

RESTORATION PLANNING WORK GROUP  
AUGUST 13, 1992  
9:00 A.M.

**Attendees:**

- Bob Loeffler
- Sandy Rabinowitch
- Carol Gorbics
- Cathy Berg
- Karen Klinge
- Mark Fraker
- John Strand
- Chris Swenson
- Art Weiner

**The following items were distributed:**

- August 12, 1992 Memo to Dave Gibbons from John Strand
- Public Comments on Options, Injury Criteria, Option Evaluation Criteria and Alternatives
- Evaluation Criteria Used for Rating the Options/Suboptions by Injured Resource/Service
- Draft of Injured Resources and Services (Ecosystem Concept)

**The following agenda items were discussed:**

**SCHEDULE**

John updated Carol on the meeting held with the Restoration Team in regards to scheduling. A subgroup was assigned to extract what might alter or modify our process based on public comments.

**RPWG TIMELINE**

John prepared a timeline for completion of alternatives and forwarded copies to the Restoration Team. The date of the meeting with the Restoration Team has been rescheduled to the 19th. No definite time has been set but RPWG will be notified when the agenda is completed.

**BUDGET**

John felt RPWG needs to have some input into budget. RPWG will be funded for five months over the time period listed. The budget assumes that RPWG will go away in June. Carol thought RPWG's demise was February. John stated that it appears the final draft of the Restoration Plan will be completed by the end of June. RPWG's budget has been handled through each agency's submission; however, RPWG should voice a very strong opinion about RPWG's staff

and any other requirements, i.e., an editor beyond February. John will examine the budget binder and pull the information which pertains to RPWG's staff and contract needs to get the job done. The cost of printing the Restoration Plan needs to be determined. Budget spreadsheets are due August 21, which will allow some time for RPWG's input.

#### **ECONOMIST**

Sandy stated he advocates some modest measure of assistance and advice so that we don't dig ourselves into a hole. A practical way to approach obtaining economic guidance is communication and occasionally meeting with RPWG. Economists are needed to review things. RPWG can decide whether to reject or accept their review. Lou is well grounded and could offer a lot of valuable assistance. Jeff could also offer a different prospective which would assist RPWG. John stated that he could continue to facilitate Lou's time and has money in his budget to bring Lou up. Karen stated that it would be helpful to have outside economists involved in addition to the peer reviewers. Sandy saw the need for a greater volume and frequency of economists' input. There is potential for a lot of economic impact, and economists could help RPWG stay out of some pitfalls. Karen stated that when some decisions have been made on economic impact, it is good to have review by economists; however, she does not see the need to have an economist involved in the entire process creating more work for RPWG. Bob asked how economists would be used. Sandy used as an example the comments Jeff and Lou made on cost-effective criteria. Karen stated that she could see having economist look at what was done on the rating process. Sandy stated he does not see them as economic peer reviewers but as someone who could help us do the job. Ken requested that some or all of RPWG avail themselves to talk with Ken McCollum, a Forest Service economist, on Monday at 9:00. He will be here to speak with Sharon Saari on the EIS. John requested that Karen attend this meeting along with him.

#### **SUBGROUP TASKS**

#### **OPTIONS, CRITERIA and ALTERNATIVES**

Chris discussed the review of public comments on options, injury criteria, option evaluation criteria and alternatives. The comments were assigned a letter and sorted into the above categories. The option numbers were taken from the framework document. Chris and John looked at anything new that was not addressed or incorporated into RPWG's thinking. RPWG needs to determine if the criteria are adequate as they are. Chris suggested adding something on ecosystem wide-analysis. Sandy read the five goals of a restoration plan (1990 Progress Report) which applied to an ecosystem approach to restoration. Mark stated that ecosystem needs to be defined. John stated that the level of science is moving toward an ecosystem approach. Carol suggested adding a new

section on the ecological interrelationships due to the public comments and will take the lead on writing something for this section. Chris stated the comment regarding "injury extends beyond oiled shorelines" needs to be discussed. If RPWG agrees with this comment, it should be incorporated into the ecosystem section. A statement on RPWG's position needs to be added. Sandy suggested someone write up a brief text summarizing comments and how RPWG responded. John requested that RPWG review the comments to see if anything needs to be added. Chris questioned whether the multi-species benefit is an ecosystem-wide criteria or is criteria needed for this. The one fairly common comment on alternatives was that whatever alternative is chosen should be a combination of alternatives. Sandy asked if there were comments on how emphasis should be measured. Chris stated there were no more than percentages for habitat acquisition. Bob stated that comments which oppose something should be reviewed for the reasons for opposition. Sandy stated the next logical step would be to write a short document that summarizes what the goals were for the four categories and then summarize the conclusion. This basically becomes RPWG's response. Sandy stated that the quickest way to deal with opposition is examining the letters during the evaluation process. The letters will be made available during this process. The summary on options may have to wait until after the evaluation process. Most of the comments on options were more general and were considered under alternatives.

#### **CRITERIA**

Bob, Karen, Sandy and Mark's subgroup agreed on criteria and will write them up and assign definitions. After RPWG has examined the definitions, they will go to the Restoration Team in terms of approach. John stated he would like to take a look at what was done conceptually.

This subgroup prepared a document entitled: Evaluation Criteria Used for Rating the Options/Suboptions by Injured Resource/Service. Carol stated there is great benefit to pulling some of these criteria out of the overall ranking. Karen went through each criteria to see if RPWG agreed with what was captured. Art stated that the definitions must be explicit. Art also questioned if measurability should be captured as part of technical feasibility. Karen was uncomfortable with how the results were being used. Art questioned how you can fund projects unless you have confidence the effort has borne fruit. The criterion is a measurable variable that is an indication of the success of an option. The following criterion was added as a science criteria: The potential of projects to have measurable results. Carol suggested using just criteria instead of science criteria. Bob stated he was uncomfortable with the term socio-economic. Art stated there is a subtle difference between lost opportunity and critical timing. Bob stated that critical timing should be included under #9. The necessity for a public comments field (#10) was raised. Art stated

that some members of the Restoration Team are concerned with how public comments are being folded in. It was decided to leave this field in. The section on additional characteristics for the evaluation database was discussed. The commercially or economically important characteristic was deleted. Karen gave an explanation of the criteria from the framework which were not used and why. John stated that a draft of the evaluation criteria and rating categories definitions (high, medium and low) will be given to the Restoration Team on Tuesday. RPWG will have a final look at this and fax it out on Monday. Carol prepared a first draft adding the ecosystem concept to the criteria for selecting injured resources and services. Art suggested that Carol add "beyond the area directly affected by the oil." Bob stated that this appears to be a political agenda in adding the ecosystem concept and he is uncomfortable with this.

RPWG will attempt to build definitions for high, medium and low. Sandy stated certain things could be defined in terms of percentages.

#### **SCHEDULE**

RPWG will meet at 9:00 on Monday.

RPWG  
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RESTORATION PLANNING WORKING GROUP  
EXXON VALDEZ OIL SPILL OFFICE  
645 "G" STREET  
ANCHORAGE, ALASKA 99501

MEMORANDUM

12 August 1992

TO: David Gibbons

FROM: John Strand

RE: 1) Update of RPWG Timeline for Completion of Alternatives  
2) RPWG Requirements of RT

Thank you for the opportunity to present the RPWG view of how to build alternatives for the Draft Restoration Plan and Draft Environmental Impact Statement. I think we had a productive meeting.

Attachment 1 for your review and comment is a proposed revision to our internal timeline for completion of alternatives. This timeline also addresses the need to reach closure on the issue statements as well as the annotated outline for the Restoration Plan. Please note that this proposed timeline calls for at least three meetings (19 August, 26 August and 3 September) between RPWG and RT to review various steps in the process to build alternatives. The timeline assumes forwarding to the TC for their review on 14 September a package containing the issue statements, the alternatives and the annotated outline for the Restoration Plan.

As requested, Attachment 2 is a timeline and list of activities and/or deliverables required of the RT. Providing the listed activity or deliverable by the date requested will greatly facilitate RPWG's process.

I am working in Anchorage all this week and would be available to discuss the proposed revision to our timeline at your convenience.

Attachments

cc: RPWG  
Sharon Saari  
Bob Spies

**INTERNAL RPWG TIMELINE FOR COMPLETION OF ALTERNATIVES FOR  
DRAFT RESTORATION PLAN AND DRAFT ENVIRONMENTAL IMPACT STATEMENT**

<u>DATE</u>	<u>MILESTONE AND/OR ACTIVITY</u>
18 August	Write descriptions of options criteria, finish development of rating scheme, and deliver to RT.
19 August	RT/RPWG meeting to review descriptions of criteria and rating scheme.
19-27 August	Evaluation and rank restoration options.
21 August	Write descriptions of themes and options sorting procedures. Deliver to RT. Revise issue statements and annotated outline for Restoration Plan. Deliver to RT.
26 August	RT/RPWG meeting to review themes, sorting procedures, issue statements and annotated outline.
31 August	Write descriptions of alternatives and deliver to RT.
3 September	RT/RPWG meeting to review descriptions of alternatives.
7 September	Prepare revisions (if necessary) to descriptions of alternatives. Deliver to RT.
9 September	Issue statements, descriptions of alternatives, and annotated outline of Restoration Plan due to TC.

**RPWG REQUIREMENTS OF RT**

<u>DATE</u>	<u>REQUIRED ACTION</u>
17 August	Comments due on issue statements and annotated outline of Restoration Plan.
19 August	Approval of criteria and rating scheme to rank restoration options.
26 August	Approval of themes and sorting procedures. Approval of issue statements and annotated outline.
7 September	Approval of alternatives. Approval of tctal package (issues, alternatives, annotated outline) to be forwarded to TC on 9 September.

**Public comments on options, injury criteria,  
option evaluation criteria, and alternatives**

**A. Options**

- A. option 16 (enhance murre productivity) won't work
- A. opposition to option 12 (rec. facility construction) - hurts wilderness tourism
- A. Cordova Ranger District (USFS) comments on multiple options (letter #3)
- A. supports options 7, 17, and 22-25
- A. opposed to options 3, 12, 18, 23, and 34
- A. supports option 1,4,6,20-27, and 31
- A. supports option 10, opposes options 1 and 35
- A. favors options 4,6,17, and 20-25
- A. establish centralized research and monitoring facility in PWS
- A. supports option 34 (science center), but expand existing facility
- A. GIS needed to synthesize resource data
- A. supports option 6 and 23-25
- A. supports the Alaska Sea Life Center
- A. supports a Prince William Sound marine sanctuary.
- A. supports a brochure to go to charter boat operators for minimizing the disturbance to wildlife, which would not cost much.

**B. Injury criteria**

- B. The Trustee Council will come under pressure in defining injury criteria; they should find some very tight spending criteria that fits injury criteria; this should be dealt with up front.
- B. Wants a strong adherence that there was some damage here due to the spill; tying the injury to the spill should be a strong criteria.



- B. it should be stated that we will be unable to quantify injury in some cases
- B. eliminate the word "significant" from injury definitions - some injuries are significant regardless of magnitude and, also, data may be unavailable or ambiguous to determine significance (2)
- B. adequacy of natural recovery is a good criterion, but don't construe immigration of seabirds into damaged areas as natural recovery
- B. focus on residual hydrocarbons give false picture - there are no ecosystem or population injuries
- B. criteria ignore sublethal injuries and focus too much on population level (2)
- B. subtle effects (sublethal?) on early life stages of herring and salmon not important - no current fishery or population injury
- B. 1989 mortality counts are not useful - populations have recovered (2)
- B. need to acknowledge uncertainty in injury criteria - may be many injuries we don't know about because we haven't studied or detected them (3)
- B. injuries may have occurred to species not studied (e.g., Dall porpoises)
- B. describe ecosystem and habitat injuries
- B. definition of injury too constrained; a loss which may be due to EVOS should be considered an injury, certainty should not be required
- B. best professional judgement of injury may be too subjective, need public input also
- B. future information may add new injuries to list
- B. injury extends beyond oiled shorelines - ecosystem injuries include uplands and areas outside spill zone
- C. **Option Evaluation Criteria**
- C. The Nature Conservancy study talks about various ways of evaluating the land and use and trying to come up with some solution; this information is almost non-existent.
- C. add criteria - degree to which action provides opportunity for

public/private partnership effort

- C. evaluate relevant options for effects on existing upland (USFS) management
- C. additional criteria should be, "potential threat to recovery due to additional impacts", e.g., protect threatened areas from further injury (2)
- C. add criteria - degree to which action negatively impacts private resources and services
- C. supports option evaluation criteria in RF and strongly supports options benefitting entire seabird community (and other organisms also), not just one species
- C. an additional option evaluation criteria should be, "degree of enhancement or distraction to interagency cooperation."
- C. don't choose options which limit future (USFS) management opportunities, e.g., all of CNF as a designated wilderness area
- C. add criterion, "prevention of additional injury to ecosystem"
- C. additional criteria - degree to which proposed action minimizes further impact on a damaged resource or service
- C. evaluation of habitat acquisition options should include provisions for acquiring land important to tourist industry and recreationists
- C. restoration projects should aim to restore service levels provided by natural resources to public, not species itself

**D. Alternatives**

- D 70% money should go to habitat acquisition
- D. don't restore one species at expense of another, e.g., wild vs. hatchery salmon (2)
- D. provide recreational opportunities
- D. avoid direct manipulation without rigorous controls, experimental design and testing procedures
- D. Mgmt. of human uses and Manipulation alternatives have many projects which could simply serve to line agency budgets - need to avoid this danger
- D. don't fund conventional agency management functions, e.g.,

stock separation projects (4)

- D. recreation facilities construction should be limited and not compromise wilderness values
- D. Alt. F (combo) is likely outcome
- D. strong support for monitoring and collection of baseline data
- D. strong opposition to endowment fund
- D. restoration plan should not exclude options for restoration of resources/values which aren't currently being considered
- D. enhancement should not damage wilderness and recreational values
- D. restoration should result in permanent improvements/enhancement and protection from future degradation (2)
- D. Alternative B, mgmt. of human resources, may be useful but is less cost effective in long run than Alts. D and E
- D. let nature take its course - no human interference
- D. need to recognize value of coastal forest ecosystem to multiple species (2)
- D. protect/acquire habitat which supports wildlife which have high human use values
- D. resource manipulation should protect wild populations and diversity
- D. agency mgmt options are valid, but should not be primary focus
- D. The only thing that has any hope for success will be the acquisition of equivalent resources; we cannot restore or replace the lost resources; money received as a result of natural resource damage should go to natural resources.
- D. Alt. F (combo) is too vague - all Alts. (except No Action) should be combos, differing in emphasis (2)
- D. supports Alternatives D and E - habitat acquisition and acquisition of equivalent resources
- D. habitat acquisition as top priority and priority use of funds (23)
- D. examine restoration via recreational development in light of Chugach Natl. Forest management direction

- D. not enough emphasis on restoration of services
- D. land classification changes (refuges, etc.) is a sometimes a good strategy (2)
- D. don't fund additional cleanup, except the Chenega Bay Local Response Program (3)
- D. consider management options after habitat acquisition has been looked at
- D. fund public education programs (2)
- D. focus on protecting ecosystem, not narrow spectrum of commercially valuable species and activities or an individual species (6)
- D. land acquisition should consolidate management areas
- D. 80% money should go to habitat acquisition (11)
- D. emphasize habitat acquisition on Kodiak and Afognak
- D. no more than 1/3 of money should be spent on timber buybacks
- D. timber buybacks should be clearly linked to EVOS damage
- D. economic impacts of land acquisition should be carefully studied
- D. don't fund construction or development (7)
- D. protect area from human interference and allow natural recovery
- D. support Alt. F (combo)
- D. protect and restore wilderness qualities/values (6)
- D. supports use of existing state and federal management authorities to modify human uses of injured areas
- D. emphasize restoration of cultural resources and developing options for agency management and interpretation
- D. in Alt. D, emphasize acquiring timber rights and conservation easements on forested uplands and outside the spill area
- D. supports an alternative combining Alternatives B - E.
- D. strong support for restoring and protecting archeological resources (5)
- D. resource acquisition should include compensating those who do

- not, as a result, realize economic benefits from that resource
- D. acquire timber rights only for as long as recovery takes
  - D. give concurrent consideration to restoration habitat acquisition (11)
  - D. establish and fund a marine science/research center via an endowment
  - D. support Alt. F (combo)
  - D. consider hierarchy with habitat acquisition at the top
  - D. supports harvest restrictions and refocussing harvests to undamaged areas
  - D. pursue restoration outside the spill area (5)
  - D. Thinks buying timber is a bad idea.
  - D. Some kind of coordinated management is needed.
  - D. Need money for education programs to communicate and make sure this doesn't happen again; human resources are important.
  - D. supports identification and replacement of injured services

EVALUATION CRITERIA USED FOR RATING THE OPTIONS/SUBOPTIONS BY INJURED RESOURCE/SERVICE.

SCIENCE CRITERIA

- 1. Potential to improve the rate or degree of recovery.

Will implementation of the option cause the injured resource to recover in a shorter amount of time? (slope or duration of recovery line). For this criterion, prevention of further degradation or decline will also be considered. The emphasis is on net effect (positive effect or preventing a negative effect) on the resource or service.

- 2. Technical Feasibility

Are the technological and management skills available to successfully implement the option? (excluding politics - focuses on the mechanics of implementation). Definition needs further elaboration (perhaps an example) to the effect that management skills include ability of agencies to effect the option (agency authorities, infrastructure, etc), not just the presence of supervisors and such.

\_\_\_\_\_ (?) CRITERIA

- 3. The potential that NO additional resource injury will result

This includes target and nontarget resources. Consider "net-environmental" benefits. (killing gulls to increase murrens does cause injury to the gull population, but would be an overall benefit through returning both predators and prey to pre-spill conditions in the long term.) (This criteria focuses on potential injury to resources, the definition needs a sentence to obviously differentiate it from criteria #\_\_ below which focuses on services.)

- 4. Human health and safety

Are there hazards to or adverse impacts on human associated with implementation of the restoration option?

- 5. Relationship of expected costs to expected benefits.

Will implementation of this option bring benefits (both primary and secondary) which would equal or exceed the cost?

- 6. The potential that NO additional injury will result services or local economies

Still consider "net-environmental" benefits of implementing the

option, but acknowledge if there will be adverse effects to services or the economies which are dependent on the resource. (Needs additional sentence to differentiate it from criteria #3. This could be done by formatting the two together, perhaps.)

7. Multi-species Benefit.

Does the option help more than one of the targeted resources or services? Options are evaluated for their effect on an individual resource or service. This criteria tracks whether the option has an effect on more than one resource or service.

Criteria (These criteria are not used to choose options for alternatives, but they are useful to track information that may be useful to RPWG, the RT, or the Trustees in scheduling options (when they are accomplished), or provide information useful on an ad-hoc basis for ranking options within alternatives.)

8. Degree to which proposed action enhances the resource or service:

Would the restoration option improve on or create additional natural resources or services?

9. Will the restoration opportunity be lost if implementation of the option is delayed?

Is there an urgency related to implementing this option which constitutes a lost opportunity? (Delaying purchasing habitat is not urgent unless there is a threat to key habitat for the species) Note: this definition needs some further elaboration to ensure that preventing a decline in Archaeologic resources is included. In addition, the title may be shortened for clarity (if we can think of how).

10. Public Comments.

This "criteria" tracks options upon which we've received some minimum amount of comments. The database field includes whether the comments are positive, or negative, and a comment field to record a summary of what they were.

## RATING BY SPECIES

After all options are ranked by service and resource, we need to create a field <sup>that</sup> rates all the options for that service or resource only. For example, it is possible that one resource may have no options with any H's in them. If so, when we choose options for one alternative, we might end up including ~~all~~ a whole bunch of options for, say, Salmon, because there are lots of effective things we can do, but leave out lots of species which don't have options with H's. That would probably not be our intention. Therefore this

field in the database would capture the relative rank for a resource or service. (There still may be resources with no effective restoration options. If so, we may not want to choose an ineffective option just to make sure its covered. But this field gives us the opportunity to decide that question intentionally, rather than have it just fall out.)

#### ADDITIONAL CHARACTERISTICS FOR EVALUATION DATABASE

The following characteristics will be answered with Yes or No:

1. Direct Restoration?
2. Replacement?
3. Acq. of Equivalent?
4. Management of Human Uses?
5. Manipulation of resources?
6. Enhancement activity?
7. ?? Commercially or Economically important????
8. Habitat Acquisition?

We anticipate that the above characteristics will be useful in describing the Alternatives (i.e. What proportions or the Alternatives are Habitat Acquisition versus Management etc...).

**CRITERIA NOT USED** (These are criteria from the framework document, Cha VI)

Criteria: 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 numbers 3 and 6. 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.

Criteria: Cost Effectiveness:

Does the restoration option achieve the desired objective at the least cost?

Reason: Useful on an implementation level. That is, it is useful to choose between projects within an option. (That is, do two projects give similar outputs, but one is cheaper.) On the option level, this criteria is a complete overlap with the benefit/cost criteria.

Criteria: Consistency with applicable Federal and State laws and



policies:

Is the restoration option consistent with the directives and policies with which the Trustees 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. Projects could still fall out at that level.

## SUMMARY

### SCIENCE CRITERIA

1. Potential to improve the rate or degree of recovery.
2. Technical Feasibility

Combined Science Rating: \_\_\_\_\_

### \_\_\_\_\_ (?) CRITERIA

3. The potential that NO additional resource injury will result
4. Human health and safety
5. Relationship of expected costs to expected benefits.
6. The potential that NO additional injury will result services or local economies
7. Multi-species Benefit.

### TRACKING CRITERIA (?)

8. Degree to which proposed action enhances the resource or service:
9. Will the restoration opportunity be lost if implementation of the option is delayed?
10. Public Comments.

### RATING BY SPECIES

### ADDITIONAL CHARACTERISTICS FOR EVALUATION DATABASE

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III. Injured Resources and Services

A. Criteria for selecting injured resources and services

1. Settlement guidance
2. Proposed Criteria
  - Evidence of consequential injury, and
  - *Consequences of injury due to linkages with other resources*
  - Adequacy and rate of natural recovery
3. Injury to Natural Resources
4. Injury to Natural Resource Services
5. *Linkages between injured resources, services, habitats and other ecosystem components*

*Information on the linkages between injured resources, services, habitats and other ecosystem components should be considered in evaluating the consequences of an injury to other elements of the ecosystem.*

*The resources, services and geographic area impacted by the spill encompass a huge area and wide variety of habitats. Although this environment is widely varied, the many and diverse combinations of resources play a large and important part in the communities in which they live. Their feeding habits, habitat requirements, means of reproduction, locomotion or protection are almost endlessly varied and, so too, are their relations to other organisms around them.*

*Many plankton eating invertebrates compete for food with young salmon and other fish passing through or living in coastal waters. These primary consumers, which include blue mussels, capelin, and other small fish, are used as an important wildlife food source and support many higher organisms including harbor seals, sea otters, seabirds, harlequin ducks, black oystercatchers, pigeon guillemots, river otters and others. Likewise, these organisms are food sources for even higher consumers such as eagles, foxes, brown bears and killer whales.*

*These linkages must be considered in evaluating not only the species or population level impacts, but also the consequences of those impacts on other resources and services.*

6. Recovery Concept

B. How criteria are applied

*The decision-making process for applying the injury criteria including consideration of the consequences of such injury to all affected trophic levels will be explained.*

C. Conclusion: listing and summary tables/graphics for resources and services that meet the injury criteria

EVALUATION CRITERIA USED FOR RATING THE OPTIONS/SUBOPTIONS BY INJURED RESOURCE/SERVICE.

**SCIENCE CRITERIA**

1. Potential to improve the rate or degree of recovery.

Will implementation of the option cause the injured resource to recover in a shorter amount of time? (slope or duration of recovery line)

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Are the technological and management skills available to successfully implement the option? (excluding politics - focuses on the mechanics of implementation)

3. The potential that NO additional resource injury will result

This includes target and nontarget resources. Consider "net-environmental" benefits. (killing gulls to increase murre does cause injury to the gull population, but would be an overall benefit through returning both predators and prey to pre-spill conditions in the long term.)

4. Timing

Is there an urgency related to implementing this option which constitutes a lost opportunity? (Delaying purchasing habitat is not urgent unless there is a threat to key habitat for the species)

5. Measurability of results.

Will we be able to measure the results of this and other implemented options on the target resource (e.g. we acknowledge that there will be a lot of background noise when more than one project are implemented but will an overall change be noticeable?)

**SOCIO-ECONOMIC CRITERIA**

1. Human health and safety

Are there hazards to or adverse impacts on human associated with implementation of the restoration option?

2. Relationship of expected costs to expected benefits.

Will implementation of this option bring benefits (both primary

and secondary) which would equal or exceed the cost

3. The potential that NO additional injury will result services or local economies

Still consider "net-environmental" benefits of implementing the option, but acknowledge if there will be adverse effects to services or the economies which are dependent on the resource.

III. Injured Resources and Services

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Attachments

cc: RPWG  
Sharon Saari  
Bob Spies

DRAFT

**Scientific Criteria**

1. Potential to improve the rate or degree of recovery: \_\_\_\_\_

2. Technical feasibility: \_\_\_\_\_

Combined Rating: \_\_\_\_\_

**Other Criteria**

3. Potential effects of the action on human health and safety: \_\_\_\_\_

4. Potential for additional injury resulting from proposed actions, including long-term and indirect impacts:

o to the other target or nontarget *resources*? \_\_\_\_\_

o to the other target or nontarget *services*? \_\_\_\_\_

5. Importance of starting the project within the next year: \_\_\_\_\_

6. Degree to which proposed action benefits more than one resource or service: \_\_\_\_\_

~~Cost Criteria~~

7. The relationship of the expected costs of the proposed actions to the expected benefits? \_\_\_\_\_

**Questions:**

8. Cost Effectiveness: \_\_\_\_\_

9. Measurement of Results: \_\_\_\_\_

10. Public Comments: