

- Review of Restoration Options - Sept. 24, 1992
- Agenda for Restoration Planning Review Mtg. Oct. 14, 1992
- Agenda for RPS/Peer Reviewer Meeting on Restoration Plan Development

September 24, 1992

To: Peer reviewers for the *ExxonValdez* Trustees
From: Bob Spies, Chief Scientist *MS*
Re: Review of Restoration Options

John Strand, Chairman of the Restoration Planning Work Group (RPWG), has asked for review of some of the logic and options that have been proposed for the restoration of resources injured by the spill. We have decided to meet in Anchorage with a small group of reviewers on the 19th-21st October in order to accomplish this task. I have identified the following expertise and individuals as potential participants with a proposed schedule and would like those who have not been contacted by us to please indicate your availability to attend this meeting on the appropriate dates. It would be useful if some of you could stay more than one day to provide input in areas other than your identified expertise to see how the whole process is fitting together.

Monday, 19-October

decision analysis: Ken Reckhow, Jim Ruttenger

birds: Dan Roby, Mike Fry*

Tuesday, 20 October

fish: Phil Mundy*

intertidal
communities: Pete Peterson*

Wednesday, 21-October (half day only)

Services: Bud Rice
John Issacs

I am looking forward to the meeting. The RPWG has put considerable time and effort into the task of constructing, reviewing and prioritizing these options and they would really like some fresh views of this process by the peer reviewers.

I am requesting that those of you who do not have the Restoration Framework document and the supplement to the document to contact



Rebecca Williams to obtain copies (@907-278-8012). In addition you should also be receiving the draft restoration plan outline and draft options for review before you leave for the meeting.

For those of you have not received a package of materials to sign up as peer reviewers you should be hearing from us shortly with this material. All of the peer reviewers will receive estimates and authorizations from our office, including letters to obtain government lodging rates in Anchorage. If you have any questions about the mechanics of travel call Mary Barone at Travel Fair (@800- 235-1423), or your own travel agent. For contracting/reimbursement call Barbara Forbes at this office (@510-373-7142).

Thank you in advance for your participation.

CC: Forbes
Gorbics
Klinge
Strand
Weiner
Fry
Issacs
Mundy
Peterson
Reckhow
Rice
Roby
Ruttenber
Williams

October 14, 1992

AGENDA FOR THE RESTORATION PLANNING REVIEW MEETING

Monday, October 19, 1992

10:00 am to 10:30 am

Welcome, introductions and overview of Meeting - Strand

10:30 am to 12:00 pm

Overview of Process: Presentation and discussion of the methodology which will be used to develop the restoration plan alternatives and the building blocks they will be based on - Loeffler and Klinge
NOTES - GORBICS

12:00 pm to 1:00 pm LUNCH

1:00 pm to 3:00 pm

Continuation of morning agenda item.

3:00 pm to 5:00 pm

CONCURRENT SESSION A: Decision Process

Moderator: Loeffler NOTES - GILBERT

Discussion, analysis and development of action items related to the decision process and alternative development.

Primary Participants: Reckhow, Ruttenber

CONCURRENT SESSION B: Fish and Intertidal Resources

Moderator: Strand NOTES - SWENSON

Discussion, analysis and development of action items related to the injured fish and intertidal resources and the restoration options associated with them.

Primary Participants: Peterson, Mundy

CONCURRENT SESSION C: Bird Resources

Moderator: Gorbics NOTES - THOMPSON

Discussion, analysis and development of action items related to the injured bird resources and the restoration options associated with them.

Primary Participants: Fry, Sharp

Tuesday, October 20, 1992
8:30 am to 9:00 am

JOINT SESSION: Status report and discussion.

9:00 am to 12:00 pm

Continuation of CONCURRENT SESSIONS A, B AND C.

12:00 pm to 1:00 pm LUNCH

1:00 pm to 5:00 pm

Moderator: Thompson
Presentation and discussion of the results of the CONCURRENT SESSIONS.

Wednesday, October 21, 1992
8:00 am to 8:15 am

JOINT SESSION: Status report and discussion.

8:15 am to 11:00 am

CONCURRENT SESSION D: Archaeological Resources and Other Services

Moderator: Rabinowitch NOTES - THOMPSON

Discussion, analysis and development of action items related to the injured archaeological resources and other services and the restoration options associated with them.

Primary Participants: Rice, Isaacs, Mundy and Richardson

CONCURRENT SESSION E: Marine and Terrestrial Mammals

Moderator: Fraker NOTES - GORBICS

Discussion, analysis and development of action items related to the injured marine and terrestrial mammals and the restoration options associated with them.

Primary Participants: Spies

11:00 am to 12:00 pm

Moderator: Gilbert

Presentation and discussion of the results of CONCURRENT SESSIONS D and E.

12:00 pm to 12:30 pm

Closing Remarks - Strand

October 14, 1992

AGENDA FOR THE RESTORATION PLANNING REVIEW MEETING

Monday, October 19, 1992

10:00 am to 10:30 am

Welcome, introductions and overview of Meeting - Strand

10:30 am to 12:00 pm

Overview of Process: Presentation and discussion of the methodology which will be used to develop the restoration plan alternatives and the building blocks they will be based on - Loeffler and Klinge
NOTES - GORBICS

12:00 pm to 1:00 pm LUNCH

1:00 pm to 3:00 pm

Continuation of morning agenda item.

3:00 pm to 5:00 pm

CONCURRENT SESSION A: Decision Process

Moderator: Loeffler NOTES - GILBERT

Discussion, analysis and development of action items related to the decision process and alternative development.

Primary Participants: Reckhow, Ruttenber

CONCURRENT SESSION B: Fish and Intertidal Resources

Moderator: Strand NOTES - SWENSON

Discussion, analysis and development of action items related to the injured fish and intertidal resources and the restoration options associated with them.

Primary Participants: Peterson, Mundy

CONCURRENT SESSION C: Bird Resources

Moderator: Gorbics NOTES - THOMPSON

Discussion, analysis and development of action items related to the injured bird resources and the restoration options associated with them.

Primary Participants: Fry, Sharp

Tuesday, October 20, 1992

8:30 am to 9:00 am

JOINT SESSION: Status report and discussion.

9:00 am to 12:00 pm

Continuation of CONCURRENT SESSIONS A, B AND C.

12:00 pm to 1:00 pm LUNCH

1:00 pm to 5:00 pm

Moderator: Thompson

Presentation and discussion of the results of the CONCURRENT SESSIONS.

Wednesday, October 21, 1992

8:00 am to 8:15 am

JOINT SESSION: Status report and discussion.

8:15 am to 11:00 am

CONCURRENT SESSION D: Archaeological Resources and Other Services

Moderator: Rabinowitch NOTES - THOMPSON

Discussion, analysis and development of action items related to the injured archaeological resources and other services and the restoration options associated with them.

Primary Participants: Rice, Isaacs, Mundy and Richardson

CONCURRENT SESSION E: Marine and Terrestrial Mammals

Moderator: Fraker NOTES - GORBICS

Discussion, analysis and development of action items related to the injured marine and terrestrial mammals and the restoration options associated with them.

Primary Participants: Spies

11:00 am to 12:00 pm

Moderator: Gilbert

Presentation and discussion of the results of CONCURRENT SESSIONS D and E.

12:00 pm to 12:30 pm

Closing Remarks - Strand

draft

gorbics/October 14, 1992

Agenda for the RPWG ^{Review} Peer Reviewer Meeting
on the Restoration Plan Development

Monday, October 19, 1992
10:00 am to 10:30 am

Welcome, Introductions and Overview of Meeting

10:30 am to 12:00 pm

Overview of Process: Presentation and discussion of the methodology which will be used to develop the restoration plan alternatives and the building blocks they will be based on.

12:00 pm to 1:00 pm LUNCH

1:00 pm to 2:00 pm

Continuation of morning agenda item.

~~3:00 pm to 3:15 pm~~ BREAK

3:15 pm to 5:00 pm

CONCURRENT SESSION A: Decision Process

Discussion, analysis and development of action items related to the decision process and alternative development.

Participants: Reckhow, Ruttenber

CONCURRENT SESSION B: Fish and Intertidal Resources

Discussion, analysis and development of action items related to the injured fish and intertidal resources and the restoration options associated with them.

Participants: Peterson, Mundy

CONCURRENT SESSION C: Bird Resources

Discussion, analysis and development of action items related to the injured bird resources and the restoration options associated with them.

Participants: Fry, Sharp

Tuesday, October 20, 1992

8:30 am to 10:00 am

Joint Session: Status Report & Discussion

Continuation of CONCURRENT SESSIONS A, B AND C.

10:15 am to 10:30 am BREAK

10:30 am to 12:00 pm

Continuation of CONCURRENT SESSIONS A, B AND C.

12:00 pm to 1:00 pm LUNCH

1:00 pm to 3:00 pm

Presentation and discussion of the results of the CONCURRENT SESSIONS.

3:00 pm to 3:15 pm BREAK

3:15 pm to 5:00 pm

Continuation of presentation and discussion of the results of the CONCURRENT SESSIONS.

Wednesday, October 21, 1992

8:00 am to 10:00 am

CONCURRENT SESSION D: ~~Archaeological Resources and Other Services~~
Discussion, analysis and development of action items related to the injured archaeological resources and other services and the restoration options associated with them.
Participants: Rice and Issacs

CONCURRENT SESSION E: Marine and Terrestrial Mammals
Discussion, analysis and development of action items related to the injured marine and terrestrial mammals and the restoration options associated with them.
Participants: Spies

~~10:15 am to 10:30 am BREAK~~

~~10:30 am to 11:30 am~~

Continuation of CONCURRENT SESSIONS D and E.

11:00 am to 12:00 pm

Presentation and discussion of the results of CONCURRENT SESSIONS D and E.

10:00 to 10:30 Closing Remarks
~~12:30 pm to 1:30 pm LUNCH~~

~~1:30 pm to 4:00 pm~~

~~Discussion of Injury Summary Table.~~

DRAFT

SHORT
GORBICS/October 13, 1992

Agenda for the RPWG/Peer Reviewer Meeting
on the Restoration Plan Development

The purpose of this meeting is to evaluate the methods and information used by the Restoration Planning Work Group (RPWG) to guide the development of the restoration options and to combine those options into alternatives for the restoration plan.

Several distinct steps in this process will be presented for discussion and evaluation including (1) the identification of injury, (2) the identification of the suite of restoration options, (3) the detailed description of each restoration option, (4) the evaluation of each restoration option and (5) the combination of the options into alternatives for the Restoration Plan.

The meeting topics will be divided into two general areas (1) the decision process and (2) specific resource groups including birds, fish, intertidal communities, marine mammals, archaeology and services. Not only is the RPWG interested in a review of the validity of the information used in the analysis, but we are also interested in an evaluation of the logic and processes involved in this analysis.

Participants:

RPWG	John Issacs
Ken Reckhow	Bob Spies
Jim Ruttenber	Mike Fry
Dan Roby	Phil Mundy
Pete Peterson	Sharon Saari
Bud Rice	

Monday, October 9, 1992

10:00 am to 12:00 pm

I. Topic - Decision Process: Presentation, analysis and discussion of the methodology used to develop the restoration plan alternatives and the building blocks they are based on. This session will focus on the logic and process.

Handouts: List of Options
Option Descriptions
Option Evaluations
List of Criteria
Criteria Definitions
Conceptual Alternatives

Outline of "Model"

Presentation: Overview

Step One: Identification of Injury

Step Two: Identification of Potential Restoration Options and Suboptions
public participation
agency participation
technical workshops
peer review

Step Three: Evaluation of Restoration Options and Suboptions
development of "model"
injury criteria
framework criteria
explanation of criteria
explanation and importance of footnotes

Step Four: Compilation of Options and Suboptions into Alternatives
computer database
sorting conventions
dealing with Unknowns, Not Applicables

Step Five: Prioritization and Implementation

Step Six: Next steps?

Discussion:

Development of Action Items:

12:00 pm to 1:00 pm LUNCH

1:00 pm to 3:00 pm

II. Topic - Resource/Service Review, GENERAL: This session will focus on the specifics pertaining to the development and evaluation of all restoration options and the resources or services they relate to.

Handouts: List of Options
Option Descriptions
Option Evaluations
List of Criteria
Criteria Definitions

Presentation: Identification of Potential Restoration Options and Suboptions

Evaluation of Restoration Options and Suboptions

development of "model"
injury criteria
framework criteria
explanation of criteria
explanation and importance of footnotes

Discussion

Development of Action Items

3:00 pm - 3:15 pm BREAK

3:15 pm - 5:00 pm

IIA. Topic - Resource/Service Review, BIRDS

Presentation:

Overview of injury by species
Overview of status of recovery by species

Discussion

A. Bald Eagle
Development of Action Items

B. Black Oystercatcher
Development of Action Items

C. Common Murre
Development of Action Items

D. Harlequin Duck
Development of Action Items

E. Marbled murrelet
Development of Action Items

F. Pigeon Guillemots
Development of Action Items

TUESDAY, OCTOBER 20

8:30 am to 12:00 pm

IIB. Topic - Resource/Service Review, FISH

Presentation:

Overview of injury by species
Overview of status of recovery by species

Discussion

A. Cutthroat Trout
Development of Action Items

B. Dolly Varden Trout
Development of Action Items

C. Herring
Development of Action Items

D. Pink Salmon
Development of Action Items

E. Rockfish
Development of Action Items

F. Sockeye Salmon
Development of Action Items

12:00 pm to 1:00 pm LUNCH

1:00 pm to 2:00 pm

IIC. Topic - Resource/Service Review, INTERTIDAL COMMUNITIES

Presentation:

Overview of injury by species
Overview of status of recovery by species

Discussion

Development of Action Items

2:00 pm - 2:15 pm BREAK

2:15 pm - 5:00 pm

IID. Topic - Resource/Service Review, MARINE AND TERRESTRIAL
MAMMALS

Presentation:

Overview of injury by species
Overview of status of recovery by species

Discussion

A. Brown Bear
Development of Action Items

B. Harbor Seal
Development of Action Items

C. Killer Whale
Development of Action Items

D. River Otter
Development of Action Items

E. Sea Otter
Development of Action Items

WEDNESDAY, OCTOBER 20

8:30 am to 12:00 pm

IIE. Topic - Resource/Service Review, ARCHAEOLOGY

Presentation:

Overview of injury by species
Overview of status of recovery by species

Discussion

Development of Action Items

IIF. Topic - Resource/Service Review, SERVICES

Presentation:

Overview of injury by species
Overview of status of recovery by species

Discussion

A. Recreation: Backcountry Developed
Development of Action Items

B. Recreation: Concentrated
Development of Action Items

C. Recreation Undeveloped
Development of Action Items

D. Subsistence
Development of Action Items

E. Wilderness/intrinsic values
Development of Action Items

DRAFT

LONG
GORBICS/October 13, 1992

Agenda for the RPWG/Peer Reviewer Meeting
on the Restoration Plan Development

The purpose of this meeting is to evaluate the methods and information used by the Restoration Planning Work Group (RPWG) to guide the development of the restoration options and to combine those options into alternatives for the restoration plan.

Several distinct steps in this process will be presented for discussion and evaluation including (1) the identification of injury, (2) the identification of the suite of restoration options, (3) the detailed description of each restoration option, (4) the evaluation of each restoration option and (5) the combination of the options into alternatives for the Restoration Plan.

The meeting topics will be divided into two general areas (1) the decision process and (2) specific resource groups including birds, fish, intertidal communities, marine mammals, archaeology and services. Not only is the RPWG interested in a review of the validity of the information used in the analysis, but we are also interested in an evaluation of the logic and processes involved in this analysis.

Participants: *Technical Reviewers*

RPWG

Ken Reckhow ✓

Jim Ruttenger ✓

~~Dan Roby~~ ✓

Pete Peterson ✓

Bud Rice

Brian Sharp ✓

Jon

~~John Isaacs~~

Bob Spies

Mike Fry ✓

Phil Mundy ✓

Sharon Saari

Jim Richardson

10

Walcott

Monday, October 9, 1992

10:00 am to 12:00 pm

I. Topic - Decision Process: Presentation, analysis and discussion of the methodology used to develop the restoration plan alternatives and the building blocks they are based on. This session will focus on the logic and process. Specific discussions of resources, injury and correctness of option description and evaluation is not intended.

Handouts: List of Options
Option Descriptions
Option Evaluations

List of Criteria
Criteria Definitions
Conceptual Alternatives
Outline of "Model"

- Presentation:** Overview
- Step One: Identification of Injury
 - Step Two: Identification of Potential Restoration Options and Suboptions
 - public participation
 - agency participation
 - technical workshops
 - peer review
 - Step Three: Evaluation of Restoration Options and Suboptions
 - development of "model"
 - injury criteria
 - framework criteria
 - explanation of criteria
 - explanation and importance of footnotes
 - Step Four: Compilation of Options and Suboptions into Alternatives
 - computer database
 - sorting conventions
 - dealing with Unknowns, Not Applicables
 - Step Five: Prioritization and Implementation
 - Step Six: Next steps?

Discussion: Questions that should be addressed.

- ~~1. Some have suggested that RPWG should have started from a general "big picture" and then become more specific. We started with the specifics and combined them into general alternatives. Does this create any problems?~~
2. The sorting of the various pieces in the database has become the foundation of how the alternatives were developed. Is this approach acceptable? Are there any ways to simplify the sorting and alternative development?
Can it be improved?
3. As we've worked with the database, we find we concentrate on only a few criteria and don't use others at all. Is this approach acceptable?
4. As we develop sorting conventions, we often end up with an unintended complexity based on the questions we are trying to answer. Then we try to describe the resulting alternatives in general language which tends to leave out

many of the nuances of the sort. How important is it to explain the nuances of our process in the public document?

5. Can we continue with this approach? Are modifications helpful, crucial or necessary?

Development of Plan of Action:

1. Identify specific recommendations of meeting participants. Is there a consensus?
2. Identify benefits realized by implementing recommendations. How will this change improve the process? Does it fix the process or enhance the process? Does it fix a fatal, major or minor flaw?
3. Identify the costs of incorporating the recommendations into the process. How time-consuming will this change be? How expensive will it be?
4. Identify the risks of not incorporating this recommendations into the process. Will the process be left with a major or fatal flaw?

=====

12:00 pm to 1:00 pm LUNCH

1:00 pm to 3:00 pm

II. Topic - Resource/Service Review, GENERAL: This session will focus on the specifics pertaining to the development and evaluation of all restoration options and the resources or services they relate to.

Handouts: List of Options
Option Descriptions
Option Evaluations
List of Criteria
Criteria Definitions

Presentation: Identification of Potential Restoration Options and Suboptions

Evaluation of Restoration Options and Suboptions
development of "model"
injury criteria
framework criteria
explanation of criteria
explanation and importance of footnotes

Discussion: Your general review should include:

1. Is the list of options complete? Should more options be added or deleted? Should more information be added to better describe the options?
2. ~~Are the criteria thorough? Do they provide enough information to evaluate an option?~~ *Are other criteria needed*
3. Are the specific resources and services correctly correlated with each option?
4. ~~Are the correct options associated with the correct alternatives?~~

Development of Action Items: What changes should be made?

=====

3:00 pm - 3:15 pm BREAK

3:15 pm - 5:00 pm

IIA. Topic - Resource/Service Review, BIRDS

Presentation:

- Overview of injury by species
- Overview of status of recovery by species

Discussion: The same criteria have been applied for every option, resource and service. Please consider the following as you review the option descriptions and evaluations for each resource and service:

1. ^{*Was*} Were the options adequately and accurately described?
 2. Do you agree with the means and potential to restore a particular resource or service?
 3. Do you agree with how the evaluation criteria were applied?
 4. ~~Are the correct options associated with the correct alternatives?~~
-

A. Bald Eagle

- Option 37.0 Purchase private lands (fee title or less than fee title)
- Option 40.0 Special Designations

Development of Action Items: What changes should be made?

B. Black Oystercatcher

- Option 13.0 Eliminate oil from mussel beds
- Option 14.0 Accelerate recovery of upper intertidal zone
- Option 37.0 Purchase private lands (fee title or less than fee title)
- Option 40.0 Special Designations

Development of Action Items: What changes should be made?

C. Common Murre

- Option 4.0 Reduce disturbance at marine bird colonies and mammal haulouts
- Option 16.1 Enhance social stimuli
- Option 16.2 Improve physical characteristics of nest sites
- Option 17.1 Eliminate introduced foxes (for nesting marine birds)
- Option 17.2 Reduce predator access to seabird colonies
- Option 37.0 Purchase private lands (fee title or less than fee title)
- Option 40.0 Special Designations

Development of Action Items: What changes should be made?

D. Harlequin Duck

- Option 8.1 Temporarily restrict/close harvest
- Option 8.2 Educate public to voluntarily restrict harvest
- Option 13.0 Eliminate oil from mussel beds
- Option 37.0 Purchase private lands (fee title or less than fee title)
- Option 40.0 Special Designations

Development of Action Items: What changes should be made?

E. Marbled murrelet

- Option 9.0 Minimize incidental take of marine birds by commercial fisheries
- Option 17.1 Eliminate introduced foxes (for nesting marine birds)
- Option 37.0 Purchase private lands (fee title or less than fee title)
- Option 40.0 Special Designations

Development of Action Items: What changes should be made?

F. Pigeon Guillemots

- Option 17.1 Eliminate introduced foxes (for nesting marine birds)
- Option 17.2 Reduce predator access to seabird colonies
- Option 37.0 Purchase private lands (fee title or less than fee title)
- Option 40.0 Special Designations

Development of Action Items: What changes should be made?

=====

TUESDAY, OCTOBER 20

8:30 am to 12:00 pm

IIB. Topic - Resource/Service Review, FISH

Presentation:

- Overview of injury by species
- Overview of status of recovery by species

Discussion: The same criteria have been applied for every option, resource and service. Please consider the following as you review the option descriptions and evaluations for each resource and service:

1. Were the options adequately and accurately described?
2. Do you agree with the means and potential to restore a particular resource or service?
3. Do you agree with how the evaluation criteria were applied?
4. Are the correct options associated with the correct alternatives?

A. Cutthroat Trout

- Option 2.1 Increase fish/shellfish management: species already with plans
- Option 11.0 Improve freshwater wild salmon spawning/rearing habitat
- Option 14.0 Accelerate recovery of upper intertidal zone
- Option 19.0 Update and expand Alaska's Anadromous Fish Stream Catalog
- Option 26.0 Amend Forest Practices Act
- Option 37.0 Purchase private lands (fee title or less than fee title)
- Option 40.0 Special Designations

Development of Action Items: What changes should be made?

B. Dolly Varden Trout

- Option 2.1 Increase fish/shellfish management: species already with plans
- Option 11.0 Improve freshwater wild salmon spawning/rearing habitats
- Option 14.0 Accelerate recovery of upper intertidal zone

- Option 19.0 Update and expand Alaska's Anadromous Fish Stream Catalog
- Option 26.0 Amend Forest Practices Act
- Option 37.0 Purchase private lands (fee title or less than fee title)

Development of Action Items: What changes should be made?

C. Herring

- Option 2.1 Increase fish/shellfish management: species already with plans
- Option 15.1 Supplement intertidal substrates for herring
- Option 40.0 Special Designations

Development of Action Items: What changes should be made?

D. Pink Salmon

- Option 2.1 Increase fish/shellfish management: species already with plans
- Option 11.0 Improve freshwater wild salmon spawning/rearing habitats
- Option 15.2 Clean intertidal salmon spawning substrates
- Option 18.1 Establish additional hatchery (salmon) runs
- Option 18.2 Transplant (salmon) hatchery-reared fish to depleted areas
- Option 18.3 Wild egg take to establish new runs (salmon)
- Option 19.0 Update and expand Alaska's Anadromous Fish Stream Catalog
- Option 26.0 Amend Forest Practices Act
- Option 37.0 Purchase private lands (fee title or less than fee title)
- Option 40.0 Special Designations

Development of Action Items: What changes should be made?

E. Rockfish

- Option 2.2 Increase fish/shellfish management: species already with plans

Development of Action Items: What changes should be made?

F. Sockeye Salmon

- Option 2.1 Increase fish/shellfish management: species already with plans
- Option 11.0 Improve freshwater wild salmon spawning/rearing habitats
- Option 18.1 Establish additional hatchery (salmon) runs
- Option 18.2 Transplant (salmon) hatchery-reared fish to deleted areas
- Option 18.3 Wild egg take to establish new runs (salmon)
- Option 19.0 Update and expand Alaska's Anadromous Fish Stream Catalog
- Option 26.0 Amend Forest Practices Act
- Option 37.0 Purchase private lands (fee title or less than fee title)
- Option 40.0 Special Designations

Development of Action Items: What changes should be made?

=====

12:00 pm to 1:00 pm LUNCH

1:00 pm to 2:00 pm

IIC. Topic - Resource/Service Review, INTERTIDAL COMMUNITIES

Presentation:

- Overview of injury by species
- Overview of status of recovery by species

Discussion: The same criteria have been applied for every option, resource and service. Please consider the following as you review the option descriptions and evaluations for each resource and service:

1. Were the options adequately and accurately described?
2. Do you agree with the means and potential to restore a particular resource or service?
3. Do you agree with how the evaluation criteria were applied?
4. Are the correct options associated with the correct alternatives?

- Option 13.0 Eliminate oil from mussel beds
- Option 14.0 Accelerate recovery of upper intertidal zone
- Option 15.2 Clean intertidal salmon spawning substrates
- Option 40.0 Special Designations

Development of Action Items: What changes should be made?

=====

2:00 pm - 2:15 pm BREAK

2:15 pm - 5:00 pm

IID. Topic - Resource/Service Review, MARINE AND TERRESTRIAL MAMMALS

Presentation:

Overview of injury by species
Overview of status of recovery by species

Discussion: The same criteria have been applied for every option, resource and service. Please consider the following as you review the option descriptions and evaluations for each resource and service:

1. Were the options adequately and accurately described?
2. Do you agree with the means and potential to restore a particular resource or service?
3. Do you agree with how the evaluation criteria were applied?
4. Are the correct options associated with the correct alternatives?

A. Brown Bear

Option 8.1 Temporarily restrict/close harvest
Option 13.0 Eliminate oil from mussel beds
Option 37.0 Purchase private lands (fee title or less than fee title)
Option 40.0 Special Designations

Development of Action Items: What changes should be made?

B. Harbor Seal

Option 4.0 Reduce disturbance at marine bird colonies and mammal haulout
Option 8.1 Temporarily restrict/close harvest
Option 8.2 Educate public to voluntarily restrict harvest (sport, subsistence)
Option 40.0 Special Designations

Development of Action Items: What changes should be made?

C. Killer Whale

- Option 4.0 Reduce disturbance at marine bed colonies and mammal haulout
- Option 40.0 Special Designations

Development of Action Items: What changes should be made?

D. River Otter

- Option 8.1 Temporarily restrict/close harvest
- Option 13.0 Eliminate oil from mussel beds
- Option 14.0 Accelerate recovery of upper intertidal zone
- Option 37.0 Purchase private lands (fee title or less than fee title)
- Option 40.0 Special Designations

Development of Action Items: What changes should be made?

E. Sea Otter

- Option 4.0 Reduce disturbance at marine bird colonies and mammal haulout
- Option 8.1 Temporarily restrict/close harvest
- Option 8.2 Educate public to voluntarily restrict harvest
- Option 13.0 Eliminate oil from mussel beds
- Option 40.0 Special Designations

Development of Action Items: What changes should be made?

=====

WEDNESDAY, OCTOBER 20

8:30 am to 12:00 pm

III. Topic - Resource/Service Review, ARCHAEOLOGY

Presentation:

- Overview of injury by species
- Overview of status of recovery by species

Discussion: The same criteria have been applied for every option, resource and service. Please consider the following as you review the option descriptions and evaluations for each resource and service:

1. Were the options adequately and accurately described?
2. Do you agree with the means and potential to restore a particular resource or service?
3. Do you agree with how the evaluation criteria were applied?

4. Are the correct options associated with the correct alternatives?

Option 1.0 Archeological site stewardship program
Option 10.0 Preserve archeological sites/artifacts
Option 35.0 Acquire archaeological artifacts from outside the spill area

Development of Action Items: What changes should be made?

=====
IIF. Topic - Resource/Service Review, SERVICES

Presentation:

Overview of injury by species
Overview of status of recovery by species

Discussion: The same criteria have been applied for every option, resource and service. Please consider the following as you review the option descriptions and evaluations for each resource and service:

1. Were the options adequately and accurately described?
2. Do you agree with the means and potential to restore a particular resource or service?
3. Do you agree with how the evaluation criteria were applied?
4. Are the correct options associated with the correct alternatives?

A. Recreation: Backcountry Developed

Option 12.1 New backcountry recreation facilities
Option 12.2 New commercial (lodge, fuel facilities) recreation facilities
Option 28.0 Acquire access for sport-fishing and recreation
Option 37.0 Purchase private lands (fee title or less than fee title)
Option 40.0 Special Designations

Development of Action Items: What changes should be made?

B. Recreation: Concentrated

Option 33.2 Education: Visitor center, interpretive and educational facilities

Option 34.0 Marine environmental institute

Development of Action Items: What changes should be made?

C. Recreation Undeveloped

Option 37.0 Purchase private lands (fee title or less than fee title)

Option 40.0 Special Designations

Development of Action Items: What changes should be made?

D. Subsistence

Option 30.0 Test subsistence food for hydrocarbon contamination

Development of Action Items: What changes should be made?

E. Wilderness/intrinsic values

Option 37.0 Purchase private lands (fee title or less than fee title)

Option 40.0 Special Designations

Development of Action Items: What changes should be made?

DRAFT: CREATING ALTERNATIVES

I. WHAT IS AN ALTERNATIVE?

- o Alternatives are choices between two or among more than two things.

-- Webster's

- o Alternatives are combinations of policies that represent possible ways of resolving management issues.

-- Adapted from US Forest Service

A. WHY DO WE MAKE ALTERNATIVES?

If there were no disagreement to restore the oil spill area, there would be no need to develop alternatives. However, there are strong differences of opinion on the best way to use the settlement funds.

Alternatives also would be unnecessary if the number of interested parties was small or the issue a simple choice between two mutually exclusive options. In that situation, all those concerned could be gathered together and a solution negotiated directly, or a vote taken on the desired outcome. Most restoration issues arouse the interest of a wide spectrum of public and government parties, however. In addition, the range of possible solutions typically is broad and offers complex opportunities for compromise. Therefore, alternatives are used to:

- o communicate the possible restoration choices,
- o educate participants in the restoration planning process about the tradeoffs that are inherent in choosing among the possibilities, and
- o "focus public review and comment on a reasonable range of viable approaches" to restoration (from USFS).

B. WHAT DOES AN ALTERNATIVE LOOK LIKE?

Potential Restoration Options are the basic building block that we use to make alternatives. Options are categories of restoration activities. Examples of options are improve stream and lake habitats for spawning and rearing of wild salmonids, or acquire extended buffer strips adjacent to anadromous fish streams. These Potential Restoration Options are explained in Chapter VI and listed in Appendix B of the Restoration Framework.

Alternatives are clusters or groups of options that are similar in that they meet some criteria or conform to a theme. For example, one alternative might include those restoration options that have

a good likelihood of restoring injured fish and wildlife populations through direct enhancement and restoration of affected habitat. Another might include those of the previous alternative plus those that provide significant replacement for injured human use. In each case, the alternative would list those Potential Restoration Options (perhaps ranked into categories) which conform to those themes.

C. CONCEPTS TO KEEP IN MIND WHEN BUILDING ALTERNATIVES

1. When different alternatives are unnecessary.

Alternatives should not be created for their own sake only. Where there is a lack of controversy of the appropriateness or a restoration option -- it need not be different in different alternatives. Where an option is not feasible (technically, legally, or for some other reason), it should not be included in any alternative. Where there is general agreement that a restoration activity is appropriate, then it should be included in all alternatives (if, for example, all agencies might agree that an activity that quickly increases the population of an injured bird specie and requires low cost is appropriate under in all alternatives).

A consistent treatment of noncontroversial areas and subjects will streamline the development of alternatives and also has the benefits of

- focusing public and agency review on the areas and ideas where disagreements exist,
- simplifying the alternatives so that they are easier to understand, and
- ensuring that alternatives are realistic representations of some sector of public opinion.

2. Identifying the number and range of alternatives

The scope of the alternatives is set by the list of planning issues and by planning constraints. (Does the restoration option fit within the activities that are authorized by the settlement agreement?) The number and range of solutions is determined by the issues and opinions on resolution of those issues. Alternatives should cover the range of significant sectors of public and agency opinion. However, the number of alternatives should not be so great as to cause confusion between alternatives or to discourage the public from considering or responding to them. In addition, each alternative should be sufficiently different from other to represent a unique solution to the issues and offer a genuine choice. Alternatives should provide a spectrum of choices, but need not define each point on the spectrum. A suggested guideline is that 3-5 alternatives might be developed in most cases. It is

possible, though unlikely, that fewer or more alternatives might be appropriate.

In addition, if there are different categories of decisions, sometimes different categories of alternatives are useful. Thus, it is possible to have three alternatives that decide direct restoration options only, and two or three that deal with, say, habitat acquisition. In this case, people would choose one alternative from each category. If each category of alternatives addresses a different decision facing the trustees, dividing alternatives in this way can organize the questions for the public.

III. Work Completed Before This Summer.

A. 1990, Building the Building Blocks: *Compiling Potential Restoration Options*. Ideas for restoration were compiled from the sources listed below, and listed in the *August 1990 Progress Report: Restoration Planning following the Exxon Valdez Oil Spill*. They were compiled from:

- Scoping Public Meetings held by RPWG April-May 1990
- March 1990 Symposium
- Literature Review
- April 1990 Technical Workshop
- 1990 Feasibility and Technical Support Studies

2. The ideas in the 1990 Progress Report were evaluated using the Criteria in Chapter VI of the 1992 Restoration Framework . This shorter list of Potential Restoration Options is listed in Appendix B of the 1992 Restoration Framework.

These Potential Restoration Options are now the building blocks to create alternatives.

IV. OVERVIEW OF THE METHOD TO GROUP RESTORATION OPTIONS INTO ALTERNATIVES

A. Rate each option by criteria.

An example matrix illustrates the process:

(Matrix not available)

A matrix will be filled out -- rating each criteria -- for each of the options. The result will be a master matrix which could be displayed on the wall. For ease of manipulation, it will be entered into a simple database.

The criteria are chosen to illustrate the characteristics and

values that are important to the trustees and the public. That is, they should highlight the characteristics of the options and the values use when making decisions among the options.

B. Use the criteria to sort the options into Alternatives.

At this stage, RPWG should choose Alternative Themes. The themes provide general guidance for assigning appropriate restoration options to each alternative. They allow the public and trustees to readily understand the general philosophy behind each alternative. For example, one theme might emphasize restoration options which include only direct manipulation of injured species. Another might be somewhat broader, or emphasize human services that were injured in the spill. In any case there will have to be some iterations between the sorting process and choosing themes.

Of course the matrix of options and criteria will not sort itself into themes. The sorting is implemented through decision rules. These rules tell the computer that options that have certain ratings on individual criteria should be included in the alternative. The product of these decision rules is an alternative with a logical theme, and the group of options that correspond to the theme.

C. Concepts for writing Criteria and Decision Rules.

1. Criteria should emphasize how the public makes decisions. The goal is not to choose the "best" restoration options. Rather, it is to illustrate how choices must be made among the options. Therefore, criteria should represent those characteristics and values that the public and trustees use to judge options. For example, one characteristic important to the public might be the biological efficiency of an options: will it work? Will it go far toward restoring the population of a injured specie? Another might be whether it will restore human services (recreation, public use, etc)? And so on.

2. Keep it simple. The process should be simple. Since the process is designed to help the public make decisions, it must be easily understood by the public. Black-box decision process are not acceptable. While we should not leave out important characteristics, a long list of criteria is probably too complicated. Fewer is better than more.

3. Criteria must be defined. The process must be repeatable. That is, other people rating an option on the criteria we choose should come up with the same ratings. And if we rate an option incorrectly, people must be able to let us know. This requires that each rating be clearly defined. A "High" versus a "medium" rating must be based on how the option fits into the

"high" versus "medium" definitions. Some subjectivity is impossible to avoid, but the definitions should be as explicit as possible.

4. Criteria should be comprehensive. Criteria that fit into a system are better than those that appear to be randomly chosen. Criteria should appear to the reader to be mutually exclusive and collectively exhaustive.

Draft Evaluation Criteria

Rating Restoration Options for their Effect on each Resource and Service

DRAFT FOR RT REVIEW

CRITERIA

- 1. Potential to improve the rate or degree of recovery:** Will implementation of the restoration option accelerate the recovery of an injured resource or service?

Further Explanation: This criterion answers the question, "How much will the option help the targeted injury?" It evaluates whether the option will decrease the amount of time required for an injured resource or service to recover. In this criterion, the prevention of further degradation or decline is also considered. In evaluating options under this criterion, the working group assumes that the option will perform as expected. For example, the group assumes that an option that uses decoys to synchronize murre breeding in a colony will indeed synchronize the breeding. The question of will the option produce the outputs it promises (e.g., restore breeding in murre, actually clean mussel beds, etc.) is considered in criteria #2, technical feasibility.

Rating Categories¹:

High = Potential to greatly improve the rate or degree of recovery for a significant portion of the injured resource or service.

Medium = Has potential to either:

- greatly improve the rate or degree of recovery for a small portion of the injured resource or service; or,
- produce a small improvement in the rate or degree of recovery for a large portion of the injured resource or service; or
- produce a moderate effect in the rate or degree of recovery for a moderate portion of the injured resource or service.

Low = Potential for a small improvement in the rate or degree of recovery over a small portion of the injured resource or service area.

¹ In evaluating an option under this criterion, the prevention of further degradation or decline is also considered.

2. **Technical feasibility:** Are the technology and resource management skills available to successfully implement the restoration option in the environment of the oil-spill area?

Further Explanation: Techniques for restoring different injuries from the oil spill vary from the experimental to the proven. In this criterion, options are rated for the documented evidence that they can meet the objectives they aim for. If the objective is to increase the breeding ability of a bird species, this criterion is used to evaluate the team's confidence that the option can, in fact, achieve that objective. For feasibility options, this criterion is rated with a Yes or No. If Yes, the option is carried on in the evaluation process. If No, it is rejected.

Rating Categories:

- High = There is documented evidence that the option has the potential to restore the injured resource or service. *works consistently when applied to this*
- Medium = There is documented evidence that the option has the potential to restore a similar resource or service. *or consistently that it produced mixed results when applied to this resource.*
- Low = The technical feasibility is unproven, but there is reason to believe it is feasible.

3. **Degree to which proposed action benefits more than one resource or service:** Would the restoration option benefit multiple resources and services, both injured target resources and services, as well as non-target resources and services?

Further Explanation: This criterion evaluates whether the option will help more than one resource or service, or whether it will restore a resource that provides food or habitat for many others.

Rating Categories:

- High = Benefits more than one resource including at least one that supports multiple trophic levels (e.g. mussels, *Fucus*, salmon etc...). Benefiting these resources will produce high benefits for multiple resources and services which depend on them.
- Medium = Benefits more than one resource ^{and} or service.
- Low = Benefits one resource ^{and} or service.

4. Measurement of Results: Do projects that fall under this option have measurable results?

Further Explanation: For some projects and options, it will be easier to answer the questions, "Did the project work? Did it help restore the injury it was addressing?" The monitoring program will be designed to help the Trustees determine which injuries are recovering, and whether the recovery can be attributed to a specific restoration project. Projects with measurable outputs are easier to assess. Without being able to directly or indirectly measure the results of the project, it is difficult to tell if the project is working. This criterion, based on our current knowledge, considers whether the option is likely to include projects with measurable results. However, it is likely that additional projects will be identified in the future that were not considered in this evaluation.

Rating Categories:

- High = The majority of projects in the option are likely to produce measurable results attributable to the project.
- Medium = Less than the majority of the projects in the option are likely to produce measurable results attributable to the project.
- Low = Projects in the option are unlikely to produce measurable results.

5. Potential for no additional injury resulting from proposed actions, including long-term and indirect impacts: Will implementation of the restoration option result in additional injury to target or nontarget resources or services: Is the project of net environmental benefit?

Further Explanation: This criterion considers injuries that an option might cause to other resources and services. For ease of evaluation, the injuries to resources and to services are recorded separately.

Rating Categories:

- High = There is no expectation of additional injury.
- Medium = Any additional injury will be minor or short-term.
- Low = Major or long-term injury could result from implementation of this option.

6. Potential effects of the action on human health and safety: Are there hazards to or adverse impacts on humans associated with implementation of the restoration option?

Rating Categories:

- High = There is no evidence for adverse effects on human health or safety, for the public or for persons implementing the option.
- Medium = There is evidence for some adverse effects on human health or safety, for the public or for people implementing the option (includes higher than normal occupational hazards, or other adverse effects that require extra precautions etc...).
- Low = There is evidence for significant adverse effects on human health and safety, for the public or for persons implementing the option that would be difficult to prevent or counteract.

7. The relationship of the expected costs of the proposed actions to the expected benefits: Do benefits equal or exceed costs?

Further Explanation: This is not intended to be a straight cost/benefit analysis, but a broad consideration of the direct and indirect costs [including lost uses] and the primary and secondary benefits associated with implementation of the restoration option.

Rating Categories:

- High = There are outstanding benefits associated with improving the rate or degree of recovery of the resource or service, and it can be done at low or modest cost.
- Medium = Less than outstanding benefits at modest or low cost, or high benefits at high cost.
- Low = There is a high cost that is not balanced by outstanding benefits.

TRACKING CRITERIA. These criteria are used to track information that may be useful to RPWG, the RT, and the Trustees. They may be used to develop recommendations for implementation and for ranking options within an alternative.

8. **Degree to which proposed action enhances the resource or service:** Would the restoration option improve on the quality or create an additional quantity of natural resources or services that go beyond pre-spill levels?

Rating Categories:

Yes = The option would bring the resource or service beyond pre-spill levels for a significant portion of the spill area.

No = The option would **not** bring the resource or service beyond pre-spill levels for a significant portion of the spill area.

Unknown = Unknown.

9. **Will the restoration opportunity be lost if implementation of the option is delayed?** Would delay in the option result in further injury to a resource or service, or would we forego a restoration opportunity?

Further Explanation: This criterion is important for scheduling implementation. For example, timing is critical if the Trustees are to purchase habitat under an imminent threat scenario, if we are to restore a species population that is currently not breeding in adequate numbers, or if we are to prevent the decline of threatened archaeological resources.

Rating Categories:

Yes = An opportunity may be lost if implementation is delayed.

No = An opportunity will not be lost if implementation is delayed.

10. **Public comments.** This portion of the evaluation records whether or not significant numbers of public comments were received concerning an option. An accompanying field includes a summary of the comments.

Categories:

Positive = Generally supportive comments received.

Negative = Generally negative comments received.

Mixed = Both positive and negative comments received.

No rating = Did not receive significant public comments specific to the option.

ADDITIONAL CHARACTERISTICS FOR EVALUATION DATABASE

We anticipate that the following characteristics will be useful in describing the alternatives (e.g., What portions of the alternatives are Habitat Acquisition versus Management etc...).

The following characteristics will be answered with Yes or No:

1. Direct Restoration *Rehabilitation*
2. Replacement
3. Acquisition of Equivalent Resources
4. Management of Human Uses
5. Manipulation of Resources
6. Enhancement Activity
7. ~~Habitat Acquisition~~
8. Habitat Protection

OTHER CRITERIA FROM THE RESTORATION FRAMEWORK. The criteria below are from the Restoration Framework. They were considered but will not be used in the evaluation of individual options for the reasons noted below.

Criterion: **The effects of any other actual or planned response or restoration actions:** Are there other actions, such as additional clean-up work, that bear on the recovery of a resource targeted by the restoration option?

Reason: On an option level, this criteria overlaps with number 3 (Degree to which proposed action benefits more than one resource or service) and number 5 (Potential for additional injury resulting from proposed actions...). It remains useful on a project-specific level to ensure coordination between projects. Therefore it should be taken into account on annual work plans which will implement the restoration plan.

Criterion: **Cost Effectiveness:** Does the restoration option achieve the desired objective at the least cost?

Reason: Useful on an implementation level; however, the criterion is useful to choose between projects within an option (if two projects give similar outputs, but one is cheaper). On the option level, this criterion is not an effective measure.

Criterion: **Consistency with applicable Federal and State laws and policies:** Is the restoration option consistent with the directives and policies with which the Trustee agencies must comply? Potential conflicts must be resolved prior to implementation.

Reason: All options comply with this criteria. Thus, it is not useful to compare options to each other. As the criteria indicates, any potential conflict must be resolved before implementation. Projects done to implement the restoration plan must still comply with NEPA, agency permitting requirements, etc.