Seward Public Participation Meeting
Proposal received May 13, 1993
10.1.02

# Alaska SeaLife Center

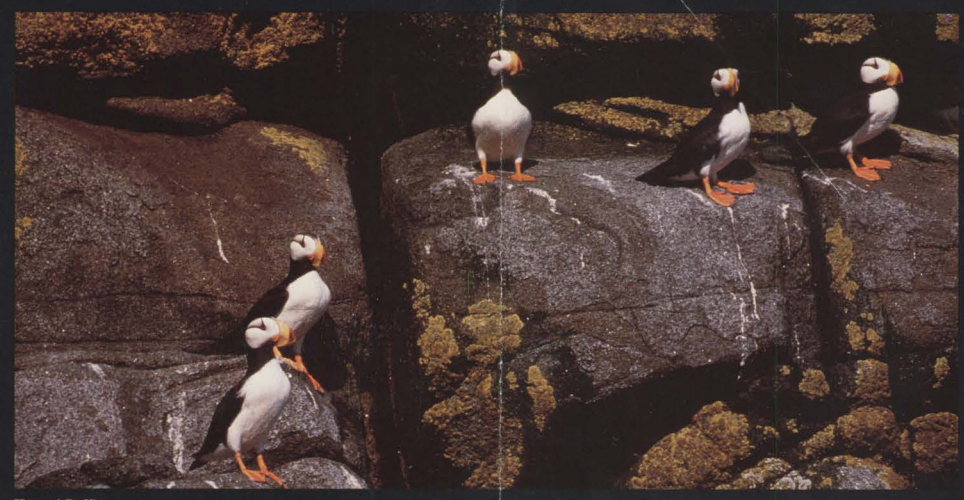
**Alaska SeaLife Center**
Alaska's oceans host one of the greatest concentrations of marine animals in the world—33 species of marine mammals and 66 kinds of seabirds. Yet Alaska has no place to care for sick marine animals, study them under controlled conditions, or view them in their undersea environment.

With your support, the Alaska SeaLife Center will fill all three gaps with a unified triad of programs—marine research, rehabilitation of stranded marine animals, and educational exhibits of live marine animals—all working in equal partnership to promote the health of Alaska's oceans.

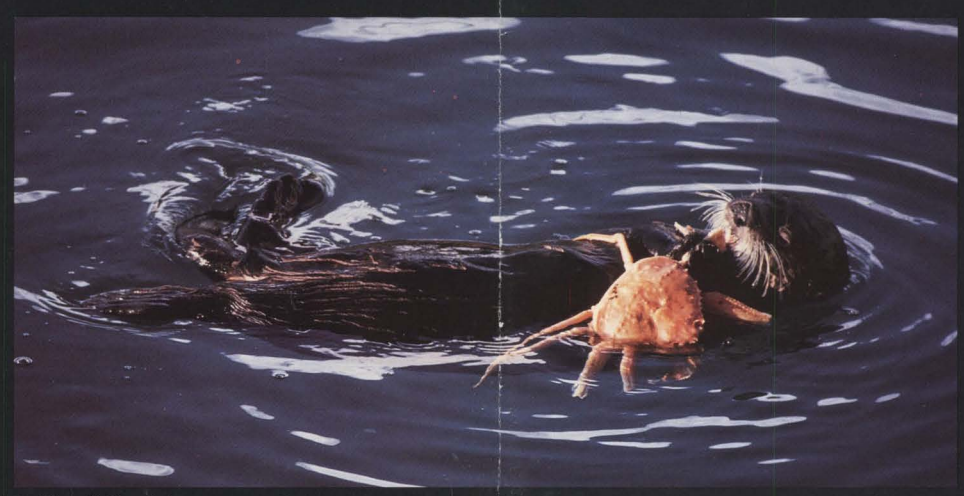
The Alaska SeaLife Center is a collaboration of the Institute of Marine Sciences (IMS) of the University of Alaska and the City of Seward. The IMS facility in Seward brings its international reputation as a unique sub-arctic research institution devoted to fish, invertebrates, and medical research, and the City donates adjacent land for the SeaLife Center. Orchestrating this venture and asking for your support is a non-profit organization, the Seward Association for the Advancement of Marine Science (SAAMS).

Parakeet Auklet

Alaska Native

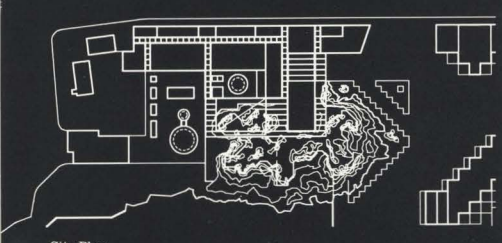


Horned Puffins



Sea Otter with Snow Crab

View of Seward, Looking North



Site Plan

**Research Program**
Scientists, who currently go elsewhere to study Alaskan marine birds and animals in a controlled setting, will have facilities and support at the Center to conduct basic and applied research on artic and sub-arctic species. Collaboration with the rehabilitation and exhibit colony programs will ensure advances that neither could achieve on its own.

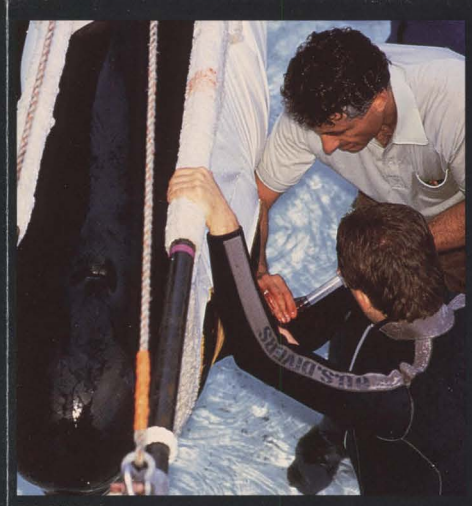
**Rehabilitation Program**
The Center will become a place where seals, sea lions, whales, dolphins, sea otters, and seabirds that founder ashore because of natural or human-related causes can be rescued, cared for, and released. The program will operate with the advice and cooperation of the National Marine Fisheries Service, the Alaska Department of Fish and Game, and the U.S. Fish and Wildlife Service.

**Exhibits and Education**
Steller sea lions, sea otters, and seabirds will be featured in underwater and outdoor habitat settings with the grandeur of Resurrection Bay as a natural backdrop. Inside, large walls of acrylic will create the sense that the viewer, too, is submerged in the ocean environment. Discoveries in the research and rehabilitation programs will be shared through exhibits and tours of those work places whenever activities permit.

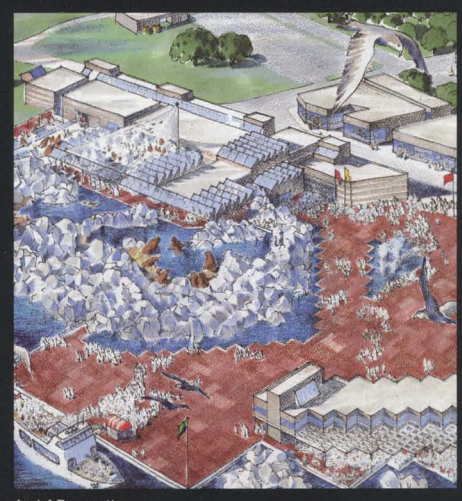
**Urban Focus**
The site on the shore of Resurrection Bay was once the landing place for Alaska's original pioneers at the gateway to the Territory. With the Alaska SeaLife Center and a new public plaza to draw people through the city to the ocean's edge, the site will again become a gateway—to Alaska's ocean world. The plaza will offer space for community gatherings, special events, strolling, sitting, and socializing. The Center will become a new landmark for Southcentral Alaska.

*For more information contact*: Seward Association for the Advancement of Marine Science (SAAMS), P.O. Box 730, Seward, Alaska 99664, Telephone: (907) 224-5261, a non-profit institution, Federal Tax ID number 92-132479.

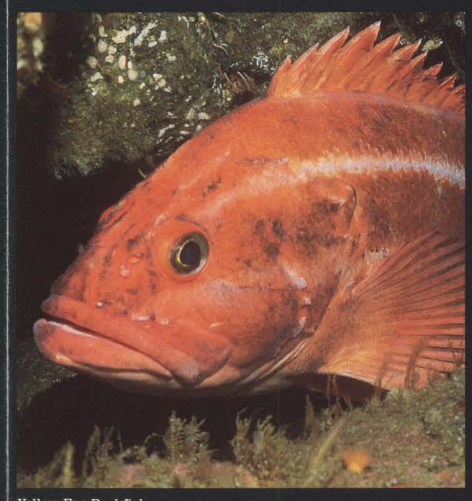
Research



Rehabilitation



Aerial Perspective



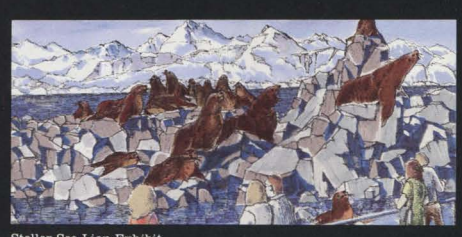
Yellow Eye Rockfish

**Exhibit Theme**
The complexity and fragility of the marine ecosystem will be a central theme throughout the Center. Unfortunately, Alaska has examples of marine animals in trouble, and those, such as the threatened Steller sea lion, will help focus attention on issues of declining populations, competition with commercial fisheries, and use of coastal resources. The Center will become a showcase, demonstrating how public concerns about the environment can be translated into tangible research, management, and rehabilitation programs that yield healthier oceans.

*Conceptual Design and Program:*
Cambridge Seven Associates, Inc., Cambridge, Mass.
*Consultant*: Joseph Geraci, V.M.D., PhD.

Photo Credits: horned puffins © Johnny Johnson/Alaska Stock Images; parakeet auklet © Hinke Sacilotto; Alaska native © 1991 Alissa Crandall; sea otter with snow crab © Tom Walker/AllStock; research © 1991 Alissa Crandall; rehabilitation © Christopher Brown/SIPA Press; yellow eye rockfish © Rick Rosenthal; Steller sea lions © Art Wolfe/AllStock; Alaska king crab © Lou Barr/AllStock; poster view of Seward, Alaska, © 1991 Ken Graham Photography.

**Exhibit Tour**
Your tour of the habitat exhibits will begin in the lobby as you come eye to eye with king crabs on the ocean floor. You will ascend like a SCUBA diver to the upper-level exterior colonies of sea lions, sea otters, and seabirds. As you descend again, the lumbering sea lions will transform into masters of an aquatic ballet, as otters dive for food and seabirds "fly" underwater. A film and exhibits on the ecological values of Alaska Natives will round out your visit.



Steller Sea Lion Exhibit

Lobby

Alaska King Crab

Alaska
SeaLife Center

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# Criminal Fine

| | |
|---|---|
| $12 million | To the North American Wetlands Conservation Fund for wetlands enhancement in the US, Canada and Mexico |
| $13 million | To the Federal Treasury |
| $125 million | Remitted |
| $150 million | Total |

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# Criminal Restitution

Alaska
$50 million

paid
Nov 7, 1991

Federal
$50 million

paid
Nov 7, 1991

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# CIVIL RECOVERIES

## Alaska & Federal Government

| $90 million | $150 million | $100 million | $70 million |
|---|---|---|---|
| paid | paid | paid | paid yearly |
| Dec 9, 1991 | Dec 1, 1992 | Sept 1, 1993 | Sept 1, 1994 |
| | | | 1995 |
| | | | 1996 |
| | | | 1997 |
| | | | 1998 |
| | | | 1999 |
| | | | 2000 |
| | | | 2001 |

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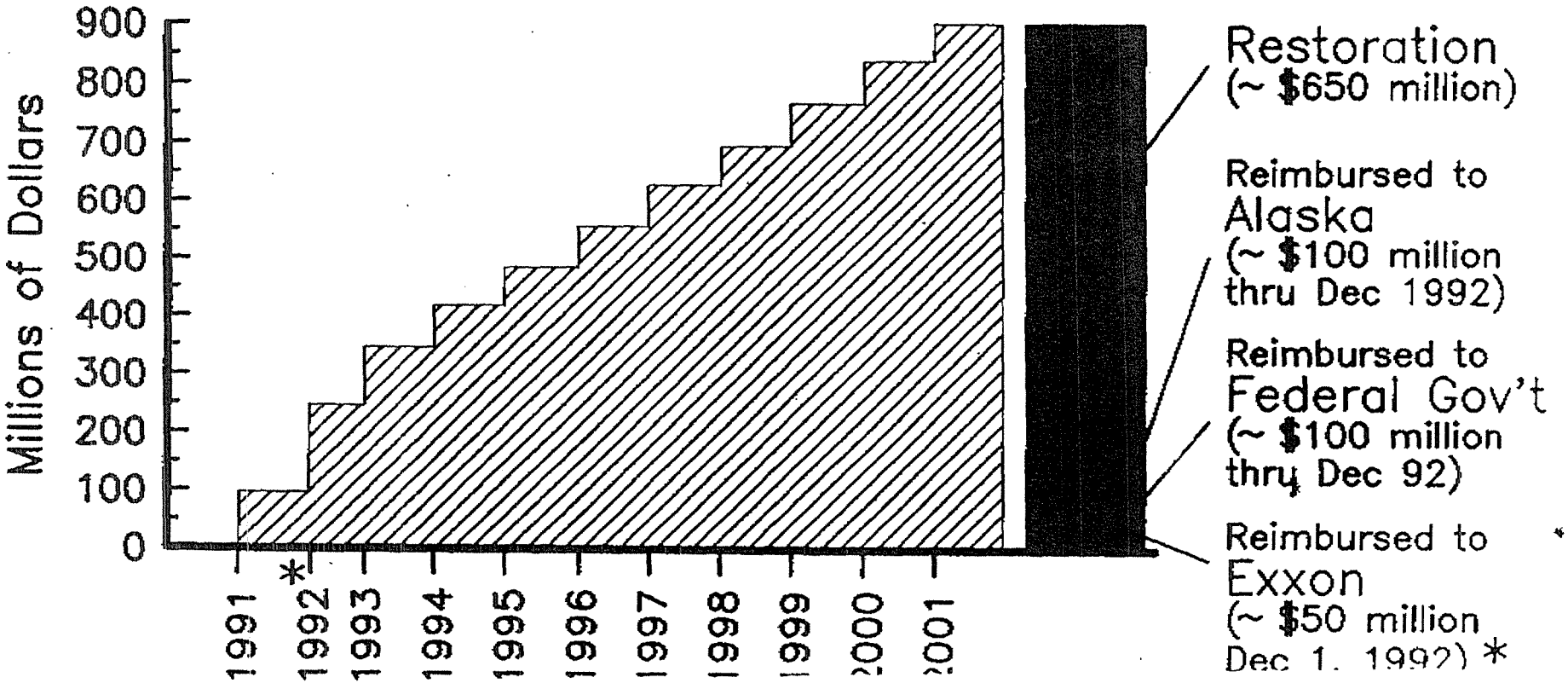
# CIVIL RECOVERIES

## Alaska & Federal Government

| $90 million | $150 million | $100 million | $70 million |
|---|---|---|---|
| paid | paid | paid | paid yearly |
| Dec 9, 1991 | Dec 1, 1992 | Sept 1, 1993 | Sept 1, 1994–2001 |



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# CRIMINAL RESTITUTION SPENDING GUIDELINES

I. THE STATE AND FEDERAL GOVERNMENTS WILL INDIVIDUALLY CONTROL THE $50 MILLION PAYMENT EACH WILL RECEIVE.

II. SUCH MONIES ARE TO BE USED EXCLUSIVELY FOR RESTORATION PROJECTS, WITHIN THE STATE OF ALASKA, RELATING TO THE "EXXON VALDEZ" OIL SPILL.

III. RESTORATION INCLUDES: 1) RESTORATION, REPLACEMENT AND ENHANCEMENT OF AFFECTED RESOURCES[1], 2) ACQUISITION OF EQUIVALENT RESOURCES AND SERVICES, AND 3) LONG-TERM ENVIRONMENTAL MONITORING AND RESEARCH PROGRAMS DIRECTED TO THE PREVENTION, CONTAINMENT, CLEANUP AND AMELIORATION OF OIL SPILLS.

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[1] SERVICES ARE NOT MENTIONED.

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# CIVIL RECOVERIES SPENDING GUIDELINES

I. ALLOWABLE EXPENSES ASSOCIATED WITH THE "EXXON VALDEZ" OIL SPILL WILL BE REIMBURSED TO THE GOVERNMENTS

II. THE BALANCE OF THE $900 MILLION WILL BE DISBURSED AS AGREED UPON IN THE AUG 28, 1991 MOA BETWEEN THE STATE AND FEDERAL GOVERNMENTS

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# MEMORANDUM OF AGREEMENT GUIDELINES

I. ALL DECISIONS SHALL BE MADE BY THE UNANIMOUS AGREEMENT OF THE TRUSTEES

II. A JOINT TRUST FUND WILL BE ESTABLISHED

III. THE TRUSTEES SHALL AGREE TO AN ORGANIZATIONAL STRUCTURE FOR DECISION MAKING WITHIN 90 DAYS OF RECEIPT OF FUNDS

IV. PROCEDURES FOR MEANINGFUL PUBLIC PARTICIPATION INCLUDING A PUBLIC ADVISORY GROUP SHALL BE ESTABLISHED WITHIN 90 DAYS OF RECEIPT OF FUNDS

V. THE GOVERNMENTS ARE NOT BOUND BY THE NATURAL RESOURCE DAMAGE ASSESSMENT REGULATIONS

VI. THE GOVERNMENTS SHALL JOINTLY USE ALL NATURAL RESOURCE DAMAGE RECOVERIES FOR PURPOSES OF RESTORING, REPLACING, ENHANCING, REHABILITATING OR ACQUIRING THE EQUIVALENT OF NATURAL RESOURCES[1] INJURED AS A RESULT OF THE OIL SPILL AND THE REDUCED OR LOST SERVICES PROVIDED BY SUCH RESOURCES EXCEPT FOR ALLOWABLE REIMBURSEMENTS TO THE GOVERNMENTS

VII. ALL NATURAL RESOURCE DAMAGE RECOVERIES WILL BE EXPENDED ON RESTORATION OF NATURAL RESOURCES IN ALASKA UNLESS THE TRUSTEES UNANIMOUSLY AGREE THAT SPENDING FUNDS OUTSIDE OF THE STATE IS NECESSARY

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[1] "NATURAL RESOURCES" MEANS LAND, FISH WILDLIFE, BIOTA, AIR, WATER, GROUND WATER, DRINKING WATER SUPPLIES, AND OTHER SUCH RESOURCES

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# TIME LINE OF SETTLEMENT DATES

| | |
|---|---|
| AUG 28, 1991 | Effective date of MOA between the State and Federal Governments |
| SEP 25, 1991 | Effective date of civil agreement |
| OCT 05, 1991 | $90,000,000 Civil payment due from Exxon to an escrow agent |
| OCT 08, 1991 | Court acceptance of criminal plea |
| OCT 08, 1991 | Court acceptance of civil agreement |
| NOV 07, 1991 | Criminal restitution payments to be received by Governments |
| DEC 09, 1991 | Final approval of civil agreement and the Governments are to jointly receive $90,000,000 (plus interest) civil payment from Exxon if no appeal is filed |
| MAR 08, 1991 | Trustee organizational structure to be in place 90 days after receipt of $90,000,000 payment |
| MAR 08, 1991 | Process to be in place for public participation including a public board to advise the Trustees |
| ? | Effective date of MOA between Alaska Natives and the Governments |
| ? | Effective date of MOA between Third Party Litigants and the Governments (not yet accepted by individual litigants) |

10.1.CN

4/27/92 as amended by the TC

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# CHARTER

## EXXON VALDEZ OIL SPILL PUBLIC ADVISORY GROUP

1. Official Designation: Exxon Valdez Oil Spill Public Advisory Group.

2. Objectives and Scope: In accordance with and pursuant to Paragraph V.A.4 of the Memorandum of Agreement and Consent Decree entered into by the United States of America, through the Department of Justice, and the State of Alaska, through the Attorney General, on August 27, 1991 and approved by the United States District Court for the District of Alaska in settlement of United States of America v. State of Alaska, Civil Action No. A91-081 CV, hereinafter referred to as the MOA, the Public Advisory Group shall advise the Trustees (State of Alaska Department of Law, State of Alaska Department of Fish and Game, State of Alaska Department of Environmental Conservation, U.S. Department of Agriculture, the National Oceanic and Atmospheric Administration of the U.S. Department of Commerce and U.S. Department of the Interior) through the Trustee Council with respect to the following matters:

All decisions relating to injury assessment, restoration activities, or other use of natural resource damage recoveries obtained by the Governments, including all decisions regarding

(1) the planning, evaluation and allocation of available funds;

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(2) the planning, evaluation, and conduct of injury assessments;

(3) the planning, evaluation and conduct of restoration activities;

(4) the coordination of (1), (2) and (3).

3. Period of Time Necessary for the Group's Activities: By order of the District Court for the District of Alaska, the Public Advisory Group is to advise the Trustees, appointed to administer the fund established in settlement of United States v. Exxon Corporation, Civil Action No. A91-082, and State of Alaska v. Exxon Corporation, Civil Action No. A91-083, both in the United States District Court for the District of Alaska, in all matters described in paragraph V.A.1 of the MOA referenced above. Final payment into the fund is scheduled for September 1, 2001. This Public Advisory Group shall terminate ten years from January 1, 1992 unless extended in writing by unanimous action of the designated Trustees by July 1, 2001.

4. Officials to whom the Public Advisory Group Reports: The Public Advisory Group shall report to the Exxon Valdez Settlement Trustee Council through the Chair of the Public Advisory Group at Trustee Council meetings. Other members of the group may report with the chair, as appropriate. The Trustee Council's regular agenda shall include a period during which the Public Advisory Group representative(s) may report on its activities, ask questions of the Trustee Council, and be available for questioning by the Trustee

Council. The U.S. Department of the Interior is the designated federal agency to whom the Public Advisory Group reports to ensure compliance with the Federal Advisory Committee Act, including the responsibility of ensuring the necessary support for the Public Advisory Group. The designated Federal Official is the Alaska Office of Environmental Affairs' Environmental Assistant.

5. Administrative Support: Administrative support for the Public Advisory Group shall be provided by the Administrative Director. The Trustee Council shall provide funds as deemed appropriate for administrative support for the Public Advisory Group, from the joint fund established in the registry of the United States District Court for the District of Alaska in settlement of United States v. Exxon Corporation and State of Alaska v. Exxon Corporation.

6. Public Advisory Group Composition, Selection, and Service: The Public Advisory Group shall consist of fifteen members, including a chair and a vice-chair.

A. Qualifications for service -- Members shall be appointed based on their demonstrated knowledge of the region, peoples, or principal economic and social activities of the area affected by the Exxon Valdez oil spill, or by demonstrated expertise in public lands and resource management as it relates to restoration.

B. Nomination and Selection -- Candidates for membership will be nominated by the public. From these nominations the Trustee Council will recommend

membership to the Trustees and following selection by the Trustees, the Secretary of the Interior selects those selected by the Trustees.

C. Minimum term -- Each member may serve two years from the date of appointment. Members are eligible for renomination and reappointment at the close of their terms. The Trustees may remove a member of the advisory group for reasons of malfeasance or incompetence.

D. Officers -- The Public Advisory Group shall have a chair and a vice-chair approved by the Trustee Council in consultation with members of the Public Advisory Group.

7. Expenses: Travel, per diem and administrative support, shall be borne by the Trustee Council from the joint fund established in settlement of United States v. Exxon Corporation and State of Alaska v. Exxon Corporation. While away from home or regular place of business in performance of the business of the Advisory Group, travel expenses, including per diem in lieu of subsistence, shall be allowed at the applicable federal government rates. The estimated annual operating cost is $106,000 and the estimated man-years for the group is 0.5.

8. Council Meetings and Records. The Public Advisory Group shall meet no less than four times per year.

A. All Public Advisory Group meetings will be open to the public. Any member of the public is permitted

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to file a written statement with the Public Advisory Group and any member of the public may speak at a Public Advisory Group meeting.

B. Detailed minutes of all meetings, including the time, date and place of the meeting, names of the Public Advisory Group members and other staff of the Trustee Council present, names of the public who presented oral or written statements, an estimate of the number of other public present, an accurate description of each matter discussed and the resolution, if any, made by the Public Advisory Group, and copies of each report or other document received, issued or approved by the Public Advisory Group, shall be prepared and made available to the public through the Administrative Director. The Chair shall certify to the accuracy of all minutes of the Advisory Group.

C. Meetings of the Public Advisory Group shall be held at a reasonable time and place reasonably accessible to the public. Notice of meetings shall be published in accordance with AS 44.62.310(e), AS 44.62.175 and 41 C.F.R. 101-6.1015(b).

D. All accounts and records of the activities and transactions of the Public Advisory Group shall be kept and maintained by the staff of the Administrative Director and shall be available for

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public inspection at the offices of the Administrative Director.

E. All rules and procedures governing the proceedings of the Public Advisory Group must be approved by the Trustee Council.

9. Administrative Authority: The Public Advisory Group and its officers shall have no administrative authority, except to recommend budget needs to the Administrative Director. The Trustee Council through the Administrative Director shall procure all needed space, supplies, equipment and support. Any office space of the Public Advisory Group shall be located with the office of the Administrative Director of the Restoration Team.

10. Termination Date: The Public Advisory Group shall terminate on January 1, 2002 unless extended as provided in paragraph 4.

11, Authority: This Public Advisory Group is established as mandated by paragraph V.A.4 of the MOA and shall be located in Alaska.

12. The charter of the Public Advisory Group is filed on _____.

10.1.21

# DRAFT SUMMARY OF COMMENTS FROM COMMUNITY MEETINGS ON A PUBLIC PARTICIPATION PROCESS FOR THE EXXON/VALDEZ RESTORATION PROGRAM

**KEY to communities where comments were noted:**

| | |
|---|---|
| A = Anchorage (2/13/92) | J = Juneau (1/22/92) |
| CB = Chenega Bay (2/10/92) | K = Kodiak (1/30/92) |
| C = Cordova (1/20/92) | S = Seward (2/6/92) |
| F = Fairbanks (2/11/92) | T = Tatitlek (2/4/92) |
| H = Homer (2/3/92) | V = Valdez (2/4/92) |

**NOTES:** Comments were taken from official minutes of public meetings unless marked as a letter (Ltr.), in which case the comment came instead from a written submission from that community.

Comments were included here only if they were expressed by more than one individual or if the notetaker had recorded that others at the same meeting showed clear signs of agreeing with what one individual had said.

All comments were paraphrased or edited, but every attempt was made to accurately portray the sense and the tone of the speaker.

## Public Participation, Public Advisory Group, Trust in the Restoration Process

Most Frequent Comments:

Trust in the Process

Comments stated that people do not trust the Trustee Council. They fear they will not trust the public process the Trustee Council will put in place, but feel a good public process can still make up for the rocky start. Reasons given for distrust are:

Trustees are political appointees. (C)

The Trustee Council has not released as much of the damage study results as the public feels it needs to give recommendations on restoration. (C/F/H/V/CB/J/A-1 Ltr.)

It seems that major decisions about use of the money have been made before the public has a chance to review options. Agency reimbursements were only one of the examples given. (A/F/H/J)

How this problem can be overcome:

The efforts so far to reach the public are, for the most part, appreciated. Teleconferencing is appreciated in the villages. However, one meeting commented that early meetings of the Trustee Council showed great disorganization. (C/CB/A/V/T/S)

There needs to be a greater effort to get good advance materials out.

Travel costs are high, but spending money for the Trustee Council and Public Advisory Group to actually talk to communities, including smaller villages, is worth it. (A/K/S/H/T/A-2 Ltrs.)

Public Advisory Council Relationship to the Trustee Council

A large majority of people who commented on the issue of membership of Public Advisory Group member(s) on the Trustee Council said at least one representative of the Public Advisory Group should be seated on the Council and be fully involved in Council decisions, but not have voting or veto power. Otherwise, the Public Advisory Group would have no real power. (A/H/C/S/K-1 Ltr./A-1 Ltr.)

Public Advisory Group access to the process - The Public Advisory Group should have direct access to the Trustee Council, Restoration Team, and its subcommittees and staff. (A/C/C-1 Ltr.)

Seven speakers expressed some version of the following comment, which follows a model the Regional Citizens Advisory Committee and Alyeska have agreed upon:

> If the Trustee Council does not follow a Public Advisory Group recommendation, they should have to explain in writing within a given time period why they did not agree. This may also apply to questions the Groups asks of the Council. (A/H/V/J/S)

## Public Advisory Group Composition and Selection

Most Frequent Comments:

The Trustees should not decide who they want on the Public Advisory Group. Public Advisory Group members should be selected by already existing groups or coalitions they represent. If such groups do not exist, they should be given a chance to organize just for the purpose of trying to gain consensus on who will represent them. (A/H/K/A-3 Ltrs.)

A Clear Difference of Opinion on the following point:

> One position - Assume groups and communities from different geographic areas can come to agreement, not that they will oppose each other. Then you have the chance of consensus. Do not "cluster" members from the various regions affected.
>
> Another position - it is important to have regional or subregional groups to develop community consensus.

Public Advisory Group membership should emphasize specifically those communities, user groups, and interests most directly affected, not those who have a more remote connection to injured resources. (K-1 Ltr. A-1 Ltr.)

## Process Suggestions for Public Participation and Public Advisory Group

Most Frequent Comments:

The Public Advisory Group should not function as a filter for all information flowing between the public and the Trustee Council, although it should actively distribute information to the public. There should continue to be direct contact between Trustee Council members and public, including Trustee Council meetings being held in affected communities and adequate public comment time at meetings. (S/A/K)

Strong comments in every community on the desirability and necessity of having both science study results and working documents of the restoration process available to the public. Catalogue the information and let everyone know where it can be obtained. Fairbanks meeting (several researchers attended) very concerned with this point. (C/F/H/V/CB/J/A-1 Ltr.)

Scientific work should not be cut off now just to save money. Finish this work, review it and make it the primary factor in planning restoration. (F/V/F-1 Ltr.)

There should be timely notice of meetings and distribution of relevant materials. (C/H/J/A-1 Ltr.) Suggestions for timing of meetings included frequently, bi-monthly, and quarterly.

Public repositories for restoration information - Designate and advertise an office or library or local contact person as the community site for restoration information. (A/C/K/V)

Several comments that restoration process should not be moving forward now before there is public review of plans and/or completion and review of damage assessment information. In some cases, decisions seem to have been made, and then afterward the public is asked its opinion on the same decision. (A/F/H/J/A-1 Ltr.)

There should be a clear record of all Trustee Council decision-making. (K/H)

## Budget and Staff

Most Frequent Comments:

The Trustee Council should be willing to spend the amount of money it takes to do the job well. The Public Advisory Group and public participation effort should be adequately staffed. Comments ranged from one to two staff for the Public Advisory Group, with specific staff for public information functions and money to contract for expert assistance. One example used for comparison was the Regional Citizens Advisory Council budget of $1.5 million for a somewhat similar task. (H/A/S/J-1 Ltr./K-1 Ltr./A-1 Ltr.)

## Need for Subgroups or Subcommittees of the Public Advisory Group

The question of how to structure the Public Advisory Group to get the best and broadest representation was a common theme, although there was no unanimity on the solution. Structures proposed included:

> The Public Advisory Group should be able to organize its own subcommittees so that it has some chance of getting work done.
>
> Each major geographic area could have a group, then these groups could select members to serve on the Public Advisory Group. One rationale was that fishing interests are so different in the different regions. (K/C/H/V)
>
> Impacted towns and villages should have members on the Public Advisory Group. Some comments specified that these be elected representatives of local government. (V-1 Ltr./ A-1 Ltr.) In addition, there would be subcommittees to get input from the interest groups, e.g. fishing, subsistence, recreation. The opposite was also proposed - Public Advisory Group members could represent interest groups and then, if desired geographic representatives could be put on subcommittees. (A/V/T/S)
>
> There should be community coordination groups to focus and define the community's concerns. Kodiak's approach could be a model. After that, communities would be more ready to meet to consider other communities' concerns. (K/H/CB)
>
> Staff may be needed to help smaller communities, and the Public Advisory Group itself, produce well written restoration proposals. (CB/A-1 Ltr./F-1 Ltr.).

Comment on patterns to be avoided:

Don't explicitly or implicitly divide up the money between communities ahead of time or create a structure which encourages this approach. This perpetuates the feeling of "pork barrel politics". (A/V)

## How to Spend the Money

Note: Even though this was not the primary question these public meetings were asked to address, comments were made and noted on how restoration money should be spent.

### Immediate Actions Needed

Most Frequent Comments:

Pay immediate attention to the drop in availability of subsistence foods which is being reported in villages. Show existing study information to residents. Continue the studies until restoration options can be figured out because otherwise subsistence users will not have information to base restoration proposals on. And involve local people whenever possible. (T/CB/H)

Get going on habitat acquisition for areas that may be logged this year because public interest is high now and because some of the logging companies need to know now. (C/A/K/H/A-1 Ltr.)

### More General Comments

Spend the majority of the money directly on restoration of the resources injured. The high value of what was lost warrants that attention. (A-1 Ltr.)

Money spent should remain in the oil affected area. (C/CB)

Concern that not enough has been or will be spent on the villagers concerns for absence of subsistence species.

Some fish or wildlife management decisions, e.g. rockfish, may have long range restoration needs - but are alternatives for short range improvements being considered as well.

Oyster mariculture needs to be better funded to succeed. (T)

Mussel beds and clams need reseeding. Deer, seal, crab, octopus, seaducks all are gone. (T)

Since loss of subsistence has meant more reliance on the cash economy, then restoration should mean helping residents of the Sound train or otherwise have more opportunities for cash jobs. The economy of the Sound area will change in part because of the spill - people need help in adapting.

Create an endowment (several different purposes were mentioned). Spend just the interest from the fund. (K/F/H)

Do not use large portion of the money for an endowment. This is just a way to avoid putting the necessary funds into habitat acquisition. Do not fund "unnecessary scientific studies" or padding of agency budgets with settlement money. Spend as much as possible on habitat purchase. (A)

Acquire land and habitat. (A/C/K/H)

The Trustee Council should not let some trustees "philosophical opposition" to government acquisition of private lands keep the Council from doing what is best and most cost-effective for restoration of the resource and the communities which depend on those resources. (A)

Important to get consensus in communities on what money should be spent for. Also described as "local control" or agreement with projects. Some speakers specified what they did not want it spent on, e.g. buildings, ports, agency budgets or spill prevention and cleanup. (K/H)

Specific proposals in Kodiak:

Note on comments from the Kodiak meeting - At least seven specific restoration proposals were submitted at the Kodiak meeting. The Borough introduced a list summarizing all of these. The Borough has established a working group to help ensure that Kodiak issues are a part of the process. So far, this appears to be a unique approach among the communities. The person presenting the Borough proposal said it was an attempt to pull something positive out of the negative spill experience.

Three state park proposals - an appraisal is needed for a Shuyak land exchange, buy native owned land for state parks, and fund a public education center and display about archaeological resources in Shuyak and training in archaeological protection there.

Fund a research lab so that monitoring and related work can be done locally, not sent away.

Kodiak Regional Aquaculture Association - Much more information is needed to support restoration decisions. They specifically support salmon studies and land acquisition.

Area K Seiners - Support land acquisition and the careful prioritization of all suggestions for use of the funds.

Proposal from Kodiak College (Associated with the University of Alaska, Anchorage) - Fund an Environmental Learning Resource Center, a building attached to the college library.

Do a study of what opportunities will be lost through delays in restoration.

The Kodiak Borough proposed their own list of criteria to be used for project selection and also endorsed proposals made by other groups.

Money should be spent on prevention - Kodiak is in need of response preparedness - lags far behind Prince William Sound - and is ready to work on it.

Homer comments:

On land acquisition - Land should be held in perpetuity; Trustee Council should act fairly quickly while the public's interest is high; decide now and pay over time; Trustee Council should look at conservation easements as cheap and effective ways of acquiring habitat. A local group is ready to help. (One speaker suggested putting just $1 million in a endowment fund to encourage land trusts in the spill area.)

Prevention and research - Spend money to get ready for next spill, on baseline data collection and on response readiness. (H/K/V/F)

Proposals in Cordova:

Prince William Sound Aquaculture Corporation Resolution - The Trustee Council should make directly funded or endowment-backed funding available for cooperative salmon ecology and interaction programs by their corporation. It should also help fund the actions by the aquaculture corporation and other agencies which result from such studies and which lead to restoration, enhancement and management of the salmon resources of the Sound.

Decisionmaking for such programs should be shared with the Prince William Sound Aquaculture Corporation and the information coming out of such programs should be shared with the Corporation and the public.

Habitat acquisition - buy as much as possible if it is not possible to buy whole areas, e.g. Montague Island.

Expand cooperation with the U.S. Forest Service's current study of the Sound. Consider placing a moratorium on all increase in industry in Sound to buy time for good evaluation of plans.

Comments from the Fairbanks meeting:

Note: Most of the people who signed in are connected with the University of Alaska-Fairbanks. Some are or were involved in damage assessment studies.

Many studies are on the brink of really understanding the systems they have been studying - do not cancel studies now. Still left to be done are independent peer review, synthesis and

integration of studies. Also, because past studies were strongly influenced by litigation, there may be a need for new studies to fill in the gaps in information needed for restoration. (This comment was from a researcher who is not state or federal agency funded.) (F-1 Ltr.)

Why is there a rush to begin restoration studies if this is the case? The rush to land acquisition should not be at the expense of finishing the science and getting an impartial review of these studies.

## Public Advisory Group
## Nomination Process

The process for soliciting nomination for the Public Advisory Group involves notifying the public and compiling a list of potential nominees for Trustee Council consideration. The Trustee Council will review the nominations and recommend membership to the Trustees for appointment by the Secretary of the Interior.

Nominations will be solicited using a wide range of media. Examples include:

- Newspapers in the affected area;
- Federal Register;
- Existing *Exxon Valdez* oil spill mailing list;
- Agencies' interest group mailing lists;
- Public service announcements;
- Flyers for posting in communities; and
- All persons having expressed interest in serving on the Public Advisory Group.

The request for nominations will ask for the following information:

- Biographical sketch (education, experience, address, phone);
- Demonstrated knowledge of the region, peoples or principal economic and social activities of the area affected by the *Exxon Valdez* oil spill, or; demonstrated expertise in public lands and resource management;
- Identification of relationship/involvement, if any, with one or more of the identified Principal Interests;*
- Identification of group(s), if any, recommending this appointment (Provide the point of contact and phone number for the group);
- Statement explaining any unique contributions the nominee will make to the Public Advisory Group and why the nominee should be appointed to the advisory group; and
- Additional relevant information that would assist the Trustee Council in making a recommendation.

The timeline attached shows the major steps in getting a Public Advisory Group in place by the end of August, 1992.

*The Principal Interests are: Aquaculture, Commercial Fishing, Commercial Tourism, Environmental, Conservation, Forest Products, Local Government, Native Landowners, Recreation Users, Sport Hunting and Fishing, Subsistence, Science/Academic and the public at large.

# PUBLIC ADVISORY GROUP
# NOMINATION AND SELECTION PROCESS
# 1992 TIMELINE

| | |
|---|---|
| April 27 | Timeline and Process approved by the Trustee Council |
| May 6 | Request for Nominations published |
| June 8 | Deadline for receipt of Nominations |
| June 22 | Nomination package to Trustee Council |
| June 29 | Preliminary selections made by Trustee Council (in executive session) |
| July 8 | Trustee Council selections to Trustees/ Department of the Interior for appointment |
| July 17 | Appointment letters sent |
| July 31 | Receive confirmation of acceptance of appointment (set first meeting date) |
| Aug 10 | Notice first Public Advisory Group meeting |
| Week of Aug 25 | First meeting of the Public Advisory Group |

10.1.2 G

Exxon Valdez Oil Spill Restoration Team
645 "G" Street, Anchorage, AK 99501
Phone: (907) 278-8012 Fax: (907) 276-7178

May 1992

Dear Concerned Citizen:

The Exxon Valdez Trustee Council is soliciting ideas from the public on restoration projects that may be undertaken in 1993 and beyond. If you have suggestions for work that you believe should be considered in designing next years' work plan, please provide them to us on the form provided or on a separate page according to the format indicated. Your ideas will be considered along with other ideas received. Submit as many suggestions as you like. The Trustee Council will consider these suggestions to assist in drafting the 1993 and future work plans. Suggestions must be received by **June 15, 1992.**

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 over them. Proprietary information should **not** be divulged unless you want it made public.

According to the definition in the Memorandum of Agreement and Consent Decree, filed August 29, 1991, "Restore" or "Restoration" means any action, in addition to response and cleanup activities required or authorized by state or federal law, which endeavors to restore to their prespill condition any natural resource injured, lost, or destroyed as a result of the Oil Spill and the services provided by that 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 resources and acquisition of equivalent resources and services.

Dave R. Gibbons, Ph.D.
Interim Administrative Director

## *EXXON VALDEZ* OIL SPILL TRUSTEE COUNCIL

## FORMAT FOR IDEAS FOR RESTORATION PROJECTS

**Title of Project:**

---

**Justification:** (Link to Injured Resource or Service)

---

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

**Estimated Duration of Project:** _____

**Estimated Cost per Year:** _____

**Other Comments:**

**Name, Address, Telephone:**

_____

_____

_____

_____

_____

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

_____ fold here _____

PLACE
STAMP
HERE

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

Attn: 1993 Work Plan

10.1.2F

**EXXON VALDEZ OIL SPILL SETTLEMENT**

**PROPOSED BUDGET SUMMARY - 1992**

PROJECT RELATED COSTS

| | | |
|---|---|---|
| 1. | 1992 Damage Assessment & Restoration Projects . . | $13,890,000 |
| 2. | Public Advisory Group . . . . . | 106,600 |
| 3. | Working Groups (Project Related). . . . . 1992 & 1993 Work Plan, Archaeology, GIS, Environmental Compliance, Planning, & Habitat Protection | 1,515,900 |
| 4. | Peer Review & Chief Scientist . . . . . | 604,000 |
| | **TOTAL** | **$16,116,500** |

ADMINISTRATIVE COSTS

| | | |
|---|---|---|
| 1. | Office of Administrative Director . . . . . | $ 1,218,700 |
| 2. | Working Groups (Process Related). . . . . Public Participation, Financial & Process | 371,600 |
| 3. | Restoration Team. . . . . | 868,500 |
| | **TOTAL** | **$2,458,800** |

| | |
|---|---|
| Project Related Costs. . . . . | $16,116,500 |
| Administrative Costs . . . . . | 2,458,800 |
| **TOTAL FOR 1992** | **$18,575,300** |

# III. 1992 *EXXON VALDEZ* ANNUAL WORK PLAN BUDGETS

| PROJECT | | PROPOSED 3 MONTH COST[1,2] | PROPOSED 12 MONTH COST[1,2] |
|---|---|---|---|
| **A. Damage Assessment Closeout** | | | |
| AW1 | Surface Oil Maps | 10.4 | 17.0 |
| ARC1 | Archaeological Survey | 100.8 | 248.8 |
| B2 | Boat Surveys | 13.9 | 48.5 |
| B3 | Murres | 42.5 | 75.7 |
| B4 | Eagles | 32.6 | 60.6 |
| B6 | Marbled Murrelets | 16.2 | 24.8 |
| B7 | Storm Petrels | 7.5 | 7.5 |
| B8 | Kittiwakes | 7.5 | 7.5 |
| B9 | Pigeon Guillemots | 18.0 | 18.0 |
| B11 | Harlequin Ducks | 22.9 | 22.9 |
| B12 | Shorebirds | 13.2 | 20.7 |
| CH1A | Coastal Habitat | 828.5[3] | 2,358.5[4] |
| CH1B | Hydrocarbons in Mussels | 14.2 | 51.4 |
| FS1 | Spawning Area Injury | 48.3 | 64.3 |
| FS2 | Pre-emergent Fry | 22.7 | 29.3 |
| FS3 | Coded-Wire Tags | 45.6 | 126.7 |
| FS4A | Early Marine Salmon | 56.0 | 145.2 |
| FS4B | Juvenile Pinks | 24.9 | 119.4 |
| FS5 | Dolly Varden | 21.2 | 22.2 |
| FS11 | Herring Injury | 144.7 | 303.6 |
| FS13 | Clams | 30.1 | 40.8[5] |
| FS28 | Run Reconstruction | 60.1 | 250.6 |
| MM1 | Humpback Whales | 0.0 | 17.3 |
| MM2 | Killer Whales | 1.7 | 33.3 |

[1] Cost in thousands of dollars.

[2] Starting March 1, 1992.

[3] Number is approximate.

[4] A placeholder of $3,021,500 was initially approved pending completion of project review. A proposed project cost of $2,358,500 was developed upon completion of project review.

[5] For analysis of 1989 & 1990 growth data. Approval for additional work at an additional cost of $65,500 may be requested depending on the results of growth analysis.

| PROJECT | | PROPOSED 3 MONTH COST | PROPOSED 12 MONTH COST |
|---|---|---|---|
| MM6 | Sea Otters | 92.0 | 199.7 |
| TM3 | River Otter & Mink | 67.8 | 74.0 |
| ST1A | Subtidal Sediments | 32.6 | 103.5 |
| ST1B | Subtidal Microbial | 12.8 | 17.1 |
| ST2A | Shallow Benthic | 37.4 | 109.8 |
| ST2B | Deep Water Benthos | 11.8 | 10.7[6] |
| ST3A | Caged Mussels | 10.9 | 39.1 |
| ST3B | Sediment Traps | 40.4 | 50.9 |
| ST4 | Fate and Toxicity | 8.6 | 52.6 |
| ST6 | Rockfish | 0.0 | 16.6 |
| ST7 | Demersal Fishes | 16.8 | 60.4 |
| | **SUBTOTAL** | 1,914.6 | 4,849.0 |
| **B. Damage Assessment Continuation** | | | |
| FS27 | Sockeye Overescapement | 154.8 | 583.0 |
| FS30 | Database Management | 47.5 | 202.5 |
| ST5 | Shrimp | 13.3 | 22.7[7] |
| ST8 | Sediment Data Synthesis | 39.1 | 205.6 |
| TS1 | Hydrocarbon Analysis | 388.8 | 1,028.3 |
| TS3 | GIS Mapping & Analysis | 102.9 | 375.2[8] |
| | **SUBTOTAL** | 746.4 | 2,417.3 |
| **C. Restoration: Technical Support** | | | |
| R92 | GIS Mapping & Analysis | 29.4 | 125.5[8] |
| | **SUBTOTAL** | 29.4 | 125.5 |
| **D. Restoration: Recovery Monitoring** | | | |
| R11 | Murres | 192.6 | 316.7 |

[6] PI needs to resolve technical issues raised by peer reviewers. Approval for project completion, at an additional cost of $76,900, may be requested pending resolution of issues.

[7] Amount for final report. Approval for additional field work, at an additional cost of $67,900, may be requested depending on final report results.

[8] Placeholder. Final number to be developed following program approval by the Trustee Council.

| PROJECT | | PROPOSED 3 MONTH COST | PROPOSED 12 MONTH COST |
|---|---|---|---|
| R60C | Pink Salmon Egg/Fry | 187.1 | 389.9 |
| R90 | Dolly Varden | 91.5 | 91.5 |
| R102 | Coastal Habitat | 165.0[3] | 485.6[9] |
| | **SUBTOTAL** | 636.2 | 1,283.7 |
| **E. Restoration: Implementation Planning** | | | |
| R105 | Instream Survey | 74.6 | 348.1 |
| | **SUBTOTAL** | 74.6 | 348.1 |
| **F. Restoration: Manipulation/Enhancement** | | | |
| R113 | Red Lake Restoration | 0.0 | 55.9 |
| | **SUBTOTAL** | 0.0 | 55.9 |
| **G. Restoration: Habitat Protection Planning** | | | |
| R15 | Marbled Murrelets | 185.0 | 419.3 |
| R47 | Stream Habitat Survey | 76.4 | 399.6 |
| R71 | Harlequin Ducks | 130.6 | 424.5 |
| | **SUBTOTAL** | 392.0 | 1,243.4 |
| **H. Restoration Management Actions** | | | |
| R53 | Kenai Sockeye | 66.2 | 674.2 |
| R59 | Genetic Stock ID | 100.7 | 320.9 |
| R60AB | Pink Salmon | 154.1 | 1,479.7 |
| R73 | Harbor Seals | 25.0 | 25.0 |
| R103 | Oiled Mussels | 270.6 | 874.0[10] |
| R104A | Site Stewardship | 46.7 | 159.2 |
| R106 | Dolly Restoration | 34.9 | 34.9 |
| | **SUBTOTAL** | 698.2 | 3,567.9 |
| | **TOTAL** | 4,491.4 | 13,890.8 |

[9] A placeholder of $604,100 was initially approved pending completion of project review. A proposed project cost of $485,600 was developed upon completion of project review.

[10] A placeholder of $825,000 was initially approved pending completion of project review. A proposed project cost of $874,000 was developed upon completion of project review.

# Timeline for Completion of the Restoration Plan and Environmental Impact Statement

| DATE | MILESTONE AND/OR ACTIVITY |
|---|---|
| 24 Apr 1992 | Establish categories for information to be compiled for describing and evaluating the restoration options |
| 15 May | Provide draft outline of Draft Restoration Plan and Draft Environmental Impact Statement to Restoration Team |
| 04 Jun | Deadline for receipt of public comments on the Restoration Framework |
| 15 Jun | Modify outline of Draft Restoration Plan and Draft Environmental Impact Statement to reflect public comment on the Restoration Framework; identify draft final list of issues to be addressed in Draft Environmental Impact Statement |
| 26 Jun | Trustee Council approves outline of Draft Restoration Plan and Draft Environmental Impact Statement; present list of issues to be addressed in the Draft Environmental Impact Statement |
| 30 Jun | Complete compilation of information needed to describe and evaluate restoration options |
| 30 Jul | Complete evaluation of restoration options |
| 15 Aug | Provide draft sets of restoration alternatives to the Trustee Council |
| 15 Nov | Complete first draft of the Draft Restoration Plan and draft of the Draft Environmental Impact Statement and present to Restoration Team |
| 15 Jan 1993 | Trustee Council approves Draft Restoration Plan and Draft Environmental Impact Statement |
| 15 Feb | Draft Restoration Plan and Draft Environmental Impact Statement released to public |
| 31 Mar | Comments on Draft Restoration Plan and Draft Environmental Impact Statement due from public |
| 30 Apr | Complete draft Final Restoration Plan and Environmental Impact Statement and present to Restoration Team |
| 31 May | Trustee Council approves Final Restoration Plan and Environmental Impact Statement |

# HABITAT PROTECTION AND ACQUISITION PROCESS

**Flow Charts**

- Flow Chart Guide Diagram

- Figure 6 from the Restoration Framework
- Figure 7 from the Restoration Framework
- Figure 1 Evaluation Process
- Figure 2 Imminent Threat Protection Process

- Federal Acquisition Process
  - Figure 3 Donation/Purchase/Exchange
  - Figure 3a Timeline

**Narratives**

- Habitat Protection and Acquisition Process
  - I. Evaluation Process
  - II. Imminent Threat Protection Process

- Federal Acquisition Process

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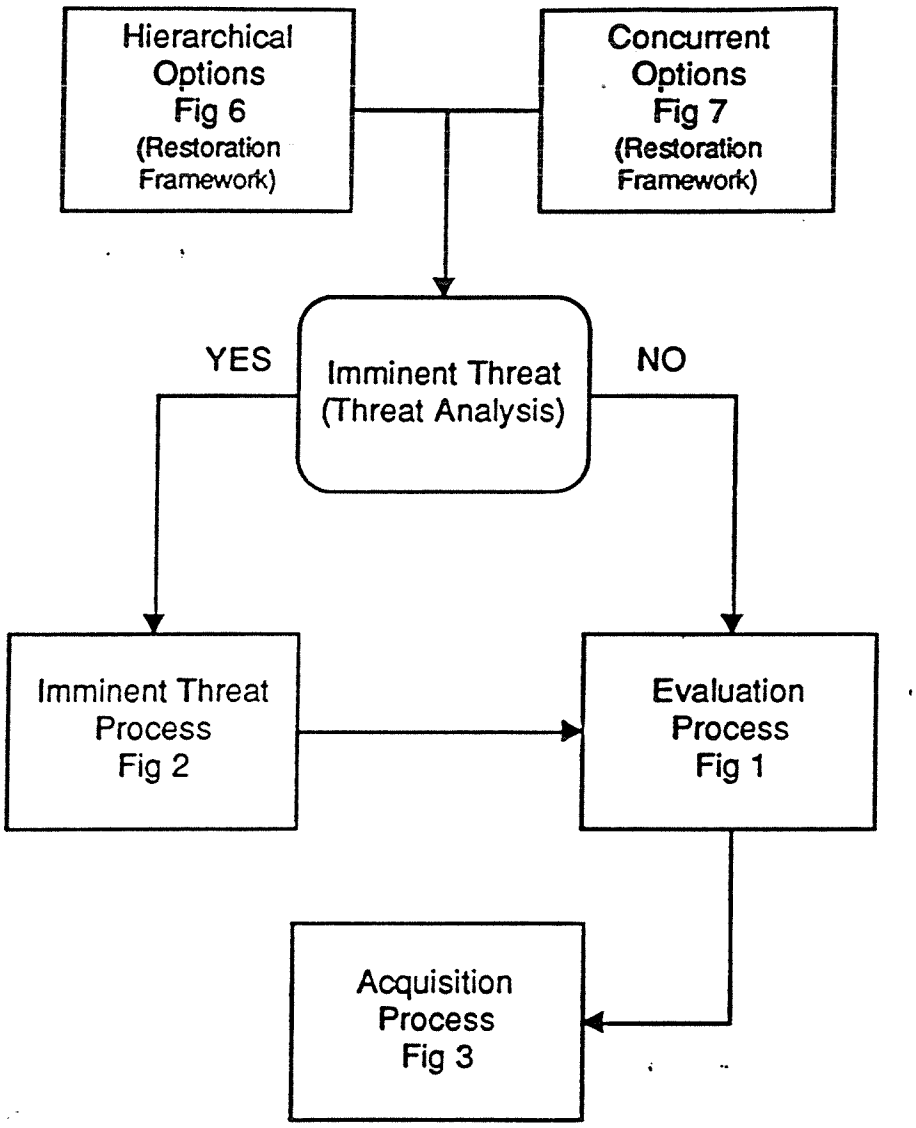
# Flow Chart Guide Diagram




Habitat Protection and Acquisition Process

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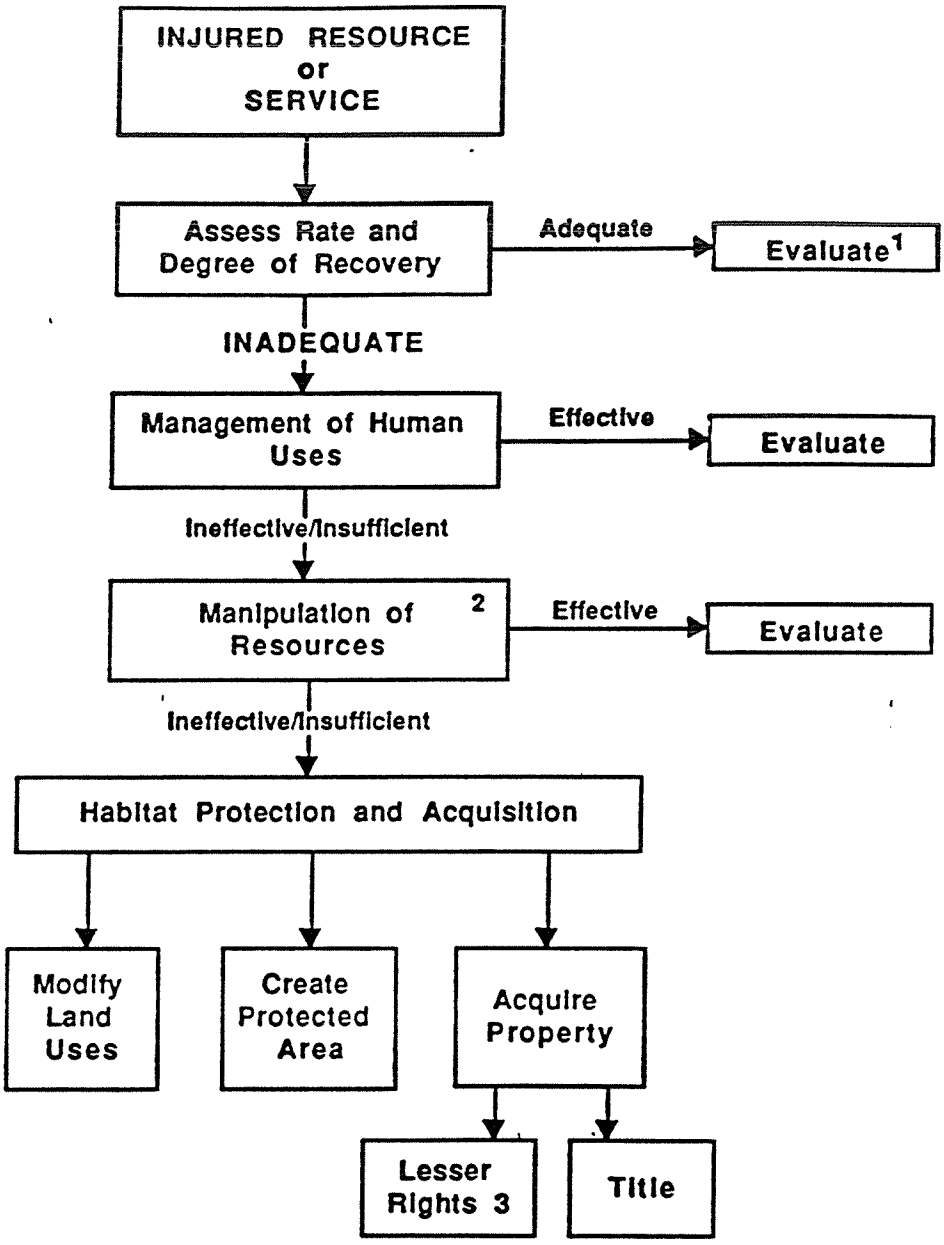
Figure 6. Possible conceptual approach to the analysis of restoration options. This approach considers options in an hierarchical fashion. (Framework Document)




1 All restoration actions will be evaluated to assess their effectiveness on the recovery rate of the target injured resource.

2 These approaches can be implemented on a direct-restoration or equivalent-resource basis.

3 Acquisition of full title or lesser rights exclusive of full ownership of title (partial interests), e.g., conservation easement, timber rights, access rights, etc.

## Habitat Protection and Acquisition Process

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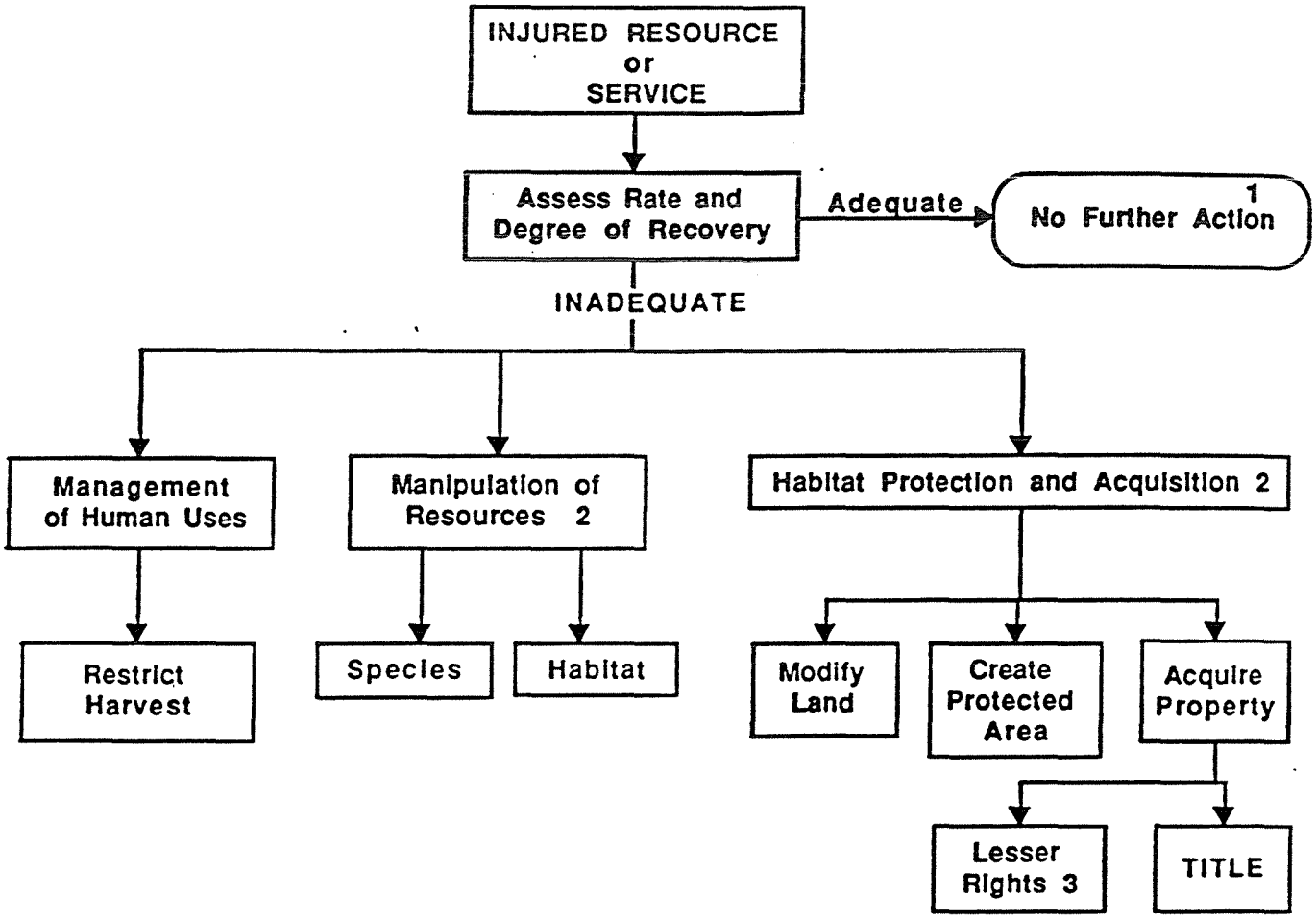
Figure 7. Possible conceptual approach to the analysis of restoration options. This approach uses concurrent analysis of restoration options.
(Framework Document)




1 All restoration actions will be evaluated to assess their effectiveness on the recovery rate of the target injured resource.
2 These approaches can be implemented on a direct-restoration or equivalent-resource basis.
3 Acquisition of full title or lesser rights exclusive of fullownership of title (partial interests), e.g., conservation easement, timber rights, access rights, etc.

Habitat Protection and Acquisition Process

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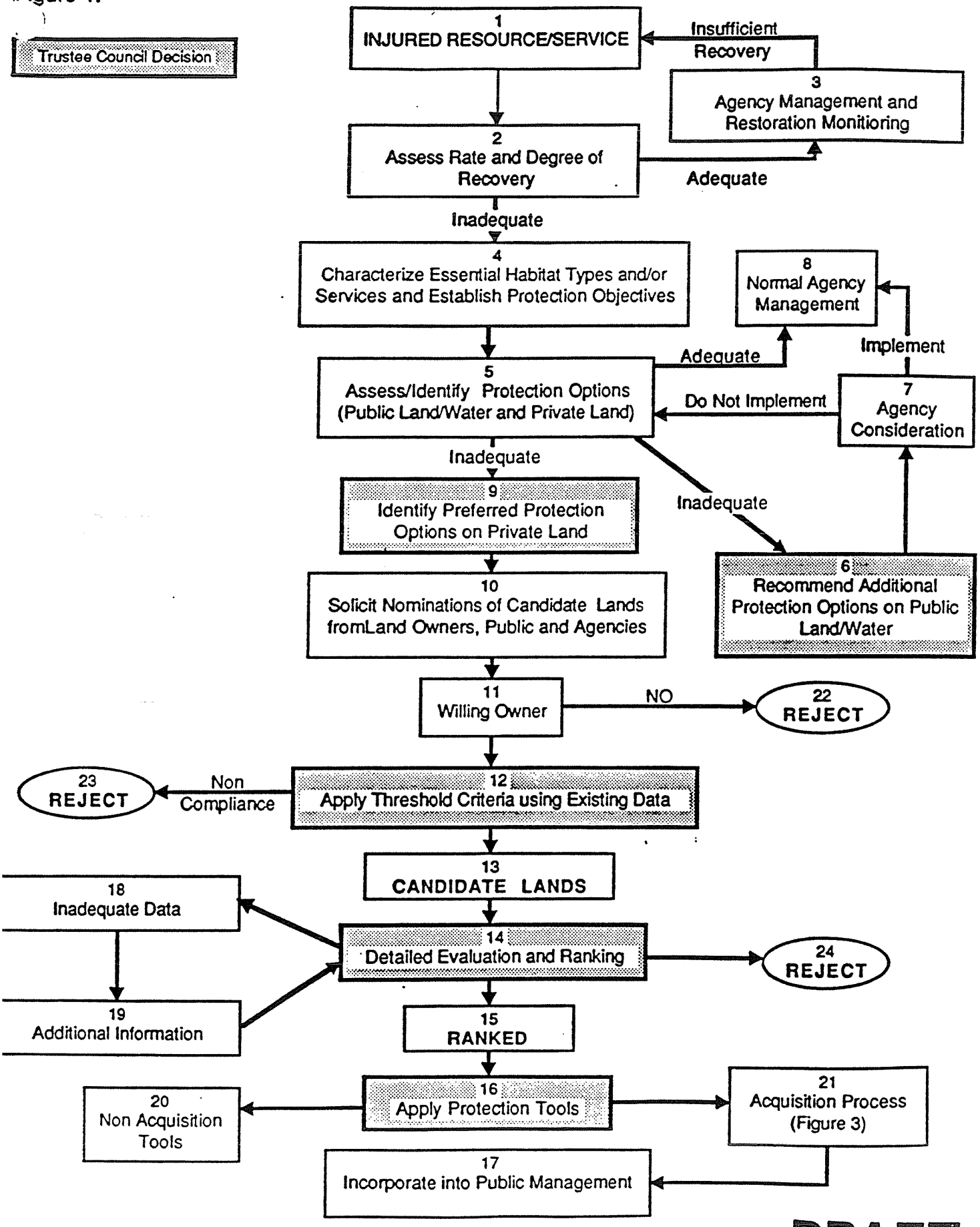
HABITAT PROTECTION AND ACQUISITION OPTIONS

# EVALUATION PROCESS

Figure 1.

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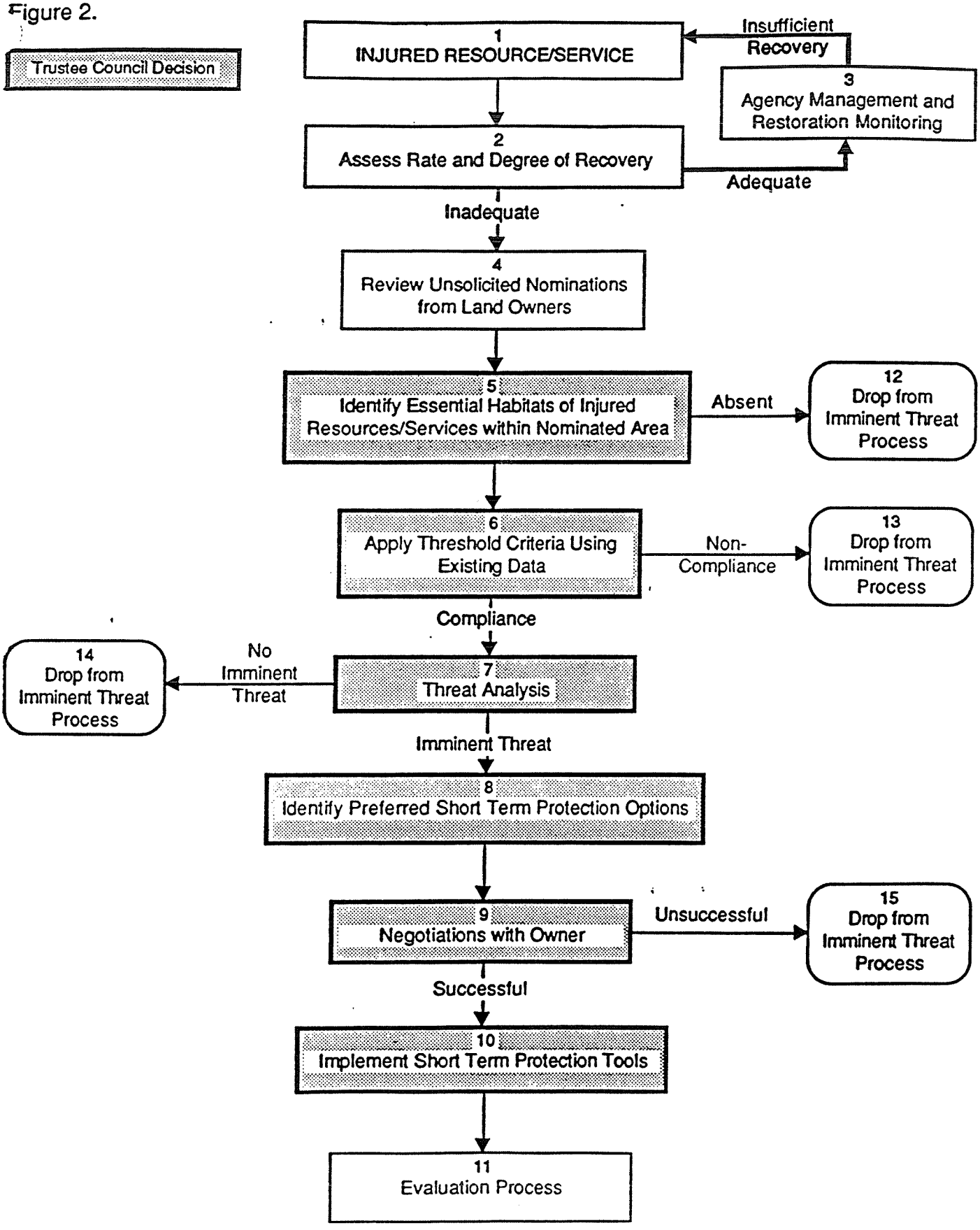
# HABITAT PROTECTION AND ACQUISITION OPTIONS
# IMMINENT THREAT PROTECTION PROCESS

Figure 2.

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# HABITAT PROTECTION AND ACQUISITION PROCESS

## I. EVALUATION PROCESS

## II. IMMINENT THREAT PROTECTION PROCESS

## INTRODUCTION

The goal of the Habitat Protection and Acquisition process is to contribute to the restoration of injured resources and services by identifying and, where appropriate, protecting strategic habitats and services.

*Habitat Protection and Acquisition* is one of the potential restoration alternatives presented in the Restoration Framework document. This alternative: *... includes changes in management practices on public or private lands and creation of "protected" areas on existing public lands in order to prevent further damage to resources injured by the Exxon Valdez oil spill. Going beyond land management practices, there also are options that involve the acquisition of ... habitats or property rights short of title by public agencies to protect strategic wildlife, fisheries habitat or recreation sites.*

Another potential restoration alternative that involves habitat protection and acquisition is the *Acquisition of Equivalent Resources.* The Restoration Framework defines this alternative to mean: *...compensation for an injured, lost, or destroyed resource by substituting another resource that provides the same or substantially similar services as the injured resource (56 Federal Register 8899 [March 1, 1991]). Restoration approaches, such as the manipulation of resources and habitat protection and acquisition, can be implemented on an equivalent-resource basis.*

The March 1, 1991 Federal Register (56 FR 8903), as part of a description for a lands/habitat protection restoration project, stated that the objective is *... to identify and protect strategic wildlife and fisheries habitats and recreation sites and to prevent further potential environmental damages to resources injured by the Exxon Valdez oil spill.*

The purpose of the Evaluation Process and Imminent Threat Protection Process is to provide a conceptual framework and strategy for habitat protection and to serve as a guide to the Trustee Council. Central to this strategy is the requirement that a) the Trustee Council approve a list of candidate lands recommended by the Restoration Team for detailed evaluation, and b) the Trustee Council approve the actual purchases of title or property rights.



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In addition, the Trustee Council would review all candidate lands, decide which proposals should receive further evaluation, determine protection tools and boundaries, and establish the ranking of the proposals.

Figures 6 and 7 in the *Restoration Framework* depict alternative approaches to evaluating restoration options, including habitat protection and acquisition options. Figure 6 depicts a hierarchical strategy whereas Figure 7 illustrates one wherein all alternatives would be considered concurrently. The choice of habitat protection and acquisition options as a restoration alternative is compatible with either the hierarchical or concurrent approach.

Both of these approaches require the identification of an injured resource or service whose rate and degree of recovery have been assessed as inadequate. Both the Evaluation Process [Figure 1] and Imminent Threat Protection Process [Figure 2]recognize the importance of these two elements. Consequently, they begin with these common elements as prerequisites, as is depicted in the top portions of Figures 1 and 2.

The *Habitat Protection and Acquisition Process* involves the solicitation of proposals of Candidate Lands from land owners, the public and from State and Federal resource agencies. In order to supplement this basic process, the Imminent Threat Process was developed as an accelerated assessment procedure that recognizes the need to respond to a proposed change in land use that would foreclose habitat protection opportunities that would, if implemented, facilitate recovery of injured resources or services or allow for acquisition of equivalent resources.

The *Habitat Protection and Acquisition Process* will be presented to the public for comment as part of the Draft Restoration Plan and Draft Environmental Impact Statement. All restoration options, including habitat protection and acquisition options along with proposed evaluation criteria are included in Chapter VI of the *Restoration Framework.*

The following discussion describes the two processes by explaining the elements depicted in Figures 1 and 2 . Each symbol is numbered and contains *symbol text* that identifies process or structural elements. Text which is outside of all symbols is known as *caption text* and will be defined and discussed along with the appropriate symbol text. Shaded boxes in Figures 1 and 2 represent points in the process where Trustee Council decisions are required.



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## EVALUATION PROCESS

### #1 Injured Resource/Service

The definition of injury used herein is that found in the *Restoration Framework* document:

***A natural resource has experienced "consequential injury" if it has sustained a loss (a) due to exposure to oil spilled by the T/V Exxon Valdez, or (b) which otherwise can be attributed to the oil spill and clean up.***

*A natural resource service has experienced "consequential injury" if the Exxon Valdez oil spill or clean up:*

- ***has significantly reduced the physical or biological functions performed by natural resources, including loss of human uses; or***

- ***has significantly reduced aesthetic, intrinsic or other indirect uses provided by natural resources; or, in combination with either of these,***

- ***has resulted in the continued presence of oil on lands integral to the use of special-purpose lands.***

Chapter IV of the *Restoration Framework*, *Summary of Injury*, provides a summary of the injuries to organisms, habitat and other resources and services from the Exxon Valdez oil spill.

### #2 Assess Rate and Degree of Recovery

The Restoration Framework states that: ***In a scientific sense, full ecological recovery has been achieved when the pre-spill flora and fauna are again present, healthy and productive, and there is a full complement of age classes. A fully recovered ecosystem is one which provides the same functions and services as were provided by the pre-spill, uninjured system.***

Adequacy of the rate and degree of recovery will be estimated from on-going damage assessment and restoration studies, the scientific literature and other sources including the *best professional judgment* of recognized experts.

### #3 Agency Management and Restoration Monitoring

Recovered resources and services will be monitored by both the resource agencies that are responsible for the management of the respective resource or service and by specific recovery monitoring studies. These studies will be part of a comprehensive and integrated monitoring program funded and managed by the Trustees.



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If resource agency managers and/or results from the recovery monitoring studies indicate that recovery is not proceeding in a sufficient manner, the injured resource or service will be re-introduced into the main stream of the Evaluation Process. Adequacy of the rate and degree of recovery will be estimated from on-going damage assessment and restoration studies, the scientific literature and other sources including the *best professional judgment* of recognized experts.

## #4 Characterize Essential Habitat Types and/or Service Components and Establish Protection Objectives

Essential habitat components of critical life history stages, i.e., reproduction, and feeding, of injured resources will be characterized. Habitat components that support injured services, e.g., spawning areas for anadromous fish, will also be defined. Implementation of this step requires the characterization of non-site specific habitat components, e.g., anadromous streams, old growth forests, riparian woodland, cliff ledges on offshore islands, etc. Identification of discrete, geographically-specific sites comes later in the process.

Establishing protection objectives and/or management strategies for these habitat types, that are designed to facilitate the recovery of injured resources or services, will result from reviews of life history literature, on-going studies and other sources, including the best professional judgment of recognized experts.

## #5 Assess/Identify Protection Options (Public Land/Water and Private Land)

Federal, State and local regulations and policies will be identified and reviewed to determine whether or not they provide adequate protection for injured resources/services and their essential habitat components. This review will include both private and public land/water. An assessment will be made of the adequacy of this protection within the EVOS context, i.e., do these regulations act to facilitate the recovery of resources/services injured by the oil spill. If these regulations are consistent with the requirements for recovery, additional protection options will not be recommended.

## #6 Recommend Additional Protection Options on Public Land/Water

If protection options currently in force on public land/water are found to inadequately promote and protect recovery, additional options will be developed and recommended to the appropriate resource agency. For example, more stringent resource development regulations might be recommended, for what is considered to be the recovery period for a specific resource or service.



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#7 Agency Consideration

Additional protection options will be submitted to and reviewed by the appropriate resource agency. If deemed acceptable, the agency will incorporate the option(s) into normal agency management procedures. If the agency decides to reject the recommended option(s), the options may be re-evaluated and/or new options developed.

#8 Normal Agency Management

Additional protection options accepted by resource agencies will be incorporated into normal agency management procedures and policies for the appropriate duration. Additional recovery monitoring will be part of a comprehensive and integrated monitoring program funded and managed by the Trustees.

#9 Identify Preferred Protection Options on Private Land

If protection options that are in force on private lands are inconsistent or insufficient with the requirements for recovery, additional protection options will be recommended. For example, if the *Alaska Forest Resources and Practices Act (1990)* does not provide for the desired rate of recovery of injured resources/services in riparian habitats, additional protection options for these habitat types will be identified.

For each injured resource/service for which essential habitat components are considered to be inadequately protected on private lands, a suite of preferred protection options will be identified and approved by the Trustee Council. Most of these protection options have been enumerated and described in *Options for Identifying and Protecting Strategic Fish and Wildlife Habitats and Recreation Sites* (The Nature Conservancy Handbook, 1991).

- Steps 1-9 have accomplished the following tasks:
  - Identification of injured species and services, that are not adequately recovering.
  - Identification of habitat components linked to recovery.
  - Development of protection objectives for each injured resource/service and linked habitat component.
  - Assessment of existing protection options on private and public land/water.
  - Identification of additional protection options needed to be implemented on private and public land/water.

- Each of these steps will be described in both the Draft Restoration Plan and the Draft Environmental Impact Statement.



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**#10 Solicit Nominations of Candidate Lands from Land Owners, Public and Agencies**

A Request for Proposal [RFP] will be issued by the Trustee Council in order to solicit nominations of candidate lands. The RFP will contain information describing, in generic terms, the types of land that the Trustees are interested in evaluating in order to protect injured resources/services. Geographically-specific sites will not be enumerated. The RFP will also contain a list and description of the preferred protection options that will be considered for those nominations that become candidate lands. The RFP will contain language that explicitly states that this is a voluntary program and that condemnation is not contemplated by the Trustees.

**#11 Willing Owner**

The first steps in the review of all nominations is the determination of land ownership and willingness, on the part of the owner/seller, to negotiate with the Trustees for rights and/or title to the land. All interests in the land should be identified by the land owner/seller, i.e. surface rights, subsurface rights, other development rights.

**#22 Reject**

A nomination will be rejected if clear title to the land or other desired interests in the land cannot be demonstrated or if an unambiguous statement of willingness to negotiate is not obtained from the land owner/seller.

**#12 Apply Threshold Criteria using Existing Data**

Each nomination will be evaluated against a set of threshold criteria designed to determine whether or not a nomination is acceptable for further consideration. Based on existing information, the threshold criteria should provide a basis for eliminating proposals that are inappropriate or unreasonable.

**#23 Reject**

A nomination will be rejected if it is not in compliance with ALL threshold criteria. Rejected proposals can be recycled back into the process for another review if additional information is made available that could allow for compliance with all threshold criteria.



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#13 Candidate Lands

This element is a list of nominated lands approved by the Trustee Council for detailed evaluation.

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- At this point in the process there is a list of Candidate Lands that:
  - Are in private ownership.
  - Contain essential habitat components linked to recovery of injured resources/services.
  - Are not afforded adequate protection by existing law, regulation and/or policy.
  - Are owned by a willing owner/seller.
  - Are in full compliance with all threshold criteria.

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#14 Detailed Evaluation and Ranking

Each candidate land will be evaluated and ranked against a set of detailed evaluation criteria designed to determine whether or not a nomination should be prioritized. The Trustee Council will determine the ranking. These criteria will include, but not be limited to, those identified in Chapter VI of the Restoration Framework. The purpose of this component is to conduct a more rigorous analysis of proposals utilizing more specific information than was available for step #12 [Threshold Criteria]. In some cases, it may be necessary to acquire additional information to complete the detailed evaluation. Owners of candidate lands will be provided the results of the detailed evaluation.

#18 Inadequate Data

This step involves characterization of the data gaps and a determination of the most cost-effective and timely method to obtain any necessary information. Funding for the acquisition of any additional data must be approved by the Trustee Council.



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## #19 Additional Information

Any necessary additional information may be obtained from the studies funded by the Trustee Council. These studies will be subject to review by the appropriate experts and entered into the detailed Evaluation Process.

## #24 Reject

Rejection of a candidate land at this step may result from:

- Non-compliance with the detailed evaluation criteria after initial review.
- Non-compliance with the detailed evaluation criteria after additional information was obtained.

## #15 Ranked Lands

This element contains proposals that were ranked or prioritized according to the degree of each proposal's conformance with the stated goal of the process [Step #14]. Ranking will also be based upon the outcome of the detailed evaluation.

## #16 Apply Protection Tools

The appropriate and most cost-effective protection tool(s) will be matched to each ranked, candidate parcel. This decision will be made by the Trustee Council. In some cases, a single tool will be chosen if it provides adequate protection. In other cases, several protection tools may be deemed necessary; there may even be a mix of non-acquisition and acquisition tools selected.

## #20 Non-Acquisition Tools

These could include, but not be restricted to:

- Landowner contact and education
- Voluntary agreements: registration and cooperative management agreements
- Rights of first refusal

These protection tools are discussed in *Options for Identifying and Protecting Strategic Fish and Wildlife Habitats and Recreation Sites* (The Nature Conservancy Handbook, 1991). Agency management and monitoring will be recommended where appropriate.



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## #21 Acquisition Process

Tools that involve acquisition of property rights or interests could include, but not be restricted to:

- Conservation easements
- Deed restrictions and reverters
- Acquisition of partial interests: timber, mineral and access rights
- Fee acquisitions

These protection tools are discussed in *The Nature Conservancy Handbook*. The process by which acquisition tools should be implemented is depicted in Figure 3 and discussed in the accompanying narrative.

## #17 Incorporate into Public Management

Acquired rights or title will be incorporated into existing management plans where appropriate. Management plans for newly acquired parcels will be written where necessary. Each plan's goal will be to manage the parcel or interest in a manner that will benefit the long term recovery of resources and services injured by the Exxon Valdez oil spill. The Trustee Council will decide which agency will manage the land or will create a new management authority.



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## IMMINENT THREAT PROTECTION PROCESS

### #1 Injured Resource/Service

The definition of injury used herein is that found in the Restoration Framework document:

*A natural resource has experienced "consequential injury" if it has sustained a loss (a) due to exposure to oil spilled by the T/V Exxon Valdez, or (b) which otherwise can be attributed to the oil spill and clean up.*

*A natural resource service has experienced "consequential injury" if the Exxon Valdez oil spill or clean up:*

- *has significantly reduced the physical or biological functions performed by natural resources, including loss of human uses; or*
- *has significantly reduced aesthetic, intrinsic or other indirect uses provided by natural resources; or, in combination with either of these,*
- *has resulted in the continued presence of oil on lands integral to the use of special-purpose lands.*

Chapter IV of the *Restoration Framework*, *Summary of Injury*, provides a summary of the injuries to organisms, habitat and other resources and services from the Exxon Valdez oil spill.

### #2 Assess Rate and Degree of Recovery

The *Restoration Framework* states that: *In a scientific sense, full ecological recovery has been achieved when the pre-spill flora and fauna are again present, healthy and productive, and there is a full complement of age classes. A fully recovered ecosystem is one which provides the same functions and services as were provided by the pre-spill, uninjured system.*

Adequacy of the rate and degree of recovery will be estimated from on-going damage assessment and restoration studies, the scientific literature and other sources including the *best professional judgment* of recognized experts.



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#3 Agency Management and Restoration Monitoring

Recovered resources and services will be monitored by both the resource agencies that are responsible for the management of the respective resource or service and by specific recovery monitoring studies. These studies will be part of a comprehensive and integrated monitoring program funded and managed by the Trustees.

If resource agency managers and/or results from the recovery monitoring studies indicate that recovery is not proceeding in a sufficient manner, the injured resource or service will be re-introduced into the main stream of the Evaluation Process. Adequacy of the rate and degree of recovery will be estimated from on-going damage assessment and restoration studies, the scientific literature and other sources including the *best professional judgment* of recognized experts.

#4 Review Unsolicited Nominations from Land Owners

Nominations that the Trustee Council receive without their solicitation will be reviewed.

#5 Identify Essential Habitats of Injured Resources/Services

Essential habitat components, that were characterized as part of the Evaluation Process [Figure 1], will be identified on the nominated parcels. This site-specific analysis will be conducted utilizing existing information. It is understood that the available information describing the environmental character of these lands is, for the most part, both limited and imprecise.

#12 Drop from Imminent Threat Process

Nominations that do not contain essential habitat components will be dropped from this process. This decision does not prevent the land owner from responding to the RFP solicitation from the Evaluation Process [Figure 1]. Given data limitations that constrain this fast track type of review, it is necessary to allow for the admission of a nomination into the Evaluation Process, after being dropped from the Imminent Threat Process, because more information may become available that could alter the conclusions.



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## #6 Apply Threshold Criteria using Existing Data

Each nomination will be evaluated against a set of threshold criteria designed to determine whether or not a nomination is acceptable for further consideration. The threshold criteria should:

- Eliminate proposals that will not facilitate recovery of injured resources/services.
- Eliminate proposals that do not represent a reasonable selection for equivalent resource acquisition.

## #13 Drop from Imminent Threat Process

A nomination will be rejected if it is not in compliance with ALL threshold criteria. Rejected proposals can be recycled into the Evaluation Process at step #5 (Figure 1) for another review if additional information is made available that conceivably would allow for compliance with all threshold criteria.

## #7 Threat Analysis

Nominations in compliance with all threshold criteria will be subjected to a *Threat Analysis*. This is a method for determining the magnitude/validity/reality of a threat to an injured resource/service and the imminence of the threat. Nominations that would be considered on an equivalent-resource basis would also be subject to a threat analysis. The Nature Conservancy defines it as: *...a means of determining whether an accelerated identification, ranking, and protection process is necessary due to immediate threats to recreation resources, activities, or opportunities. Where a short-term threat exists, use of a rapid, or abbreviated assessment will enable decision makers to decide on appropriate actions to buy time or immediately protect significant existing or potential resources. If time can be bought, a comprehensive assessment can proceed. Similarly, in the absence of any short-term threat, a comprehensive assessment would be initiated* [The Nature Conservancy Handbook, 1991].

## #14 Drop from Imminent Threat Process

If the threat analysis indicates that there is no imminent threat, the nomination will be considered under the Evaluation Process beginning at step #5 (Figure 1).



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## #8 Identify Preferred Short-Term Protection Options

If the threat analysis indicates that there is an imminent threat, a suite of short-term protection options will be identified that address the specific situation at hand. Implementation of one or several of these options will provide additional time to allow for the Trustee Council to conduct a detailed evaluation of the proposal. Information needed to carry out this evaluation may require additional field studies. Consequently, the short-term protection option(s) that is selected must provide additional time to collect, analyze and incorporate the additional information into the detailed evaluation. Examples of short-term options are: a) development moratorium, b) lease, and c) management agreement.

## #9 Negotiations with Owner

The Trustee Council will negotiate with the land owner utilizing the preferred short-term protection options identified in step #8.

## #15 Drop from Imminent Threat Process

Unsuccessful negotiations result in the nomination being dropped from the Imminent Threat Process. The land owner has the option of nominating the proposal for consideration in the Evaluation Process.

## #10 Implement Short-Term Protection Options

After successful negotiations with the land owner, the mutually-agreed-upon option(s) will be implemented. During the period that the option(s) is in affect, the required, additional information will be assembled.

## #11 Evaluation Process

The proposal will be inserted into the Evaluation Process as a Candidate Land [Step #13, Figure 1] and be subject to the process from that point forward.



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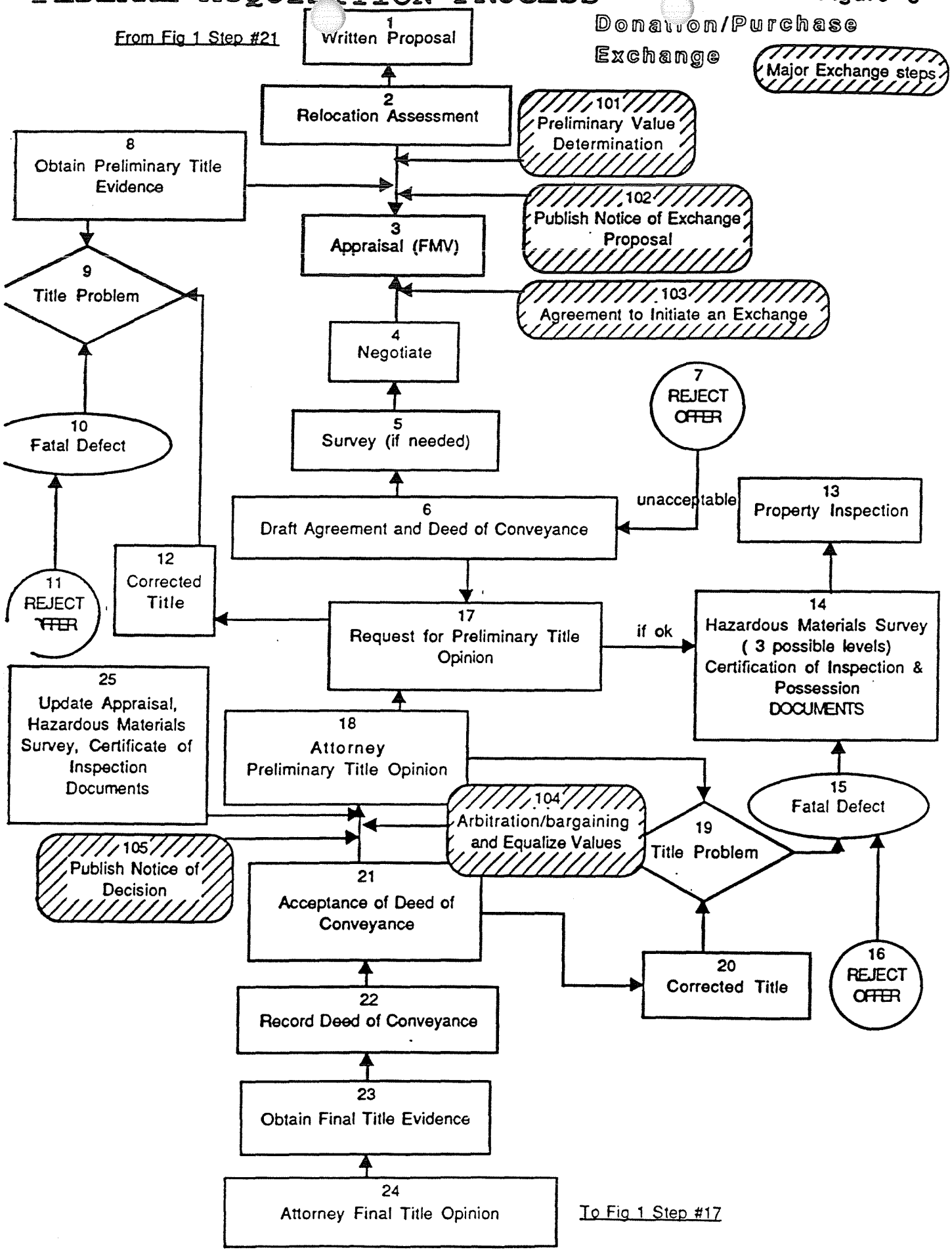
Donation/Purchase Exchange
Major Exchange steps
From Fig 1 Step #21
1 Written Proposal
2 Relocation Assessment
101 Preliminary Value Determination
8 Obtain Preliminary Title Evidence
102 Publish Notice of Exchange Proposal
3 Appraisal (FMV)
9 Title Problem
103 Agreement to Initiate an Exchange
4 Negotiate
7 REJECT OFFER
10 Fatal Defect
5 Survey (if needed)
unacceptable
13 Property Inspection
6 Draft Agreement and Deed of Conveyance
12 Corrected Title
11 REJECT OFFER
17 Request for Preliminary Title Opinion
if ok
14 Hazardous Materials Survey ( 3 possible levels) Certification of Inspection & Possession DOCUMENTS
25 Update Appraisal, Hazardous Materials Survey, Certificate of Inspection Documents
18 Attorney Preliminary Title Opinion
15 Fatal Defect
104 Arbitration/bargaining and Equalize Values
19 Title Problem
105 Publish Notice of Decision
21 Acceptance of Deed of Conveyance
20 Corrected Title
16 REJECT OFFER
22 Record Deed of Conveyance
23 Obtain Final Title Evidence
24 Attorney Final Title Opinion
To Fig 1 Step #17

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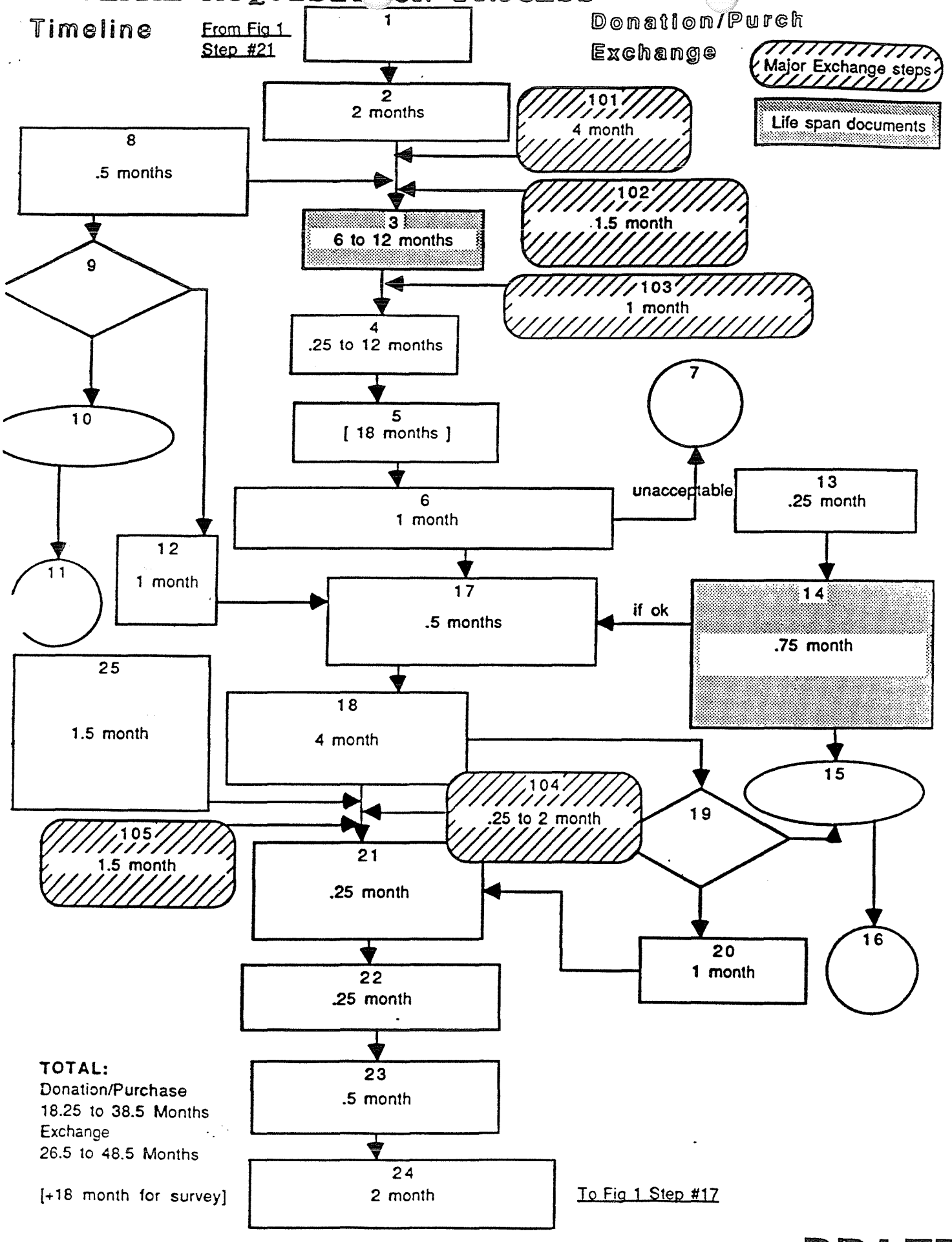
# FEDERAL ACQUISITION PROCESS

Figure 3a




**TOTAL:**
Donation/Purchase
18.25 to 38.5 Months
Exchange
26.5 to 48.5 Months

[+18 month for survey]

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This process outlines the basic acquisition steps used by Federal agencies. It does not reflect all agency specific steps. Each agency has specific authority and requirements that may vary within the context of this outline.

**#1 Written Proposal**

Each written proposal should include a legal description of the land and maps, and statements indicating that 1)the offeror is the record owner of the land/interests, 2) the land is free and clear of all encumbrances, 3)there are no persons claiming the land adversely, 4)the status of any unpaid taxes or assessments levied against the land, and 5)the status of any lien assessed which is not due and payable. This written proposal should also include any terms or conditions the offeror is proposing. (Action: land owner)

**#2 Relocation Assessment**

Use the "Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970" to assess the need to relocate any displaced people or users. (Action: agency)

**#3 Appraisal (Fair Market Value)**

Using the "Uniform Appraisal Standards for Federal Land Acquisitions Procedures" (1973) a certified appraiser will complete a written appraisal of the fair market value (FMV) of the real property or interests being considered. If the value and amount being paid is over $250,000 the U.S. Forest Service must provide a 30 day comment period to the House Agriculture Committee on oversite review. If approved, the Secretary of Agriculture will then accept the option. Note: The life span of the appraisal is 6 months in the Department of the Interior (DOI) or 12 months in the U.S. Forest Service (USFS). If the Deed of Conveyance is not accepted within these timeframes, the appraisal will need to be updated before the DOI Regional Solicitor or the USFS Office of the General Counsel issues a final title opinion (see Block #25). (Action: agency)

**#4 Negotiate**

Negotiate terms of the offer. (Action: land owner and agency)

**#5 Survey**

If needed, the land will be surveyed. In some cases, the lands being offered will be unsurveyed. (For example, lands were conveyed from the Federal government to Native Corporations, pursuant to the Alaska Native Claims Act, without survey). Although not ideal, lands could be conveyed and accepted without survey. (Action: agency)

**#6 Draft Agreement and Deed of Conveyance**

Draft document that outlines the terms of the donation or purchase. It should include all conditions, reservations, and exceptions, in addition to timeframes, escrow terms (if necessary), and payment procedures. A draft copy of the Deed of Conveyance is completed at this time. (Action: land owner and agency)



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If terms of the draft agreement are not acceptable and consensus cannot be reached, formal rejection of the offer is completed and the acquisition process is terminated. (Action: agency)

**#8 Obtain Preliminary Title Evidence**

An accepted title company searches title records and prepares a title report listing the recorded land owner, any liens, and exceptions to title and agreements that affect the ownership or use of the land. Title insurance or appropriate title guarantee is obtained to support the title report. This report is reviewed by appropriate Federal agency attorneys (i.e., Regional Solicitor for DOI and Office of General Counsel for USFS) in Block #18. (Action: title company)

**#9 Title Problem**

Recognition that there is a title problem that needs to be corrected before attorney review (see Block #18). (Action: agency)

**#10 Fatal Defect**

A title problem that cannot be corrected that would make acceptance of title impossible. Final decision rests with appropriate Federal agency attorneys (Regional Solicitor for DOI and Office of General Counsel for USFS).

**#11 Reject Offer**

Formal document to reject the offer and stop the acquisition process. (Action: agency)

**#12 Corrected Title**

Process where curable defects are corrected. For example, the title evidence may indicate that the party making the offer is not the land owner of record. All that may be necessary to remedy this problem is for the landowner to record the original deed of conveyance showing they own the land/interest. (Action: agency and/or land owner)

**#13 Property Inspection**

On-the-ground inspection to gather information to complete the documents identified in Block #14. Obtain approvals for access to private lands for purposes of inspecting the property. While this work can begin at anytime in the process, it would be best to wait until there is at least confirmation that there is an agreement between all parties. (Action: agency)

**#14 Hazardous Materials Survey and Certificate of Inspection & Possession**

Prepare two documents that are required for any acquisition of land and/or interests. The Certificate of Inspection & Possession describes the condition of the lands, and identifies any known or physically identifiable conditions that may affect title to the land. The Hazardous Materials Survey and Contaminant (hazardous substances) Survey Checklist describes the condition of the land and identifies any potential or known hazardous materials. If the answer to all questions on the checklist is "no", "none" or "not applicable" a Level I survey is signed by an authorized officer (e.g., Bureau of Land Management = State Director, National Park Service = Regional Director, U.S. Fish & Wildlife Service = Assistant Secretary - Policy, Budget and Administration in the Washington office). A Level II Survey is



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"no", "none" or "not applicable" and the agency wishes to proceed with the acquisition. The Level II Survey is signed by the Assistant Secretary. The Level III Survey requires sampling and further work to determine the extent of contaminants and cost of clean up. Note: These documents have a limited life span and may need to be updated later in the process. (Action: agency)

**#15 Fatal Defect**

A problem that cannot be corrected that would make acceptance of title not advisable. For example, the property contains a contamination problem that cannot be resolved. Level II survey results might reveal a fatal defect depending on whether the acquisition is for an interest in land or for fee title.

**#16 Reject Offer**

Formal document to reject the offer and stop the acquisition process. (Action: agency)

**#17 Request for Preliminary Title Opinion**

Written request for a Preliminary Title Opinion from appropriate Federal agency attorneys (i.e., Regional Solicitor for DOI and Office of General Counsel for USFS). The request includes the title company title evidence, legal description, evidence of any clearance actions that have been completed (Block #12), and description of the acquisition proposal. The Certification of Inspection & Possession and the Hazardous Materials Surveys are a part of this request package. (Action: agency)

**#18 Attorney Preliminary Title Opinion**

Written opinion that addresses the sufficiency of the title evidence provided by the title company (see Block #8) The opinion will identify any deficiencies that need to be corrected before title can be accepted. (Action: DOI Regional Solicitor and USFS Office of General Counsel)

**#19 Title Problem**

Recognition that there is an identified problem that prohibits title acceptance. (Action: DOI Regional Solicitor and USFS Office of General Counsel and agency)

**#20 Corrected Title**

Process where curable defects are corrected. For example, the title opinion may show that the owner has a management agreement or has created a third party interest that affects the lands and that the agreement or interest needs to be terminated or amended to delete the land in question or if the lands have been placed in a Land Bank or a there is a lien on the lands. These problems can usually be cured by the land owner executing and recording additional documents. (Action: agency and/or land owner)

**#21 Acceptance of Deed of Conveyance**

Based on the preliminary title opinion and completion of any identified defects, the Authorized officer can sign the documents that accept the deed of conveyance. Payment, if any, takes place at this time. (Action: agency)

**#22 Record Deed of Conveyance**

Authorized Officer records the signed Deed of Conveyance at the local State



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Recorders Office. (Action: agency)

**#23 Obtain Final Title Evidence**

Final title evidence provided by a title company. This report would reflect any changes that had taken place since the preliminary report. It would also show the recording of any curable documents and the Deed of Conveyance recorded in Block #22. Final title would also reflect the completion of the process and ownership by an agency. (Action: title company)

**#24 Attorney Title Opinion**

Prepare Final Title Opinion that serves as a final review of all documents and closes the legal process of acquisition. (Action: DOI Regional Solicitor and USFS Office of General Counsel)

**#25 Update Appraisal, Hazardous Materials Survey, Certificate of Inspection Documents**

The Appraisal, Hazardous Materials Survey and Certificate of Inspection & Possession would be updated if too much time had elapsed since their original completion. If values have changed, agency may have to return to Block #4 and negotiate a new agreement/offer. (Action: agency)

## Major Exchange Steps

**#101 Preliminary Value Determination**

Estimated appraisal to determine whether the lands and interests in lands to be exchanged are of equal value. The "Uniform Appraisal Standards for Federal Land Acquisitions" is used for this process.

**#102 Publish Notice of Exchange Proposal**

A Notice of Realty Action that is published in the Federal Register and once each week for three weeks thereafter in a local newspaper. This document puts all interested parties on notice that an exchange, by the Federal government, is being considered. This document has a 45-day public comment period.

**#103 Agreement to Initiate an Exchange**

Agreement signed by all exchange parties that: 1)describes the lands or interest in lands being considered for exchange; 2)lists the exchange processing steps; 3)addresses knowledge of hazardous substances on the lands; 4)physical access and Right to Enter; 5)terms of relocation benefits, if any; and 6)closing procedures.

**#104 Arbitration/Bargaining and Equalize Value**

A formal process to resolve disagreements among parties as to appraised value of the lands involved in the exchange. Determination if equalization of value is necessary. A money payment for equalization of value can not exceed 25 percent of the value of the public lands and interests being conveyed.

**#105 Publish Notice of Decision**

The document identifies all terms of the exchange, describes the lands involved, identities the parties involved, any reservations, terms, covenants and conditions, needs for value equalization, and intended time frames to complete the exchange.



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Habitat Protection and Acquisition Process
Threshold Criteria
Discussion
04/20/92

Introduction

One of the key steps within the proposed Habitat Protection and Acquisition Process is the application of "threshold" criteria. The purpose of this step is to quickly evaluate proposals nominated by land-owners, agencies, or the public and eliminate those that do not contribute to restoration objectives or are inappropriate or unreasonable. Acquisition proposals that successfully meet the threshold criteria become "Candidate Lands," which then are subject to more detailed evaluation.

The Restoration Team is presenting two sets (A & B) of threshold criteria for consideration by the Trustee Council. Although the criteria in these sets partially overlap, they do reflect different approaches. The Trustee Council needs to discuss these concepts and provide direction to the Restoration Team before adopting a set of threshold criteria for inclusion in the Draft Restoration Plan and Draft Environmental Impact Statement.

Overlap

The two sets of criteria, with brief explanations, are attached. There is conceptual agreement with respect to three criteria. Both sets acknowledge that:

-a willing seller is required;

-there must be linkage to injured resources or services; and

-that acquisition should provide some benefit or protection beyond that which is afforded under existing ownership and law.

Cost is also an element in both sets of criteria:

Set A invokes fair market value, which by law is what the governments must pay for any acquisition. Set B does not address cost *per se*, but brings in the element of the cost-effectiveness of acquisition relative to other restoration actions.

Set B specifically incorporates the following four additional concepts into the threshold criteria:

-expected changes in land uses which threaten injured resources and services;

-foreclosure of restoration opportunities;

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-the inadequacy of options other than acquisition; and

-incorporation into public land management systems

Set A assumes that these same concepts are considered elsewhere in the evaluation of nonacquisition options or in the proposed processes (basic or imminent threat) for the evaluation of habitat protection and acquisition options.

Issues

The Restoration Team suggests that the Trustee Council discuss the following issues and questions that arise from the differences in the two sets of criteria:

A. How difficult or restrictive should the threshold criteria be? How fine is the mesh in this first sieve?

B. How should the concept of acquisition of equivalent resources be treated and reflected in the threshold criteria?

C. Should the evaluation of acquisition options be strictly hierarchical in approach or more broadly concurrent?

D. Should acquisition opportunities be excluded from further review because of a lack of an identifiable threat?

E. How detailed should the evaluation be at the threshold level?

F. What criteria are most appropriate at the threshold versus secondary levels?



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Proposed Threshold Criteria
Set A
(04/20/92 version)

(1) There is a willing seller of the parcel or property rights.

In the case of land-owner nominations, willingness to sell is self-evident. For nominations by the public or agencies, willingness to consider selling the parcel or property right should be established in writing by the landowner to satisfy this criterion.

(2) The seller acknowledges that the governments can only purchase the parcel or property rights at fair market value.

By law, the state and federal governments can only make acquisitions at fair market value. This criterion is explicitly intended to discourage unrealistic expectations by land-owners about the prices they propose and give the Trustee Council a basis for rejecting out-of-hand a proposal for which there is no indication that a realistic price can be negotiated.

(3) The parcel contains key habitats that are linked to the recovery of injured resources or services by scientific data or other relevant information.

Parcels that do not include significant habitat or areas related to injured resources or services will be rejected. The basis for this judgment should be documented by the best available data from scientific or other sources. In the case of equivalent-resource proposals, this criterion can be satisfied on the basis of providing the "same or substantially similar service" as was provided elsewhere by an injured resource.

(4) Recovery of the injured resource or service would benefit from protection in addition to that provided by the owner and applicable laws and regulations.

This criterion rests on an evaluation of the protection afforded under existing laws and regulations. One judgment to be made is whether the existing ownership and laws and regulations are sufficient to prevent further harm to injured resources and services within the context of the recovery from oil-spill injuries (i.e., this is not a test of whether under "normal" circumstances the laws and regulations are sufficient). Consistent with the settlement, consideration also must be given to the ability of the proposal to enhance an injured resource or service. The additional benefit afforded by habitat acquisition will be incremental and may or may not be measurable.



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Proposed Threshold Criteria
Set B
(04/20/92 version)

(1) The nature and immediacy of expected changes in use will further affect resources injured by the oil spill.

The thrust of this criterion is that if the change is not expected to slow or prevent achievement of restoration goals then the property right(s) should probably not be a candidate for acquisition. A threat to achievement of restoration goals, even if not expected to occur "immediately", would pass easily. What would not pass would be potential changes that are of such a speculative nature and so far in the future as not be a factor in any reasonable consideration of restoration objectives.[1]

(2) Failure to act will foreclose restoration opportunities.

This criterion is designed to insure that restoration opportunities are not foregone as a result of a priority on non-acquisition options, i.e., direct restoration.

(3) The parcel contains key habitats that are linked to the recovery of injured resources or services by scientific data or other relevant information.

The purpose of this criterion is to insure that there is an obvious nexus between the contemplated acquisition action and an injured resource or service.

(4) Restoration strategies other than acquisition of the property right(s) are inadequate to meet restoration objectives.

This criterion recognizes a priority for direct restoration over other alternatives.

(5) The protection afforded by existing law, regulations, and other alternatives is inadequate to meet restoration objectives.

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[1]The term restoration, both here and for all of the Threshold Criteria, is assumed to be consistent with Sec. 11.72(a)(1) of the NRDA regulations for baseline services determinations as follows: "(1) Baseline data should reflect conditions that would have been expected at the assessment area had the discharge of oil or release of hazardous substances not occurred, taking into account both natural processes and those that are the result of human activities."



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This criterion recognizes the protection already provided by existing law and regulation. Detailed analysis of acquisition options would be pursued only in those instances where it is reasonably clear that existing law, regulations, and other alternatives are inadequate to meet restoration goals.

**(6) Acquisition of the property right(s) will result in an identifiable incremental benefit to restoration objectives that is cost-effective relative to other restoration alternatives for the identified resource injuries.**

This is a basic "red-face" test. The purpose is to not raise land owner and other expectations, as well as unnecessarily expend settlement funds, doing a detailed analysis of a proposed acquisition that, on its face, does not contribute to restoration objectives.

**(7) There is a willing seller of the property right(s).**

The purpose of this criterion is to prevent the unnecessary expenditure of settlement funds for a detailed analysis of a property right that is known to not be available.

**(8) The acquired property rights can reasonably be incorporated into public land management systems.**

The purpose of this criterion is to prevent the unnecessary expenditure of settlement funds for a detailed analysis of a proposed acquisition when on its face, the property rights, if acquired, could not reasonably be incorporated into a public land management system.



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# CHAPTER IV
# SUMMARY OF INJURY

## Introduction

The *Exxon Valdez* oil spill occurred just prior to the most biologically active season of the year in southcentral Alaska. During the four-month period after the spill, seaward migrations of salmon fry, major migrations of birds, and the primary reproductive period for most species of birds, mammals, fish, and marine invertebrate species took place. The organisms involved in these critical periods of their life cycles encountered the most concentrated, volatile, and potentially damaging forms of spilled oil. Oil affected different species differently. Resources continue to be exposed to oil remaining in the intertidal zone, as well as to oil transported to the subtidal zone. The following general account summarizes the main results from the Natural Resource Damage Assessment studies carried out after the spill.

Oil spill injuries can be estimated in several ways: Dead animals, such as birds and sea otters, can be counted and used to estimate the total number of each species lost. Where carcasses are not found and counted, injuries to populations can be based either on comparisons before and after a spill, or between oiled and unoiled environments. Measurements of physiological and biochemical changes due to oil exposure provide further evidence that may support changes observed in populations. Because populations fluctuate from year to year and there are natural differences from place to place, the most accurate estimates of injury are those in which the exact population is known just before the spill and then after the injury occurred. Although scientists studying the effects of oil spills may carry out excellent studies under difficult conditions, there are always uncertainties, especially where good pre-spill population data are lacking.

The injuries summarized here may change as the results of additional sampling and data analysis become available. It is also possible that injuries to populations of long-lived species may not be manifested for some time.

## Marine Mammals

### Introduction

Following the spill, humpback whales, Steller sea lions, sea otters, harbor seals, and killer whales were studied. Field work on Steller sea lions and humpback whales was completed in 1990. Humpback whale studies included photo-identification of individual whales, estimations of reproductive success, and documentation of possible displacement of whales from their preferred habitat

within Prince William Sound. Exposure of this species to oil was not observed, nor were tissues sampled and analyzed for hydrocarbons. The data do not indicate an effect of the spill on mortality or reproduction of humpback whales in Prince William Sound. However, in 1989 humpback whales were not seen in Lower Knight Island Passage, a preferred habitat.

Results from the sea lion study were inconclusive. Several sea lions were observed with oiled pelts, and petroleum hydrocarbons were found in some tissues. Determining if there was an effect of the spill on the sea lion population was complicated by seasonal movements of sea lions in and out of the spill area, an ongoing population decline and a pre-existing problem with premature pupping.

Based on several photo-identification censuses a significant number of killer whales are missing from at least one and possibly two pods in Prince William Sound. Changes also have been observed in killer whale distribution and social structure. Some male whales have drooping dorsal fins. The cause of the mortalities and fin problems is uncertain.

Injuries to harbor seals and sea otters, described below, have been more evident. Studies of these species are continuing.

Sea Otters

The population of sea otters in Prince William Sound before the spill was estimated to have been as high as 10,000. The total sea otter population of the Gulf of Alaska was estimated to have been at least 20,000. Statewide, the sea otter population is estimated at 150,000. As the oil moved through Prince William Sound and the Gulf of Alaska, it covered large areas inhabited by otters. Sea otters were particularly vulnerable to the spill. When sea otters become contaminated by oil, their fur loses its insulating capabilities, leading to death from hypothermia. Sea otters also may have died as a result of oil ingestion and perhaps inhalation of toxic aromatic compounds that evaporated from the slick shortly after the spill. The effects of oil were documented by repeated surveys of populations in the spill area, recovery of beach-cast carcasses, analysis of tissues for petroleum hydrocarbons and indicators of reduced health, tracking sea otters outfitted with radio transmitters (including those released from rehabilitation centers), and estimating total mortality from the number of sea otter carcasses recovered following the oil spill. These studies concentrated on developing an estimate of sea otter mortality in Prince William Sound and along the Kenai Peninsula, the populations believed to have been most affected by the spill. During 1989, 1,011 sea otter carcasses were recovered in the spill area, cataloged and stored in freezers. Of these, 876 otters were recovered dead from the field and 135 died in rehabilitation centers or other facilities. It is estimated that 3,500 to 5,500 sea otters died from acute exposure to the oil in the entire affected area.

Heavy initial and continuing long-term exposure to petroleum hydrocarbons may be resulting in a chronic effect on sea otters. Significantly elevated concentrations of petroleum hydrocarbons have been detected in intertidal and subtidal sediment samples within the spill zone in western Prince William Sound and in intertidal mussels and benthic marine invertebrates and staples of the sea otter diet. Analyses of blood from sea otters in 1990 and 1991 indicated slight but significant differences in several blood measures in exposed animals. For example, higher eosinophil counts, total hemocrits and hemoglobin concentrations occurred in males in western Prince William Sound, the area that was oiled, compared to males in the eastern Prince William Sound, the unoiled area, suggesting systemic hypersensitivity reactions. These changes are not sufficient to indicate that the individuals that were sampled had health problems likely to result in death.

Abnormal patterns of mortality are continuing in sea otters. Based on pre-spill data from Prince William Sound, very few prime-age sea otters (animals between 2 and 8 years old) die each year and most mortality occurs among otters less than two years old. In 1990 and 1991 a high proportion of carcasses of prime-age sea otters were found on beaches, suggesting a chronic effect of the spill on sea otters.

Results of boat surveys indicate continued declines in sea otter abundance within oiled areas in Prince William Sound. Pre-spill estimates of sea otter abundance in Prince William Sound were carried out in 1984 and 1985 using similar survey techniques. Comparisons of pre- and post-spill estimates of sea otter abundance show that sea otter populations in unoiled areas experienced a 13.5 percent increase in abundance, while sea otter populations in oiled areas underwent a 34.6 percent decrease. In addition, the post-spill population in the oiled area is significantly lower than the pre-spill estimate, indicating a real decline of 1,600 sea otters in Prince William Sound in the first year after the spill, and up to 2,200 in the first three years after the spill.

Pupping rates and survival of pups through weaning in 1990 and 1991 were similar in eastern and western Prince William Sound sea otter populations. Weaned sea otter pups with radiotags died at a faster rate in western than in eastern Prince William Sound (Figure 3). In contrast, survival of tagged adult female sea otters was significantly higher in western Prince William Sound than in eastern Prince William Sound.

Sea otters released from rehabilitation centers had higher mortality and significantly lower pupping rates than those measured in the wild population before the spill. Of the 193 sea otters released from rehabilitation centers, 45 were fitted with radio transmitters. As of July 31, 1991, 14 of these animals were still alive, 14 were known to be dead, and 16 were missing. One radio transmitter is known to have failed.

The observed changes in the age distributions of dying sea otters, continued declines in abundance, higher juvenile mortality, and higher mortality and lower

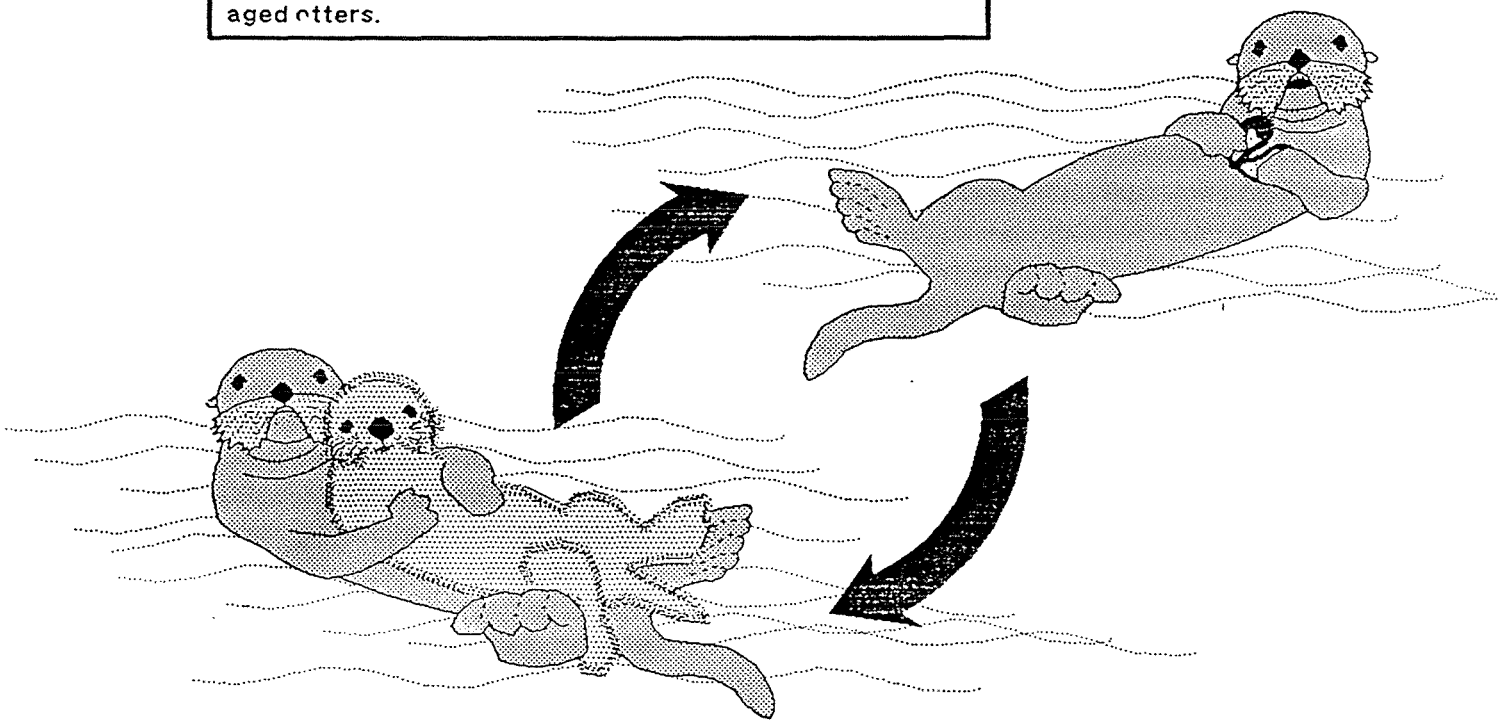
Figure 3. Summary of the major injuries in relation to the life history of sea otters.

# Sea Otters

## Adults

Sea otters prefer shallow coastal waters with abundant molluscs and crustaceans for prey. Intertidal rocks and exposed beaches are used for haulout sites. Otters become sexually mature in 4 - 7 years. Most otters in Prince William Sound mate from September through October, but they are capable of breeding throughout the year.

INJURY: Heavy direct mortality of all age classes during the Exxon Valdez oil spill; continuing high mortality of prime aged otters.



## Pups

Within Prince William Sound, most sea otter pups are born May through June. The single pup is dependent on its mother for 5 - 7 months. High quality, shallow habitats are used by female-pup pairs.

INJURY: High post-weaning mortality within the Exxon Valdez oil spill area.

pupping rates suggest a prolonged, spill-related effect on the western Prince William Sound sea otter population.

## Harbor Seals

Two hundred harbor seals are estimated to have been killed by the spill in Prince William Sound. Only 19 seal carcasses were recovered following the spill, since seals sink when they die. Population changes were documented by summer and fall aerial surveys of known haul-out areas. Toxicological and histopathological analyses were conducted to assess petroleum hydrocarbon accumulation and persistence and to determine toxic injuries to tissues. Severe and potentially debilitating lesions were found in the thalamus of the brain of a heavily oiled seal collected in Herring Bay, Prince William Sound, 36 days after the spill. Similar but milder lesions were found in five other seals collected three or more months after the spill. During 1989, oiled harbor seals were abnormally lethargic and unwary. Petroleum hydrocarbon concentrations in bile were 5 to 6 times higher in seals from oiled areas than in seals from unoiled areas one year after the spill. This indicates that seals were still encountering oil in the environment, were mobilizing fat reserves containing petroleum hydrocarbons, or both.

A complete census of harbor seals in Prince William Sound had not been conducted before the spill. However, trend index locations have been intermittently surveyed since the 1970s. Counts at the trend index sites declined by 40 percent between 1984 and 1988, with similar declines in what were subsequently oiled and unoiled areas. From 1988 to 1990, however, the decline at oiled sites, 35 percent, was significantly greater than at unoiled sites (13 percent). Trend surveys conducted in 1991 continue to indicate similar differences between oiled and unoiled areas, although mean numbers of seals in trend counts have increased since the spill. The increases in seals at unoiled sites have been significant, while those at oiled sites have risen only slightly. The first complete survey of Prince William Sound was completed during August 1991, resulting in a count of 2,875 harbor seals.

## Killer Whales

Approximately 182 killer whales, forming nine distinct family units or "pods", used Prince William Sound before the spill. These whales were studied intensively before the spill, and their social structure and population dynamics are well known. Damage assessment studies of killer whales involved extensive boat-based surveys in Prince William Sound and adjacent waters. Whales were photographed, and the photographs were compared to the Alaskan killer whale photographic database for the years 1977 to 1989 to determine changes in whale abundance, seasonal distribution, pod integrity and mortality and natality rates.

The AB pod had 36 whales when last sighted before the spill in September 1988. When sighted on March 31, 1989, seven days after the spill, seven individuals were missing. Six additional whales were missing from the AB pod in 1990. Assuming that whales missing for two consecutive years are dead, the

mortality rates for the AB pod were 19.4 percent in 1988-1989 and 20.7 percent in 1990-1991. The average annual mortality in AB pod from 1984 to 1988 was 6.1 percent. An additional whale was missing in 1991, but a calf also was born into the pod. The approximate calving interval of killer whales is four years. Accordingly, some long-term effects may not be obvious for many years.

Several of the missing whales from AB pod were females that left behind calves; such abandonment of calves is unprecedented in killer whales. As a consequence the social structure of AB pod has changed. Calves normally spend time with their mothers, but AB pod calves have been observed swimming with adult bulls. The occurrence of collapsed dorsal fins on two adult bulls after the spill is an indication of possible physiological injury. Very little is understood about the likely mechanisms of death from the spill. Various explanations, including oil exposure and other causes, continue to be explored. During the mid-1980s photographic evidence was obtained of bullet wounds in individuals in the AB pod, though there is no recent evidence of such shootings.

Another Prince William Sound pod, AT pod, is missing 11 whales. A subgroup of four AT pod members was photographed behind the *Exxon Valdez* three days after the grounding on Bligh Reef and three of these animals are among the missing AT pod whales. This is a transient pod and it is possible that the missing whales left the pod.

## Terrestrial Mammals

Terrestrial mammals that may have been exposed to oil through foraging in intertidal habitats were studied. These species included brown bear, mink, black bear, Sitka black-tailed deer and river otters.

Brown bears forage seasonally in the intertidal and supratidal areas of the Alaska Peninsula and the Kodiak Archipelago. Preliminary analysis of fecal samples from brown bears in the spill area showed that some bears were exposed to petroleum hydrocarbons. High concentrations of petroleum hydrocarbon metabolites were found in bile from a yearling brown bear found dead in 1989. The normal rate of mortality in yearling cubs is close to 50 percent for the first two years, so it is uncertain if this death was due to oil or other causes.

Black bears also forage in the intertidal zone in the spill area and therefore could have been affected by the spill. No field studies were carried out, however, due to the difficulty of finding, collaring or otherwise investigating these animals in the dense underbrush that is their habitat.

Mink and other small mammals living in coastal areas may feed in and spend part or all of their time in the intertidal zone. When mink are sick or injured, they are known to crawl into inaccessible burrows or the brush. For this reason the effect of the spill on mink populations could not be determined. Also, information on pre-spill populations of mink and other small mammals is

minimal. To determine if mink reproduction may have been affected by oil in their diet, a laboratory exposure study of ranch-bred mink was conducted. The mink were fed food mixed with small, non-lethal amounts of weathered oil. No changes in reproductive rates or success resulted from this exposure. It was found, however, that oil-contaminated food moved through the intestines of the animals at a more rapid rate than did clean food, possibly providing less nutrition to the animals.

Intensive searches of beaches revealed no Sitka black-tailed deer whose deaths could be attributed to the spill. However, deer taken for purposes of testing for human consumption (not part of the damage assessment ) were found to have had slightly elevated concentrations of petroleum hydrocarbons in tissues of some individuals that fed on kelp in intertidal areas. It was determined that the deer were safe to eat.

## River Otters

A few river otter carcasses were found by clean-up workers. River otters forage in streams and shallow coastal habitats that were contaminated by the spill. Analysis of river otter bile and blood samples indicated that petroleum hydrocarbons were being accumulated by this species. Moderately elevated concentrations of haptoglobin and activities of amino transferase enzymes in the blood of river otters from oiled areas in 1991 indicate a lingering toxic effect of oil on this species. Studies of radio-tagged animals in Prince William Sound showed that home ranges in oiled areas were twice that of unoiled areas, suggesting that in oiled areas otters must forage over a larger area to obtain sufficient food. In 1991, body lengths, body weights and dietary diversity were lower in oiled areas. River otters often feed on mussels, which continue to be contaminated with oil in many areas of Prince William Sound.

# Birds

## Introduction

Birds were among the most conspicuous victims of the oil spill. Seabirds are particularly vulnerable to oil, as they spend much of their time on the sea surface while foraging. Oiled plumage insulates poorly and loses its buoyancy, and oiled birds often die from hypothermia or drowning. Birds surviving initial acute exposure to oil may ingest oil by preening. About 36,000 dead birds were recovered after the spill; at least 31,000 of these deaths were attributable to oil. In addition to the large number of murres, sea ducks and bald eagles recovered after the spill, carcasses of loons, cormorants, pigeon guillemots, grebes, murrelets and other species were also recovered. The recovered birds represent only a small proportion of the total number of birds killed by the spill. Many oiled birds undoubtedly floated out to sea and sank. Many oiled birds that were washed onto beaches may have been scavenged, hidden in masses of oil buried

under sand and gravel by wave actions, decomposed or simply washed onto a beach that was not searched. In a number of cases carcasses found shortly after the spill were not turned in to receiving stations. The results of analyses using computer models that account for some of these variables suggest that the total number of birds killed by the spill ranged from 300,000 to 645,000, with the best approximation that between 375,000 and 435,000 birds. These estimates reflect only direct mortality occurring in the months immediately following the spill, and do not address chronic effects or loss of reproductive output.

## Common and thick-billed Murres

Approximately 1,400,000 murres reside in the Gulf of Alaska region, which stretches from Unimak Pass at the tip of the Alaskan Peninsula to the Canadian border in southeastern Alaska. The total population of murres in Alaska is approximately 12,000,000. The murre colonies on the Chiswell Islands are the colonies most visited by tourists in Alaska. Most of the pre-spill data on murre abundance in the Gulf of Alaska colonies affected by the spill were gathered in the mid-1970s to the early 1980s. In 1989 and 1990 murres were the most heavily affected bird species. As oil moved out of Prince William Sound and along the Kenai Peninsula and the Alaska Peninsula, it encountered major seabird nesting areas, such as the Chiswell and Barren islands, as well as numerous smaller colonies. The oil contaminated these areas in the Gulf of Alaska at the same time that adult murres were congregating on the water near their colonies in anticipation of the nesting season. Approximately 22,000 murre carcasses were recovered following the spill. At the major colonies in the spill area surveys indicated that an estimated minimum of 120,000 to 140,000 breeding adult murres were killed by the spill. Extrapolating this information to other known murre colonies affected by the spill, but not specifically studied, the mortality of breeding adult murres is estimated to have been 172,000 to 198,000 birds. The spill also affected wintering and non-breeding birds and the total area-wide mortality of murres is estimated to be about 300,000. Numbers of breeding murres declined in 1989 from pre-spill counts or estimates at Alaska Peninsula sites (50-60 percent), the Barren Islands (60-70 percent) and the Triplet Islands (35 percent). These decreases persisted in 1990 and 1991. No significant changes in murre numbers were noted for the Semidi Islands and Middleton Island, colonies which are in the Gulf of Alaska, but outside the spill zone. Murres exhibit strong fidelity to traditional breeding sites and infrequently immigrate to new colonies.

Normally, murres breed on cliff faces in densely packed colonies. Each murre colony initiates egg laying almost simultaneously. Synchronized breeding helps repel predators such as gulls and ravens. In oiled areas, murre colonies have fewer breeding individuals than before the spill, breeding is later than normal and breeding synchrony has been disrupted.

These changes in numbers of birds and their behavior have caused complete reproductive failure in several of the large colonies during 1989, 1990 and 1991, and thus lost production of at least 300,000 chicks. There are some indications

that normal breeding occurred in isolated areas of the Barren Island colonies in 1991, but it is uncertain when the whole colony will start to produce significant numbers of viable chicks. Murre colonies in unoiled areas displayed none of these injuries and had normal productivity in the years since the spill.

## Bald Eagles

Of the estimated Alaskan bald eagle population of 39,000 birds (27,000 adults and 12,000 fledglings), an estimated 4,000 reside in Prince William Sound, and an estimated 8,000 to 10,000 reside along the northern Gulf of Alaska coast. One hundred fifty-one (151) dead bald eagles were found following the spill. Although there is considerable uncertainty regarding the total mortality of bald eagles, several times this number may have been killed initially by the spill. Seventy-four percent of radio-tagged bald eagles that died of natural causes during subsequent studies ended up in the forest or in other places away from the beaches where they would likely not have been found had they not been tagged. If this pattern of carcass deposition is representative of what happened following the oil spill, then as many as 580 bald eagles may have been killed directly by the spill. However, since eagles dying of acute exposure to oil probably behave differently than those dying naturally and the population trend counts did not indicate a significant decline following the spill, the number of eagles killed is certainly less than this number.

To assess injuries to bald eagles, helicopter and fixed-wing surveys were flown to estimate populations and productivity. Radio transmitters were attached to bald eagles to estimate survival, distribution and exposure to oiled areas. Bald eagles in Prince William Sound were most intensively studied. Productivity surveys in 1989 indicate a failure rate of approximately 85 percent for nests adjacent to moderately or heavily oiled beaches compared to 55 percent on unoiled or lightly oiled beaches. This resulted in a lost production of at least 133 chicks in Prince William Sound in 1989. Nest success and productivity on the Alaska Peninsula were also lower in 1989 than in 1990, but differences between these years for eagles residing in other coastal areas affected by the spill were less apparent. Nest occupancy was lower in oiled areas than in unoiled areas in both 1989 and 1990. Reproduction returned to normal in 1990 and population indices from surveys in 1982, 1989, 1990 and 1991 suggest that the spill has not measurably affected the bald eagle population in Prince William Sound.

## Sea Ducks

More than 2,000 sea duck carcasses were recovered after the spill, including more than 200 harlequin ducks. Studies concentrated on harlequins, goldeneyes, and scoters--species that use the intertidal and shallow subtidal habitats most heavily affected by the spill. All of these species feed on invertebrates, such as mussels, which in 1991 continued to show evidence of petroleum hydrocarbon contamination. Harlequin ducks, which feed in the shallowest water of all these species, were most affected. In 1989 and 1990 about 40 percent of the harlequin

ducks sampled had tissues contaminated with petroleum hydrocarbons, and about 33 percent of the harlequins collected in the spill area had poor body condition and reduced body fat. The 1991 survey indicates harlequin population declines and a near total reproductive failure in oiled areas of Prince William Sound (Figure 4). Oil-contaminated mussel beds may be the source of this apparent continuing problem.

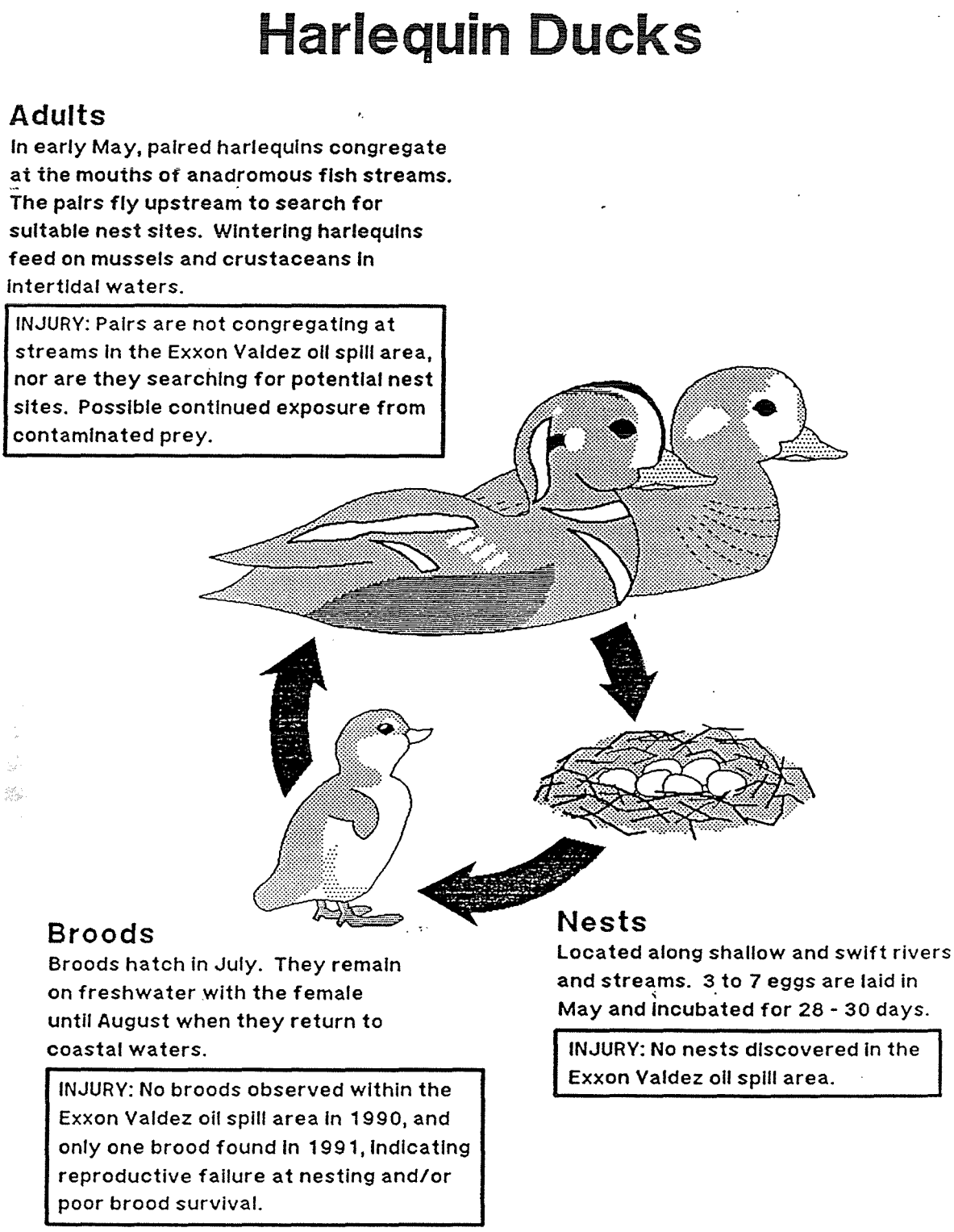
## Other Birds

Changes in populations of waterbirds in the spill area were assessed with boat surveys, the same technique used in surveys carried out in 1972 and 1973, and then, again in 1984. Changes were assessed on the basis of both the earlier and later pre-spill data. Declines occurred in 16 of the 39 species or groups examined for the entire Prince William Sound area between 1972-1973 and post-spill. Declining species or groups of species include: grebes, cormorants, northern pintail, harlequin duck, old squaw, scoters, goldeneyes, bufflehead, black oystercatcher, Bonaparte's gull, black-legged kittiwake, Arctic tern, pigeon guillemot, *Brachyramphus* (marbled and Kittlitz's) murrelets, and northwestern crow. The following species or group of species declined more in oiled areas than in unoiled areas since the early 1970s: harlequin duck, black oystercatcher, pigeon guillemot, northwest crow, and cormorants. Comparisons of post-spill survey data with 1984 pre-spill data indicate that harlequin duck, black oystercatcher, murres, pigeon guillemot, cormorants, Arctic tern, and tufted puffin populations declined more in oiled areas than in unoiled areas.

Marbled and Kittlitz's murrelet populations declined greatly in Prince William Sound since 1972 and 1973. In 1973, the estimated murrelet population in the Sound was 304,000 birds, while murrelet populations were estimated to be 107,000 in 1989, 81,0000 in 1990, and 106,000 in 1991. The length of time between pre-spill and post-spill surveys makes it difficult to determine the relative contribution of the spill to this decline. However, a high proportion of murrelets present in Prince William Sound were killed by the spill. Also, internal contamination of apparently healthy murrelets by petroleum hydrocarbons in the spill area opens the possibility that there were significant effects on murrelets beyond the initial mortality. Disturbance associated with clean-up activities may have influenced the number of murrelets observed in the spill area in 1989.

Nine black oystercatcher carcasses were found after the spill. This species feeds intertidally and breeds on rocky shores throughout the spill zone. In addition to mortality caused directly by the spill, oiling affected their reproductive success. Egg volume and weight gained by chicks raised on oiled sites were substantially lower than chicks raised on unoiled sites. The difference in weight gain by chicks may have resulted from differences in food supply, as the amount of food delivered to chicks raised on oiled sites was significantly less than that delivered to chicks at unoiled sites. Hatching success, fledging success, and productivity of young birds were not significantly different between oiled and unoiled sites. Direct disturbance by clean-up activities significantly reduced oystercatcher productivity on Green Island during 1990.

Figure 4. Summary of the major injuries in relation to the life history of harlequin ducks.



Pigeon guillemots are nearshore diving seabirds that gather daily on intertidal rocks near their colonies during the breeding season and forage by probing into intertidal and subtidal recesses and kelp. Five hundred sixteen (516) guillemot carcasses were recovered following the spill. Between 1,500 and 3,000 guillemots were estimated to have been killed by the spill, representing as much as 10 percent of the known pigeon guillemot population in the Gulf of Alaska. Boat surveys indicate that in 1973 the Prince William Sound guillemot population was approximately 14,600; while in 1989, 1990 and 1991, the estimated populations were, respectively, 4,000, 3,000 and 6,600. These data indicate that the Prince William Sound guillemot population was declining prior to the spill. The declines were significantly greater, however, in oiled areas. For the four islands of the Naked Island group, post-spill surveys showed a 40 percent decline in guillemots present during peak colony attendance hours compared to pre-spill surveys. Declines corresponded to the degree of shoreline oiling.

The extent of injury to certain species, including loons, cormorants and gulls, will never be known because pre-spill population estimates for these species in the spill area are not available. Although Peale's peregrine falcons did not appear to be directly affected by the oil spill, disturbance from nearshore activities appears to have affected rates of nest occupancy and reduced clutch and brood sizes in 1989. Studies of song birds did not document an injury from the spill.

## Fish and Shellfish

### Introduction

No massive kills of adult open-water fish were observed following the spill. Adult salmon, for example, were able to migrate as expected to spawning areas after the spill. The early life stages of some fish species and adults of others depend on the intertidal and shallow subtidal areas and the upper layers of the sea where the greatest concentrations of oil occurred. In addition the eggs and larvae of fishes are more sensitive to oil contamination than are adults.

It is not surprising, therefore, that the available evidence from this spill indicates that the greatest damage was to the eggs and larvae of some species of fish, especially those that inhabit and spawn in the intertidal zone (salmon) and shallow subtidal zone (herring) or that forage in shallow water (Dolly Varden and cutthroat trout). Many species of fish produce large numbers of eggs and only a relatively small number reach adulthood. Since natural factors affecting such survival change from year to year it is difficult to estimate or measure the effects of oil on adult fish populations whose early stages were injured. Nevertheless, during 1991, data were gathered that would potentially help clarify the effects on adult fish exposed to oil as eggs or larvae. These data are still being analyzed.

The deaths of some rockfish, a deepwater species, also were attributed to oil. Several species of coastal and offshore fish, including pollock, halibut, sablefish, cod, yellowfin and flathead sole and rockfish, showed evidence of continuing

exposure to petroleum hydrocarbons over a large geographic area, but significant injury has not been documented. Because salmon and other fish species can metabolize petroleum hydrocarbons, these contaminants are unlikely to concentrate in fish tissues. Indicators of exposure in fish include increased concentrations of hydrocarbon metabolites in bile and activities of mono-oxygenates in liver tissue.

## Pink Salmon

The full extent of short-term injury to pink salmon cannot be assessed until after the 1991 run returns have been analyzed. As predicted before the spill, the catch of pink salmon in Prince William Sound during 1990 was an all-time record high and the 1991 run was also quite high. These catches were primarily due to strong runs of hatchery-produced salmon. Survival to adulthood of salmon fry released from the Armin F. Koerning hatchery, located in the middle of a heavily oiled area of the spill zone, was half that of Esther Hatchery, located outside the spill area. Wild production of pink salmon did not mirror the record production of hatchery fish.

Seventy-five percent of wild pink salmon in Prince William Sound spawn in the intertidal portion of streams. Wild salmon did not shift spawning habitat following the spill and many salmon deposited their eggs in intertidal areas of oiled streams. In the autumn of 1989 egg mortality in oiled streams averaged about 15 percent, compared to about 9 percent in unoiled streams. Subsequently, egg mortality has generally increased. In 1991 there was a 40 to 50 percent egg mortality in oiled streams, and about an 18 percent mortality in unoiled streams. The relative roles of the spill and other factors, including natural variability, in causing the increased 1991 egg mortality are being analyzed. In general the number of spawning fish in streams of Prince William Sound indicates that the more viable spawn that is produced, the more adults will return to spawn from that year class. If this is true, then it is likely that mortality at the egg stage is additive with other sources of mortality in later stages and that the increased egg mortality observed since the spill is a threat to wild pink salmon in Prince William Sound. Eggs and larvae of wild populations continue to be exposed to oil in intertidal gravel in some areas.

Pink salmon juveniles were exposed to petroleum hydrocarbons from the spill in nearshore marine habitats in oiled portions of Prince William Sound in 1989. The survival of pink salmon to adulthood is directly related to growth rates during the initial marine residency. Growth rates of juvenile pink salmon were lower in oiled locations in 1989, but there was no evidence of continued reduced growth of juvenile salmon in nearshore waters in 1990. Laboratory experiments in 1991 confirmed that ingestion of food contaminated with oil can cause reduced growth and increased mortality of juvenile pink salmon.

Fry growth was decreased in oiled streams as compared to unoiled streams over the winter of 1989-1990 and larvae from some heavily oiled streams showed

gross morphological abnormalities, including club fins and curved vertebral columns. The pink salmon that returned to Prince William Sound in the summer of 1990 were hatched prior to the spill and were exposed to oil as larvae. Although there is great uncertainty, some analyses suggest that the 1990 return of both wild and hatchery pink salmon was 20 to 25 percent lower than expected without the spill, resulting in a return of 15 to 25 million fewer fish. Fish that returned in 1991 were the first that were exposed to oil as eggs. The returns of wild salmon to oiled and unoiled streams in 1991 are still being analyzed.

## Sockeye Salmon

Commercial harvest of sockeye salmon was curtailed in portions of Cook Inlet, Chignik, and Kodiak in 1989 because of the spill, resulting in an unusually high number of adults returning to spawn in certain lake systems--for example, Kenai and Skilak lakes, Red and Akalura lakes. The number of adults returning to the spawning areas is referred to as the "escapement." Commercial salmon fisheries are actively managed to maintain high production, and large overescapements resulting in low smolt production are a threat to the maintenance of sustained good production. In this case overescapement has resulted in poor survival to the smolt stage in the Kenai and Skilak lakes system. This overescapement is expected to result in a return of adults in 1993 and 1994 that is less than needed for adequate production. Total closure or severe reduction of the commercial and sport sockeye fisheries may be necessary in those years to enable recovery of this species in the Kenai and Red lakes systems. These fisheries account for up to half the commercial sockeye harvest in the Kodiak and Cook Inlet areas.

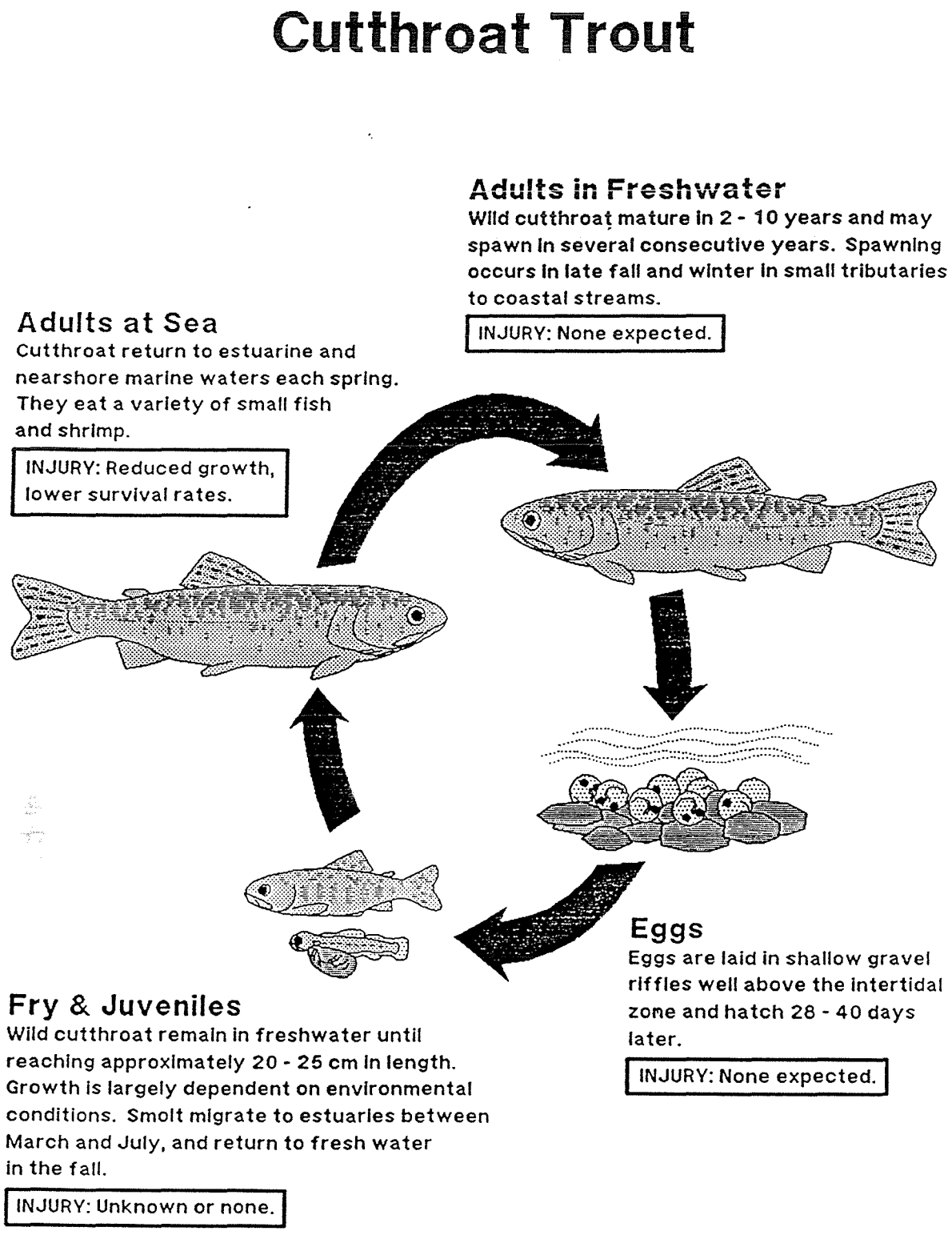
## Dolly Varden and Cutthroat Trout

Prince William Sound is the northern extent of the range of cutthroat trout (Figure 5). Both cutthroat trout and Dolly Varden use nearshore and estuarine habitat for feeding throughout their lives, although they overwinter and spawn in freshwater. The highest concentrations of petroleum hydrocarbon metabolites in bile of all fish sampled in 1989 were found in Dolly Varden. Tagging studies demonstrated that the annual mortality of adult Dolly Varden in oiled areas was 32 percent greater than in unoiled areas. The larger cutthroat trout also showed higher levels of mortality in oiled than in unoiled areas. In 1989-1990, there was 57 percent greater mortality, and in 1990-1991, a 65 percent greater mortality, in oiled streams versus unoiled streams. Additionally, cutthroat trout growth rates in oiled areas were 68 percent in 1989-1990 and 71 percent in 1990-1991 of those in unoiled areas. Although concentrations of bile hydrocarbons were greatly reduced in 1990 and 1991, indicating less exposure to oil, it is unclear why differences persist in survival rates between oiled and unoiled streams.

## Pacific Herring

Populations of Pacific herring were spawning in shallow eelgrass and algal beds at the time of the spill. The effects of oil on egg survival, hatching success,

Figure 5. Summary of the major injuries in relation to the life history of cutthroat trout.



larval development and recruitment to the spawning population were studied. A large percentage of abnormal embryos and larvae were found in samples from oiled areas of Prince William Sound collected during the 1989 reproductive season. Larvae in oiled areas also had a greater incidence of eye tumors. Analysis of histopathological abnormalities in tissues of adult herring reveal the occurrence of some lesions whose presence would be consistent with exposure to oil. Whether the adult population has been affected by these larval injuries and lesions will not be determined until the 1989 and 1990 cohorts return to spawn in 1992 and 1993. It will be difficult, however, to measure a change in the adult population, beyond the bounds of the natural variability.

Evidence of oil contamination in adult herring was found in 1989 and 1990. In 1989, hydrocarbon metabolites occurred in the bile of adult fish. There were significant changes in the incidence of histopathological lesions and in the parasite burden of adults found in oiled as compared to unoiled sites. The parasite burden of adult herring returned to pre-spill incidences in 1991.

### Rockfish and Other Fish

A small number of dead rockfish were found after the spill; this was the only type of fish observed dying after the spill. Five rockfish were recovered soon enough after death to establish oil exposure as the probable cause of death. Analyses of rockfish bile indicated exposure to oil in a significant portion of the samples collected from oiled areas in 1989, only one individual in 1990 and none in 1991. Histopathological liver lesions were evaluated in 1990 and two types of lesions (liver lipidosis and liver sinusoidal fibrosis) were found to be significantly elevated in oiled areas. Other species that had measurable amounts of petroleum hydrocarbon metabolites in the bile in 1989 included halibut, pollock, rock sole, yellowfin sole, flathead sole and Pacific cod, and in 1990, Dover sole and sablefish.

## Coastal Habitat

### Introduction

The coastal tidal zone, commonly known as the "intertidal zone," was the most severely contaminated habitat. Intertidal habitats are highly productive and biologically rich. The intertidal zone is particularly vulnerable to the grounding of oil, its persistence and effects of associated clean-up activities.

### Supratidal

The supratidal zone is above the high tide but still within the influence of the ocean from storm surges and wave spray. Results of studies from the Kodiak Island and Alaska Peninsula areas suggest that oil in the supratidal habitat and beach clean-up disturbance decreased the productivity of grasses and other vegetation, including beach rye, a grass that helps stabilize beach berms. In one instance, clean-up activities completely removed the supratidal vegetation.

Increased production of supratidal vegetation was found in Prince William Sound in 1989. Increased production as a result of decreased browsing by terrestrial mammals or a fertilizing effect of the oil are possible causes.

Intertidal

Populations of intertidal organisms were significantly reduced along oiled shorelines in Prince William Sound, on Kodiak Island and Cook Inlet, and along the Alaskan Peninsula. Densities of intertidal algae (*Fucus)*, barnacles, limpets, amphipods, isopods, and marine worms were decreased. Although there were increased densities of mussels in oiled areas, they were significantly smaller than mussels in the unoiled areas, and the total biomass of mussels was significantly lower. Sediment traps collected significant concentrations of petroleum hydrocarbons during the winter of 1990-1991, indicating that oil is continuing to be removed from the beaches by cleaning and natural processes and is being transported subtidally. Intertidal organisms continue to be exposed to petroleum hydrocarbons from subsurface oil in beaches.

In 1991 relatively high concentrations of oil were found in mussels and in the dense underlying mat (byssal substrate) of certain oiled mussel beds. These beds were not cleaned or removed after the spill and are potential sources of fresh oil for harlequin ducks, black oystercatchers, river otters and juvenile sea otters--all of which feed on mussels and show signs of continuing biological injury. The extent and magnitude of oiled mussel beds are unknown and continue to be investigated.

Intertidal fishes were less abundant in oiled areas than in unoiled areas in 1990. No such differences were documented in 1991.

*Fucus*, the dominant intertidal plant, was severely affected by the oil and subsequent clean-up activities. The percentage of intertidal areas covered by *Fucus* was reduced following the spill, but the coverage of opportunistic plant species that characteristically flourish in disturbed areas was increased. The average size of *Fucus* plants was reduced, the number of reproductive-sized plants greatly decreased, and the remaining plants of reproductive size decreased in reproductive potential due to fewer fertile receptacles per plant. Recruitment of *Fucus* at oiled sites was also reduced.

**Subtidal Habitat**

Between 1989 and 1991, oil concentrations declined in intertidal sediments sampled at most oiled locations, while the concentration in shallow subtidal sediments at depths of 3-20 meters remained about the same or in some cases, rose slightly. Petroleum hydrocarbon accumulation in filter-feeding mussels experimentally placed in the water column in various oiled areas was significant during the summer of 1989, but decreased in 1990. Patterns of sediment toxicity to marine amphipods and larval bivalve molluscs, used as test organisms,

reflected similar patterns. In 1990 significant toxicity to these organisms was associated only with intertidal sediment samples from heavily oiled sites, but in 1991 toxicity was associated primarily with sediment samples from the shallow subtidal zone. The current evidence from analyses of petroleum hydrocarbons in the bile of bottom-dwelling fishes suggests that animals living on or near the sea floor continue to be exposed to petroleum hydrocarbons. In this connection the analysis of samples of bottom-dwelling organisms at the 100-m depth is continuing to see if there was a detectable effect of oil deep communities.

Clams exposed to oil actively take up hydrocarbons, but metabolize them very slowly. Hydrocarbons are consequently accumulated in high concentrations in clams. Studies of clam growth rates were initiated after the spill and analyses are still being conducted. Contaminated clams and other invertebrates are a potential continuing source of petroleum hydrocarbons for harlequin ducks, river otters, sea otters and other species that forage in the shallow subtidal zone. Samples from pollock, which feed in the water column, taken 500 miles from the T/V *Exxon Valdez* grounding site on Bligh Reef, showed elevated petroleum hydrocarbon metabolite concentrations in their bile. These data indicate that surface oil affected the water column or food supply at great distances from the spill.

No pre-spill data were available to directly determine if the oil spill had altered shallow subtidal communities, so the effects of hydrocarbons were investigated by comparison of oiled and unoiled areas. Data are available for 1990. The greatest differences between oiled and unoiled areas have been observed in the shallow-water eelgrass beds and their associated habitat. Within the oiled eelgrass beds there were lower densities of eelgrass, fewer *Telmessus* crabs and fewer amphipods, but more small mussels and juvenile cod. Even greater differences were observed, however, in the abundance of fauna at depths from 6-20 meters below the oiled eelgrass beds, where there were far fewer individuals in oiled areas. In the shallow subtidal rocky areas (less than 20m) *Laminaria* communities were studied, both in bays and around points on the open coast. In the *Laminaria* habitat fewer differences were noted between oiled and unoiled areas. The most noticeable difference was the greater abundance of young *Laminaria* plants, but fewer large older plants in oiled areas. In shallow-water sandy areas, eelgrass beds and areas around them were studied.

Post-spill populations of spot shrimp were studied in oiled and unoiled areas of Prince William Sound. Some differences were found between populations in these areas. The results of these studies are still being evaluated.

## Other Resources and Services

The spill directly impacted archaeological resources, subsistence, recreation, wilderness qualities and aesthetic and other indirect uses. Clean-up activities and the associated significant increases in human activity throughout the spill zone resulted in additional injuries to these resources and services.

## Archaeological Resources

Archaeological resources along the shoreline were injured by the spill. Review of spill response data revealed injuries occurred at a minimum of 35 archaeological sites, including burial and home sites. These injured sites are distributed on both Federal and State lands. While injury to these 35 sites was documented during cleanup, a spill-wide assessment of injuries to archaeological resources has yet to be completed. In addition to oil contamination, increased knowledge of the location of archaeological sites puts them at greater risk from looting. Additional injury due to erosion caused by oil-spill response activities was documented.

A study was conducted to determine impacts caused by oil contamination on radiocarbon dating of archaeological resources and to investigate the potential for cleaning artifacts and materials to allow such dating. Results indicate significant injury to the ability to date artifacts and materials by Carbon $^{14}$ analysis.

## Subsistence

Surveys undertaken by State researchers before the spill and in 1990 indicated that subsistence users in the oil-spill area significantly reduced their use of subsistence resources after the spill, primarily because of concern about contamination of these resources. The oil spill disrupted the subsistence lifestyle of some communities that have historically relied upon these resources for a significant portion of their diet. Some communities virtually or entirely ceased subsistence harvests in 1989 and have only gradually begun to resume harvests, while other communities continued some reduced level of subsistence harvest in 1989 and thereafter. Warnings were issued by the State in 1989 for people to avoid consumption of intertidal invertebrates (such as mussels and clams, which accumulate petroleum hydrocarbons) found along shorelines contaminated by oil. After the spill, an oil-spill health task force was formed, including representatives of the State and Federal governments, subsistence users, and Exxon. This group helped oversee studies conducted by the State and others in conjunction with the Food and Drug Administration and National Oceanic Atmospheric Administration in 1989, 1990 and 1991, on subsistence foods, such as seals, deer, salmon, ducks, clams and bottomfish. Based upon the test results these resources, with the exception of clams and mussels in certain oiled areas, such as Windy Bay, were determined to be safe for human consumption.

## Recreation

Following the oil spill, recreational use of public lands and waters declined. Recreationists (e.g., sport fishermen, hunters, campers and sea kayakers) avoided oiled areas and many adjacent areas that were affected by clean-up activity. Many users canceled their plans or pursued their activities in other areas within the state. For example, visitor use in the coastal area of the Kenai Fjords National Park dropped by about 50 percent in 1989, compared to 1988. This disruption continued in 1990, because oil remained present in many areas and

some clean-up activity continued. In 1991 oil remained in many areas used by recreationists.

## Wilderness and Intrinsic Values

There are designated "wilderness areas" in Kachemak Bay State Wilderness Park, Katmai National Park, and Becharof National Wildlife Refuge. In addition Federal "wilderness study" areas are located in Kenai Fjords National Park and the Chugach National Forest. Portions of these areas were oiled by the *Exxon Valdez* spill. The Wilderness Act of 1964 requires that Federal wilderness areas be "administered for the use and enjoyment of the American people in such a manner as will leave them unimpaired..." Thus, the presence of oil, which was most recently documented by the 1991 May Shoreline Assessment, may be perceived as an injury to these areas. In addition to the injury from the oil, hundreds of workers, motorized machinery and support equipment were used in the wilderness areas during the cleanup. These clean-up activities disrupted uses of the wilderness, such as camping and fishing. These lands and resources may have intrinsic or nonuse values, as well as uses, which also were affected by the oil spill.

May 3, 1992

# MEETING SCHEDULE TO ACCEPT PUBLIC COMMENT ON THE 1992 DRAFT WORK PLAN AND RESTORATION FRAMEWORK

Restoration Team member attending = [in brackets]. There will also be a member of the Restoration Planning Work Group at each meeting.

**Seldovia** 2 p.m., Monday, May 4
South Central Air flight at 1:00 p.m. from Homer Airport
Meeting in: Multi-purpose Room, City Building
Contact: Ivan Widon, City of Seldovia 234-7643
Contact in Pt. Graham: Pat Norman 284-2212
or Eleanor McMullen at 284-2227
Contact in Nanwalek: Vincent Kvasnikoff 281-2248
Teleconference with Nanwalek 281-2248
Teleconference with Port Graham 284-2227
[M. Rutherford], C. Gorbics, B. Iseah, L.J. Evans (K. Rice & M. Broderson are backups for Marty)

**Homer** 7 p.m., Monday, May 4
City Council Chambers
Contact: Mary Shannon, City Clerk 235-3130
[M. Rutherford], C. Gorbics, B. Iseah, L.J. Evans (K. Rice & M. Broderson are backups for Marty)

**Kodiak** 7 p.m. Tuesday, May 5
Borough Assembly Chambers
Contact: Donna Smith, Borough Clerk 486-5736, FAX 486-2886
Note: broadcast via KMXT 486-3181 FAX 486-2733
[M. Rutherford], S. Rabinowitch, B. Iseah, L.J. Evans, (K. Rice & M. Broderson are backups for Marty)

**Juneau** 7 p.m. Thursday, May 7
Assembly Chambers, Municipal Bldg., 155 So. Seward St.
Contact: Patty Ann Polley, City Clerk 586-5278, FAX 586-5385
Legislative Contact: Terence O'Malley 465-4968
Note: DEC Juneau made sure legislators were informed
[J. Montague], R. Thompson, B. Iseah

**Tatitlek** **Monday, May 11, 2:00**
Ketchum Air charter flight at 1:30 from Valdez Airport 835-3789
Contact: Gary Kompkoff, IRA Council 325-2311, FAX 325-2298
[M. Rutherford], J. Strand, L.J. Evans, B. Iseah
Weather problem contingency plan: Teleconference meeting from Valdez. Mustang suits required; L.J. and B. Iseah will get them there.

**Valdez** **7 p.m. Monday, May 11**
City Council Chambers
Contact: Dave Janka, PWSCA 835-2799, FAX 835-5395
Location Contact: Sherry Caples, City clerk, 835-4313
**[M. Rutherford], J. Strand, L.J. Evans, B. Iseah**

**Seward** 7 p.m.Wednesday, May 13
Kenai Fjords Visitors Center
Contact: Anne Castellina 224-3175 FAX 224-7100
**[P. Bergmann], R. Thompson, B. Iseah**

**Whittier** **5 p.m., Thursday, May 14**
Contact: Linda Hyce or Kelly Carlisle, Mayor 472-2327
FAX 472-2343
Alaska Railroad schedules 6 trains daily starting May 10, last one departing Whittier to Portage at 9 p.m. 265-2494. (RCAC full meeting is scheduled in Whittier on 5/14)
**[Ken Rice], S. Senner, B. Iseah**

**Chenega Bay** **11 a.m.Friday, May 15**
**[K. Rice], R. Thompson, B. Iseah**
Ketchum Charter departs Lake Hood at 9:00 a.m, estimated departure Chenega at 1:00 p.m. 243-5525 **Need to call Ketchum for weather check about 7:30 a.m.**
Arrival back in Anchorage will be about 2:30 or 3:00

**Anchorage** 7:00 p.m., Monday, May 18
Trustee Council Meeting Room, 645 G St.
[K. Rice], S. Senner, B. Iseah

**Cordova** 7 p.m. Tuesday, May 19
Council Chambers, Cordova Public Library
Contact: Library staff, 424-6667 after 1 p.m.
**[K. Rice], S. Rabinowitch, B. Iseah**

**Fairbanks** 7:00 p.m. Thursday, May 21
Gruening Bldg, Room 310 (ground floor)
Keys to Gruening A/V equipment storage available at library Equipment Loan Desk, 474-7072 Call early if you need A/V equipment! They close early while school is out.
Contact: Jeri Maxwell, Wood Center 474-7038, Fax: 474-5508
**[J. Montague], S. Senner, B. Iseah**

OTHER INFORMATION:

**We sent letters to the following communities - as of 5/3 have not heard from them:**

Karluk
Larsen Bay
Old Harbor
Ouzinkie
Port Lions

**Akhiok -** Mayor David Eluska called: do not need to go there, but Mr. Eluska may be in Kodiak on the 5th and will attend if so.

## DISCUSSION QUESTIONS AND ISSUES

The questions and suggestions listed below are presented to you as discussion items only. They are not draft or final proposals, and are intended only to spark some discussion that may give us some guidance on specific points. Feel free to raise and answer any questions and issues of your own.

Keep in mind that we have assumed that the usual opportunities for public information and participation will exist: i.e., public information contact, open meetings, open review of the administrative record, mailouts and public notice of Trustee Council meetings, meeting minutes, public comment at Trustee Council meetings, written comment, etc.

* What kinds of information and information services do you want from us?

* The settlement states that there will be a public advisory group. Should this group be a technical working group, a community-based group, or something else? In what areas would the group provide the most useful advice to the Trustees?
    - Science
    - Local government or general community leadership
    - Regional or institutional interests
    - The public at-large
    - Others

* Should this group have a fixed number of members?

* Should individual seats be reserved for specific interests?

* Should this group take majority-vote positions on issues? Should it be intended to reach general consensus? Or, should it simply provide a forum for exchange of ideas, views, and values?

* Regardless of whether specific seats are reserved, a public advisory group is required by law to have a "fairly balanced" membership. Following is a list of interests that could be represented by one or more members on a fairly balanced board. Are there any you feel should be added, deleted, or modified?

| | |
|---|---|
| Aquaculture | Commercial fishing |
| Commercial tourism | Conservation |
| Environment | Forest products |
| Local government | Native landowners |
| Recreational users | Sport hunting/fishing |
| Subsistence | Science/academic |

* Following are some suggested criteria for determining who might serve on a public advisory group. Are there any you feel should be added, deleted, or modified?

  - Knowledge of the region, its peoples, its communities and their primary activities.
  - Knowledge of areas affected by the oil spill and cleanup.
  - Affiliation, either formally or informally, with one or more of the principal interests.
  - Expertise and recognized authority in at least one the areas of interest.
  - Credibility with the segments of the public whose views the member is assumed to represent.
  - Ability to analyze restoration information and provide meaningful comment in the member's area(s) of expertise.
  - Ability to communicate information and facts clearly and fairly.

* It is anticipated that funding for a public participation program in general and a public advisory group in particular would come from the joint settlement fund. Is cost a factor in your decision about what kind of program you would like to see in place?

PUBLIC ADVISORY GROUP
Draft interest list

1. Aquaculture
2. Commercial fishing
3. Commercial tourism
4. Conservation
5. Environment
6. Forest products
7. Local government
8. Native landowners
9. Recreational users
10. Sport hunting and fishing
11. Subsistence
12. Science/Academic

# Restoration Trustee Council Public Participation Comments

Use this form to provide comments regarding public participation or formation of the public advisory group to the Exxon Valdez Oil Spill Restoration Trustee Council. Return it to staff at the public meeting or mail the form with your comments to the Oil Spill Public Information Center, Attn: Mary McGee, 645 G St., Anchorage, AK 99501.

Please write your name and mailing address below if you would like to receive future mailings about activities of the Exxon Valdez Restoration Trustee Council.

_____

_____

_____

Fold here

Oil Spill Public Information Center
Attn: Mary McGee
645 G Street
Anchorage, AK 99501

# EXXON VALDEZ SETTLEMENT SUMMARY

## CRIMINAL RESTITUTION SPENDING GUIDELINES

I. THE STATE AND FEDERAL GOVERNMENTS WILL INDIVIDUALLY CONTROL THE $50 MILLION PAYMENT EACH WILL RECEIVE.

II. SUCH MONIES ARE TO BE USED EXCLUSIVELY FOR RESTORATION PROJECTS, WITHIN THE STATE OF ALASKA, RELATING TO THE "EXXON VALDEZ" OIL SPILL.

III. RESTORATION INCLUDES: 1) RESTORATION, REPLACEMENT AND ENHANCEMENT OF AFFECTED RESOURCES, 2) ACQUISITION OF EQUIVALENT RESOURCES AND SERVICES, AND 3) LONG-TERM ENVIRONMENTAL MONITORING AND RESEARCH PROGRAMS DIRECTED TO THE PREVENTION, CONTAINMENT, CLEANUP AND AMELIORATION OF OIL SPILLS.

## CIVIL RECOVERIES SPENDING GUIDELINES

I. ALLOWABLE EXPENSES ASSOCIATED WITH THE "EXXON VALDEZ" OIL SPILL WILL BE REIMBURSED TO THE GOVERNMENTS.

II. THE BALANCE OF THE $900 MILLION WILL BE DISBURSED AS AGREED UPON IN THE AUG 28, 1991 MEMORANDUM OF AGREEMENT BETWEEN THE STATE AND FEDERAL GOVERNMENTS.

# MEMORANDUM OF AGREEMENT GUIDELINES

I. ALL DECISIONS SHALL BE MADE BY THE UNANIMOUS AGREEMENT OF THE TRUSTEES.

II. A JOINT TRUST FUND WILL BE ESTABLISHED.

III. THE TRUSTEES SHALL AGREE TO AN ORGANIZATIONAL STRUCTURE FOR DECISION MAKING WITHIN 90 DAYS OF RECEIPT OF FUNDS.

IV. PROCEDURES FOR MEANINGFUL PUBLIC PARTICIPATION INCLUDING A PUBLIC ADVISORY GROUP SHALL BE ESTABLISHED WITHIN 90 DAYS OF RECEIPT OF FUNDS.

V. THE GOVERNMENTS HAVE NOT ELECTED TO BE BOUND BY THE NATURAL RESOURCE DAMAGE ASSESSMENT REGULATIONS.

VI. THE GOVERNMENTS SHALL JOINTLY USE ALL NATURAL RESOURCE DAMAGE RECOVERIES FOR PURPOSES OF RESTORING, REPLACING, ENHANCING, REHABILITATING OR ACQUIRING THE EQUIVALENT OF NATURAL RESOURCES[1] INJURED AS A RESULT OF THE OIL SPILL AND THE REDUCED OR LOST SERVICES PROVIDED BY SUCH RESOURCES EXCEPT FOR ALLOWABLE REIMBURSEMENTS TO THE GOVERNMENTS.

VII. ALL NATURAL RESOURCE DAMAGE RECOVERIES WILL BE EXPENDED ON RESTORATION OF NATURAL RESOURCES IN ALASKA UNLESS THE TRUSTEES UNANIMOUSLY AGREE THAT SPENDING FUNDS OUTSIDE OF THE STATE IS NECESSARY.

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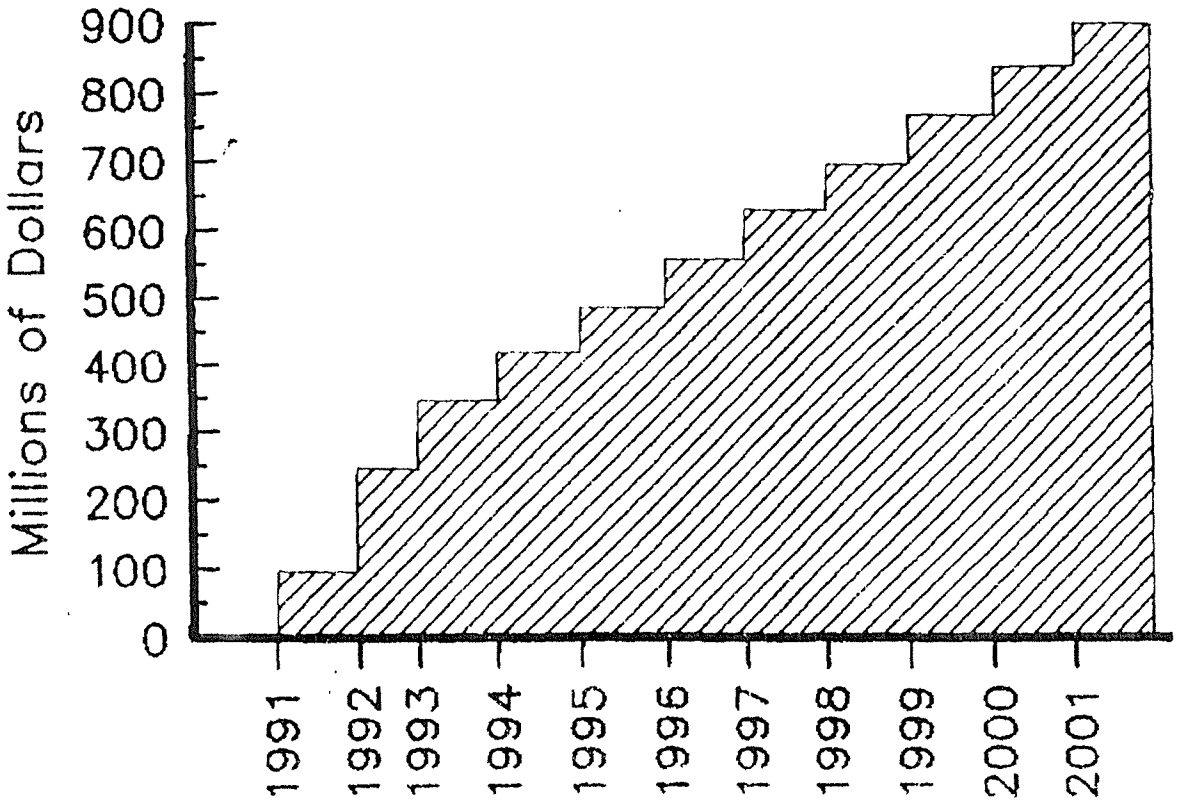
[1] "NATURAL RESOURCES" MEANS LAND, FISH, WILDLIFE, BIOTA, AIR, WATER, GROUND WATER, DRINKING WATER SUPPLIES, AND OTHER SUCH RESOURCES OF THE STATE OR THE UNITED STATES

# CIVIL RECOVERIES

## Alaska & Federal Government

| $90 million | $150 million | $100 million | $70 million |
|---|---|---|---|
| paid | paid | paid | paid yearly |
| Dec 9, 1991 | Dec 1, 1992 | Sept 1, 1993 | Sept 1, 1994–2001 |



## Request for Materials Regarding Exxon Valdez Oil Spill Restoration

| *Name (please print)* | *Affiliation* | *Address* | *What publications do you need?* |
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