

**RESTORATION PLANNING WORK GROUP  
OCTOBER 30, 1992  
8:45 A.M.**

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**ATTENDEES**

Carol Gorbics  
Veronica Gilbert  
Bob Loeffler  
Karen Klinge  
Sandy Rabinowitch  
John Strand  
Ray Thompson  
Chris Swenson

**The following items were distributed:**

Draft Alternative Themes - 10/30/92  
October 29, 1992 Memo to RT regarding Draft Alternative Themes

**DRAFT ALTERNATIVE THEMES**

John asked for comments regarding the draft alternative themes table prepared by Veronica. Bob suggested bolding the key points. Karen suggested changing variable 2 under alternative 4 to known because of parallel construction between three and four. Veronica stated she was trying to make alternative 4 looser. Carol suggested using known but not recovered. Carol suggested adding known under injury to all the alternatives. RPWG felt "undocumented" captures this thought. Carol suggested that rate of recovery should be a variable. John stated that while this is a variable, it is an uncertain one. Bob stated that this table will change when money is added; therefore, it is not necessary to spend a lot of time perfecting the table. Veronica suggested using "most effective" rather than "best" technique. Sandy questioned why alternative 5 is limited to within EVOS, and stated you can allow for a larger universe with lesser actions. Veronica stated it is good to add some constraints for more control; however, there will be a lot of discussion. This will prompt questions on how the EVOS area will be defined. John suggested that members of RPWG could work on defining this area and bring it back for group review.

**COVER LETTER**

John asked for comments on the cover letter to be attached to the draft alternative themes. Carol suggested that the questions should be more explicitly listed. Karen disagreed with having "minimize cost" included because it is misleading that some studies will be frugal. Bob added that we are being cost effective but not necessarily minimizing cost. Sandy questioned the connotations of using "objectives". Veronica suggested adding "the alternatives

are constructed using the following variables." Carol suggested using other variables that were thought of. Bob stated this is included under other ways. Carol suggested changes to the objectives as follows:

- d. beneficial social benefits
- e. geographic distribution throughout the spill area

Carol stated that geographic distribution on its own is not an objective. Carol also suggested using topics rather than objectives. John stated he sees geographic distribution as an objective and specifics can be dealt with in the annual work plan. Carol suggested adding benefits to ecosystem effects. John stated that you are attempting to benefit all components of the ecosystem. Bob suggested changing "various allocation mixes" to "explicitly set funding percentages." Veronica suggested "various expenditure allocations." John suggested "set funding by categories." Veronica disagreed, and John suggested "allocate funding by categories." RPWG agreed. Veronica suggested adding nature and certainty of injury. Sandy stated that protection and manipulation are not in the settlement but in the framework. RPWG agreed to use the terms in the settlement. B was changed to allocate funding by geographic areas. C was changed to funding for at least one project for each injured resource or service. Bob suggested ending the memo with we need concurrence that we are using the correct variables, and these kinds of themes provide a reasonable range of alternatives.

Karen suggested adding on page 2 "more flexibility on the options that could be implemented." Veronica stated alternatives 3 and 4 are similar in that they address injury at a population level. Alternatives 5 and 6 address all injury. Bob suggested all comments be forwarded to Veronica and John rather than having a group discussion.

#### **EIS SCOPING MEETING**

Veronica suggested having a RPWG member attend the EIS Scoping Meeting for the first hour. Bob spoke with Ken to determine the amount of time someone from RPWG would be required to attend. Ken requested someone be there in shifts for the entire time and also suggested that they could bring a computer down and work during this time.

#### **SCHEDULE FOR EIS SCOPING MEETING**

12-1	Sandy
1-2	Carol
2-3	Chris
3-4	John
4-5	Karen
5-6	Ray

6-7           Veronica  
7-8           Mark  
8-9

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#### **LIMITATIONS ON OPTIONS**

Veronica stated that Marty asked her to address the issue of limitations on options, and she has drafted a memo. Marty feels the options are arbitrarily limited in a few arenas. Attorney General Charlie Cole will release a memo in about a week regarding the state's position on what kinds of options are allowable. Veronica stated there may be some uneasiness with some of the limitations RPWG has set on some of the options. Carol stated that RPWG never intentionally limited the scope of options but there were so few options out there. Sandy stated this brings up what do we know about injury. Veronica stated that some options are excluded because of a weak link to injury; however, subsistence issues are not addressed because of third party suits. Carol stated her sense is that if it wasn't explicitly listed, it wasn't done. Veronica stated there needs to be a policy call as to why certain options are not explicitly addressed. Bob stated RPWG will revisit this issue after the Restoration Team meeting.

#### **COMMENTS ON THE FRAMEWORK SUPPLEMENT**

Veronica prepared a memo to Chuck Gilbert regarding the comments to the Restoration Framework Supplement which provides a clear statement that the Habitat Protection process will be subject to the Restoration Plan. Another point addressed was the concurrent approach versus the hierarchial approach. Veronica also stated that the suite of alternatives has not been agreed upon; consequently, RPWG requested that both approaches are considered.

#### **INJURY SUMMARY**

Carol made revisions to the injury table. Carol further stated that "yes" and "no" as defined do not work and suggested just using "yes" and "no" with no definition. There are some inferences that we have to live with. Bob stated that "unknown" should mean unknown. Previously it was defined as "not studied." Bob suggested having "NS" for not studied. Bob also suggested sending a copy of the table to Spies as soon as possible. Carol stated that she would rather wait until Tuesday to send Spies a filled in injury table which will make him respond to what RPWG's considerations were. Sandy stated that the value of sending this to Spies immediately would be getting some input on the form. John stated that he told Spies that RPWG is changing the form and will be forwarding a copy for his review. John also stated he would rather fill in the table and send it to him on Tuesday. Bob suggested changing "fully recovered" to "recovered." Carol stated that in the public document there will need to be some better footnotes. The information for the table should be forwarded to Carol by

Monday. John suggested preparing a cover letter to go with the table to Spies explaining RPWG's position.

### **INTERVIEW QUESTIONS**

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The peer reviewers suggested using a key informant interview process. The memo outlines the process. The process is to replace the information in Appendix A and 2C (injury summary). It is in response to the peer review comments that the categories for services were too broad. Bob stated that the key informant interview process would not try to define injury quantitatively. Also we would want the user groups' evaluations of options. This incidental objective is a useful way to make contact with user groups. Veronica stated that this process has generated a high level of response. Veronica also stated that budgets need to be looked at in terms of methodology and progression. Veronica suggested going to the villages to discuss subsistence. John asked if we know enough about subsistence to do this. John has the results of some NRDA studies, which dealt with the measurement of hydrocarbon contaminants in food stuff. John stated this information probably may not be enough. Sandy stated a decision could be made later on the adequacy of subsistence information. Veronica stated that this would also require literature searches. Sandy questioned if RPWG can get this done. Veronica stated that in the past, the problems were in documenting injury. The user groups could help to identify continuing problems. John asked when would RPWG do the work. Veronica stated that recreation could be done next week through the workshops. Bob stated that this process has to be done before the PAG meeting in December.

Veronica suggested the following steps:

- Literature search to see what has been done
- GIS search
- Determine the interest groups
- Figure out the questions to ask
- If RPWG agrees, schedule peer review of the methodology

John asked if the RT should be appraised if this interview process. Bob stated that Mark thought it was a good idea and suggested writing a memo to Sandor appraising him of what is being done. Veronica, Bob, and John will develop methodology which focuses on recreation and subsistence. Veronica asked if John or Sandy could discuss the nature of injury to subsistence and what the options were targeted to address. Sandy stated he could provide the latest proposal for a subsistence study and also suggested looking at the Chenega agreement. Veronica suggested pulling the information together. John volunteered to work on the review of the subsistence information. Veronica suggested that Mark Fraker could lead up the effort for identifying commercial fishing user groups. John suggested that the key questions we want answered should be laid out. Bob stated the problems need to be defined by area and user

groups of commercial and sport fishing. John will discuss this with Mark and Chris on Tuesday. Bob and Veronica will focus on recreation. John and Sandy will focus on subsistence. Carol suggested that injury to sport fishing should not be limited to the Kenai River.

#### **SCHEDULE**

The next RPWG meeting is scheduled for Tuesday at 10:00 and Wednesday will be a work day with members attending the EIS Scoping Meeting on shifts. Karen suggested having a meeting with Sharon Saari on Wednesday. Veronica stated that RPWG needs to discuss the alternatives with the EIS group. Ray stated that Sharon will probably be in high gear on Wednesday and unable to meet. John stated that RPWG will schedule a time to meet with Sharon, possibly during lunch.

#### **DETAILED OUTLINE**

John stated that a subgroup of RPWG (Sandy, John and Carol) could make a first cut of the outline and bring it back to the group. This will be forwarded to Barbara by Monday to be combined. Karen stated that her and Ray's outline are on the network.

#### **WRITER/EDITOR**

Bob introduced Steven Levi, the writer/editor, to RPWG. John stated that RPWG will provide some good material for him to work with. Steven stated that he will be available on Monday.

RPWG meeting adjourned.

Resource	Description Status of Injury			Status of Recovery				Geographic Extent of Injury				Comments/Discussion
	Initial Mortality	Population Decline after the spill	Sublethal or Chronic Effects or Exposure	Current Population Status	Sublethal or Chronic Effects or Exposure	Dependency on Currently Degraded Habitat?		FWS	Kenai	Kodiak	Alaska Penin.	
						Inter tidal	Sub tidal					
Harbor Seals												Few dead organisms found after spill, measurable difference in populations between oiled and unoiled areas in FWS, but there is an upward population trend in the oiled areas.
Sea Lions												
Sea Otters												Dead organisms found after spill, measurable difference in populations between oiled and unoiled areas. Boat survey data have not established a significant recovery, a large portion of prime-age animals are still being found beached.
Killer Whales												A small number of adults were killed, no effects determined on population. The AB pod has grown by 2 whales since 1990.
Humpback Whales												
Sitka Black-tailed Deer												
Black Bear												
Brown Bear												
River Otters												Significant exposure to hydrocarbons and some sub-lethal effects determined, but no effects established on population. Some sub-lethal indicators of possible oil exposure remain in 1991.
Small Mammals												
Bald Eagles												Population estimates unaffected and productivity returned to normal in 1990. Significant exposure to hydrocarbons and some sub-lethal effects found, but no effects established on populations.
Peale's Peregrine Falcons												

\* - Population may have been declining prior to the spill; M.D. - Studied, but injury not detected  
 UNK. - Not studied; NO - Studied, but no likely injury; YES - Studied, significant evidence of injury

CD continuing decline  
 S stable, but not recovering  
 R Recovering  
 FR Fully recovered

Resource	Status of Injury			Status of Recovery			Geographic Extent of Injury				Comments/Discussion
	Initial Mortality	Population Decline after the spill	Sublethal or Chronic Effects or Exposure	Current Population Status	Sublethal or Chronic Effects or Exposure	Dependency on Currently Degraded Habitat?	FWS	Kenai	Kodiak	Alaska Penin.	
Common Murres											Measurable impacts on populations with comparisons to pre-spill conditions. Adult mortality 175,000-300,000. Breeding is still inhibited in some colonies in the Gulf of Alaska.
Marbled Murrelets											Measurable affect on populations with comparisons to pre-spill conditions. Estimated adult mortality 8,000 to 12,000.
Storm Petrels											
Black-legged Kittiwakes											
Pigeon Guillemots											Measurable affects on populations with comparisons to pre-spill conditions.
Glaucous-winged Gulls											
Other Seabirds											Adult mortality of 375,000 to 435,000 birds. Total seabird recovery has not been measured.
Harlequin Ducks											Measurable differences in populations between oiled and unoiled areas. Significant exposure to hydrocarbons and some sub-lethal effects. Still very little breeding in the spill areas of FWS.
Other Sea Ducks											
Black Oystercatchers											Differences in egg size between oiled and unoiled areas persist. No determined affects on population. Significant exposure to hydrocarbons and some sub-lethal effects determined.
Other Shorebirds											
Passerines											
Pink Salmon											Significant exposure to hydrocarbons by adults, sub-adults, and eggs. Some sub-lethal effects determined on juveniles, egg mortality continues to be high in oiled streams of FWS in 1991.

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 UNK. - Not studied; NO - Studied, but no likely injury; YES - Studied, significant evidence of injury

Resource	Status of Injury			Status of Recovery			Geographic Extent of Injury				Comments/Discussion
	Initial Mortality	Population Decline after the spill	Sublethal or Chronic Effects or Exposure	Current Population Status	Sublethal or Chronic Effects or Exposure	Dependency on Currently Degraded Habitat?	FWS	Kenai	Kodiak	Alaska Penin.	
Sockeye Salmon							no		no	no	Direct loss of eggs and juveniles in oiled areas. Smolt survival continues to be poor in the Kenai River system as a result of overescapements in '87, '88, and '89.
Pacific Herring											Measurable difference in egg counts between oiled and unoiled areas. Effects on eggs and larvae were evident in '89 and to a lesser extent in '90; in '91 there were no differences between oiled and unoiled areas.
Rockfish											A small number of adults were killed and significant exposure to hydrocarbons with some sub-lethal effects determined, but no effects established on population.
Dolly Varden											In 1991 differences in survival between anadromous adult populations in the oiled and unoiled areas persisted despite the decrease in exposure indicators.
Cutthroat Trout											In 1991 differences in survival between anadromous adult populations in the oiled and unoiled areas persisted despite the decrease in exposure indicators.
Clam											
Crab											
Shrimp											
Oyster											
Scallop											
Sea Urchin											
Intertidal Organisms/Communities											Measureable impacts on populations in comparison to pre-spill conditions. Upper intertidal zone has not yet recovered.
Subtidal Communities											Recovery is not known but there were measurable differences between oiled and unoiled areas in 1990.

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UNK. - Not studied; NO - Studied, but no likely injury; YES - Studied, significant evidence of injury



Service	Status of Injury	Status of Recovery	Geographic Extent of Injury				Comments/Discussion
Archaeologic sites/artifact							
Subsistence							
Recreation							
Wilderness Values							
Intrinsic Values							
Commercial Fishing							

\* - Population may have been declining prior to the spill; N.D. - Studied, but injury not detected  
 UNK. - Not studied; NO - Studied, but no likely injury; YES - Studied, significant evidence of injury

TO: Restoration Team

DATE: October 29, 1992

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FROM: John Strand, Chair  
Restoration Planning Work Group

SUBJECT: Draft Alternative Themes

Attached for your review and comment are the Planning Group's most recent version of draft alternative themes. It is my understanding that time has been scheduled on November 6th to discuss these alternatives, and that we would be most pleased to attend your meeting and lead the discussion. We would appreciate your comments on the draft Sketch Alternatives as soon as possible thereafter to make whatever changes are required.

As you know, the decision process for the Draft Restoration Plan was recently subjected to peer review. Peer reviewers found it generally sound but suggested a few refinements. One of the major suggestions was to explicitly reflect the level of certainty in our estimates of injury and assessments of the effectiveness of restoration activities. Accordingly, we intend to modify the options assessment decision process (including database) and continue using it to generate alternatives.

The peer reviewers also suggested a few other ways of approaching alternatives. These are listed under question 2 below.

Alternative 1 is the no action (natural recovery) alternative. Alternative 2 is a pure protection alternative. Alternatives 3 through 6 vary according to the nature and certainty of injury, level of knowledge of recovery, and perceived effectiveness of restoration techniques. Alternative 3 is fiscally conservative; you only restore where there is a clear link to injury, and there is a high certainty of success. Alternative 4 is more liberal in its approach to restoration in that replacement and acquisition of equivalent resources options can be considered, even outside the spill zone. Alternative 5 is similar to Alternative 4 but is expanded to include restoration for resources and services where the link to injury is less certain. It also is expanded to include enhancement, but restoration can only be undertaken within the spill zone. Finally, alternative 6 takes the most liberal and comprehensive approach.

Once we have your concurrence on the general approach to alternatives we will further elaborate on each alternative by addressing the following subjects:

1. Specific actions (options)
  - a. By resource or service
  - b. Timing and priority
2. Monitoring Program
3. Evaluation
  - a. Effect on recovery of resource or service (time and extent)
  - b. Ecosystem effects
  - c. Geographic distribution (including maps)
  - d. Social benefits (including economic impact)

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3. (continued)

- e. Cost and methods of estimation or derivation
- f. Certainty of the above factors

We would appreciate all comments, but especially responses to the following questions:

1. Objectives: We assume that the restoration process will address the following objectives, but we would like your concurrence or other suggestions.
  - a. Recovery to pre-spill conditions
  - b. Protection from further degradation or decline [relationship to habitat protection]
  - c. Minimize cost
  - d. Social benefits (education, economic stability)
  - e. Geographic distribution
  - f. Ecosystem effects

2. Alternatives: Do you understand how the alternatives were derived? Do you support the basic themes of the alternatives proposed? If not, would you prefer a different approach to alternatives. Those other approaches suggested by the peer reviewers are the following:

- a. Various allocation mixes by categories such as protection, manipulation, and enhancement.
- b. Allocations mixes by geographic areas.
- c. Distribution of at least one project for each injured resource or service.
- d. Cluster options by services, e.g., subsistence resources, commercial fishing, and recreation.

We need and appreciate your guidance at this important juncture of the restoration plan.

Thank you.

Attachment

**DRAFT ALTERNATIVE THEMES 10/30/92**

	<b>Alternative 1 Natural Recovery</b>	<b>Alternative 2 Protection</b>	<b>Alternative 3 Limited Restoration</b>	<b>Alternative 4 Moderate Restoration</b>	<b>Alternative 5 Expanded Restoration</b>	<b>Alternative 6 Comprehensive Restoration</b>
<b>Theme<sup>1</sup></b>	No action other than monitoring.	Protect injured resources and services from further degradation or disturbance in order to complement natural recovery.	Use the best techniques to protect and restore injured services and resources injured at a population level.	Take all reasonable actions to protect and restore injured services and resources injured at a population level.	Use the best techniques to protect, restore, and enhance all injured resources and services.	Take all reasonable actions to protect, restore, and enhance all injured resources and services.
<b>Variables<sup>2</sup>:</b> <b>1. Injury</b>	N/A	All injured resources and services. Includes sublethal effects and injuries not well documented.	Limited to resources injured at a population level and injured services.	Limited to resources injured at a population level and injured services.	All injured resources and services. Includes sublethal effects and injuries not well documented.	All injured resources and services. Includes sublethal effects and injuries not well documented.
<b>2. Knowledge of Recovery</b>	N/A	Known and unknown.	Known.	Known and unknown.	Known and unknown.	Known and unknown.
<b>3. Effectiveness of Restoration Activities</b>	N/A	Most certain to prevent further degradation or decline.	Most certain to produce the greatest improvement in rate and/or degree of recovery or prevent further degradation or decline.	Reasonably certain to produce at least moderate improvement in rate and/or degree of recovery or prevent further degradation or decline.	Most certain to produce the greatest improvement in rate and/or degree of recovery or prevent further degradation or decline.	Reasonably certain to produce at least moderate improvement in rate and/or degree of recovery or prevent further degradation or decline.
<b>4. Geographic Constraint</b>	N/A	Within EVOS area only.	Within EVOS area only.	May include areas outside EVOS.	Within EVOS area only.	May include areas outside EVOS.
<b>Settlement Characteristics</b>	N/A	Direct Restoration	Direct Restoration	Direct Restoration, Replacement, and Acquisition of Equivalent Resources	Direct Restoration, Replacement, Acquisition of Equivalent Resources, and Enhancement	Direct Restoration, Replacement, Acquisition of Equivalent Resources, and Enhancement

<sup>1</sup>All alternatives include monitoring.

<sup>2</sup>Major variables used to construct alternatives. Other factors have been considered in the evaluation of options.