebird relative abundance, spatial and temporal distribution patterns, length of stay and key concentration areas in rocky intertidal habitats can be used to direct and monitor restoration efforts, and enable effective response in the event of a future spill.

The numbers, distribution, key concentration areas, and species composition of staging shorebirds in rocky intertidal habitats can be determined using stratified random aerial and boat transects along rocky shorelines in PWS, along with intensive transect sampling at Montague and Green Islands. In conjunction with herring spawn deposition information, shorebird spatial and temporal distribution in relation to habitat type and intertidal food resources can be monitored. A sample of surfbirds and black turnstones will be collected to assess the relative importance of prey items. Gut contents will be analyzed for frequency of occurrence and percent volume of food items. At northern Montague Island, black turnstones and surfbirds will be captured and marked with dye and colored leg-bands to determine length of stay (turnover rate) and total bird-day-use.

Estimated Duration of Project: Three years.

Estimated Cost per Year: \$80,000 first year; \$70,000 second and third years.

Other Comments: This project falls within the confines of Restoration Option No. 31 in terms of the development of a comprehensive monitoring program. Data collection and analysis could be coordinated with herring egg deposition surveys conducted by ADF&G.

Name, Address, Telephone:

Dr. Mary Anne Bishop, Acting Manager,
Copper River Delta Institute, Pacific Northwest Research Station
USDA Forest Service,
P.O. Box 1460, Cordova, AK 99574,
(907) 242-7212, fax (907) 424-7214.

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