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**Prince William Sound  
Recreation Project**

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Exxon Valdez Oil Spill Restoration  
Project No. 93065 and 94217

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for ARCS.*

**Final Report**

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Abstract: This report describes the objectives, methodology, results, and conclusions of the Prince William Sound Recreation Project. The project addressed the restoration of recreation in the Prince William Sound Region. A strong emphasis was placed on public participation.

Through questionnaires, interviews and public meetings, possible recreation restoration projects were identified. Additionally, recreation restoration goals and objectives and possible special designations for the Sound were identified.

Results of the project were:

- 1) A Statement of Injury to recreation.
- 2) Recreation restoration goals and objectives.
- 3) A prioritized list of possible projects for recreation restoration.
- 4) A list and description of possible special designations for the Sound.

Key words: injury, management/restoration goals, Prince William Sound, public comment, recreation, restoration, special designations.

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## Executive Summary

This report documents the process and findings of the Prince William Sound Recreation Project. The *Exxon Valdez* Trustee Council initiated the project in May 1993 to address the restoration of recreation in Prince William Sound.

### Objectives

The objectives of this project are:

1. Identify how the *Exxon Valdez* oil spill injured recreation in the spill area.
2. Recommend goals and objectives for restoring recreation in Prince William Sound.
3. Develop project proposals for restoring recreation in Prince William Sound.
4. Identify possible state, federal or international special designations that could be applied to Prince William Sound.

### Public Participation

Public participation was an important part of this project. Public comments were gathered through five vehicles: (1) public meetings held during summer of 1993 in the Prince William Sound region, (2) meetings with special interest groups and individuals, (3) responses to the *Exxon Valdez* Restoration Plan Recreation Questionnaire, (4) a two-day public participation workshop in November 1993, and (5) telephone calls and letters. Public comment was received from the five communities of Prince William Sound, Seward, and the Anchorage vicinity.

Over 700 people were contacted during this project and about 200 people responded. Comment was received from all types of recreation users, including both commercial and noncommercial users.

## Results

Statement of Injury. A statement of injury was developed describing how the *Exxon Valdez* oil spill affected recreation in the spill area. Injuries to recreation were identified in five categories: (1) quantity, (2) quality, (3) perception, (4) location, and (5) facility. The injury statement was peer reviewed and incorporated in the Final Restoration Plan. Most respondents noted some type of recreation value lost, especially in the categories of quality and perception, because of the *Exxon Valdez* oil spill.

Restoration Goals and Objectives. Goals and objectives were developed to guide the restoration of recreation in Prince William Sound. Following are the goals and objectives developed:

1. Restore, enhance, or replace recreation opportunities lost or diminished because of the oil spill.
2. Prevent further degradation of natural resources that support recreation.
3. Incorporate recreation into the ecosystem approach to restoration.
4. Projects designed to restore or enhance recreation should be compatible with the character and public use of the area.
5. Before approving new amenities, the Trustee Council should consider maintenance and operations costs.

Restoration Proposals. Thirty proposals for recreation restoration were identified by the public. During a two-day workshop, representatives of communities, land managing agencies, Native Corporations and recreation groups evaluated and rated each proposal. The six highest-ranked projects were:

1. Remove evidence of cleanup activities.
2. Leave-no-trace educational program.
3. Shoreline trash cleanup for Prince William Sound.
4. Prince William Sound education information center at Portage Railroad Station.
5. Restore Smitty's Cove boat access point (Whittier)
6. Remove persisting oil from recreation beaches.

In addition to participants in the workshop, about 200 people expressed their views on restoration projects for recreation. Most of them supported (1) recreation development in and around existing

communities, (2) projects to educate the recreation users of Prince William Sound on how to minimize impacts to recovering species, and (3) projects to repair spill-related damage to recreation resources.

Special Land Designations. Seventeen state, federal or international designations were identified as possible special designations that could be applied to Prince William Sound. They include such land designations as National Recreation Areas, National Marine Sanctuary, State Marine Park, and Areas Meriting Special Attention. Public comment showed little interest in new designations for Prince William Sound. Consequently, no recommendation is made.



## **I. Introduction**

Recreation use in Prince William Sound is diverse. Common activities include kayaking, camping, hiking, boating, sightseeing, photography, scuba diving, beachcombing, flying, sport fishing, hunting, gathering food, and investigating the history of the area. Recreation use occurs year round, but most of these occurs from May through November.

This report addresses commercial and noncommercial recreation use of Prince William Sound. Commercial recreation, or tourism, includes services for which clients pay operators. Examples include boat tours and fishing charters. Noncommercial recreation users engage in many same activities as commercial users, but do not pay for the services of an operator.

In May 1993, the Trustee Council approved the Prince William Sound Recreation Project to address the restoration of recreation as both a resource and a service. Recreation resources are the natural resources on which recreation depends. Recreation services are the human uses of natural resources for recreation.

## **II. Objectives**

The objectives of the Prince William Sound Recreation Project were:

1. Identify how the *Exxon Valdez* oil spill injured recreation in the spill area.
2. Recommend goals and objectives for restoring recreation in Prince William Sound.
3. Develop project proposals for restoring recreation in Prince William Sound.
4. Identify state, federal or yet unknown special designations that could be applied to Prince William Sound.

## **III. Constraints**

As a restoration project, the Prince William Sound Recreation Project must comply with pertinent court settlements. It should also be consistent with the Final Restoration Plan/EIS released by the Trustee Council in November 1993.

On October 8, 1991, the U.S. District Court approved a plea agreement between Exxon USA and the United States and the State of Alaska that resolved various criminal and civil charges against

Exxon because of the oil spill.

Criminal Plea Agreement. As part of the criminal plea agreement, Exxon agreed to pay restitution of \$50 million to the United States and \$50 million to the State of Alaska. The state and federal governments separately manage these \$50 million payments. Funds from the criminal plea agreement are not under the authority of the Trustee Council, and the use of these funds is not guided by the Restoration Plan. However, they must be used exclusively for restoration activities, within the State of Alaska, relating to the *Exxon Valdez* oil spill.

Civil Settlement and Restoration Fund. The civil settlement includes two documents: The first is a Consent Decree between Exxon and the State of Alaska and the United States that requires Exxon to pay the United States and the State of Alaska \$900 million over a period of ten years. The second is the Memorandum of Agreement between the State of Alaska and the United States. Restoration funds must be used ". . . for the purposes of restoring, replacing, enhancing, or acquiring the equivalent of natural resources injured as a result of the Oil Spill and the reduced or lost services provided by such resources . . ." [emphasis added]

The Memorandum of Agreement and other settlement documents define many important terms.

**Restoration** means any action that attempts to restore to their prespill condition any natural resource injured, lost, or destroyed because of the Oil Spill and the services provided by the resource or which replaces or substitutes for the injured, lost or destroyed resource and affected services. Restoration includes all phases of injury assessment, restoration, replacement, and enhancement of natural resources, and acquisition of equivalent resources and services.

**Natural resources** mean the land, fish, wildlife, biota, air, water, ground water, drinking water supplies, and other such resources belonging to or managed by the state or federal governments.

In addition to restoring natural resources, funds may be used to restore reduced or lost services (including human uses) provided by injured natural resources. Humans use the services provided by resources injured by the spill in a variety of ways: subsistence, commercial fishing, recreation (including sport fishing, sport hunting, camping, and boating), and tourism are services that were affected by injuries to fish and wildlife. Injured services also include the value derived from simply knowing that a resource exists. (This service is called "passive use.")

Final Restoration Plan/EIS. The Final Restoration Plan/EIS released by the Trustee Council in November 1993 contained nine policies that address issues that were raised during the planning process. The following three policies have particular significance for the restoration of recreation:

Restoration activities will emphasize resources and services that have not recovered. Resources and services will be enhanced, as appropriate, to promote restoration. Restoration projects should not adversely affect the ecosystem.

Projects designed to restore or enhance an injured service;

- must have a sufficient relationship to an injured resource,
- must benefit the same user group that was injured, and
- should be compatible with the character and public uses of the area.

Government agencies will be funded only for restoration work that they do not normally conduct.

The goal of restoration is recovery. For recreation and tourism, the Final Restoration Plan/EIS defines recovery as follows:

Recreation and tourism will have recovered, in large part, when the fish and wildlife resources on which they depend have recovered, recreation use of oiled beaches is no longer impaired, and facilities and management capabilities can accommodate changes in human use.

The Final Restoration Plan/EIS also presents strategies for achieving recovery. Restoration strategies for recreation and tourism are the following:

- Preserve or improve the recreational and tourism values of the spill area.
- Remove or reduce residual oil if it is cost effective and less harmful than leaving it in place.
- Monitor recovery.

The Final Restoration Plan/EIS was being developed concurrently with the Prince William Sound Recreation Project. Consequently, the plan was not available to guide the development of recreation restoration goals and objectives and the evaluation of potential recreation restoration projects. Nonetheless, to the extent possible the recommendations in this report comply with the Final Restoration Plan/EIS.

#### **IV. Methods**

The goal of the project was to develop a consensus of support from the recreating public for certain projects and goals to restore recreation. The methodology of the project consisted of seven steps.

1. Gathered Information. Major sources of information were land management plans,

recreation management plans, state and federal regulations, and various reports on recreation in Prince William Sound. See the Chapter VII, Bibliography.

2. Developed Project Evaluation Criteria. Project evaluation criteria were developed to reflect the intent of the civil settlement and to respond to public concerns. Evaluation criteria are presented in Table 1, along with their weighting factor. Each of the ten evaluation criteria was given a weighting factor to reflect its importance. The higher the weighting factor, the more important the criterion.
3. Informed and Surveyed the Public. Information on the Prince William Sound Recreation Project was mailed to over 700 people to ascertain their interest in further participation, review evaluation criteria, and solicit comment on injury, goals, and restoration projects. Subsequently, the *Exxon Valdez* Restoration Plan Recreation Questionnaire was sent to those who requested it. The questionnaire, reproduced in Appendix A, addressed injury, use patterns, and opinions toward potential projects and special designations. Public meetings were held in Anchorage, Palmer, Seward, Whittier, Valdez, Cordova, Tatitlek, and Chenega Bay. Additional meetings were held with chambers of commerce, city councils, and numerous individuals and groups. In addition, information about the project was presented on two radio talk shows and in two newspapers in the Prince William Sound region. A total of 198 people responded to these solicitations.
4. Assimilated Collected Data. Restoration goals, an injury statement and several restoration projects were created by project staff using gathered information and public comment.
5. Conducted the Recreation Restoration Workshop. Anyone who submitted public comment was invited to a two-day workshop on recreation restoration in Anchorage on November 5 and 6, 1993. At this workshop, recreation project proposals were evaluated using the evaluation criteria presented in Table 1. The recreation project proposals were a combination of those developed by this project staff to address public comment and those developed by interest

**Table 1. Project Evaluation Criteria**

Evaluation Criteria	Weighting Factor
1. Link to injured recreation resource or service.	4
2. Influence on other restoration projects or objectives or impact on other injured resources or services.	3
3. Needed or desired public service, facility, or amenity.	3
4. Conflict among public users and interest groups.	2
5. Consistent with land/area attributes and applicable management plans.	2
6. Economic feasibility.	2
7. Number of people or user groups benefitting.	2
8. Displacement of current users	2
9. Adjacent land management.	1
10. Change in use patterns.	2.5

groups. In addition, the participants reviewed the injury statement and restoration goals. A detailed description of the workshop and use of the evaluation criteria can be found in Appendix C.

Although all attendees were encouraged to participate in discussions, only designated representatives from key interest groups evaluated projects. Twenty-seven representatives of various recreation interest groups evaluated projects at the workshop. The interest groups represented and the number of representatives per group are listed in Table 2.

**Table 2. Interest Groups Represented at the Recreation Restoration Workshop**

Recreation Interest Group	No. of Participants
Camping/Kayaking	4
Motor Boats (commercial and private)	2
Sail Boats (commercial and private)	1
Tour Boats	1
Sport Fishing	3
Boroughs/Cities	3
Tourism Associations	3
Conservation Associations	3
Public Recreation Managers	3
Native Corporations	2
Other	2
Total	27

6. Entered Questionnaire Responses in a Database and Analyzed Results. The seventeen questionnaire responses received during this project were entered into an automated database that contained the 42 responses that had been received in December 1992 as part of the restoration planning process. Results of all 59 responses were analyzed and compared with workshop results and comment received through other means.
7. Researched Possible Special Designations for Prince William Sound. Using existing reference materials and by contacting respective agencies, information about possible special designations was collected. Seventeen special designations were identified and explained.

## V. Results

### Statement of Injury to Recreation

The *Exxon Valdez* oil spill disrupted use of the spill area for recreation and tourism. Resources important for recreation and tourism were injured by the spill. The spill had lethal and sublethal effects on resources important for wildlife viewing include killer whale, sea otter, harbor seal, bald eagle, and various seabirds. Residual oil exists on some beaches with high value for recreation. This residual oil has been reported to decrease the quality of recreational experiences and discourage recreational use of these beaches.

Sport hunting and fishing closures also affected use of the spill area for recreation and tourism. Sport fishing resources include salmon, rockfish, Dolly Varden, and cutthroat trout. Harlequin ducks are also hunted in the spill area.

Recreation was also affected by changes in human use in response to the spill. For example, displacement of use from oiled areas to unoiled areas increased management problems, resource and facility use in unoiled areas. Additionally some facilities, like the Green Island public use cabin and the Fleming Spit camp area, were injured by cleanup workers.

The perceived wilderness character of some areas was permanently altered by the intrusion of people and equipment during the spill cleanup efforts. The presence of thousands of people on the beaches of Prince William Sound reduced the perceived wilderness character forever. This, along with persisting oil and loss of wildlife, has injured many peoples' perceptions on the quality or availability of recreation opportunities.

A complete description of injury to recreation and tourism can be found in Appendix B.

### Responses to the *Exxon Valdez* Restoration Plan Recreation Questionnaire

This questionnaire was used by the Oil Spill Restoration Team. Selected individuals and groups (key informants) were asked to respond. The information was used to aid in the development of the Restoration Plan. It included questions on use patterns, injury, and potential restoration activities. A copy of the questionnaire can be found in Appendix A. This questionnaire was also used as a part of this project to acquire additional information and increase the data base.

Forty-two people responded to the questionnaire in December 1992. Respondents were from all four regions of the spill area: Prince William Sound, Cook Inlet, Kodiak Island, and the Alaska

Peninsula. In Summer 1993, the Prince William Sound Recreation Project gathered an additional 17 responses. Sixty-five percent of all 59 respondents to the questionnaire used Prince William Sound for recreation.

Notable results from all 59 responses to this questionnaire are described in the following paragraphs. Because this survey was not a statistically valid sample of recreation users in Prince William Sound or of any particular user group, statistics are used only to the extent that they underscore a major trend.

Three quarters of the respondents reported an injury to their recreation experience or to their perception of recreation opportunities as a result of the spill. Kayakers and shoreline-based recreation users reported injury to their recreation experience more often than did other groups.

Three quarters of the respondents said that the placement of certain recreation facilities such as cabins, mooring buoys, or trails would repair the injury to their recreational experiences in Prince William Sound.

Three quarters of the respondents said that either a visitor or research facility would be useful to restore recreation.

Two thirds of the respondents favored buying land to protect habitat and recreation areas.

Half of the respondents favored acquiring more recreation access on private lands.

One third of the respondents favored commercial recreation facilities as a means of restoration.

There were no major trends in views on the usefulness of special land designations.

### **Additional Public Comment**

In addition to 59 responses to the questionnaire, comments were received from 139 people. Table 3 presents the number of people who responded, including those responding to the questionnaire, from each of fourteen interest groups. Twenty-five respondents were not affiliated with interest groups.

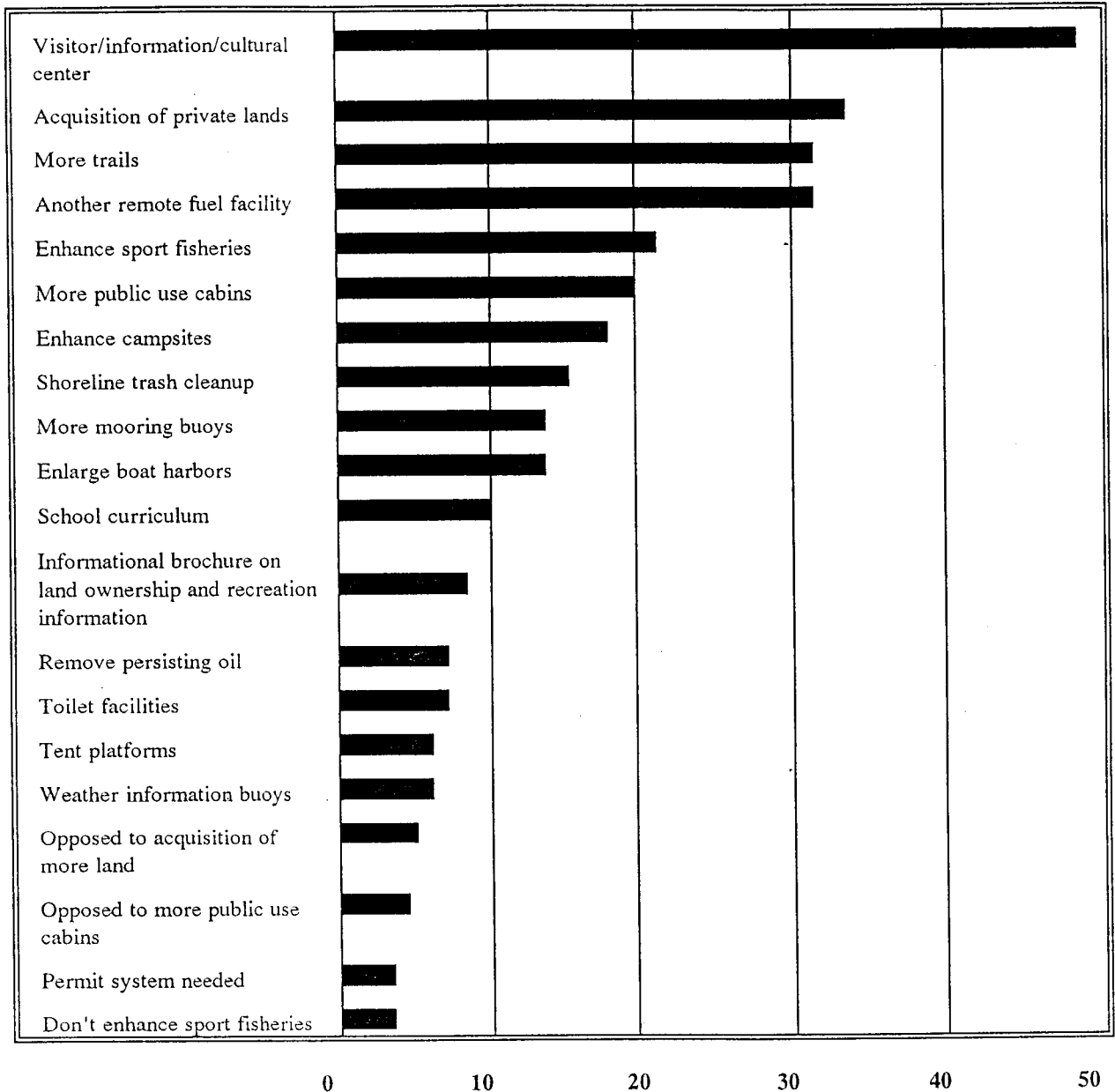


The comment that was received in addition to the questionnaire was grouped by response. Responses focussed on potential projects and restoration goals. Table 4 shows the number of times certain restoration projects were mentioned in comments received. Table 5 shows the number of times certain restoration goals were mentioned in comments received.

**Table 3. Number of Respondents by User Group**

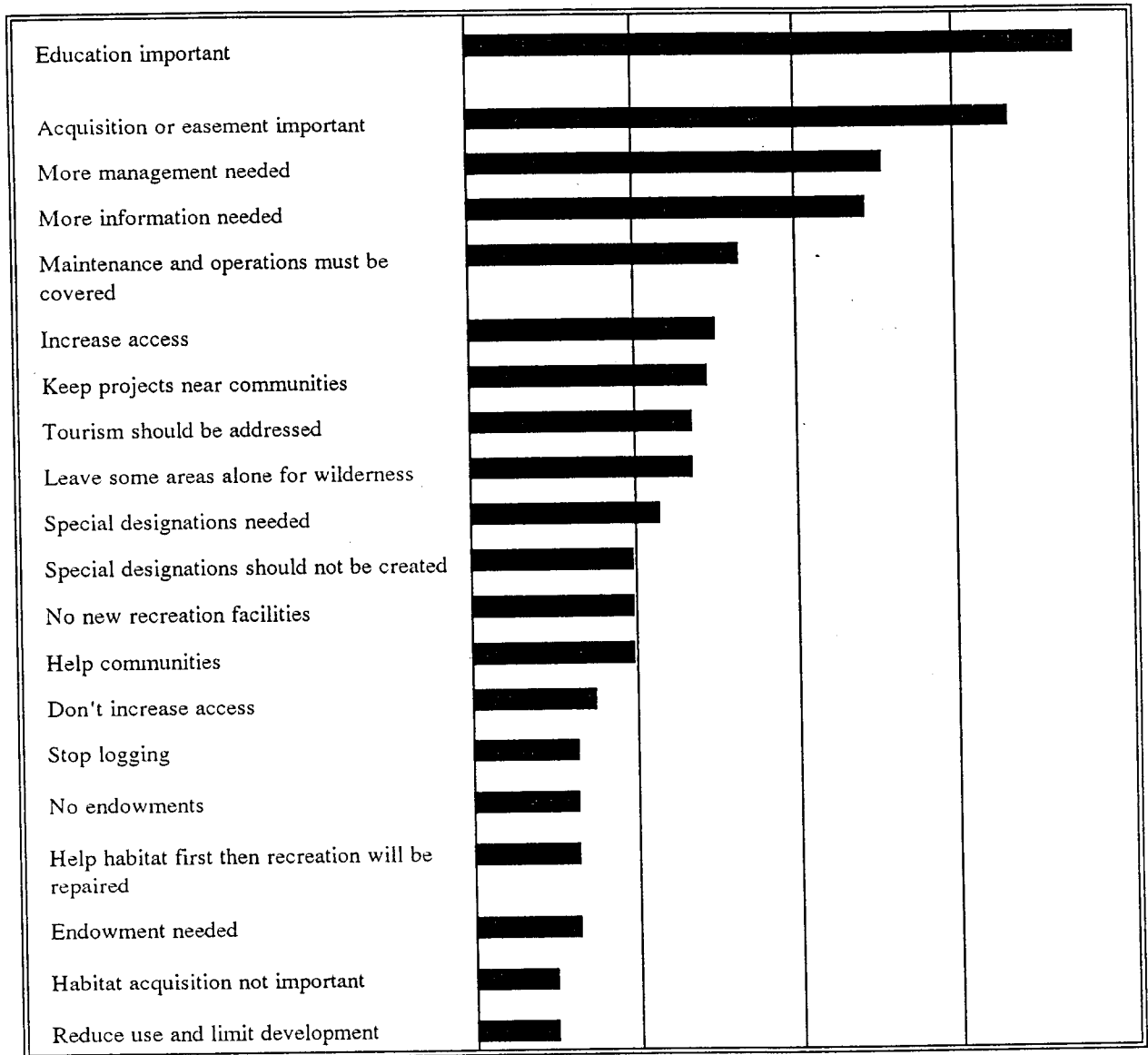
<b>Recreation User Groups</b>	<b>No. of Respondents</b>
Campers/Kayakers	19
Motorboaters	20
Tourism Associations	6
Other Affiliation	12
Air Taxi Operators	4
Native Corporations	27
Sailboaters	3
Conservation Associations	12
Tourboat Operators	8
Sportfishing/Hunting Groups	10
Media	6
Boroughs/Cities	24
Public Recreation Managers	20
Lodgeowners	2
Unknown	25
Total	198

**Table 4. Number of Times Specific Types of Recreation Restoration Projects Mentioned in Public Comment.** (Note that some of the people represented many other people and comment was only noted per person speaking.)



Number of individuals mentioning topics in public meetings, mail, and by phone.

**Table 5. Number of Times Certain Management Goals Mentioned in Public Comment**  
 (Note that some of the people represented many other people and comment was only noted per person speaking.)



0 10 20 30 40  
 Number of individuals mentioning topic in public meetings, mail, and by phone.

## Restoration Goals and Objectives

Drawing on public comment, survey results, and existing management plans, project staff developed five goals for the restoration of recreation in Prince William Sound. Several objectives were developed for each goal. Goals and objectives were discussed at the Recreation Restoration Workshop. However, no consensus was reached.

With submission of this report, the following goals and objectives are being relayed to the Trustee Council for their consideration. These goals and objectives are consistent with the Final Restoration Plan/EIS and should be considered for inclusion in the plan's Implementation Management Structure.

- Goal 1. Restore, enhance, or replace recreation opportunities that were lost or diminished because of the oil spill.
- Objective 1.1: Assure the quality of the food sources available for recreation gathering.
  - Objective 1.2: Remove evidence of the spill and cleanup activities, including persisting oil, painted rocks, rebar, and flagging.
  - Objective 1.3: Provide recreation opportunities in less oiled areas to replace those opportunities that were diminished in more heavily oiled areas.
  - Objective 1.4: Keep land throughout Prince William Sound available for public recreational use.
- Goal 2. Prevent further degradation of natural resources that support recreation.
- Objective 2.1: Recreation projects should not adversely affect recovering resources.
  - Objective 2.2: Human use should be managed to help reduce pressures on recovering species.
  - Objective 2.3: Direct use away from oiled shorelines. This may entail placing new facilities in other nonimpacted sites or enforcing new or existing regulations to control use.
  - Objectives 2.4: Increase public education efforts on Prince William Sound resources and responsible use including minimum impact recreation activities.
  - Objectives 2.5: Prevent further degradation of existing recreation sites, and effectively manage the changed use patterns and increased use in some areas.
  - Objectives 2.6: Concentrate the majority of recreation use in or near the communities of Prince William Sound by providing increased opportunities in those areas.

Objective 2.7: Develop recreation regulations, special area designations, and enforcement authority where needed to prevent further degradation of resources and to lessen human impacts on recovering species.

Objectives 2.8: Provide more regular patrols of Prince William Sound to enforce regulations and to educate people.

Goal 3. Incorporate recreation into the ecosystem approach to restoration.

Objective 3.1: Mitigate impacts that recreation has on other resources and services, and mitigate impacts other resources and services (such as commercial fishing, fish stocking programs, and commercial developments) have on recreation.

Goal 4. Projects designed to restore or enhance recreation should be compatible with the character and public use of the area.

Objective 4.1: Preserve the aesthetics of the visual corridor along major travel routes in Prince William Sound.

Objective 4.2: Avoid placing facilities or creating new uses that would change use patterns or displace current users.

Objective 4.3: Upland projects and facilities should be visually screened from the water to preserve scenic qualities.

Objective 4.4: Protect the recreation resources that the public comes to see and use, including public access, visual resources, and, where appropriate, the isolation and wilderness characteristics of Prince William Sound.

Objective 4.5: Rehabilitate and maintain recreation resources that enable greater appreciation of Alaska's natural, scenic, and historic resources.

Goal 5. Before approving new facilities, the Trustee Council should consider future maintenance and operations costs.

In addition to the restoration goals and objectives recommended in this report, restoration actions would be consistent with existing land management plans. One policy worth noting is that which requires the state and federal agencies to coordinate with other land owners in managing recreation in Prince William Sound. The following are excerpts from the respective state and federal management plans.

**Prince William Sound Area Plan for State Land, June 1988, p.2-28.**

**"Coordination With Other Landowners.** Recreation management, including the location and management of recreation facilities, will take into account the current and

likely management by the USFS and private landowners, so as not to unnecessarily duplicate facilities and to provide areas where facilities do not exist."

**Chugach National Forest Land and Resource Management Plan, 1984, p.III-3.**

**"Desired Future Condition of the Forest.** Complement and be in harmony with, to the maximum extent practical, the management plans of other federal, state, and local agencies. ...The emphasis on dispersed recreation will encourage the development of accommodations and other commercial public services on non-National Forest land. ...Cooperation with other agencies and user groups will make recreation activities more cost effective."

### **Project Evaluations**

Listed below, in priority order, are the thirty projects that were evaluated by participants in the Recreation Restoration Workshop. A further discussion of how these projects were prioritized can be found in Appendix C. The original project descriptions used at the workshop can be found in Appendix E. Some of these projects do not meet the legal requirements of the MOA and applicable federal and state law.

1. Remove evidence of cleanup activities
2. Leave No Trace educational program
3. Shoreline trash cleanup for Prince William Sound
4. Prince William Sound Recreation Education Information Center at Portage Railroad Station
5. Restore Smitty's Cove boat access point (Whittier)
6. Remove persisting oil from beaches
7. Chenega Bay marine service facility
8. Fleming Spit recreation area enhancements (Cordova)
9. Research on recreation impacts in Prince William Sound: Displacement of users and disturbance of recreation areas
10. Comprehensive public recreation information brochure for Prince William Sound
11. "Mor-Pac Hill" campground improvements (Cordova)
12. Economic study of recreation in Prince William Sound
13. Acquisition of important recreation lands in Prince William Sound.
14. Solomon Gulch hatchery raceways (Valdez)
15. Odiak Camper park expansion (Cordova)
16. Valdez Duck Flats crucial habitat area trails (Valdez)
17. Whittier Trails access project
18. Cordova historical marine park
19. Mt. Eyak Ski Area improvements (Cordova)
20. Prince William Sound public use cabins

21. Science of the Sound education program
22. Backcountry access trail development (Valdez to Shoup Bay and Whittier to Decision Point)
23. Cordova's mini-imaginarium
24. Alaska oil spill curriculum rewrite
25. Prince William Sound campsite enhancements
26. Prince William Sound mooring buoys
27. Shotgun Cove recreation area (Whittier)
28. Endowment for outdoor recreation management in Prince William Sound
29. Backcountry access trail development (Surprise Cove and Esther Island systems)
30. Culross Passage administrative site

Note that this priority list is based on reaching a consensus among the participants of the workshop. A low priority project should not be viewed as having no restoration potential but rather that it was not seen as a restoration benefit for all concerns.

### **Special Land Designations**

This report will provide an array of possible designations for parts or all of PWS but will not specify certain locations for any one designation. Seventeen state, federal or international designations could be applied to Prince William Sound. They are listed in Table 6 on the following page and described in detail in Appendix D.

Some key points that were examined for each special designation include the purpose, the process for designating, who manages each designation, what restrictions are placed on the land, what enforcement authority is there, and what is the potential contribution to restoration. These points for each special designation and additional discussions are found in Appendix D.

Three of these designations already exist in Prince William Sound. Most of the uplands in the region are in the Chugach National Forest. The Copper River Delta Critical Habitat Area extends into the southern edge of Prince William Sound. There are also 13 State Marine Parks scattered throughout the sound.

There was little response from the public on special designations. The PWS Land Managers Recreation Planning Group agreed that there was no need for new special designations for parts or all of PWS. The native corporations opposed the inclusion of private land in special designations. The interested public was split in their views on special designations.

Comment in support of special designations encouraged more protection on lands and waters of PWS, especially on private lands. Most supporters recommended

**Table 6. Special Land Designations**

<p><b>International Land Designations</b> Man in the Biosphere Reserve</p> <p><b>Federal Land Designations</b> National Estuarine Research Reserve National Marine Sanctuary National Wildlife Refuge National Park, Monument and Preserve National Seashore National Recreation Area National Forest National Scenic Areas and Scenic Research Areas Research Natural Area National Natural, Historic, and Environmental Education Landmarks) Federal Wilderness Area</p> <p><b>State Land Designations</b> State Park Alaska Marine Park State Marine Park District State Special Area (Refuges, Sanctuaries, and Critical Habitat Areas) Coastal District Designations (Area Meriting Special Attention)</p>
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congressional approval of the wilderness study area of the Chugach National Forest. Approval of the recommended wilderness would ensure that certain areas of PWS would remain in a primitive natural condition to benefit both the resources and visitors. Recreation managers also stated that special designations could be used to concentrate and control human use.

Comment against special designations cited the following arguments:

- (a) There were already too many designations in PWS and that causes confusion.
- (b) Existing special designations are not enforced to accomplish their management objectives.
- (c) Native corporations oppose additional restrictions on their land. Others oppose additional restrictions on any land.
- (d) Special designations may attract more use, which will adversely affect recovering resources and services.
- (e) Special designations will increase the management and financial burden on the existing agencies.



## VI. Conclusions

Recreation is dynamic in nature. As seen through the Recreation Questionnaire results and in the Recreation Injury Statement, recreation use patterns and levels of use have changed in the five years that have elapsed since the *Exxon Valdez* oil spill. With these changes, it is unrealistic to expect that recreation in Prince William Sound will return to conditions that prevailed before the spill. Consequently, recommendations in this report aim at influencing the dynamic processes at work in Prince William Sound.

The recovery of injured natural resources will restore recreation resources to some extent. However, because the injury to recreation as a service was due in large part to changes in perception, restoration actions must also address the perception of lost or diminished recreation opportunities. The recommendations of this report address perceptions primarily through education, resource improvement projects and improved recreation management. Some new recreation amenities may also replace or enhance injured recreation opportunities.

## VII. Bibliography

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## III. Appendices

### Appendix A

#### Exxon Valdez Restoration Plan Recreation Questionnaire

Name \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Phone            Work:  
                    Home:

Group or business (if applicable) \_\_\_\_\_

Your title (if applicable) \_\_\_\_\_

Group or business type (if applicable):

- Non-profit Recreation Organization
- Commercial Recreation Business
- Business Association (e.g., tourism coalition)
- Conservation Association
- Land Manager, Public
- Land Manager, Private
- Other \_\_\_\_\_

1. Did you use the area affected by the Exxon Valdez oil spill *before* 3/24/89?

- Yes
- No

2. Have you used the area affected by the Exxon Valdez oil spill *since* 3/24/89?

- Yes
- No

3. If your answer to Question 2 is "No," please explain why.

4. If the answer to Question 1 or 2 is "Yes," please indicate which area you have used.

- Prince William Sound
- Resurrection Bay/Outer Kenai Coast
- Lower Cook Inlet
- Kodiak, Afognak, or Shuyak Islands
- Alaska Peninsula
- Other (please specify) \_\_\_\_\_

5. Please describe your primary activity(ies) while in the area affected by the Exxon Valdez oil spill. Check as many activities as apply. If you are a guide, run a business, or manage land, please check the appropriate boxes for your clients. If you use several different areas, please indicate the primary location by circling the initials of the area(s). We included the initials of the areas in question 3.

<u>Activities (check those that apply)</u>	<u>Prince William Sound</u>	<u>Resur. Bay/ Outer Kenai Coast</u>	<u>Lower Cook Inlet</u>	<u>Kodiak Afognak Shuyak</u>	<u>Alaska Penin.</u>	<u>Other</u>
<input type="checkbox"/> Wildlife viewing	PWS	RB/OKC	LCI	KAS	AP	Other
<input type="checkbox"/> Camping	PWS	RB/OKC	LCI	KAS	AP	Other
<input type="checkbox"/> Sightseeing	PWS	RB/OKC	LCI	KAS	AP	Other
<input type="checkbox"/> Fishing	PWS	RB/OKC	LCI	KAS	AP	Other
<input type="checkbox"/> Hunting	PWS	RB/OKC	LCI	KAS	AP	Other
<input type="checkbox"/> Hiking	PWS	RB/OKC	LCI	KAS	AP	Other
<input type="checkbox"/> Sailing	PWS	RB/OKC	LCI	KAS	AP	Other
<input type="checkbox"/> Motorboating	PWS	RB/OKC	LCI	KAS	AP	Other
<input type="checkbox"/> Kayaking	PWS	RB/OKC	LCI	KAS	AP	Other
<input type="checkbox"/> Taking a Tourboat, Ferry, or Cruiseship	PWS	RB/OKC	LCI	KAS	AP	Other
<input type="checkbox"/> Flying	PWS	RB/OKC	LCI	KAS	AP	Other
<input type="checkbox"/> Staying in a Lodge	PWS	RB/OKC	LCI	KAS	AP	Other
<input type="checkbox"/> Other (please specify)	PWS	RB/OKC	LCI	KAS	AP	Other



6. If you have used the area affected by the Exxon Valdez oil spill since 3/24/89, how has your recreational experience changed? *Please be specific about area (e.g., Prince William Sound, Outer Kenai Coast, Cook Inlet, Kodiak, or Alaska Peninsula) and nature of change.*

7. In addition to changes in actual recreational experience, some people have suggested that the spill changed the way people think about the area, or the way people feel about their recreation opportunities. Some people say it changed the way they *perceive* their recreation opportunities.

Are there changes not discussed in Question 6 that concern the way you think about the area or perceive your recreation opportunities?

Yes

No

If "Yes," please describe how you perceive your recreational opportunities have changed.

8. What, if anything, would you like done to improve your recreational experience or perceptions?

---

9. In addition to your suggestions, we would like to know what you think about the following ideas. We would especially like to know how to change them to make them better, and your views on where they are appropriate or inappropriate.

a. **Public Recreation Facilities.** The Trustees could fund back-country public recreation facilities such as public-use cabins, mooring buoys, latrines, or tent platforms. To minimize disruptions to current recreation patterns, these would be placed in areas already designated for these facilities, or after a plan and public meetings by the appropriate agency.

	Like	Indifferent	Dislike
Mooring Buoys	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Boat ramps	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Day-use facilities (picnic areas, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Outhouses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bear/food caches	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public-use cabins	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Campsites/tent platforms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trails	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

What do you like about these suggestions?

What do you dislike?

How can we change any of them to make them better? Where, in general, are they appropriate or inappropriate?

b. **Commercial Recreation Facilities.** The state and federal governments can also allow private operators to use public land for commercial facilities in appropriate locations. Examples of commercial facilities are lodges, fuel stops, or privately run campgrounds. State and federal agencies could ensure that land be available for use by private operators, or the Trustees could provide seed and planning money for the agencies to prepare for these facilities. To minimize disruptions to recreation patterns, these would be placed in areas already designated for these facilities, or after a plan and public meetings by the appropriate agency. For example, people have suggested that commercial facilities be located in one or two places along the marine route from Whittier to Valdez. In fact, the state's land-use plan for Prince William Sound already designates some areas for these facilities. There may be other areas in the spill-affected area that are appropriate. What do you think of these suggestions?

	Like	Indifferent	Dislike
Make land available	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Provide seed and planning funds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

What do you like about these suggestions?

What do you dislike?

How can we change the proposals to make them better? Where, in general, are these facilities appropriate or inappropriate?

c. **Education/Research/Visitor Facilities.** One important benefit that could result from restoration is education. Education could include greater understanding of the natural systems affected by the spill, but also of what happened, how the affected areas are recovering, and what science can do to help. Below are two ideas on how to accomplish that purpose.

*Visitor Center.* The Trustees could fund the construction and operation of one or more visitor center(s). The visitor center(s) could be located in Cordova, Valdez, Whittier, Anchorage, Seward, Homer, or Kodiak. It would attract tourists and Alaskans, provide information about the natural ecosystems of the area, and provide information about the history of the spill, status of recovery, and how people can help injured resources recover from the spill and cleanup.

*Research/Visitor Center, Marine Environmental Institute.* This differs from a visitor center in that its focus would be on research as well as education. The facility would provide a location to focus basic and applied research. In this suggestion, the Trustees would fund one such center, and base it in one of the coastal cities within the spill-affected area such as Cordova, Valdez, Seward, Homer, or Kodiak.

What do you think of these suggestions?

	Like	Indifferent	Dislike
Visitor Center(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Research/Visitor Center	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

What do you like about these suggestions?

What do you dislike?

How can we change any of them to make them better? Where, in general, are they appropriate or inappropriate?

d. Purchase of Private Land (Protect habitat, acquire access). The Trustees could use restoration funds to purchase private land. People give various reasons for this suggestion. For example, some people feel that purchase of private land would prevent large-scale changes in landscape such as significant timber harvest or large subdivisions that might harm recreation. Others feel that it is important to regain important public-use areas for the public to use such as campsites, land surrounding anchorages, or land surrounding important fishing streams.

What do you think of these suggestions?

	Like	Indifferent	Dislike
Purchase private land	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Acquire access	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

What do you like about these suggestions?

What do you dislike?

How can we change them to make them better? Where, in general, are they appropriate or inappropriate?

e. **Special Designation.** A special designation is an area of land set apart by the Alaska Legislature or US Congress for a special use or reason. State Marine Parks, US Forest Service Wilderness Areas, and National Marine Sanctuaries are all examples of special designations. There are many designations available, and many of them can be tailored to specific situations. Most designations apply only to public land and waters. The types of things that designations do are:

- Creating a new wilderness area or expanding an existing one.
- Regulation of land uses on public land; for example, prohibit uses that are incompatible with recreation or fishing, or that would affect recovering wildlife.
- Regulation of human or boat traffic that interferes with recovering wildlife or -- in small areas -- is incompatible with recreation.
- Designations may be big or small. That is, they may include just one bay or part of a bay, or they may include an entire area.
- They may include land, marine waters, or both.
- They may be managed by the State or by the Federal Government.

What, if anything, would you like a special designation to achieve (or to avoid) for recreation?

What areas would you like to see designated (or not designated)?

## Appendix B

### Recreation Injury Statement

#### Purpose:

A statement of injury to recreation resulting from the Exxon Valdez Oil Spill has been compiled using existing reference material, public comment, and comment from recreation managers. A formal comprehensive recreation injury assessment has not been conducted. Although this statement covers the entire spill area, most of the information is from Prince William Sound(PWS).

#### Definition of Recreation

Recreation fits the definition of "reduced or lost services provided by such resources" in the EVOS civil settlement. Recreation in the spill area can be divided into two categories, commercial and personal use. Commercial use includes clients and operators of tourism businesses such as charter air and boat businesses, cruise ships, day cruises, guide businesses, environmental education businesses, lodging and eating establishments, and supply services. Personal use includes kayaking, camping, hiking, boating, sightseeing, photography, scuba diving, beach combing, swimming, flying, fishing, hunting, gathering food, investigating history of an area, and using recreation facilities. The largest number of recreation users of the Sound, mostly large and small tour boat passengers, receive a visual appreciation of the surroundings, but rarely leave their boat to set foot ashore.

Recreation is comprised of and means different things to most people. Recreation is a mental state in the form of an experience. Outdoor recreation experiences are in part dependent on the quality and existence of natural resources. Other factors, such as access, facilities, company, and other use, may also affect the recreation experience. Within the spill area, recreation occurs in remote settings, around developed facilities, and in communities. The National Forest Service uses the Recreation Opportunity Spectrum and the State Department of Natural Resources uses Land Use Zones to classify these different types of areas and allowable uses on public lands. The use characteristics of remote, low-density recreation is what attracts many of the recreation users in the spill area.



## Statement of Injury to Recreation

Injuries to the natural resources as well as the oil spill clean up and other post-spill activities have caused injury to recreation. Injuries to recreation can be put in five categories: (1) quantity; (2) quality; (3) perception; (4) location; and (5) facility. These categories will be discussed in detail below.

### Quantity

Commercial recreation businesses and tourism were injured by the reduction in visitors and visitor spending as a result of the spill. Approximately 43% of the tourism businesses surveyed by McDowel and Associates stated their businesses had been significantly affected by the oil spill in the summer of 1989. In 1990 12% of the tourism businesses surveyed still felt their business were significantly affected by the oil spill [1]. Between 1985 and 1989 the annual growth rate of Alaskan tourism overall was 3.3%. The Alaskan annual growth rate was 2.2% in 1989-1990 [2]. According to *Patterns, Opinions, and Planning: Summer 1989* "The Exxon Valdez Oil Spill of March 24, 1989 affected the Alaska trip planning of one in six visitors. Half of these (one in twelve) avoided the spill area" [3]. Businesses in the spill impacted area sustained a significant decline in business (up to 50% for some) from 1988 to 1992. 59% of businesses surveyed received cancellations in bookings in 1989. Businesses relying on individual bookings rather than packaged tours were hurt more by reduced bookings [1,4].

Public use has increased in some areas, partly due to media coverage of the oil spill, causing further reduction in the wilderness quality throughout the spill area [4]. Without active recreation management, some resources may receive impacts from the additional use. Increased visitation in some areas is causing additional resource damage in the spill area [9].

There was a significant decline in sport fishing in the spill area following the spill [10]. The loss to sport anglers in 1989 is estimated to be \$31 million [11]. The cutthroat trout sport fishery in western Prince William Sound was closed in 1992 due to low adult returns. There was also a restriction imposed in 1991 on the sport hunting of harlequin duck in response to damage assessment study results. The restrictions on cutthroat trout fishing and harlequin duck hunting are still in effect.

### Quality

For many users the quality of recreation experience decreased because of the spill. During the clean up efforts, the thousands of extra people in the spill affected area resulted in a reduction of wilderness quality throughout the spill area and crowding in some local communities. Public comment shows persisting oil, crowding, diminished aesthetics, reduction of wilderness character, reduction of wildlife sightings, tainted food sources, disturbance of cultural sites, and evidence

of clean up activities as issues indicating continuing injury to recreation.

The degree of injury differs for different forms of recreation. For instance kayakers have been much more affected by this quality reduction than cruise ship passengers [1,4]. Kayakers report a reduction of the quality of their recreation experience because of oiled equipment, oiled mussel beds (food source), reduced aesthetics because of evidence left by cleanup teams, and excessive noise from helicopters relating to cleanup efforts. In addition, kayakers tend to have a greater expectation of a relatively pristine experience than the average passenger on a cruise ship who is not usually searching for an undisturbed pristine environment, but rather good scenery and social interaction [9].

Different locations in the spill area had various degrees of injury to the quality of recreation experiences. More heavily oiled areas experienced more injury to the quality of recreation [4,5].

Tourist had a lower quality experience because of wildlife sightings. Cruises advertising whale, wildlife and bird watching excursions had a short and long term loss of bookings [1]. The sighting of oil diminished the appreciation of the natural setting that the tourist were seeking. For some tourist, the viewing of Bligh Reef or oiled beaches has now become an attraction [4,6].

### **Perception**

The oil spill caused injury to the way people perceive recreation opportunities in the spill area. According to public comment, changes in perceptions include: (1) increased sense of vulnerability of the ecosystem with regard to future oil spills; (2) erosion of wilderness character caused by the spill itself as well as the intrusion of cleanup and restoration activities; (3) a sense of permanent change; (4) A sense of complete disruption of the ecosystem and contamination to the food chain; (5) a sense of unknown or unseen ecological effects that may alter the environment in the future; and (6) a sense of threat to archaeological resources.

This is especially true for the wilderness character for much of the spill area. Changes to wilderness character are sometimes viewed as irreversible. Damaged perceptions have resulted in injuries to tourism, sport fishing, recreation cabin bookings, community businesses among others [1,4,7,8,11]. Changed perceptions have caused people to change destinations and trip plans, avoid the spill area, and even not to recreate [4,5].

People who recreated in the spill area before the *Exxon Valdez* oil spill occurred, generally have greater perceptions of injury than first time recreation users of the spill area. This is because they know how it used to be, whereas newcomers have no baseline experience for comparison. Perceptions are changed more often for shore based recreation users than those who remain on vessels [4,5].

The spill area still suffers from bad publicity. Although not hit by the oil, Valdez is viewed as oiled and spoiled because of its name. Films like *Black Tide* remain in the minds of many. Negative public perception of spill-related damages are probably being exacerbated by continued publicity about oil-related pollution and other events such as the tanker that lost navigation power in the Valdez narrows last year. Even though these events have nothing to do with the *Exxon Valdez* oil spill, they probably serve to cause the perception of spill-related damage to persist. Uncertainty in the quality of fish, invertebrates, and waterfowl still persists [4].

### Location

The oil spill caused some people to change use patterns and to select new unoiled destinations. Some recreation users were temporarily or permanently displaced from their customary and/or preferred sites due to spill-related changes such as crowding, presence of oil, or other factors. Regardless of the type of recreation, there is generally a negative reaction to seeing and smelling the remaining oil, or seeing cleanup activities. In certain locations, displaced use caused some crowding in unoiled recreation areas [4,5].

According to State and Federal visitor and public cabin reservation statistics and public comment, private recreation use decreased in some of the spill affected area in the first two years. Places like Knight Island and Shuyak Island received marked reduction in personal recreation. Other areas, such as the Ninilchik State Recreation Area, received up to a 74% increase from 1988 to 1990. In PWS, decreased use resulting from people canceling planned visits may have been offset by people coming to see the oil or because of the increased notoriety of the Sound. Often, these new people coming to the Sound are not engaged in the same recreation activity that decreased as a result of the spill [7,8,9].

Decreased use in personal recreation is an injury to those who would like to have used the area but avoided it because of the spill. Some people had to go to their second choice destination because of real or perceived presence of oil. For instance, the wilderness based recreation users wanting to go to Knight Island for several years after the spill often chose some other non or less oiled destination. Some people still avoid the heavier oiled areas [4]. This displaced use is an injury to those recreation users.

### Facilities

A number of recreation facilities were impacted by the spill, most from overuse or misuse. The clean up crews overused some of the facilities such as public use cabins and campgrounds to the point of degradation of the facilities. The Green Island public use cabin was impacted by over use by oil spill workers. Fleming Spit camp area in Cordova experienced over use causing sanitation problems and resource degradation. Uncontrolled increased use in some campgrounds on the Kenai Peninsula occurred in conjunction with displaced use and recreation staff being

pulled off normal duties to work with the oil spill. Increased resource and facility degradation occurred during 1989-90 [9].

Construction of new facilities as a result of the spill settlement may have a much longer lasting impact than overuse of facilities during spill cleanup. For example, if settlement funds are utilized to enhance access to portions of the spill-affected area, changes in recreation will result. Recreation use will increase; however, the type of recreational experience may be totally different than the previous use characteristics [9].

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# Appendix C

## Recreation Workshop Summary and Analysis

### 1. Purpose

The PWS Recreation Restoration Workshop held November 5 and 6, 1993 in Anchorage was the culmination of public comment gathered through the summer. The workshop was a tool to bring divergent interests together to discuss restoration and to reach a consensus or at least informed consent on what is needed to restore recreation in PWS.

This workshop emphasized public participation in the evaluation of proposed recreation restoration projects. The results of this workshop were intended to help the Trustee Council in their decision making process. This process was a way to organize public comment into a usable format.

### 2. Methods

Anyone who had given comment in any form through the summer was notified of the workshop and asked to respond if they would attend or would like to attend but unable to do so. Only those who planned to attend responded. Those responding were notified that anyone was welcome to participate in the workshop, but only one representative per interest group would be allowed to evaluate project proposals. This was intended to stop interest groups from weighting the evaluation portion of the workshop.

The solicitation of public comment through the summer was used to compile the injury statement, draft restoration goals, project proposals, evaluation criteria, and special designations information. This information was formulated into a packet that was sent to the workshop participants before the workshop. These packets were intended to be used for review before the workshop and as a reference while evaluating the project. Those participants that were able to attend only one day and were involved in evaluating projects had to use the written descriptions without the benefit of discussion for some projects.

Evaluation criteria were originally formulated to evaluate projects considering legal parameters of the civil settlement, priorities and interests of the Trustee Council, prevention of further injury to resources or services, public benefit, and implementation technicalities. The final evaluation criterion used in the workshop can be seen in Table 7. The ten criteria were given weighting factors to reflect the importance of each.

**Table 7. Criteria For Rating Benefit Of Project To Injured Resources/Services**

EVALUATION CRITERIA	HIGH (+4)	MODERATE (+2)	LOW (0)
<p>1. Link to injured recreation resource or service</p> <p>Weighting factor x 4</p>	<p>Strong link to known recreation injury. Directly replaces, enhances, or restores an injured recreation resource or service.</p>	<p>Moderate link to known recreation injury. In some way replaces, enhances, or restores an injured recreation resource or service.</p>	<p>Weak link to known recreation injury. May enhance recreation but very limited relationship to a known recreation injury.</p>
<p>2. Influence on other restoration projects or objectives or impact on other injured resources or services</p> <p>Weighting factor x 3</p>	<p>Supports or enhances other known restoration projects or objectives or helps recovery of other injured resources or services.</p>	<p>Causes no impact on other known restoration projects or objectives or other recovering resources or services.</p>	<p>Conflicts with other known restoration projects or objectives or other recovering resources or services.</p>
<p>3. Needed or desired public service, facility, or amenity</p> <p>Weighting factor x 3</p>	<p>Consensus of strong support by public and land managers identified through surveys, meetings and public comment.</p>	<p>Strong support from limited special interests, minority of public, or single land manager as identified through surveys, meetings and public comment.</p>	<p>Limited support from special interest, public or single land manager as identified through surveys, meetings and public comment.</p>
<p>4. Conflict among public users and interest groups</p> <p>Weighting factor x 2</p>	<p>Reduces or eliminates known conflicts between various recreation user groups.</p>	<p>Project will not create additional conflicts between various recreation user groups.</p>	<p>Creates conflicts between various recreation user groups.</p>
<p>5. Consistent with land/area attributes and applicable management plans</p> <ul style="list-style-type: none"> <li>- scenic                      - anchorage</li> <li>- wildlife viewing - wilderness</li> <li>- fishing/hunting - development</li> </ul> <p>Weighting factor x 2</p>	<p>Project is consistent with the existing land/area attributes and/or applicable management plans.</p>	<p>Project has minor inconsistencies with the existing land/area attributes and/or applicable management plans.</p>	<p>Project is not consistent with the existing land/area attributes and/or applicable management plans.</p>



EVALUATION CRITERIA	HIGH (+4)	MODERATE (+2)	LOW (0)
6. Economic feasibility  Weighting factor x 2	Low implementation cost relative to high public benefit. Land manager assumes responsibility for all management, maintenance and operations through internal funding or by revenue generation (requires no continued EVOS funding following project installation)	Implementation cost and public benefit are both high or both low. Land manager assumes partial responsibility for management, maintenance and operations through funding or by revenue generation (requires short term or partial continued EVOS funding following project installation).	High implementation cost relative to low public benefit. Land manager assumes no responsibility for long term management, maintenance and operations cost (requires continued EVOS funding following project installation).
7. Number of people or user groups benefitting  Weighting factor x 2	Benefits a large cross section of the public who use PWS. Will receive regular or high use to the capacity intended.	Benefits a medium cross section of the public. Will receive use to partial capacity intended.	Benefits only a small cross section of the public. Will only receive minimal use.
8. Displacement of current users  Weighting factor x 2	Will not displace current users.	Will displace some of the current users.	Will displace most of the current users.
9. Adjacent land management  Weighting factor x 1	Adjacent land management provides additional enhancement to project location or function.	Adjacent land management will have no affect on the project location or function.	Adjacent land uses will detract from the project location or function.
10. Change in use patterns  Weighting factor x 2.5	Enhances or replaces lost or diminished recreation opportunities available at the time of the spill.	Maintains recreation opportunities available at the time of the spill.	Creates new recreation opportunities not available at the time of the spill.

These criteria were sent out for review by the public and by agency peers. They were then adjusted and rewritten to reflect comment and direction from the Restoration Team and Trustee Council. A final adjustment to increase the weighting factor of criterion #10 was made at the request of the workshop participants.

Each project was presented to the group by either the primary proponent or by a member of this work group. Each short 5 minute presentation was followed by approximately 10 minutes of discussion. This is where people addressed problems or positive sides of the projects. Most of the discussions centered around whether the projects met the evaluation criteria. The evaluators then scored the project against the criteria, multiplied the scores by the weighting factors, and added them for the final score.

Each participant that evaluated projects with the established criteria and scoring system submitted a score sheet. The project scores from all participants were put into a matrix to tally total project scores. The final scoring gave an initial mathematical rating for the proposed projects. Each project was then analyzed several ways to understand reasons for the project's acceptance or disapproval by the workshop participants. The results from that analysis are discussed below.

The agenda was followed during the workshop except for the final two items(Figure 1). The participants elected not to stay for these items because of lack of time. They asked that results be mailed to them and if they had comments on special designations, they would send them by mail.

After the workshop was completed, comments and project evaluations were reviewed and analyzed. From this analysis of results, conclusions were made and reports finalized. Participant's summarized comments were included in the meeting notes from the workshop. These will be discussed under the results section.

### 3. Results

43 people attended the workshop for at least one of the two days. 41 people attended the first day and 26 the second day. Those attending were welcome to participate in any of the discussions. Some of the groups represented at the workshop had more than one member or employee present. 29 interest groups or entities were represented at the workshop. Comments from people representing thousands of members were given the same value as a person representing fewer. Only 27 of those attending were involved in the project evaluation scoring exercise. The number and types of recreation interests represented by the 27 are seen in Table 9.

**Figure 1. Recreation Restoration Workshop Agenda**

<u>Friday November 5</u>	
9:00 am	Introduction of workshop, attendees, and review agenda.
9:30 am	Discuss Recreation Injury Statement
10:30 am	Discuss Management Goals to Restore Recreation
Noon	Explanation of the Evaluation Criteria and how to use them.
12:30	Lunch
1:30 pm	Presentation, discussion and evaluation of potential restoration projects.
5:00 pm	End of first day.
<u>Saturday November 6</u>	
9:00 am	Continuation of presentations, discussions and evaluation of potential recreation restoration projects. (Until completion)
1 hr	Discussion of Special Designations for PWS. (Written information will be provided on the first day of the Workshop.)
1 hr	Final discussion on prioritized project list.(After calculated)

**Table 9. Workshop Participant Representation**

4	Camping/Kayaking	3	Tourism Associations
2	Motor Boats (commercial and private)	3	Conservation Associations
1	Sail Boats (commercial and private)	3	Public Recreation Managers
1	Tour Boats	2	Native Corporations
3	Sport Fishing	2	Other
3	Boroughs/Cities		

## Injury Statement

After a background of the injury statement was given, the discussion was open for comment. The concerns about the injury statement are summarized below. The final outcome of the discussions was not to alter the injury statement, rather note the comments of the participants. Although there were various individuals that had specific comments, there was no consensus that anything in the injury statement should be changed without doing a formal assessment. In fact some felt it was too late to do an assessment. Much of the discussion centered on understanding the purpose for an injury statement. The purpose was clarified as a baseline of injury which projects must address in order to fit legal parameters of the civil settlement.

The generality of the injury statement was questioned. Some thought that the injury statement should be specific enough to show the exact amount of injury to each community. Then the restoration projects could be better directed to the communities that are most affected. Others felt that the statement needs to be general enough to be utilized in the spill area and not just PWS. The fact that no formal comprehensive injury assessment was done for recreation was pointed out. Without further research and more specific data, injury could not be quantified for each community.

There were several comments about the injury of displacement. A couple of participants were not sure if displacement is an injury. First, having less people recreating after displacement is not an injury to those remaining. Secondly, if someone had to make a choice to go to their second or third choice destination because of oil at their first choice destination, this may not necessarily be an injury. It was stated that many people make choices for many reasons without it being construed as an injury. Other comments supported displacement as an injury. An example was given of the National Outdoor Leadership School having to completely move to Southeast Alaska because of the oil.

The other comments about displacement centered on where the displaced users go. There was much interest in the injury caused at the secondary location. If people are being displaced from several areas because of oiling and ending up at the same location, there could be some secondary impacts from over use that should be construed as injury from the oil spill. Participants wanted to know if the Trustees were willing to address this secondary impact and if it would be a legal expenditure of the civil funds. Unfortunately there was not enough information available to formally address the secondary locations used as a result of displacement.

Some wanted to know which user groups were displaced. We know that kayakers, motor boaters, sport anglers, and wilderness education groups were displaced, but there is not enough documentation to quantify how many groups or people were displaced.

The last comment on displacement centered on the possibility of causing more displacement of recreation users by the implementation of certain proposed restoration projects. By placing a facility in some location, there would be displacement of those using the area because it doesn't have any facilities. Restoration projects should not cause additional injury. This concern is covered by the evaluation criteria used in ranking projects.

Some were not comfortable with the relationship of the injury statement to the restoration/management goals and the evaluation criteria. It was expressed that the goals should be derived from the injury statement. Some felt that the goals in the packet were not related directly to the injury statement. In fact, they were correct in the sense that the restoration/management goals were developed first and the injury statement second. The injury statement relates more directly with the evaluation criteria. The injury statement is the basis of linkage used in the first evaluation criterion. It is the legal basis for the expenditure of funds. Without an injury, nothing can be restored.

### Restoration/Management Goals

There was much confusion over the purpose of these goals. The confusion resulted from the product which the participants had to review. The participants were reviewing a listing of goals and objectives that were both management goals for recreation and restoration goals.

The reason why both were included stems from the initial objective in this project versus the redirected objective formed half way through the project. This work group started by compiling management goals for recreation in PWS from existing management plans. These were reviewed and commented on by the public through the summer. Restoration goals were later extracted from public comment gathered. Since the public did not want to see restoration completely unrelated to existing management goals, the two were combined. Some management goals could be valuable restoration goals for recreation and likewise some restoration goals should be incorporated into management goals of land managers. These types of goals should not be opposed to one another.

Participant were confused about the purpose of the listed goals. Did projects have to meet the goals? Did the evaluation criteria result from the goals? Should the participants change public comment by deleting some of these goals? How will the Trustees use these goals? Are these goals supposed to be based on public comment or the legal language of the settlement? The majority of the questions centered on the idea that some of the listed goals were not restoration goals, and what to do about it.

Some participants wanted to delete all but the restoration goals and others wanted to leave them as a response from the public and used as a general framework for the criteria. Some felt that the Trustee Council will be confused with excess information, while others felt that they asked for public comment and should be given the goals that were important to the public. Some felt the workshop participants should develop a consensus on restoration goals and others felt that may not be possible because divergent opinions or within given time constraints. Some thought that these should be called considerations instead of goals. The final outcome was to move on to project evaluations and not to use these goals because of lack of consensus about what to do.

Although much discussion focussed on the purpose and origin of the goals, very little was mentioned about the specific goals or objectives. A couple of minor wording modifications to objectives were suggested that received no opposing comment. The first suggestion was that there should be some sort of future monitoring included. This monitoring might be focussed on project success, displaced use, or a number of resources related to recreation. It was suggested that this be included as an objective, "Take a more integrated look at the resources and services that were injured, establishing a plan to restore and monitor

the PWS ecosystem." The second objective suggested was stated "Recreation use should be directed away from areas that are identified as sensitive for recovering species and resources."

### Project Evaluations

While using the results of the workshop, one should be aware that projects were evaluated as written. This allowed everyone to evaluate the same project without misunderstanding. The participants were allowed to change a project description or funding level if the proponent and all participants agreed to the change. This only occurred in one project, project #10 (Backcountry Access Trail Development). This project was split in half putting two trails connected to communities under project #10 and two other trails in PWS under project #30. The group also agreed that the funding level should increase for project #25 (Shoreline Trash Cleanup), but it was not determined to what level.

Some project concepts were supported, but the projects as written received less support. An example is found in project #18 (Acquisition of Important Recreation Lands in PWS). Many people supported the idea of acquisition of important recreation lands but had a problem with the process as proposed. This project proposed setting up a process separate from the existing Habitat Protection Work Group. Participants suggested that this would be repetitive and wasting money. They wanted to relay that the principle of this project may be good but the process wasn't. Somewhat similar in nature, a project such as #12 (Public Use Cabins) may be a good idea in some areas and independent of the restoration process, but did not rate well as written. Because the project rated low, it should not be construed that the public does not want any cabins. Instead, it should be considered pertaining only to the restoration process, with the locations listed and in the context of reaching a consensus.

The ranking of projects was compiled using total scores from all evaluators. The weights assigned to the evaluation criteria reflect the importance of the criteria to the participants except that the criteria that are of greater importance to the Trustee Council or are necessary for the project to fit within the legal limits of the civil settlement were given a higher weight. This priority is purely mathematical in nature without additional interpretation. There is some interpretation discussed in the next section. Listed below in priority order, each project identification number and title is followed by total score, short descriptions, and original anticipated costs.

#### **Figure 2. Initial Prioritization of Projects Evaluated at Workshop.**

- 1. #6 Remove Evidence of Clean-up Activities. 2054.5** The purpose is to remove rebar, paint on rocks, flagging, oil booms and other trash remaining from the oil spill clean-up activities. This will improve recreation experiences by helping return beaches to their original state. This task will be included in some other project such as 94266 "Shoreline Assessment and Oil Removal". \$15,000.
- 2. #20 Leave No Trace Educational Program. 1923.5** Using an established education program, this project seeks to reduce impact on recovering resources and those resources receiving additional impact from changes in the traditional recreation patterns and locations caused by the spill. Spanning two years, this three phase project includes literature distribution, short field course training programs, and videos. The three proposed phases of the Leave No Trace program on Prince William Sound all serve to minimize the impacts caused by kayakers, tour groups, hunters, and other recreation users. \$159,000.
- 3. #25 Shoreline Trash Clean-up for PWS. 1907** Using mostly a volunteer effort, shoreline trash would be removed from

## Figure 2. (cont'd)

many beaches used for recreation in PWS. The removal of the shoreline trash would be one step toward improving recreation experiences. The organization of the effort will be done by a non-profit group under contract. \$31,000.

4. **#4 PWS Recreation Education Information Center at Portage Railroad Station. 1780.5** Through the purchase and upgrade of an existing building, this information center would seek to re-educate the public on the current post spill conditions and available recreation opportunities available in PWS. This project seeks to reduce false perceptions of recreation opportunities in the Sound. \$60,000.

5. **#7 Restore Smitty's Cove Boat Access Point. 1754** Whittier's alternative boat launch ramp that was destroyed by the spill clean-up landing craft will be replaced. The project includes a new 24 foot by 60 foot launch ramp and the replacement of adjacent rip-rap and fill. \$100,000.

6. **#5 Remove Persisting Oil from Beaches. 1741.5** This primarily focussed on the beaches that receive recreation or human use and which still have persisting oil present. This project was suggested to be combined with 94266 "Shoreline Assessment and Oil Removal". The project emphasizes the need for cleaning all the oil off recreation beaches where there won't be more harm done in the process. \$500,000.

7. **#19 Chenega Bay Marine Service Facility. 1734.5** In addition to the money from the Alyeska Settlement, Chenega is asking for civil settlement funding of bulk fuel storage relocation and upgrade, power plant relocation and upgrade, bulkhead dock development and other upland development. The project seeks to improve personal recreation quality that has been impacted by the spill and enhance recovery of the Sound by providing for a central use area that will help reduce pressures on recovering species. \$3,412,000.

8. **#24 Fleming Spit Recreation Area Enhancements. 1720** This is a two phase project that will enhance the existing sport fishery and provide more recreation facilities at the site. This multi year project seeks to address the increased sport fishing pressures experienced in Cordova since the spill and address some health and safety issues. This city based recreation opportunity would seek to reduce the pressure on more remote sport fishing locations. \$1,365,000.

9. **#13 Research on Recreation Impacts in PWS: Displacement of Users and Disturbance of Recreation Areas. 1708.5** This three phase project addresses recreational user impact and identify ecosystem processes potentially affected by this disturbance. In addition, it assists in providing valuable information to users and management professionals on low impact backcountry techniques. This will be accomplished through a contract with a non-profit group. \$301,875.

10. **#2 Comprehensive Public Recreation Information Brochure for PWS. 1646** This was submitted by an entity representing the land managers of PWS. The project funds the creation and distribution of a brochure that addresses different land ownerships, management practices, and regulations, and recreation amenities in the Sound. \$50,200.

11. **#11 "Mor-Pac Hill" Campground Improvements. 1627** Because of the influx of clean up workers in Cordova this camp area was created as an emergency solution to a lack of camp areas. Use in this area has greatly increased since the spill. The area has just been closed by the new owners. This project seeks to purchase this land and improve the camping area. \$360,000.

12. **#22 Economic Study of Recreation in PWS. 1586.5** This is an economic analysis of direct and indirect economic benefits to spill impacted communities from recreational use of PWS. This will provide a better understanding of the economic importance of recreation and tourism to the PWS region. This in turn will help the Trustees make informed decisions regarding the expenditure of restoration funds for projects designed to help the recovery of the recreation service. \$50,000.

13. **#18 Acquisition of Important Recreation Lands in PWS. 1573** This project sets up a separate process similar to the Habitat Protection Work Group to acquire recreation parcels or easements from private ownership. It deals only with recreation related parcels. \$2,500,000.

## Figure 2. (cont'd)

14. **#29 Solomon Gulch Hatchery Raceways. 1517** The project rebuilds a damaged fish raceway. Rebuilding the raceway at the

hatchery increases the rearing space available to further enhance a significantly reduced sport fishery in Port Valdez. \$194,000.

15. **#3 Odiak Camper Park Expansion. 1514.5** This project expands and enhances the current public R.V. facilities in Cordova. Since the spill there has been a marked increase in this sort of use that was almost non-existent pre-spill. This project addresses this changed use patterns. \$266,000.

16. **#9 Valdez Duck Flats Crucial Habitat Area Trails. 1405.5** This project constructs a three part interpretive trail system. This trail system allows bird viewing near a community. The purpose is to restore the reduced opportunities for wildlife viewing as the result of the spill. \$217,500.

17. **#14 Whittier Trails Access Project. 1351.5** This project creates a small trail system adjacent to Whittier utilizing Chugach National Forest lands. This provides access to areas that were not injured by the spill. This trail system provides additional recreation opportunities to the past and new users of the Sound. \$150,000.

18. **#28 Cordova Historical Marine Park. 1294.5** This project proposes to build an outdoor museum displaying the historical fishing boats of Cordova. These are the boats that are virtually unused now because of the post-spill economic effects on the fishing community. There would be six types of vessels displayed for the public. \$196,500.

19. **#27 Mt. Eyak Ski Area Improvements. 1219.5** This project incorporates three proposals to put in an intermediate ski tow, put in a small day lodge, and to clear some new runs. This is to replace lost opportunities during the closure of the ski area in 1989 as a result of the spill. \$110,000.

20. **#12 PWS Public Use Cabins. 1191.5** This includes the placement of six public use cabins on federal, state and private lands. This project is intended to enhance recreation opportunities to restore damaged perceptions, displaced use, and cancellations of trips in PWS. \$360,000.

21. **#17 Science of the Sound Education Program. 1116.5** Using an assortment of educational programs within the communities of the Sound, this project seeks to improve the understanding of the EVOS and ongoing restoration efforts. \$525,460.

22. **#10 Backcountry Access Trail Development (Valdez - Shoup Bay & Whittier - Decision Point). 1111** This creates two trails from communities reaching out into the Sound. This is an enhancement of recreation opportunities to restore other lost opportunities as the result of the spill. The trails will cross state, federal, and municipal lands. \$510,000.

23. **#15 Cordova's Mini-Imaginarium. 1076** This project creates a hands on educational facility much like the Anchorage Imaginarium but dealing mostly with the oil spill, restoration efforts, and marine ecosystem. This project will be created using existing facilities. It is geared toward use by all ages. \$125,178.

24. **#26 Alaska Oil Spill Curriculum Rewrite. 1027.5** This is a curriculum that has already been used in some PWS schools. There is a need for further revisions and teacher training workshops. This curriculum seeks to educate K-12 grades on the impacts and ongoing activities concerning the spill. \$99,000.

25. **#8 PWS Campsite Enhancements. 1017** This project places tent platforms, hardened campsites, toilet facilities, covered camp shelters, and food shelters at specific locations in PWS. This project seeks to restore lost or diminished services in certain areas and to stop further resource degradation caused by increased or displaced recreation use. \$102,000.

26. **#1 PWS Mooring Buoys. 988.5** Mooring buoys would be placed at 12 locations that currently have poor anchoring qualities. These would increase the recreation opportunities currently available. \$168,000.

## Figure 2. (cont'd)

27. **#23 Shotgun Cove Recreation Area. 935** This project seeks to restore and enhance recreational experience for a broad cross section of the public by providing necessary public access and infrastructure. A road to Shotgun Cove from Whittier, a breakwater and public and private boat harbors would be built. This would open the area to further recreation developments. \$1,630,000.



28. **#21 Endowment for Outdoor Recreation Management in PWS. 881.5** An endowment or a general recreation fee would be set up to fund the future management of increased or changed recreation and any programs or facilities that are created through the restoration process. This project addresses the current and future state of recreation as much as the past changes resulting from the spill. \$4,500,000.

29. **#30 Backcountry Access Trail Development (Surprise Cove and Esther Island systems). 799** Trails will be created to provide backcountry access from two popular destination points within the Sound. This is an enhancement of recreation opportunities to restore other lost opportunities as the result of the spill. The trails will cross state and federal lands. \$410,000.

30. **#16 Culross Passage Administrative Site. 692.5** This facility will be for the distribution of information, housing of staff, and an emergency contact point as needed. The purpose is to reduce impact of recreation users by more active management and public education. \$200,000.

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#### 4. Interpretation of Results

The top priority projects came much closer to achieving a consensus of support. Although the totalled and averaged score was higher on the top three projects, each had at least one very low rating from some evaluator. The next four projects had less of a range of scores but averaged lower. After the seventh priority project, there was a greater frequency of divergent opinions. Some of the mid-range projects had extremely strong support from some of the interests but heavy opposition from others.

The final mathematical scores can be misleading. A project could rate low in the first two criteria, link to injury, but very high in the remaining criteria. This would imply that the project is a great project although it may not be one that could lawfully be funded from the civil settlement.

## Appendix D

### Special Designations Results by Title.

The following list of Special Designations could be applied to areas of Prince William Sound. Of these seventeen designations, six emphasize habitat protection, eight emphasize the recreation or human use, and three emphasize both habitat protection and recreation. Emphasis of each designation is shown in brackets; habitat protection=[H], recreation=[R], and both=[B].

#### INTERNATIONAL LAND DESIGNATIONS

Man in the Biosphere Reserve [H]

#### FEDERAL LAND DESIGNATIONS:

National Estuarine Research Reserve [H]

National Marine Sanctuary [H]

National Wildlife Refuge [H]

National Park, Monument and Preserve [B]

National Seashore [B]

National Recreation Area [R]

National Forest [B]

National Scenic Areas and Scenic Research Areas [B]

Research Natural Area [H]

National Natural, Historic, and Environmental Education Landmarks [R]

Federal Wilderness Area [B]

#### STATE LAND DESIGNATIONS:

ADNR State Park [R]

Alaska Marine Parks [R]

State Special Areas (Refuges, Sanctuaries, and Critical Habitat Areas) [H]

Coastal District Designation - Area Meriting Special Attention [B]

State Marine Park District [R]

#### Summary of Special Designations' Effects

Designations emphasizing habitat protection, research or ecological change might have the following effects:

- a. They will help to create healthier ecosystems by maintaining non-disturbed land bases on which recovering species depend. This in turn provides socio-economic benefits.
- b. Tourism will be attracted by better recreation opportunities and improved quality of life.
- c. Improved ecosystems may also provide increased habitat for different species. This in turn may eventually provide increased harvest levels for sport and commercial fish and game.
- d. New designations may create regulatory restrictions on harvest levels, certain types of recreation

- uses and resource development projects.
- e. Human use in this type of designated area is usually seen as a negative impact.
- f. These designations may also restrict certain commercial opportunities.

Designations emphasizing recreation and human use might have the following effects:

- a. They may attract tourism and improve the quality of life by increasing opportunities for human use.
- b. Parks and public facilities tend to concentrate and control public uses which could reduce damage to surrounding areas important to recovery of species and their habitat.
- c. Recreation designations are seen as attractions to visitors, which may bring more people through the local communities, benefitting the businesses and the socio-economic well being.
- d. Recovery rates of species and their habitat may be slowed as more land is impacted through human use or facility development.
- e. These designations may also restrict certain commercial opportunities.

#### **Summary of Implementation Process**

To aid restoration with the use of special designations, targeted injured resources and services should be identified for the area considered for designation. A designation that best allows for the improvement or recovery of those resources or services should then be selected. The effects on other non-targeted resources, services and public should be weighed against the benefit those targeted. If the designation could conceivably accomplish the goal of recovery through its inherent authority, then the respective agency's ability to manage that designation should be analyzed. Current and future staffing and funding levels should be evaluated to determine if a special designation would accomplish its intended goal. Only then should a new special designation be pursued.

**NAME OF DESIGNATION:** Man and the Biosphere Reserve

**MANAGING AGENCY:** Various

**LEVEL OF GOVERNMENT:** International

**DESIGNATION/CREATION PROCESS**

**WHO DESIGNATES:**

Areas selected by the United Nations Educational, Scientific, and Cultural Organization.

**PURPOSE:**

To preserve unique areas that have representative characteristics which distinguish them from other parts of the biome to which they belong. Preserve areas large enough to preserve the full interactive ecosystem necessary to support the representative characteristics. Create the administrative authority making such protection possible.

**AREAS ELIGIBLE:**

Areas need to represent the characteristic features of particular biomes. Areas have diversity with the maximum representation of ecosystems, communities and organisms characteristic of the biome. Needs naturalness or absence of human impact. Needs to have an effective means to create a conservation unit.

**TARGETED AREAS:**

Areas that have world wide significance in representing major biomes that are yet unspoiled by man. Generally areas have representative characteristics which distinguish them from other parts of the biome to which they belong. Examples may include centers of distribution of rare or endangered species.

**PROCESS:**

Areas need to be selected by UNESCO and then further conferences will decide how to best be protected. There is some latitude in the process.

**TIME INVOLVED:** May be several years.

**COST INVOLVED:** Variable.

**COST TO MANAGE:**

Variable depending on system used to afford the conservation protection.

**MANAGEMENT**

**STAFFING:**

Staffing levels are directly dependent on the level of funding available to manage the land and water resources.

**RESTRICTIONS:**

These vary depending on the resources targeted for protection. Systems of protection can be created and tailored for the needs or existing designations and authorities can be incorporated to afford the protection needed.

**ENFORCEMENT AUTHORITY:**

The United Nations has the authority to manage areas in order to preserve unique areas of world wide significance. Different enforcement authorities have been used in various countries depending on the conservation system used to protect the reserves.

**COMPATIBILITY WITH SPECIAL DESIGNATIONS ON ADJACENT LANDS:**

Providing adjacent land uses do not affect the resources of the biosphere reserve, other special designations are compatible.

**POTENTIAL CONTRIBUTION TO RESTORATION:**

Although areas that have disrupted ecosystems from the spill would probably not qualify for reserves, areas that recovering species use may qualify. These reserves would allow protection of areas that support full ecosystems. This may help recovering resources by providing the needed habitat essential for recovery of species.

**NAME OF DESIGNATION:** National Estuarine Reserve Research System(NERRS)

**MANAGING AGENCY:** States in partnership with NOAA

**LEVEL OF GOVERNMENT:** State / Federal

NOAA is responsible for designating the reserves and administering the overall NERR program. The state manages individual reserves and provides staff. The NERR System was established under the Coastal Zone Management Act to address threats to the nation's estuaries.

### **DESIGNATION/CREATION PROCESS**

#### **WHO DESIGNATES:**

State selects sites and NOAA designates sites.

#### **PURPOSE:**

Reserves are established as natural field laboratories to provide opportunities for long term research and public education. Environmental monitoring and protection are also priorities

#### **AREAS ELIGIBLE:**

Entire estuarine systems and key land and water portions of the estuary. Including adjacent transitional areas that constitute, to the extent possible, a natural unit. EAR and NMS boundaries cannot overlap, although they may be adjacent.

#### **TARGETED AREAS:**

Estuarine environments.

#### **PROCESS:**

State requests that NOAA begin the designation process once the site has been selected. Specific Federal Guidelines apply to the designation process. Once the state's request for designation has been approved, the state is required to submit a management plan and provide all the necessary information for NOAA to prepare an EIS. Governor of Alaska nominates candidate site and memorandum of understanding is detailed for state and federal roles. Federal government designates research reserve sites. Public notification process is initiated early in the site selection process, and the public is encouraged to participate through correspondence and public meetings.

**TIME INVOLVED:** Approximately 3 years

#### **COST INVOLVED:**

Up to \$100,000 in federal funds are available, however the state could be required to contribute an equal or greater share of the cost to complete designation. State may apply for federal financial assistance for purposes of site selection, preparation of documents (draft management plan, EIS), and the conduct of research necessary to complete site characterization.

**COST TO MANAGE:**

Federal funding for management can be as much as \$70,000 which must be matched by the state (Annual costs are usually significantly greater). Possible site designation, federal supplemental acquisition, and developmental awards of \$4,000,000 (land) and \$1,500,000 (physical construction) are also available but must be matched by the state (50/50). Reserves can include multiple sites however, the budget for one reserve must be distributed evenly between sites.

**MANAGEMENT****STAFFING:**

Reserves are usually staffed by 3-5 state employees, which can be complemented by university research staff and volunteers. NOAA consults with other federal and state agencies to promote and coordinate use of the M for research. A wide range of research projects are conducted which primarily focus on management and regulatory related questions. Funding for projects are available through the national NOAA office.

**RESTRICTIONS:**

The management plan defines allowable activities within the reserve. NOAA generally approves most requests to authorize pre-existing uses. Multiple uses are allowed provided they are compatible with the management plan. A permitting system for regulating activities may also be established. Open to the public to the extent permitted under state and federal law.

**ENFORCEMENT AUTHORITY:**

Law enforcement is handled by appropriate local, state, and federal authorities

**COMPATIBILITY WITH SPECIAL DESIGNATIONS ON ADJACENT LANDS:**

Federal and state lands already in protection status can only be included in the NERR system if the managing entity commits to long-term, non-manipulative management policies consistent with NERRS guidelines.

**POTENTIAL CONTRIBUTION TO RESTORATION:**

Emphasizes providing research and monitoring opportunities. Protects estuarine ecosystem which will in turn benefit recovering species. Reserves also increase public awareness and understanding of the need to protect vulnerable resources and provide suitable opportunities for public education and interpretation. Reserves emphasize an ecosystem approach to management rather than a species by species approach.

**NAME OF DESIGNATION:** National Marine Sanctuary

**MANAGING AGENCY:** Sanctuaries and Reserves Division (NOAA)

**LEVEL OF GOVERNMENT:** Federal

**DESIGNATION/CREATION PROCESS**

**WHO DESIGNATES:**

Sites are usually nominated by individual states.

**PURPOSE:**

The purpose of the program is to protect the integrity of nationally significant marine areas by regulating human activities within them.

**AREAS ELIGIBLE:**

Coastal and Ocean waters, Great Lakes and their connecting waters, submerged lands over which the U.S. exercise jurisdiction consistent with International Law.

**TARGETED AREAS:**

Ecologically or economically important areas. Areas that provide habitat for Threatened and Endangered Species. Offshore areas where there are no existing special area protection mechanisms.

**PROCESS:**

Begins with the Site Evaluation List (SEL) (sites are usually nominated by individual states). To be nominated to or placed on the SEL:

- sites must possess qualities which make it of special national significance;
- regional agency teams conduct preliminary evaluations of nominated sites;
- public involvement follows the preliminary evaluation of the site;
- once on the SEL, a site is evaluated for its natural resource values, human use values, conflicting activities that might require special regulation, and the relative benefits of the designation;
- includes NEPA compliance, EIS, management plan and draft regulation preparation;
- public notices are published in the Federal Register and the local media;
- public meetings are then held in affected areas;
- the Secretary of Commerce, with the approval of the President shall designate an area.

**TIME INVOLVED:**

The process typically takes two years but usually not more than 3 years.

**COST INVOLVED:**

Approximately \$500,000, most of which is for review of existing information, travel, and consultation.

**COST TO MANAGE:**

Operation Costs are \$600,000 to \$800,000 per year per unit funded by NOAA.



## **MANAGEMENT**

### **STAFFING:**

Most units are managed by a small staff of 6 to 10 people; local universities may provide some support.

### **RESTRICTIONS:**

Each sanctuary has different regulations which are established within its management plan. Different regulations may apply within different zones of a given sanctuary. Pre-existing uses are generally allowed to continue, although they may be regulated so that they remain consistent with the purposes for which the sanctuaries were designated. The Marine Sanctuary Program includes a provision to support, promote and coordinate scientific research and monitoring of site specific marine resources. The intent is to contribute to a better understanding of the marine environment and to promote more effective management. The research results are used in management and regulatory decision making for the sanctuaries. The approach is to create a management plan tailored to address the issues specific to a site and to identify solutions to problems.

### **ENFORCEMENT AUTHORITY:**

Law enforcement is the responsibility of the U.S. Coast Guard, state and local law enforcement agencies. The strength of enforcement comes from the substantial fines which can be levied against violators. Fines can also be imposed on individuals who damage sanctuary resources, even if the source of the damage originates outside the sanctuary boundaries.

### **COMPATIBILITY WITH SPECIAL DESIGNATIONS ON ADJACENT LANDS:**

Since this designation usually protects marine waters, they may enhance adjacent upland designations, such as National Parks or National Forests. Since the State owns and manages the submerged lands out to the three mile limit, the state would have to agree to this federal designation.

### **POTENTIAL CONTRIBUTION TO RESTORATION:**

Emphasizes protection of marine ecosystems. Provides opportunity for compatible public uses, and research and monitoring. Emphasizes minimizing human uses that disturb recovering ecosystems.

**NAME OF DESIGNATION:** National Wildlife Refuge

**MANAGING AGENCY:** U.S. Fish and Wildlife Service

**LEVEL OF GOVERNMENT:** Federal

**DESIGNATION/CREATION PROCESS**

**WHO DESIGNATES:**

Refuge units are created by:

- \* acts of Congress
- \* executive order
- \* private donation

**PURPOSE:**

Refuges have purpose statements that tend to focus on specific species, treaty obligations, subsistence responsibilities, and water quality. The mandate is focused on wildlife, conservation and the resources rather than on visitor enjoyment. The state purposes for the Alaska refuges are:

- 1) to conserve fish and wildlife populations and their habitats;
- 2) to fulfill the international treaty obligations of the U.S. with respect to fish and wildlife and their habitats;
- 3) to provide, in a manner consistent with the purposes set forth in (1) and (2), the opportunity for continued subsistence uses by local residents;
- 4) to ensure, to the maximum extent practicable and in a manner consistent with the purposes set forth in (1), water quality and necessary water quantity within the refuge.

The Alaska Maritime NWR also has the stated purpose to provide, in a manner consistent with the purposes set forth in (1) and (2), a program of national and international scientific research on marine resources.

**AREAS ELIGIBLE:**

Uplands above mean high tide and inland submerged lands (non-coastal), especially those in AK established before 12/2/80.

Certain waters (coastal) withdrawn by executive order, public land order, act of Congress, or secretarial order for protection of habitats and threatened species as specified.

The Alaska Maritime NWR is one of the few refuges that claim ownership of the water. The refuge is also given authority to regulate areas outside the refuge boundaries which function as feeding habitat for marine mammals and birds.

**TARGETED AREAS:**

Upland and some marine habitats supporting specific or a diversity of species.

**PROCESS:**

Designation occurs by:

- Act of Congress
- Executive Order
- Public Land Order
- Secretarial Order
- Private Donation

A comprehensive Conservation Plan is congressionally mandated and provides management guidance. The comprehensive Conservation Plan establishes regulations for the refuge and includes an EIS process and a Wilderness Review Plan. The public is involved at the local, state and federal levels during the designation process.

**TIME INVOLVED:**

No set designation time, but the designation process may take a number of years from conception to establishment.

**COST INVOLVED:**

Congress annually appropriates funds for the study, designation, research, monitoring and operational costs for National Wildlife Refuges. Actual designation cost is difficult to determine because such a wide variety of people and agencies may be involved.

**COST TO MANAGE:**

Average yearly operational costs for Alaska refuges:

Alaska Peninsula/Becharof	\$ 396,000	
Alaska Maritime NWR		\$1,789,000
Kodiak NWR	\$ 808,000	
1989 budget for 4 Alaska NWR	\$3,621,000	

**MANAGEMENT**

**STAFFING:**

Total staff of the four Alaska refuges, impacted by the oil spill in 1989, was 44 federal employees.

**RESTRICTIONS:**

The Comprehensive Conservation Plan describes four different management categories: Intensive, Moderate, Minimal, Designated Wilderness.

- 1) Intensive Management
  - least protective and encompasses areas that have a potential public or economic use.

- 2) Moderate Management
  - have a reduced amount of allowable human development compared with intensive management areas.
- 3) Minimal Management
  - directed at the protection of existing fish and wildlife populations and habitats, and restoration of endangered and other species.
- 4) Designated Wilderness
  - similar to minimal management areas; however, there are more restrictions on the use of motorized equipment, oil and gas development, commercial uses, and the routing of transportation or utility systems.

Management practices vary for each NWR. Management activities for each unit include habitat and population protection, and monitoring and regulation of public activities. ANILCA and the Refuge Administration Act provide a continuation of pre-existing uses such as sport-hunting, fishing, trapping, guiding, and subsistence activities if they are compatible with the ANILCA objectives specified in each refuge. These activities may continue, subject to controls that will protect wildlife populations and habitats.

**RESTRICTIONS:**

Many private lands within refuges are subject to the regulations of the refuge. Research is initiated to solve specific management problems and typically focuses on wildlife investigations.

**ENFORCEMENT AUTHORITY:**

Each refuge has 2-3 employees with law enforcement authority for all federal regulations. Special agents from USFWS assist refuge authorities.

**COMPATIBILITY WITH SPECIAL DESIGNATIONS ON ADJACENT LANDS:**

Generally is not associated with any other special designations.

**POTENTIAL CONTRIBUTION TO RESTORATION:**

Emphasizes the protection of large tracts of land as habitat for identified species. Provides opportunity for research and monitoring of species and habitat and for a variety of recreation opportunities.

**NAME OF DESIGNATION:** National Park, Monument, and Preserve

**MANAGING AGENCY:** National Park Service

**LEVEL OF GOVERNMENT:** Federal

**DESIGNATION/CREATION PROCESS**

**WHO DESIGNATES:**

Act of Congress or a Cooperative Agreement establish a national park, whereas the President can designate a national monument.

**PURPOSE:**

To conserve the scenery, natural and cultural resources and wildlife; and to provide for public enjoyment in a manner that will leave the resources unimpaired for future generations. Primary role is stewardship of the Nation's most protected lands. A park and a monument are established for the same purpose, only differentiated by who designates the area and if hunting is allowed. National Monuments are often more focused than parks on one specific resource. Preserves are the same as parks except that hunting is allowed.

**AREAS ELIGIBLE:**

Units usually consist of upland areas. In a few instances marine waters are included within park boundaries.

**TARGETED AREAS:**

Areas of national significance for outstanding qualities of natural, cultural, scenic, wildlife or recreational resources.

**PROCESS:**

Other than an act of Congress, national parks can be created in two other ways. First, the President can designate areas with historic significance through the Antiquities Act. Second, NPS can enter into cooperative agreements with other agencies to manage large areas for park purposes under the Cooperation Agreement Act. The public is normally involved during any of these designation processes. Congress may or may not require a legislative EIS to be completed before its final consideration of legislation. A monument can be created by Presidential Order.

**TIME INVOLVED:**

No set time period, but would generally take at least one year and possibly many years to designate.

**COST INVOLVED:** No set cost

**COST TO MANAGE:**

Management staffing and budgets vary significantly for each park, monument or preserve and each year. Congress annually appropriates funds for designation, research, monitoring and operations. Average

annual operating costs for Alaska National Parks in 1991:

Kenai Fjords	\$569,400
Katmai*	\$926,500
Aniakchak	\$122,900

\* Preserves attached to parks are managed under the same budget.

## **MANAGEMENT**

### **STAFFING:**

Staffing levels vary from park to park. Park rangers can be: specialists in law enforcement, natural resource management, interpretation or other areas. There is also regional and national staffing levels that act as support staff and policy making staff.

### **RESTRICTIONS:**

Pre-existing uses can be authorized within park areas. Uses that damage park resources can be restricted. In Alaska, the NPS has some specific legislation allowing commercial fishing, aircraft landing, and other activities within some park boundaries. Certain areas within a national park can have further special designations, such as Research Natural Areas and Wilderness Areas, that would enact stricter guidelines.

Private lands within park boundaries are not controlled by the NPS; however, if uses imminently threaten park resources, the NPS has the authority to limit those uses.

### **ENFORCEMENT AUTHORITY:**

Enforcement of park laws and regulations in the Code of Federal Regulations within park boundaries are handled by NPS rangers. In some states(not in AK), joint jurisdiction has been approved by the state, allowing rangers to enforce state statutes and regulations inside park boundaries.

### **COMPATIBILITY WITH SPECIAL DESIGNATIONS ON ADJACENT LANDS:**

Would be compatible with marine designations affording similar protection. Adjacent land with non-compatible uses is possible providing those uses don't impact the NPS resources.

### **POTENTIAL CONTRIBUTION TO RESTORATION:**

Emphasizes protection of resources before promotion of use in most areas. Critical habitat management, resource protection, research, recreation, and education are emphasized.

**NAME OF DESIGNATION:** National Seashore

**MANAGING AGENCY:** NPS

**LEVEL OF GOVERNMENT:** Federal

**DESIGNATION/CREATION PROCESS**

**WHO DESIGNATES:** Act of Congress

**PURPOSE:**

To preserve and protect coastal landscapes for recreation and to maintain the integrity to these ecosystems.

**AREAS ELIGIBLE:**

Private or federal lands that jointly can represent a type of coastal habitat. Private lands can be purchased for this intent.

**TARGETED AREAS:**

Uplands that represent shoreline ecosystem.

**PROCESS:**

Representative coastal habitat area is identified. Private land is purchased and designated or federal lands are redesignated by Act of Congress. Master plan is developed for National Seashore which directs the management.

**TIME INVOLVED:**

Depending on the need for land purchase, the designation process may take a year or more.

**COST INVOLVED:**

Variable per area.

**COST TO MANAGE:**

Staffing levels and facilities vary per unit which causes a wide variance in costs.

**MANAGEMENT**

**STAFFING:**

Varies per unit, but includes resource protection, law enforcement, and interpretation staff. Regional and national level park staff would be available for support in cases.

**RESTRICTIONS:**

Resources are protected through regulations adopted in current Code of Federal Regulations. Resources are managed to perpetuate the diversity and contrast now apparent. Research Natural Areas can be incorporated within a National Seashore. Stable shellfish populations will be sought.

**ENFORCEMENT AUTHORITY:**

Enforcement of park laws and regulations in the Code of Federal Regulations within park boundaries are handled by NPS rangers. In some states, joint jurisdiction has been approved by the state, allowing rangers to enforce state statutes and regulations inside park boundaries.

**COMPATIBILITY WITH SPECIAL DESIGNATIONS ON ADJACENT LANDS:**

This designation usually considered separate from adjacent land designations but a marine sanctuary or estuarine reserve could be compatible if used in conjunction with a national seashore.

**POTENTIAL CONTRIBUTION TO RESTORATION:**

Emphasizes protection of resources before promotion of use in some areas. Critical habitat management, resource protection, research, recreation, and education are emphasized. Shoreline ecosystems are addressed as whole entities. Human use opportunities are possible through education and interpretation.



**NAME OF DESIGNATION:** National Recreation Area

**MANAGING AGENCY:** NPS, USFS, BLM

**LEVEL OF GOVERNMENT:** Federal

**DESIGNATION/CREATION PROCESS**

**WHO DESIGNATES:** Congress

**PURPOSE:**

To provide areas for a multitude of recreational uses and to manage those areas to promote their recreational values.

**AREAS ELIGIBLE:**

Areas that have outstanding combinations of outdoor recreation opportunities, aesthetic attractions, and proximity to potential users.

**TARGETED AREAS:**

Areas valued for their natural, historic, scenic and recreational resources for public use and enjoyment. Also areas that are heavily used for recreation but need more effective management are targeted.

**PROCESS:**

A member of congress generally presents a bill for a concerned area. An act of congress creates the new designation. Either private land is acquired or federal land is redesignated to become a national recreation area. Public is involved in the planning process that is used to guide park management.

**TIME INVOLVED:**

No set time, but designation process may take over a year.

**COST INVOLVED:** Variable.

**COST TO MANAGE:** Variable.

**MANAGEMENT**

**STAFFING:**

National Park, Forest Service, or BLM staff manage national recreation areas. Staffing levels vary according to the size of the area and amount of use received. Park staff receive some support from national and regional levels.

**RESTRICTIONS:**

The restrictions are different for each area as written in the enabling legislation.

**ENFORCEMENT AUTHORITY:**

Enforcement authority is from the Code of Federal Regulations. Certain state statutes and regulations may be enforced if appropriate agreements are signed. New regulations can be created to afford more protection of resources.

**COMPATIBILITY WITH SPECIAL DESIGNATIONS ON ADJACENT LANDS:**

Because of the nature of a natural recreation area, they would probably not be compatible with adjacent land with very protective designation such as federal wilderness.

**POTENTIAL CONTRIBUTION TO RESTORATION:**

Certain recovering recreation resources may benefit from this designation. Emphasizes the preservation, use and enjoyment of natural, historic, scenic, and recreational resources. May direct recreational use away from recovering species and habitats.

**NAME OF DESIGNATION:** National Forest

**MANAGING AGENCY:** USDA Forest Service

**LEVEL OF GOVERNMENT:** Federal

**DESIGNATION/CREATION PROCESS:**

**WHO DESIGNATES:**

An Act of Congress or Presidential Order can create a new National Forest.

**PURPOSE:**

National Forests are managed with a sustainable multiple-use concept to meet diverse needs of people. Outdoor recreation, timber, minerals, water, grazing land, and fish and wildlife are all resources to be managed for sustained yield. Once a National Forest is designated, there are several administrative designations that can be implemented by the Regional Forester.

**AREAS ELIGIBLE:**

Federal lands that are to be managed for multiple use.

**TARGETED AREAS:** Uplands.

**PROCESS:**

The Secretary of Agriculture submits a request for a new National Forest to be created. A new National Forest can be created by either a congressional designation or presidential order. An addition to a National Forest within existing boundaries may be added simply by the Secretary of Agriculture accepting the donation of land(Weeks Act).

**TIME INVOLVED:**

Variable but adding land outside of existing forest boundaries may take one to many years. Adding land to a forest within the existing boundaries is less time consuming and can be done as quick as signing the acceptance.

**COST INVOLVED:**

There is no set cost but much of the cost can be absorbed by the existing staff.

**COST TO MANAGE:**

Variable per forest. The Chugach National Forest has an average yearly budget of \$8-11 million.

**MANAGEMENT**

**STAFFING:**

Each National Forest is part of a region with which a staff is associated. There is a supervisors office and staff associated with each forest. Forest are then broken down into districts which have staff representing

each of the multiple use concepts.

### **RESTRICTIONS:**

Certain areas within a national forest can have further special designations, such as Research Natural Area, Natural Landmark, National Scenic Area, National Monument and Wilderness Area, that would enact stricter guidelines.

Lands within a National Forest are zoned according to the Recreation Opportunity Spectrum(ROS) through the management plan. The ROS is a representation of the way an area is considered, and modification of these zones must go through a NEPA process. These zones have various levels of guidelines as follows.

Primitive I: Man's influence is negligible with resources taking free course of action. Motorized use prohibited.

Primitive II: Same as Primitive I but access to area is allowed by motorized craft.

Semi-Primitive Non-Motorized: Predominately natural landscapes and a feeling of remoteness. One can practice wildland skills and self reliance. Motorized use prohibited.

Semi-Primitive Motorized: Same as above but motorized use is allowable.

Roaded Natural: Predominately natural appearing settings with moderate sights and sounds of human activity and structures. Roads and motorized equipment common.

Rural: Human activity readily evident though less pronounced and less concentrated than urban level.

Urban: High levels of human activity and development. Landscape dominated by human structures.

### **ENFORCEMENT AUTHORITY:**

Enforcement authority is from the Code of Federal Regulations. Certain state statutes and regulations may be enforced if appropriate agreements are signed. New regulations can be created to accomplish more protection of resources.

### **COMPATIBILITY WITH SPECIAL DESIGNATIONS ON ADJACENT LANDS:**

There are several special designations that can be incorporated within a national forest that place more restrictions on the lands. Designations that would protect surrounding marine waters would be beneficial. Most adjacent designations would be compatible as long as the uses on those lands do not adversely affect the resources and use the Forest Service is managing.

### **POTENTIAL CONTRIBUTION TO RESTORATION:**

Private lands that are transferred to National Forest ownership keeps the in public ownership allowing access and critical habitat management. General restoration activities could be permitted. Although forest

lands are managed for multiple use, national forest designation allows stricter administrative designations to be implemented through a forest plan or the forest supervisor.

**NAME OF DESIGNATION:** National Scenic Areas and Scenic Research Areas

**MANAGING AGENCY:** USFS

**LEVEL OF GOVERNMENT:** Federal

**DESIGNATION/CREATION PROCESS:**

**WHO DESIGNATES:**

Created Administratively by USFS or by Act of Congress.

**PURPOSE:**

To preserve areas for their scenic values while allowing multiple use. The purpose can be more clearly stated in the management plan for the area.

**AREAS ELIGIBLE:**

Areas that contain outstanding scenic characteristics, recreation values, and geologic, ecologic and cultural resources. Areas that contain outstanding values for research, scientific, and recreational purposes may be designated Scenic Research Areas.

**TARGETED AREAS:** Federal lands.

**PROCESS:**

Areas are identified and analyzed for the outstanding qualities. If the land mass in consideration is over 100,000 acres, the Secretary of Agriculture can administratively designate an area. If under 100,000 acres, the Regional Forester can administratively designate an area. Congress can also pass a bill to designate areas under this designation. Once designated, a management plan would be developed or incorporated in the forest plan.

**TIME INVOLVED:**

Administrative designations will take less than 1 year while congressional designations will take more than 1 year.

**COST INVOLVED:**

No additional cost required. Cost would be absorbed into existing management costs.

**COST TO MANAGE:**

There would be no additional cost incurred because this is only a redesignation of forest land that is currently managed.

**MANAGEMENT**

**STAFFING:**

No additional staffing would be required. Existing forest staff would be used.

**RESTRICTIONS:**

Allows use up to level that will ensure protection of the special values for which the area was established.

**ENFORCEMENT AUTHORITY:**

Enforcement authority is from the Code of Federal Regulations. Certain state statutes and regulations may be enforced if appropriate agreements are signed. New regulations can be created to accomplish more protection of resources.

**COMPATIBILITY WITH SPECIAL DESIGNATIONS ON ADJACENT LANDS:**

A National Scenic Area is normally a unit of a National Forest.

**POTENTIAL CONTRIBUTION TO RESTORATION:**

This designation can be crafted to place additional protection on outstanding scenic and recreation values and ecological resources which will benefit recreation and research.

**NAME OF DESIGNATION:** Research Natural Area

**MANAGING AGENCY:** Federal Agencies with land ownership.

**LEVEL OF GOVERNMENT:** Federal

**DESIGNATION/CREATION PROCESS:**

**WHO DESIGNATES:**

Administrative process within respective managing agency.

**PURPOSE:**

To assist in the preservation of examples of all significant natural ecosystems for comparison with those influenced by man. To provide educational and non-manipulative research areas for scientist to study the ecology, successional trends, and other aspects of the natural environment. To serve as gene pools and preserves for rare and endangered species of plants and animals.

**AREAS ELIGIBLE:**

Parcels ranging from few to thousands of acres in size where natural processes are allowed to predominate. These areas may include typical or unusual flora and fauna types, associations or phenomena. They may also have characteristic or outstanding geologic, pedologic, or aquatic features and processes.

**TARGETED AREAS:**

Most Research Natural Areas are within federally owned land. There are nine selected Research Natural Areas within the Chugach National Forest in PWS.

**PROCESS:**

The Federal Committee on Research Natural Areas could select areas that have a gap in representation and encourage the federal agencies to create a Research Natural Area. Regional directors and area managers can administratively create Research Natural Areas if the merit is seen. Once designated, it is for perpetuity unless catastrophic changes occur.

**TIME INVOLVED:**

Since no legislation is required, it can be immediate.

**COST INVOLVED:**

No additional costs required. Cost would be absorbed into existing management costs.

**COST TO MANAGE:**

There would be no additional cost incurred because this is only a redesignation of forest land that is currently managed.



## **MANAGEMENT**

### **STAFFING:**

Accomplished by agency that designates the Research Natural Area.

### **RESTRICTIONS:**

Restrictions vary by agency. Some withdraw the area from public domain. All agencies seem to agree that the area needs to have restrictions on allowable uses to preserve the area for future generations as an undisturbed baseline for research and education.

### **ENFORCEMENT AUTHORITY:**

There is no specific authority granted through the designation. Agencies must use existing agency authority.

### **COMPATIBILITY WITH SPECIAL DESIGNATIONS ON ADJACENT LANDS:**

Generally needs to be surrounded by Federal lands. Adjacent lands do not need to have any special designation.

### **POTENTIAL CONTRIBUTION TO RESTORATION:**

Setting aside some of the non-oiled federal land as Research Natural Areas would provide areas for baseline comparison in future restoration studies. The areas designated could be crafted to provide desired protection and regulations.

**NAME OF DESIGNATION:** National Natural Landmarks, National Historic Landmarks, National Environmental Education Landmarks

**MANAGING AGENCY:** NPS

**LEVEL OF GOVERNMENT:** Federal

**DESIGNATION/CREATION PROCESS:**

**WHO DESIGNATES:** Act of Congress or by Cooperative Agreements

**PURPOSE:**

To assist in the preservation of a variety of significant natural areas which, when considered together, will illustrate the diversity of the country's natural history.

**AREAS ELIGIBLE:**

Landforms, geologic history areas, land ecosystems, and aquatic ecosystems being representative of themes under these categories are eligible. Private, state and federal land except for NPS lands are eligible.

**TARGETED AREAS:**

Areas of national significance representing natural history themes that can be used for preservation, research and education.

**PROCESS:**

Land must be reported to NPS to be considered for acceptance. An independent scientist will study the area to see if it meets the requirements. Then the NPS administratively adds this area to the appropriate register. There is no change of ownership of the lands.

**TIME INVOLVED:**

Can be less than a year because it is an administrative action.

**COST INVOLVED:**

The only costs are incurred in the study of the proposed areas. This is normal agency cost for NPS as part of the National Landmarks Program.

**COST TO MANAGE:**

The NPS does not manage the areas but only recognizes their national importance. Therefore, there is no continued managerial costs.

**MANAGEMENT**

**STAFFING:** None other than existing levels of management.

**RESTRICTIONS:**

There are no additional restrictions or protection placed on the land with these designations. The designation only gives recognition of the national significance to an area which may fuel the public and agency drive to protect an area through appropriate measures. In essence it is only a paper designation.

**ENFORCEMENT AUTHORITY:**

There is no enforcement authority associated directly with the staff of the National Landmarks Program. Actual land managers and owners may have their own enforcement authority. The Endangered Species Act does regulate actions on federal lands in a Landmark to protect critical habitat areas and endangered species.

**COMPATIBILITY WITH SPECIAL DESIGNATIONS ON ADJACENT LANDS:**

This designation does nothing to change existing designations.

**POTENTIAL CONTRIBUTION TO RESTORATION:**

Although no direct restoration benefit can be seen, the public attention may be focused on an area through this designation leading public opinion against actions that may destroy the significance of the area. Future management plans will then have to address the impact to a Landmark.

**NAME OF DESIGNATION:** Wilderness Area - National Wilderness Preservation System

**MANAGING AGENCY:** Federal Agency (USFS, NPS, USFWS)

**LEVEL OF GOVERNMENT:** Federal

**DESIGNATION/CREATION PROCESS**

**WHO DESIGNATES:** Act of Congress

**PURPOSE:**

To provide for the protection and preservation of areas where the earth and its community of life are untrammelled by man and which retain their primeval character and influence.

**AREAS ELIGIBLE:**

Areas untrammelled by man, where man is a visitor who does not remain. Area retains its primitive character without permanent improvements or human habitation. Imprint of man substantially unnoticeable, has outstanding opportunities for solitude or a primitive and unconfined type of recreation, has at least five thousand acres of land, and may also contain ecological, geological, or other features of scientific, educational, scenic or historical value.

**TARGETED AREAS:**

Land resources encompassed in full habitat types usually coinciding with watershed boundaries.

**PROCESS:**

1. Federal Agency makes preliminary proposal
2. Public Notice
3. Hearing held in affected area
4. Interagency comment
5. Agency analysis of comment
6. Department Secretary makes recommendation to the President.
7. President forwards recommendation to Congress

**TIME INVOLVED:**

No set time period, but may take one to several years.

**COST INVOLVED:**

No set costs. Costs may include travel, cost of hearings, research of land ownership, and agency review from staff.

**COST TO MANAGE:**

Management staffing and budgets vary significantly for each Wilderness Area and each year. The remote setting of wilderness areas usually increases management costs while less management is done in a wilderness area than other agency lands.

Congress annually appropriates funds for designation, research, monitoring and operations.

## **MANAGEMENT**

### **STAFFING:**

Staffing levels may vary for each Wilderness Area. Staff can include specialist in law enforcement, natural resource management, wildlife management, fishery management, interpretation or other areas.

### **RESTRICTIONS:**

Pre-existing uses can be authorized within federal lands. Developments other than for health and safety reasons are prohibited. Certain Wilderness Areas restrict the use of motorized equipment for private use or for maintenance. Wilderness areas are removed from multiple-use classifications and are managed according to relatively strict, statutorily mandated guidelines (i.e., ANILCA and the Wilderness Act). Activities detracting from wilderness values are generally prohibited by statute, and cannot be superseded by agency management guidelines.

### **ENFORCEMENT AUTHORITY:**

Enforcement of federal statutes and agency regulations within Wilderness boundaries are carried out by certified federal officers. In some states, joint jurisdiction has been approved by the state, allowing rangers to enforce state statutes and regulations inside Wilderness boundaries.

### **COMPATIBILITY WITH SPECIAL DESIGNATIONS ON ADJACENT LANDS:**

Research Natural Areas can be designated within Wilderness Area boundaries. Other land designations of both state and federal ownership are possible. Major developments on lands adjacent to the Wilderness boundaries are discouraged but can occur.

### **POTENTIAL CONTRIBUTION TO RESTORATION:**

Emphasizes high levels of resource protection on large tracts of land. Encourages scientific research and provides opportunities for wilderness recreation. Minimized opportunities for disturbance through allowable federal management practices such as timber harvest, mining and commercial operations.

**NAME OF DESIGNATION:** Alaska State Park

**MANAGING AGENCY:** Alaska Department of Natural Resources - Division of Parks and Outdoor Recreation

**LEVEL OF GOVERNMENT:** State

**DESIGNATION/CREATION PROCESS**

**WHO DESIGNATES:**

Parks > 640 acres require legislative action. Parks < 640 acres are created by an Interagency Land Management Assignment (ILMA).

**PURPOSE:**

To foster the growth and development of a system of parks and recreational facilities and opportunities in the state, for the general health, welfare, education, and enjoyment of its citizens, and for the attraction of visitors to the state. The Alaska State Park System is composed of park units which are managed to (1) provide for the outdoor recreational needs of present and future generations, (2) preserve and protect areas of natural significance, (3) preserve and interpret Alaska's cultural heritage, (4) protect and manage areas of significant scientific or educational value, and (5) provide support to the state's tourism industry.

**AREAS ELIGIBLE:**

State-owned uplands, tidelands, and nearshore waters.

**TARGETED AREAS:**

Protection for land and water resources, fish and game resources, and public safety.

**PROCESS:**

Public hearings are conducted in local communities and also in Anchorage during the designation process. A management plan is developed for each park unit.

**TIME INVOLVED:**

Varies from site to site, 120 days minimum if 640 acres or less state land transfer, 1 year minimum - legislative designation (state land), 2 year minimum - legislative designation (private land).

**COST INVOLVED:**

Varies for different state parks. State land transfers range between \$4,000 and \$60,000 in administrative costs. Designating private lands - \$20,000 to \$50,000 administrative costs plus land purchase costs.

**COST TO MANAGE:**

State operating budget, capital budgets and or grants are sources of funding. Management costs are unit specific. Approximate costs:

\$30,000/ranger each of whom cover 6-7 parks;

\$10,000 for field support staff;

\$20,000 for boat, vehicle, maintenance and supplies.

## **MANAGEMENT**

### **STAFFING:**

Management is effected by park rangers directed out of area or regional offices. Park Rangers often conduct law enforcement, natural resource management, interpretation, planning, search and rescue, and maintenance of facilities.

### **RESTRICTIONS:**

A management plan is developed for each park unit. Plans establish regulations and outline the types of facilities to be developed within each park. Pre-existing uses within parks may be restricted if they are found to be incompatible with the purposes of the park. State park lands are given a land use designation that withdraws them from public domain and stipulates that they are no longer available for multiple uses. Commercial fishing in a state owned park is specifically allowed. An area larger than 640 acres, may only be closed to multiple purpose use by act of state legislature.

All lands within any state park are classified into one or more land-use zones. The four zones specify allowable uses and guide the management of the parks. The four zones are as follows.

Recreation Development Zone: Allows the highest level of development to meet the more intensive recreational needs.

Natural Zone: Allows moderate to low impact and dispersed forms or recreation and to act as buffers between recreational development and wilderness zones.

Wilderness Zone: Established to promote, to perpetuate and, where necessary, to restore the wilderness character of the land and its specific values of solitude, physical and mental challenge, scientific study, inspiration and primitive recreational opportunities.

Cultural Zone: Established to preserve, investigate, document and interpret Alaska's cultural resources and heritage.

### **ENFORCEMENT AUTHORITY:**

Rangers in the field are commissioned under the ADF&G to enforce fish and game harvest regulations and also are commissioned by ADNR to enforce state statutes and park regulations.

### **COMPATIBILITY WITH SPECIAL DESIGNATIONS ON ADJACENT LANDS:**

Private lands are exempt from regulation. However, if activities abut state land boundaries, a permit may be required.

### **POTENTIAL CONTRIBUTION TO RESTORATION:**

Emphasizes recreation use of lands while preventing resource degradation. Protection of resources varies by park, but can be very restrictive, allowing resources to recover with minimal disturbance. Public use

can also be enhanced and controlled through education, signing, permitting, interpretation, and facility development.



**NAME OF DESIGNATION:** State Marine Park

**MANAGING AGENCY:** Alaska Department of Natural Resources - Division of Parks and Outdoor Recreation

**LEVEL OF GOVERNMENT:** State

**DESIGNATION/CREATION PROCESS**

**WHO DESIGNATES:**

Parks of less than 640 acres are created administratively by an Interagency Land Management Assignment (ILMA). Sites greater than 640 acres, require legislative action.

**PURPOSE:**

To foster growth and development of a system of parks and recreational facilities and opportunities in the state, for the general health, welfare, education, and enjoyment of its citizens, and for the attraction of visitors to the state. Most marine parks protect a good anchorage and surrounding view shed on the uplands. They also can protect marine recreation areas of high value. The long term goal is to establish a network of marine parks, located less than a day's journey apart, all the way from Oregon to Anchorage.

**AREAS ELIGIBLE:**

Primarily tidelands with a focus on recreational vessel anchorage. Uplands included under the marine park designations generally encompass the scenic view from that anchorage.

**TARGETED AREAS:**

Land and water resources, fish and game resources, and public safety. State-owned uplands, tidelands, and nearshore waters.

**PROCESS:**

Public hearings are conducted in local communities and also in Anchorage during the designation process. A management plan is developed for each park unit. In the case of Prince William Sound, a management plan for all State lands within the sound was developed in cooperation with ADNR Division of Land and Water Management.

**TIME INVOLVED:**

Varies from site to site. 120 days minimum if 640 acres or less state land transfer. 1 year minimum - legislative designation (state lands). 2 year minimum - legislative designation (private lands).

**COST INVOLVED:**

Varies for each marine park. State land transfers range between \$4,000 and \$60,000 in administrative costs. Designating private lands \$20,000 to \$50,000 administrative costs plus land purchase costs.

**COST TO MANAGE:**

State operating budget and capital budgets and or grants are sources of funding. Unit specific - variable.

Approximate costs:

\$30,000/ranger each of whom cover 6-7 parks;

\$10,000 for field support staff;

\$20,000 for boat, vehicles, maintenance and supplies.

## **MANAGEMENT**

### **STAFFING:**

In Prince William Sound, one ranger manages the entire sound, plus Kayak Island. Management is effected by park rangers directed out of area or regional offices. Volunteers are used to perform some field duties.

### **RESTRICTIONS:**

A management plan for all state lands within the Sound was developed in cooperation with the ADNR Division of Land and Water Management. Lawful existing uses of resources are maintained. Special uses are permitted by the Commissioner of Natural Resources on a case-by-case basis. State parklands are given land-use designation that withdraws them from public domain and stipulates that they are no longer available for multiple uses. Commercial fishing in a state owned park is specifically allowed. The state marine park system is not required to allow aquaculture operations, but they can be permitted if they are in compliance with park statutes. Uses are reviewed and can be permitted by the area office if found to be compatible. The purpose in managing the marine parks is to provide recreational opportunities (e.g., protected anchorages), however, there is also a need to assess the resources to adequately plan for future development.

### **ENFORCEMENT AUTHORITY:**

Rangers in the field are commissioned under the ADF&G to enforce fish and game harvest regulations and also are commissioned by ADNR to enforce state statutes and park regulations.

### **COMPATIBILITY WITH SPECIAL DESIGNATIONS ON ADJACENT LANDS:**

Private lands are exempt from regulation; however, if activities abut state land boundaries, a permit may be required.

### **POTENTIAL CONTRIBUTION TO RESTORATION:**

Emphasizes marine recreation while also providing for upland recreation opportunities. Resources are protected through regulations. Allows for recreation enhancements in many of the parks. Active on-site management is minimal at present. Public use can be enhanced and controlled through education, signing, permitting, interpretation and facility development.

**NAME OF DESIGNATION:** State Marine Park District  
(New Designation)

**MANAGING AGENCY:** Board of Directors

**LEVEL OF GOVERNMENT:** Board of Directors to bind the primary interests at work in the Sound

- Native Corporations
- Communities
- Commercial Fisheries
- Forest Service

**DESIGNATION/CREATION PROCESS**

**WHO DESIGNATES:** Act of Congress AND State Legislation

**PURPOSE:**

To expand on recreation developments and opportunities of the Sound. To protect the scenic and recreational values of the Sound. To continue the clean up and repair to the Sound's recreational and habitat values resulting from the oil spill. To expand scientific research on the Sound's cultural and natural resources.

**AREAS ELIGIBLE:** The entire Sound including water and uplands.

**TARGETED AREAS:** The entire Sound

**PROCESS:**

- 1) Congress dedicates all or a portion of federal uplands into a National Seashore or Marine Park.
- 2) State legislature dedicates state tidelands into state marine park status.
- 3) A park district non-profit corporation is established to develop and implement a plan for the area.

**TIME INVOLVED:**

Unknown but likely to be several years.

**COST INVOLVED:**

Unknown but will likely include costs for travel, public meetings, and attorneys.

**COST TO MANAGE:**

Management funds will be allocated by the Board of Directors from the interest occurring from an endowed corpus from the civil settlement fund. These funds will be allocated for planning, development, land and timber acquisition, and on-site management.

## **MANAGEMENT**

**STAFFING:** Board of Directors and Management Team

### **RESTRICTIONS:**

The proposal's foundation is access development, private lodge construction, a healthy commercial fishery, and acquisition without eminent domain of land, timber and development rights. The Park District would have a board of directors to bind the primary interests at work in the Sound: native corporations, communities, commercial fisheries, Forest Service, the State, and other land managers. The 1983 enabling statute for creating state marine parks, though protective allows the construction of aquaculture facilities, recreation facilities and prevents the blockage of access to private lands, for mining and other industrial operations.

### **ENFORCEMENT AUTHORITY:**

The Marine Park District would use existing agency officers. The enforcement authority would have to be created so that federal officers could enforce state statutes and visa-versa. This would need some legislative and congressional action.

### **COMPATIBILITY WITH SPECIAL DESIGNATIONS ON ADJACENT LANDS:**

All land status in PWS would need to be congressionally or legislatively reclassified to be part of the marine park district. Once that is done, there will less problems of compatibility because all land will be part of one district although parts can be zoned differently.

### **POTENTIAL CONTRIBUTION TO RESTORATION:**

This would increase management efficiency for the lands in PWS. It would be easier to take a more ecological comprehensive approach to restoration if all lands are bound under one management. Human use could be more effectively directed away from recovering resources managed more effectively with interagency cooperation already set in a framework.

**NAME OF DESIGNATION:** Special Areas (State Refuges, Sanctuaries, Critical Habitat Areas)

**MANAGING AGENCY:** Alaska Department of Fish and Game

**LEVEL OF GOVERNMENT:** State

**DESIGNATION/CREATION PROCESS**

**WHO DESIGNATES:** State Legislature

**PURPOSE:**

These multiple-use state lands are established for the protection of productive fish and wildlife habitats, conservation of fish and wildlife populations, and public use.

**AREAS ELIGIBLE:**

State-owned uplands, tidelands, and submerged lands are all eligible for designation. Critical Habitat areas can also include private lands. Special area boundaries can and often do go below mean high water.

**TARGETED AREAS:**

Coastal and nearshore habitats impacted by the spill.

**PROCESS:**

Designation process is initiated by ADF&G. Candidate sites are identified by ADF&G personnel based upon the criterion of statewide, national, or international significance. Public support is crucial to the establishment of state special areas.

There are statutory requirements to propose additional areas for designation every year.

**TIME INVOLVED:**

Most legislative proposals for state special areas take 1 year or more to attain designation.

**COST INVOLVED:**

One or more months of ADF&G staff time is required to develop each proposal, but because this task is the responsibility of the existing staff, it is not usually reflected as an additional cost.

**COST TO MANAGE:**

The major cost in designating a new area is the development of the management plan. Approximately \$12,000 annually per site for Special Area Permit process, field inspections and educational programs. Management plan development costs are about \$70,000, but are only done once every 5 years. Seasonal staffing of the three sanctuaries costs \$50,000 annually.

**MANAGEMENT**

**STAFFING:**

Responsibilities are shared by several ADF&G divisions. All three sanctuaries and one refuge have

seasonal on-site staffing.

**RESTRICTIONS:**

The sanctuaries require access permits to visit them. Valid pre-existing rights are not affected, except that activities have to be conducted in a manner compatible with refuge regulations.

**ENFORCEMENT AUTHORITY:**

Law enforcement is provided by the Department of Public Safety and by deputized ADF&G biologists. Violation of a state special area regulation is a Class A misdemeanor.

**COMPATIBILITY WITH SPECIAL DESIGNATIONS ON ADJACENT LANDS:**

Private lands lying within the boundaries of a state special area are not subject to area regulations, except in the critical habitat areas where ADF&G has permit authority over private lands. When a critical habitat area includes private lands, the state does not have eminent domain, but does have the authority to acquire land from willing sellers.

**POTENTIAL CONTRIBUTION TO RESTORATION:**

Some of these designations may be a way to control habitat on private lands. State special areas can be used to put a higher degree of management on critical habitat for recovering species. Services will only be affected positively because public use is still allowed although controlled. Special area designations can also promote public education and compatible uses by providing public access, interpretive signs, etc.

**NAME OF DESIGNATION:** Coastal District Designation (Areas Meriting Special Attention)

**MANAGING AGENCY:** Municipalities or State Agencies

**LEVEL OF GOVERNMENT:** State

**DESIGNATION/CREATION PROCESS**

**WHO DESIGNATES:** Alaska Coastal Policy Council

**PURPOSE:**

This is a special designation under the Alaska Coastal Management Program intended to put restrictions on certain areas to preclude future uses that may impair the specified values. A management plan for an area which merits special attention must preserve, protect, enhance, or restore the value or values for which the area was designated.

**AREAS ELIGIBLE:**

Areas important for subsistence hunting, fishing, food gathering, and foraging. Areas with special scientific values or opportunities, including those areas where ongoing research projects could be jeopardized by development or conflicting uses and activities. Potential estuarine or marine sanctuaries.

**TARGETED AREAS:**

Areas inside and outside coastal districts formed under the Alaska Coastal Management Program. Areas must have a willing sponsor management agency that can protect the values for which the area was created.

**PROCESS:**

A citizen or state agency may recommend areas to be nominated to the Alaska Coastal Policy Council. If the area is in a coastal district, the council must review the area and existing plans to identify conflicts. Concurrently the public has participation through a comment period. The council may then accept the program and designate an area. Part of this process addresses the state or municipal agencies that would be affected and who would manage the area consistent to the coastal management plan.

If the area is outside a district, the Division of Governmental Coordination(DGC) will give notice to affected parties. After public and agency review, there may be more planning authorized or the area may be accepted by the council. It takes effect for state law purposes as part of the Alaska Coastal Management Program upon the lieutenant governor's filing of the council's order.

**TIME INVOLVED:**

An area could be designated within 60 days to a year.

**COST INVOLVED:**

Normal review costs are incorporated into existing budgets, but if additional planning or area evaluation is required, the sponsoring agency will be required to absorb the costs.

**COST TO MANAGE:**

Cost to manage an area will be supplied from the sponsoring agency. This includes costs to create any necessary legislation or regulations.

**MANAGEMENT****STAFFING:**

Existing or new staff will be assigned by sponsoring agency depending on need.

**RESTRICTIONS:**

Any agency management plans must concur with the coastal management plan adopted. Agencies and Municipalities are required to abide by the restrictions specified in the coastal management plan. This may require the creation of additional legislation or regulations. Any concerned person or agency may cause a review of the management of an area upon written notice of violation to the council. Affected agencies are then required to go through a review and possibly change management actions

**ENFORCEMENT AUTHORITY:**

State Statutes and Administrative Code set up the legal requirements of the areas considered within a coastal management area plan. Actual compliance authority for the uses within areas falls under existing or new agency authority.

**COMPATIBILITY WITH SPECIAL DESIGNATIONS ON ADJACENT LANDS:**

All special designations on lands within an area meriting special attention must comply with the goals of preserving, protecting, enhancing, or restoring the value or values for which the area was designated. This designation is specifically set up to be used in conjunction with marine and estuarine sanctuaries.

**POTENTIAL CONTRIBUTION TO RESTORATION:**

If an area receives this designation, it implies that the public and affected agencies have agreed to protect the designated values. This designation is set up to protect areas with special scientific values or opportunities, including those areas where ongoing research projects could be jeopardized by development or conflicting uses and activities. This is a blanket designation that allows and encourages restoration activities.



## Appendix E

### Project Descriptions Reviewed at Recreation Restoration Workshop

#### Titles of Recreation Restoration Projects and Associated Costs.

1. Prince William Sound Mooring Buoys. \$168,000.
2. Comprehensive Public Recreation Information Brochure for Prince William Sound. \$50,200.
3. Odiak Camper Park Expansion. \$266,000.
4. Prince William Sound Recreation Education Information Center at Portage Railroad Station. \$60,000.
5. Remove Persisting Oil from Beaches. \$500,000.
6. Remove Evidence of Clean-up Activities. \$15,000.
7. Restore Smitty's Cove Boat Access Point. \$100,000.
8. Prince William Sound Campsite Enhancements. \$102,000.
9. Valdez Duck Flats Crucial Habitat Area Trails. \$217,500.
10. Backcountry Access Trail Development.(Whittier to Decision Pt. & Valdez to Shoup Bay) Half of project split to #30. \$920,000.
11. "Mor-Pac Hill" Campground Improvements. \$360,000.
12. Prince William Sound Public Use Cabins. \$360,000.
13. Research on Recreation Impacts in Prince William Sound: Displacement of users and disturbance of recreation areas. \$301,875.
14. Whittier Trails Access Project. \$150,000.
15. Cordova's Mini Imaginarium. \$125,178.
16. Culross Passage Administrative Site. \$200,000.
17. Science of the Sound Education Program. \$525,460.

18. Acquisition of Important Recreation Lands in Prince William Sound. \$2,500,000.
19. Chenega Bay Marine and Service Center. \$4,412,000.
20. Leave No Trace Educational Program. \$159,000.
21. Endowment for Outdoor Recreation Management in Prince William Sound. \$4.5 million.
22. Economic Study of Recreation in Prince William Sound. \$50,000.
23. Shotgun Cove Recreation Access. \$16.3 million.
24. Fleming Spit Recreation Area Enhancements. \$1,365,000.
25. Shoreline Trash Clean-up for Prince William Sound. \$31,000.
26. Alaska Oil Spill Curriculum Rewrite and Reprint. \$99,000.
27. Mt. Eyak Ski Area Improvements. \$110,000.
28. Cordova Historical Marine Park. \$196,500.
29. Solomon Gulch Hatchery Raceway Reconstruction. \$194,000.
30. Backcountry Access Trail Development. (Surprise Cove and South Esther Island) Split from project #10.

# RECREATION RESTORATION PROJECT PROPOSAL

Project Title: Prince William Sound Mooring Buoys

## Project Description:

Results from public comment and various surveys conducted by the USDA Forest Service, State Parks, EVOS Restoration Plan Work Group and private companies show that there is a desire for trails, mooring buoys, cabins, and improved campsites in Prince William Sound.

There are several areas in Prince William Sound (PWS) that would benefit from the placement of mooring buoys. Several bays and sheltered areas have poor natural anchorages because of the depth of water or because of poor holding bottoms. Mooring buoys placed in these locations would be used by both recreationalist and commercial fishermen. Mooring buoys also help protect the subtidal habitat from being churned up by anchors. The buoys can be a place of safety in storms and in fair weather. Inexperienced boaters are more secure using buoys rather than their anchor.

Coast Guard approved mooring buoys would be placed in bays that would not freeze during the winter. Mooring buoys would not be placed in locations that already have a suitable natural anchorage. The locations for these buoys are the result of public comment from the users of PWS.

At least one mooring buoys would be placed in each of the following cays:

- |                  |                             |
|------------------|-----------------------------|
| Deep Water Bay   | Northwest Bay (Eleanor Is.) |
| Drier Bay        | Long Channel                |
| Bay of Isles     | Lower Passage               |
| Herring Bay      | Deer Cove                   |
| Disk Island Cove | Granite Bay (Dangre. Pass.) |
| Paddy Bay        | Copper Bay                  |

## What recreation resource or service does this project restore and how?

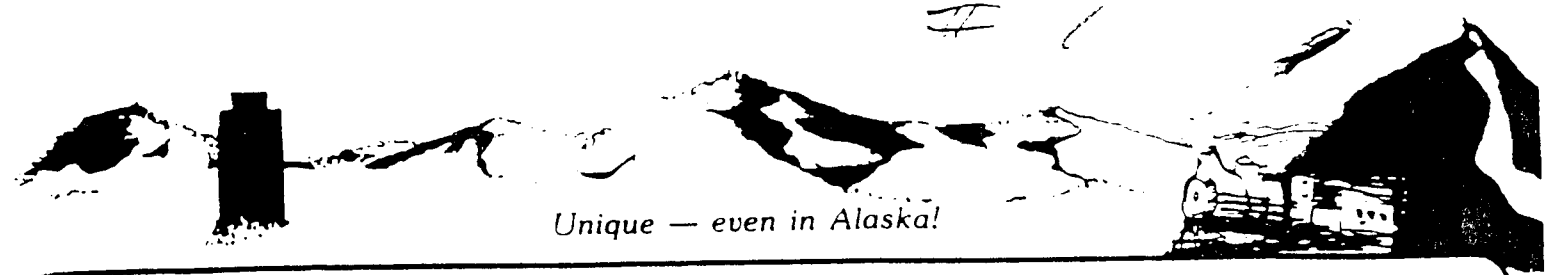
The quality of recreation experiences in PWS was and still is injured by initial and persisting oil from the Exxon Valdez Oil Spill. Oil in beaches, reduced wildlife sightings, contaminated food sources, and evidences of cleanup activities in many parts of the Sound affect former and potential users of the Sound. Damaged perceptions of visitors or potential visitors caused displaced use and cancellations of trips to PWS. Not only is this an injury to the individual recreating, but also to the communities whose businesses cater to the tourist.

The reputation of PWS as a recreation destination can be repaired in part through offering an improved access to the region impacted. The loss of revenue to the communities because of a reduction in the number of potential visitors to PWS, both short term and long term, can be mitigated by offering an attraction to those who may

exist under the perception that irreversible damage occurred and that their experience will be marred by that damage. Offering mooring buoy sites may be an attraction that will improve their experience.

People who formerly recreated in areas such as Knight Island, which was heavily oiled, now look for other areas that are free from the oil impacts. Their displacement may come from actual oil sighting and reduced wildlife sightings or from changed perceptions of the area. As a means to enhance their recreation experience in the Knight Island area, mooring buoys would increase the anchorage potential. This may offset some of the negative perceptions of the area, due mainly to reduced quality of recreation experiences. Placing buoys in some bays that have poor anchorage and were not oiled will provide replacement opportunities.

**Estimated Cost:** The materials and placement of each mooring buoy will cost approximately \$14,000. The total to place all 12 buoys would equal \$168,000. The buoys would require dive inspections at least every two years for maintenance. The cost of this maintenance would be assumed by the agency managing the adjacent uplands.



*Unique — even in Alaska!*

## THE CITY OF WHITTIER

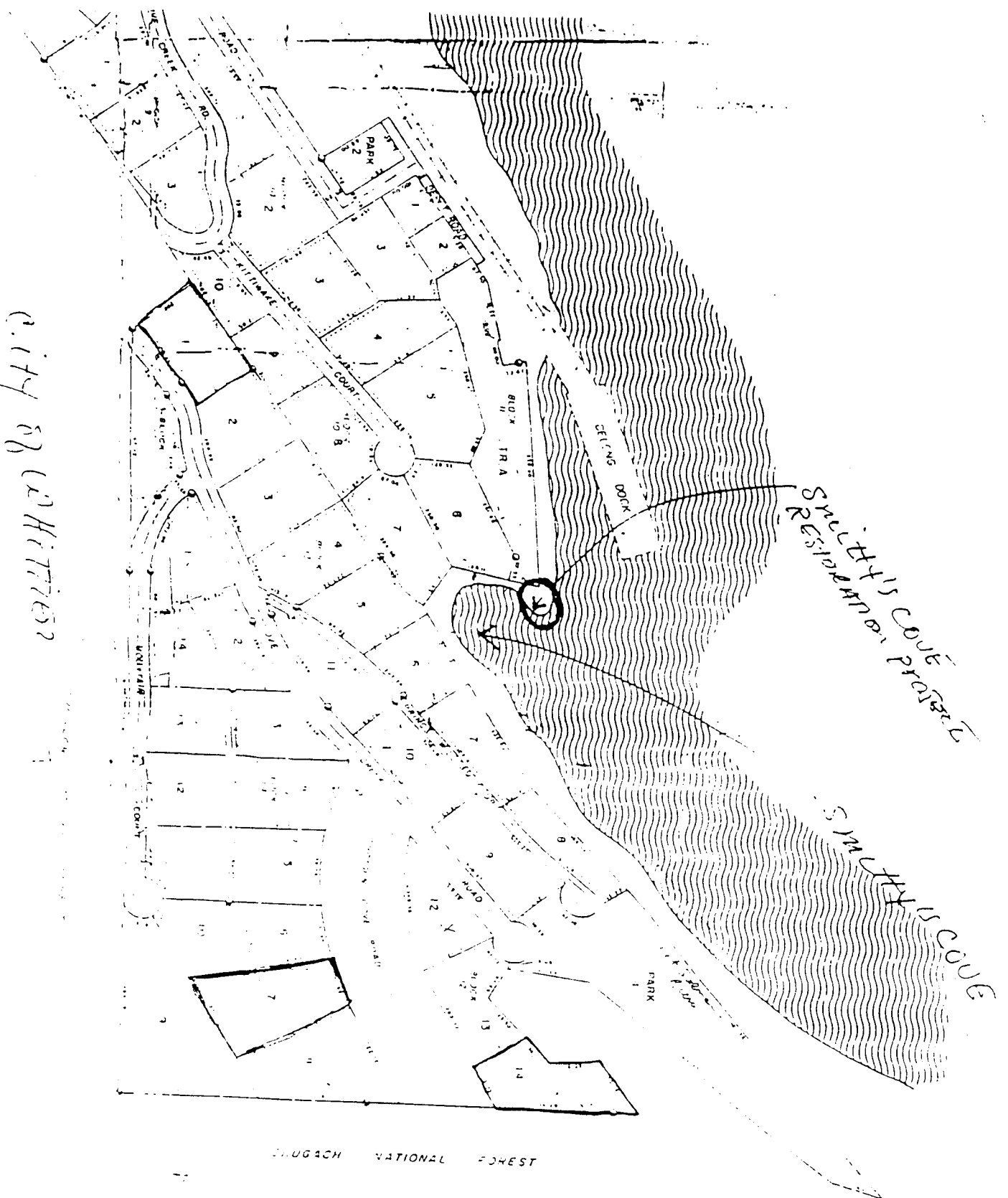
### WHITTIER PROJECTS FOR SUBMISSION TO THE EXXON VALDEZ TRUSTEES COUNCIL THROUGH DNR

#### RESTORE SMITTY'S COVE BOAT ACCESS POINT

As a direct result of the increased demand for landing craft access to western Prince William Sound during the oil spill, Whittier's only alternative to harbor access, the Smitty's Cove launch ramp area was destroyed. The damage to the launch ramp contributed to general erosion of the area and now needs substantial work to recover rip-rap and fill to replace washed out areas with new rock. The Alaska Department of Fish and Game Sport Fish Division recognizes this restoration project as a high priority but was not able to fund the project in FY 1994.

Restoration would include a new 24 foot by 60' launch ramp and the replacement of adjacent rip-rap and fill. Estimated cost to repair damage: \$100,000.

CITY OF CHITTEN



S. MATHYS COVE  
RESIDENTIAL PROJECT

S. MATHYS COVE

SUGACH NATIONAL FOREST



addendum to:

***What Recreation Resource or Service does this project restore and how?***

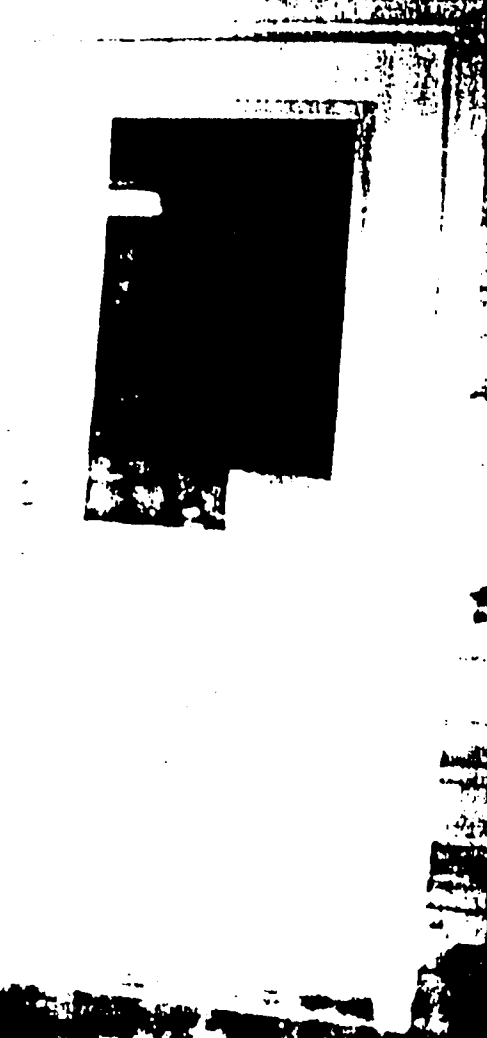
There is a substantial perception among potential users of Prince William Sound that beaches heavily impacted by the oil spill were seriously and permanently damaged by the oil spill. The impact on tourism was immediate and calculable, as 25% of the visitors who planned to visit the area canceled their scheduled trips to the Sound in 1989. The evidence suggests that this loss of revenue - and continued perception of damage to the environment - exists in some form today. Lingering economic impacts are likely to exist for many years to come.

Residents of the Prince William Sound communities experience both immediate and long-term emotional and financial injury. Two salmon canneries in the Cordova area suffered financial harm to the extent that the canneries ceased operations. The loss of the canneries meant the loss of ready markets for the salmon caught by the local fishermen. This, in conjunction with the apparent harm to the fish runs themselves by contact with oil polluted waters, has resulted in the overall demise of the fishing industry in Prince William Sound. Although increasing visitor knowledge of the current health of Prince William Sound as a visitor destination will not return the health of the fishing industry, it will help to enhance the knowledge about and recreation in Prince William Sound. By encouraging and assisting visitors in Prince William Sound, an increased diversity in the Prince William Sound economies will be developed. Visitors provide tax revenues and to the local communities and provide employment in the visitor and recreation industries.





PRINCE  
WILLIAM  
SOUND  
W  
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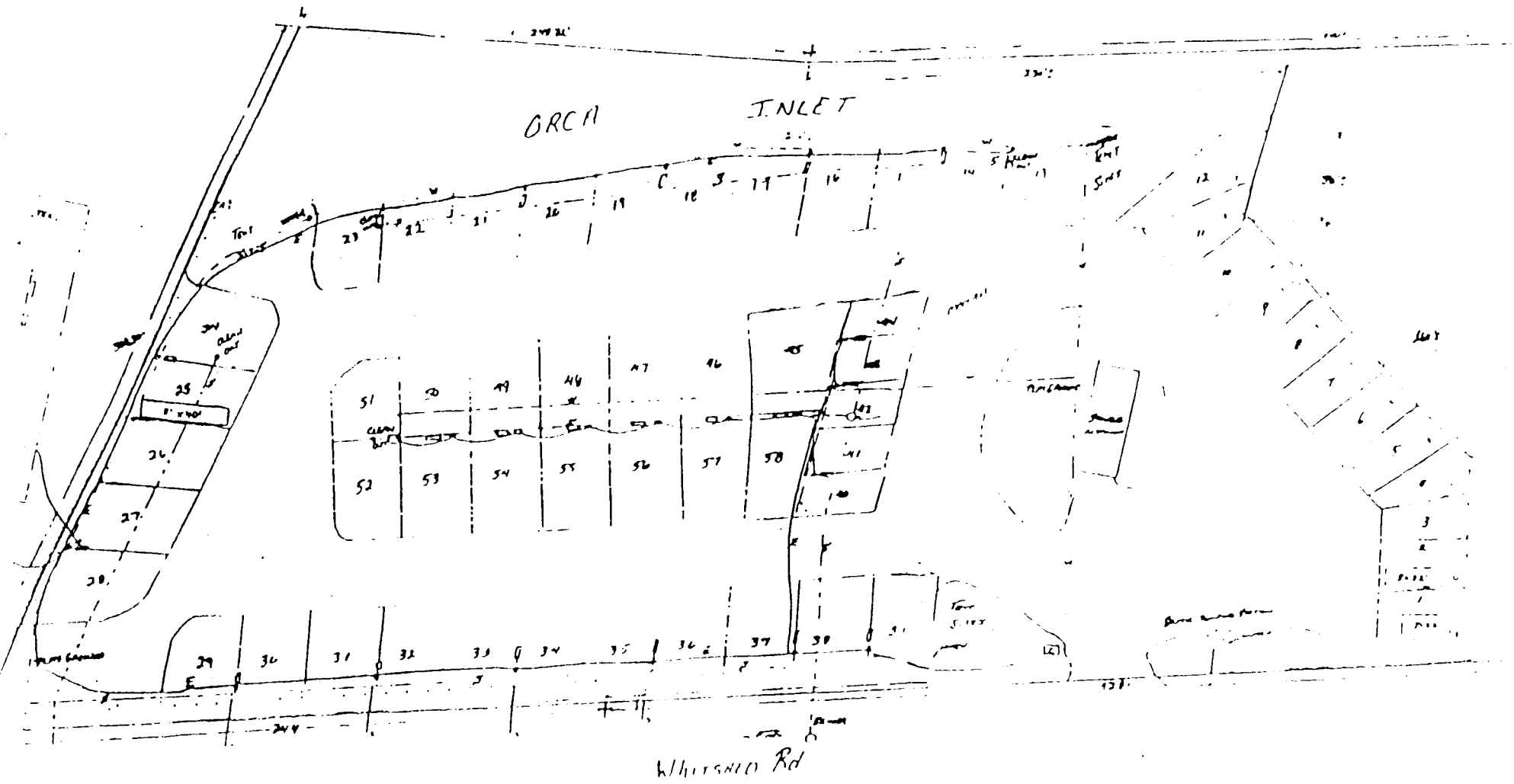


WHITTIER  
VALDEZ  
CORDOVA

**DISPLACEMENT OF CURRENT USERS:** There would be no displacement of current users. There are no users of this parcel other than campers. The City uses the expansion area for equipment storage.

**ADJACENT LAND MANAGEMENT:** All adjacent land and tidelands are owned by either the City of Cordova or the State of Alaska.

**INFLUENCE ON OTHER PROJECTS:** There are no other projects planned or in progress in the immediate area.



## Project Description Summary

As a consequence of the Exxon Valdez oil spill, recreation in Prince William Sound (PWS) has been significantly affected. Recreationalists are now seeking areas that have not been disturbed by the spill and heretofore received little or no use. Moreover, areas that have been previously impacted by recreation are now seeing additional visitation. The National Outdoor Leadership School (NOLS), for example, has altered sea kayaking routes since the spill, resulting in a concentration of use. Since many other kayakers, fishermen, and hunters use these areas the potential for degradation of these sites is high. Little is currently known about the extent of use in these areas, or the resistance, resilience and tolerance of specific sites to recreation disturbance.

We propose a three phase study with the overall objectives of:

- qualifying and quantifying use and impact from recreationalists
- determining the tolerance of specific ecosystem types to user impact
- examination of ecosystem processes altered as a consequence of user disturbance

Results of this work will be provided to land management professionals and users to assist in appropriate utilization and management of the area.

## Background

The National Outdoor Leadership School is a non-profit educational institution. The school offers wilderness education courses through branch schools in Alaska, Arizona, Chile, Kenya, Mexico, Washington and Wyoming. Research, publications, outreach and training, and other programs are central to the school's mission to be a leader in wilderness education and research. The school enrolls 2,500 students per year and employs 100 full-time staff and 350 instructors. There are more than 30,000 NOLS alumni. The school's research program benefits from oversight by a Scientific Advisory Board comprised of leading members of wilderness research from academic institutions and government agencies. With an interdisciplinary approach, NOLS has been investigating a wide range of topics that contribute to both wilderness education and to wilderness management.

NOLS has been instructing expedition-length sea kayaking courses in the PWS area since 1971. As a consequence, we have extensive expertise on recreation areas, visitation, and user impact. This knowledge, combined with our research capacity, will contribute to an effective research process that results in usable and practical outcomes.

## Approach and Objectives

### Phase I Site Surveys and Assessment

Using monitoring and assessment techniques specifically designed for recreation sites (Marion, 1991; Cole, 1983), we would conduct an overall evaluation of recreation sites in the area. In addition, visitor, outfitter and land management surveys would be conducted to assay the numbers and demographics of area users. This would be a two year study and would consist of initial site identification and subsequent impact assessment and monitoring. Data from the initial identification and assessment would assist the development of Phases II and III.

### Phase II Site Tolerance to User Impact, Trampling and Experimental Camping

Although the information regarding the tolerance of specific sites to recreational disturbance is not extensive, accurate experimental methods have been developed (Cole,

1993) and studies have been conducted in many backcountry areas (Cole and Bayfield 1993; Holmes and Dobson, 1976; Kuss and Hall, 1991; Marion and Merriam, 1985, and others). We propose to employ the techniques suggested by Cole (1993) and initiate a five year study on at least four distinct soil-plant associations impacted by recreational use. This study would involve both experimental campsites and applied trampling treatments and examine vegetation resistance, resilience and tolerance to user impacts. Changes in plant species composition, soil compaction and beach erosion would also be quantified. The first three years would involve applied trampling and camping treatments and assessment. Extensive follow-up measurements would be conducted the fourth year, and conclusionary data analysis and publication would be conducted in the fifth year.

### Phase III Recreation Impact: Process Level Research

To date, much of the research pertaining to user impacts on wilderness sites has focused on documenting intensity of use and its impact on vegetation ground covers. This research has greatly improved our knowledge of site durability and where, on a continuum of sensitive to durable, different vegetation types lie.

However, this type of research has been somewhat limited in scope, focusing primarily on site durability and response to impact. More comprehensive research would extend these studies to an examination of the time required for recovery on impacted sites and of the processes that are involved in controlling the rate and success of recovery. We therefore propose to examine a range of ecosystem processes that could be affected by disturbance in conjunction with phase II (above). This would be a two year study with measurements and analysis conducted in year two and four. A partial list of ecosystem processes to be examined is included (Table 1).

*Table 1.* Proposed soil and plant properties to be measured as an assessment of ecosystem health in sites disturbed by recreation. Not all properties would be appropriate measures at all sites.

#### Soil Properties

Organic Matter Content  
Microbial Biomass  
Physical Characteristics  
C and N Mineralization Potential

#### Plant Properties

Biomass Production  
Nutrient Analysis  
Structural Compounds  
Anatomical Damage/Response  
Mycorrhizal Response

### **Budget**

<b>Phase I.</b> Site Inventory 2 years x \$18,080/yr. + overhead costs .....	\$45,200
<b>Phase II.</b> Trampling and Camping 4 years (field) x 18,580 + overhead costs + 1 yr (analysis) x 12,500 + overhead costs .....	\$108,525
<b>Phase III.</b> Process Level Research 2 years (field and lab) x \$59,260 + overhead costs .....	\$148,150
<b>Total for all phases, 5 years .....</b>	<b>\$301,875</b>

## Qualifications

NOLS is a key facilitator of wilderness based research in many areas nationally and internationally. NOLS has unique logistical capabilities for backcountry access and a commitment to the thorough understanding of the threats to wilderness systems. We have developed significant collaborations with wilderness researchers, ecosystem ecologists and social scientists. We currently have internal capabilities to conduct all of Phases I and II of this proposal and are collaborating with the Natural Resource Ecology Lab at Colorado State University to conduct the analytical aspects of Phase III.

## Product

As soon as interpretable results are analyzed, we would attempt to make practical and scientific information available as soon as possible by the following avenues:

- 1) Publish experimental results in appropriate scientific journals.
- 2) Publish management-oriented articles in appropriate professional outlets.
- 3) Direct integration with the *Leave No Trace* program curriculum. *Leave No Trace* is a national public-private education initiative to promote low-impact recreation practices. The U.S. Forest Service, National Park Service and Bureau of Land Management are the principal federal agency partners of this program.
- 4) Integrate updated *Leave No Trace* practices into NOLS wilderness education curricula and provide suggestions to other outdoor education groups.

## Literature Cited

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# Comprehensive Public Recreational Information Brochure for Prince William Sound

## Justification:

Recreational use patterns were changed as a result of the EVOS. Since the EVOS there is increased recognition of PWS, increased use in many areas, and displaced recreational use causing new areas to be used. The public is generally unaware of the different land ownerships, management practices, and regulations in the Sound. This sort of information needs to be consolidated and made available to the public in an understandable format.

## Project Description:

The PWS Land Managers Recreation Planning Group should be funded to create a free handout that consists of a map on one side and information on the other. The map would include ownership boundaries, cabins, ferry and ship routes, mooring buoys, public easements, tent platforms, trails, and major recreational attractions. Information would include access, allowable uses, general cultural resource site protection, permits required, recreation trespass, and where to get more detailed information. This information would be categorized in reference to each land manager including the Chugach National Forest, State of Alaska (including university lands), village native corporations, regional native corporations, private ownership, and municipal ownership.

Funds Needed:	Personnel	<b>\$9.0</b>
	- for time spent on project - 40 days @ \$225/day (8 members for 1 week of time)	
	Contractual	<b>\$12.0</b>
	- graphics (designer and writer/editor to get brochure to camera ready draft including color separation)	\$6.0
	- project coordinator for one month (includes their travel)	\$6.0
	Commodities	<b>\$22.0</b>
	- phone, fax, copy charges	\$5.0
	- GIS mapping	\$1.0
	- printing brochures (first time printing to include enough for several years) 50,000 brochures @ 40 cents/brochure =	\$20.0
	- brochure distribution	\$5.0
	Travel	two meetings <b>\$5.0</b>
	Agency General Admin	<b>\$2.2</b>

Duration of project is less than one year.

Total Cost Estimate \$50.2



RECREATION RESTORATION PROJECT PROPOSAL

PROJECT NAME: Odiak Camper Park Expansion

SPONSOR: The City of Cordova

PROJECT DESCRIPTION: Odiak Camper Park is located on Whitshed Road immediately adjacent to Orca Inlet. It is approximately one mile from the Center of Cordova. The camper park currently has 18 RV sites. All of the sites have electricity and water is available at six locations through hose bib type hydrants. A sewerage dump station is provided for R.V.s equipped with holding tanks. A shower/restroom facility is located in the middle of the campground for use by both R.V. campers and the few tent campers who use the area. While the camper park provides camping space with the basic utilities for up to 18 vehicles, it is badly in need of expansion and upgrading in order to meet an increasing demand.

The current facilities are marginal at best. The single restroom/shower facility is being used to its full capacity. Lines of R.V's waiting to dump holding tanks frequently form at the septic dump station; the only legal dump site in Cordova. Campers have to haul water from hydrants to their sites, a situation which is not always sanitary and certainly not convenient. Finally, the campground, in its current condition, is not aesthetically appealing to many campers. Landscaping is desperately needed so that we can take advantage of an otherwise ideal location for a campground.

Odiak Camper Park is currently the only legitimate camper park in Cordova. We are experiencing increases in the number of visitors each year and the demand for camping space has increased proportionately. Therefore, the need for expansion and basic improvements at the park are warranted. We propose to expand the park by an additional 40 R.V. spaces and to add basic utilities to each site. We also envision adding playground areas, additional tent sites, and landscaping. A proposed budget follows:

Work Task/Improvement	Estimated Cost
Water and Sewer line extensions to 40 spaces including fire hydrants	\$140,000
Landscaping including materials and Labor	\$30,000
Electrical Hookups to 40 new sites, trenches to be shared with T.V. and Tel.	\$76,000

Tent Platforms	\$10,000
Picnic Tables/Fire Grates	\$10,000
<b>TOTAL PROJECTED BUDGET:</b>	<b><u>\$266,000.00</u></b>

**POTENTIAL CONFLICTS:** The only potential conflict which exists is that the campground is located a short distance from the municipal landfill. We proposed to address the conflict by adding fencing and trees which will serve to mitigate the visual impacts. The landfill will be closed in 3-5 years and it has been suggested that that area could also be used for campground expansions.

**LINK TO EVOS INJURY:** The oil spill has created a heightened awareness about Prince William Sound in general and Cordova in particular. People have become increasingly aware that 1) Cordova suffered and continues to suffer great economic and emotional damage due to the spill and 2) that there are outstanding recreational opportunities in and around Cordova (especially since this area of the Sound was not oiled). The result is a marked increase in the number of visitors to this community. The City does not have the capability to adequately handle the increased demand for camping facilities. Improvements to this already existing campground would increase the City's ability to provide this service.

**ECONOMIC FEASIBILITY:** This project will not require any subsequent or incremental funding by the EVOS Trustees. After the campground is improved, it will be managed by the City in a way that will make it self supporting. The park is currently self supporting and is operated as an enterprise fund.

**CONSISTENCY WITH SURROUNDINGS:** The site is already used as a campground. It is surrounded on the North and East by water and on the south by woods. The landfill is located to the west. We believe campground expansion is consistent with the immediate surroundings.

**NUMBER OF PEOPLE BENEFITTING:** The City is desperately in need of campground facilities. This expansion and upgrade will provide suitable space for 58 R.V. campers and 10-15 tent campers.

It could also be argued that this facility would benefit the entire community. Since campground space is extremely limited in Cordova, campers are forced to park their R.V.s anywhere they can find space. This has resulted in a variety of problems for the community including trespassing, litter, sanitation problems, and blockage of public roads and alleys. The problem was so bad, particularly during the oil spill clean-up, that the City Council was forced to pass a trailer ordinance which strictly limited where motor homes could park. This forced many visitors outside of the City limits; a situation which is not good for either public relations or the local economy.



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## *Recreation Restoration Project Proposal*

**Project Name:** Prince William Sound Recreation Education Information Center at Portage Railroad Station.

**Background:** The Prince William Sound Tourism Coalition currently leases space in a building owned by Major Marine Tours at the Portage Train Station (see attached photograph). The building is divided into three spaces which are currently utilized as a retail establishment run by Major Marine Tours, a ticket office for the Alaska Railroad and an Recreation Education Information Center at the Portage Railroad Station. Starting in 1993, the Prince William Sound Tourism Coalition (PWSTC) created and staffed this information office on a daily basis for the purpose of educating people of the recreation resources available in Prince William Sound and the services available in the communities of Whittier, Valdez, Cordova, Chenega Bay and Tatitlik. Additionally, a primary function was to dispel notions that the Prince William Sound was no longer a pristine recreation resource as a result of the 1989 Exxon Valdez Oil Spill.

Three Whittier residents were chosen to staff the center. Their knowledge added credibility and quality to the information that they dispersed. The questions most asked dealt with transportation to the communities and popular recreation sites, things to do and oil spill damage. Commonly asked question related to the oil spills included "what was the extent of the damage", "Is there still evidence of the spill" and "Is there any wildlife left to see". Questions also focused around the fishing and whether sport fishing was "good" and were the fish "safe to eat".

An average of 150 people per day visited the PWSTC Recreation Education Information center. Our staff was surprised at the public's lack of accurate perceptions on the condition of the Sound as a result of the oil spill, the recreation opportunities available and the access to Whittier and other communities within the Sound. With the success of the 1993 season, the Board of Directors for the PWSTC decided to seek funding for the permanent establishment of the center. This decision was based on the unanimous support of the membership, the public's need for accurate information regarding the condition of Prince William Sound and the recreational opportunities available. Additionally, the center supported the distribution of the Prince William Sound Vacation Planner and member's brochures, phone numbers and collateral material.

**The Project Proposal:** The purchase of the building currently occupied by the Recreation Education Information Center. This capital expenditure would help insure the long term success of the Center and would allow us to expand as the demand grows.

**Estimated Cost:** Sixty thousand dollars (\$60,000.00) for the acquisition of the existing building and associated fixtures. This is a one time capital cost. All future operational costs including staffing will be borne solely by the PWSTC and its members.

**What Recreation Resource or Service does this project restore and how?** As documented in the attached study there was definitely financial harm to the communities, businesses and individuals that benefit from tourism trade in Prince William Sound as a result of the oil spill. Our intention in seeking this funding is to insure support for these businesses and communities in the marketing and sales of their services and products as well as the overall promotion of Prince William Sound and the recreation experiences available.

**About the PWSTC:** Enclosed are some collateral material about our organization. We existed prior to the 1989 oil spill and we are the only voice of commercial tourism in Prince William Sound. Our credibility and sincerity earned us a \$30,000 grant from Exxon directly after the spill and several substantial grants from Princess Cruises, Holland America Line and others in recognition of our effort and results in promoting the recreation choices available before and after the spill in Prince William Sound.

# RECREATION RESTORATION PROJECT PROPOSAL

**Project Title:** Remove Persisting Oil from Beaches.

**Project Description:**

Beach segments that have persisting oil were identified by an EVOS funded project during the summer of 1993. Some of these beaches are in areas that may never experience human use; others are more likely to experience some form of recreation use. This project proposes to remove the persisting oil from beaches that may receive human use.

Asphalt should be broken up and removed. Mousse and heavy oil residues should all be removed from these beaches, not only on the surface, but also subsurface interstitial deposits. Beaches would require manual removal of oil and tilling up the subsurface oil deposits. Mussel beds that trap oil under the bisset threads should be tilled to start aerobic decomposition of the remaining oil.

The work would require several teams of workers assigned certain beach segments. There would be a disturbance to recreation opportunities while this restoration activity was conducted. Crews would be assigned to a beach using hand tools and in some cases motorized equipment to clean up the persisting oil.

Boats would be needed to be chartered, and field staff hired. Exact quantity of staff and equipment needed is unknown at the moment until further consultation with the leaders of this summer's beach survey project.

**What recreation resource or service does this project restore and how?**

Throughout Prince William Sound persisting oil can be found on certain beach segments. This persisting oil is sometimes not visible from the water but is under the first layer of rocks. Minimal disturbance exposes this oil, mousse, and tar. Visual disturbance, soiled equipment, and foul odors (especially on hot sunny days) are all injuries to the recreational experiences available in these locations. This creates a less desirable location to recreate causing displacement, avoidance, and changed perceptions.

Removing this persisting oil from the beaches, especially from the beaches that were identified through the 1994 beach segment surveys as needing additional cleanup, will help to improve recreation experiences. Taking beaches back to a non oiled state will alleviate tactile disturbances and help to repair injured perceptions. Knowing that the oil has been really removed from the heavier oiled areas, including the mussel beds that trap oil, would allow individuals to be more confident that they will have a good recreation experience in these areas.

The removal of the oil will most likely also help recovering species by removing oil from shore bird habitat and preventing oil from entering the food chain. Any recovery of species will help increase the quality of recreation opportunities.

**Estimated Cost:** AK Department of Environmental Conservation already has a project proposed to the Trustee Council for the 1994 Work Plan. They have the project costs estimated at \$500,000. There should not be a separate project created but incorporated into this previously submitted project.

# **RECREATION RESTORATION PROJECT PROPOSAL**

**Project Title:** Remove Evidence of Clean-up Activities.

**Project Description:**

This project involves removal of evidence of clean-up activities including rebar on the beaches, painted rocks, flagging along the beach segments and signage left in the area. The actual removal is not a complex task requiring only minimal time on any one beach. Sites will be identified by land managers, recreationalist and from the results of the 1993 ADEC beach segment surveys.

The work would require minimal personnel time. Crews would be assigned to a beach using hand tools to remove the clean-up evidences.

**What recreation resource or service does this project restore and how?**

The clean-up activities in 1989 created a large disturbance in the normally tranquil wilderness characteristic of much of the Sound. The excessive noise of machinery and the imposition of thousands of clean-up workers destroyed the sense of wilderness in many areas. The scars on the landscape from that exercise still exist and are constant reminders of the intrusion into these areas. Campers, beachwalkers, boaters and kayakers all can see the evidence left behind, adding one more injury to recreation in addition to the oil that covered the beaches.

By removing these evidences of clean-up activities, beach areas will be restored to the more undisturbed natural character that once existed. This will help restore injured perceptions of recreation users now returning to these beaches. Recreation experiences will be improved. The evidences of spill clean-up efforts left behind should have been removed by those people and agencies placing the materials, but it is evident that this will be ignored unless addressed through this project.

The rebar should also be removed for health and safety reasons. Rebar(metal stake) is found driven in the beaches, some with flagging attached, some in the intertidal zone. This poses a danger to kayakers beaching their boats and to other boats that make beach landings. There is a strong possibility of skewering a fiberglass shell of a boat.

**Estimated Cost:** AK Department of Environmental Conservation already has an oil removal project proposed to the Trustee Council for the 1994 Work Plan. They have the project costs estimated at \$500,000. There should not be a separate project created but instead incorporated into this previously submitted project. It would not take much extra time to remove clean-up evidences. If additional work tasks are added to the ADEC project, \$15,000 should be added for extra time spent. There would also need to be some time spent identifying the beaches requiring this work.

# RECREATION RESTORATION PROJECT PROPOSAL

Project Title: Prince William Sound Campsite Enhancements

## Project Description:

There are several areas in Prince William Sound (PWS) that would benefit from campsite enhancements. These enhancements consist of hardening campsites with tent platforms, cleared and graveled campsites, toilets, food caches, fire rings, and in some cases even shelters. Some sites receive overuse or mis-use by campers and picnickers. Churned up wetlands, cut trees, excessive fire rings, and human waste and toilet articles strewn about the area are all evidence of this. Resource degradation occurs, negatively affecting the recreation experience for successive users of the sites. Some minor enhancements to some of the heavier impacted sites would stop future degradation, therefore providing a consistent recreation experience.

The locations for these campsite enhancements are the result of public comment from the users and the land managers of PWS. Each site will be reviewed for its specific needs. Some sites may only need a toilet, or maybe a tent platform and toilet. Sites that are not receiving heavy use or that are in good shape will not be changed when possible to keep the natural appearance. Further reconnaissance may be necessary to ascertain exact needs of several of these sites. Any site enhancements will be done in a manner to preserve the aesthetics of the site and in accordance with the appropriate management plans.

Tent platforms or hardened campsites are needed at the following locations:

- |                  |                          |
|------------------|--------------------------|
| Surprise Cove    | Culross Bay              |
| Squirrel Cove    | Entry Cove               |
| Long Bay         | Goose Bay                |
| Applegate Island | South Esther Island      |
| Jack Bay         | Granite Bay (Port Wells) |

Some form of toilet facility should be placed at the following locations:

- |                     |                          |
|---------------------|--------------------------|
| Shoup Bay           | Decision Point           |
| Surprise Cove       | Granite Bay (Port Wells) |
| Applegate Island    | Long Bay                 |
| South Esther Island |                          |

Covered ramp shelters should be built at the following locations:

- |              |                |
|--------------|----------------|
| Shoup Bay    | Decision Point |
| Eiegler Cove | Surprise Cove  |

Simple food caches near camp areas, used to reduce negative human interaction with bears, should be constructed at the following locations:

- |               |            |
|---------------|------------|
| Surprise Cove | Entry Cove |
| Long Bay      | Shoup Bay  |



**What recreation resource or service does this project restore and how?**

The quality of recreation experiences in PWS was and still is injured by initial and persisting oil from the Exxon Valdez Oil Spill. Oil on beaches, reduced wildlife sightings, contaminated food sources, and evidences of cleanup activities in many parts of the Sound affect former and potential users of the Sound. Damaged perceptions of visitors or potential visitors caused displaced use and cancellations of trips to PWS. Campers avoid areas with beaches that still have persisting oil, areas with painted rocks and rebar all over the beach, and areas where there are clean up activities still occurring. Many of these campers go to other natural camp areas that are not oiled. This concentration of use causes more impact in the non oiled camp areas.

With the increased media coverage of the spill, PWS became a household name. This new notoriety of the Sound has increased the use in many areas. Some of the new use comes from less experienced users who cause more impact per visit. This compounds the pressures on the non-oiled camp areas already receiving displaced use.

To reduce the degradation in these camp areas that now are receiving increased use and mis-use, campsite enhancements need to be made. These enhancements will create a certain quality of recreation opportunity that can be consistently maintained. This will be a positive step toward repairing perceptions of lowered quality or injured recreation experiences.

The reputation of PWS as a recreation destination can be repaired in part through offering consistent quality recreation opportunities within the region impacted. The loss of revenue to the communities because of a reduction in the number of potential visitors to PWS, both short term and long term, can be mitigated by offering an attraction to those who may exist under the perception that irreversible damage occurred and that their experience will be marred by that damage. Offering consistent quality campsites may be an attraction that will improve their experience.

**Estimated Cost:** The materials and placement of each wood tent platform will cost approximately \$3,000. The materials and placement of each toilet facility will cost approximately \$4,000. The materials and placement of each camp shelter will cost approximately \$10,000. The materials and placement of each food cache will cost approximately \$1,000.

10 campsite enhancements:	\$30,000
7 toilet facilities:	\$28,000
4 camp shelters:	\$40,000
4 food caches:	\$4,000
Total	\$102,000

The cost of maintenance for these sites would be assumed by the agency managing the uplands.

# **RECREATION RESTORATION PROJECT PROPOSAL**

**Project Title:** Valdez Duck Flats Crucial Habitat Area Trails

**Project Description:**

A three part interpretive trail system is proposed in the Valdez Duck Flats Crucial Habitat Area. Funds allocated would be spent on 1) an interpretive nature trail on Dock Point, 2) an interpretive board walk trail along the Duck Flats in the vicinity of Crooked Creek (old road bed in area); and 3) a trail to the first bench above Crooked Creek with a covered picnic and wildlife viewing area on the bench.

A necessary step in this project is acquiring private lands in the Duck Flats area. The Alaska Wilderness Recreation and Tourism Association has contacted landowners within the Valdez Duck Flats Crucial Habitat Area. Landowners that responded indicated a willingness to negotiate. Either the existing EVOS Habitat Protection Work Group or a new Recreation Site Acquisition Work Group would need to address the acquisition of these lands.

**What recreation resource or service does this project restore and how?**

Recreation and tourism in Valdez were injured by the spill. Reduced wildlife and bird sightings throughout the Sound was experienced as a result of the spill. Over 60,000 people visit the Valdez Duck Flats Crucial Habitat Area annually. Construction of trails to facilitate wildlife watching and appreciation will help restore the damaged and lost scenic and wildlife viewing services.

The proposed creation of these trails received strong public support in Valdez public meetings. The City of Valdez and the Valdez Convention and Visitor Bureau support this project if the maintenance costs can be accounted for.

**Estimated Cost:**

The cost of this project can not be calculated exactly because of the unknown length of trails and number and types of interpretive displays. Using the bird viewing boardwalk constructed 8 years ago at Potters Marsh in Anchorage as a base of cost we can estimate potential costs of this project. That boardwalk trail cost approximately \$20 per square foot. Each interpretive panel with ten spares cost approximately \$1,500 to design and create. The covered picnic and viewing area would cost approximately \$10,000.

Allowing for inflation of prices we could assume that the price per square foot is up to around \$25. Total cost of the project, assuming that there will be approximately 1,500 feet of trail and excluding any land purchases needed, would be at least \$217,500.

# RECREATION RESTORATION PROJECT PROPOSAL

**Project Title:** Backcountry Access Trail Development

**Project Description:**

Results from public comment and various surveys conducted by the USDA Forest Service, State Parks, EVOS Restoration Plan Work Group and private companies show that there is a desire for trails, mooring buoys, cabins, and improved campsites in Prince William Sound.

There are several areas in Prince William Sound (PWS) that would benefit from the creation of trails. Trails that emanate from existing population centers and developed areas would allow people to enter part of PWS by foot. More people each year arrive in PWS communities without a boat wanting to experience the Sound. Trails would allow some controlled access.

Four trails are proposed as part of this project. Each ties in with a State Marine Park in some way. Interest in these trail locations have been expressed through public comment. The land which these trails must cross is sometimes rugged and covered in an assortment of vegetation types. Construction of trails in these conditions requires clearing and a fair amount of tread work to stabilize the soils for heavy traffic. Local materials will be used when possible but occasional sections need boated in materials. The remote locations of these trail projects increases the cost.

Waldez to Shoup Bay: A seven mile trail from Waldez to Shoup Bay State Marine Park would utilize the coastal fringe to access spectacular views of a tidewater glacier and a kittiwake rookery. The trail would begin on municipal lands on the west side of Mineral Creek and follow the shoreline to Shoup Bay. The trail would continue to the beach area between Shoup Bay and the tidal lake. This trail would be a wilderness quality trail without modern construction. Mostly local materials would be used for bridges, stairs, handrails and puncheon. Beaches would be utilized for trail where possible. The State has selected the lands along this corridor and may obtain ownership soon. Toilet facilities and camp sites would be located at the end of the trail in Shoup Bay State Marine Park.

(p. 1) Esther Island Trail: An eight mile trail on Esther Island would start in the South Esther Island State Marine Park at the Wally Moerenburg Fish Hatchery and continue north around the eastern side of Esther Lake to Granite Bay State Marine Park. The first part of the trail would include an interpretive trail relating to the flora and fauna of the area and the hatchery operations. The interpretive trail would include only the first quarter mile. The trail would be high quality trail with boardwalks, interpretive signs, clocks, benches and viewing shelter at the Esther Falls. Appropriate toilet facilities would be located near the hatchery.

The rest of the trail would be of wilderness quality. Local materials would be used to build the trail. Muskeg areas would be avoided. The trail would pass along the eastern edge of Esther Lake, over a low pass and into the southern arm of Granite Bay. Camp facilities would be provided at either end of the trail. The trail would go across State and Forest Service lands.

Surprise Cove Trail: This four mile trail would access the uplands of Surprise Cove State Marine Park. This trail would increase the recreation opportunities to those who use this popular anchorage. There are two existing short trails in Surprise Cove. These would be upgraded and expanded. Access would be provided by a loop around the north lake and a trail spur to the alpine ridge that backdrops the cove. Views from the ridge include Tebenkoff Glacier, Blackstone Bay, and up Port Wells. Trail heads would have minimal visual impact on the existing anchorage areas. Local materials would be used to construct this wilderness quality trail.

Whittier to Decision Point: Like the Valdez trail, this trail would allow access into FWS by foot. A ten mile trail would be constructed across municipal and state lands at present along the coastal fringe on the southern side of Passage Canal. If a road were to be built to Shotgun Cove or Neptune Point, the trail would be shortened proportionately. The trail would allow hikers to view the nearby glaciers, marine and upland wildlife, and scenic vistas. Camp sites would be established at the trail terminus in Decision Point State Marine Park.

**What recreation resource or service does this project restore and how?**

The quality of recreation experiences in FWS was and still is injured by initial and persisting oil from the Exxon Valdez Oil Spill. Oil on beaches, reduced wildlife sightings, contaminated food sources, and evidences of cleanup activities in many parts of the Sound affect former and potential users of the Sound. Damaged perceptions of visitors or potential visitors caused displaced use and cancellations of trips to FWS. Not only is this an injury to the individual recreating, but also to the communities whose businesses cater to the tourist.

The reputation of FWS as a recreation destination can be repaired in part through offering an improved access to the region impacted. The loss of revenue to the communities because of a reduction in the number of potential visitors to FWS, both short term and long term, can be mitigated by offering an attraction to those who may exist under the perception that irreversible damage occurred and that their experience will be marred by that damage.

People who formerly recreated heavily in areas such as Knight Island, now look for other areas that are free from the oil impacts. Their displacement may come from actual oil sighting and reduced wildlife sightings or from changed perceptions of the area. As a means to give these people replacement opportunities, trails give them an enhanced recreation opportunity in another area that

**RECREATION RESTORATION PROJECT PROPOSAL**

**PROJECT NAME:** "Mor-Pac Hill" Campground Improvements

**SPONSOR:** The City of Cordova

**PROJECT DESCRIPTION:** Mor-Pac Hill is located directly across Railroad Avenue from the old Mor-Pac fish processing plant. It is less than a mile from downtown Cordova and a very short walk from the Cordova ferry dock. The Mor-Pac complex is under new ownership and is now known as Cannery Row Inc. Cannery Row Inc. owns the property that the campground is located on.

The existing campground contains 15 to 20 good campsites for tent campers. The site is located on a nine acre parcel and therefore, has the potential for a number of additional camp sites. The campground was constructed during the summer of 1989 as a direct result of the Exxon Valdez oil spill. During that period, the City was inundated with clean-up workers, people seeking work on the clean-up, and various other visitors. The City had no legitimate campground at that time and this one was quickly constructed under emergency conditions. The construction of this campground was a cooperative effort by the Chugach Alaska Corporation, owners of the Mor-Pac plant at that time, and the City of Cordova. Chugach provided the land and the City constructed a waterline and other basic improvements.

Since that time, the campground has fallen into disrepair. No one is currently responsible for managing and caretaking the area. The new owners do not have the resources nor the time to operate a campground and have posted no trespassing signs on the property. Campers have still been using it however, and this has resulted in periodic problems with litter, garbage, violence, trespass, and vandalism. The City is experiencing an increase in visitors every year and it still does not have a good tent campground. We desperately need to develop these types of facilities. This campground provides us with an opportunity to enhance an already existing facility.

This area has great potential because it already has 15 to 20 excellent camping sites, the potential for more sites, and an excellent location. It is less than a mile from both downtown Cordova and the Fleming Spit Recreation area. It is soon to be connected to downtown by a new bike trail. It is a very short walk from the Cordova ferry dock and it is close to trails that lead or will lead into the proposed Mt. Eyak State Park.

We propose to use EVOS recreation restoration funds to improve this campground so that it will be a safe and enjoyable experience for

tent campers. We would begin by purchasing the parcel from the owners who have expressed a willingness to sell. The improvements we envision include chain link fencing to improve safety and protect other unrelated facilities, a bathroom and shower facility, a short sewer line, and various site improvements such as gravel and tent platforms. Following is a projected budget for this project:

Projected Budget:

Facility/Work Task	Estimated Cost
Land Acquisition	\$150,000
Surveying	\$20,000
Bathroom Facility (with showers)	\$100,000
Sewer Line (300 ft.)	\$40,000
Chain link Fence (8 ft. high, 400 ft. Installed)	\$20,000
Tent Platforms	\$20,000
Gravel, Wood misc. materials	\$10,000
<b>Total Project Cost</b>	<b>\$360,000</b>

**POTENTIAL CONFLICTS:** The current owners of the property have closed the campground and posted no trespassing signs. People still camp there without permission. The owners have indicated a willingness to sell this property and have stated that they believe a campground is a good use for the site. We propose to eliminate existing conflicts by giving campers a safe and clean place to camp.

There are no other conflicts with existing uses or adjacent landowners that we are aware of. The area is surrounded by woods and we believe that a campground is an appropriate use of the parcel.

**LINK TO EVOS INJURY:** There are two specific links to injuries suffered as a result of the oil spill. First, this campground was originally built in response to the influx of clean-up workers and job seekers. The City was overwhelmed by this in-migration and was unable to provide the services necessary to accomodate these people. As a result, the City was forced to build this campground under emergency conditions.

Second, the oil spill has created a heightened awareness about Prince William Sound in general and Cordova in particular. People have become increasingly aware that 1) Cordova suffered and continues to suffer great economic and emotional damage due to the spill and 2) that there are outstanding recreational opportunities in and around Cordova (especially since this area of the Sound was

# RECREATION RESTORATION PROJECT PROPOSAL

Project Title: Prince William Sound Public Use Cabins

## Project Description:

There are several areas in Prince William Sound(PWS) that would benefit from additional public use cabins. The public has expressed a need for some additional public use cabins for recreation use and for health and safety reasons. Positive comment has been gathered through federal, private and state surveys and through public and private meetings. The center of the Sound, the Valdez area, and the Knight Island area all have few public use cabins. People have expressed general support for more cabins and some have given specifics.

Small public use cabins would be placed in areas that have an acceptable anchorage nearby or a mooring buoy. The cabins would be visually screened from the water to protect the aesthetics. Toilet facilities would be included with each cabin. Cabins would only be built in accordance with the existing appropriate management plans. Cabins would then be managed by appropriate State, Federal, or private land managers. Cabins would be available for use for a fee through the appropriate land manager. User fees from cabin rentals would be available for cabin maintenance, although rental fees would never fully recover operating costs.

Cabins would be built in the following locations:

- |                           |                         |
|---------------------------|-------------------------|
| Jackson Hole(Glacier Is.) | Bass Harbor(Naked Is.)  |
| Cabin Bay(Naked Is.)      | Jackpot Bay             |
| South Ester Island        | Granite Bay(Esther Is.) |

What recreation resource or service does this project restore and how?

In some areas of PWS the quality of recreation experiences was and still is injured by initial and persisting oil from the Exxon Valdez Oil Spill. Oil on beaches, reduced wildlife sightings, contaminated food sources, and evidences of cleanup activities in many parts of the Sound affect former and potential users of the Sound. Damaged perceptions of visitors or potential visitors caused misplaced use and cancellations of trips to PWS. Not only is this an injury to the individual recreating, but also to the communities whose businesses cater to the tourist.

Other areas of the Sound are receiving increased use with the new notoriety of the Sound. With the increased media coverage of the spill, PWS became a household name. More people are seeking recreation experiences in PWS. Cabins increase the recreation opportunities available. This can be used as a replacement for some of the dispersed recreation opportunities lost in some parts of the Sound.

The reputation of PWS as a recreation destination can be repaired in part through offering consistent quality recreation

opportunities within the region impacted. The loss of revenue to the communities because of a reduction in the number of potential visitors to PWS, both short term and long term, can be mitigated by offering an attraction to those who may exist under the perception that irreversible damage occurred and that their experience will be marred by that damage. Offering public use cabins may be an attraction that will improve their experience.

Placing public use cabins also is an important health and safety issue. Emergencies, especially with winter boating, force people to take shelter on land. A system of cabins strategically placed through the Sound may improve the chances of survival for some boaters.

**Estimated Cost:** The site design, materials and placement of each cabin will cost approximately \$60,000 for a total cost of \$360,000 for the six cabins.

The cost of cabin maintenance would be assumed by the agency managing the uplands.





The National Outdoor Leadership School

133 Main Street, Lander, Wyoming 82520-3126  
307-332-6973  
Fax 307-332-3631

Jim Ratz  
*Executive Director*

~~1~~ 13

September 27, 1993

Mr. Wyn Menefee  
PWS Recreation Project Working Group  
P.O. Box 107001  
Anchorage, AK 99510-7001


Dear Mr. Menefee:

Pursuant to our recent telephone conversation, I am enclosing The National Outdoor Leadership School's recreation impact research proposal. Please submit this proposal to PWS Recreation Project Working Group for funding consideration.

This three phase project would be the first to address recreational user impact and identify ecosystem processes potentially affected by this disturbance. In addition, it would assist in providing valuable information to users and management professionals on low impact backcountry techniques.

Thank you for this opportunity. If I may be of any further assistance in this matter or if you require additional information please do not hesitate to contact me.

Sincerely,

  
Christopher Monz  
NOLS Research Manager  
307/332-1272

## **Recreation Impacts in Prince William Sound: Displacement of users and disturbance of recreation areas.**

A proposal for research submitted to the Prince William Sound Recreation Project Work Group for the Exxon Valdez Oil Spill Trustee Council

Submitted by

### **The National Outdoor Leadership School**

Christopner Monz  
Coordinating Principal Investigator  
Research Manager  
National Outdoor Leadership School  
Lander, WY

Don Ford  
Alaska Logistics Coordinator  
Alaska Branch Director  
National Outdoor Leadership School  
Palmer, AK

---

#### NOLS Scientific Advisory Board Members

Mary Arthur  
Department of Forestry  
University of Kentucky  
Lexington, KY

David Cole  
Intermountain Experiment Station  
USDA Forest Service  
Missoula, MT

Wes Henry  
Director of Wilderness and Ranger Activities  
National Park Service  
Washington, DC

Peter Landres  
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Blacksburg, VA

Wyllys Terry  
NOLS Board of Trustees Member  
The Regional Laboratory  
Andover, MA

Susan Ruddy  
Alaska Nature Conservancy  
Anchorage, AK

# 14  
Unique — even in Alaska!

## THE CITY OF WHITTIER

September 30, 1993

Mr. Wyn Menefee, Alaska Dept. of Natural Resources  
Mr. Steve Hennig, USDA Forest Service  
Prince William Sound Recreation Project Work Group  
Exxon Valdez Oil Spill Trustee Council  
P.O. Box 107001  
Anchorage, Alaska 99501

Re: Request for Whittier Trails Project Via EVOS Funding

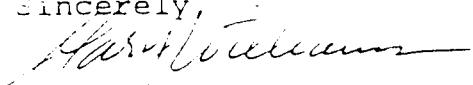
Dear Wyn and Steve:

The attached project narrative and map support a request that this project be included in the 1994 EVOS Work Plan. This request is predicated on the fact that western Prince William Sound suffered severe oil spill damage in 1989 from the Exxon Valdez incident and thus experienced damage to recreational resources and services.

A small trails system in the Whittier area will help meet a need as expressed by the public in the Summary of Public Comment on Alternatives of the Exxon Valdez Oil Spill Restoration Plan published in September, 1993. In that report 70% of respondents favored funding options for human use. The figure meets with that generally expressed by visitors traveling to and through western Prince William Sound. The most asked question in visitor information centers and of locals by travelers is, "where are the hiking trails?"

We look forward to being included in the PWS Recreation Project Work Group.

Sincerely,

  
Gary Williams  
City Manager

# RECREATION RESTORATION PROJECT PROPOSAL

PROJECT TITLE: WHITTIER TRAILS ACCESS PROJECT

## PROJECT DESCRIPTION:

Whittier is the only western access to Prince William Sound. The area has long been utilized by residents of southcentral Alaska as a jumping off point for marine recreation activities including sightseeing and sportfishing. In addition to marine activities there is a long standing desire among travelers to hike in the mountainous terrain of the area.

This trails proposal was developed by the City of Whittier in concert with local hikers in order to identify the hiking terrain that accesses the most favorable land features while presenting only moderate difficulty even in the steepest terrain. The project was designed to create a network of trails amounting to a little more than 5 miles in total. A map of the proposed trails is attached.

The attractiveness of this trails project is that with comparatively little effort and expense hikers can experience the range of ecosystems from saltwater to high country tundra in the space of a half-hour's hike. There are few, if any, places in this region of Alaska that offer such an experience so close to large population centers. In addition, a considerable portion of the trails need little more than brushing-out and signage to help hikers stay on the trail.

## PROJECT CRITERIA FOR RESTORATION OF RECREATION RESOURCE

There is a palpable perception among former and potential users of the Sound that the region was heavily impacted by the Exxon Valdez oil spill. The perception that the beaches and hence recreational opportunities were permanently damaged is substantial. The impact on tourism was immediate. Companies offering tours in the region reported a 25% cancellation rate in 1989, the year of the spill. The continued perception of damage to the recreation environment and attendant loss of revenue continues today.

The reputation of western Prince William Sound as a recreation destination can be repaired in part through offering an improved access to the region impacted. The loss of revenue to the community because of a reduction in the number of potential visitors to western Prince William Sound, both short term and long term, can be mitigated by offering an attraction to those who may exist under the perception that irreversible damage occurred and that their experience will be marred by that damage.

## *Evaluation Criteria*

### *I. Link to Injured Recreation Resource of Service:*

There is a perception that Prince William Sound is no longer the pristine recreation resource that it was prior to the oil spill. The primary purpose of the Recreation Education Information Center is to reeducate the public and inform them of the varied opportunities available.

### *II. Influence on other restoration projects or objectives or impact on other injured resources or services.*

The Recreation Education Information Center acknowledges the success of the oil spill cleanup and the positive effects that time has had in restoring the Sound. It is also through the distribution of information, brochures, and the PWSTC's Vacation Guide, that the Recreation Education Information Center directly supports and enhances marketing efforts of the private enterprises and communities harmed by the oil spill.

### *III. Needed or desired public service, facility or amenity*

As a primary gateway to Prince William Sound with 190,000 people traveling to Western Prince William Sound through Portage each year and over one million traveling on the New Seward Highway past Portage, there is an overwhelming interest, from a wide cross section of the public, on the recreation opportunities available and the overall health of Prince William Sound.

### *IV. Conflict among public users and interest groups*

The PWSTC is the only member based group that draws its membership from local, state and federal government, native and private individuals and business concerns in Prince William Sound. There is a strong consensus that the Recreation Education Information Center is the most valuable and cost effective use of our limited financial resources.

### *V. Consistent with land / area attributes and applicable management plans*

The Recreation Education Information Center exists and was built with the approval of the Alaska Railroad. The PWSTC is an advocacy group for local, state, and federal governments, native corporations, individuals and businesses in the public and private sectors in Prince William Sound.

## ***VI. Economic Feasibility***

The PWSTC is a non profit 501 C3 corporation. Its primary source of funding since its inception in 1987 has been fund raisers such as the Annual Regatta on Prince William Sound, corporate grants, and various membership support.

We believe that the first year of success of the Recreation Education Information Center and the maintaining of a positive balance sheet represents a worthwhile service to the membership of the PWSTC and the public.

According to the most conservative estimates based on a no growth scenario the capital cost of servicing each member of the public that seeks information at the Recreation Education Information Center would be about 11 cents per person;  $[(\$60,000/20 \text{ years}) / (150 \text{ days per season} \times 150 \text{ people per day}) = \$.12 / \text{person}]$ . All operating cost will be the sole responsibility of the PWSTC and funded through events such as the annual Regatta, corporate sponsorships and membership dues.

## ***VII. Number of people or user groups benefiting***

The Recreation Education Information Center is supported by seventy member organizations representing a cross section that includes the U.S. Forest Service, Alaska State Parks, the cities of Whittier, Cordova and Valdez, the VCVB, the ARR and AMHS to name just a few. A large cross section of the public currently seeks information about the varied recreational opportunities in Prince William Sound. We believe there will be significant growth in Prince William Sound as infrastructure is added and as road access develops along with new visitor destinations in the sound. However, even assuming no growth, we believe the Recreation Education Information Center provides an indispensable mechanism in promoting the recreation opportunities in Prince William Sound.

## ***VIII. Displacement of current users***

The Recreation Education Information Center will not displace any known users.

## ***IX. Adjacent Land Management***

Even with the proposed Whittier Access Project, we believe the Recreation Education Information Center is positioned in the best possible location to promote Prince William Sound and service to the public.

## ***X. Change in Use Patterns***

The Recreation Education Information Center enhances and promotes recreation opportunities, land management projects and private businesses that were in existence at the time of the spill.

not oiled). The result is a marked increase in the number of visitors coming to this community. The City still does not have the capability to accommodate these visitors; especially those who want to travel by tent and backpack.

**ECONOMIC FEASIBILITY:** This project will not require any subsequent or incremental funding by the EVOS Trustees. After the campground is improved, it will be managed by the City of Cordova in a way that will make it self supporting. User fees will be implemented to pay for maintenance and upkeep.

**CONSISTENCY WITH SURROUNDINGS:** As noted above, we believe a campground is consistent with the character of the area. The campground is surrounded by forest for the most part. There are no residential areas close by. The nearest facilities are the Cannery Row complex and the Cordova Electric Cooperative power plant. Both are far enough away from the campsites that we do not expect any adverse impacts or conflicts.

**NUMBER OF PEOPLE BENEFITTING:** There is only one legal place to pitch a tent within the City Limits at this time. We believe this campground would be used to capacity during the summer months. We estimate that this could translate into approximately 4,800 camper days. (20 sites, 2 people each, 120 day camping season).

It could also be argued that this facility would benefit the entire community. Since campground space is extremely limited in Cordova, campers are forced to camp wherever they can find a suitable piece of woods. This has resulted in a variety of problems for the community including trespassing, litter, sanitation problems, and violence. This affects everyone and the City would be better able to control these problems by directing campers into a safe and well equipped campground.

**DISPLACEMENT OF CURRENT USERS:** There would be no displacement of current users. The only people using the property now are campers who are camping there illegally. We propose to resolve this problem by providing these people with a legal and convenient place to camp.

**ADJACENT LAND MANAGEMENT:** Lands immediately to the North and South of this parcel are privately owned. They are undeveloped at present and are unlikely to be developed in any intensive way because of the extremely steep topography. The parcel is bounded by Railroad Ave. and the Cannery Row Complex to the east and by City and State land to the west.

**INFLUENCE ON OTHER PROJECTS:** This project will not have any influence upon any other projects that we are aware of. There are no other intended uses for this property.

is free from oil.

Creating this new opportunity will actually concentrate some recreation use that might otherwise impact recovering species in other areas. Trails can be used to direct people away from nesting areas of shore birds and control use near salmon streams.

**Estimated Cost:** The approximate cost to build a mile of wilderness quality trail that could sustain continual use is \$30,000. The cost of the high quality interpretive trail portion on Esther Island is \$50,000 including the signing, kiosks and boardwalk.

	Valdez Trail	\$210,000
	Whittier Trail	\$300,000*
Pro, 30	Esther Island Trail	\$240,000
	Interpretive Trail Portion	\$ 50,000
Pro, 30	Surprise Cove Trail	<u>\$120,000</u>
	Total for 29 miles of trail plus the interpretive trail	= \$920,000

\* Note that \$180,000 could be dropped if a road is put in to Neptune Point. This brings the total down to \$740,000.



## PROJECT COST:

This proposal contemplated a trail system that is roughed out to the extent that the trail is clearly marked and signed but has no substantial construction elements. Given the routes proposed little construction would be necessary or even desirable. The only other element of importance is appropriate signage to denote where trails converge and the destination of various routes.

The cost per mile of trail under this scenario is estimated, based on information from Alaska State Parks, at ~~\$30,000.00~~ per mile. Inasmuch as the trail proposed is approximately 5 miles the total cost for this project is ~~\$75,000.00~~.

\$ 150,000.00

## PROJECT RATING:

### 1. Needed or Desired Amenity:

It is well recognized among tourism groups, state and federal agencies whose mission is multiple use management of public lands and the City of Whittier, that a system of trails would be of great value to the nearly 200,000 visitors who visit western Prince William Sound annually. Visitor information services and local residents report overwhelmingly the most asked question of travelers is, "where are the hiking trails". It should also be noted that with the advent of improved access to western Prince William Sound in 1997, the number of annual visitors is expected to increase to 750,000 in the Low Visitor Scenario. Therefore, the development of trails will add a significant attraction to the area and spur the local economy by providing visitors with a reason to explore the area.

### 2. Conflict Among Users and Interest Groups:

Inasmuch as there are no trails in the area there is no history of use except among a few local hikers. Local hikers welcome the trails and have assisted in the establishment of the routes proposed in this project. Clearly, 5 miles of trails will not be enough in 1997 and beyond for the purist who wishes to walk an established trail and see no other humans. It is conceivable that in the short term additional trails would be established in the further reaches of the Passage Canal area for the more adventuresome.

### 3. Link to Injured Recreation Resource or Service:

First, as noted above, there is substantial evidence that tourists and recreationalists who utilized western Prince William Sound perceive that the oil spill damaged the integrity and beauty of the region. Some 25% of scheduled passengers on tours canceled their trips in 1989. Lingering economic impacts are likely. This reputation can be partially repaired by providing access to the area the Sound hardest hit by the spill.

Second, oil spill funds have already been allocated to help construct permanent year-round access to the current Whittier townsite through the existing railroad tunnel. The area will experience a projected ten-fold increase in visitors by the turn of the decade, but it has no financial resources to cope with this visitation or provide amenities to visitors when they arrive.

Third, the City of Whittier experienced two key financial losses due to the oil spill. Because of the demand for workers by Exxon's contractors during the spill clean up in 1989 and 1990, the federal census found that the city no longer qualified for Community Development Block Grant funds because residents income was above federal middle income levels. It was not until late 1993 that we were able to present figures to the federal government which showed we are indeed a "low and middle income community". The loss to the city by not being eligible for grants amounts to hundred of thousand of dollars.

Fourth, because of the comparatively high wages paid to clean-up workers during the spill, the city was forced to increase the wages of its key employees in order to keep them.

Financial losses such as those described herein, in the absence of direct payments, can only be recovered by providing a means by which the community can attract visitors and enhance its tourism industry.

#### **4. ECONOMIC FEASIBILITY:**

The one time investment of \$75,000.00 in a 5 mile trail system will be cost beneficial inasmuch as it will meet the immediate needs of thousands of recreationalists who can be attracted to the area. The cost of maintaining such an investment will be small since little construction will be done. Occasional brush work and sign re-erection are the only maintenance items.

#### **5. CONSISTENCY WITH LAND/AREA ATTRIBUTES**

Whittier's Comprehensive Plan calls for the creation of hiking trails as a means of expanding onshore recreational opportunities as a means of spurring the communities tourism industry. The land proposed for trails is managed by the U.S.D.A. Forest. The area proposed for trails is not appropriate for multiple uses. The use of the land for recreational hiking trails would enhance recreational opportunities in the area.

#### **6. NUMBER OF PEOPLE OR USER GROUPS BENEFITTING:**

This trails project will be the first onshore recreational development of any size in memory. Based on the number of inquiries about where to hike and the large influx of

additional visitors projected for 1997 and beyond, this project will serve many tens of thousands of visitors in the years to come.

#### **7. DISPLACEMENT OF CURRENT USERS**

As noted above, the only current users are local hikers who are willing to bushwhack through the forest. They welcome the prospect of marked hiking trails.

#### **8. ADJACENT LAND MANAGEMENT**

The City of Whittier and the U.S.D.A. Forest Service are the only two land owners in the area. This trail project will only occur on Forest Service managed land. There is no city land adjacent to the Forest Service land on which the trails would be constructed.

#### **9. INFLUENCE ON OTHER RESTORATION PROJECTS/OBJECTIVES:**

This restoration project would enhance the proposed project to access Shotgun Cove via road to provide recreational opportunities to visitors.

PASSAGE CANAL

SEE MAP 2 FOR DETAIL

SEE MAP 1 FOR DETAIL

B  
LEWISTOWN  
COVE  
SUBDIVISION

farm area

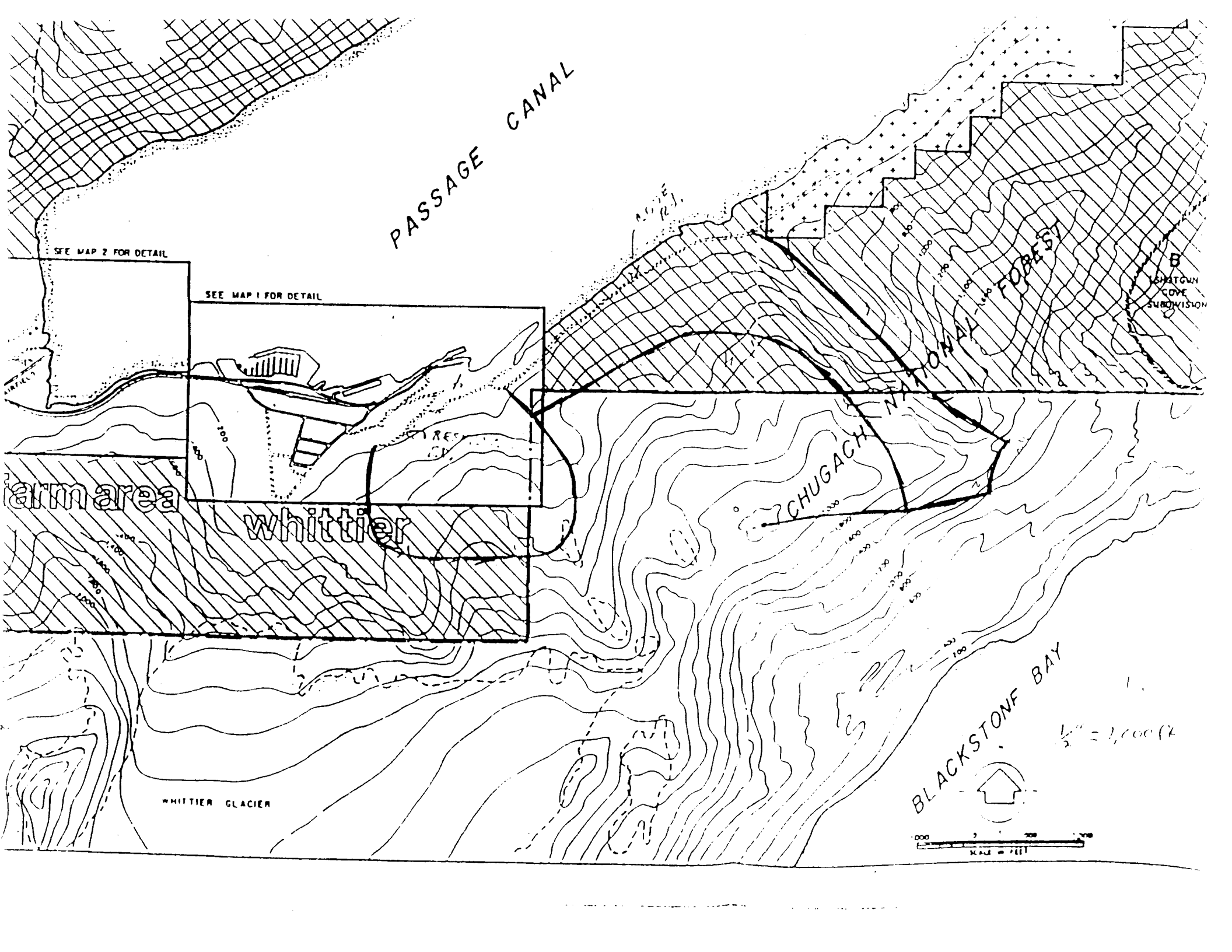
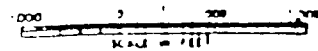
whittier

CHUGACH NATIONAL FOREST

WHITTIER GLACIER

BLACKSTONE BAY

1/2" = 1,000 FT



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

**Title of Project:** Cordova's Mini Imaginarium

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

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

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

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

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

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

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

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

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

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

**Name, Address, Telephone:**

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

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

# **RECREATION RESTORATION PROJECT PROPOSAL**

**Project Title:** Culross Passage Administrative Site

**Project Description:**

Build an Administrative Site at the north entrance of Culross Passage. Two cabin-type structures would be built: one structure would be used as a visitor information center, the other structure would house seasonal employees. The site would be developed on land managed by the USDA Forest Service; the facility would be cooperatively managed by the Forest Service, State of Alaska Department of Natural Resources, and Native Village Corporation personnel. Information from all land managers in Prince William Sound affected by the oil spill would be readily available to the public. A public dock would be built for access to the site and for boats needed to support the operation. The north entrance of Culross Passage is the best location to intercept the most users because of its central location. General monitoring of western Prince William Sound has shown that the majority of users use Culross Passage during their recreation use.

**What recreation resource or service does this project restore and how?**

The Exxon Valdez Oil Spill put Prince William Sound on the map and into the recreating public consciousness in a way that could not be duplicated by the best advertising firm in the country. In some parts of the Sound, recreation use has increased far above expected growth rates primarily due to the new notoriety of the Sound. Use is expected to increase approximately 10% each year. Increased notoriety received as a result of the oil spill = increased use. Currently, there is little Forest Service, State of Alaska, or Native Village Corporation management presence in the Sound, with the exception of occasional boat trips during the summer months.

And Administrative Site at the north entrance to Culross Passage would restore the following recreation services: sea kayaking, recreation boating, fishing, hunting, skiing, sailing, hiking and camping. Recreation users who once used beaches on Knight Island and other oiled locations need to know where to go now. The information/administrative site would provide an excellent service to all displaced recreation users by giving up-to-date information about where to go for replacement opportunities. A current listing of camping areas, hiking trails, mooring facilities, fishing opportunities, hunting opportunities, and recreation cabins that were unaffected by the oil spill would be available. This site would also showcase the areas that had been affected by the oil spill, but cleaned up and ready for recreation use.

This project also helps restore recovering resources by managing public use. Resources will be less affected by human misuse or over use if the public is educated about proper camping techniques like Leave-No-Trace principles. Cultural resources presently receive little active protection from the land managers. With an

active management presence in Prince William Sound, land managers could better ensure that users are better informed about regulations, personal safety and protection of the cultural and natural resources.

<b>Estimated Cost:</b>	\$ 50,000	Information Station
	50,000	Living Quarters
	<u>100,000</u>	<u>Public Dock</u>
	\$200,000	TOTAL



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

Title of Project: Science of the Sound education program

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

---

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

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

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

Estimated Duration of Project: 10 years

Estimated Cost per Year: \$52,546

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

Estimated Duration of Project: 10 years

Estimated costs per Year: \$ 487,632

Name, Address, Telephone:

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

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

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.

# RECREATION RESTORATION PROJECT PROPOSAL

Project Title: Acquisition of Important Recreation Lands in Prince William Sound

## Project Description:

Alaska State Parks/DNR proposes a program of small targeted purchases of important recreation access and development sites, ranging in size from one acre to several hundred acres. DNR would work with user groups, property owners, resource managers and others to identify acquisition possibilities on a willing-seller basis for the purchase of fee or partial interests in important sites. Criteria for site selection and evaluation would be developed in conjunction with the existing management plans.

After criteria and priorities are identified, an active program of site nominations, inventories, field investigations, negotiations, appraisals, and sales contracts would be initiated. On the larger tracts, some of this needed information has been gathered and compiled already by the EVOS Habitat Protection Work Group.

Most of the important sites for consideration are owned by regional Chugach Native Corporation and village corporations of Chenega, Eyak and Tatitlek. Acquisition or recreation easements on Native lands is discussed and supported by the state's Prince William Sound Area Plan, which was developed in cooperation with these corporations. These acquisitions could be managed as state marine parks, refuges, critical habitat areas, or special management areas. Many also have important fish and wildlife habitat values, so state and federal wildlife agencies would be consulted for information and guidance.

What recreation resource or service does this project restore and how?

Many of the most important outdoor recreation lands in the spill affected area are privately owned. Boaters and other visitors to the Sound and outlying areas often use these lands as if they were public, not realizing their private status and without the knowledge or permission of the owners. This widespread practice is known as "recreational trespass". Not only does this violate the owners' property rights, but over time, recreational opportunities in these areas will be lost as the lands are developed for other purposes, including settlement and timber harvest.

Before the spill, private ownership of these recreation sites was desirable because it offered an alternative mix of facilities and services, compared to the sites in public ownership. But the spill damaged many public sites, making the private sites valuable as a source for restoration through provision of equivalent resources.

Purchase of fee simple or other interests in important recreation lands will secure the land use for recreation many years in the future. Land acquisition should be considered restoration because

it compensates for the loss or degradation of spill affected lands. Land acquisition can also respond to new use patterns that have developed as a result of the spill. Some traditional areas are no longer as popular, while other areas have seen dramatic increases in visitation. These changing use patterns are forcing a re-examination of recreation management and development priorities, including land acquisition.

**Estimated Cost:** \$500,000 annually proposed for five years, starting in 1994.

## EXXON VALDEZ OIL SPILL PROJECT DESCRIPTION

**Project Title** : **Chenega Bay Marine and Service Center**  
**Project Category** : **Prince William Sound Recreation and Tourism**  
**Lead Agency** : **U.S.D.A. Forest Service**  
**Project Term** : **February 15, 1994 to September 30, 1994**

### THE HISTORY

Until the March 27, 1964 Earthquake, Chenega was a tranquil fishing village located on the southern end of Chenega Island in western Prince William Sound. Founded before the Russians arrival in the late 1700's, Chenega was the longest occupied village in Prince William Sound at the time of the earthquake. Moments after the earthquake, a tsunami destroyed all of the buildings in Chenega village with the sole exception of a single home and the village school. Over a third of the village residents were killed and the survivors were taken initially to Cordova and then were later resettled to the village of Tatitlek by the Bureau of Indian Affairs.

With the passage of the Alaska Native Claims Settlement Act, the former residents of Chenega formed the Chenega Village Corporation which acquired the right to select 76,093 acres around the old Chenega village township. The Natives enrolled in the Chenega Village Corporation selected their new village site at Crab Bay on Evans Island in Prince William Sound in March of 1977. This site was carefully chosen following extensive research as the site best able to meet the needs of the resident's subsistence lifestyle. The Chenega Corporation and the Chenega Bay IRA (Indian Reorganization Act) Council worked together to obtain funding for a road, a water and sewer system, electric generators, a boat and float plane dock and a school. The new village named Chenega Bay was finally occupied in 1984 following the construction of 21 Housing and Urban Development homes.

From 1984 through early 1989, the villagers of Chenega Bay enjoyed their subsistence lifestyle. In addition to their subsistence economy, Chenega Bay was rapidly becoming increasingly involved recreation and tourism activities. The Corporation had drafted an initial business plan that included significant recreation and tourism activities. Several commercial operators were inquiring about licenses to bring their ecotourists to the Chenega village site and surrounding lands. The Corporation had also been successful providing licenses to enter corporate lands to both the Department of Fish and Game and private commercial operators.

Then, in March of 1989, the Exxon Valdez Oil Spill changed the lives of Chenega Bay residents forever. The subsistence lifestyle they had enjoyed for decades was destroyed. Recreation and tourism inroads came to an abrupt halt resulting in a significant loss of recreation, tourism and subsistence services due directly to the Exxon Valdez Oil Spill. The need for enhancement and replacement of these damaged resources clearly exists.

## THE PRESENT SITUATION

An airport and access road at Chenega Bay are presently under construction with a spring of 1994 target completion date. The new airport and access road will facilitate increased recreation and tourism use by allowing individual and commercial aircraft to land at Chenega Bay and travel to the village by road.

In addition to the new airport and access road, a new dock is scheduled to be completed in 1994. The dock site selected by Chenega Bay villagers utilizes the existing road system and provides access to the airport. The new dock will provide easy access to sport fishermen, ecotourists, boaters, photographers, hikers, hunters and daytrippers.

Additionally, Chenega Corporation operates a motel/bunkhouse and restaurant at the village site. Plans to enhance existing facilities to accommodate increased numbers of people are being developed. According to recent market studies, there is a demonstrated need during the 120-day fishing and tourist season for fifteen rooms per night at Chenega Bay.

## THE PRESENT NEEDS

Chenega Bay's recreation and tourism services were significantly impacted by the Exxon Valdez Oil Spill. Chenega Bay also suffered the loss or injury of many other resources and services. The need for recreation and tourism resource restoration in Chenega Bay is very much a reality.

Once Chenega's new airport and dock become operational, a substantial increase in demand for recreation and tourism support activities is anticipated. Aviation fuel, gasoline and diesel are not presently available commercially at Chenega Bay.

In order to enhance, restore and replace recreation and tourism activities lost at Chenega Bay due to the Spill, there is an existing need to relocate the bulk fuel storage facility adjacent to the dock facilities. This new location would allow fuel to be accepted and delivered in an environmentally safe manner. The present bulk fuel facility and power plant are in very close proximity to each other. The fuel line from the dock to the bulk fuel tanks has been inoperative for several years with fuel presently being delivered to Chenega Bay in a fuel truck that is brought to Chenega Bay from Whittier in a landing craft. Moving the bulk fuel facility to a location near the dock would allow better access to the recreators and tourists visiting Chenega Bay.

Secondly, there is a need to upgrade and move the existing power plant. Presently, the power plant is located near the bulk fuel facility and it does not provide enough power to support increased recreation and tourism demands.

An initial feasibility study is needed to select the new site for the bulk fuel storage facility. A feasibility study is also needed to determine the increased power requirements for the power plant and to provide a new site selection. Funds to move the power plant and bulk fuel facility also need to be obtained.

Finally, there is a need to complete construction of the bulkhead dock in support of the transportation and marine service facilities presently scheduled to be constructed at Chenega Bay. The initial phase one bulkhead dock funding was obtained through the Alyeska Pipeline Service Company Settlement with the State of Alaska. The bulkhead dock will be constructed over the New England Fish Company's abandoned herring saltery after it has been removed. Removal is scheduled for spring of 1994. The bulkhead dock facility will provide commercial and noncommercial boats, kayaks, tour operators and rental businesses the opportunity to dock at Chenega Bay. Funding to complete construction of the bulkhead dock needs to be secured.

## THE SUMMARY

Chenega Bay is asking for funding from The Exxon Valdez Trustee Council based upon the restoration of recreation and tourism services that were lost due to the Exxon Valdez Oil Spill, to enhance and otherwise replace services damaged by the Spill and services to replace or substitute for injured, lost or destroyed resources and affected services.

This project would create the necessary fuel and power needs of increased recreation and tourism to the Chenega Bay area and would allow the thousands of boaters, kayakers, commercial fishermen and tour operators presently dispatched from Whittier and Seward a place to recreate and tour in western Prince William Sound through the completion of a bulkhead dock.

Chenega's proximity to adjoining Federal lands and a nearby State Marine Park further enhances the opportunities available. Combined with the existing airport, roads, ferry system and lodging facilities, the enhanced power plant and fuel facility along with the completed dock would provide unparalleled recreation and tourism possibilities.

Chenega Bay resources and services damaged by the Spill would be greatly enhanced and replaced through this project.

## THE BUDGET

### BULK FUEL STORAGE AND POWER PLANT RELOCATION AND UPGRADE

Site Grading	\$ 300,000
New Fuel Storage & Lines	\$ 250,000
Fuel Distribution at Dock	\$ 50,000
New Power House and Generators	\$ 250,000
Engineering, Inspection and Administration	<u>\$ 170,000</u>

Project Total: \$ 1,020,000

### BULKHEAD DOCK AND UPLAND DEVELOPMENT

Bulkhead Dock	\$ 1,200,000
Boat Grid	\$ 200,000
Road and Fill	\$ 280,000
Area Lighting and Power	\$ 300,000
Water Extension	\$ 100,000
Engineering, Inspection and Administration	<u>\$ 312,000</u>

Project Total: \$ 2,392,000

# CHENEGA BAY MARINE AND SERVICE CENTER EVALUATION CRITERIA

## 1. LINK TO INJURED RECREATION RESOURCE OR SERVICE

Following the 1989 Exxon Valdez Oil Spill, recreational use of the Chenega Bay area significantly declined by both those living within and those living outside of the village. Today, recreation and tourism use is still much lower than it was prior to the Spill, due in part to the perception of the impacts that the Spill had on Chenega Bay. Personal recreational quality has also been severely impacted by the Spill through the persistence of oil on Chenega's beaches, a decline in the numbers of critters spotted following the Spill, tainted sources of subsistence foods, impacts to local archeological sites and through extensive clean up activities.

## 2. INFLUENCE ON OTHER RESTORATION PROJECTS OR OBJECTIVES OR IMPACT ON OTHER RESOURCES OR SERVICES

The Chenega Bay Marine and Service Center would enhance the goal of preserving the pristine and natural character of Prince William Sound by keeping a major development project near the village of Chenega thereby preserving the scenic qualities of the Sound. It would also provide for the long term economic viability of Chenega village. It would enhance recovery of the Sound by providing for a central use area that will help reduce pressures on recovering species. It would assist in replacing the lost subsistence lifestyle of Chenega Bay residents. It would restore and replace services that were lost by Chenega Bay residents as a result of the Exxon Valdez Oil Spill.

## 3. NEEDED OR DESIRED PUBLIC SERVICE, FACILITY OR AMENITY

The Chenega Bay Marine and Service Center would provide a gateway for tourists and recreational boaters to southwestern Prince William Sound that is presently inaccessible due to a lack of fuel supply services and adequate overnight accommodations.

## 4. CONFLICT AMONG PUBLIC USERS AND INTEREST GROUPS

The Chenega Bay Marine and Service Center creates no known conflicts among public users or interest groups. Rather, there has been strong support shown for this project by a large cross section of user groups such as sport and commercial fishermen, boaters, kayakers, hunters, flyers and commercial operators.

## 5. CONSISTENT WITH LAND/AREA ATTRIBUTES AND APPLICABLE MANAGEMENT PLANS

The Chenega Bay Marine and Service Center is very consistent with area management plans and attributes and enhances the existing recreational and tourism use of surrounding federal and state lands. The infrastructure proposed is very consistent with the Chenega village management plans of increased recreation and tourism use.



## **6. ECONOMIC FEASIBILITY**

The Chenega Bay Marine and Service Center ferry/emergency response dock, access road, one acre staging area and demolition of the old saltry has already been funded through the Alyeska Pipeline Service Company Settlement with the State of Alaska. Funding from the Exxon Valdez Oil Spill Settlement for the bulk fuel facility and power plant feasibility studies and relocation as well as bulkhead dock construction would provide the necessary services to make the Chenega Bay Marine and Service Center operational. Once completed, the Chenega Bay IRA Council would assume responsibility for maintenance of the bulk fuel facility and power plant requiring no additional EVOS monies. Funding for maintenance would be derived from power and fuel sales.

## **7. NUMBER OF PEOPLE OR USER GROUPS BENEFITING**

Recent market research indicates that over 420 noncommercial boats presently moored at Seward and Whittier are powerful enough to travel to Chenega Bay. Additionally, tour boats and kayaks dispatch thousands of people annually to Prince William Sound. As an example of numbers of people benefiting from the Chenega Bay Marine and Service Center, tour operators and kayak rental businesses contacted in the study expressed an interest in 720 hotel rooms per 120-day season. Power and sail boat clientele demand exists for 1,012 nights of lodging per season. Additionally, commercial fishermen, daytrippers, hunters and hikers would also benefit.

## **8. DISPLACEMENT OF CURRENT USERS**

The Chenega Bay Marine and Service Center will not displace any known current users.

## **9. ADJACENT LAND MANAGEMENT**

Chenega Bay surrounding lands are owned by federal and state governments and are managed for recreational and tourism use. Chenega Bay lands are also presently managed for recreational, tourism and subsistence use.

## **10. CHANGE IN USE PATTERNS**

The Chenega Bay Marine and Service Center promotes and enhances use patterns that existed prior to the Exxon Valdez Oil Spill. It would also provide access to areas previously inaccessible due to the lack of a full service marine center between Seward and Valdez.

# CHENEGA BAY MARINE SERVICE CENTER (CBMSC) EXECUTIVE SUMMARY

Presented by Chenega Bay IRA Council

## Introduction

Chenega Bay is located just north of Sawmill Bay on Evans Island in Prince William Sound (PWS), Alaska. The village of Chenega Bay, with a population of 96, was reestablished at this site in 1984 because the historic village site on Chenega Island, some 20 miles to the north, was destroyed by the 1964 earthquake and resulting tsunami.

The community of Chenega Bay has embarked upon a plan to seek significant funding for dock and port improvements with the goal of enhancing three natural advantages:

- 1) an excellent harbor, already recognized as a safe haven in bad weather;
- 2) a unique location, closer than any other settlement to the heart of the salmon-spawning habitat where the Prince William Sound fishing fleet harvests 48% of all salmon taken in Alaska;
- 3) a gateway for tourists and recreational boaters to the western part of Prince William Sound. At present, the visitor market is shut out of this whole area due to lack of harbor, fuel, and supply services. Chenega Bay is approximately 75 statute miles from both Seward and Whittier, one day's voyage for most power boats.

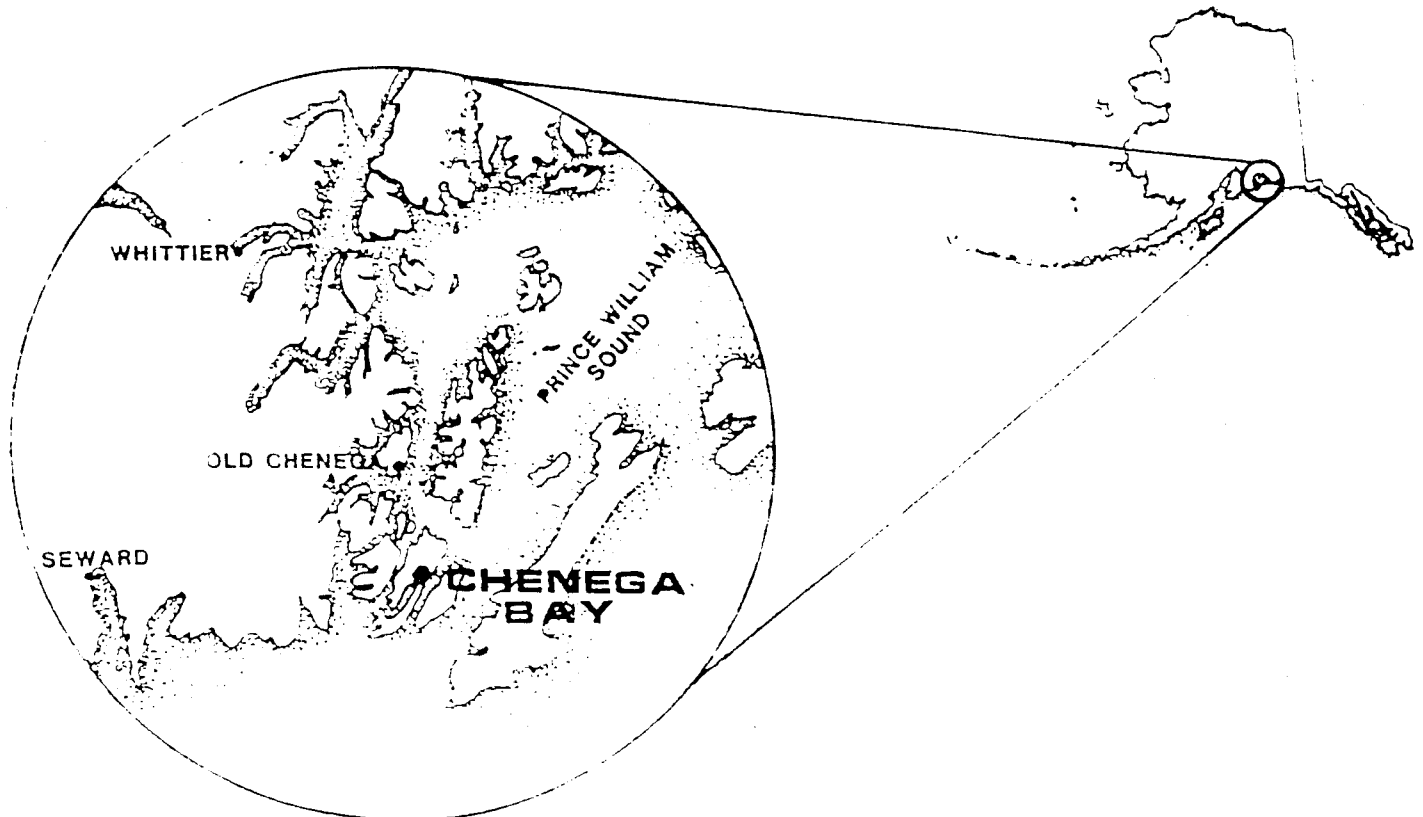
## Background

The Chenega Bay IRA Council has been planning for the development of the CBMSC since 1987. The Council initiated several planning studies beginning in 1990. The

planning has been coordinated by the Council and consists of market study of PWS fishery (1991), a market demand study of fishery and recreation markets (1992), an economic forecasting and financial planning (1992), and marine facility planning and engineering (1993). The results of the planning and studies are briefly highlighted here.

The PWS and the adjacent waters of the Gulf of Alaska are important harvest areas for commercial fishermen. There are 243 salmon purse seine vessels, with crews of four to six people, operating in PWS, and hundreds of larger longline vessels operating in the northern Gulf of Alaska. Fishing begins in April-May, peaks in August, and ends in October-November. The above-referenced studies attest to a strong and growing demand for marine services at Chenega Bay during the May-October period.

Again, according to the marketing studies, more than 420 noncommercial boats now moored in Seward and Whittier are powerful enough to make a trip to Chenega Bay a pleasant outing. In addition, the marinas of both communities dispatch thousands of boaters annually aboard vessels as diverse as kayaks and 120-foot boats outfitted for week-long excursions. As an example of demand for services in Chenega Bay, tour operators and kayak rental businesses contacted in the demand study expressed an interest in 720 hotel rooms per 120-day season. Power and sail boat clientele demand exists for 1,012 nights of lodging per season. This equates to a total need of 15 rooms per night.



**CHENEGA BAY MARINE SERVICE CENTER  
DEVELOPMENT PLAN  
ENGINEERS ESTIMATE (NOVEMBER 1993)**

**PHASE I - UPLAND INFRASTRUCTURE IMPROVEMENTS**

ITEM	UNIT	QUANTITY	PRICE	AMOUNT
SITE GRADING	L.S.	ALL REQ'D	\$300,000	\$300,000
NEW FUEL STORAGE & LINES	L.S.	ALL REQ'D	\$250,000	\$250,000
FUEL DISTRIBUTION AT DOCK	L.S.	ALL REQ'D	\$50,000	\$50,000
NEW POWER HOUSE & GENERATORS	L.S.	ALL REQ'D	\$250,000	\$250,000
TOTAL ESTIMATED CONSTRUCTION COST				<u>\$850,000</u>
ENGINEERING, INSPECTION, & ADMINISTRATION				<u>\$170,000</u>
<b>TOTAL PHASE I COST</b>				<u><u>\$1,020,000</u></u>

**PHASE II - INNER HARBOR DOCK & UPLAND DEVELOPMENT**

ITEM	UNIT	QUANTITY	PRICE	AMOUNT
BULKHEAD DOCK	L.F.	400	\$3,000	\$1,200,000
BOAT GRID	L.S.	ALL REQ'D	\$200,000	\$200,000
ROAD AND FILL	L.F.	1,400	\$200	\$280,000
AREA LIGHTING AND POWER	L.S.	ALL REQ'D	\$300,000	\$300,000
WATER EXTENSION	L.S.	ALL REQ'D	\$100,000	\$100,000
TOTAL ESTIMATED CONSTRUCTION COST				<u>\$2,080,000</u>
ENGINEERING, INSPECTION, & ADMINISTRATION				<u>\$312,000</u>
<b>TOTAL PHASE II COST</b>				<u><u>\$2,392,000</u></u>

**PHASE III - SMALL BOAT HARBOR DEVELOPMENT**

ITEM	UNIT	QUANTITY	PRICE	AMOUNT
FLOATING BREAKWATER	L.F.	700	\$2,500	\$1,750,000
SEAPLANE FLOAT	L.S.	ALL REQ'D	\$50,000	\$50,000
FINGER FLOATS	L.S.	ALL REQ'D	\$150,000	\$150,000
MARINE CRANE	L.S.	ALL REQ'D	\$50,000	\$50,000
BOATGRID	L.S.	ALL REQ'D	\$200,000	\$200,000
TOTAL ESTIMATED CONSTRUCTION COST				<u>\$2,200,000</u>
ENGINEERING, INSPECTION, & ADMINISTRATION				<u>\$330,000</u>
<b>TOTAL PHASE III COST</b>				<u><u>\$2,530,000</u></u>

**PHASE IV - MARINE SERVICE FACILITIES - PART A**

ITEM	UNIT	QUANTITY	PRICE	AMOUNT
ARTIFACT REPOSITORY	S.F.	4,000	\$120	\$480,000
RENOVATE EXISTING BLDG.	L.S.	ALL REQ'D	\$250,000	\$250,000
WATER & SEWER TO STORE	L.S.	ALL REQ'D	\$50,000	\$50,000
TOTAL ESTIMATED CONSTRUCTION COST				<u>\$780,000</u>
ENGINEERING, INSPECTION, & ADMINISTRATION				<u>\$158,000</u>
<b>TOTAL PHASE IV COST</b>				<u><u>\$938,000</u></u>

**PHASE IV - MARINE SERVICE FACILITIES - PART B**

ITEM	UNIT	QUANTITY	PRICE	AMOUNT
MARINE SERVICE FACILITY	S.F.	20,000	\$120	\$2,400,000
TOTAL ESTIMATED CONSTRUCTION COST				<u>\$2,400,000</u>
ENGINEERING, INSPECTION, & ADMINISTRATION				<u>\$480,000</u>
<b>TOTAL PHASE IV COST</b>				<u><u>\$2,880,000</u></u>

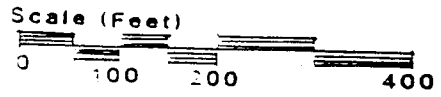
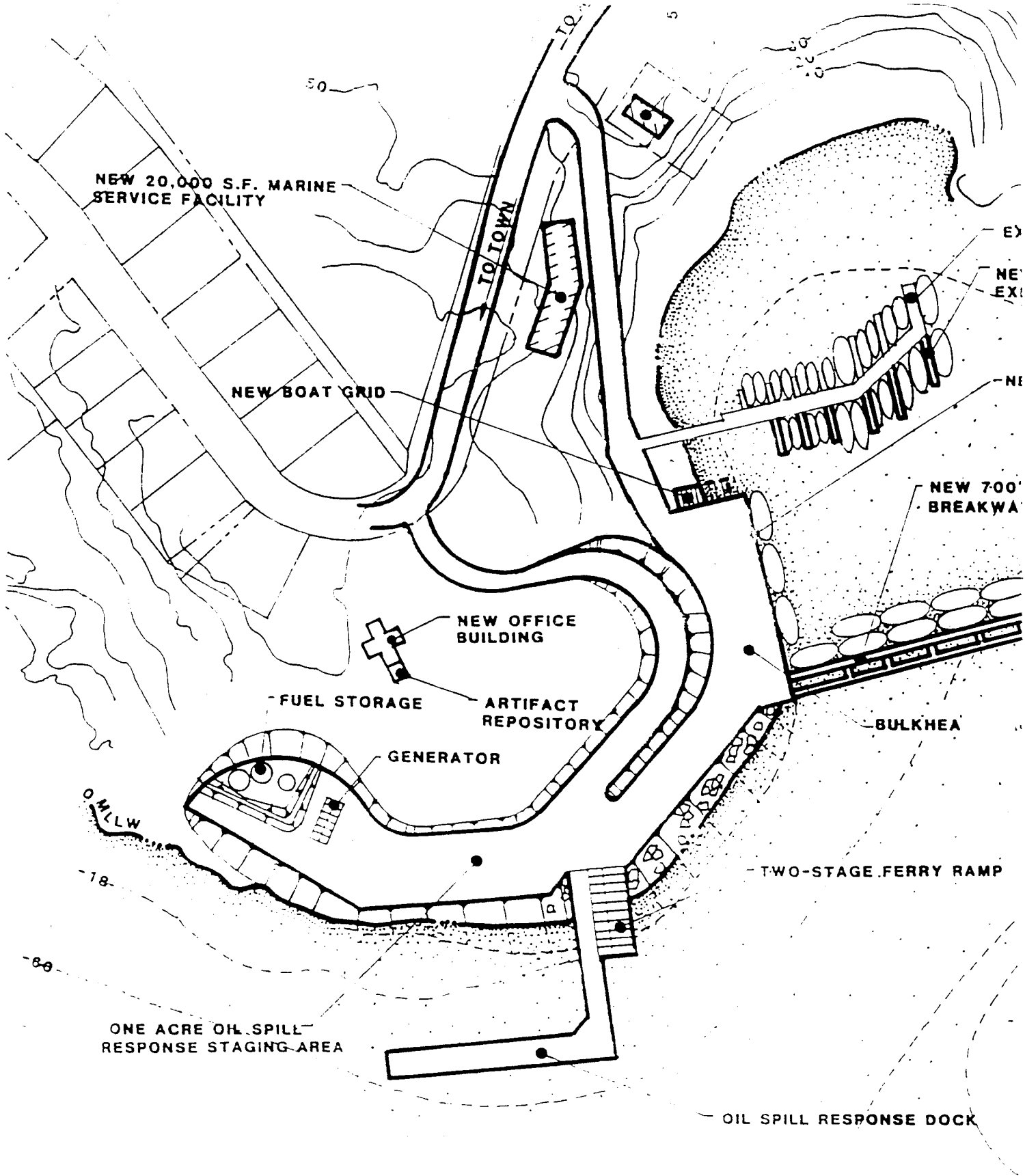
**OVERALL PROJECT COST** \$9,758,000

## CHENEGA BAY MARINE SERVICE CENTER PHASE FINANCING PLAN

Contained within the Alyeska Pipeline Service Company Settlement with the State of Alaska are \$14.5 million to be used in Chenega Bay and Tatitlek for docks, suitable for oil spill response and the MV Bartlett, and oil spill response staging areas including oil spill response equipment and supplies. Also mentioned in the Settlement agreement is removal of the old Saltery, in order to make way for the dock and staging area.

The Council is also looking to Exxon/State of Alaska Criminal Penalties Fund for construction of portions of the CBMSC. We are looking to that fund for local resource enhancement.

Chenega Bay is presenting the Exxon *Valdez* Trustees Council with a proposal for bulk fuel storage and power plant relocation, upgrade and construction, and bulkhead dock construction. The request is based upon the restoration of recreation and tourism services lost on account of the Exxon *Valdez* oil spill (EVOS), to enhance and otherwise replace services damaged on account of the EVOS, and services to replace or substitute for injured, lost or destroyed resources and affected services.



## CHENEGA BAY MARINE SERVICE CENTER PHASED CONSTRUCTION DEVELOPMENT PLAN

The proposed Chenega Bay Marine Service Center plan is being implemented with demolition of old salteries and debris removal. This will be followed by construction of the oil spill response dock and staging area. This dock facility will be capable of berthing many types of vessels including the state ferries MV Bartlett and MV Tustamena, Alyeska spill response vessels, fishing processors, supply vessels, and even tour ships.

This initial capital investment has been planned to integrate with following improvements all aimed at sound economic development in Chenega Bay.

The following phases will complement dock work expected to be completed by 1994.

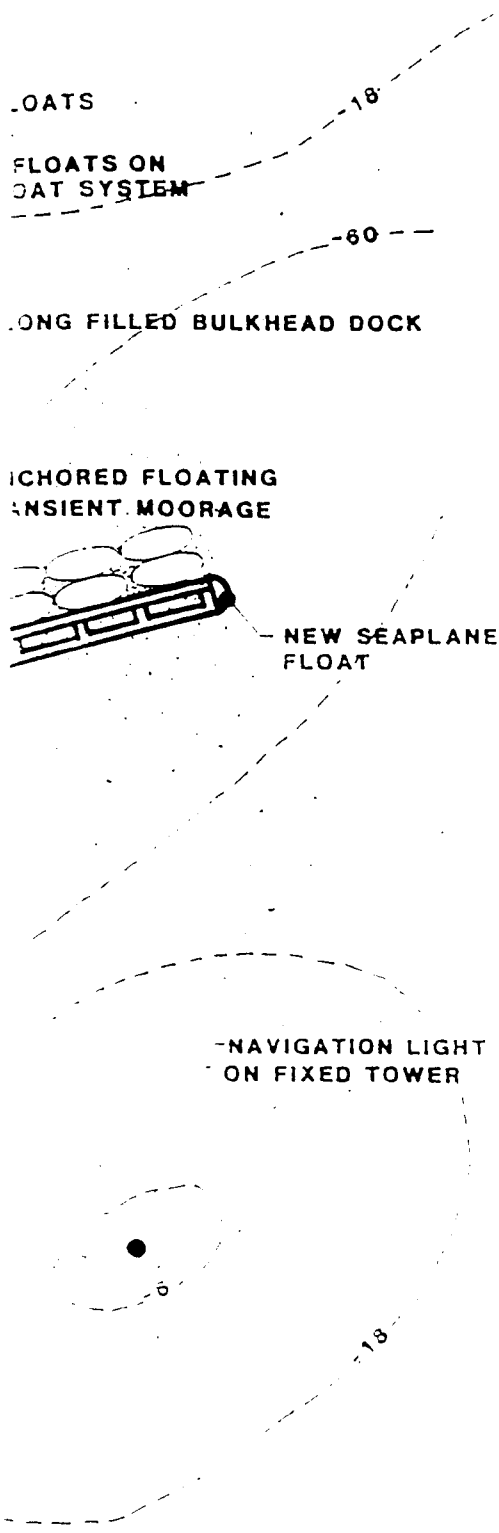
**Phase I** will replace and upgrade existing power and fuel supply and will consist of a new power house, generators, fuel storage, and power distribution lines to the new site. The new power site is planned in a location near the new dock to facilitate fuel handling and also this location will buffer generator sounds from the village.

**Phase II** of the following development is an extension of the initial dock project and will result in a bulkhead dock for fishing boats, more staging area, and road to provide better service to harbor floats and adjacent land.

**Phase III** of the development consists of improvements to the small boat harbor including construction of a breakwater, finger float addition to existing float boat grid, marine crane and a new seaplane float.

**Phase IV-A** creates upland amenities to service the needs of visitors and includes modification of an existing building into a bunkhouse with a shower/laundry facility, and also a museum/visitor/recreation center.

**Phase IV-B** completes the Chenega Bay Marine Service Center Development Plan and includes construction of the marine service facility a full service building which will provide supplies, food and lodging.



Peratrovich, Nottingham & Drage, Inc.  
Engineering Consultants

**CHENEGA BAY MARINE CENTER  
DEVELOPMENT PLAN**



The National Outdoor Leadership School

258 Main Street, Lander, Wyoming 82520-3128  
307-332-6973  
Fax 307-332-3631

Jim Ratz  
*Executive Director*

# 20

September 24, 1993

PWS Recreation Project Working Group  
P.O. Box 107001  
Anchorage, AK 99510-7001

Dear Working Group Members:

Enclosed you will find the National Outdoor Leadership School (NOLS) Leave No Trace multi-phase project and funding proposal which will address the minimum-impact educational needs of recreational users on Prince William Sound.

This proposal is not just about creating effective written and video tools for the concerned users of Prince William Sound. These tools are really based in NOLS' hands-on training and bias towards experience in the field. The booklets and pamphlets are developed from field training and research. The Masters training is a field course where the participants actually practice teaching the techniques and articulating their personal minimum-impact ethics. The goal of the national Leave No Trace program is to improve the way that the public views and uses America's wildlands.

Thank you for this opportunity. Please contact me if I can provide more detailed information on this proposal, the national Leave No Trace program, or NOLS' qualifications.

Sincerely,

Richard A. Brame  
NOLS Outreach & Training Manager

# Recreation Restoration Project Proposal

**Project Name:** Leave No Trace Educational Program

**Project Description:**

Through a Memorandum of Understanding signed in the spring of 1993, the National Outdoor Leadership School (NOLS) has become a partner with the U.S. Forest Service, National Park Service, and Bureau of Land Management in the national Leave No Trace (LNT) program. Leave No Trace is an educational program designed to give users the best minimum-impact techniques and ethics available for their recreational use of America's wildlands. NOLS, as the leader in backcountry education and leadership, has committed to develop and distribute LNT curriculum and educational materials for all major recreational environments nation-wide.

NOLS seeks funding from the Prince William Sound Recreation Project for a three phase Leave No Trace educational project. The phases can be funded and conducted as a whole or as separate and distinct projects. The three proposed phases also address a comprehensive variety of target audiences and learning styles while keeping to NOLS' traditional strength and philosophy: hands-on education works.

**Phase I:**

During the summer of 1994, NOLS will reproduce and distribute 10,000 *Leave No Trace Outdoor Skills & Ethics Temperate Coastal Zones* booklets which present the principles, ethics, and techniques of minimum-impact sea kayaking in southern Alaska (see the enclosed *LNT Skills & Ethics*). Guides, outfitters, hunters, tour group operators, and user groups will be targeted for this written information.

During the early spring of 1994, NOLS staff will adapt the existing *LNT Outdoor Skills & Ethics: Temperate Coastal* booklet into a shorter pamphlet format designed for use by casual users such as tour participants, clients, and interested travelers to the area. NOLS will work with the Forest Service, Alaska Department of Natural Resources, and organized user groups to distribute 50,000 copies of the LNT Coastal pamphlet during the 1994 and 1995 recreational seasons.

**Phase II:**

Over a two-season period, NOLS will train 100 grant-funded user group representatives as Masters of Leave No Trace. The LNT Masters program is a six-day field course which thoroughly covers the techniques and ethics of minimum impact use for a given environment and also teaches the Masters how to present LNT to others. This proven curriculum (see enclosed *LNT*



*Training Guide*) and pyramid-style of intensive training has the goal of improving the use and preservation of recreational lands and coasts.

Targeted participants will have a strong water /kayaking background, be interested in education, and will be in positions where they can teach others such as the public, youths, or clients.

### **Phase III:**

In order to educate recreationists well before they actually enter Prince William Sound in 1995, NOLS will form a challenge cost-share agreement with the Forest Service and others to create a brief (20 minute) educational video on Leave No Trace techniques and ethics in Prince William Sound and other similar temperate coastal environments. This video will utilize a professional production company and use the existing NOLS productions of *Soft Paths* and *Canyon Soft Paths* as basic models.

### **What Recreation Resource of Service does this project restore and how?**

The three proposed phases of the Leave No Trace program on Prince William Sound all serve to diminish the impacts caused by kayakers, tour groups, hunters, and other recreationists. This is particularly important on the Sound where the EVOS has diminished the natural character and resilience of many beaches and bays. Changes in the traditional recreation patterns and locations caused by the spill mean that formerly pristine or infrequently used areas are now receiving heavier use. The effect of this concentrated recreational use can be mitigated by through education using common themes and valid research.

### **Estimated Cost:**

#### **Phase I:**

Projected cost for reproduction and distribution of 10,000 LNT Outdoor Skills & Ethics booklets: \$9,000

Projected cost for development and distribution of 50,000 LNT brochures over two years: \$25,000

#### **Phase II:**

Tuition for 100 user group representatives on the six-day LNT Masters Course divided into 10 courses over two years: \$65,000

#### **Phase III:**

Projected finished cost of a 20 minute Leave No Trace educational video filmed on Prince William Sound: \$60,000

**Contacts:**

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NOLS Alaska Director  
Box 981  
Mile 1, Farm Loop Road  
Palmer, AK 99645  
907-745-4047

Rich Brame  
NOLS Outreach & Training Manager  
288 Main Street  
Lander, WY 82520  
307-332-8800

**Enclosures:**

*Leave No Trace Training Guide: Temperate Coastal Zones*  
*Leave No Trace Outdoor Skills & Ethics: Temperate Coastal Zones*

# RECREATION RESTORATION PROJECT PROPOSAL

**Project Title:** Endowment for Outdoor Recreation Management in Prince William Sound

**Project Description:**

A system should be created to help pay for the maintenance and operations involved in recreation management. This would help maintain programs and facilities created through Trustee funding. This system would also assist the land managers in PWS to effectively manage the increased or changed recreation use caused by the spill. This perpetual source of funds should be created in one of the following two ways.

Endowment: Using 5% of the \$90 million available for allocation (or \$4.5 million), a conservative estimate of the endowment's earnings is approximately \$270,000 annually. After inflation proofing the corpus, around \$135,000 would be available to support recreation programs. Management and administrative details are not resolved at this time. However, one option is to contract with the Alaska Permanent Fund Corporation to manage the fund according to guidelines developed by the Trustee Council or a separate board of directors. Proceeds from the fund would be used for recreation facility maintenance and active field recreation management in all lands in Prince William Sound.

General Recreation Fee: The Trustees would fund the planning and implementation of a general recreation fee (or tax if you will). Every boater, hiker, flyer, cruise ship passenger, etc. would pay a set fee either per visit or yearly when entering PWS. This would require a system of charging at all access points. Commercial operators, harbors, airports, and trails would be the logical contact points. Jurisdiction of who has authority to collect fees and how it would be done has not been worked out. A \$5 yearly recreation fee required of everyone entering PWS would conservatively generate \$600,000 per year. This money would be used for the fee collection administration, recreation facility maintenance, active field recreation management, and new facilities or enhancements as needed in all lands in Prince William Sound.

**What recreation resource or service does this project restore and how?**

Outdoor recreation in Prince William Sound was severely impacted by the oil spill, not only in the directly oiled areas, but in outlying areas as well. This is due to displacement from the worst oiled areas, and new use patterns that have developed in marginally oiled and non-oiled areas resulting from persisting oil, reduced wildlife sightings, contaminated food sources, and evidences of cleanup activities in many parts of the Sound.

Replacement or enhancement of recreation facilities or opportunities in oiled and non-oiled areas will help to restore the injured recreation perceptions, experiences, and opportunities

within FWS. Potentially funded projects range from fuel facilities to cabins and trails. As these new facilities and enhanced opportunities are used by the existing and future recreationalist, a need for continued maintenance is created. This creates an additional cost for the managing agencies that is not necessarily accounted for in state, federal or private funding. Certain cost may be recovered by user fees but rarely does this account for all the actual maintenance and operations costs.

Uncontrolled recreational use in PWS will affect not only the quality of recreation experiences for all, but will most likely put undue pressure on other recovering species. Controlled use, often directed by facilities and opportunities, will lessen this impact on other recovering species and the general recreation experience available. Active recreation management and regular maintenance or recreation sites in PWS will help restore recreation and contribute to the recovery of injured species and habitat.

Comment from public meetings shows the public awareness of inadequate active recreation management in many areas. People are noticing the reduction in any sort of enforcement personnel. This leads to more vandalism, illegal hunting, more trash and impact around use areas.

Creating a system to maintain the existing and new facilities and opportunities including some active field personnel presence in the Sound would help to restore injured recreation, recovering species, and help to manage future recreation use.

**Estimated Cost:**

The endowment would have an initial cost of \$4.5 million and no additional costs in later years. The design and implementation of a fee system may cost \$400,000. Exact cost of the fee system could be established once a better idea of the framework is created.

# Alaska Institute for Sustainable Recreation and Tourism

P.O. Box 1353, Valdez, Alaska 99686  
Phone: 907-835-4300 FAX: 907.835.5679  
Federal Employer Identification No. 94-3036027

Sept. 28, 1993

DRAFT

Steve Hennig, Wyn Menefee  
PWS Recreation Project Work Group  
P.O. Box 107001  
Anchorage, AK 99510-7001

Dear Mr. Hennig and Mr. Menefee:

The Alaska Institute for Sustainable Recreation and Tourism submits the following project proposal for consideration for funding from the Exxon Valdez Restoration Fund.

**Project Name:** Economic study of recreation in Prince William Sound Area

**Project Description:** This is an economic analysis of direct and indirect economic benefits to spill impacted communities of recreational use of Prince William Sound. Recreational use includes local use as well as uses such as independent travelers, sports and guided hunters and fishermen, kayakers and recreational boaters, tour guides and outfitters, and picnicking, hiking and camping. Direct economic benefits accrue to local communities from these and similar activities. Inadequate information is available to assign visitor day economic values. Currently, the following are used: camping, picnicking \$22.90; motorized travel and viewing scenery \$24.77; hiking, horseback riding and water travel \$18.00; winter sports = \$71.51; resorts = \$21.24; other recreation activities = \$33.98; wilderness = \$24.95. (1990 RPA numbers for Alaskan values, source: U.S. Forest Service). Indirect economic benefits to local communities include but are not limited to money spent on equipment purchase and rentals, overnight accommodations and restaurant meals, groceries, salaries paid to tour and guide outfitter employees, food and housing for tour and guide outfitter employees, local and state/federal taxes, user fees, and licenses.

### What Recreation Resource or Service does this project restore and how?

1. Many outstanding non-recreational restoration projects are proposed for the Sound. However, some of these projects have the potential to adversely affect recreational users and communities dependent upon recreational users. There is no existing data on the economic importance of recreation in the Prince William Sound area. RPA figures currently used to assign economic values to visitor days appear low. If the economic importance of recreation in Prince William Sound is undervalued, the possibility exists that decisions made to help other resources and services injured by the spill will adversely affect recreational users and services which were also injured.
2. Natural resources on which recreation depends were injured by the spill resulting in a decrease in visitors to the spill impacted area. According to the Division of Tourism statistics pro-

gram, 73,888 (32% of 230,900) vacation/pleasure visitors (visitor: = out-of-state traveler) to Southcentral Alaska in 1989 visited Prince William Sound ("Patterns, Opinions, and Planning: Summer 1989," *Alaska Visitor Statistics Program II*, p. 178). The Exxon Valdez Oil Spill caused 44% of the visitors to southcentral Alaska to avoid the oil spill area (Ibid. p. 20). Thus, 101,596 out-of-state vacation/pleasure visitors did not visit Prince William Sound in 1989 because of the spill. (Ibid. pp. 102-103.) The average visitor to Valdez spends between \$76.00 (Valdez Convention and Visitors Bureau) and \$94.50 (State Division of Tourism). Using these figures as indicative of the value of a visitor day to Prince William Sound, we can multiply the number of lost visitors times the low and high figure to reach a range of economic losses to the recreation/tourism industry in Prince William Sound from the oil spill: \$7,721,296 to \$9,600,822. Some of these losses may have been recovered by some segments of the recreation and tourism industry through services provided to oil spill workers. However, companies offering sailing, kayaking, and natural history trips did not have services that Exxon or spill workers hired. Likewise, oil spill workers made fewer purchases from gift shops.

The above figures show only the impact of the spill on recreational and tourism use of the area by out-of-state visitors in 1989. I do not have figures on the loss of local recreational user days or in-state visitor days. If these figures could be calculated, the economic damage to recreation and tourism in Prince William Sound in 1989 would undoubtedly be considerably higher. Likewise, if loss of visitor and in-state visitor and recreation use days were calculated for subsequent years, the figure would be higher still as some potential users have continued to avoid the Sound.

A better understanding of the economic importance of recreation and tourism to the Prince William Sound region will help in making informed decisions regarding the expenditure of Exxon Valdez Restoration Funds for projects designed to help the recovery of the recreation resource.

3. Various special designations have been considered for the Sound as one way of restoring lost services. In other regions, special use designations, such as National Recreation Area, Scenic Rivers, or Wilderness have resulted in significant increases in recreation and tourism use. One of the critical components of any decision regarding special designations for the Prince William Sound Region should be an economic analysis of the role of recreation and tourism in the area. What is the economic value recreation and tours to local communities - staff, equipment purchased, hotel rooms, food, taxes paid, user fees, license fees, etc.? This study would acquire this information.

We are, therefore, proposing that the Exxon Valdez Trustees appropriate funds to hire a consultant to address the problem of determining the economic importance of recreation and tourism in Prince William Sound.

**Estimated cost: \$50,000**

On behalf of the Board, I would like to thank you for your efforts in identifying recreation projects.

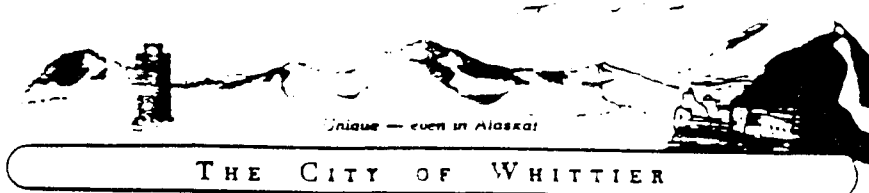
Sincerely,



Nancy R. Lethcoe



560 E. 34th Avenue, Suite 200  
Anchorage, AK 99503-4196  
(907) 563-8866



P.O. Box 608  
Whittier, AK 99693  
(907) 472-2327

September 30, 1993

RECEIVED  
SEP 30 1993

Mr. Steve Hennig, USDA Forest Service  
Mr. Wyn Menefee, Alaska Dept. of Natural Resources  
Prince William Sound Recreation Project Work Group  
Exxon Valdez Oil Spill Trustee Council  
P.O. Box 107001  
Anchorage, AK 99501-7001

Subject: Request for Nomination of Shotgun Cove Recreation Access Project.

Gentlemen:

The enclosed Recreation Restoration Project Proposal is written jointly by the City of Whittier and the Chugach Alaska Corporation, the principal landholders of developable property within Shotgun Cove, to request that the Prince William Sound Recreation Project Work Group, and the Exxon Valdez Oil Spill Trustee Council, nominate for inclusion into the 1994 EVOS Work Plan and support necessary funding for the proposed Shotgun Cove Recreation Access Project in western Prince William Sound. This request is based on the long-standing desire of the majority of the users of Prince William Sound to have improved recreational access at Shotgun Cove and to improve recreation, tourism and economic development in western Prince William Sound - the area most significantly impacted by the Exxon Valdez oil spill.

The primary objective of this proposed project is to restore and enhance the recreational experience for a broad cross section of the public by providing the necessary public access and infrastructure, specifically a road to Shotgun Cove and a breakwater in the harbor, for not only those individuals traditionally utilizing the Whittier area as a jump-off point for wilderness excursions into the Sound, but also for ready access to those who may not necessarily have the desire to "rough it" in primitive conditions. Specifically, when leveraged with other likely public and private funding sources the investment of \$16.3 million by the EVOS Trustee Council could yield a dramatic new recreation destination in Passage Canal and expand recreation and tourism in western Prince

September 30, 1993

William Sound. Indeed, the current DOT/PF Transportation Plan gives both the road to Whittier and the road to Shotgun Cove high priority for purposes of federal ISTEA funding and the Corps of Engineers is prepared to move into the funds appropriation phase as soon as the road is built.

Many residents of southcentral Alaska and Prince William Sound have long suggested that a network of recreational facilities placed within one or two days travel through-out the Sound and along portions of the Gulf Coast would create a superior opportunity for linking the recreational use of Prince William Sound with that of the Inside Passage through Southeast Alaska, the coast of British Columbia and Puget Sound. This would, in effect, link Anchorage and Seattle for recreational boating enthusiasts. It is appropriate that the four road-accessible communities in or near the Sound be the anchors for such a network and possess the most highly developed recreational support infrastructure. Whittier, at present, contains the least amount of such infrastructure and visitor support services of the four communities while having the greatest potential demand in the foreseeable future.

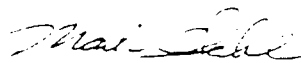
The Summary of Public Comment on Alternatives of the Draft Exxon Valdez Oil Spill Restoration Plan prepared by the EVOS Trustee Council, published in September of 1993, shows that of those individuals and organizations responding to the questions concerning opportunities for human use, fully 70% favor funding for options ranging from protecting existing human uses, increasing existing human uses and/or encouraging appropriate new uses. The Shotgun Cove project is an outstanding opportunity to meet this public sentiment.

We will be glad to discuss this proposal with you or members of the Trustee Council at your convenience. If you have comments or questions concerning the foregoing, or desire further information, please contact the undersigned.

Very truly yours,



Gary Williams, City Manager  
City of Whittier, Alaska



for Michael E. Brown, President  
Chugach Alaska Corporation



## Recreation Restoration Project Proposal

Project Name: Shotgun Cove Recreation Access

### Project Description:

Shotgun Cove is a sheltered, undeveloped marine area six miles to the east of the City of Whittier. It is within the corporate boundaries of the city. Numerous plans and studies have been conducted by the State, City, US Army Corps of Engineers and Chugach Alaska Corporation over the years identifying this area as a prime opportunity for dispersed recreation, tourism and economic expansion in the western Prince William Sound. In each case, the overriding public policy determination was to designate Shotgun Cove primarily for recreational, resort, seasonal and permanent residential development and for establishment of a small-boat harbor to serve recreational boaters.

A development concept and business plan was prepared in 1993 for the Anchorage Economic Development Corporation (AEDC) by International Tourism and Resort Advisors of San Francisco (INTRA), in collaboration with the Anchorage based engineering firm Peratrovich, Nottingham & Drage, Inc. A copy of the salient portions of this report are attached as Appendix B for your reference.

The objectives of the INTRA report were to consider four purposes for the proposed recreation and resort area:

- To provide a convenient hub and departure point for Anchorage, Mat-Su Valley and Kenai Peninsula residents seeking to explore Prince William Sound;
- To serve as a convenient place for occasional "getaways" for local residents of Southcentral Alaska;
- To foster economic development by adding a visitor destination to western Prince William Sound where visitors and residents alike can enjoy the wonders of Alaska;
- To provide a terminus for Alaska-bound cruising vacations and as a departure point for Vancouver-bound cruises.

In considering these purposes, the study was mindful of the range of opportunities for development at the site, including a seasonal and year-round resort, condominiums, vacation cabins, boat harbor, and a potential base of operations for tour boat operators, marine ferry, and pleasure cruises. At the same time, the analysis carefully considered requirements for the conservation and enhancement of the scenic qualities of Shotgun Cove.

The conclusions of the report are far-ranging, but show that there is substantial opportunity for establishing a destination resort at Shotgun Cove with projects that are economically feasible - including a small boat harbor, resort facilities, and residential development. A year-round resort, resort condominiums and hillside cabins were each shown to support a 15% internal

rate of return. The lodge itself can generate over 38,000 visitor days per year, with 213 full time employees and annual revenues to the City and State exceeding \$1.2 million.

However, while these projects do present a favorable investment opportunity for potential developments, they cannot support the costs of infrastructure, and particularly the nine-mile, paved access road required to be developed from the current City of Whittier to Neptune Point. This road in fact must be constructed prior to commencement of further development as indicated in the five-year schedule established in the report.

It is in this access development capacity that joint funding of this proposal through the EVOS settlement will enable such a wide range of recreational opportunities to be realized while fulfilling the mandate of the EVOS Trustee Council and achieving the goal of the Prince William Sound Recreation Project Work Group.

**What recreation resource or service does this project restore and how:**

There is a substantial perception among potential users of the Sound that beaches heavily impacted by the oil spill, particularly those in the western Sound were seriously and permanently damaged by the oil spill. This impact on tourism was immediate and calculable, as 25% of the visitors who planned to visit the area canceled their scheduled trips to the Sound in 1989. The evidence suggests that this loss of revenue - and continued perception of damage to the environment - exists in some form today.

This reputation can be repaired through the provision of the kind of visitor access proposed at Shotgun Cove. It will provide a new destination in the area with improved access into the heart of the western Sound. While this development opens a new area to visitors, this concept has long been identified and approved by local and area plans, including the Alaska Coastal Management Program and City of Whittier Comprehensive Plan. The road and development at Shotgun Cove are designed to control access to the region by confining the majority of activity to a developed area from which recreationists can venture for short periods and experience a pristine wilderness without placing undue stress on the land ecosystems or wildlife.

Other links between this development and the oil spill are paramount. A new boat harbor at Shotgun Cove can mitigate wear and damage to the current Whittier Small Boat Harbor caused by contractors during the spill clean-up effort. Further, given that EVOS funds have already been identified for improved access to Whittier, the community requires additional funding to provide destinations for users of this access. It is estimated that if new road access is provided through the existing railroad some 500,000 new visitors will more than triple visitation to Whittier.

**Estimated cost and joint funding proposal:**

The principal development elements at Shotgun Cove are: (1) road and utility infrastructure to serve the area from the currently developed Whittier townsite, (2) boat harbor for 700-800 pleasure craft, tour boats and marine ferry docking, and (3) resort and townsite amenities. The INTRA study indicates the resort and townsite amenities can be established exclusively with private funding if the road and boat harbor are funded from other sources. These private investments will reach upward of \$65.0 million within the first seven years of development. In addition, further investment is likely as subdivision activity may occur on lands along the access road between the existing Whittier townsite and Trinity Point, principally on City of Whittier lands at Emerald Cove.

Funds required to construct the road and boat harbor at Shotgun Cove, together with associated utilities and related infrastructure, are estimated as follows:

Shotgun Cove Access Road	
Phase I - Whittier to Boat Harbor	\$10.0 million
Phase II - Boat Harbor to Neptune Pt.	<u>8.8 million</u>
Total Access Road	\$18.8 million
Public sewer and water	\$ 2.5 million
Public Harbor	
Breakwater and wave barrier	\$ 4.4 million
Dock on wave barrier and floating dock	3.3 million
Floats (500 at \$10,000 each)	5.0 million
Ferry Terminal	3.0 million
Parking Lot	0.5 million
Engineering and Administration	<u>4.0 million</u>
Total Public Harbor	\$20.2 million
Private Harbor	
Floating Dock/Floats (300 at \$10,000 each)	\$ 3.3 million
Parking Lot	0.5 million
Engineering and Administration	<u>1.0 million</u>
Total Private Harbor	\$ 4.8 million

Several funding sources can be identified for such a project, assuming overall infrastructure support from oil spill funds. The US Army Corps of Engineers has indicated a long-standing interest in this project completing a favorable report in 1987 on the project. Through federal sources, the Corps could support breakwater and wave barrier funding for the docks in an amount estimated to be as much as \$8.0 million.

Given the proposed construction of an upgraded state ferry terminal and automobile and passenger loading facility at the Public Harbor, federal ISTE funding is feasible at the 75% level in support of construction of the facility and road construction between the current Whittier townsite and the boat harbor. This can realize as much as an additional \$11.0 million. The recent

Draft 1994-1997 DOT/PF Transportation Plan, in fact, lists this road as a high priority for federal ISTEA funding.

As the operator of the current small boat harbor, the City of Whittier is aware of a substantial unfulfilled demand for small boat moorage facilities in western Prince William Sound. Projections suggest the possible pre-sale of scores if not hundreds of boat slips to private parties. If so, revenue anticipation bonds can be sold in contemplation of a condominiumized private boat harbor facility for 300-400 slips at \$25,000 each, or an estimated \$10.0 million. Finally a large floating dock is in high demand today by current tour boat operators. Such a facility might be funded by contractual agreements with these operators for as much as \$1.0 million.

If such funding support can be generated, the remaining funding requirement to assure the development at Shotgun Cove is \$16.3 million as follows:

Costs of Development:

Access Road	\$18.8 million
Utilities	2.5 million
Public Harbor	20.2 million
Private Harbor	<u>4.8 million</u>
Total Cost of Development	\$46.3 million

Sources of Funding

Corps of Engineers	\$8.0 million
Federal ISTEA funding	11.0 million
Private moorage sales	10.0 million
Tour boat operators	<u>1.0 million</u>
Estimated existing sources	\$30.0 million

**EVOS Funds Required for Development                    \$16.3 million**

Therefore, with oil spill funding of \$16.3 million, the entire \$46.0 million development is realized. Further, under the INTRA scenario, once road and harbor facilities are constructed significant further private funding is likely.

The opportunities for unique and varied outdoor recreational pursuits at Shotgun Cove are present, as the western Prince William Sound offers fishing, diving, sailing, kayaking, and scenic boat rides in a spectacular setting. The resort operators will secure concessionaires and tour operators to provide such amenities and services to their guests and day visitors. Such secondary responses to this destination will yield even further economic investment, job creation and recreation opportunity for the area.

## **Application of the EVOS Trustee Council Criteria for Rating the Benefit of the Shotgun Cove Recreation Access Project**

### **1.) Needed or desired public service, facility or amenity.**

This development has enjoyed public support in major planning efforts of the region, and has been a high priority for both the City of Whittier and Chugach Alaska Corporation. In fact the City, which has limited funding, has spent more than \$100,000 on construction of a two mile pioneer road leading part way to Shotgun Cove in order to show project feasibility. Once completed, the project can generate significant tourism and recreation potential with a major new destination in the Sound, with new economic opportunity for residents of the region, as well as provide access to lands best suited for conventional residential living in the Whittier area.

### **2.) Conflict among public users and interest groups.**

Shotgun Cove development has long been contemplated and approved in Whittier coastal zone management and comprehensive plans, both of which involved extensive public processes. Indeed, the project will reduce conflict among competing users by providing access to more area in which to recreate and more facilities from which to launch adventures. Currently, water oriented recreationists are confined to the Whittier Small Boat Harbor, which is used substantially beyond its normal capacity - resulting in conflict between recreation and commercial users.

Land oriented recreationists are unable to access state park land and dedicated federal recreation areas because of inadequate access. Land access to these areas would be available if a road existed to Shotgun Cove. It is unlikely conflicts will exist at areas beyond the Cove because the sheer size of the Sound will accommodate a variety of uses and users. Finally, because this project will likely require an EIS, due to the receipt of federal funds, any further conflicts can be sorted out in the EIS process.

### **3.) Link to injured recreation resource or service.**

As indicated above, there is substantial evidence that tourists and recreationists who utilized the western Sound in the past perceive that the oil spill damaged the integrity and beauty of the area. Some 25% of scheduled passengers canceled their trips in 1989, and lingering economic impacts are likely. This reputation can be partially repaired by providing new tourism destination in the region, which in itself will provide access to the areas hardest hit by the oil spill.

Second, there was excessive wear and damage to the existing Whittier Small Boat Harbor and ancillary points of embarkation caused by oil spill clean up contractors and crews. The provision of access in this new area permits the construction of a new, enhanced harbor that will mitigate damage done to the Whittier area during oil spill response.

Third, oil spill funds have already been allocated to help construct permanent year-round access to the current Whittier townsite through the existing railroad tunnel. The area will experience a dramatic increase in visitors, but it has no further financial resources to cope with this visitation or provided amenities to visitors when they arrive. A new destination at Shotgun Cove will provide this outlet, as well as provide residential areas for workers to support Whittier tourism requirements.

Fourth, the City of Whittier experienced two key financial losses due to the oil spill. Given the brief and unexpected support of the local work force at the time of the 1990 federal census, the City lost its opportunity to secure federal Community Development Block Grant Funds. At the same time, oil spill response employment was so lucrative that the City was obliged to raise wages to minimize the loss of key employees. Such financial losses can only be recovered by providing alternative revenue sources, i.e., property and related taxes from new developments like those at Shotgun Cove.

Finally, Chugach Alaska Corporation and its shareholders, who live and work throughout the oil spill impacted area, experienced both immediate and long-term emotional and financial injury. Two salmon canneries in the Cordova area suffered financial harm to the extent that the canneries ceased operations, contributing to the bankruptcy of the parent corporation and all of its subsidiaries. The loss of the canneries meant the loss of ready markets for salmon caught by the local fishermen. This, in conjunction with the apparent harm to the fish runs themselves by contact with oil polluted waters, has resulted in the overall demise of the fishing industry in Prince William Sound. Although recreation development at Shotgun Cove will not bring a return to health for the salmon or resurrect the salmon-canning industry in Prince William Sound, it will provide a measure of diversification to the economic base, provide tax revenues to the local community and provide employment for those who wish to work in the tourism industry.

#### 4.) **Economic feasibility.**

The INTRA study described above reflects that several significant private developments enjoy a 15% internal rate of return, including the year-round resort, condominiums and hillside cabins. However, various levels of public and private investment are necessary to support road, utility and harbor construction to realize these opportunities. Once constructed, maintenance and operations will be supported through user fees, local taxes and associated revenues.

#### 5.) **Consistent with land/area attributes.**

The City of Whittier Comprehensive Plan has long called for the development of a road to Shotgun Cove, as well as the development of a harbor and residential housing. Likewise, the City coastal zone management plan, adopted as a part of the Alaska Coastal Management Program, pledges a coordinated effort with the Alaska Department of Transportation and Public Facilities and U. S. Army Corps of Engineers

to develop a boat harbor, related marine facilities and residential areas in the region, principally within Shotgun Cove.

**6.) Number of people or user groups benefiting.**

The INTRA report reflects substantial and varied benefits to users of western Prince William Sound. These visitation and tourism specialists estimate some 88,000 annual visitor days in new tourism from this destination, in addition to those who already use Shotgun Cove. Given that visitation to the area will increase by at least 500,000 persons each year when access to Whittier opens in several years, a destination of this quality will be of benefit to most who make the trip to Whittier.

**7.) Displacement of current users.**

Presumably some minor number of current users of Shotgun Cove, principally kayakers, will travel deeper into Prince William Sound to enjoy a true wilderness experience. Even wilderness seekers can benefit from this development, however, given improved and closer access to the most desirable destinations in the Sound. In fact it is most likely that better access to this area will result in more recreational opportunities in the region than now exists in the current Whittier townsite. Users as diverse as kayakers and jet skiers will find that increased access provides more room for them to conduct their separate activities.

**8.) Adjacent land management.**

Access to Shotgun Cove will open areas both the state and federal governments have identified as appropriate for marine parks, campgrounds and picnicking areas. Access will enable the City of Whittier to meet its mandated responsibilities to place its state land entitlement into private hands by the year 2000.

**9.) Influence on other restoration projects or objectives.**

This project will support access to Prince William Sound communities and services whose marine and tourism oriented enterprises have been enhanced by the expenditure of oil spill funds.

**RECREATION RESTORATION PROJECT PROPOSAL**

**PROJECT NAME:** Fleming Spit Recreation Area Enhancements

**SPONSOR:** The Cordova Sporting Club

**PROJECT DESCRIPTION:** Fleming Spit is located within the Cordova City limits and is within the Prince William Sound Recreation Project area. Fleming Spit is already the site of a strong terminal Coho sport fishery and in the last 4 years a fledgling King fishery has been started. The area is popular and accessible. The Cordova Sporting Club, a non-profit organization dedicated to the promotion and development of outdoor opportunities in the Cordova area, along with many other interested local agencies and groups, would propose a project funded by the Exxon Valdez Oil Spill (EVOS) civil settlement monies to improve the Fleming Spit site for added recreational use, safer access, and an improved and enlarged fishing area.

The ongoing recreational fisheries at Fleming Spit have been developed through the cooperation of the Sporting Club (CSC), the Alaska Department of Fish and Game (ADF&G), and Prince William Sound Aquaculture Corporation. The smolt release areas and the surrounding tidelands and beach areas where the fish return to, however, need to be enhanced and upgraded to handle the ever increasing pressure from local recreational fishermen as well as a growing number of tourists. Our proposal includes acquisition of critical lands and tidelands in the immediate Fleming Spit area, a dredge and fill project to improve the existing smolt release ponds, a general clean-up of the area including the removal of a derelict barge, and the addition of a variety of recreational facilities.

Our proposal is broken down into two phases. Phase I focuses upon work that is directly related to enhancing the sport fishery in the area. Phase II includes projects and facilities that take advantage of other recreational opportunities that exist in the area such as camping. Our specific proposal including work tasks, facilities, and projected costs follows:



Phase I:

Project/Task	Projected Cost
Acquire Parcel	\$150,000
Dredge and Fill Operations/ (including engineering and permitting)	\$150,000
Flood Plain Management (engineering)	\$50,000
Surveying	\$30,000
Barge Removal	\$10,000
Composting Toilet Facilities	\$30,000
Fishing Boardwalk (1,000 feet, 8 feet wide parallel to road with ramps and stairways.)	\$300,000
Fish Cleaning Stations (two stations, 6 bays each)	\$10,000
Off Street Parking (signs, curb stops, paving)	\$20,000
Permanent Net Pens	\$20,000
Total Cost/Phase I	<hr/> \$770,000

Phase II:

R.V. Campground (10-15 Units, electrical hookups, tables, fire pits)	\$100,000
Sewerline Extension and R.V. Dumpstation	\$450,000
Tent Platforms	\$20,000
Covered Picnic Pavilion	\$25,000
Total Cost/Phase II	<hr/> \$595,000
Total Cost/Project	<hr/> <b>\$1,365,000.00</b>

We would anticipate that the total project would take 2 to 3 years to complete. A preliminary site plan depicting the approximate location of all proposed facilities is attached.

**POTENTIAL CONFLICTS:** We do not anticipate any significant or major conflicts. Fleming Spit and the recreational fishery there are enjoyed by local Cordovans and visitors alike from early spring through the Silver season in the fall. The Cordova Chamber of Commerce holds a Silver Salmon derby each fall and many people fish the area during that time. The Chamber has been a strong supporter of recreational development at the spit for years. Groups such as the Cordova Fly Fishers and the Cordova Trap and Gun Club support our recreational goals for the area as well.

This proposal also enjoys the support of other important local agencies and organizations. For example, the Alaska Department of Fish and Game has been a long time supporter. ADF&G has proposed a demonstration hatchery at the site in the past and it started the salmon release program there. The Sport Fish Division is a strong supporter and has indicated that it would provide matching funds for this project. Prince William Sound Aquaculture has expended its own monies over the past few years to keep the Silver and King fisheries going. It has also submitted a proposal to improve the rearing ponds to insure a better smolt survival rate.

The Division of Parks and Outdoor Recreation has considered Fleming Spit as a possible addition to the State Park System. Development at Fleming Spit is currently listed as a priority in the Department's Statewide Recreation Plan. The U.S. Forest Service has also demonstrated its support. Its staff have helped in the development of this proposal. Finally, this project has the strong support of the City of Cordova. It appears as a goal in the City's Overall Economic Development Plan. The City has developed plans and sought funding for this type of project since 1985. The land is already zoned for conservation and recreational uses by the Cordova Coastal Management Plan. We have a willing seller for the land we want to acquire.

There are two potential conflicts which will need to be worked out however, we believe they are easily resolved. First, the Eyak Corporation has leased adjacent tidelands from the state for use as a log transfer facility. The leased area is a very large tract which extends into the fishing area. This area is not needed for the transport of logs and the actual facility is a good distance from where people fish. We believe we can work out an acceptable arrangement. Log trucks moving through the area pose a potential threat to pedestrians however, traffic control signs should be sufficient to mitigate that problem.

Second, there are often transient workers and other visitors who illegally camp on private lands and State owned tidelands in the

area during the summer. We don't see this as a conflict because this project will enhance their camping experience by providing good clean places to camp complete with restroom facilities, dump stations, water, trash cans, and the like.

**LINK TO EVOS INJURY:** Since the oil spill in March, 1989, Prince William Sound commercial fisheries have declined drastically. A large majority of Cordova residents are involved in the fishing industry and because of the poor commercial seasons these residents have had increased free time and an increased need for sport caught fish. More and more of them have used the Fleming Spit area. The continued emotional impacts from the spill have also increased the need for recreational outlets and positive relationships with fishing for the people adversely affected. People have appeared to be hesitant and concerned about sport fishing in the oiled areas of the Sound and more and more of them have expressed an interest in and support for the enhanced fishery at Fleming Spit.

With the spill and the resultant media coverage, Prince William Sound has become an increasingly well known tourist destination. This is good for Cordova; with the decline in fishing since the spill, we need to concentrate on diversifying our economy. This area is an excellent location for facilities of this type because it is within walking distance of downtown and approximately 3,000 feet from the new Cordova Ferry Staging Area.

But there are also problems associated with the increase in visitors. These people need to have safe and accessible activities in the immediate area. Our desire would be to channel tourists to areas like Fleming Spit and relieve the recreational and fishing pressures on other fresh water spawning streams in the Copper River Delta area.

**ECONOMIC FEASIBILITY:** The enhancement of the Fleming Spit area and the recreational fishery would benefit an unlimited number of Cordova residents and visitors to Prince William Sound. The principal costs would be in land acquisition and infrastructure improvements. Maintenance of the facility/park could be financed through user fees on the campsites and the dump station, and user donations. As stated above, the City of Cordova, The Alaska Department of Fish and Game, the Division of Parks and Outdoor Recreation, the U.S. Forest Service, and Prince William Sound Aquaculture Corporation have all discussed and proposed enhancement projects for this area in the past. Following acquisition of the land and construction of the facilities, the area could be turned over to one of these agencies. They would subsequently be responsible for the maintenance and upkeep of the improvements. PWSAC has been instrumental in obtaining the Coho and Chinook smolt and we see no reason why this won't continue.

**CONSISTENCY WITH SURROUNDINGS:** Fleming Spit is located on the edge of town directly on Orca Inlet. Because of the past efforts at

establishing the terminal Coho and Chinook runs, it has become a well known and heavily used "fishing hole". The area is accessible when weather prohibits boating and for those who don't have access to a boat suitable for the Inlet or one of the surrounding rivers or streams. Our project will increase the accessibility, the safety, and the appearance of the area. The existing smolt pond will be enlarged and improved to decrease the mortality rate among young salmon. The land is zoned for conservation and a recreation area is consistent with that designation.

**NUMBER OF PEOPLE BENEFITTING:** No established facilities are presently in place so accurate user counts are not available. However, it can be said that the improvement of the Fleming Spit area would benefit the entire population of Cordova. In addition, people using other parts of the Sound for recreation would be drawn to the enhanced fishery much as they are to the fisheries adjacent to the hatchery in Valdez. The Cordova Silver Salmon derby held in late August and early September draws more and more entrants each year. The proposed improvements at Fleming Spit would allow more and more people access to the fish and would result in an expanded tourism industry for Cordova.

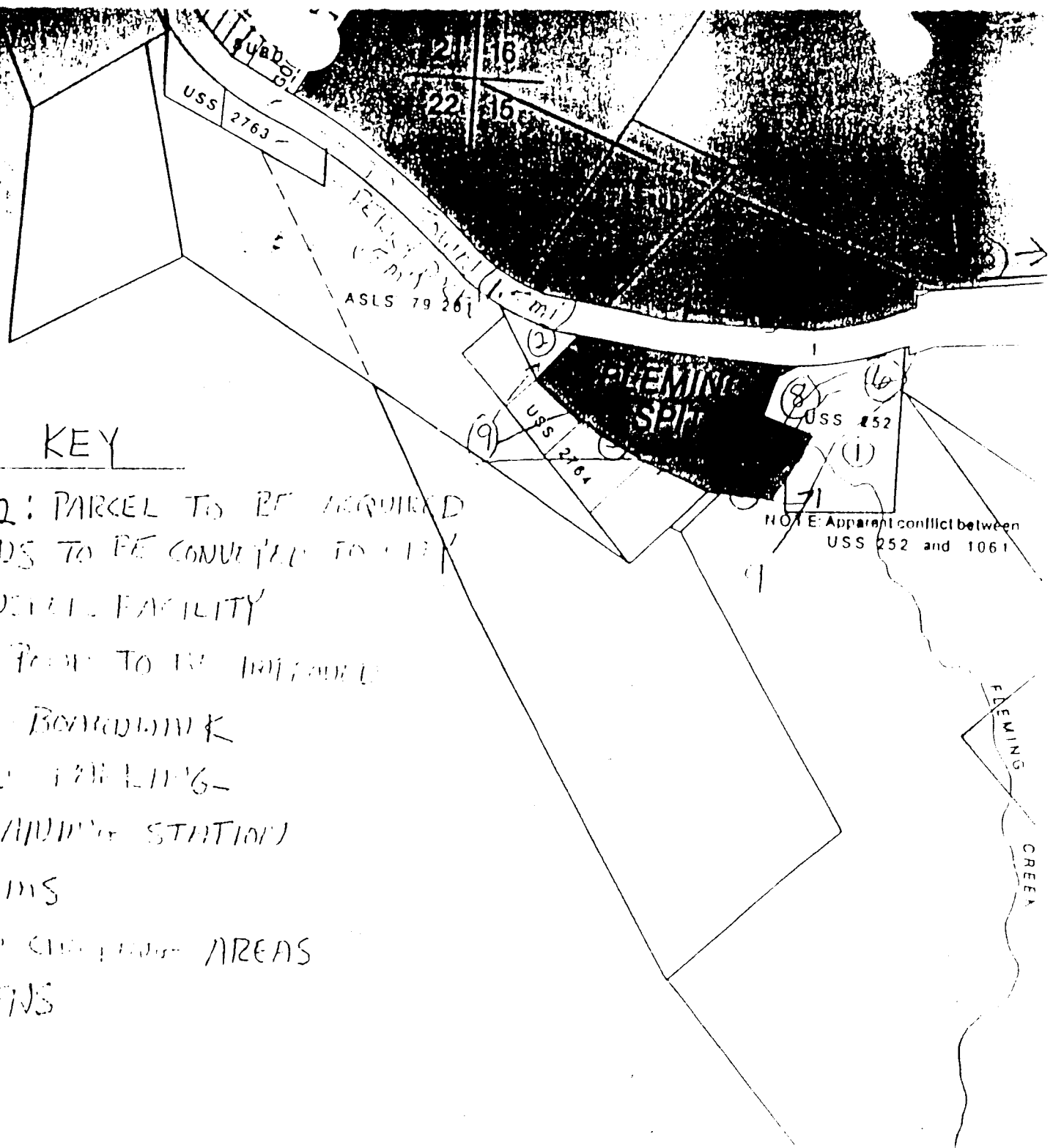
**DISPLACEMENT OF CURRENT USERS:** The only people being displaced would be transient campers who camp on private land and State owned tidelands during the summer months. These people would not really be displaced but rather, would be provided with a legitimate and significantly improved place to camp.

**ADJACENT LAND MANAGEMENT:** The tidelands immediately north of Fleming Spit are leased by the Eyak Corporation and used as a log transfer facility. We do not believe this presents a conflict with this project. Other surrounding tidelands are owned by the State of Alaska and the City of Cordova. Some of the uplands have private owners (including the parcel we hope to acquire). We would have to be sure that private landowners have legal access to their property. The rest of the uplands are owned by the State and the City. The area is zoned for Conservation; however, recreation projects are specifically permitted.

**INFLUENCE ON OTHER PROJECTS:** As stated above, the enhancement of the Fleming Spit area for recreation and sport fishing has been proposed and discussed by a number of agencies and other organizations over the years. Because legislation or budget allocations were not forthcoming, none of these proposals have come to fruition. No other use has been publically discussed for this area. All of the groups and agencies identified above would cooperate on the improvements proposed for Fleming Spit. It would be a community improvement and a project that everyone in Cordova could appreciate and use.

## MAP KEY

1. USS 252: PARCEL TO BE ACQUIRED
2. TIDELANDS TO BE CONVERTED TO CITY
3. LOG TRAVEL FACILITY
4. READING ROOM TO BE INTRODUCED
5. PROPOSED BOARDWALK
6. PROPOSED PARKING-
7. FISH CLEANING STATION
8. BATHROOMS
9. PROPOSED CIRCULAR AREAS
10. NET TENS



NOTE: Apparent conflict between  
USS 252 and 1061

FLEMING  
CREEK

# **RECREATION RESTORATION PROJECT PROPOSAL**

**Project Title:** Shoreline Trash Clean-up for PWS

**Project Description:**

A shoreline trash clean-up project for the oil spill area has already been submitted to the Restoration Team for inclusion in the 1994 Work Plan. The intent of this project is to utilize volunteer forces to remove garbage from beaches that are used often for recreation and have heavy concentrations of garbage.

A contract would be awarded for a private non-profit group to prioritize beaches with heavy trash accumulation, organize a volunteer force of workers and boats, and to manage the clean up efforts. The actual clean-up efforts would only take one weekend. Boat gas, bags and gloves would be provided. Once the volunteer clean-up system is in place, it would be easier to repeat the efforts in subsequent years. This project is currently proposed as a one time effort and does not address the root of the problem, boaters throwing waste overboard. This does not substitute educating and monitoring the boaters.

This project will remove shoreline trash from many of the recreational beaches. There are some beaches though, such as ones exposed to the Gulf of Alaska, that would take a more extensive operation to remove the existing trash. This probably would not be able to be done by volunteer work. Additional funding may be requested for several severely trashed beaches. A decision should be made whether to limit this type of project to only volunteer work and only to one year or to thoroughly address the issue of shoreline trash cleanup.

**What recreation resource or service does this project restore and how?**

Oil still remains on the beaches that are primarily or partly used for recreation. The remaining oil detracts from the aesthetics of these beaches as does the garbage that washes ashore, both detracting from the recreational experience. Removal of garbage from beaches that are used often for recreation and have heavy concentrations of garbage would help improve their appearance, providing a better recreation experience.

**Estimated Cost:**

The estimated cost of the project proposal that went to the Restoration Team is \$31,000. This project could be worked in under proposed Endowment for Outdoor Recreation Management in PWS.

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

**Title of Project:** Alaska Oil Spill Curriculum Rewrite and Reprint

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

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

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

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

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

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

**Estimated Duration of Project:** 2 years

**Estimated Cost per Year:** \$49,500

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

**Name, Address, Telephone:**

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

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



29 Oct 93



Prince William Sound Recreation Work Group  
Division of Parks and Outdoor Recreation  
P.O. Box 107001  
Anchorage, Alaska 99510-7001

Box 246  
CORDOVA, ALASKA 99574  
(907) 424-7694  
(907) 424-7766

To Whom This Letter Concerns:

The Sheridan Ski Club (S.S.C), a non-profit corporation formed 50 years ago to encourage winter recreation in and around Cordova, now manages the Mt. Eyak Ski Area for the City of Cordova. It is in this management capacity that we ask you, the P.W.S. Recreation Project Work Group to consider our request for funding the projects described in this letter.

Since S.S.C. took over management of the Mt. Eyak Ski Area in 1988, it has vastly increased its public support and user groups with very limited dollars, large amounts of volunteer labor, contributions from many varied local businesses, including the City of Cordova and the US Forest Service, and has managed to complete the following projects:

1. a total replacement of its 1930's top drive to a new electric/diesel hydraulic drive at the more accessible bottom
2. rebuild its two off loading stations
3. major run improvements - including rock work and stump removal
4. a new Midway building
5. enter into a co-operative agreement with our telephone company that will help us replace our safety and control circuits
6. helped coordinate a future sewer line to the area with the US Forest Service and the City of Cordova

The S.S.C. management of this winter recreational area has provided continued growth and opportunity for its 300 members and the public at large. This growth has come about because of the club members hard work. Many thousands of volunteer hours have been spent building up this area, from first planning and erection of the chairlift in the early seventies, to building a Midway operator ski patrol building this month. The results can be seen in last winter's operation. A record year by all measures; being open nearly 50 days and seeing almost 5000 skier visits. This isn't including the tree rope tow and lessons available most winter evenings.

This growth has been almost continuous, until in 1989 after recovering from a disastrous electrical fire, Mt. Eyak reopened to record snowfalls, beautiful weather and the harsh fumes of the Exxon Valdez drifting across the upper mountain. That disaster took away every knowledgeable employee and volunteer, forcing the closure of the area. This disaster stole away the recreational opportunity of all Cordovans, especially for the children who could not relieve their stress by working on the spill, nor by skiing at Mt. Eyak during their anticipated spring break.

It is in light of this and the fact that we do provide much needed winter recreation to many residents of Prince William Sound (PWS), that we ask you to consider our request for help in funding the following projects. These projects come from our list of long term goals first proposed in 1988 and still needed today.

#### PROPOSAL A

Engineering, purchasing, lighting and construction of a new beginner-intermediate ski hill with a handle tow or similar type of surface lift.

##### ESTIMATED COST:

Lift purchase and engineering	\$30,000
Ground preparation	7,000
Installation	5,000
Lights and installation	<u>8,000</u>
Total	\$50,000

Our present beginner rope tow was built in Cordova by local volunteers in 1966 and moved to its present location in 1973. While it provides adequately for the very beginner, it does not provide a transition to our very steep chairlift. Nor does it provide an opportunity for the more advanced beginner, intermediate or advanced skier to night ski – a much needed resource during our dark winter months. This proposed hill would be built just west of the base of our present chair, on land already leased from the State of Alaska, as winter recreation land. This proposed hill would see approximately 3000 skier visits per year.

#### PROPOSAL B

A 1500 sq. foot day lodge to be built to incorporate our present restroom/ caretaker apartment/ rental room building.

ESTIMATED COST: \$45,000

Our present 380 sq. foot warming hut was donated to the Ski Club in 1966 and moved several times to its present location. Currently we see as many as 300 skiers per day while this present facility can only seat 20 people at a time: hardly enough space to provide for the dining and warming needs of that many people.

This proposed building could also provide a large family oriented space for many other organizations in Cordova. The proposed building site would be inside the winter recreation leased lands of the State of Alaska.

#### PROPOSAL C

To clear a trail/cat road approximately 3500 feet long under the northwest side of the mountain. Purchase and install several hundred feet of cuivert. Clear several runs up hill from the proposed cat road to the top. Clear stumps on several lower runs.

ESTIMATED COST: \$15,000

The northwest side of Mt. Eyak receives the best and most snow, but is not fully utilized because of several creeks and narrow forested traverses, making it impossible to reach with snow grooming equipment. This makes a substantial portion of the mountain inaccessible to many skiers and somewhat dangerous to all. This proposal would allow the general skiing public to more fully utilize the lift facilities we now have. It would also allow us to use the local experts at this kind of work, the logging companies, in a way the whole community would see as positive. This proposed project would see approximately 5000 users per year and is located on leased winter recreation land belonging to the State of Alaska.

In closing, we would like to thank you for taking the time to read or listen to our requests and consider them. We would also like to remind you that while there are many proposals that address the summer time recreation needs of the users of PWS when opportunities abound, the truly impacted users live here 12 months of the year. The Sheridan Ski Club is dedicated to providing recreational opportunity to all the residents of PWS during those winter months. Our insurance inspector from the largest ski area insured in the United States, says we are one of the only club managed ski areas in the nation that works. We work because we have the support and commitment of the public, the local business community and the local City government. We ask for your support also.

Thank you.

Mike O'Leary  
Sheridan Ski Club

# 28

### RECREATION RESTORATION PROJECT PROPOSAL

PROJECT NAME: Cordova Historical Marine Park

SPONSOR: The Cordova Planning and Harbor Commissions

PROJECT DESCRIPTION: The goal of this project is to acquire, restore and display vintage fishing vessels, which have been built and/or used by the Cordova fishing fleet during previous decades for commercial or subsistence harvest. Specific boats or boat types which have played an important part in Cordova's maritime and fishing history would be placed on display with interpretive signs describing what role the vessel played in Cordova's history, as well as design origins and how and where it was operated.

A potential site has been discussed by the City Planning, Harbor and Historical Commissions and found to be quite appropriate. In the plan for the new ferry terminal, there are several undesignated narrow strips of land surrounding the parking area. These open areas would be ideal for staging a variety of the historical vessels, offering maximum exposure and visibility to visitors, as well as local residents.

Six types of vessels have been identified as appropriate for the exhibit: (Specific boats that are available for those indicated \*)

- |                               |               |
|-------------------------------|---------------|
| Charley Moore 24' *           | Double Ender* |
| Tiedeman 22'                  | Plank Skiff   |
| Cannery Boat (Seiner Style) * | Seine Skiff   |

It is anticipated that several of the vessels would be staged in a manner to allow boarding for closer observation, making this a "hands-on" exhibit.

- It would be an outdoor museum, offering many benefits, such as:
- the preservation of vessels otherwise soon to be lost
  - the actual lifesize examples displaying the development of the local fisheries
  - an educational presentation for future generations of residents and visitors
  - an attractive and interesting addition to Cordova's Ferry Terminal area, as well as great photo opportunities for tourists

#### PROJECT CURRENT STATUS

LAND to be donated by City of Cordova	20,000.00
Vintage boat City of Cordova	623.85
Transport of boats Voluntary equipment & labor	687.89
Restoration of Vessels voluntary labor	3,600.00
Vintage Equipment donated	<u>15,800.00</u>
Total Donations to date	40,711.74

Projected Budget:

	Estimated Cost
Acquisition and Transport of Vessels	\$35,000
Restoration to visual working condition (cosmetic repair, re-surfacing & painting)	
Charley Moore 24'	\$ 5,000
Tiedeman 22'	\$ 5,000
Cannery Boat (Seine Style)	\$20,000
Double Ender	\$ 9,000
Plank Skiff	\$ 2,000
Seine Skiff	\$ 3,500
Outfit with authentic or representational equipment	
Charley Moore 24'	\$ 3,500
Tiedeman 22'	\$ 3,500
Cannery Boat	\$10,000
Double Ender	\$ 5,000
Plank Skiff	\$ 3,000
Seine Skiff	\$ 3,000
Signs	
Overview of the historical diversity of the local fisheries (examples of shellfish, crab, salmon, herring, kelp)	\$ 6,000
Vessel information delineating the era, usage, builders & operation	\$18,000
Pavilions for Charley Moore, Tiedeman & Double Ender	\$45,000
'Seascaping' and landscaping, finger docks, boarding gangways, lighting, various surrounding surface treatments.	<u>\$20,000</u>
<b>TOTAL PROJECT COST</b>	<b>\$196,500</b>

**POTENTIAL CONFLICTS:** There are no conflicts with land usage, the future staging area will largely be created by introducing fill into a current tidal zone. Other types of landscaping for visual aesthetics, or to create wind and weather breaks will be impossible with vegetation.

There is no better use for these vessels, which have become virtually obsolete. Subsequent maintenance and visitor safety issues will have to be addressed by a joint effort of the D.O.T., the City of Cordova and local non-profit organizations promoting tourism, however, no serious impediment is foreseen.

**LINK TO EVOS INJURY:** There are many links to injury resulting from the oil spill. Demand for response vessels for the cleanup attracted boats from both local and distant fisheries, including from out of state. The high dollar contracts affected boat values in two specific ways. A large number of fishermen used their capital gains to invest in newer, more modern hulls, which devalued the previous average gillnetter or seiner. In addition, once the contracts were completed, many of the relocated vessels were 'dumped' onto the local market further reducing the value of older local vessels. Consequently, the less competitive vessels have little value, while the older models have become useless to the present fishery.

In a recent article about Cordova in the Anchorage Daily news, it noted "More than any other town in South Central Alaska, Cordova's fortune has been tied to the sea. As long as the fishing was strong, Cordova did just fine." After three disastrous fishing seasons, diversifying Cordova's economy has become a primary concern for the community. It has long been recognized that tourism offers a sustainable growth industry for the State of Alaska and has great potential in Cordova.

Public awareness of the Prince William Sound has increased dramatically since the oil spill, national news, printed coverage of many varieties, even movies, have drawn significant attention to Cordova. This awareness has stimulated curiosity and has attracted travellers visiting the State, as well as Alaska residents to Cordova, and will no doubt continue to do so. Much of the history of our City can be preserved by saving these vessels, to entertain and instruct those interested in the early days and to the recent changes in our fishing industry.

**ECONOMIC FEASIBILITY:** This project is a one-time request to help establish a permanent physical historical representation of Cordova's fishing fleet with examples from the claming and canning days, up to early gillnetting and seining. Once completed, maintenance and management should be nominal and could be overseen by local groups in conjunction with D.O.T.

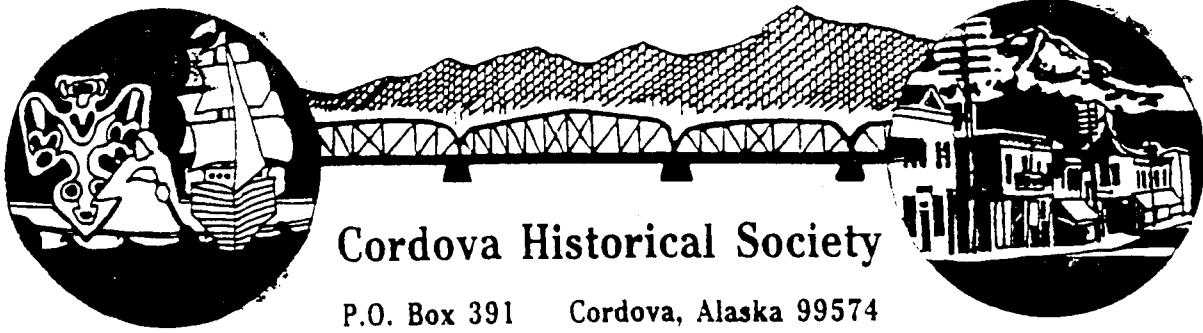
**CONSISTENCY WITH SURROUNDINGS:** As seen on the plans, included, the vessels will blend in very appropriately with Cordova's new Marine Highway Terminal. Being adjacent to the City's haul-out yard, this area in general has been used to store many vessels of this nature for layup for years. With this proposal, there is an opportunity to make these vessels available and safe for public study.

**NUMBER OF PEOPLE BENEFITTING:** The community as a whole will benefit. Newcomers will be able to understand the transitions experienced by the local industry and 'old-timers' will be able to reminisce and share their history with friends and visitors. Everyone waiting for the ferry will have an interesting variety of scenes to explore and appreciate.

**DISPLACEMENT OF CURRENT USERS:** There is no displacement, these strips are on the perimeter of the new parking area for the ferry terminal and are as yet undesignated.

**ADJACENT LAND MANAGEMENT:** As shown on the plan, the adjoining property is owned on one side by the City for a staging area and by the State Ferry System on the other.

**INFLUENCE ON OTHER PROJECTS:** This project will have only positive affects on all of the present and future recreational facilities in the area and can only enhance any other types of development in the area.



## Cordova Historical Society

P.O. Box 391 Cordova, Alaska 99574  
(907) 424-6665

November 2, 1993

To Whom It May Concern:

The Cordova Historical Society supports the concept of a Cordova Historical Marine Park.

We believe a park designated for marine relics and vessels would promote an interest in the history of the fishing industry, which is an integral part of Cordova's heritage.

The Cordova Historical Society could provide information regarding the history of items displayed in the park through the museums archives.

Sincerely,

*Sharon Ermold*

Sharon Ermold  
President



R C A

17-11-2014

T

ATS  
1220

Existing City Dock

AIS 803  
AIS 220

Orca Oil

Yield on left turn  
DO NOT ENTER  
STOP

Vehicle Staging Area  
(1150 lane feet)

To Dock

To Ferry Terminal

STOP

Entrance

STOP

STOP

To Trans. Parking & Pass. Area Off

To Check In & Staging

Van Staging Area  
(560 lane feet)

Entrance Only

Possible Boat Sites

places for HISTORICAL  
Boat museum.

To City Staging Area

OCEAN

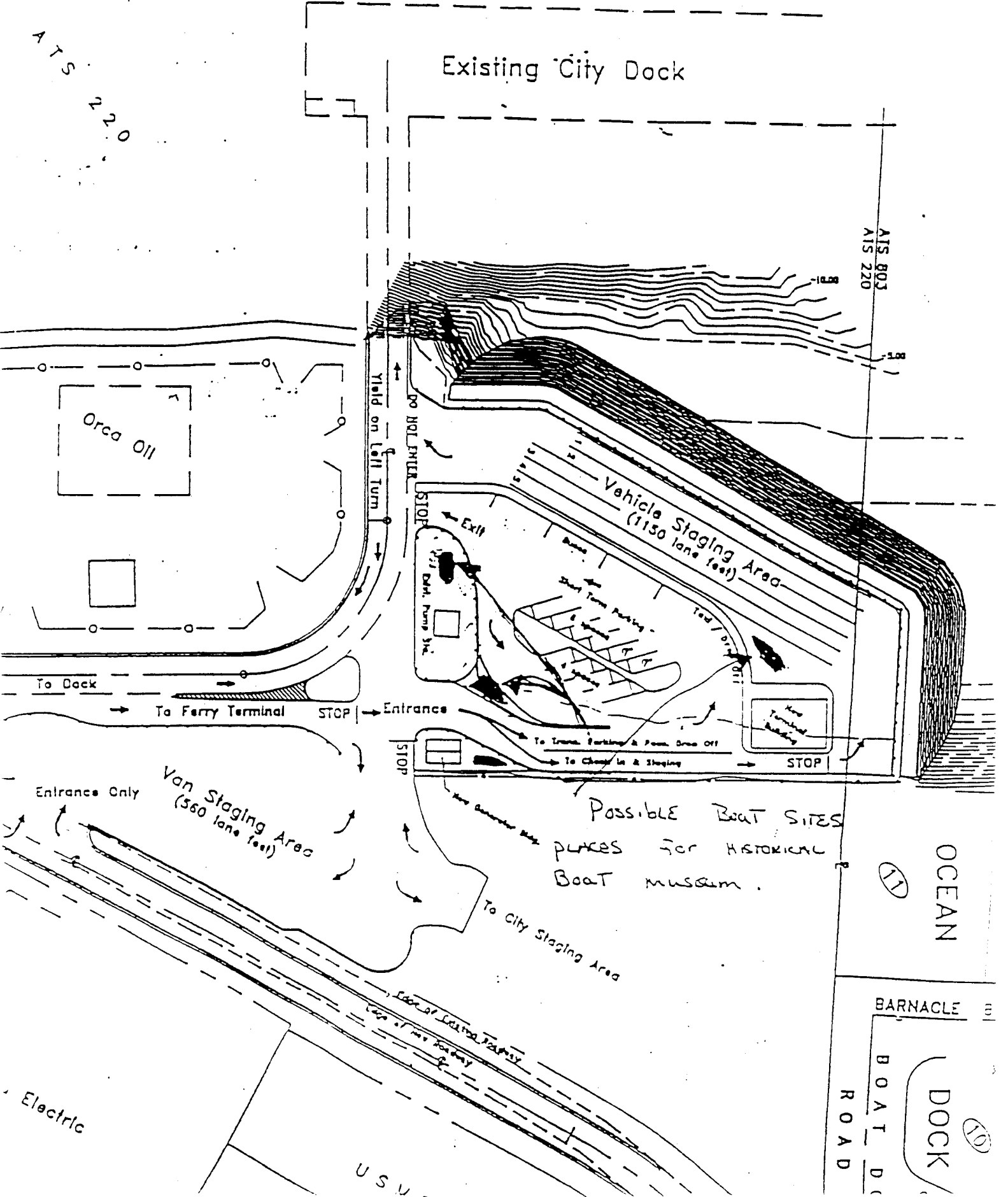
BARNACLE

BOAT DOCK  
ROAD

DOCK

Electric

U.S.V.



MEMORANDUM

DATE: September 9, 1993  
TO: Gary Lewis/Cordova City Council  
FROM: Walt Wrede W.W.  
SUBJECT: Planning Commission Support For Saving the APA 3 And For  
The Concept of Creating a Marine Historical Park.

As many of you know, Brooke Adkinson has been working hard to promote the idea of establishing a Marine Historical Park in Cordova. The general idea is to salvage and restore some of the old fishing boats which have historical significance; that is, specific boats or boat types that have played an important part in Cordova's maritime and fishing history. These boats would be placed on display with interpretative signs describing what part the boat or boat type played in Cordova's history. This project would preserve part of the town's heritage as well as serve as a visitor attraction.

Brooke has discussed this idea with the Commission on other occasions and it has conceptually endorsed the idea. At the September 9 meeting, Brooke asked the Commission to make some specific recommendations to the Council. The Commission voted to do that and its recommendations follow:

1. Take whatever steps are necessary to save the APA 3. This boat was apparently built here and it has a long and colorful history. It is currently owned by the City and is slated for either the auction block or the burn pile.
2. Give conceptual approval to the idea of a Marine Heritage Park.
3. Hold public hearings, refer the issue to the Historical, Parks, or Planning Commissions, or take some step to gather public input on whether we should do this and if so, where the park should be located.
4. The Commission would like the Administration to work with DOT/PF to see if the display could be located in the new ferry staging area. It was felt that that would be an excellent place for it.

Please do not hesitate to contact me if you have any questions.  
Thanks.

MEMO

DATE: October 27, 1993

TO: City Council thru City Manager

FROM: Harbormaster Muma *DM*

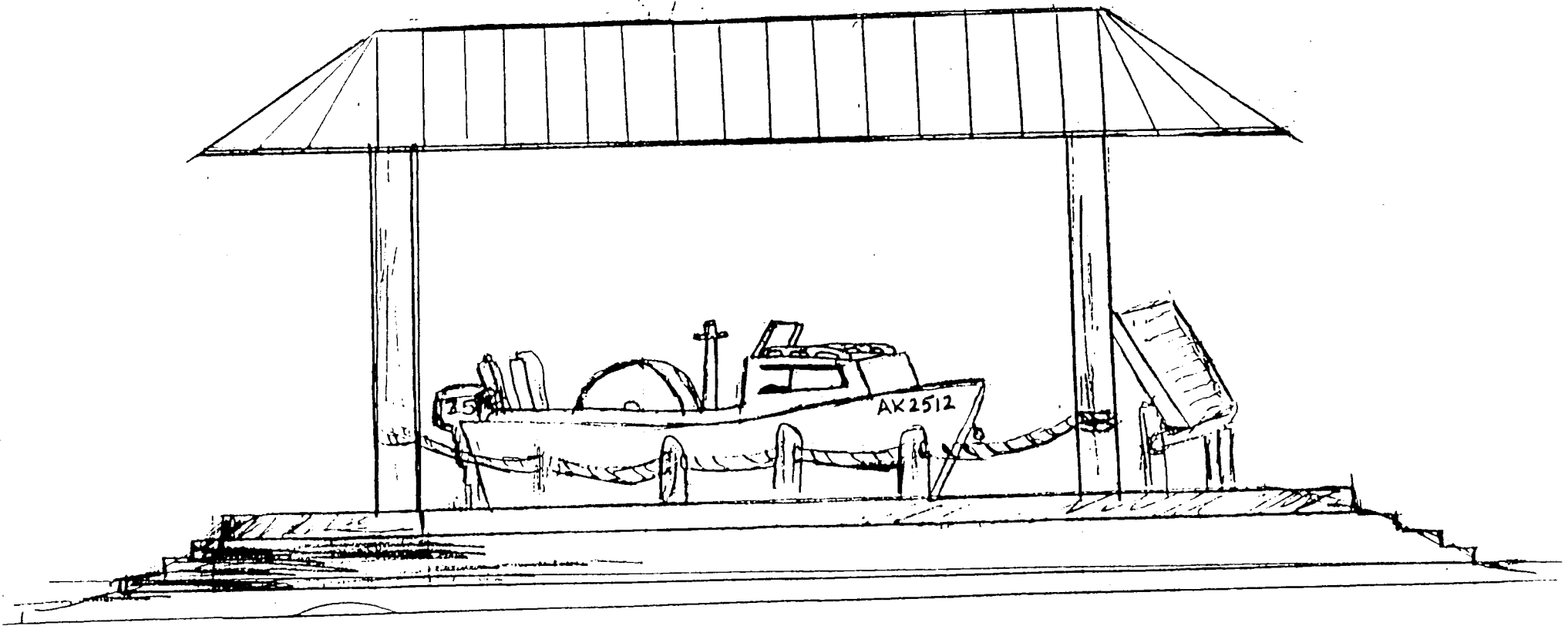
RE: "APA-3"

As you may or may not know, Brooke Adkinson has been working on the development of a Historical Marine Park in Cordova. He would like to salvage and restore some of the vintage fishing vessels used in the fishing industry and make them the attraction in this Marine Park. One of the vessels he has expressed interest in becoming a part of this park is the "APA-3" which was impounded by the Harbor department this last summer.

The issue of auctioning the vessel to recover the storage charges against the vessel or donating it to this Historical Marine Park was brought before the Harbor Commission at their regular meeting of 10/21/93. After a brief presentation by Mr. Adkinson and discussion by the Harbor Commission, the commission voted unanimously to donate the "APA-3" to the Historical Marine Park. The Planning Commission has also made a similar recommendation to save the "APA-3" and to the establishment of a Historical Marine Park.

One final note! There is \$623.85 worth of storage charges against the vessel. If the vessel is donated to the Historical Marine Park, will these storage charges be forgiven?

This recommendation is forwarded to you for your consideration.



EXAMPLE OF SITES.

#29

#29

VALDEZ FISHERIES  
DEVELOPMENT ASSOCIATION INC.  
SOLOMON GULCH HATCHERY

P.O. Box 125  
Valdez, Alaska 99686  
Phone 835-1329 Fax 835-5951



November 5, 1993

Mr. Wyn Manefee  
Recreation Work Group  
Box 107001  
Anchorage, Ak 99510-7001

Dear Wyn:

Please find enclosed a copy of Valdez Fisheries Development Associations proposal for a recreation restoration project. I must apologize for not getting this to you sooner, but do to a very hectic schedule I have not been able to submit this project request under the time table you requested.

After talking to you and re-evaluating the criteria for these projects, we feel this would be the only project we have that would satisfy the evaluation criteria.

Mr. Tom VanBrocklin will be delivering this project to you and will be able to discuss this projects merits if need be. I regret that I am unable to attend the workshop, but another commitment will keep me away. Thank you.

Respectfully,

Dave Cobb  
Business Manager

DEDICATED TO THE UTILIZATION, CONSERVATION,  
AND REHABILITATION OF ALASKA'S FISHERY RESOURCE  
WITHIN THE 200-MILE LIMIT

## RECREATION RESTORATION PROJECT PROPOSAL

**Project Title:** Solomon Gulch Hatchery Raceway Reconstruction

**Project Description:**

Rebuild a rearing raceway at Solomon Gulch Hatchery located in Valdez, Alaska. Funds allocated for this project would be spent on the rebuilding of an aluminum raceway that has been severely damaged overtime by hydraulic forces acting upon it.

The rearing raceway would be deepened and widened and constructed of reinforced concrete.

**What recreation resources or services does this project restore and how?**

Recreation and tourism in Valdez were impacted by the oil spill. The reason that many people visit Valdez is the excellent sport fishing opportunities that existed in and near Valdez. However, since the 1989 oil spill, these opportunities have been greatly reduced. The major impact from the spill has been felt in the reduced numbers of sport fish available to the fishermen. It has been documented that Pink salmon were heavily impacted by the spill and they continue to be adversely effected to this date. While Pink salmon are primarily a commercial salmon species throughout Alaska, they are a very important sport fish to the Port Valdez area. A unique sport fishery has developed from the Pink salmon returning to the Solomon Gulch Hatchery. It has been documented that approximately 90-150 thousand Pink salmon were caught annually by sport fishermen in Port Valdez. However, since the oil spill the annual catch rate has dropped significantly to approximately 50-75 thousand Pink salmon. Pink salmon fry released from Solomon Gulch exit Port Valdez and travel through the oil impacted zone in southwest Prince William Sound before moving into the Gulf of Alaska. The reduction in the available plankton in this area has significantly harmed the outmigrating fry so as to cause a significant reduction in the returning adult salmon. The prognosis for the early recovery of Pink salmon in Prince William Sound is not encouraging. However, sport fishing opportunities can be enhanced through the increased production and rearing of Coho and King salmon at Solomon Gulch Hatchery. Rebuilding the aluminum raceway at the hatchery will increase the rearing space available to further enhance a significantly reduced sport fishing in Port Valdez. It is believed that Coho and King salmon smolts do not use the same exit routes during their outmigration that Pink salmon do nor do they feed as aggressively on available plankton as do Pink salmon fry. Therefore, they would probably survive at a higher rate than Pink salmon and be able to enhance the sport fishing in Valdez area to a significant degree.

**Estimated Cost:**

The material and labor to rebuild this raceway will cost approximately \$194,000. By replacing the existing damaged aluminum raceway with a reinforced concrete raceway you will realize a much more durable structure that is not affected by hydraulic ground pressures from an incoming tide to the degree that a lighter aluminum raceway would be. Future maintenance costs of this structure will be assumed by Valdez Fisheries Development Association.