7 of 8

✓11.3.2 7 of 8

ID # 920615298-02

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 tech. support

RANKING H M L Rank Within Categories

H M L Rank Overall

Project Number - if assigned

920615 298-02

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.

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

MAT FOR IDEAS FOR RESTORATION JECTS

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.

ID # 326 - 11

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)

Y N Passed initial screening criteria

type - ~~other~~ 1100 tech support

RANKING H M L Rank Within Categories

H M L Rank Overall

_____ Project Number - if assigned _____

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.

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
P.O. Box 705
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.

ID # 526-05

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)

____

(Y) N Passed initial screening criteria

____

type tech support

RANKING H M L Rank Within Categories

H M L Rank Overall

____ Project Number - if assigned ____

PROJECT SCORING SHEET 326-05

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.

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:

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

ID 920615297-16

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

✓ Checked for Completeness

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

✓ Category

Tech Support - Ron Rice

✓ Lead Agency

USDA

_____ Cooperating Agency(ies)

_____

Ⓝ N Passed initial screening criteria

Type: ~~Source~~ Technical Support

RANKING H M L Rank Within Categories

H M L Rank Overall

_____ Project Number - if assigned _____

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.

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

Title of Project:

DEVELOPMENT OF ECONOMIC GUIDELINES AND COST BENEFIT ANALYSIS OF OIL SPILL PROJECTS FOR NEPA AND TRUSTEE COUNCIL (OIL SPILL YEAR 1993)

Justification: (Link to Injured Resource or Service)
All resources, and services affected by the EVOS

Description of Project: (e.g. goal(s) objectives, location, rationale, and technical approach)
The purpose of this project is to fulfill the requirements for cost benefit analysis of projects under the NEPA Act, and to provide criteria to the Exxon Valdez Trustee Council to rank projects based on accepted economic techniques.

The NEPA process has been initiated for the oil spill restoration, and the resulting EIS is to be administered by the U.S. Forest Service. Economic analysis, and in particular cost benefit analysis is frequently a major component of and product of NEPA. The regulations for the NEPA process, produced by the Council of Environmental Quality (CEQ) (see 40 CFR 1986) refer to identifying impacts on the environment in terms of the physical and social sciences as well as economics.

While the CEQ guidelines for NEPA encourage project level economic analysis, the standards and guidelines remain flexible for different applications. The purpose of this project is first, to develop guidelines for economic analysis of projects for NEPA under the Restoration process for the Exxon Valdez Oil Spill. The emphasis would be on identifing appropriate standards for measuring economic effects of projects. A second purpose is to provide ongoing analysis of specific proposed projects through the use of cost benefit analysis, cost efficiency analysis (where appropriate) and economic impact assessment (where appropriate).

The PI's for the project are staff economists from Trustee Agencies who are familiar with EVOS damage assessment. Other staff economists will be involved along with some outside contracting for specific project analysis. The best available data and resource economic techniques will be used to evaluate projects along with original work where needed.

Estimated Duration of Project: To proceed through, and augment the project selection process for the budgeted duration of the restoration effort.

Estimated Cost per Year:
Project cost will vary with the number and type of restoration projects to be evaluated.
Year 1: $65,000, year 2: $165,000, year 3 through final year: $110,000.

Name, Address, Telephone

Jeff Hartman	Norman Meade	George L. Peterson	Richard Wahl
Economist	Chief Economist	Economist	Economist
FRED Division	Damage Assess. Analysis	RM F&R Exper. Stn.	Prog. Anal
ADF&G	NOAA	USDA Forest Service	DOI
(907) 465-4160	(301) 443-8865	(303) 498-1100	(202) 208-4916

II 9206150290-02

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

✓ Checked for Completeness

ID stamped/Input completed
Name
Affiliation
Costs

✓ Category ~~Tech~~ Tech. Support

Lead Agency ~~DEC~~ DEC

Cooperating Agency(ies)

(Y) N Passed initial screening criteria

Type: ~~Services~~ Technical support

RANKING H M L Rank Within Categories

H M L Rank Overall

Project Number - if assigned

92061529D-02

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.

Document ID Number
920615290 02

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

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

Title of Project:

Electronic Archiving of Exxon Valdez Response Records

Justification: (Link to Injured Resource or Service)

Preserve in a useable format the record of the State response activity.

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

The records of the response activities of the Ak. Depts. of Environmental Conservation, Fish and Game, and Natural Resources will be placed in an electronic data base.

The information obtained by the state agencies will be of value to future restoration activities, researchers, and historians. The initial observations and sightings are essential to establishing damage assessment baselines and determining the rates of recovery.

The goal is to have the early information available. The objective will be to organize the information in a manner that will assist users in rapid and efficient retrieval. The documents are presently located in Anchorage. The Exxon Valdez oil spill is the best documented large scale oil spill. The records have significant value. Under current state law all documents must be turned over to the State Archivist when the agency no longer needs them or goes out of existence. The Response Center is closing down during early state FY 93. Once the records are placed in Archives they are the responsibility of the Archivist to preserve. Current policy is to allow only review of the documents in the Archives building located in Juneau. It is estimated there are 1,000,000 documents.

Contracting the work versus doing in house is under consideration. We are leaning towards in house, as at the conclusion we would have equipment that would then be available to the Administrative Directors office for documenting their records.

Estimated Duration of Project: two years

Estimated Cost per Year: year 1: $450,000, year 2: $300,000

Other Comments:

Name, Address, Telephone:

David Bruce
ADEC-EVOS Project
410 Willoughby Ave., Suite 105
Juneau, AK 99801-1795
907 465 5322

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 # 920601049 -1
-2
-3

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

combined into one project

✓ Checked for Completeness

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

✓ Category

Tech Support

✓ Lead Agency

DNR

Cooperating Agency(ies)

All

(Y) N Passed initial screening criteria

Type All Services

RANKING H M L Rank Within Categories

H M L Rank Overall

Project Number - if assigned

920601049
-01
-02
-03

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

Title of Project: 3 projects UofA FbX - museum 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

Project titles

01) Coastal habitat specimens - UofA museum
02) Birds and mammals specimens - UofA museum
03) archaeological specimens UofA museum

Estimated Duration of Project:

Estimated Cost per Year:

Other Comments:

Name, Address, Telephone:

Wendy Redman
UofA FbX
UofA 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.

UNIVERSITY OF ALASKA

920601049

TO: Dave Gibbons
Trustee Council

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

WRedman

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

Gordon H. Jarrell 7 Feb 92
Gordon H. Jarrell
Research Associate
University of Alaska Museum
907-474-6947

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

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

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

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

TABLE OF CONTENTS

INTRODUCTION

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 formaldahyde-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.

BUDGET
COASTAL-HABITAT SPECIMENS

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	
Supplies:		
Alcohol	1,500	
Jars	2,000	
Miscellaneous	1,000	
TOTAL SERVICES/COMMODITIES		**$112,500**
TOTAL DIRECT COSTS		**$217,051**
OVERHEAD (43% of Direct Costs)		**$93,332**
GRAND TOTAL		**$310,383**

BUDGET
BIRDS AND MAMMALS

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**

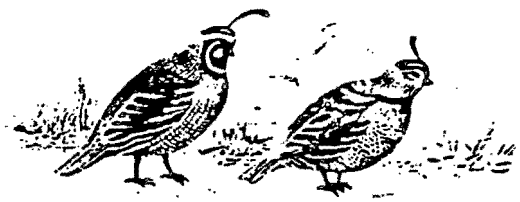
BUDGET
ARCHEOLOGICAL

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**

APPENDIX 1

Letter from Western Foundation of Vertebrate Zoology

Letter from the Field Museum of Natural History



WESTERN FOUNDATION
OF VERTEBRATE ZOOLOGY

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

A NON-PROFIT CORPORATION

28 January 1992

Document ID Number
9206010 49
☐ A-92 WPWG
☒ B-93 WPWG
☐ C-RPWG
☐ D-PAG
☐ E-MISC.

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

Lloyd Kiff,
Director

ID # 049 – 3

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

✓ Checked for Completeness

ID stamped/Input completed
Name
Affiliation
Costs

01 - CH
types 02 - bird

✓ Category
Technical Support

✓ Lead Agency
USDA

____ Cooperating Agency(ies)
FWS

(Y) N Passed initial screening criteria

Type CH / Archeology

RANKING H M L Rank Within Categories

H M L Rank Overall

____ Project Number - if assigned ____

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.

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 willl 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
any way.

Respectfully,

Scott M. Lanyon
Chairman, Dept. of Zoology

APPENDIX 2

Excerpts from the 1989 Exxon Valdez Cultural Resource Program

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.

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

D. E. [illegible]
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
BRUCE VAN ZEE
Forest Supervisor

May 9, 1990
Date

Alaska Department of Natural Resources
Division of Parks and Outdoor Recreation

Judith E. Bittner — May 8, 1990
JUDITH BITTNER — Date
Alaska State Historic Preservation Officer

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

[signature] — [illegible] 1990
OTTO R. HARRISON — Date
General Manager

Advisory Council on Historic Preservation

Robert D Bush — 6/15/90
ROBERT D. BUSH — Date
Executive Director

CONCURRING PARTIES

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

[signature] — 5/11/90
BOYD EVISON — Date
Regional Director

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

pp Walter O. Stieglitz — 5/9/90
WALTER O. STIEGLITZ — Date
Regional Director

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.

Table 13

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 SHP[illegible] ess intensive constraint was devised allowing for peri[illegible] 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. M[illegible]r is to prepare a site map depicting location a[illegible]ture of historic artifacts and features in the i[illegible]dal 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.

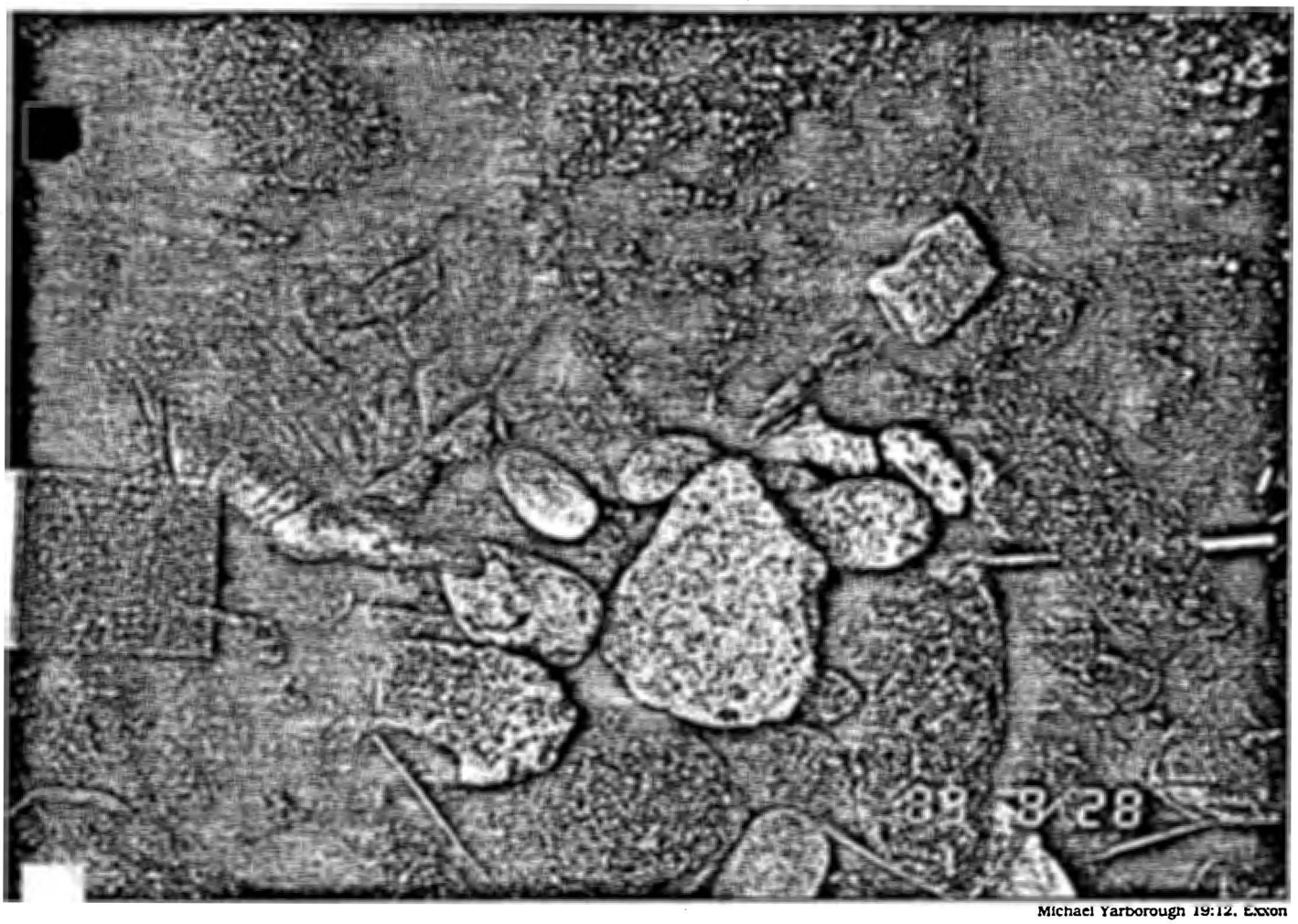
Artifact Collection

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 H e Museum and Cultural Center, the Anchorage M m of History and Art, and the University of Alaska Museum. Chugach Alaska Corporation issued a statement 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 Archives of the University of Alaska's Rasmusson Library for the original documents, videotape, photographs, and other archival materials.

APPENDIX 3

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

UNIVERSITY OF ALASKA MUSEUM

Document ID Number
920601049
☐ A-92 WPWG
☑ B-93 WPWG
☐ C-RPWG
☐ D-PAG
☐ 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

WALTER J. HICKEL, GOVERNC

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF PARKS AND OUTDOOR RECREATION

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:

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

Document ID Number
920601049

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

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

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 scientic 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 signficant 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 Citzens'Advisory Council, Exxon, and probably to Biological Research Resources (BRR) at NSF.

Sincerely,

Gordon

Gordon H. Jarrell
Research Assistant Professor

cc: Ray Highsmith

920601054

also 920601049-01

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

Title of Project: University of Alaska Museum Immediate needs - Handling and developing databases for invertebrate collection

Justification: (Link to Injured Resource or Service)

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

Estimated Duration of Project: _____

Estimated Cost per Year: _____

Other Comments:

Name, Address, Telephone:

Gordon Jarrell
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.

ID # 920601054

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

Type CH

RANKING H M L Rank Within Categories

H M L Rank Overall

_____ Project Number - if assigned _____

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.

920601049-02

title:
Birds and mammals - U of A museum

type - birds, FM

ID A 92060106 5

SCC 92060105 4
92060104 9

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)

Preserves 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 # 92060104 9

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. Steffan
University of Ak 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.

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 Steffian
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.

10. Doc 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

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 feasable. 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 reconnaisance of the biota of Prince William Sound and adjacent parts of the Gulf of Alaska. As in most good biological surveys, temendous 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.

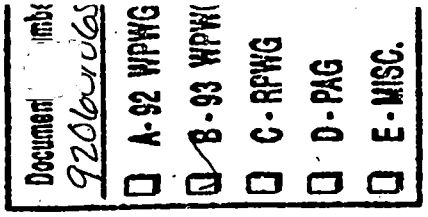
Shallow-subtidal invertebrates represent a similar collection made using divers. The logistics of collecting this material are staggering and essentially unrepeatable. Intertidal and subtidal algae are represented by about 5000 specimens representing two or three hundred species. About a third of this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

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 formaldahyde-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.



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 representitive 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 calender year 93.

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
	81,549
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	107,200
TOTAL S&W + DIRECT =	214,029
OVERHEAD: 42% of total =	89,892
TOTAL COST [S&W + DC + 0.42(S&W + DC)]:	**$303,921**

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
	33,171
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

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

FROM: Gordon Jarrell
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 accessicn 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 possiblity 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

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.

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Thus, natural history collections make past work verifiable and much future work feasable. 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 reconnaisance of the biota of Prince William Sound and adjacent parts of the Gulf of Alaska. As in most good biological surveys, temendous 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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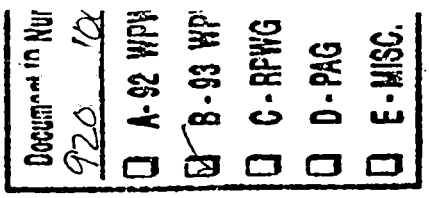
Collections from the Valdez oil spill represent the most extensive surveys of the coastal biota from the Gulf of Alaska, and they represent a huge investment of scientific resources that will not be repeated. Unless they are brought into the Museum, they can be lost, neglected and ruined, or they could 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.

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

I will be in Washington on Mon-Tuesday & would appreciate a call if you have time.

Thanks for your help.

Wendy Hellman

Document ID Number
920601065

- [ ] A-92 WPWG
- [x] B-93 WPWG
- [ ] C-RFWG
- [ ] D-PAG
- [ ] E-MISC.

980601065

Dai —

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 urgency re: proposal since there is no current funding for any archive activity & Gordon will have to made on w/o some indication of funding probabilities.

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

ID # 920601065 -1

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

✓ Checked for Completeness

✓ ID stamped/Input completed
Name
✓ Affiliation
— Costs

✓ Category

~~Coastal~~ Tech Support

✓ Lead Agency

DNR

_____ Cooperating Agency(ies)

_____

(Y) N Passed initial screening criteria

Type: Coastal Habitat

RANKING H M L Rank Within Categories

H M L Rank Overall

_____ Project Number - if assigned _____

UH 720601054
SCC 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. Jarrell
University of Alaska Museum
University of Alaska - Fairbanks
Fairbanks, AK 99775-1200
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.

ID 920601054

see 1049
1065

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

✓ Checked for Completeness

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

✓ Category

Tech Support - Arch

✓ Lead Agency

~~ADNR~~ ~~NOAA~~ USDA

✓ Cooperating Agency(ies)

~~All~~ ~~DNR~~ All

(Y) N Passed initial screening criteria

RANKING H M L Rank Within Categories

H M L Rank Overall

_____ Project Number - if assigned _____

920601054

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 # 920601044

Sec 920601054
920601065

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: $427,603

Estimated Cost per Year: 1 year

Other Comments: submitted for calendar year 1992

Name, Address, Telephone:

E. James 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.

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 (2)~~ Rest. Tech Support

✓ Lead Agency ~~USFS~~ ~~NOAA~~ DNR

✓ 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 _____

ID # 920608184 -01

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

/ Checked for Completeness

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

/ Category

Tech Services - database Integration

/ Lead Agency

ADF&G

/ Cooperating Agency(ies)

NOAA, NMFS

⊘ N Passed initial screening criteria

Type: Service

RANKING H M L Rank Within Categories

H M L Rank Overall

_____ Project Number - if assigned _____

920608E 01

920608184-01

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.

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL 920608184

-02
-03

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

Title of Project:
Database projects - 3 projects

Justification: (Link to Injured Resource or Service)

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

01) Database Integration - ADF+g and NOAA, NMFS etc.
(if this funded - no need for #02, 03)

02) Database management (previously NRDA FS30) (ADF+g)

03) management of Restoration Database, Sample Archiving, and Chemical Interpretation
(NOAA, NMFS etc.)

Estimated Duration of Project: _____

Estimated Cost per Year: _____

Other Comments:

Name, Address, Telephone:

Bruce Simonson
Commercial Fish Div.
ADF+g
PO 25526
Juneau, AK 99802

Stanley Rice
NMFS - Juneau

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.

Title of Project: **Database Integration**

Carmine DiCostanzo
Bruce P. Simonson
ADF&G, POB 25526
Juneau, AK 99802-5526
(907) 465-4150 (voice)

Stanley Rice
NOAA, NMFS, Alaska Fisheries Center, ABL
11305 Glacier Highway
Juneau, AK 99801
(907) 789-6020 (voice)

Justification:

Considerable NRDA/R effort and expense has gone into establishing data sets which will ultimately play a key role in validating restoration efforts. In general, these data sets have been generated through separately conceived and executed studies and projects. As the NRDA/R process goes forward, projects will rely on integrated views of these disparate sets to provide baseline, assessment, historical, and monitoring information. This project proposes to integrate datasets associated with the NRDA/R effort into a unified system, and to provide access to consolidated data in a variety of electronic formats.

Description of Project:

This project addresses the integration of three major data sets required by the NRDA/R effort:

1.) TS-1 : the hydrocarbon database (containing assessment & restoration samples)
2.) FS-30's consolidated database system, which will include study and project data from ADF&G's NRDA/R finfish, shellfish, and subtidal assessment studies and restoration projects. (Some 20 separate database systems, as of 6/1/1992).
3.) ADF&G historical and ongoing research and management databases not funded through the EVOS settlement, but necessary to the NRDA/R effort.

The principal investigators of TS-1 and FS-30 work in close cooperation to ensure future compatibility of data funded through the NRDA/R effort. In addition, this joint project expects to take advantage of ADF&G's separately funded and maintained computer network to allow PI's direct access to consolidated data in a variety of electronic formats.

Estimated Duration of Project / Cost:

This project requires intensive up-front work with PI's to ensure that individual project datasets will be compatible with an integrated system. The first year of this project requires additional work at the agency level, during which time ADF&G and the ABL will prepare existing NRDA/R datasets for integration. During 1994, work will then proceed with inter-agency database integration. An integrated system should be in place by October 1995.

Phase 1: Mar 1, 1993 - Sep 30, 1993 - database preparation at agency level		
FS-30	- finalizes database work with ADF&G PI's	$ 104 K
TS-1	- consolidates assessment/restoration HC samples	44 K
Phase 2: Oct 1, 1993 - Sep 30, 1994 - initial database integration begins		
ADFG	- ADF&G NRDA/R database integration, ADF&G non-settlement data	$ 147 K
ABL	- continued HC database management, chemistry analysis	75 K
Phase 3: Oct 1, 1994 - Sep 30, 1995 - database access completes, other data reviewed		
ADFG	- ongoing database access and support, ADF&G separately funded data	$ 100 K
ABL	- ongoing database access and support, chemistry analysis	75 K

Comments: See the separately submitted proposals on FS-30 and TS-1 for additional information on these projects. The PI's associated with this joint proposal recognize the need to integrate data from other agencies, and welcome continued dialogue on this issue.

ID # 9206081B4-02

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

✓ Checked for Completeness

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

✓ Category

Tech Services - Database Management

✓ Lead Agency

ADF&G

✓ Cooperating Agency(ies)

(X) N Passed initial screening criteria

Type: Services

RANKING H M L Rank Within Categories

H M L Rank Overall

_____ Project Number - if assigned _____

92060 94-02

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: NRDA FS-30

* Restoration Framework, 1992, pp 43-44.

920608184.02

EVOS TRUSTEE COUNCIL: IDEAS FOR RESTORATION PROJECTS - 1993

Title of Project: **Database Management** (previously NRDA Project FS-30)

Carmine DiCostanzo
Bruce P. Simonson
(907) 465-4150 (voice)
(907) 465-2604 (FAX)
June 12, 1992

Alaska Department of Fish and Game
Division of Commercial Fisheries
Computer Services Section
P.O. Box 25526
Juneau, AK 99802-5526

Abstract:

NRDA project FS-30 has been charged with archiving and cataloguing electronic data generated by some 20 ADF&G NRDA/R studies and projects. It is also charged with providing access to certain ADF&G historical and baseline data not funded through settlement monies.

The work FS-30 does goes beyond what can be expected of PI's within the scope of individual projects; in particular, FS-30 works to ensure future compatibility of data between projects, an issue which is not normally part of the design of individual projects.

FS-30 forms ADF&G's initial component of the integrated database system proposed jointly by NOAA (Auke Bay Lab) and ADF&G. This integrated database will combine ADF&G data with the Hydrocarbon Database. The strategies adopted by this joint ADF&G / NOAA effort are key to the integration of data from the diverse projects funded by the restoration effort.

Justification:

It is assumed that data play a fundamental role in the NRDA/R effort. Assessment, baseline, monitoring, and historical data are all crucial to demonstrating the success of restoration projects. Significant quantities of data have been collected at considerable expense (ca $25M through OY3) assessing the damage to spill-affected areas. **Unless this data is properly catalogued and archived, there is no guarantee it will remain accessible to future NRDA/R efforts.**

It is assumed that an ecosystem approach to restoring damaged resources ultimately will be integral to the restoration process. This approach requires that data generated by separately conceived and executed projects be integrated into a common usable format. Much of this data is not GIS in nature, and would not be suitable for integration in a mapping context.

Much of the restoration effort depends on ADF&G research and management programs not funded through settlement monies. FS-30 provides access to this information, as well as certain confidential data and departmental services which normally would not be at the NRDA/R effort's disposal.

FS-30 works directly with principal investigators to archive and catalogue electronic data sets. This hands-on approach with some 20 NRDA/R individually conceived and executed projects is the best way to ensure data can be integrated into a uniform system, while at the same time allowing PI's direct access to their original data.

The archive of data ensures its availability after projects close or personnel transition to other work.

The catalogue ensures that data is useful across projects, between agencies, to the public, and through time.

Estimated duration and cost:

March 1, 1993 through September 30, 1995. This project scales down each year as the data from various projects is archived and catalogued.

Mar 1, 1993	- Sep 30, 1993 (7 months)	$ 104 K
Oct 1, 1993	- Sep 30, 1994 (12 months)	147 K
Oct 1, 1994	- Sep 30, 1995 (12 months)	100 K

The costs of this project are almost exclusively dedicated to personnel and in-state travel expenses allowing direct interaction with the PI's who generate NRDA/R data.

In-kind Services:

FS-30 currently enjoys a close working relationship with ADF&G, particularly those divisions which manage and research fisheries and habitat in Alaska. This relationship guarantees access to certain information not funded through settlement monies, as well as access to considerable computer and telecommunications support which otherwise would not be available to the NRDA/R effort.

Comments:

FS-30 has consistently received the support of investigators, peer reviewers, and NRDA/R work groups. It has been perceived as the most cost effective means of preserving NRDA/R data for future restoration efforts, and ensuring access to ongoing ADF&G efforts not funded through settlement monies.

1.) FS-30 assists in providing access to data in a variety of electronic forms. This technical service is extremely cost-effective, particularly as data exchange between projects and agencies increases.

2.) Data is not necessarily GIS in nature, and is not normally suitable for integration into mapping and cartographic systems.

3.) FS-30 has established working relationships and procedures for data management with a large number of principal investigators. It would be costly and difficult to recreate this working relationship.

4.) FS-30 is working directly with TS-1 to ensure that future directions of essential databases will be compatible, at considerable savings to the NRDA/R effort.

5.) FS-30 personnel are well-trained in database technology, which will allow for future integration of data that will be necessary for ecosystem views of restoration efforts.

6.) Additional information on this project is available in its OY4 detailed study plan, published Restoration Framework documents, and various interim status reports prepared for peer review and NRDA/R work groups. (See, in particular, the related 5 page Restoration Proposal for this project dated June 8, 1992).

Related Studies and Projects:

This project forms the ADF&G component to ensuring that data collected through the NRDA/R effort will be available and usable to future restoration work. A separate proposal ensures the TS-1 Hydrocarbon Database (NOAA/ABL) is designed to work in close cooperation with this project. Additional databases from other agencies can be considered for integration as well.

ID # 920608184-03

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

✓ Checked for Completeness

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

✓ Category

Tech Services

✓ Lead Agency

ADF&G

Cooperating Agency(ies)

NMFS

(Y) N Passed initial screening criteria

Type: Services

RANKING H M L Rank Within Categories

H M L Rank Overall

Project Number - if assigned

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.

9206081803

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

IDEAS FOR RESTORATION PROJECTS-1993

Title of Project:
Management of Restoration Database, Sample Archiving, and Chemical Interpretation.

Justification:
We have already developed the procedures and expertise for these functions during the 3 years of NRDA efforts. This study would merge the extensive NRDA database with Restoration needs and would serve the needs of past NRDA PI's and new Restoration projects by quaranteeing a bridge for access, archiving, interpretation, and mapping of H.C. data. NRDA sample archiving/management would continue until disposition is figured out and implemented.

Description of Project:
We propose to continue management of restoration samples, including: archiving of sample materials, database entry , chemical interpretation and mapping services for PI's using the same procedures developed for damage assessment. Specifically we propose to:

1) Merge damage assessment, restoration and response data into 1 database patterned after the damage assessment database (DAD). Place on database server for easy access for remote users. Merge new incoming restoration data using standard DAD procedures.

2) Archive restoration samples and continue archiving NRDA unanalyzed samples at Auke Bay until NRDA sample disposition is figured out. Procedures would again be from NRDA.

3) Provide chemical analysis interpretation and data mapping services to PI's as done in NRDA ST8. This would support new Restoration needs but would use the entire database and would provide access to all of the old data.

Estimated Duration of Project:
This effort will continue as long as restoration studies and analysis of samples continue. We believe the issue of sample archiving for NRDA samples can not be completed until final reports are finished. Then NRDA samples can be moved to their final archival location.

Estimated Cost per Year:

Item	Cost
6 mm Database and Incoming Sample Management	35
2 mm Archival of Samples	8
2 mm Chemical Interpretation	12
2 mm Mapping of Analytical Data	10
Database Server Software and Support	10
Total	75

NAME, ADDRESS, TELEPHONE
Stanley Rice 907 789-6020
National Marine Fisheries Service, Alaska Fisheries Center,
11305 Glacier Highway, Juneau AK 99801

JUN 09 REC'D

Alaska Department of Fish and Game

Division of Commercial Fisheries

P.O. Box 25526 • Juneau, AK 99802-5526 • Phone: (907) 465-4210 • Fax: (907) 465-2604

Fax Transmittal Sheet

To: Dave Gibbons **Date:** 6/9/92

Fax#: 276-7178

Phone#: 278-8012

From: BRUCE P. SIMONSON

ADF&G - FS-30 - Database Management

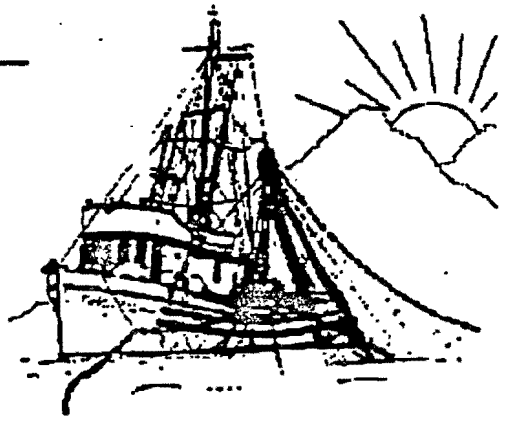
Number of pages following this page: 7

Document ID Number
9206081 84

- ☐ A-92 WPWG
- ☑ B-93 WPWG
- ☐ C-RFWG
- ☐ D-PAG
- ☐ E-MISC.

Memo: I have been asked to submit a 2 page synopsis of this project for review in the near-term. Please include the top two pages in the set which will be reviewed by the RT. Thanks!

Bruce



ID # 920611233-05

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

✓ Checked for Completeness

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

✓ Category Technical Support

~~Restoration — Enhancement — Management Action~~

Lead Agency

DNR

Cooperating Agency(ies)

(Y) N Passed initial screening criteria

Type: 615

RANKING H M L Rank Within Categories

H M L Rank Overall

Project Number - if assigned

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.

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

Title of Project: Establishment of User-friendly Geographic Information System and Remote Sensing Demonstration Center for the Public.

Justification: Restoration of the spill area will require a long-term commitment. This proposal recommends establishing an accessible GIS and remote sensing demonstration center (available to school children and other citizens) in the towns affected by the *Exxon Valdez* oil spill.

Description of Project:
Establish in the towns of Homer, Seward, Valdez, Cordova, Chenega Bay and Kodiak a minimum of one Apple Macintosh Computer running a "user-friendly" GIS software package such as GAIA Software. Data to be made available to the public might include the following: 1) Satellite images and aerial photographs of the spill area, 2) thematic vegetation maps of the spill area, 3) still photographs and video pertinent to the spill, 4) digitized U.S. Geological Survey maps showing roads, hydrography, elevation and geopolitical boundaries etc., 5) taped interviews with key people involved in the restoration (which could be updated regularly), and 6) progress and final reports suitable for public viewing.

Actions:

- Select relevant data to be incorporated.
- Build prototype system and then duplicate it for the communities involved.
- Involve local schools and teachers as system managers to run and maintain the system as part of science curriculum.
- Hold periodic open houses for the community to present new data and explain system features.

Estimated Duration of Project: 10 Years

Estimated Cost per Year: $72,000 (decreasing each year)

Name, Address, Telephone:

Richard Podolsky, PhD
235 West 56th Street #20N
New York, NY 10019-4330
Tel: (212) 246-4686 or 6054; FAX: (212) 246-6074

ID # 920608191

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

✓ Checked for Completeness

ID stamped/Input completed
Name
Affiliation
Costs

✓ Category ~~Tech Support~~ + Management Actions

✓ Lead Agency ADNR

_____ Cooperating Agency(ies)

_____

(Y) N Passed initial screening criteria

Type: GIS

RANKING H M L Rank Within Categories

H M L Rank Overall

_____ Project Number - if assigned _____

92060819

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.

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

Title of Project:
Public Access Repository for Spill-related Geographic Information

Justification: (Link to Injured Resource or Service)
Technical Support

Description of Project: (e.g. goal(s), objectives, location, rationale, and technical approach)
Establishment of a GIS data repository for geographic data generated by, or in support of, all phases of EVOS work. Will not replace agency GIS systems, but will be the continuing and public source for GIS information on the spill and restoration.

Estimated Duration of Project: indeterminate

Estimated Cost per Year: 1st year $100,000, subsequent $50,000

Other Comments:

Name, Address, Telephone:
Randall Hagenstein
P.O. 100358
Anchorage, AK 99510
#561-2755

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.

Randall H. Hagenstein
P.O. Box 100358
Anchorage, AK 99510-0358
(907) 561-2755

6 June 1992

Dr. Dave Gibbons
Interim Administrative Director
Exxon Valdez Oil Spill Restoration Team
645 G Street
Anchorage, Alaska 99501

Dear Dr. Gibbons:

I have enclosed an "Idea for Restoration" in response to your request mailed in May 1992. The proposed project includes ideas for providing technical assistance in analysis of GIS datasets and responding to the long-term needs for archiving, retrieving, and providing public access to these datasets.

As you may know, the Prince William Sound Science Center, Conservation International and Ecotrust have been jointly developing a GIS database and capabilities for the greater Prince William Sound ecosystem. The combined database and capabilities that we have assembled over the past 18 months can be a strong asset for the Trustees and Restoration Team to draw from and build on. I have briefly discussed the possibility of participating in the restoration effort with Mark Broderson and Jim Slocomb.

I look forward to the chance to discuss opportunities for collaboration. Do not hesitate to call if you would like additional information on the GIS project.

Sincerely,

Randall Hagenstein
GIS Development Specialist

cc: Mark Broderson
Gary Thomas, PWS Science Center
Spencer Beebe, Arthur Dye, Ecotrust

encl: Idea for Restoration

EXXO.. .ALDEZ OIL SPILL TRUSTEE C..NCIL

Title of Project: Public-access Repository for Spill-related Geographic Information

Justification:

Management of geographic information system (GIS) data related to the Exxon Valdez oil spill has been handled by a number of different state and federal agencies. As we move into the restoration phase of the post-spill era, the question of how to store, index, retrieve, and provide access to these databases looms. At the same time, most of the agencies responsible for managing spill-related GIS data are scaling back efforts, reducing staffing levels, and shifting resources into other areas. The users of these databases are also shifting as we move from damage assessment to restoration; increasingly, the Trustees Council and Restoration Planning staff, non-agency organizations such as the Regional Citizens Advisory Council and the Oil Spill Recovery Institute, and the general public will have a need to have access to GIS data and capabilities. Further, the recent move to release damage assessment data has guaranteed a demand for data without establishing a mechanism for providing access to much of this data. In summary, spill-related GIS data is currently managed in scattered locations, maintaining these scattered and overlapping databases is difficult, and issues of public access to these databases has not been resolved. This proposal provides a mechanism to address these problems and creates a bridge between the Trustees and the public with respect to spill-related GIS databases.

Description of Project:

The Prince William Sound Science Center, Conservation International, and Ecotrust have jointly developed a geographic database and GIS capacity based in Anchorage. Data from a variety of agency sources have been integrated into this combined database for Prince William Sound. We propose to use this database as a foundation for continuing to combine data from various agency sources and to provide access to government agencies, researchers, educational organizations, community groups, and others.

Specifically, we recommend establishment of a GIS data repository for geographic data generated by or in support of the response, damage assessment, and restoration phases of work following the wreck of the Exxon Valdez. The data repository will exist outside of and in addition to the GIS databases related to the spill currently held by the various agencies. This is not meant to replace GIS programs at various government agencies, but to provide a general and long-term repository of data for planning, research, and educational purposes. Such a GIS data repository will:

- o provide a centralized location for archiving, managing, and using GIS data currently held by numerous state and federal agencies;

- o ensure long-term management of these datasets in an environment that is not constrained by the whims of agency funding or philosophy;
- o create a channel of access to these datasets for various organizations, researchers, and the public; and
- o provide technical services and products for those groups that do not have the technical expertise to effectively access and use the oil spill databases.

The Prince William Sound GIS already contains many of the GIS databases related to the spill that were not constrained by litigation sensitivity. Additional datasets within the Sound have also been compiled into the database over the past 18 months from a variety of agency sources. This proposal will allow the Trustees to capitalize on this considerable investment in data acquisition and processing.

The staff and facilities of the Prince William Sound GIS could also be used by the GIS staff of the Restoration Planning Group for technical assistance, data sharing, and cooperative projects as need dictates. This cooperation has already been occurring on a limited and informal basis. A more formal relationship would give the Restoration Planning Group the flexibility to draw on additional GIS resources for specific projects in a cooperative environment.

Estimated Duration of Project:

This proposal recommends creation of a permanent means for data archiving and access. The project would receive support from the Oil Spill Trustees throughout the duration of the restoration effort.

Estimated Cost per Year:

First year funding needs are estimated at $100,000 with allocations of $50,000 per year for subsequent years.

Other Comments:

We are very interested in working with the Trustees to seek additional sources of funds to build on our existing effort to build a comprehensive GIS database for Prince William Sound.

Submitted by:

Prince William Sound GIS Project
on behalf of the Prince William Sound
Science Center, Conservation
International, and Ecotrust

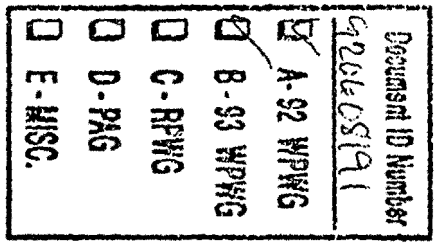
Contact:

Randall Hagenstein
P.O. Box 100358
Anchorage, AK 99510
(907) 561-2755

From:
Randall H. Hagenstein
P.O. Box 100358
Anchorage, Alaska
99510-0358

JUN 08 REC'D

DAVE GIBBONS
Interim Admin. Director
Oil Spill Restoration Team
645 "G" St.
Anchorage, AK 99501



ID # 0226 06

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

✓ Checked for Completeness

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

✓ Category

Tech Support

✓ Lead Agency

ADNR

Cooperating Agency(ies)

Y N Passed initial screening criteria

unknown

Type: GIS

RANKING H M L Rank Within Categories

H M L Rank Overall

Project Number - if assigned

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.

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

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

Title of Project: Experimental Designs and Statistical Procedures for damage for oil spill cleanup and restoration projects.

Justification: Damage assessment and restoration data are being stored in geographic information systems which have limited statistical procedures developed for their analysis. The development of statistical software for analysis would provide a service to continued damage assessment and restoration activities.

Description of Project: The collection of quasi-continuous measurements on the abundance and distribution of fish and wildlife assemblages using optical and acoustical methods have the potential to allow for a more representative analysis of environmental impacts, such as oil spill impacts. The gradients provided by quasi-continuous data eliminates the need for spatially limited control sites, such as used in the modified before-after-control-impact (BACI) experimental design.

We propose to develop an experimental design that uses the before and after comparison, but avoids the pitfalls of controls by examining the test statistic through its natural environment, or the before-after, natural-design, assessment of impact damage BANDAID). Test statistic gradients allow for trend detection with distance from the site of impact and the geographical information system allows analysis in real space. By stratifying affected from the unaffected or natural areas, and defining the independent sample unit size via auto-correlation techniques, computer-intensive, natural-distribution, resampling procedures can be used to test specific hypotheses concerning damage and restoration of habitat and organisms, or subsets thereof. Simulations with BANDAID will allow for developing impact assessment plans for different spill scenarios.

The estimation methods we plan to employ are Kriging and maximum likelihood estimation. Both have been used before for the analysis of geographic information system data, and Crittenden (1989) and others have employed kriging for the analysis of acoustic data on fish numbers. The kriging methodology is gaining acceptance in field and Lunetta et al. (1991) reviewed the current methods for analyzing geographic environmental data, and strongly advise their use.

Estimated Duration of Project: 3 years

Estimated costs per Year: $77,394

Other comments: The Science Center would work cooperatively with Dr. Robert Crittenden at Simon Fraser University to produce an interactive experimental design to test GIS data for oil spill impact. A detailed proposal on the experimental design of this and field testing procedures are available from Dr. G.L. Thomas at the Science Center.

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

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.

9206152 98-03

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

/ Checked for Completeness

ID stamped/Input completed
Name
Affiliation
Costs

_____ Category

Tech Support

_____ Lead Agency

DoA 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 _____

920615298-03

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.

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

03

FORMAT FOR IDEAS FOR RE ATION 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

or

Kate Wedemeyer
Fisheries Biologist

ID #_____

COVER WOR EET FOR 1993 IDEA SUBMISS IS

✓ Checked for Completeness

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

✓ Category

Tech Support

✓ Lead Agency

XIOAA

✓ Cooperating Agency(ies)

DOA

(Y) N Passed initial screening criteria

Typo in Endowment

RANKING H M L Rank Within Categories

H M L Rank Overall

_____ Project Number - if assigned _____

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.

IDEAS FOR RESTORATION PROJECTS-1993

Title of Project:
Management of Restoration Database, Sample Archiving, and Chemical Interpretation.

Justification:
We have already developed the procedures and expertise for these functions during the 3 years of NRDA efforts. This study would merge the extensive NRDA database with Restoration needs and would serve the needs of past NRDA PI's and new Restoration projects by quaranteeing a bridge for access, archiving, interpretation, and mapping of H.C. data. NRDA sample archiving/management would continue until disposition is figured out and implemented.

Description of Project:
We propose to continue management of restoration samples, including: archiving of sample materials, database entry , chemical interpretation and mapping services for PI's using the same procedures developed for damage assessment. Specifically we propose to:

1) Merge damage assessment, restoration and response data into 1 database patterned after the damage assessment database (DAD). Place on database server for easy access for remote users. Merge new incoming restoration data using standard DAD procedures.

2) Archive restoration samples and continue archiving NRDA unanalyzed samples at Auke Bay until NRDA sample disposition is figured out. Procedures would again be from NRDA.

3) Provide chemical analysis interpretation and data mapping services to PI's as done in NRDA ST8. This would support new Restoration needs but would use the entire database and would provide access to all of the old data.

Estimated Duration of Project:
This effort will continue as long as restoration studies and analysis of samples continue. We believe the issue of sample archiving for NRDA samples can not be completed until final reports are finished. Then NRDA samples can be moved to their final archival location.

Estimated Cost per Year:

Item	Cost
6 mm Database and Incoming Sample Management	35
2 mm Archival of Samples	8
2 mm Chemical Interpretation	12
2 mm Mapping of Analytical Data	10
Database Server Software and Support	10
Total	75

NAME, ADDRESS, TELEPHONE
Stanley Rice 907 789-6020
National Marine Fisheries Service, Alaska Fisheries Center,
11305 Glacier Highway, Juneau AK 99801

ID # 9206152 74
9206173 13

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

✓ Checked for Completeness

ID stamped/Input completed
Name
Affiliation
Costs

✓ Category Tech Support
Restoration Manipulation or Enhancement

✓ Lead Agency
DNR

_____ 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 _____

9 20615277

9206152 74

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.

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL
RESTORATION PROJECT

Title of Project:

CONSTRUCTION OF THE
CHENEGA BAY MARINE SERVICE CENTER

Justification:

We want to replace lost subsistence resources with economic opportunity. Examples of the reduced resource, taken from Alaska Fish and Game records, expressed in terms of pounds per person in Chenega Bay, are:

Year	Fish, other than salmon	Marine invertebrates	Sea mammals
85-86	62 lbs	6.9 lbs	140.3 lbs
89-90	26.1 lbs	0.3 lbs	3.6 lbs
90-91	24.8 lbs	1.4 lbs	27.5 lbs

The resource is harder to get because of the decrease in availability. The octopus dens are empty, commercial fishermen occasionally bring us octopus taken at 60 fathoms in the Gulf. We have decided not to take birds or their eggs because there are very few and we want to give them time to recover. Also, many of those that are around are not in good health and need time to get better. Health Services has told us not to take shell fish from contaminated beaches. Our people have been working to clean-up the beaches, not only for the money, but most importantly to get the oil off the beaches so that marine life can return.

Description of Project:

The goal of the project is to replace lost subsistence resources with economic opportunity. Secondarily, to open Western Prince William Sound to recreation and tourism users.

The objectives are to provide services to the PWS and Gulf of Alaska Commercial fishery and the growing recreation and tourism markets.

Chenega Bay is located midway between Whittier and Seward, with an excellent natural harbor, at the heart of the salmon-spawning habitat where the Prince William Sound fishing fleet harvests 48% of all salmon taken in Alaska, and is at a gateway for tourists and recreational boaters to the western part of Prince William Sound. At the present the visitor market is shut out of this whole area due to lack of harbor, fuel and supply services.

Steve Grabacki of Graystar Pacific Seafood, Ltd. conducted a market study of the fishery near Chenega Bay in January 1991. Ogden Beeman & Associates, Inc. completed a Market Demand Study of the commercial fishery and potential tourism and recreational use of the CBMSC in Feb. 1992. Mary Spellens of the Minority Development Corp./Community Enterprise Development Corp. is about to complete a Feasibility Study of the CBMSC based upon the Grabacki and Beeman reports.

A draft of the feasibility study demonstrates that the CBMSC shows very good potential for additional dock and moorage space, a deep draft dock, small tidal repair grid, open rental storage, marine fuel sales, groceries and marine supplies, limited boat repair, amusements, showers/laundry/phones, restaurant and a 15 room hotel.

Once the feasibility study is finalized, Peratrovich, Nottingham and Drage, Inc. will work with the residents of Chenega Bay to prepare an Executive Summary, which outlines the infrastructure required, location of infrastructure, cost of each component and recommended phases of development.

We are recommending that the Trust provide construction funds for the Chenega Bay Marine Service Center. The initial plan calls for construction of a deep draft dock, additional dock and moorage space, tidal repair grid, marine fuel dispensary. And, upland facilities to provide space for grocery and marine supply sales, minor boat repair, amusements, shower/laundry/ phones and a restaurant and hotel.

Estimated Duration of Project:

Three years to construct dock and upland facilities.

Estimated Cost per Year:

Dependable cost estimates for each year of construction will be available by October 1992. Early estimates of total cost indicates a range of between $6 million and $8 million.

Respectfully Submitted by:

Philip Totemoff, President
Chenega Bay IRA Council
P.O. Box 8079
Chenega Bay, Alaska 99574
(907) 573-5132

For additional info. contact:

Lynn Chambers
Economic Development Planner
3300 C Street
Anchorage, Alaska 99503
(907) 562-4155

JUN 17 REC'D

The North Pacific Rim
3300 "C" Street
Anchorage, Alaska 99503-3920

Exxon Valdez Trustee Council
645 G Street
Anchorage, Alaska 99501

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- [x] B - 93 WPWG
- [ ] C - RFWG
- [ ] D - PAG
- [ ] E - MISC.

CHENEGA BAY I.R.A. COUNCIL

reply to: ___ Chenega Bay
___ Anchorage

June 15, 1992

Exxon Valdez Trustee Council
645 "G" Street
Anchorage, Alaska 99501

VIA FAX NO.: 276-7178

Dear Council Members:

Attached is a Restoration Project which will provide economic opportunity to replace lost subsistence resources for the residents of Chenega Bay. We are recommending that you fund construction of the Chenega Bay Marine Service Center.

As you know, Chenega Bay was heavily impacted by the spill. Among other things, all local government administrative systems were disrupted and for the most part destroyed. Opportunities for building on the existing systems were missed and lost. We are currently in the process of rebuilding our local government administration.

We have also been doing preliminary planning for the Chenega Bay Marine Service Center. You will see on the attached project description, that market studies and a feasibility study have been done. We plan to have Peratrovich, Nottingham prepare an Executive Summary, which will outline the infrastructure needs, layout and costs for the project. We expect the Summary to be completed by October 1992. This has been/will be paid for with funds from the Administration for Native Americans (ANA), USHHS, special oil spill impact funds.

We have hired Lynn Chambers as our Economic Development Planner with funds from the same ANA grant. You may contact her for additional information about this project at 562-4155 in Anchorage.

Good luck with your work. You have quite a responsibility.

Sincerely,

Philip Totemoff

Philip Totemoff
President

3300 "C" Street • Anchorage, Alaska 99503 • telephone (907) 562-4155 • telecopier (907) 563-2891
Post Office Box 8079 • Chenega Bay, Alaska 99574 • telephone (907) 573-5132 • telecopier (907) 573-5120

274

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

Title of Project:

Construction of Chenega Bay marine service Center

Justification: (Link to Injured Resource or Service)

Replace lost resources with economic opportunity

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

Build a marine service center

Estimated Duration of Project: 3 years

Estimated Cost per Year: $ 6 to 8 mil ← This is a total, NOT per yr cost. 1st year est. = $2.5 mill. Rebecca

Other Comments:

Name, Address, Telephone:

Philip Totemoff
Chenega Bay I.R.A. Council
3300 "C" St.
Anchorage, AK 99503
907 562 4155

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.

CHENEGA BAY I.R.A. COUNCIL

N 15 REC'D

reply to: ... Chenega Bay
— Anchorage

Document ID Number
920615274
☐ A-92 WPWG
☑ B-93 WPWG
☐ C-RPWG
☐ D-PAG
☐ E-MISC.

June 15, 1992

Exxon Valdez Trustee Council
645 "G" Street
Anchorage, Alaska 99501

VIA FAX NO.: 276-7178

Dear Council Members:

Attached is a Restoration Project which will provide economic opportunity to replace lost subsistence resources for the residents of Chenega Bay. We are recommending that you fund construction of the Chenega Bay Marine Service Center.

As you know, Chenega Bay was heavily impacted by the spill. Among other things, all local government administrative systems were disrupted and for the most part destroyed. Opportunities for building on the existing systems were missed and lost. We are currently in the process of rebuilding our local government administration.

We have also been doing preliminary planning for the Chenega Bay Marine Service Center. You will see on the attached project description, that market studies and a feasibility study have been done. We plan to have Peratrovich, Nottingham prepare an Executive Summary, which will outline the infrastructure needs, layout and costs for the project. We expect the Summary to be completed by October 1992. This has been/will be paid for with funds from the Administration for Native Americans (ANA), USHHS, special oil spill impact funds.

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Philip Totemoff

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Post Office Box 8079 • Chenega Bay, Alaska 99574 • telephone (907) 573-5132 • telecopier (907) 573-5120

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL
RESTORATION PROJECT

Title of Project:

CONSTRUCTION OF THE
CHENEGA BAY MARINE SERVICE CENTER

Justification:

We want to replace lost subsistence resources with economic opportunity. Examples of the reduced resource, taken from Alaska Fish and Game records, expressed in terms of pounds per person in Chenega Bay, are:

Year	Fish, other than salmon	Marine invertebrates	Sea mammals
85-86	62 lbs	6.9 lbs	140.3 lbs
89-90	26.1 lbs	0.3 lbs	3.6 lbs
90-91	24.8 lbs	1.4 lbs	27.5 lbs

The resource is harder to get because of the decrease in availability. The octopus dens are empty, commercial fishermen occasionally bring us octopus taken at 60 fathoms in the Gulf. We have decided not to take birds or their eggs because there are very few and we want to give them time to recover. Also, many of those that are around are not in good health and need time to get better. Health Services has told us not to take shell fish from contaminated beaches. Our people have been working to clean-up the beaches, not only for the money, but most importantly to get the oil off the beaches so that marine life can return.

Description of Project:

The goal of the project is to replace lost subsistence resources with economic opportunity. Secondarily, to open Western Prince William Sound to recreation and tourism users.

The objectives are to provide services to the PWS and Gulf of Alaska Commercial fishery and the growing recreation and tourism markets.

Chenega Bay is located midway between Whittier and Seward, with an excellent natural harbor, at the heart of the salmon-spawning habitat where the Prince William Sound fishing fleet harvests 48% of all salmon taken in Alaska, and is at a gateway for tourists and recreational boaters to the western part of Prince William Sound. At the present the visitor market is shut out of this whole area due to lack of harbor, fuel and supply services.

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 # 920615298-49

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

✓ Checked for Completeness

ID stamped/Input completed
Name
Affiliation
Costs

Category Tech Support

Lead Agency USGS

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

Steve Grabacki of Graystar Pacific Seafood, Ltd. conducted a market study of the fishery near Chenega Bay in January 1991. Ogden Beeman & Associates, Inc. completed a Market Demand Study of the commercial fishery and potential tourism and recreational use of the CBMSC in Feb. 1992. Mary Spellens of the Minority Development Corp./Community Enterprise Development Corp. is about to complete a Feasibility Study of the CBMSC based upon the Grabacki and Beeman reports.

A draft of the feasibility study demonstrates that the CBMSC shows very good potential for additional dock and moorage space, a deep draft dock, small tidal repair grid, open rental storage, marine fuel sales, groceries and marine supplies, limited boat repair, amusements, showers/laundry/phones, restaurant and a 15 room hotel.

Once the feasibility study is finalized, Peratrovich, Nottingham and Drage, Inc. will work with the residents of Chenega Bay to prepare an Executive Summary, which outlines the infrastructure required, location of infrastructure, cost of each component and recommended phases of development.

We are recommending that the Trust provide construction funds for the Chenega Bay Marine Service Center. The initial plan calls for construction of a deep draft dock, additional dock and moorage space, tidal repair grid, marine fuel dispensary. And, upland facilities to provide space for grocery and marine supply sales, minor boat repair, amusements, shower/laundry/ phones and a restaurant and hotel.

Estimated Duration of Project:

Three years to construct dock and upland facilities.

Estimated Cost per Year:

Dependable cost estimates for each year of construction will be available by October 1992. Early estimates of total cost indicates a range of between $6 million and $8 million.

Respectfully Submitted by:

Philip Totemoff, President
Chenega Bay IRA Council
P.O. Box 8079
Chenega Bay, Alaska 99574
(907) 573-5132

For additional info. contact:

Lynn Chambers
Economic Development Planner
3300 C Street
Anchorage, Alaska 99503
(907) 562-4155

29849

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

Title of Project:

Oil Spill Restoration Support Services and Facilities

Justification: (Link to Injured Resource or Service)

As a result of the oil spill, support services and facilities have been in short supply in In the spill area of PWS. This has resulted in a great deal of lost time and added cost associated with rental houses and charter boats. There are no facilities avalible in PWS and other locations in the spill area.

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

Objective: Construct one or two full service facilities in the oil spill area. these facilities will provide housing, labratory, fuel storage, wharehouse, cooking, and meeting areas to support oil spill restoration and monitoring activities. The facilities must serve from 30 to 60 people at one time. Additional facilities would be satalite facilities located near the project areas. These would normally consist of a cabin, that can be moved as the projects change or need dictates. Additional benefits will be public information and education. The benefit of this project would be to provide on site housing and reduce the need for high cost charter boats. Much of the work would be done out of skiffs dispatched from the central facility. Additional, much time would be saved by not having to return to cordova or some other full service site for support.

Locations: Location would be selected at a later date depending on the support needs and avalible land. I suggest potential sites on northern Knight Island and Green Island or Montague Island. Satalite facilities would be located in sites responsive to future restoration projects and monitoring needs.

Estimated Duration of Project: **Three years**

Estimated Cost per Year: Year#1-$600,000, Year#2-$4,700,000, year#3-$800,000 per facility and will vary for the satilite facilities from $10,000 to $100,000.

Other Comments:

Name, Address Telephone:
Bruce Van Zee
Forest Supervisor
201 East 9th, Suite 206
Anchorage, AK 99501

Technical Contact:
Ken Holbrook, Fish Biologist
271-2819

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.

Document ID Number
92061529B

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

ID 920615298 - 48

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

1993 PROJECT SCORING SHEET 920615 298-48

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.

29848

EXXON VALDEZ OIL SPILL TRUSTEE C[illegible]IL

F[illegible]AT FOR IDEAS FOR RESTORATION P[illegible]ECTS

Title of Project:

Communication system for oil spill program

Justification: (Link to Injured Resource or Service)

The Exxon Valdez Oil Spill resulted in a dramatic increase in the number of people and boats using the spill area, studing and monitoring the impacts of the spill. The start up of the restoration program will increase this usage resulting in an increased need for communication and a reliable safety net. Communications have been difficult and some what limited due to the avalible systems. Installation of a cellular phone system in the oil spill area would provide a safety net for the program and be avalible to the public for information and safety.

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

Contract the installation of a cellular phone system for the oil spill area. The location of the facilities will depend on the area of coverage. Safety, support, and communication are the reasons for installing a system of this nature. An added benefit would be a public information number in the spill area that can provide the public with up to date information on the activities on-going in the restoration program and on site explanation of impacts.

Locations:

Location of the facilities to support this system would be dependant on area and percent reliable coverage. The overall area would be the oil spill area.

Estimated Duration of Project: **Installation would take 1 to 2 years**

Estimated Cost per Year: vary depending on the extent of coverage

Other Comments: Benefits would be for the life of the program

Name, Address Telephone:
Bruce Van Zee
Forest Supervisor
201 East 9th, Suite 206
Anchorage, AK 99501

Technical Contact:
Ken Holbrook, Fish Biologist
271-2819

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Document ID Number
920615298

- ☐ A-92 WPWG
- ☑ B-93 WPWG
- ☐ C-RFWG
- ☐ D-PAG
- ☐ E-MISC.

ID # 920616310

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

✓ Checked for Completeness

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

✓ Category

Tech Support

✓ Lead Agency

ADF&G

_____ Cooperating Agency(ies)

_____

Ø N Passed initial screening criteria

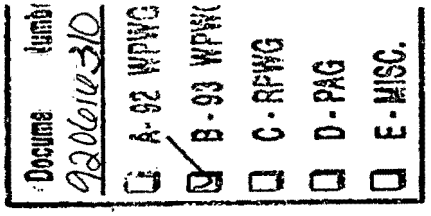
Type: Services

RANKING H M L Rank Within Categories

H M L Rank Overall

_____ Project Number - if assigned _____

Dup. same as 9206152?9-28



Title of Project: Near Island Fisheries Research Center

Justification:

During the *Exxon Valdez* oil spill many fisheries were closed due to the presence of oil in the water and on the beaches. Although major lethal effects on fish were not documented, chronic and sub-lethal effects are difficult to measure. Development of the next phase of the multi-agency fishery technology and research center on Near Island in Kodiak would enable the user agencies to (1) initiate research projects on the efficacy of restoration practices, (2) the enhancement of fishery resources in the effected areas, such as king crab, sea urchins, and molluscan shellfish, (3) the enhanced utilization of equivalent fishery resources to those in spill area, such as arrowtooth flounder, and (4) to initiate long term research programs to better understand and ameliorate the effects of oil spills on the fisheries of the western Gulf of Alaska. Seven federal and two State agencies, the University of Alaska, School of Fisheries and Ocean Sciences, Kodiak Island Borough, and the City of Kodiak have all participated in the planning for the multi-agency facility.

The seawater system and associated facilities will be designed to enhance research on fish behavior, physiology and perception, marine biology, and aquatic toxicology of normal and stressed fisheries. Stressed conditions could include other human activities, including fish harvesting, in addition to spilled crude oil. In addition the completed multi-agency fishery technology and research facility will provide a variety of analytical testing and monitoring capabilities within Kodiak Island Borough. These capabilities were severely lacking during the oil spill when all samples had to be sent off-island for analysis.

The first phase of the University of Alaska, School of Fisheries and Ocean Sciences, Fishery Industrial Technology Center (FITC) has been completed. It is the first building of the proposed multi-agency fishery technology and research facilities. The FITC Owen Building is being used by the University of Alaska and National Marine Fisheries Service (NMFS) Utilization Research Division personnel. Co-location of these two groups has resulted in efficient use of facilities and encouraged pooling of expertise to pursue efficient use fishery resources to produce diverse, high quality products, and eliminate waste.

Currently the other agencies interested in co-locating are isolated from each other, the public and the fishing community, and occupy out dated and inadequate facilities. The importance of the fisheries in the western Gulf of Alaska to the State and nation are expanding, and the oil spill emphasized the need for more specific information on these fisheries. Many of the fisheries activities in Kodiak are expanding to meet these needs. The multi-agency fishery technology and research facilities will be necessary to meet the agencies needs and the public's need for better access to information and training in a timely manner.

The City of Kodiak has donated the land for fisheries research facilities on Near Island. The City of Kodiak is committed to using its revenue bonding power to fund construction of portions of these facilities to the extent that lease monies are committed by user groups and agencies, if other funding sources are not available. As one of the users of the expanded facilities the National Marine Fisheries Service has been authorized by congress to lease space on Near Island at an annual lease not to exceed $1,000,000 per year.

In order to achieve the purposes of the remedial and compensatory payments, the University of Alaska, in conjunction with NOAA and ADFG, recommends development of expanded multi-agency fishery technology and research facilities on Near Island, Kodiak, Alaska. The phase of this facility which is most critical for restoration, enhancement, enhanced utilization of fishery resources, and better understanding and ameliorating the effects of oil spills in the western Gulf of Alaska will include a gravity fed seawater system, wet and dry marine laboratories and associated systems.

Description of Project:

The combined use of state and federal lease monies with remedial and compensatory payment from the civil settlement to finish construction of a multi-agency fisheries research center on Near Island in Kodiak will help provide the State of Alaska with state-of-the-art capabilities to undertake critical studies on the restoration, enhancement, and enhanced utilization of fishery resources in the western Gulf of Alaska. These facilities will also provide Alaska's fishing industry with research and technical assistance during the rehabilitation of Alaska's vertebrate and invertebrate fisheries resources. The new facilities will be located in conjunction with existing FITC facilities. These facilities will accommodate NOAA/NMFS and other fisheries research and management groups in addition to the FITC. Land for development of these facilities is being held in trust by the City of Kodiak.

Development of these facilities would provide the University of Alaska, State, and Federal agencies resources for evaluating toxicological, physiological, and behavioral effects related to the presence of hydrocarbons.

A principal component of the oil spill related portion of these facilities will be a controlled environment behavior and sensory physiology wet laboratory. This will be the core unit which will be used to investigate physiological and behavioral effects of long term low level exposure to hydrocarbons. Central to this laboratory is a large swimming pool tank which will provide capabilities to assess how organisms perceive and react to stimuli produced by their environment in conjunction with the presence of hydrocarbons. The main support facility for this system is a running seawater system with associated mechanical support and filter beds. Additional support facilities include physiology and toxicology laboratories.

These enhancements to the state/university/federal fisheries research complex on Near Island would enhance research and development activities related to the restoration, enhancement, and economic value of fisheries resources of the oil spill effected areas, especially through better understanding of the behavioral, physiological, and toxicological responses of targeted species. Research in this facility would also lead to the development of better tools to monitor aquatic toxic responses and other physiological changes resulting from oil spills and other anthropogenic activity.

Subject to approval by the Governor, the Alaska Legislature has appropriated $100,000 from the remedial and compensatory payments for the criminal settlement to the University of Alaska for "design and planning of a fishery technology and research facility". The availability of these planning funds will facilitate development of more specific design criteria and cost estimated by the University of Alaska, Office for Facilities Planning and Construction. The following costs are based on general construction parameters from the Owen Building and the proposed sea water system. They assume that major site specific constraints will be addressed as part of a larger phased project.

Estimated Duration of Project: **On-going long term benefits beyond settlement**
Three years in construction phase

Estimated Facilities Cost: **7.5 million total**
3.5 million per year for two years
0.5 million for the third year

Seawater System		$2.0
60 x 80 ft. behavioral and physiology wet laboratory facilities	$1.5	
30 x 50 ft. physiology laboratory	$0.5	
30 x 50 ft. toxicology laboratory	$0.5	
Architecture, engineering and design	$1.0	
Equipment		$1.0
Tanks and associated accessories		$1.0
TOTAL	$7.5	

Document ID Number
9206163/0
☐ A-92 WPWG
☑ B-93 WPWG
☐ C-RPWG
☐ D-PAG
☐ E-MISC.

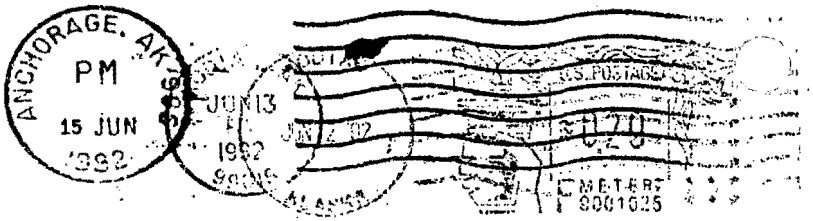
Name, Address, Telephone:

John S. French, Interim Director
Fishery Industrial Technology Center
University of Alaska Fairbanks
900 Trident Way
Kodiak, AK 99615

Voice: (907) 486-1505
FAX: (907) 486-1540

In addition to the University of Alaska Fairbanks, School of Fisheries and Ocean Sciences, this proposal has been discussed with Dr. W. Aaron, NMFS; Mr. T. Kron, ADFG-FRED; Mr. J. Selby, Mayor KIB; and Mr. G. Bloomquist, City Manager, Kodiak.

UNIVERSITY OF ALASKA FAIRBANKS
Fishery Industrial Technology Center
900 Trident Way
Kodiak, Alaska 99615-7401



Exxon Valdez Oil Spill
Restoration Team
645 G Street
Anchorage AK 99501

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

Title: Interactive public access to oil spill and related environmental data in the Prince William Sound Science Center geographic information system.

Justification: Continued damage assessment and restoration projects conducted in the Cordova area need geographic information system support.

Description of Project: Use a microwave communication system between the Science Center and the Alaska Fish and Game, Copper River Delta Institute, Prince William Sound Aquaculture Corporation to allow access of the Science Center geographic information system. The Science Center is using ARC/INFO which can be accessed using ArcView software from satellite personal computers of either IBM or Macintosh format.

Estimated Duration of Project: 1 year

Estimated costs per Year: $80,000

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
P.O. Box 705
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.

ID #_____

COVER WOR EET FOR 1993 IDEA SUBMISS S

✓ Checked for Completeness

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

✓ Category Technical Support

✓ Lead Agency ADNR

_____ Cooperating Agency(ies)

_____

(Y) N Passed initial screening criteria

_____

1pg: GIS

_____

RANKING H M L Rank Within Categories

H M L Rank Overall

_____ Project Number - if assigned _____

526-09

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 # 92061226-02

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

✓ Checked for Completeness

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

— Category Technical Support ~~Technical Support~~

✓ Lead Agency
ONR

✓ Cooperating Agency(ies)
DOI-FWS

(Y) N Passed initial screening criteria

Type: GIS

RANKING H M L Rank Within Categories

H M L Rank Overall

_____ Project Number - if assigned _____

9206122 36-02

1993 PROJECT SCORING SHEET

9206122 36-02

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.

920612236-02

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

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

Title of Project: Providing Public Access to Oil Spill GIS Databases Using ArcView in a PC Windows environment.

Justification: (Link to Injured Resource or Service)
Data collected during the EXXON VALDEZ oil spill provide an important asset for future management of the natural resources in Prince William Sound. The key to the effective utilization of these data will be in making their existence and basic structure known to the widest possible audience.

Description of Project: (e.g. goal(s), objectives, location, rationale technical approach)
Goals: Make GIS data generated during the EXXON VALDEZ oil spill available for public use in a low cost and easy to use personal computer environment.
Objective: Translate ARC/INFO GIS databases into a format that can be searched and manipulated with simple menus in ArcView running on standard DOS personal computers.
Location: Test sites will be established at the Oil Spill Public Information Office in Anchorage and the Center for Fisheries and Ocean Studies in Juneau.
Rationale: The GIS databases generated for monitoring the cleanup and assessing the damages caused by the EXXON VALDEZ oilspill constitute one of the most complete natural resource databases developed for a marine habitat. Now that litigation concerns have diminished, the primary concern should be to make this database accesible to managers, scientists, and the public. The widespread knowledge of the availability of these data will ensure that what has been gathered will be utilized to the fullest and that the databases will be systematically updated to maintain their usefulness.
Technical Approach: The natural resource data generated by the State of Alaska during the EXXON VALDEZ oil spill are currently maintained as ARC/INFO databases. This GIS database system offer very powerful tools for storing, manipulating, and displaying these types of data. However, this database system requires a large investment of capital for both the software and the hardware on which it runs. In addition, efficient utilization of the software requires a significant investment in personnel training. ARC/INFO has recognized these limitations of its database system and has developed ArcView as a low cost tool for use in accessing and exploring ARC/INFO databases by people who aren't trained as GIS specialists. In this project we will develop a menu and icon driven interface that will provide for access to all the available databases generated

Estimated Duration of Project: One year

Estimated Cost per Year: $ 110,000 (possible change to $120,000 – 2 versions submitted)

Other Comments: This project will be conducted in cooperation with Richard McMahon at the Department of Natural Resources. We will also work with Carrie Holba at the Oil Spill Public Information Center and Michael Stekoll at the Juneau Center of Fisheries and Ocean Sciences.

Name, Address, Telephone:

Dr. Larry Deysher
Coastal Resources Associates
2270-L Camino Vida Roble
Carlsbad, CA 92009
619/438-0588

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 1273 -3C1

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

✓ Checked for Completeness

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

✓ Category Technical Support

✓ Lead Agency DOI - USGS

✓ Cooperating Agency(ies) NOAA

(Y) N Passed initial screening criteria

type - ~~Service~~ GIS

RANKING H M L Rank Within Categories

H M L Rank Overall

_____ Project Number - if assigned _____

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

Title: CD-ROM Publication of Digital Spatial Data From Exxon Valdez Oil Spill Mapping Activities

Justification: Publication in CD-ROM format of the digital map information generated for the geographic information systems (GIS) developed in support of studies for the Exxon Valdez oil spill will provide a cost effective means for facilitating public access to baseline spatial data. It will solve long term data management and distribution concerns by the making the information available in a low cost, highly accessible format from the U.S. Geological Survey's (USGS) National Mapping Division (NMD).

Description of Project: The objectives of this project are to provide a low cost, long term solution to public access as well as long term management of the GIS data bases generated for the Exxon Valdez Oil Spill by publishing the data in a documented CD-ROM Format. Publication of the data currently residing in State and Federal GIS data bases will include: 1) standardization of the data to a common transferable format; 2) editing to ensure spatial data quality and accuracy; 3) documentation of data sets; 4) pre-mastering of the data into CD-ROM format; 5) generation of the master CD with user documentation; 6) production of multiple copies; and 7) distribution through USGS Earth Science Information Center (ESIC) offices. Collection of the data from State and Federal agencies will be coordinated by the NMD EROS Alaska Field Office. Data standardization and premastering will take place at the NMD EROS Data Center in Sioux Falls, SD. Copies will be distributed to the Oil Spill Trustee Council and made available to the public through NMD ESIC offices at a nominal charge.

Duration of the Project: All phases of CD-ROM preparation, including publication, are proposed to be completed in fiscal year 1993. The CD will be managed and distributed by the ESIC offices as a standard published product in future years at no cost.

Estimated Costs: Because the exact volume of data to be placed in the CD-ROM format is unknown, the costs estimates provided here are on a per CD basis. Each CD will hold up to 680 megabytes of data. The cost for data preparation and premastering are estimated to be $6000.00 per CD. Mastering of each CD will cost $1000.00 and the cost per copy from the master are $3.00 per CD. If 200 copies are created initially, the total production cost for each CD published will be approximately $7600.00.

Mark B. Shasby, Chief
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4230 University Dr.
Anchorage, AK 99508-4664

Phone: 786-7020

ID # 920615298-47

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

✓ Checked for Completeness

ID stamped/Input completed
Name
Affiliation
Costs

Category ~~Tech Support~~ Tech Support ~~Management Action~~

Lead Agency ~~USFS~~ DNR

Cooperating Agency(ies) ~~ADNR~~ USFS

(Y) N Passed initial screening criteria

Type: GIS

RANKING H M L Rank Within Categories

H M L Rank Overall

Project Number - if assigned

7 2061 3218 - 47

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.

29847

FORMAT FOR IDEAS FOR REST[illegible]TION PROJECTS

Title of Project:

Geographical Information System Mapping of Natural Resource in Western [illegible]ince William Sound

Justification:

Injury assessment efforts have resulted in the gathering of extensive ecological information on the resources of western Prince William Sound. Electronic storing, maintenance and updating of such information greatly enhances its usefullness to managers.

Description of Project:

Goal: To transfer existing data (nest locations, critical habitat, breeding colonies) on injured species to a GIS database.

Estimated Duration of Project:

One year.

Estimated Cost per Year:

$75,000

Other Comments:

Name, Address, Telephone:

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