


✓ 11.3.1

4 of 4

188

MANIPULATION AND
ENHANCEMENT

Archeology



Name

Affiliation

Costs

✓

Category Post. Manip or Enhancement

DWR

48 FS

(Y) N Passed initial screening criteria

Type: Arch

RANKING	H	M	L	Rank Within Categories
---------	---	---	---	------------------------

H

M

L

H	M	L	Rank Overall
---	---	---	--------------

H

M

L

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

- | | |
|--------------------------------------------------------|---------------------------------------------------------------------------------------|
| YES <input checked="" type="checkbox"/> | 1. Linkage to resources and/or services injured by the <u>Exxon Valdez</u> oil spill. |
| NO <input type="checkbox"/> | 2. Technical feasibility.* |
| UNKNOWN <input checked="" type="checkbox"/> | 3. Consistency with applicable Federal and State laws and policies.* |

Comments:

* Restoration Framework, 1992, pp 43-44.

RESTORATION PROJECT

TITLE OF PROJECT:

Restoration Of Chenega Village Site.

JUSTIFICATION:

The school building at Chenega village and the cemetery suffered much vandalism on account of the oil spill clean up efforts.

Document ID Number	
920615294	
<input type="checkbox"/>	A-92 WPWG
<input checked="" type="checkbox"/>	B-93 WPWG
<input type="checkbox"/>	C-RPWG
<input type="checkbox"/>	D-PAG
<input type="checkbox"/>	E-MISC.

02

DESCRIPTION OF PROJECT:

- A. Goals: To restore the historic Chenega School Building and Cemetery, and to maintain the School Building and Cemetery into the future.
- B. Objective: To remove the scars of vandalism which occurred on account of the oil spill at the School Building, to prevent further vandalism at the Cemetery, and to restore a place of vast importance to the People of Chenega Bay.
- C. Location: Chenega Island, Southwestern Prince William Sound.
- D. Rationale: Incident reports in 1989 established vandalism at the School and continued trespass by oil spill workers.
- E. Technical Approach: The School Building needs to be restored, as whole sections have been torn apart. There will be an need for a building engineer or an architect to review the old school in order to determine the best methodology for restoration, and thereafter construction. In addition, the Cemetery will require the expertise of a restoration specialist.

ESTIMATED DURATION OF PROJECT: 1-2 years.

ESTIMATED COST PER YEAR: \$50,000 - \$75,000.

OTHER COMMENTS:

NAME, ADDRESS, TELEPHONE:

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

I entered
the higher
Ref.

ID # 920615273-12

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

Archaeology

☒ Checked for Completeness

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

☒ Category Monitoring
Restoration Management Actions

☒ Lead Agency
DOI - USFW

☒ Cooperating Agency(ies)
USFS, DNR

☒ (Y) ☐ N Passed initial screening criteria

Type - Arch

RANKING H M L Rank Within Categories

H M L Rank Overall

Project Number - if assigned _____

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

FORMAT FOR PUBLIC IDEAS FOR RESTORATION PROJECTS

Document ID Number	
920615273	
<input type="checkbox"/>	A-92 WPWG
<input checked="" type="checkbox"/>	B-93 WPWG
<input type="checkbox"/>	C-94 RFWG
<input type="checkbox"/>	D-PAG
<input type="checkbox"/>	E-MISC.

Title of Project: Archeological Site Protection-Site Patrol and Monitoring (Interagency)

Justification: The Exxon Valdez oil spill and associated cleanups have resulted in increased public knowledge of archeological resources in the oil spill area. The greater visibility of site locations brought on by oil spill activities has resulted in higher incidence rates of looting and vandalism to these resources (USFS, Archeological Resources Damage Assessment Study).

The purpose of this project is to ameliorate the impact of these higher rates of archaeological looting and vandalism. This will be accomplished by utilizing agency archeologists and resource protection personnel who will conduct public contact patrols and archeological site monitoring along the coastlines in the Exxon Valdez oil spill area. The agency teams will work in their respective areas making contact with the public and informing them of the values of protecting archeological sites and the federal and state statutes that require this protection. The teams will also monitor selected segments of the coastline for signs of looting or vandalism that may require additional management or law enforcement action.

Before the oil spill, archeological resources were, practically speaking, protected by their unknown locations. Unfortunately, it is impossible to reverse the expanded knowledge of these resources gained by the public as a direct result of the spill and cleanup activities. Therefore, it is necessary to offset this knowledge of the resource with a positive presence by the agencies and additional effort to spread the message that these resources are protected by state and federal laws.

Description of Project: The agency teams will consist minimally of an archeologist and a resource protection specialist. The interdisciplinary team approach is essential to the success of this project. The teams will make active contact with the public that utilizes the target coastal zones and inform them of the values of protecting archaeological sites and the federal and state laws that require this protection. They will also monitor selected segments of the coastline for signs of looting or vandalism that may require further management or law enforcement action and refer the information to the appropriate agency for action. Site patrol and monitoring will give priority to known problem areas where looting has already occurred or where sites are known to be at risk as identified in the Archeological Resource Damage Assessment Study.

Standard resource protection and archaeological data collection practices will be employed. Detailed field notes, photographs or video tapes, and all patrol reports, including a log of all public contacts, will be kept by the field teams.

The bulk of the project funding for this project will be distributed among the participating agencies for field personnel salaries, for supplies, and for flight time, fuel,

etc., to supplement existing site patrol and monitoring efforts, or establish them where necessary. Augmenting existing agency efforts is the most cost-effective approach.

The technical lead for this component will be the National Park Service which has expertise in this area, including a well- developed archeological resource protection and training program. An archeologist with a law enforcement commission and the regional law enforcement specialist will act as technical advisors to the program, and as trainers for field personnel.

The overall management of the project will be done by a project coordinator who will ensure that there is uniformity among the agencies in carrying out the project, will act as the liaison among agencies, and will recommend the most efficient use of project resources. The project coordinator will act as the project information officer and maintain all project records, including a copy of all field notes, patrol reports, photographs, and other records or data collected by field personnel. The project coordinator will also consolidate and analyze this information to produce an annual report for the project, and make recommendations for future efforts. Data will be maintained in the files of the project coordinator and will be made available to all participating agencies.

Uniform training for field personnel is essential to the success of this project, and will be conducted by the project technical advisors with input from the project coordinator and the agencies. All field personnel must attend the project training, to be held at the beginning of each field season, before they will be allowed to participate in the project. Training will consist of orientation to the project, archeological resource protection training, resource familiarization, and public education and contact techniques.

Estimated Duration of Project: The duration of the full project will be three to five years, depending on the level of documented site damage.

Estimated Cost per Year: The cost would be \$210,000 for the first year, and slightly less for following years.

Other Comments: None.

For Further Information Contact: Dan Hamson, Chief, Coastal Programs Division, National Park Service, 2525 Gambell Street, Anchorage, Alaska 99503, (907) 257-2526.

Document ID Number	
920615273/2	
<input type="checkbox"/>	A- S2 WPWG
<input checked="" type="checkbox"/>	B- 93 WPWG
<input type="checkbox"/>	C- RFWG
<input type="checkbox"/>	D- PAG
<input type="checkbox"/>	E- MISC.

ID # 920615273-B

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

✓ Checked for Completeness

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

✓ Category
Restoration Monitoring

✓ Lead Agency
DOI - USFW

✓ Cooperating Agency(ies)

(Y) N Passed initial screening criteria

type - arch

RANKING H M L Rank Within Categories

H M L Rank Overall

_____ Project Number - if assigned _____

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

FORMAT FOR PUBLIC IDEAS FOR RESTORATION PROJECTS

Document ID Number

920615273

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

Title of Project: Archeological Site Protection-Site Patrol and Monitoring (National Park Service)

Justification: The Exxon Valdez oil spill and associated cleanups have resulted in an increased public knowledge of archeological resources in the oil spill area. The greater visibility of site locations brought on by oil spill activities has resulted in higher incidence rates of looting and vandalism to these resources (USFS, Archeological Resources Damage Assessment Study).

The purpose of this project is to ameliorate the impact of these higher rates of archaeological looting and vandalism. This will be accomplished by utilizing National Park Service (NPS) archeologists and resource protection personnel who will conduct public contact patrols and archeological site monitoring along the coastlines of the affected parks in the Exxon Valdez oil spill area. The NPS teams will work in their respective areas making contact with the public and informing them of the values of protecting archeological sites and the federal statutes that require this protection. The teams will also monitor selected segments of the coastline for signs of looting or vandalism that may require additional management or law enforcement action.

Before the oil spill, archeological resources were, practically speaking, protected by their unknown locations. Unfortunately, it is impossible to reverse the expanded knowledge of these resources gained by the public as a direct result of the spill and cleanup activities. Therefore, it is necessary to offset this knowledge of the resource with a positive presence by the agencies and additional effort to spread the message that these resources are protected by federal laws.

Description of Project: The agency teams will consist minimally of an archeologist and a resource protection specialist. The interdisciplinary team approach is essential to the success of this project. The teams will make active contact with the public that utilizes the target coastal zones and inform them of the values of protecting archaeological sites and the federal laws that require this protection. They will also monitor selected segments of the coastline for signs of looting or vandalism that may require further management or law enforcement. Site patrol and monitoring will give priority to known problem areas where looting has already occurred or where sites are known to be at risk as identified in the Archeological Resource Damage Assessment Study.

Standard resource protection and archaeological data collection practices will be employed. Detailed field notes, photographs or video tapes, and all patrol reports, including a log of all public contacts, will be kept by the field teams.

The bulk of the project funding for this project will be spent on salaries for field personnel, for supplies, and for flight time, fuel, etc., to supplement existing site patrol

and monitoring efforts, or establish them where necessary. Augmenting existing NPS efforts is the most cost-effective approach.

The National Park Service has a well developed archeological resource protection and training program already in place. An archeologist with a law enforcement commission and the regional law enforcement specialist will act as technical advisors to the program, and as trainers for field personnel.

A project coordinator will act as the project information officer and maintain all project records, including a copy of all field notes, patrol reports, photographs, and other records or data collected by field personnel. The project coordinator will also consolidate and analyze this information to produce an annual report for the project, and make recommendations for future efforts.

Uniform training for field personnel is essential to the success of this project, and will be conducted by the project technical advisors with input from the project coordinator. All field personnel must attend the project training, to be held at the beginning of each field season, before they will be allowed to participate in the project. Training will consist of orientation to the project, archeological resource protection training, resource familiarization, and public education and contact techniques.

Estimated Duration of Project: The duration of the full project will be three to five years, depending on the level of documented site damage.

Estimated Cost per Year: The cost would be \$60,000 for the first year, and slightly less for following years.

Other Comments: None.

For Further Information Contact: Dan Hamson, Chief, Coastal Programs Division, National Park Service, 2525 Gambell Street, Anchorage, Alaska 99503, (907) 257-2526.

Document ID Number	
920615273 13	
<input type="checkbox"/>	A- S2 WPWG
<input checked="" type="checkbox"/>	B- 93 WPWG
<input type="checkbox"/>	C- RFWG
<input type="checkbox"/>	D- PAG
<input type="checkbox"/>	E- MISC.

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

✓

Checked for Completeness

Archaeology

ID stamped/Input completed
Name
Affiliation
Costs

✓

Category
Rest. Monip. or enhancement

✓

Lead Agency
DNR

✓

Cooperating Agency(ies)
US FWS USFS

Y

N Passed initial screening criteria

12. Arch

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.

JUN 15 1992

June 15, 1992

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL
RESTORATION PROJECT PROPOSAL, JUNE 10, 1992

Title of Project: Heritage Information Replacement

Justification (Linkage to Injured Resource): Replaces archaeological data lost/destroyed by spill response

Description of Project: The prehistory of Prince William Sound is very poorly understood. Even the most basic information, the locations of sites, was largely unknown prior to the 1989 spill. Many new sites were discovered during archaeological surveys within oiled segments, but survey locations were dictated by oiling, not by a rational, statistically valid research design. When new sites were discovered, their evaluation was difficult because no established cultural chronological framework existed. Some archaeological data was lost or destroyed during spill response through inadvertent or intentional means. This project is intended to replace, insofar as possible, lost opportunities to learn about the prehistory of Prince William Sound through the most direct and efficient means: excavation of carefully chosen archaeological sites that have the most potential to establish a cultural chronology. In Phase I, the best sites would be selected through examination of existing survey data, additional survey of unsurveyed coastlines with high potential to contain undiscovered sites, and testing of sites to determine depth, age, extent, and degree of preservation. From this data, a small number of sites with the most potential can be chosen for excavation. Phase II activities would include preparing an excavation strategy, logistical planning, and actual excavation of the sites using standard archaeological techniques established for the coastal zones of Alaska and the Pacific Northwest. Phase III activities will include analysis of the recovered material and wide dissemination of the results in both scholarly and popular formats.

Estimated Duration of Project: 6 years (2 for each phase)

Estimated Cost per Year: \$200,000

Other Comments: The results would benefit all Alaskans. It would also greatly enhance our ability to efficiently respond to any future spills by providing site location data for incorporation into oil spill contingency plans.

Judith E. Bittner
Office of History and Archaeology
Alaska Division of Parks and Outdoor Recreation
Department of Natural Resources
P.O. Box 107001
Anchorage, AK 99510-7001
[907] 762-2622

Document ID Number

920615296-02

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

ID # 920615273-09

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

Archaeology

✓ Checked for Completeness

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

Category
Restoration Manipulation Enhancement

Lead Agency
DOI-NPS

Cooperating Agency(ies)

(Y) N Passed initial screening criteria

type - arch.

RANKING H M L Rank Within Categories

H M L Rank Overall

Project Number - if assigned _____

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

FORMAT FOR PUBLIC IDEAS FOR RESTORATION PROJECTS

Document ID Number	92061527308
<input type="checkbox"/> A-92 WPWG	
<input checked="" type="checkbox"/> B-93 WPWG	
<input type="checkbox"/> C-RPWG	
<input checked="" type="checkbox"/> D-PAG	
<input type="checkbox"/> E-MISC.	

Title of Project: Site-Specific Archeological Restoration in Kenai Fjords National Park and Katmai National Park and Preserve

Justification: Conservative estimates based on injury studies to date suggest that roughly 30 to 50 archeological sites located along the coasts of Kenai Fjords National Park and Katmai National Park and Preserve sustained at least some degree of injury from oiling, oil spill cleanup activities, or vandalism. Site-specific injury is documented in oil spill response records for several known sites. Types of injury range from the contamination of radiocarbon dating specimens to the illegal excavation of sites by looters. In a few cases, there is sufficient available information to determine if specific restoration measures are necessary to the continued preservation of the site values, and if so, which restorative activities are appropriate to the need. However, in other cases the injury data available from response records is not sufficiently detailed to reach an informed decision on treatment. If the Archeological Resource Protection ACT (ARPA) regulations are employed as a guide, individual, detailed assessments of injury are a first essential step in the restoration process. Once there is sufficient information, two basic categories of restorative treatment may be considered, physical repair or data recovery. These two types of restorative treatment are not mutually exclusive and they are often employed in conjunction. Physical repair includes such actions as restoring trampled protective vegetation at a site or filling in a looter's pothole. Data recovery is used to recover what bits of information can be salvaged from the area of an illegal excavation--in a sense, restoring to the public what information has been potentially lost by means of scientific investigations.

Description of Project: The purpose of this project is to conduct individual, site-specific restoration assessments at sites with documented injury, but where there is insufficient information upon which to determine appropriate treatment. The second objective is to carry out the indicated restorative action--either physical repair and/or data recovery. The initial focus would include several archeological sites for which there is clear evidence of injury. If an archeological inventory and evaluation project (see separate Archeological Inventory and Evaluation Project proposal) is approved as a parallel and complementary project, other individual sites that demonstrate clear evidence of injury can be added to the original number scheduled for treatment. The results would include the prevention of further injury and professional documentation on the restorative actions taken.

Estimated Duration of Project: A period of three years would be of sufficient length to treat the few known sites with detailed injury information. Project length could be extended to address any additional injured sites that come to light in the next several years. An exact time span cannot be estimated at this time given the available information.

Estimated Cost per Year: Only a very rough and tentative estimate of cost can be offered at this time. The estimated yearly cost is \$100,000.

Other Comments: A restorative evaluation is now underway that will provide a much more informed cost estimate. The preliminary results of this evaluation will be available by the end of August 1992. Final results will be available by early fall of 1992.

To insure proper conduct of the work, peer review of the project could be administered by the NSF's Division of Polar Programs.

For Further Information Contact: Dan Hamson, Chief, Coastal Programs Division, National Park Service, 2525 Gambell Street, Anchorage, Alaska 99503, (907) 257-2526.

Document ID Number	
92061527308	
<input type="checkbox"/>	A-92 WPWG
<input checked="" type="checkbox"/>	B-93 WPWG
<input type="checkbox"/>	C-RPWG
<input type="checkbox"/>	D-PAG
<input type="checkbox"/>	E-MISC.

ID # 920603092-02

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

✓ Checked for Completeness

Birds

✓ ID stamped/Input completed
✓ Name
✓ Affiliation
Costs

✓ Category

Restoration - Manipulation/Enhancement

Lead Agency

USFWS DOI

Cooperating Agency(ies)

Ⓟ N Passed initial screening criteria

Type - Birds

RANKING H M L Rank Within Categories

H M L Rank Overall

Project Number - if assigned

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

02

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

Title of Project:

Removal of Alien Predators from Bird Colonies

Justification: (Link to Injured Resource or Service)

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

Eliminate foxes, rats and other predators from
present and former seabird colonies. (Pacific
Seabird Group has provided list of suggested sites.)

Estimated Duration of Project: —Estimated Cost per Year: —

Other Comments:

Also recommends Trustees persuade
agencies to fund predator removal through agencies
normal budgetary process.

Name, Address, Telephone:

Craig S. Harrison
Pacific Seabird Group
4001 N. 9th St. #1801
Arlington, VA 22203
202 - 778 - 2240

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 # 920615273-20

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

 Checked for Completeness

✓ ID stamped/ Input completed

Name _____

✓ Affiliation

Costs

✓ Category

category
Restoration Manipulation and Enhancement

 Lead Agency

DOI - FWS

✓ Cooperating Agency(ies)

Y N Passed initial screening criteria

type - birds

RANKING	H	M	L	Rank Within Categories
---------	---	---	---	------------------------

H	M	L	Rank Overall
---	---	---	--------------

Project Number - if assigned _____

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

Title of Project: Removal of Introduced Foxes to Restore Breeding Seabirds

Document ID Number
9206152720
<input type="checkbox"/> A-92 WPWG
<input checked="" type="checkbox"/> B-93 WPWG
<input type="checkbox"/> C-RPWG
<input type="checkbox"/> D-PAG
<input type="checkbox"/> E-MISC.

Justification: The Exxon Valdez oil spill caused direct mortality to thousands of marine birds and reduced productivity of others in the spill area. Murres were the most commonly killed birds, but storm-petrels, puffins, and auklets were also killed. It is doubtful that any restoration project could be as effective in "making" more birds than removal of introduced foxes from seabird nesting islands. Past research has shown that burrow-nesting and ground-nesting seabirds that have been extirpated by foxes begin to reoccupy islands within the first few years after restoration of breeding habitat. This project would provide an opportunity for restoration of native biodiversity in the long-term.

Description of the Project: The goal of this project would be to remove introduced foxes from islands along the south side of the Alaska Peninsula and in the Aleutians. In order to accomplish this project on large islands, it will be necessary to obtain approval for the use of chemicals (like Compound 1080) which have been demonstrated to be effective and almost completely selective for foxes in this area. The results of this project would be to increase populations of species killed by the oil spill in the area just west of the affected zone.

Methods: The following is an outline of tasks necessary to complete the project:

1. Make a prioritized list of target islands.
2. Work with EPA and Dept. of Agriculture to secure permission to use toxins.
3. Select islands for fox eradication, based upon available methods (trapping would need to be confined to relatively small islands).
4. Begin process of removing foxes (trap or place baits in one year, recheck and finish off the next).

Estimate Duration of the Project: About 20 islands should have foxes removed. If the rate was about 4 islands per year, it would take 5 years to complete the project.

Estimated Cost per Year:

Secure approval to secure toxins: \$500,000

Fox removal: \$140,000 per island, if 4 were done per year
the annual cost would be \$460,000.

Other Comments:

It is impossible to accurately predict how many birds this project will produce, but there is little doubt that this project will result in a long-term increase in burrow-nesting and ground-nesting birds that will replace numbers lost to the oil.

Document ID Number	
920615273 20	
<input type="checkbox"/>	A-92 WPWG
<input checked="" type="checkbox"/>	B-93 WPWG
<input type="checkbox"/>	C-RPWG
<input type="checkbox"/>	D-PAG
<input type="checkbox"/>	E-MISC.

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

✓

Checked for Completeness

✓

ID stamped/Input completed

Name

✓

Affiliation

—

Costs

✓

Category

Restoration manipulation Enhancement

Lead Agency

DOI - USFW

Cooperating Agency(ies)

(Y)

N

Passed initial screening criteria

Type - Birds

RANKING

H

M

L

Rank Within Categories

H

M

L

Rank Overall

Project Number - if assigned

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

Document ID Number	920615
A-92 WPWG	<input type="checkbox"/>
B-93 WPWG	<input checked="" type="checkbox"/>
C-RPWG	<input type="checkbox"/>
D-PAG	<input type="checkbox"/>
E-MISC.	<input type="checkbox"/>

Title of Project:

Removal of Introduced Foxes to Restore Breeding Seabirds

Justification: (Link to Injured Resource or Service)

SEE REVERSE SIDE

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

The goal of this project would be to remove introduced foxes from islands along the south side of the Alaska Peninsula and in the Aleutians. In order to accomplish this project on large islands, it will be necessary to obtain approval for the use of chemicals (like Compound 1080) which have been demonstrated to be effective and almost completely selective for foxes in this area. The results of this project would be to increase populations of species killed by the oil spill in the area just west of the affected zone.

Methods: The following is an outline of tasks necessary to complete the project.

1. Make a prioritized list of target islands.
2. Work with EPA and Dept. of Agriculture to secure permission to use toxins.
3. Select islands for fox eradication, based upon available methods (trapping would need to be confined to relatively small islands).
4. Begin process of removing foxes (trap or place baits in one year, recheck and finish off the next).

Estimated Duration of Project: About 20 islands should have foxes removed. If the rate was about 4 islands per year, it would take 5 years to complete the project.

Estimated Cost per Year: Secure approval to secure toxins: \$500,000 Fox removal: \$140,000 per island, if 4 were done per year the annual cost would be \$460,000.

Other Comments: It is impossible to accurately predict how many birds this project will produce, but there is little doubt that this project will result in a long-term increase in burrow-nesting and ground-nesting birds that will replace numbers lost to the oil.

Name, Address, Telephone:

U.S. Fish and Wildlife Service

1011 East Tudor Road

Anchorage, Alaska 99503

(907) 786-3494

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.

Justification: The Exxon Valdez oil spill caused direct mortality to thousands of marine birds and reduced productivity of others in the spill area. Murres were the most commonly killed birds, but storm-petrels, puffins, and auklets were also killed. It is doubtful that any restoration project could be as effective in "making" more birds than removal of introduced foxes from seabird nesting islands. Past research has shown that burrow-nesting and ground-nesting seabirds that have been extirpated by foxes begin to reoccupy islands within the first few years after restoration of breeding habitat. This project would provide an opportunity for restoration of native biodiversity in the long-term.

Comments: This proposal addresses Option 17 in the Exxon Valdez Oil Spill Restoration Framework, Volume I.

Document ID Number	
920615279	
<input type="checkbox"/>	A-92 WPWG
<input checked="" type="checkbox"/>	B-93 WPWG
<input type="checkbox"/>	C-RFWG
<input type="checkbox"/>	D-PAG
<input type="checkbox"/>	E-MISC.

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

✓

Checked for Completeness

✓

ID stamped/Input completed

✓ Name✓ Affiliation— Costs

Category

Manipulation Enhancement

Lead Agency

DOI USFW

Cooperating Agency(ies)

Y N Passed initial screening criteria

Type Bird,

RANKING H M L Rank Within Categories

H M L Rank Overall

Project Number - if assigned

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

920608200
See 92060392 dup.

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

See 920617279

Title of Project:

Seabird colony restoration

Justification: (Link to Injured Resource or Service)

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

see p. 6.

I believe this is a duplicate
Projects submission.

1) eliminate foxes from present and former
seabird colonies

2) evaluate Pacific Seabird Group's list of
candidates for acquiring habitat for colonies.

Estimated Duration of Project:

Estimated Cost per Year:

Other Comments:

Name, Address, Telephone:

Craig Harrison

Pac. Seabird Group

4001 N. 9th Street #1801

Arlington, VA 22203

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.

**Pacific
Seabird
Group**



DEDICATED TO THE STUDY AND CONSERVATION OF PACIFIC SEABIRDS AND THEIR ENVIRONMENT

Craig S. Harrison
Vice Chairman for Conservation
4001 North 9th Street #1801
Arlington, Virginia 22203

June 3, 1992

BY FAX (hard copy to follow)

Dr. David R. Gibbons
Exxon Valdez Oil Trustee Council
645 G Street
Anchorage, Alaska 99501

Re: Comments on Use of Restoration Trust Funds

Dear Dr. Gibbons:

This letter constitutes the Pacific Seabird Group's (PSG) comments on the following:

- Restoration Framework (April 1992)
- 1992 Draft Work Plan (April 1992)
- Solicitation for suggestions for the 1993 Work Plan.

PSG is an international organization that was founded in 1972 to promote knowledge, study and conservation of Pacific seabirds. PSG qualifies as a nonprofit corporation under § 501(c)(3) of the Internal Revenue Code.

As PSG enters its third decade, it draws its 500 members from the entire Pacific Basin, including Russia, Canada, Japan, China, Mexico, Australia, and New Zealand. A substantial portion of PSG's membership resides in Alaska. Among PSG's members are biologists who have research interests in Pacific seabirds, state and federal officials who manage seabird refuges, and individuals with interests in marine conservation. We believe that no other organization has comparable expertise concerning the biology of the seabirds in the North Pacific Ocean. We enclose a summary of PSG's annual meetings since 1973 that highlights our scientific and management expertise. PSG was host to symposia on the biology and management of virtually every seabird species that

duplicate

Document ID Number
920608200
<input checked="" type="checkbox"/> A-92 WPWG
<input checked="" type="checkbox"/> B-93 WPWG
<input checked="" type="checkbox"/> C-RPWG
<input type="checkbox"/> D-PAG
<input type="checkbox"/> E-MISC.

the Exxon Valdez oil spill affected. We also enclose a dated brochure that summarizes PSG's activities.

I. Restoration Framework (April 1992)

PSG generally supports the Trustees' approach to restoring the natural resources that the Exxon Valdez oil spill injured. We note that while \$1 billion in restoration trust funds is an enormous amount of money, it must be spent wisely if the immense job of restoration is to be accomplished. We urge the Trustees to restrict the amount of trust funds that they spend on overhead and to funds only projects that directly restore natural resources. We also urge the Trustees to ensure that the organizations and agencies that implement the restoration work do so at the least possible cost. For example, once the Trustees decide to support a project or group of projects, other organizations besides government agencies should have an opportunity to bid competitively on the work. Such an approach will enable the greatest restoration of natural resources.

PSG agrees with the Trustees that seabirds are particularly vulnerable to oil spills. The Trustees document that the spill killed some 300,000 to 645,000 seabirds. Murres were especially hard hit, but substantial losses of the following bird species also occurred: loons, cormorants, Pigeon Guillemots, Bald Eagles, grebes, Harlequin Ducks, goldeneyes, scoters, Marbled Murrelets, Kittlitz' Murrelets, Northern Pintails, Old Squaw, Bufflehead, Black Oystercatchers, Bonaparte's Gulls, Arctic Terns, Black-legged Kittiwakes, and Tufted Puffins.

Injury Criteria. PSG agrees with the Trustees' first criterion that evidence of injury to a natural resource is an important factor to be used in allocating the restoration trust funds. In principle, PSG endorses the Trustees' second criterion (the adequacy and rate of natural recovery). However, the mere immigration of seabirds from elsewhere cannot be deemed to be "natural recovery." Seabird biologists have long noted that most seabird species live relatively long lives and reproduce slowly. PSG would object to any determination that seabirds do not qualify for restoration work simply because pioneering birds may move into the oil spill area from the Aleutian Islands or elsewhere. In such a circumstance, the Trustees should enhance seabird populations in other parts of Alaska that were indirectly "depleted" by the spill.

Criteria for Evaluation of Restoration Options. PSG generally supports the Trustees' criteria for evaluating restoration options. The Trustees should use technical feasibility, potential to improve the rate or degree of recovery, and an analysis of benefit/cost to make decisions concerning the use of the restoration trust funds. PSG welcomes evaluating

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

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

restoration options from the perspective of whether they benefit more than a single resource. PSG's preferred options generally would benefit an entire community of seabirds (and sometimes other organisms), not just a single species.

Potential Restoration Alternatives. PSG strongly agrees that federal and state management authorities should use their regulatory powers to modify human uses of resources or habitats that the spill injured. We note that such efforts would not exhaust any of the restoration trust fund but would merely require that the state and federal natural resource agencies enforce the laws or redirect their programs. For example, we agree that authorities should curtail the hunting seasons for sea ducks (Option 8) and that authorities should manage commercial fisheries to reduce the incidental mortality of Marbled Murrelets in drift gillnets (Option 9). We note that taking Marbled Murrelets without a permit violates the Migratory Bird Treaty Act. Although not mentioned, PSG suggests that logging, both on government and private lands, be curtailed in uplands that are prime habitat for Marbled Murrelets or Harlequin Ducks. U.S. Forest Service lands that contain Marbled Murrelets should not be logged for at least a decade.

PSG also agrees that habitat acquisition could be a useful means of restoring the actual or equivalent resources that the spill injured. PSG strongly endorses Option 23 (acquisition of additional marine bird habitat). Because land acquisition can be extremely expensive, the Trustees should ensure that any lands purchased are valuable to seabirds and that the purchase passes muster under a cost/benefit analysis. PSG urges the Trustees to purchase the best seabird islands, not just "what's for sale." Moreover, the Trustees should consider the use of conservation easements rather than outright purchase. Often, restrictions on use and development will provide adequate protection at less cost, allowing more colonies to be protected.

PSG wishes to highlight several potential restoration options that seem to be especially promising. Increasing wildlife management in parks and refuges (Option 7) would be very useful for marine birds. The U.S. Fish & Wildlife Service (FWS), the National Park Service, and state agencies should hire or redirect their staffs to manage parks and refuges to improve marine bird habitat. The USA-USSR (1976) and USA-Japan (1972) migratory bird treaties provide ample incentive for agencies to manage seabird colonies to remove alien predators such as foxes. Article VI(c) of the Japan treaty requires this nation to take measures to control the introduction of live animals that disturb the ecological balance of island ecosystems. Article II of the Soviet treaty provides similar protection. Article IV(1) of the Soviet treaty requires this nation to abate detrimental alteration of the environment of migratory birds.

Document 1	be	920608202
<input checked="" type="checkbox"/>	A-S2 WFWG	
<input checked="" type="checkbox"/>	B-S3 WFWG	
<input checked="" type="checkbox"/>	C-RFWG	
<input type="checkbox"/>	D-PKG	
<input type="checkbox"/>	E-MISC.	

Under the category "Manipulation of Resources," PSG cannot support attempting to enhance murre productivity by using decoys or recorded calls at colonies (Option 16). PSG doubts that any success this technique might have (which is questionable), will do much to improve murre populations in Alaska.

PSG strongly agrees that alien foxes should be eliminated from seabird colonies (Option 17). This activity would help the entire seabird community to recover, including island-nesting sea ducks, dabbling ducks and oystercatchers besides alcids and larids. Moreover, the techniques are proven and have an extremely high benefit/cost. FWS biologists G. Vernon Byrd and Edgar P. Bailey reported to the Alaska Bird Conference in November 1991 that dramatic increases in bird populations took place at Nizki-Alaid Island in the western Aleutians after foxes were removed. They found particularly impressive increases for loons, Pelagic Cormorants, Aleutian Green-winged Teal, Common Eiders, Glaucous-winged Gulls, and Tufted Puffins. We would expand this activity to include removing alien rats and other creatures that harm seabirds. PSG incorporates by reference its letters to each Trustee dated March 2, 1992 in which it identified (Table 2) specific islands where foxes should be removed.

With respect to habitat protection, PSG endorses Options 22-25. Option 22 (designate protected marine areas) could provide long-term, protection to seabirds by protecting areas where seabirds feed and loaf on the water. A marine sanctuary in the Pribiloff Islands or Bristol Bay would be especially welcome. PSG has previously endorsed acquiring additional marine bird habitats (Option 23) such as Afognak, East Amatuli and Gull islands. PSG incorporates by reference its list of appropriate acquisitions (Table 1) that it sent to each Trustee by letter dated March 2, 1992. PSG also endorses acquiring inholdings within parks and refuges (Option 24). PSG endorses the acquisition of uplands to protect Marbled Murrelets and Harlequin Ducks if there is sufficient information available to ensure that appropriate tracks of land are purchased.

Finally, PSG endorses developing a comprehensive monitoring program (Option 31).

II. 1992 Draft Work Plan

PSG's opportunity to comment on the 1992 draft Work Plan has come so late in the year that the Trustees have funded the projects already. PSG recognizes the administrative and logistical problems that the Trustees have faced in establishing the restoration program and accepts this situation for 1992. However, if the public involvement called for in the settlement documents is to be meaningful, the draft work plan for 1993

Document	920608200	<input checked="" type="checkbox"/> A-92 WPMG	<input checked="" type="checkbox"/> B-93 WPMG	<input checked="" type="checkbox"/> C-RPMG	<input checked="" type="checkbox"/> D-PAG	<input checked="" type="checkbox"/> E-MISC.
----------	-----------	-----------------------------------------------	-----------------------------------------------	--------------------------------------------	-------------------------------------------	---------------------------------------------

should be available for public comment by December 1992. PSG observes that the Trustees have not committed \$18.2 million in restoration trust funds that could be spent in 1992.

PSG supports all of the damage assessment projects that the Trustees have funded this year — boat surveys to determine the distribution and abundance of migratory birds in Prince William Sound (Bird Study No. 2); surveys of murre colonies in spill area (Bird Study No. 3); assessment of Marbled Murrelets sites, Fork-tailed Storm-petrels, Black-legged Kittiwakes, and Pigeon Guillemots (Bird Studies No. 6-9); assessment of injury to sea ducks by hydrocarbon uptake (Bird Study No. 11); and assessment of shorebird injuries (Bird Study No. 12). PSG believes that understanding the magnitude of harm is important to decide the types and extent of restoration activities that may be necessary.

The Trustees have asked for comment on several restoration projects that it has funded for 1992. PSG is primarily interested in four restoration projects: murre restoration (No. 11, funded at \$317 K); Marbled Murrelet restoration (No. 15, funded at \$419 K); Harlequin Duck restoration (No. 71, funded at \$425 K); and impacts of contaminated mussels on Harlequin Ducks and Black Oystercatchers (No. 103C, funded at \$176 K). PSG generally supports each of these projects. In particular, the studies on Marbled Murrelet and Harlequin Duck habitat requirements should prove to be very useful in assessing potential land acquisitions for these species. The Harlequin Duck study should assist federal and state forestry agencies in establishing the width of forested buffer strips that are necessary to protect their breeding sites.

PSG is disappointed that the Trustees have not funded Option 17 (removal of foxes and other alien predators from seabird colonies). The Trustees have funded four seabird projects at a cost of \$1,337,000 for 1992. While PSG cannot evaluate whether such large amounts are appropriate, it suggests that in future years the Trustees apply the cost/benefit criterion discussed above to these projects. PSG would have difficulty justifying any of these projects as a priority above the unfunded Option 17 (removal of alien predators from seabird colonies). As we have discussed above and in previous letters to the Trustees, predator removal has the highest yield of any action that the Trustees or the agencies might take to increase the populations of the marine birds that the oil spill killed. Option 17 can be implemented immediately, even during the 1992 field season using some of the \$18.2 million of unobligated trust funds.

PSG also urges the Trustees to persuade FWS (and, where appropriate, other federal and state agencies), to fund predator removal through the agencies' normal budgetary processes. FWS, for example, had budgeted \$50,000 for fiscal year 1992 to remove foxes from islands in the Alaska Maritime National Wildlife

Document	920608200	<input checked="" type="checkbox"/> A-92 WPKW	<input checked="" type="checkbox"/> B-93 WPKW	<input checked="" type="checkbox"/> C-RPWG	<input type="checkbox"/> D-PAG	<input type="checkbox"/> E-MISC.
----------	-----------	-----------------------------------------------	-----------------------------------------------	--------------------------------------------	--------------------------------	----------------------------------

Refuge. FWS essentially reprogrammed those funds to start a new project in the Yukon-Kuskokwim Delta to shoot native foxes in an attempt to improve waterfowl production. Such priorities are questionable.

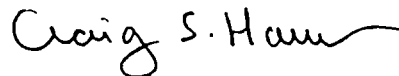
III. 1993 Work Plan

PSG suggests that the 1993 Work Plan include two additional projects to restore seabird populations. First, the Trustees should provide substantial funds to eliminate foxes, rats and other predators from present and former seabird colonies (Option 17). As noted above, PSG has already provided the Trustees with a list of colonies. Second, PSG suggests that the Trustees fund a project to evaluate PSG's list of candidates for acquiring habitat that is important to seabird colonies.

IV. Conclusion

PSG supports the projects that the Trustees have proposed to date. PSG urges the Trustees to fund immediately the only project that is certain to increase the populations of the twenty or so seabird species injured by the oil spill, namely, the removal of predators from seabird colonies. PSG also urges the Trustees to continue and expand work to evaluate land acquisition candidates for seabird colonies. Thank you for this opportunity to lend our expertise and views on these important issues.

Sincerely,



Craig S. Harrison

Enclosures

Annual meetings of the Pacific Seabird Group

<u>Year</u>	<u>Location</u>	<u>Symposia</u>
1973-74	Bolinas, CA	Organizational meeting
1974-75	Seattle, WA	Biology of the alcids
1975-76	Monterey, CA	Seabird conservation on the California coast
1976-77	Monterey, CA	Shorebirds in the marine environment*
1977-78	Victoria, BC	Black-legged Kittiwake reproduction
1978-79	Monterey, CA	Food availability and reproductive success Investigator bias in assessing seabird nesting success
1979-80	Monterey, CA	
1980-81	Tuscon, AZ	
1981-82	Seattle, WA	Feeding ecology of marine waterfowl and pelagic birds* Seabird - commercial fisheries interactions*
1982-83	Honolulu, HI	Tropical seabirds* Human disturbance at seabird colonies
1983-84	Monterey, CA	
1984-85	Long Beach, CA	Biology of terns
1985-86	San Francisco, CA	Biology of gulls*
1986-87	La Paz, Mexico	Biology of seabirds in the Gulf of California
1987-88	Monterey, CA	Alcids at sea* Marbled Murrelet management*
1988-89	Washington, DC	Wading bird reproduction in 1988
1989-90	Victoria, BC	Status, ecology and conservation of seabirds of the North Pacific Ocean*
1990-91	Monterey, CA	
1991-92	Charleston, OR	
1992-93	Seattle, WA	Seabird conservation in the Pacific Northwest

*published or in press

Yes! I want _____ in the
PACIFIC SEABIRD GROUP



members receive The Pacific Sea-
Group Bulletin, announcements of
tings, reduced rates on some pub-
lications, and most important the know-
ledge of contributing to the study and
conservation of Pacific seabirds.

and Patron memberships are avail-
able in four equal payments. All life and
on membership contributions are
credited to the Pacific Seabird Group
Endowment Fund.

losed is my contribution \$ _____

re _____

ress _____

I to:
The Pacific Seabird Group

len Chu
34 Champagne Point Road
rkland, WA 98034

p this portion for your tax records
contribution to:
Pacific Seabird Group, Inc.

ck No. _____

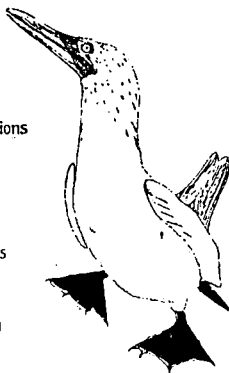
ount \$ _____ Dated _____

Pacific Seabird Group is a scienti-
non-profit, non-governmental, con-
servation organization. Contributions are
y tax deductible under the Internal
Revenue Code 501 (c) (3).

Our Concern is for Seabirds

The interest and concern
of THE PACIFIC SEABIRD
GROUP encompasses millions
of birds of over 275 spe-
cies--all related by their
dependence on the ocean
environment, but widely
divergent in their natural
histories and the problems
they face.

Pacific seabirds include
representatives of 8 avian
orders and 23 families,
including loons, grebes,
albatrosses, shearwaters, storm-petrels, boobies, peli-
cans, cormorants, frigatebirds, geese, ducks, puffins,
murrelets, guillemots, murrelets, phalaropes,
sandpipers, plovers, terns, gulls, jaegers, tropicbirds, and
penguins.



Some Pacific seabirds are astonishingly numerous and
wander widely over the seas. For example, millions of
short-tailed shearwaters that nest on islands off Australia
and New Zealand annually migrate to feeding areas in
the Bering Sea. These millions of shearwaters com-
plement the arctic populations of nesting seabirds that in
Alaska alone, number over 40 million seabirds.

However, many seabird species are uncommon or oc-
cur only in restricted areas. Several Pacific seabird spe-
cies are already endangered, including the short-tailed
albatross and dark-rumped petrel. With increasing
human development and pollution of the marine environ-
ment, the list of threatened and endangered seabirds is
likely to grow.

Although much research has been done, and our know-
ledge is growing, our understanding of the ecology of
Pacific seabirds is inadequate. We have yet to learn the
most basic breeding biology of several species, and feed-
ing ecologies of most species are poorly known. De-
cades of research are still needed to understand the popu-
lation dynamics of seabirds, as most are longlived and
reproduce slowly. Yet changes are swiftly coming to the
seabirds' world.

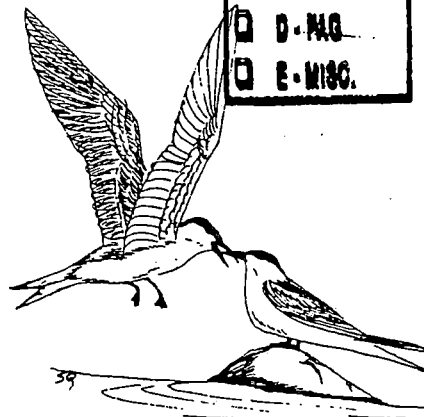
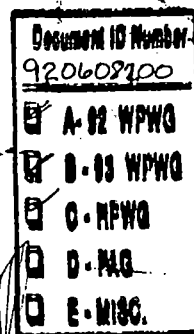
Protection and conservation of the great variety of fas-
cinating seabirds of the Pacific Ocean is a challenge
that will require the contributions, research, concern,
and dedication of many people from many countries.

Seabirds For The Future

In 1984, THE PACIFIC SEABIRD GROUP established an
endowment fund with a generous gift of \$1000 from
the Bullitt Foundation. This endowment fund was set up
in recognition that the future of seabirds depends on
continued research and conservation efforts.

Accrued interest from this fund will be used to organize
high quality seabird symposia, help bring researchers
from around the world to these symposia, and for print-
ing and dissemination of the proceedings. When the fund
has grown to adequate proportions, PSG may also use
accrued interest to fund seabird research and specific
conservation efforts.

Financial managements of the Endowment Fund is hand-
led by the PSG Treasurer and two investing trustees ap-
pointed by PSG Executive Council.



Pacific Seabird Group



Dedicated to the study and con-
servation of Pacific seabirds &
their environment

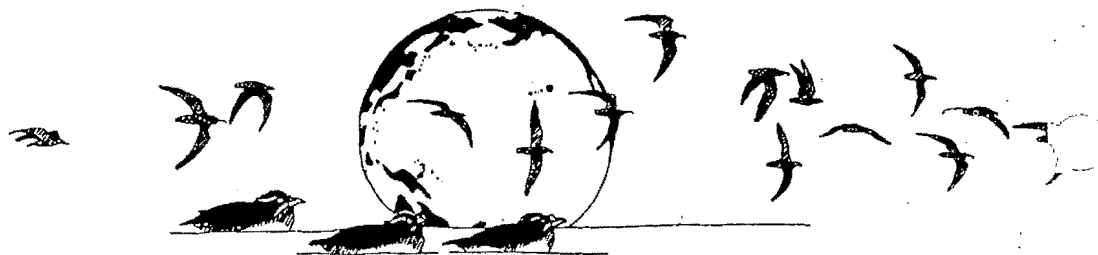
What is the Pacific Seabird Group?

THE PACIFIC SEABIRD GROUP, INC. is a scientific, non-profit organization dedicated to the study and conservation of seabirds and their environment. PSG was formed in 1972 out of a need for better communication among seabird researchers. Through research supported by a variety of agencies and organizations, many PSG members are working to learn more of the secrets of seabird biology, to gather information needed to protect seabird nesting, feeding, and wintering areas, to restore seabirds to islands where introduced predators have wreaked havoc, and to minimize the effects of human activities on the seabirds' world.

THE PACIFIC SEABIRD GROUP takes a broad international perspective in recognition that distant areas are tied by the wanderings of seabirds and the continuity of ocean waters. Our membership includes professional biologists, wildlife managers, students, conservationists, and others from the United States and 15 other countries. PSG promotes international communication between seabird biologists through joint meetings with other groups, such as the 1983 meeting with the Australasian Seabird Group and the 1985 meeting with the Colonial Waterbird Group.

The Executive Board also reflects PSG's international perspectives and concerns. Representatives from 11 regions representing portions of the United States, Canada, Mexico, Central and South America, the South Pacific, and Europe, work with the Chairman, Chairman-elect, Secretary, Treasurer, and PSG Bulletin Editor to plan and direct the organization's activities.

Pacific Seabird Group



Current Activities

ANNUAL MEETINGS: At yearly conferences, researchers share their discoveries and conservation concerns with each other and the public. Reflecting the international distribution of Pacific seabirds, PSG Annual Meetings are often attended by people from throughout the world, including Mexico, Canada, Central & South America, Africa, the United Kingdom, Australia, and Japan. Attendees benefit from the support, constructive criticisms, and insights of fellow participants, as well as from the exchange of scientific reports. Student presentations and reviews of ongoing research are encouraged.

SYMPOSIA: Specialized symposia on specific problems are organized to facilitate exchange and dissemination of information. Symposia proceedings are often published. Past symposia include: "Shorebirds in the Marine Environment", "Tropical Seabird Biology", "The Effects of Human Disturbances on Seabird Colonies", "Marine Birds: Their Feeding Ecology and Commercial Fisheries Relationships", and "Impact of the 1982-83 El Niño on Seabird Biology". A variety of other symposia are being organized, including workshops on terns, alcid, nongame waterbirds, and seabird use of man-made versus natural wetlands.

Committees

STANDING COMMITTEES: Three standing committees work to further PSG's goals. Members are encouraged to participate and contribute to the activities of the committees.

CONSERVATION COMMITTEE: This committee takes an active role in promoting conservation of seabirds. Current activities include keeping all PSG members apprised of issues and legislation relating to seabird conservation, developing a booklet for seabird researchers on minimizing disturbance of nesting colonies, and organizing a workshop on nongame waterbird conservation. The Conservation Committee often provides support for seabird conservation measures, and criticism of activities that will likely harm seabirds or the marine environment.

FISHERIES—SEABIRD INTERACTIONS COMMITTEE: In recognition of the serious conflicts that can and do occur between some commercial fisheries and seabird conservation, a special committee is established to work specifically on this complex conservation problem. Incidental take of seabirds in fishing nets and traps, and potential conflicts over food resources are two of the problems with which this committee is concerned.

SCIENTIFIC TRANSLATIONS COMMITTEE: This committee is concerned with translations into English of research papers of interest to seabird biologists. Through the efforts of this committee, members are kept informed of translations available to them.

Publications

THE PACIFIC SEABIRD GROUP BULLETIN

Issued twice annually, the Bulletin summarizes organization activities, informs members of current seabird conservation issues, reports from regional representative about ongoing seabird research and conservation problems in their areas, along with reviews of recent books on birds, and other information of interest to members. Members receive the Bulletin.

INTERNATIONAL SEABIRD MEMBERSHIP DIRECTORY

Published in 1984. Contains the names and addresses of members of PSG, the Colonial Waterbird Group, Australasian Seabird Group, African Seabird Group, and The Bird Group (United Kingdom).

SHOREBIRDS IN MARINE ENVIRONMENTS.

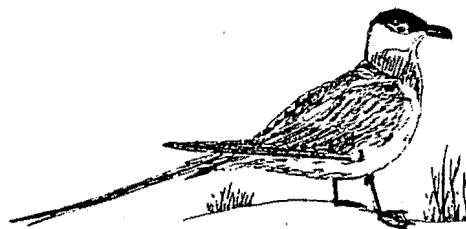
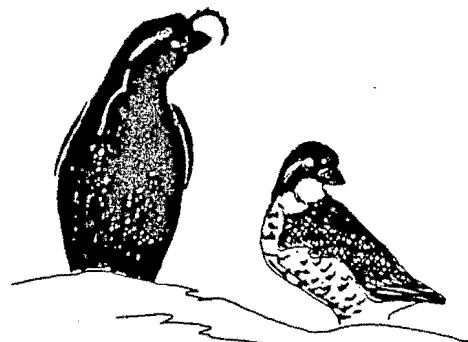
A collection of 25 papers by 39 authors resulting from a 1979 symposium sponsored by the Pacific Seabird Group. Edited by F. A. Pitelka and published by the Cooper Ornithological Society as Number 2 in the Studies in Avian Biology series. 261pp. Available to PSG members at reduced cost.

MARINE BIRDS: THEIR FEEDING BIOLOGY AND COMMERCIAL FISHERIES RELATIONSHIPS.

A collection of 23 papers by 39 authors presented at a 1980 PSG symposium in Seattle, WA. Edited by D.N. Nettles, G.A. Sanger, and P.F. Springer and published by the Canadian Wildlife Service. Available free to attendees and 1 members.

TROPICAL SEABIRD BIOLOGY.

Proceedings of an international symposium held by 1 in 1983 in Honolulu, HI. Contains 6 review papers on feeding, physiology, breeding strategies, and ecology of tropical seabirds. Edited by R. A. Schreiber and published by the Cooper Ornithological Society as Number 8 in the Studies in Avian Biology series. 114 pp. Available to PSG members at reduced cost.



ID # 920603092 - 01

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

Birds

 / Checked for Completeness

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

 / Category

Manipulation/Enhancement - ~~En.~~

~~Habitat Protection - Sea Bird colonies~~

 / Lead Agency

HPWG

 Cooperating Agency(ies)

USEWS

☒ Y

N

Passed initial screening criteria

Type 2

~~Chickadee~~ Birds (Eliminate foxes + other predators)

RANKING

H

M

L

Rank Within Categories

H

M

L

Rank Overall

 Project Number - if assigned

1993 PROJECT SCORING SHEET

092-01

~~092-02~~

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

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

Comments:

* Restoration Framework, 1992, pp 43-44.

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

Title of Project: Habitat Acquisition Evaluation:Evaluate Pacific Seabird Group list of candidate sites for
Justification: (Link to Injured Resource or Service) Acquiring Habitat for Seabird colonies.

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

Back to 1993 with Seabirds FOXS

Estimated Duration of Project: _____

Estimated Cost per Year: _____

Other Comments: _____

Name, Address, Telephone:

Craig S. Harrison
Pacific Seabird Group
4001 N. 9th St, #1801
Arlington, VA 22203
202-778-2240

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.

TELE COPY INFORMATION

Hunton & Williams
P.O. Box 19230
Washington, DC 20036

Telecopy Number: (202)778-2201

TO: Name: Dr. David R. Gibbons
Firm: Exxon Valdez Oil Spill Restoration Team
Location: Anchorage, Alaska
Telecopy Number: 907-276-7178
No. Pages 7 Including Cover

FROM: Name: Craig S. Harrison, Esq.
Extension: 202-778-2240
Special Instructions: Hard Copy to follow by mail.
Operator: _____ Date: 06/03/92
Time: _____

Client/Matter Name: Personal
Client/Matter Number: 99999.000671

(For confirmation or assistance with problems, call 202/955-1611)

Document ID Number	
920603092	
<input checked="" type="checkbox"/>	A-92 WPWG
<input checked="" type="checkbox"/>	B-93 WPWG
<input checked="" type="checkbox"/>	C-RPWG
<input type="checkbox"/>	D-PAG
<input type="checkbox"/>	E-MISC.

Pacific Seabird Group



DEDICATED TO THE STUDY AND CONSERVATION OF PACIFIC SEABIRDS AND THEIR ENVIRONMENT

Craig S. Harrison
Vice Chairman for Conservation
4001 North 9th Street #1801
Arlington, Virginia 22203

June 3, 1992

BY FAX (hard copy to follow)

Dr. David R. Gibbons
Exxon Valdez Oil Trustee Council
645 G Street
Anchorage, Alaska 99501

Re: Comments on Use of Restoration Trust Funds

Dear Dr. Gibbons:

This letter constitutes the Pacific Seabird Group's (PSG) comments on the following:

- Restoration Framework (April 1992)
- 1992 Draft Work Plan (April 1992)
- Solicitation for suggestions for the 1993 Work Plan.

PSG is an international organization that was founded in 1972 to promote knowledge, study and conservation of Pacific seabirds. PSG qualifies as a nonprofit corporation under § 501(c)(3) of the Internal Revenue Code.

As PSG enters its third decade, it draws its 500 members from the entire Pacific Basin, including Russia, Canada, Japan, China, Mexico, Australia, and New Zealand. A substantial portion of PSG's membership resides in Alaska. Among PSG's members are biologists who have research interests in Pacific seabirds, state and federal officials who manage seabird refuges, and individuals with interests in marine conservation. We believe that no other organization has comparable expertise concerning the biology of the seabirds in the North Pacific Ocean. We enclose a summary of PSG's annual meetings since 1973 that highlights our scientific and management expertise. PSG was host to symposia on the biology and management of virtually every seabird species that

Document ID Number
920603092

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

Document ID Number:
920603092

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

the Exxon Valdez oil spill affected. We also enclose a dated brochure that summarizes PSG's activities.

I. Restoration Framework (April 1992)

PSG generally supports the Trustees' approach to restoring the natural resources that the Exxon Valdez oil spill injured. We note that while \$1 billion in restoration trust funds is an enormous amount of money, it must be spent wisely if the immense job of restoration is to be accomplished. We urge the Trustees to restrict the amount of trust funds that they spend on overhead and to funds only projects that directly restore natural resources. We also urge the Trustees to ensure that the organizations and agencies that implement the restoration work do so at the least possible cost. For example, once the Trustees decide to support a project or group of projects, other organizations besides government agencies should have an opportunity to bid competitively on the work. Such an approach will enable the greatest restoration of natural resources.

PSG agrees with the Trustees that seabirds are particularly vulnerable to oil spills. The Trustees document that the spill killed some 300,000 to 645,000 seabirds. Murres were especially hard hit, but substantial losses of the following bird species also occurred: loons, cormorants, Pigeon Guillemots, Bald Eagles, grebes, Harlequin Ducks, goldeneyes, scoters, Marbled Murrelets, Kittlitz' Murrelets, Northern Pintails, Old Squaw, Bufflehead, Black Oystercatchers, Bonaparte's Gulls, Arctic Terns, Black-legged Kittiwakes, and Tufted Puffins.

Injury Criteria. PSG agrees with the Trustees' first criterion that evidence of injury to a natural resource is an important factor to be used in allocating the restoration trust funds. In principle, PSG endorses the Trustees' second criterion (the adequacy and rate of natural recovery). However, the mere immigration of seabirds from elsewhere cannot be deemed to be "natural recovery." Seabird biologists have long noted that most seabird species live relatively long lives and reproduce slowly. PSG would object to any determination that seabirds do not qualify for restoration work simply because pioneering birds may move into the oil spill area from the Aleutian Islands or elsewhere. In such a circumstance, the Trustees should enhance seabird populations in other parts of Alaska that were indirectly "depleted" by the spill.

Criteria for Evaluation of Restoration Options. PSG generally supports the Trustees' criteria for evaluating restoration options. The Trustees should use technical feasibility, potential to improve the rate or degree of recovery, and an analysis of benefit/cost to make decisions concerning the use of the restoration trust funds. PSG welcomes evaluating

restoration options from the perspective of whether they benefit more than a single resource. PSG's preferred options generally would benefit an entire community of seabirds (and sometimes other organisms), not just a single species.

Potential Restoration Alternatives. PSG strongly agrees that federal and state management authorities should use their regulatory powers to modify human uses of resources or habitats that the spill injured. We note that such efforts would not exhaust any of the restoration trust fund but would merely require that the state and federal natural resource agencies enforce the laws or redirect their programs. For example, we agree that authorities should curtail the hunting seasons for sea ducks (Option 8) and that authorities should manage commercial fisheries to reduce the incidental mortality of Marbled Murrelets in drift gillnets (Option 9). We note that taking Marbled Murrelets without a permit violates the Migratory Bird Treaty Act. Although not mentioned, PSG suggests that logging, both on government and private lands, be curtailed in uplands that are prime habitat for Marbled Murrelets or Harlequin Ducks. U.S. Forest Service lands that contain Marbled Murrelets should not be logged for at least a decade.

PSG also agrees that habitat acquisition could be a useful means of restoring the actual or equivalent resources that the spill injured. PSG strongly endorses Option 23 (acquisition of additional marine bird habitat). Because land acquisition can be extremely expensive, the Trustees should ensure that any lands purchased are valuable to seabirds and that the purchase passes muster under a cost/benefit analysis. PSG urges the Trustees to purchase the best seabird islands, not just "what's for sale." Moreover, the Trustees should consider the use of conservation easements rather than outright purchase. Often, restrictions on use and development will provide adequate protection at less cost, allowing more colonies to be protected.

PSG wishes to highlight several potential restoration options that seem to be especially promising. Increasing wildlife management in parks and refuges (Option 7) would be very useful for marine birds. The U.S. Fish & Wildlife Service (FWS), the National Park Service, and state agencies should hire or redirect their staffs to manage parks and refuges to improve marine bird habitat. The USA-USSR (1976) and USA-Japan (1972) migratory bird treaties provide ample incentive for agencies to manage seabird colonies to remove alien predators such as foxes. Article VI(c) of the Japan treaty requires this nation to take measures to control the introduction of live animals that disturb the ecological balance of island ecosystems. Article II of the Soviet treaty provides similar protection. Article IV(1) of the Soviet treaty requires this nation to abate detrimental alteration of the environment of migratory birds.

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

Under the category "Manipulation of Resources," PSG cannot support attempting to enhance murre productivity by using decoys or recorded calls at colonies (Option 16). PSG doubts that any success this technique might have (which is questionable), will do much to improve murre populations in Alaska.

PSG strongly agrees that alien foxes should be eliminated from seabird colonies (Option 17). This activity would help the entire seabird community to recover, including island-nesting sea ducks, dabbling ducks and oystercatchers besides alcids and larids. Moreover, the techniques are proven and have an extremely high benefit/cost. FWS biologists G. Vernon Byrd and Edgar P. Bailey reported to the Alaska Bird Conference in November 1991 that dramatic increases in bird populations took place at Nizki-Alaid Island in the western Aleutians after foxes were removed. They found particularly impressive increases for loons, Pelagic Cormorants, Aleutian Green-winged Teal, Common Eiders, Glaucous-winged Gulls, and Tufted Puffins. We would expand this activity to include removing alien rats and other creatures that harm seabirds. PSG incorporates by reference its letters to each Trustee dated March 2, 1992 in which it identified (Table 2) specific islands where foxes should be removed.

With respect to habitat protection, PSG endorses Options 22-25. Option 22 (designate protected marine areas) could provide long-term, protection to seabirds by protecting areas where seabirds feed and loaf on the water. A marine sanctuary in the Pribiloff Islands or Bristol Bay would be especially welcome. PSG has previously endorsed acquiring additional marine bird habitats (Option 23) such as Afognak, East Amatuli and Gull islands. PSG incorporates by reference its list of appropriate acquisitions (Table 1) that it sent to each Trustee by letter dated March 2, 1992. PSG also endorses acquiring inholdings within parks and refuges (Option 24). PSG endorses the acquisition of uplands to protect Marbled Murrelets and Harlequin Ducks if there is sufficient information available to ensure that appropriate tracks of land are purchased.

Finally, PSG endorses developing a comprehensive monitoring program (Option 31).

II. 1992 Draft Work Plan

PSG's opportunity to comment on the 1992 draft Work Plan has come so late in the year that the Trustees have funded the projects already. PSG recognizes the administrative and logistical problems that the Trustees have faced in establishing the restoration program and accepts this situation for 1992. However, if the public involvement called for in the settlement documents is to be meaningful, the draft work plan for 1993

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

should be available for public comment by December 1992. PSG observes that the Trustees have not committed \$18.2 million in restoration trust funds that could be spent in 1992.

PSG supports all of the damage assessment projects that the Trustees have funded this year — boat surveys to determine the distribution and abundance of migratory birds in Prince William Sound (Bird Study No. 2); surveys of murre colonies in spill area (Bird Study No. 3); assessment of Marbled Murrelets sites, Fork-tailed Storm-petrels, Black-legged Kittiwakes, and Pigeon Guillemots (Bird Studies No. 6-9); assessment of injury to sea ducks by hydrocarbon uptake (Bird Study No. 11); and assessment of shorebird injuries (Bird Study No. 12). PSG believes that understanding the magnitude of harm is important to decide the types and extent of restoration activities that may be necessary.

The Trustees have asked for comment on several restoration projects that it has funded for 1992. PSG is primarily interested in four restoration projects: murre restoration (No. 11, funded at \$317 K); Marbled Murrelet restoration (No. 15, funded at \$419 K); Harlequin Duck restoration (No. 71, funded at \$425 K); and impacts of contaminated mussels on Harlequin Ducks and Black Oystercatchers (No. 103C, funded at \$176 K). PSG generally supports each of these projects. In particular, the studies on Marbled Murrelet and Harlequin Duck habitat requirements should prove to be very useful in assessing potential land acquisitions for these species. The Harlequin Duck study should assist federal and state forestry agencies in establishing the width of forested buffer strips that are necessary to protect their breeding sites.

PSG is disappointed that the Trustees have not funded Option 17 (removal of foxes and other alien predators from seabird colonies). The Trustees have funded four seabird projects at a cost of \$1,337,000 for 1992. While PSG cannot evaluate whether such large amounts are appropriate, it suggests that in future years the Trustees apply the cost/benefit criterion discussed above to these projects. PSG would have difficulty justifying any of these projects as a priority above the unfunded Option 17 (removal of alien predators from seabird colonies). As we have discussed above and in previous letters to the Trustees, predator removal has the highest yield of any action that the Trustees or the agencies might take to increase the populations of the marine birds that the oil spill killed. Option 17 can be implemented immediately, even during the 1992 field season using some of the \$18.2 million of unobligated trust funds.

PSG also urges the Trustees to persuade FWS (and, where appropriate, other federal and state agencies), to fund predator removal through the agencies' normal budgetary processes. FWS, for example, had budgeted \$50,000 for fiscal year 1992 to remove foxes from islands in the Alaska Maritime National Wildlife

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

Refuge. FWS essentially reprogrammed those funds to start a new project in the Yukon-Kuskokwim Delta to shoot native foxes in an attempt to improve waterfowl production. Such priorities are questionable.

III. 1993 Work Plan

PSG suggests that the 1993 Work Plan include two additional projects to restore seabird populations. First, the Trustees should provide substantial funds to eliminate foxes, rats and other predators from present and former seabird colonies (Option 17). As noted above, PSG has already provided the Trustees with a list of colonies. Second, PSG suggests that the Trustees fund a project to evaluate PSC's list of candidates for acquiring habitat that is important to seabird colonies.

IV. Conclusion

PSG supports the projects that the Trustees have proposed to date. PSG urges the Trustees to fund immediately the only project that is certain to increase the populations of the twenty or so seabird species injured by the oil spill, namely, the removal of predators from seabird colonies. PSG also urges the Trustees to continue and expand work to evaluate land acquisition candidates for seabird colonies. Thank you for this opportunity to lend our expertise and views on these important issues.

Sincerely,

Craig S. Harrison

Craig S. Harrison

Enclosures

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

HABITAT

ID # 920611233-02

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

Birds

✓ Checked for Completeness
 ✓ ID stamped/Input completed
 ✓ Name
 ✓ Affiliation
 ✓ Costs

✓ Category
 Restoration - Enhancement

✓ Lead Agency
 DOI FWS

✓ Cooperating Agency(ies)
 ~~ADP~~

☒ N Passed initial screening criteria

type - birds

RANKING H M L Rank Within Categories

 H M L Rank Overall

 Project Number - if assigned

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

Title of Project: Restoration of Murres by way of Transplantation of Chicks: A Feasibility Study.

Justification: Common Murres (*Uria aalge inornata*) were the most heavily affected bird species as a result of the *Exxon Valdez* Spill. Restoration of selected populations by way of transplantation and hand-rearing of chicks could be an important technique to reduce the recovery time of the murre population.

Description of Project: Translocation and hand-rearing of alcids has been successful in reestablishing Atlantic Puffins to former breeding sites in the Gulf of Maine. Similar methodologies might be adaptable to Common Murres and result in the re-establishment or enhancement of colonies impacted by the spill. Thus, the goal of this project is to conduct the background research necessary to ascertain whether this approach is adaptable and feasible with Common Murres and whether any significant restoration potential might be realized through this methodology.

Murres accounted for 61% of the dead birds recovered after the spill (22,000 of 36,000). But because many oiled birds were lost at sea or along the shores, the number of recovered murres represents perhaps only 5-10% of the total number of murres killed by the spill. It is therefore likely that in excess of one hundred thousand murres were killed as a result of the spill. This translates into a major mortality event that will affect the reproductive performance and population stability of murres in Alaska for years to come. It is known already that this mortality event has caused complete reproductive failure in some large colonies in each year since the spill, and this loss represents the cumulative lost production of some 300,000 young. Reasons for this "echo" of lost production into subsequent years is complex, but may have to do with the fact that many surviving adults have had to find new mates, a process that can be followed by several years of failed reproduction.

Action:

- Conduct appropriate experiments in such places as the Barren Islands to ascertain the feasibility for translocations of Common Murre chicks from large colonies outside the spill area.
- Conduct the appropriate trials to establish a methodology for human-rearing of murre chicks.

Estimated Duration of Project: 3 years

Estimated Cost per Year: \$73,000

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

Document ID Number	
920611233-02	
<input type="checkbox"/>	A-92 WPWG
<input checked="" type="checkbox"/>	B-93 WPWG
<input type="checkbox"/>	C-RPWG
<input type="checkbox"/>	D-PAG
<input type="checkbox"/>	E-MISC.

ID # 920611233-01

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

 Checked for Completeness

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

 Category

Restoration - Enhancement

 Lead Agency

DOIFWS

1 Cooperating Agency(ies)

ADF & G

⑤ N Passed initial screening criteria

type - birds

RANKING	H	M	L	Rank Within Categories
---------	---	---	---	------------------------

H	M	L	Rank Overall
---	---	---	--------------

_____ Project Number - if assigned

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

Title of Project: Restoration of Murres by way of Behavioral Attraction and Habitat Enhancement.

Justification: Common Murres (*Uria aalge inornata*) were the most heavily affected bird species as a result of the Exxon Valdez Spill. Restoration of selected populations and enhancement of habitat by way of auditory and visual attraction of pre-breeders could be an important technique for reducing the recovery time of murre population.

Description of Project: Pre-breeding seabirds are known to wander widely in the years before breeding. During this prospecting phase it has been shown that behavioral attraction (sound playback and presentation of decoys or models) is an effective means of enhancing habitat and in reestablishing alcids, terns, albatrosses, storm-petrels and gadfly petrels. Because this method has not been tried with murres, the goal of this project is to ascertain whether murres respond to behavioral stimuli similar to other seabirds and if any significant restoration potential is realized through this methodology.

Murres accounted for 61% of the dead birds recovered after the spill (22,000 of 36,000). But because many oiled birds were lost at sea or along the shores, the number of recovered murres represents perhaps only 5-10% of the total number of murres killed by the spill. It is therefore likely that in excess of one hundred thousand murres were killed as a result of the spill. This translates into a major mortality event that will affect the reproductive performance and population stability of murres in Alaska for years to come. It is known already that this mortality event has caused complete reproductive failure in some large colonies in each year since the spill, and this loss represents the cumulative lost production of some 300,000 young. Reasons for this "echo" of lost production into subsequent years is complex, but may have to do with the fact that many surviving adults have had to find new mates, a process that can be followed by several years of failed reproduction.

Actions:

- Conduct appropriate attraction trials in such places as the Barren Islands in order to ascertain whether murres are attracted to playback of vocalizations or other sounds.
- Conduct appropriate experiments in order to ascertain whether murres are attracted to the presentation of decoys of murres or other relevant visual stimuli such as nests and fake eggs.

Estimated Duration of Project: 2 years

Estimated Cost per Year: \$51,000

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

Document ID Number	
920611233-01	
<input type="checkbox"/>	A-92 WPWG
<input checked="" type="checkbox"/>	B-93 WPWG
<input type="checkbox"/>	C-RPWG
<input type="checkbox"/>	D-PAG
<input type="checkbox"/>	E-MISC.

•

✓ ID stamped/Input completed

Name

✓ Affiliation

Costs

Other - Science Restoration - manipulation

DOI ~~F~~WS

USFS

②

type - birds

RANKING	H	M	L	Rank Within Categories
---------	---	---	---	------------------------

H	M	L	Rank Overall
---	---	---	--------------

_____ Project Number - if assigned _____

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

Title of Project: Marbled Murrelet Vocalizations in Conjunction with Artificial Nests:
A Possible Means of Attraction to Restored or Acquired Habitat.

Justification: Marbled Murrelets (*Brachyramphus marmoratus*) were among the most heavily affected bird species as a result of the Exxon Valdez Spill. Restoration of selected populations by way of auditory and visual attraction of pre-breeders in conjunction with artificial nests could be an important technique to reduce the recovery time of the murrelet population.

Description of Project: Playback of vocalizations has been shown to be an effective method of attracting many seabirds including: alcids, terns, albatrosses, storm-petrels and gadfly petrels. Both storm-petrels and gadfly petrels have been successfully lured to artificial nests augmented with playback of vocalizations. Because this method has not been attempted with murrelets, the goal of this project is to ascertain whether murrelets are attracted to playbacks or other relevant sounds and whether there is any significant management potential to be realized through combining these stimuli with the presentation of artificial nests.

Actions:

- Conduct appropriate experiments on Knight and Naked Islands in order to ascertain whether murrelets are attracted to playback of vocalizations or other relevant sounds.
- Conduct appropriate experiments on Knight and Naked Islands in order to ascertain whether the number of murrelets observed, during dawn watches or through other population assessment methods, can be increased by broadcasting various sounds.
- Ascertain whether murrelets are attracted to, or will use, artificial nests with or without vocalization playback.

Relevant Past Work:

Podolsky, R. and S.W. Kress. 1992. Attraction of the endangered Dark-rumped Petrel to recorded vocalizations in the Galápagos Islands. *The Condor* 94: 448-453.

Podolsky, R.H. and S.W. Kress. 1989. Factors affecting colony formation in Leach's storm-petrel to uncolonized islands in Maine. *The Auk* 106: 332-336.

Estimated Duration of Project: 2 years

Estimated Cost per Year: \$47,000

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

Document ID Number	
920611	233-04
<input type="checkbox"/>	A-92 WPWG
<input checked="" type="checkbox"/>	B-93 WPWG
<input type="checkbox"/>	C-RPWG
<input type="checkbox"/>	D-PAG
<input type="checkbox"/>	E-MISC.

ID # 920615273-3/

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

Birds

☒ Checked for Completeness

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

☒ Category

Restoration Management Actions

☒ Lead Agency

DOI - FWS

☒ Cooperating Agency(ies)

☒ Y ☐ N

Passed initial screening criteria

type - birds

RANKING H M L Rank Within Categories

H M L Rank Overall

Project Number - if assigned

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

Title of Project: Development of Management Strategies for Enhancing Recovery Rate of Birds and Sea Otter Populations and their Habitats in the *Exxon Valdez* Spill Zone

Justification: (Link to Injured Resource or Service) Many NRDA studies have indicated that of all organisms in the path of oil from the T/V *Exxon Valdez*; sea otters and migratory birds were the most visibly impacted. Immediate doses of sea otters and migratory birds ranged between 3000 and 5500 animals respectively. In addition to the immediate and continuing losses of otters and birds several resource development activities and potential threats may either slow recovery of their resources or enhance their continuing decline. Minimizing disturbance and protecting/acquiring marine and coastal habitats are restoration end points identified for sea otters. Currently within the area affected by the Exxon Valdez oil spill, sea otters are legally killed by Alaska Natives for subsistence, illegally killed as nuisance animals, taken incidentally in commercial fishing operations, and occasionally captured and removed for public display, all activities which may be contrary to restoration goals. The affects of logging and other forms of development in the coastal zone on sea otters are largely unknown. The proposed project also would result in the acquisition and compilation of various data and information that could be used in making decisions on ways to minimize disturbance, protect habitat, and resolve conflicting uses or management conflicts. It is likely the decisions of those kind could be made for sea otters until various existing data relating to their management and conservation were accessed and complied. Adoption of this project also would insure that restoration concerns are adopted as part of the management plan being developed for sea otters in Alaska by the Fish and Wildlife Service. Prompt initiation of the project will result in more rapid implementation of restoration endpoints identified by RPWG. In addition, synthesis of information on populations, habitat values, and resource threats, will help reveal data gaps. developing alternative management strategies for restoring and protecting sea otters and migratory birds. The key data gaps could then be funded in 1993 and beyond.

Description of Project: (e.g. goal(s), objectives, location, rationale, and technical approach) The project objectives would be: (a) Synthesize information on migratory birds and sea otters populations and habitat values for the spill zone, (b) Identify resource issues, conflict, problems, for, and threats to, populations of migratory birds and sea otters and their habitats in the spill zone, (c) Identify alternative management strategies and opportunities for restoring and protecting migratory birds and sea otters populations and their habitats in the spill zone.

Estimated Duration of Project: Synthesis and analysis of data resources and the development of alternative restoration and protection strategies will take 1 year.

Estimated Cost per Year:

	1993
thesis of resource data and GIS	50K

ynthesis of resource threats and development of 50K
Management threats

Total 100K

Other Comments: None

Name, Address, Telephone:

U.S. Fish and Wildlife Service
1011 East Tudor Road
Anchorage, Alaska 99503

(907) 786-3494

Document ID Number	
920615273 31	
<input type="checkbox"/>	A-92 WPWG
<input checked="" type="checkbox"/>	B-93 WPWG
<input type="checkbox"/>	C-RPWG
<input type="checkbox"/>	D-PAG
<input type="checkbox"/>	E-MISC.

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

✓ Checked for Completeness

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

✓ Category

Restoration - Manipulation

✓ Lead Agency

ADEC

Cooperating Agency(ies)

Y N Passed initial screening criteria

unknown

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

- | | | | |
|---|---|-------------------------------------|---------------------------------------------------------------------------------------|
| — | — | <input checked="" type="checkbox"/> | 1. Linkage to resources and/or services injured by the <u>Exxon Valdez</u> oil spill. |
| — | — | <input checked="" type="checkbox"/> | 2. Technical feasibility.* |
| — | — | <input checked="" type="checkbox"/> | 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:

Natural Product Natural Life Restoration Proposal A-D

Justification: (Link to Injured Resource or Service)

Clean up oiled beaches

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

"The opportunity to help a natural army of workers
to restore the shoreline of Alaska is at our disposal."

Estimated Duration of Project: 1 yearEstimated Cost per Year: 1,071,850.00

Other Comments:

Name, Address, Telephone:

Jerry Dale Rusher
Rusher Services
HC 33 Box 2866
Wasilla, AK 99687
907 376 9275

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.

Rusher's Services

Rusher's Environmental 76
Oil Spill Clean-up

RUSHER'S SERVICES
HC 33 Box 2866
Wasilla, Ak. 99687

TELEPHONE
907-376-9275
FAX: 907-373-6001

LETTER OF TRANSMITTAL

DATE: Feb. 10/1992

SENT TO: U.S. Dept of Agriculture

Forest Service

Attn: Mike Barton Fax 586-7840

Page 1 of 2

REF: to 3:30 teleconference today of the EXXON
VALDEZ TRUSTEE COUNCIL meeting.

****PRIORITY PROJECT****

Document ID Number

920601059

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

even though Mr. Rusher
santed this proposal
included in the 1992
udget (it was not) it is
n idea for next year.
That's why I put this
in B-93 WPWG."

Rebecca

Larry Dale Rusher

Rush's Services

Rush Environmental 76
Oil Spill Clean-up

HC 33 BOX 2866
ILLA, ALASKA 99687

Fax (907)373-6001
Office (907)376-9275

TO EXXON VALDEZ TRUSTEE COUNCIL

FEBRUARY 10, 1992

REF: PROPOSAL A-B

PRIORITY PROJECT

** NATURAL PRODUCT NATURAL LIFE RESTORATION **

Document ID Number

920601059

☐ A-92 WPWG

☒ B-93 WPWG

☐ C-RPWG

☐ D-PAG

☐ E-MISC.

The most cost effective and budgetwise solution to the placement of this PRIORITY PROJECT on the 1992 budget is to use duplication dollars in the amount of \$1,071,850.00 that the council has in 13 projects at this time.

20 percent duplication:	CO ST1A	\$100,000.00		
	CO ST8	16,000.00		
	CO ST3B	49,000.00		
	PROJECT TOTAL	\$165,700.00	-20%	\$33,140.00

22 percent duplication:	103	\$500,000.00		
	103	200,000.00		
	PROJECT TOTAL	\$750,000.00	-22%	\$165,000.00

23 percent duplication:	ST1	\$950,000.00		
	ST8	175,000.00		
	ST4	160,000.00		
	TS1	150,000.00		
	ST1	800,000.00		
	PROJECT TOTAL	\$2,235,000.00	-23%	\$514,050.00

28 percent duplication:	R101	\$ 44,500.00		
	R101	540,000.00		
	R102	700,000.00		
	PROJECT TOTAL	\$1,284,500.00	-28%	\$359,660.00

THE TOTAL OF 13-PROJECTS \$4,435,200.00

THE TOTAL OF DUPLICATION OF 13 PROJECTS \$1,071,850.00

THE OPPORTUNITY TO HELP A NATURAL ARMY OF WORKERS TO RESTORE THE SHORELINES OF ALASKA IS AT OUR DISPOSAL.

SINCERELY

JERRY DALE RUSHER
ENVIRONMENTAL AFFAIRS

ID # 9 3601061

also - 920601059

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

☒ Checked for Completeness

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

☒ Category

Manipulation & Enhancement
Restoration Management Actions

☒ Lead Agency

DEC

☒ Cooperating Agency(ies)

NOAA

☒ Y ☐ N Passed initial screening criteria

Type: Coastal Herb

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

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

Comments:

* Restoration Framework, 1992, pp 43-44.

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

COH 72001061
Coastal Habitat
Rusher

Title of Project:

Natural Product Natural Life Restoration Pre-Proposal A

Justification: (Link to Injured Resource or Service)

Shoreline worms are affected by the EVOS - Clean up residual oil

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

monitor the presence of shoreline worm populations
and their movement

Use a commercial product to clean oil Environmental 75

Estimated Duration of Project: 1 year

Estimated Cost per Year: \$ 788,000.00

Other Comments:

Name, Address, Telephone:

Terry Dale Rusher
Rusher's Services
HC 33 Box 2866
Wacilla, AK 99687
907 373 6001 Fax

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.

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

FORMAT FOR IDEAS FOR RESTORATION PROJECTS

Title of Project:

Natural Product Natural Life Restoration ReProposed B

Justification: (Link to Injured Resource or Service)

Clean up oil from beaches (EUOS oil)

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

Use commercial product Environmental 75 and
monitor Beach worms.

Estimated Duration of Project: 1 year

Estimated Cost per Year: cost not specified

Other Comments:

Name, Address, Telephone:

Jerry Dale Risher

Risher's Services

HC 33 Box 2866

Wainier, AK 99687

907 373 6001 fax

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.

Rusher's Services

HC 33 BOX 2866
WASILLA, AK 99687

Rusher's Environmental 75
Oil Spill Clean-up

FAX (907) 373-6001
OFFICE (907) 376-9275

Exxon Valdez Trustee Council
Attn: Mr. Dave Gibbons & Council

February 6, 1992

Jerry Rusher RUSHER'S SERVICES

Thank you for this opportunity

PRIORITY PROJECT **NATURAL PRODUCT NATURAL LIFE RESTORATION**

The endorsements for consideration of a fair trial in the process of restoration of this PRIORITY PROJECT speaks for itself. The largest Native Corporation land owner in the Prince William Sound, CHUGACH ALASKA CORPORATION, the largest individual land owner, ELLAMAR PROPERTIES, INC. and small parcel property owners on Knight Island.

Document ID Number	
920601061	
<input type="checkbox"/>	A-92 WPWG
<input checked="" type="checkbox"/>	B-93 WPWG
<input type="checkbox"/>	C-RPWG
<input type="checkbox"/>	D-PAG
<input type="checkbox"/>	E-MISC.

First, some very interesting numbers that led to this *PRIORITY PROJECT*

In the 1989 Exxon Valdez Spill, 40% of the oil was recovered and three years later 41% was recovered from the Cook Inlet Spill, a gain of 1%.

According to Dr. John Teal, a Senior Scientist "After 20 years we can still find OIL." This tells me two very important facts; clean-up technology was inadequate and the restoration technology was inadequate. The eyes of the world are on us to see what approach will be made. As a proud Alaskan, I hope the Exxon Valdez Trustee Council will take the lead position on restoring the shorelines from twenty years of sub-surface oil.

A lead position could be the attention and consideration of this PRIORITY PROJECT. Scientific data from 1989, 1990 placement of Environmental-75 surface and sub-surface has shown beach worms are attracted to the controlled test sites in greater numbers and greater health than any other site on the shoreline. The beach worms are very important to the bird migration in the Prince William Sound. They are a part of the food chain. With strip application of Environmental-75, a natural restoration can occur by attracting beach worm movement to speed the rates of natural degradation of subsurface and surface contamination. In layman terms, worm movement would aerate the soil of the shorelines. Placement target date May 1, 1992. THE FUTURE IS WHAT WE DO NOW. The opportunity to help a natural ARMY of workers to restore the shorelines of Alaska is at our disposal. ✓

I would ask the Council if May 1, 1992 can be a reality?

Jerry Rusher
Jerry Rusher

Rusher's Services

Usher's Environmental 75
Oil Spill Clean-up

HC 33 BOX 2866
WASILLA, AK 99687

FAX (907) 373-6001
OFFICE (907) 376-9275

February 6, 1992

TO: EXXON VALDEZ TRUSTEE COUNCIL

Document ID Number

920601063

☐ A-92 WPWG

☒ B-93 WPWG

☐ C-RPWG

☐ D-PAG

☐ E-MISC.

ECOLOGICAL/ENVIRONMENTAL MONITORING

Pre-Proposal: A

Pre-Proposal A: SHORELINE WORM LIFE MONITORING is an ecological/environmental monitoring project that will identify present and future impacts on the ecosystems of the Prince William Sound and the Gulf of Alaska.

SHORELINE WORM LIFE MONITORING (SWLM) is a monitoring project that can use natural life in place on our shorelines to indicate several very important present and potential impacts from oil transportation.

Using controlled monitoring sites on Latouche Island, Knight Island, Naked Island, Foul Bay and Junction Island can determine the rates of degradation of surface and subsurface oil by shoreline worm movement and sample bag analysis.

Surface placement of E-75 bags would determine the amount of oil from the Exxon Valdez oil spill currently being released to the waters of the Prince William Sound and the Gulf of Alaska. Subsurface placement of E-75 sample bags would determine the rate of degradation that can occur by the movement of the worms. The combination of surface and subsurface placement will help determine degradation rate. Scientific data has shown beach worms are attracted to the controlled test site in greater numbers and in better health than any other site on the shoreline.

Beach worms that are naturally found on our shorelines are beneficial to the food chain of the Prince William Sound bird migration.

Test data shows that beach worms are natural life working to put oxygen into subsurface and surface shorelines.

With E-75 sample bag application, a natural clean-up can occur by attracting beach worm movement to speed the rates of natural degradation of subsurface oil.

Data shows that other natural life is attracted to the controlled test site. A one to three year monitoring project would determine if worm life can create a faster degradation and improve water quality for all life.

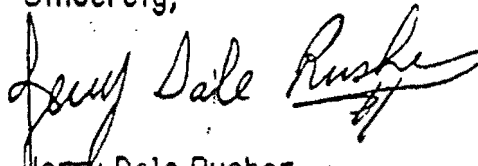
End results would be an ECOLOGICAL/ENVIRONMENTAL MONITORING TOOL to determine present and future degradation rates of oil spills or releases in the oil transportation process.

Anticipated annual costs: \$388,000.00

Monthly costs: \$ 32,333.33

Cost summary: Administrative, placement and sample collection, worm health analysis, worm count, analytical tests and monthly implementation of charts and graphs for annual submission of data to _____ for present and future ECOLOGICAL/ENVIRONMENTAL MONITORING PROJECTS.

Sincerely,



Jerry Dale Rusher
Environmental Affairs

Document ID Number	
920601063	
<input type="checkbox"/>	A-92 WPWG
<input checked="" type="checkbox"/>	B-93 WPWG
<input type="checkbox"/>	C-RPWG
<input type="checkbox"/>	D-PAG
<input type="checkbox"/>	E-MISC.

HC 33 BOX 2866
WASILLA, ALASKA 99687

Fax (907)373-6001
Office (907)376-9275

SHORELINE RESTORATION

February 6, 1992

TO: EXXON VALDEZ TRUSTEE COUNCIL

PRE-PROPOSAL B

PRIORITY PROJECT: NATURAL PRODUCT NATURAL LIFE RESTORATION

In 1989 & 1990 scientific data has shown positive results in the application of Environmental 75 on the shorelines PRINCE WILLIAM SOUND EXXON VALDEZ OIL SPILL.

Environmental 75 is a natural non-toxic product.
(diatomaceous earth)

Scientific data has shown beach worms are attracted to the controlled test site in greater numbers and greater health than any other site on the shoreline.

Beach worms natural life in place on our shorelines right now are beneficial to the food chain of the PRINCE WILLIAM SOUND bird nation.

Test data shows that beach worms are natural life working to put oxygen into the subsurface and surface of our shorelines.

With strip application of Environmental 75 a natural clean-up can occur by attracting beach worm movement to speed the rates of natural degradation of subsurface and surface contamination.

RESULTS A CLEAN AND RESTORED ENVIRONMENT FOR ALL LIFE

This *NATURAL PRODUCT NATURAL LIFE RESTORATION* will help Mother Nature by 3 to 5 years and with the least amount of environmental damage to the biological and ecological system of the PRINCE WILLIAM SOUND AND THE GULF OF ALASKA.

****THE FUTURE IS WHAT WE DO NOW****

Jerry D. Rusher

Jerry D. Rusher
ENVIRONMENTAL AFFAIRS

Document ID Number

920601062

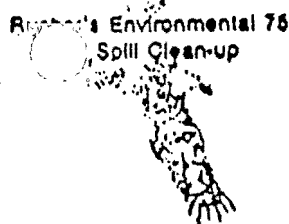
☐ A-92 WPWG

☒ B-93 WPWG

☐ C-RPWG

☐ D-PAG

☐ E-MISC.

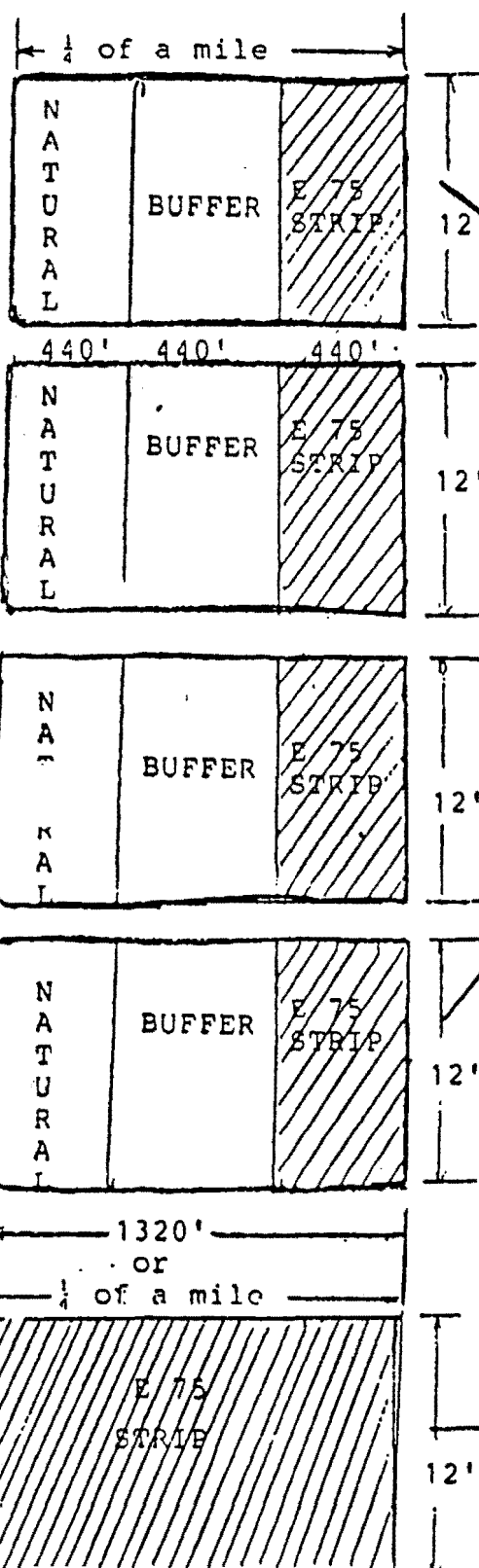


HC 33 BOX 2866
WASILLA, ALASKA 99687

Fax (907)373-6001
Office (907)376-9275

Document ID Number	
920601062	
<input type="checkbox"/>	A-92 WPWG
<input checked="" type="checkbox"/>	B-93 WPWG
<input type="checkbox"/>	C-RPWG
<input type="checkbox"/>	D-PAG
<input type="checkbox"/>	E-MISC.


COSTS FOR E 75 RESTORATION
SHORELINE RESTORATION



1/3 of a mile in four
different sites \$12,723.00

COST PER MILE COULD BE LESS
BECAUSE OF VOLUME APPLICATION.

COST COULD BE LESS PER MILE
WITH LOCAL APPLICATION. (residents)

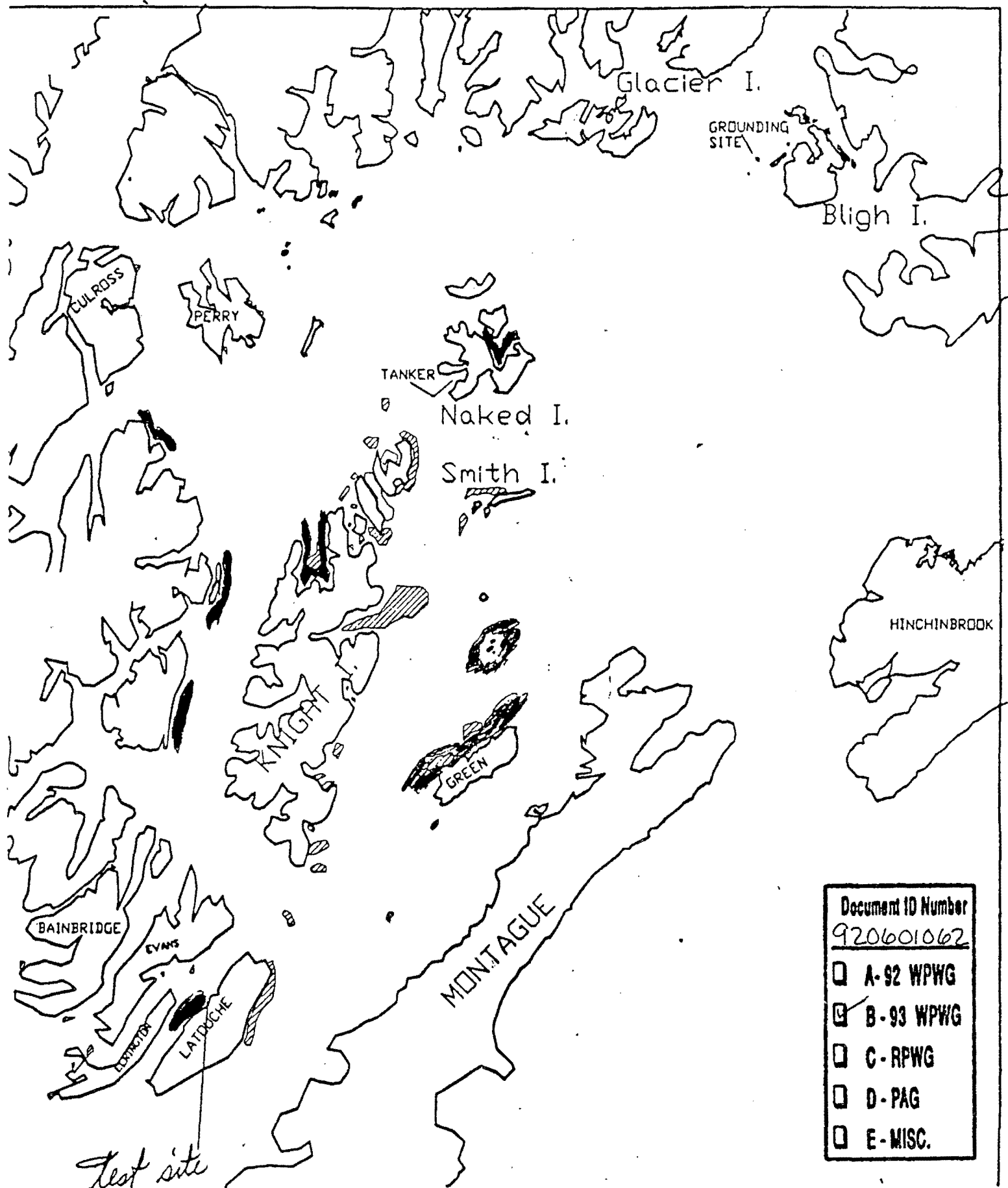
 E 75 STRIP 20' SEPARATION 12' TO 15'
LONG. (subsurface or surface)

1/4 of a mile \$9,451.00
12,723

OIL SPILL

148°

147°



Document ID Number	
920601062	
<input type="checkbox"/>	A-92 WPWG
<input checked="" type="checkbox"/>	B-93 WPWG
<input type="checkbox"/>	C-RPWG
<input type="checkbox"/>	D-PAG
<input type="checkbox"/>	E-MISC.

Rusher's Services

Rusher's Environmental 76
Oil Spill Clean-up

RUSHER'S SERVICES
HC 33 Box 2866
Wasilla, Ak. 99687

TELEPHONE
907-376-9275
FAX: 907-373-6001

LETTER OF TRANSMITTAL

DATE: Feb. 10/1992

SENT TO: U.S. Dept of Agriculture

Forest Service

Attn: Mike Barton Fax 586-7840

Page 1 of 2

REF: to 3:30 teleconference today of the EXXON

VALDEZ TRUSTEE COUNCIL meeting.

****PRIORITY PROJECT****

Document ID Number

920601059

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

even though Mr. Rusher
wanted this proposal
included in the 1992
budget (it was not) it is
an idea for next year.
That's why I put this
in B-93 WPWG.

Rebecca

Lynd Dale Ruske

Rush's Services

Rush Environmental 76
Oil Spill Clean-up

HC 33 BOX 2866
KILLISNOA, ALASKA 99687

Fax (907)373-6001
Office (907)376-9275

TO EXXON VALDEZ TRUSTEE COUNCIL

FEBRUARY 10, 1992

REF: PROPOSAL A-B

PRIORITY PROJECT

** NATURAL PRODUCT NATURAL LIFE RESTORATION **

The most cost effective and budgetwise solution to the placement of this PRIORITY PROJECT on the 1992 budget is to use duplication dollars in the amount of \$1,071,850.00 that the council has in 13 projects at this time.

20 percent duplication:	CO ST1A	\$100,000.00		
	CO ST8	16,000.00		
	CO ST3B	49,000.00		
	PROJECT TOTAL	\$165,700.00	-20%	\$33,140.00

22 percent duplication:	103	\$500,000.00		
	103	200,000.00		
	PROJECT TOTAL	\$750,000.00	-22%	\$165,000.00

23 percent duplication:	ST1	\$950,000.00		
	ST8	175,000.00		
	ST4	160,000.00		
	TS1	150,000.00		
	ST1	800,000.00		
	PROJECT TOTAL	\$2,235,000.00	-23%	\$514,050.00

28 percent duplication:	R101	\$ 44,500.00		
	R101	540,000.00		
	R102	700,000.00		
	PROJECT TOTAL	\$1,284,500.00	-28%	\$359,660.00

THE TOTAL OF 13 PROJECTS \$4,435,200.00

THE TOTAL OF DUPLICATION OF 13 PROJECTS \$1,071,850.00

THE OPPORTUNITY TO HELP A NATURAL ARMY OF WORKERS TO RESTORE THE SHORELINES OF ALASKA IS AT OUR DISPOSAL.

SINCERELY
Jerry Dale Rusher
JERRY DALE RUSHER
ENVIRONMENTAL AFFAIRS

Document ID Number

920601059

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

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

✓
_____ Checked for Completeness

✓ ID stamped/Input completed

✓ Name

✓ Affiliation

_____ Costs

✓
_____ Category

Manipulation & Enhancement

✓
_____ Lead Agency

ADBC

_____ Cooperating Agency(ies)

① N Passed initial screening criteria

Type: CH

RANKING H M L Rank Within Categories

 H M L Rank Overall

_____ Project Number - if assigned _____

HC 33 BOX 2866
WASILLA, ALASKA 99687

Environmental 75
Spill Clean-up

Fax (907)373-6001
Office (907)376-9275

SHORELINE RESTORATION

February 6, 1992

TO: EXXON VALDEZ TRUSTEE COUNCIL

PRE-PROPOSAL B

PRIORITY PROJECT: NATURAL PRODUCT NATURAL LIFE RESTORATION

In 1989 & 1990 scientific data has shown positive results in the application of Environmental 75 on the shorelines PRINCE WILLIAM SOUND EXXON VALDEZ OIL SPILL.

Environmental 75 is a natural non-toxic product.
(diatomaceous earth)

Scientific data has shown beach worms are attracted to the controlled test site in greater numbers and greater health than any other site on the shoreline.

Beach worms natural life in place on our shorelines right now
beneficial to the food chain of the PRINCE WILLIAM SOUND bird
ation.

Test data shows that beach worms are natural life working to put oxygen into the subsurface and surface of our shorelines.

With strip application of Environmental 75 a natural clean-up can occur by attracting beach worm movement to speed the rates of natural degradation of subsurface and surface contamination.

RESULTS A CLEAN AND RESTORED ENVIRONMENT FOR ALL LIFE

This *NATURAL PRODUCT NATURAL LIFE RESTORATION* will help Mother Nature by 3 to 5 years and with the least amount of environmental damage to the biological and ecological system of the PRINCE WILLIAM SOUND AND THE GULF OF ALASKA.

****THE FUTURE IS WHAT WE DO NOW****

Jerry D. Rusher
Jerry D. Rusher
ENVIRONMENTAL AFFAIRS

Document ID Number
920601062
<input type="checkbox"/> A-92 WPWG
<input checked="" type="checkbox"/> B-93 WPWG
<input type="checkbox"/> C-RPWG
<input type="checkbox"/> D-PAG
<input type="checkbox"/> E-MISC.

HC 33 BOX 2866
WASILLA, ALASKA 99687

Fax (907)373-6001
Office (907)376-9275

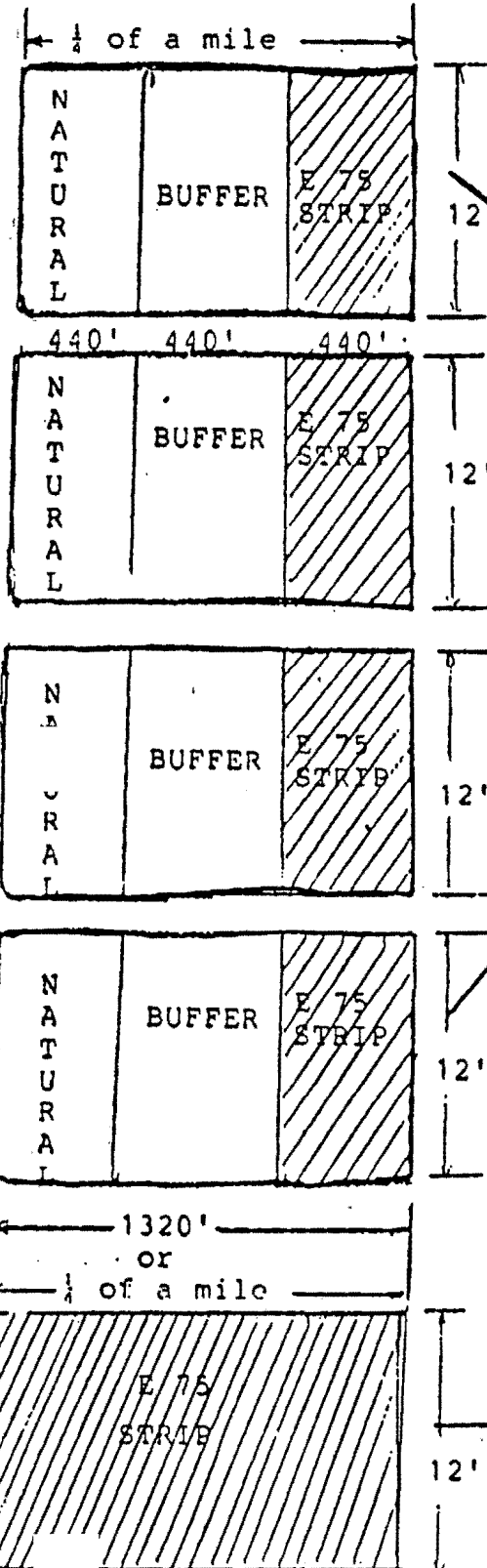
Document ID Number

920601062

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

COSTS FOR E 75 RESTORATION

SHORELINE RESTORATION



1/3 of a mile in four
different sites \$12,723.00

COST PER MILE COULD BE LESS
BECAUSE OF VOLUME APPLICATION.

COST COULD BE LESS PER MILE
WITH LOCAL APPLICATION. (residents)

E 75 STRIP 20' SEPARATION 12' TO 15'
LONG. (subsurface or surface).

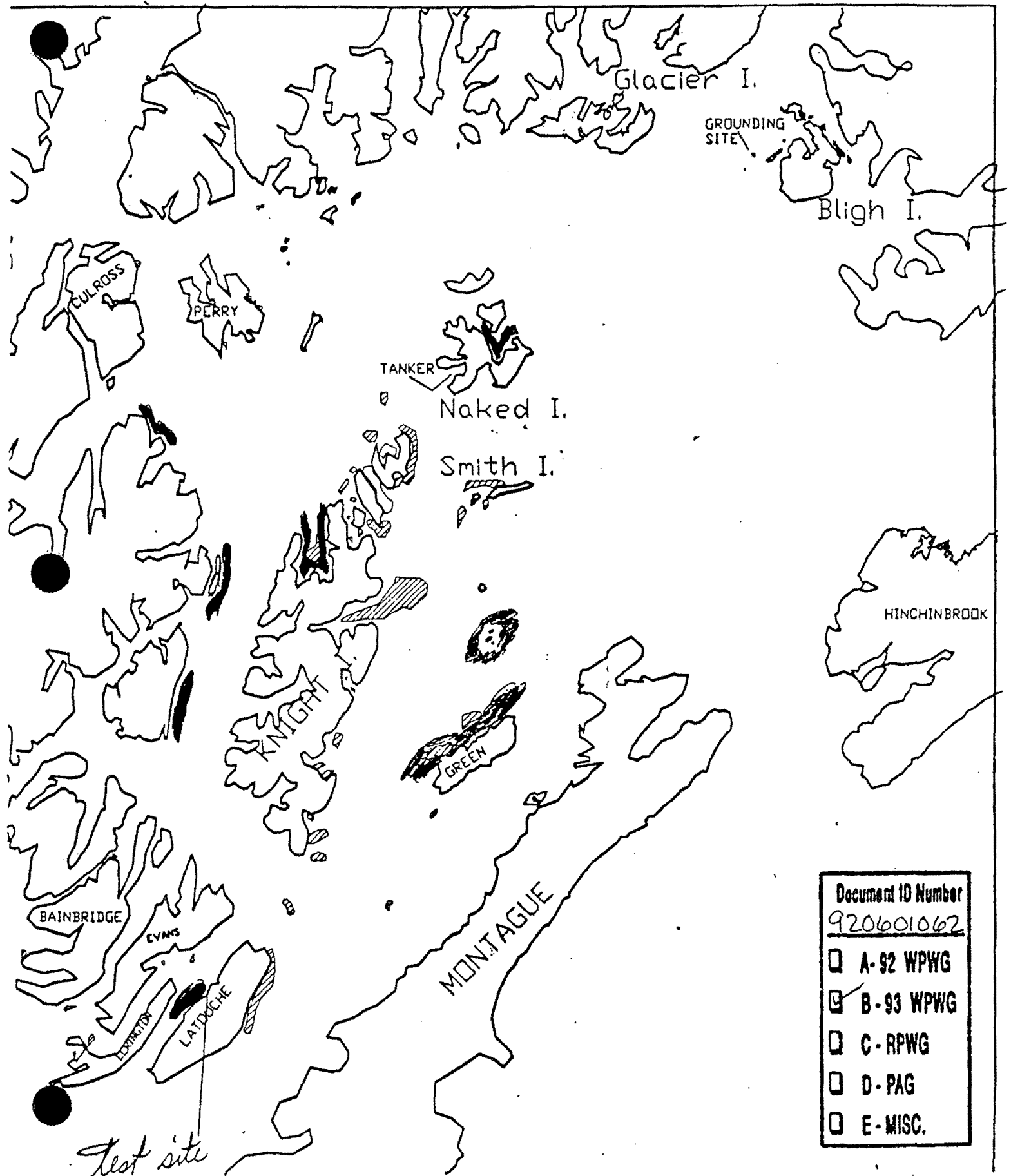
1/4 of a mile \$9,451.00

12,723

OIL SPILL

148°

147°



Document ID Number

920601062

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

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

✓ Checked for Completeness

✓ ID stamped/Input completed

✓ Name

✓ Affiliation

✓ Costs

✓ Category

Manipulation of Enhancement

✓ Lead Agency

DEX

 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

R her's Services

Rusher's Environmental 75
Oil Spill Clean-up

HC 33 BOX 2866
WASILLA, AK 99687

FAX (907) 373-6001
OFFICE (907) 376-9275



February 6, 1992

TO: EXXON VALDEZ TRUSTEE COUNCIL

Document ID Number
920601063
<input type="checkbox"/> A-92 WPWG
<input checked="" type="checkbox"/> B-93 WPWG
<input type="checkbox"/> C-RPWG
<input type="checkbox"/> D-PAG
<input type="checkbox"/> E-MISC.

ECOLOGICAL/ENVIRONMENTAL MONITORING

Pre-Proposal: A

Pre-Proposal A: SHORELINE WORM LIFE MONITORING is an ecological/environmental monitoring project that will identify present and future impacts on the ecosystems of the Prince William Sound and the Gulf of Alaska.

SHORELINE WORM LIFE MONITORING (SWLM) is a monitoring project that can use natural life in place on our shorelines to indicate several very important present and potential impacts from oil transportation.

Using controlled monitoring sites on Latouche Island, Knight Island, Naked Island, Foul Bay and Junction Island can determine the rates of degradation of surface and subsurface oil by shoreline worm movement and sample bag analysis.

Surface placement of E-75 bags would determine the amount of oil from the Exxon Valdez oil spill currently being released to the waters of the Prince William Sound and the Gulf of Alaska. Subsurface placement of E-75 sample bags would determine the rate of degradation that can occur by the movement of the worms. The combination of surface and subsurface placement will help determine degradation rate. Scientific data has shown beach worms are attracted to the controlled test site in greater numbers and in better health than any other site on the shoreline.

Beach worms that are naturally found on our shorelines are beneficial to the food chain of the Prince William Sound bird migration.

Test data shows that beach worms are natural life working to put oxygen into subsurface and surface shorelines.

With E-75 sample bag application, a natural clean-up can occur by attracting beach worm movement to speed the rates of natural degradation of subsurface oil.

Data shows that other natural life is attracted to the controlled test site. A one to three year monitoring project would determine if worm life can create a faster degradation and improve water quality for all life.

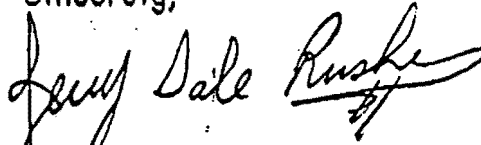
End results would be an ECOLOGICAL/ENVIRONMENTAL MONITORING TOOL to determine present and future degradation rates of oil spills or releases in the oil transportation process.

Anticipated annual costs: \$388,000.00

Monthly costs: \$ 32,333.33

Cost summary: Administrative, placement and sample collection, worm health analysis, worm count, analytical tests and monthly implementation of charts and graphs for annual submission of data to _____ for present and future ECOLOGICAL/ENVIRONMENTAL MONITORING PROJECTS.

Sincerely,



Jerry Dale Rusher
Environmental Affairs

Document ID Number	
920601063	
<input type="checkbox"/>	A-92 WPWG
<input checked="" type="checkbox"/>	B-93 WPWG
<input type="checkbox"/>	C-RPWG
<input type="checkbox"/>	D-PAG
<input type="checkbox"/>	E-MISC.

COVER WORKSHEET FOR 1993 IDEA SUBMISSIONS

Checked for Completeness

— ID stamped/Input completed

Name

✓ Affiliation

Costs

Category

Rest. Monip. or Embowment

Lead Agency

D E C

Cooperating Agency(ies)

NOAA AOF & G

Y N Passed initial screening criteria

Type: F/S

RANKING	H	M	L	Rank Within Categories
---------	---	---	---	------------------------

H	M	L	Rank Overall
---	---	---	--------------

Project Number - if assigned _____