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ECOSYSTEM-BASED MANAGEMENT STRUCTURE MEETING

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

JANUARY 13-14, 1994

DRAFT

ECOSYSTEM-BASED MANAGEMENT STRUCTURE MEETING
JANUARY 13, 1994
8:30 A.M.

ATTENDEES

Jim Ayers
Molly McCammon
Eric Myers
Bob Spies
Pete Peterson
George Rose
Glenn Juday
Bill Hines (t)
Byron Morris (t)
Alex Werthheimer
Dave Gibbons
Sandy Rabinowitch
Jerome Montague (t)
Peter Montesano (t)
Mark Brodersen
Tom Van Brocklin
Torie Baker
Dan Hull
John French
Steve Planchon
Jeep Rice (t)
Jess Grunblatt
Kim Sundberg
Pam Brodie
Leslie Holland-Bartels
Andy Guenther
Tony DeGange
Bob Loeffler
Art Weiner
Mark Kuwada
LJ Evans
Rebecca Williams
Barbara Iseah

(t) - teleconference

Meeting Ground Rules

-Put skepticism aside for today
-Express willingness to participate
-Have an open mind
-Nothing here is irrevocable
-Listen/respect others

MEETING HANDOUTS

Restoration Implementation - Ecosystem-based Management Structure
Revised Guiding Principles
Agenda

Note: Due to weather conditions, several people from Juneau were unable to attend today's meeting. Teleconference was set up.

Jim - the agenda is an effort to describe what we would like to get accomplished and set in motion the process we would like to follow. The effort won't be accomplished today and will take at least a couple of meetings. He would like to get some understanding that this is the kind of composition needed for engaging in a discussion. It is important the public be involved in every aspect of the Trustee Council. The context of this meeting is to set up a management structure. He hopes to establish a framework which will be an appendix to the Restoration Plan to take a look at and understand how we are going to accomplish the mission and to be able to tell the public what we are spending their money on. The money not only belongs to the people of Alaska and the agencies but also to the people of the United States. We need to tell people what we are going to spend money on and why. We ought to be able to measure the effort of what we are spending their money on. His view is that we are in this together. A healthy aspect of the science discipline is debate. At some point, there has to be an agreement on how we will implement things and how we will invest the public's money. Although we might not reach consensus, we have to give our informed consent about moving forward. There is jeopardy in not getting informed consent. As long as there is no informed consent, everyone is in charge. We need to instill discipline on an informed consent basis.

We need to review the mission statement of the Trustee Council which states what we are suppose to be accomplishing. It talks about a healthy, productive ecosystem while taking into account quality of life. It is pretty abstract, and we need to establish some goals, objectives and strategies. (Definitions included in the handout).

The TC has determined they will do an EIS. It is one of the things which will drive what we are doing, and if we are not careful, it will drive us. This structure would be an implementation of the Restoration Plan.

Sandy - his notion of the EIS is that it will analyze the Restoration Plan. He doesn't see the EIS modifying the plan.

Jim - he can't imagine that an EIS of this size will not get some scrutiny. We have to describe why this is the preferred alternative. The EIS is not supposed to modify, but he suspects it will have some recommendations.

He would like to have a folder in his back pocket that has an opening overview of the spill area in terms of the ecosystem, a description of what we are talking about in the spill area, including the people, a mission statement, guiding principles, and goals with specific objectives and strategies that lead to those objectives. There are going to be some guiding principles that will tell how to go about getting this. You would have a clear timeline for strategies. Any discussion for strategies should already be laid out.

Pete - he raised the question of if the goal is to have healthy productive populations, there are clearly some species which people would say were not healthy prior to the spill for reasons independent of the spill. If we have objectives defined narrowly, that will not necessarily reach the goal identified of having healthy, productive populations. He sees this as a conflict of what the funds can be used for.

Spies - the reason that we may need to talk in narrower terms is because we don't have pre-spill data for some populations.

Jim - Tillery had an interesting point: although Justice doesn't like it, the word "enhancement" is in the court decree; it is not in CERCLA. He thinks Pete has a good point, and additional language may be needed. We are not locked into the language, but we don't want to stray too far.

Mark - the difficulty is knowing what the population would be had the spill not occurred.

Pete - it doesn't say how long is prespill, so you can go back some distance when the populations were indeed more healthy.

Dave - you could say if the spill had not occurred, what would be the populations in 1994.

John - defining the endpoints could be very difficult because they are naturally dynamic. An example is the bottomfish complex. We can't just say we need to get back to prespill. There were some natural cycles that we may not understand.

Jim - he will attempt to catch people up as they join us so that we can get informed consent.

Glenn - he had an observation on how much we are putting on population. You have to recognize that every piece of information costs money, and at some point, assumptions rather than certainty might be sufficient. The natural variability is very big. You could spend a tremendous amount of money for a small increase in degree of certainty. You should be clear on the degree of certainty. He started with the assumption that there is some difference between this exercise which is attempting to define what

public policy should be and what the exercise was awhile back when the name of the game was what the law would allow a party to be liable for. It might be useful to carry forward some of the assumptions to have the party held to the highest degree possible. We need to determine what is the most constructive policy to engage in.

Jim - CERCLA is designed to do a body count and assess liability which can lead to contingent valuation to the cost of the spill. The Restoration Plan was based on what we ought to be doing in regard to the environment.

George - there is a paper on CERCLA's application.

Sandy - the regulations from CERCLA are clearly optional, and the court decree says the TC doesn't have to follow it. We have looked to it when it has been useful.

Jim - if you had a project proposed, we would have guiding principles. It would have to be within the perimeters of what will narrow what is an acceptable project.

The Injured Resources/Services and Management Processes list identifies what we think a healthy ecosystem is. He would like for us to look at the list, which is from the Restoration Plan. People have suggested there are other species we need to add to this list. He would like to get some other features of a healthy, productive ecosystem.

Jerome - he suggested spot shrimp.

Jim - should we go to guiding principles first? For example, guiding principles would tell if you want to spend a lot of money and time on spot shrimp. Should a species only be added to the list if there is credible documentation of how it will reflect a healthy, productive ecosystem? What is it that a spot shrimp will do that none of the other species will tell you about the ecosystem? We can't debate this because we don't have the guiding principles. He has prepared a list of suggested guiding principles.

George - you are trying to define an ideal ecosystem that doesn't really exist. You want to start with the most important species. There is nothing written in nature that says one species is the most important, but it might be a logical reason to people why one species is most important.

Jim - we need to go to the guiding principles.

George - it is a matter of prospective of how you will develop this list. There are two ways of looking at the spill affected area. You could look at it as a biophysical reality which is just there,

and you want to understand. As a human goal, you want to get it back to prespill. It is an opportunity to carry out life's activities. Both have to be acknowledged. It is not possible to specify in advance all the things you want out of PWS from the standpoint of products and services. We identify things we want and need out of it and go and get them. We probably should acknowledge both of those approaches.

Eric - looking at Guiding Principle #5, it speaks to at least some of the considerations George identified. What would your comment be on that principle?

George - it is far too wimpy. Ecosystems can exist in many different states and produce many things. People have to decide what they want. You have to put some of that in there.

Jim - Bill Ross said to your advantage, the courts identified what species you look at. In order to spend money, we have to at least link it. Principle #1 answers at least part of this concern.

John - One of our objectives prespill was pumping up the pink salmon, but there may be reasons for not doing that.

Pam - she would like to point out that PWS in its natural state is not something that no one wants. A lot of people have lived in PWS in its natural state. Human beings do manipulate every place they live. Human manipulation has historically involved a lot of ignorance, and humans have approached it as we can change nature any way we want. We can ruin the very systems on which we depend. In manipulating the system, we should not go too far too fast.

Glenn - that is almost like means versus ends.

Jim - he asked for a principle representing this.

George - he would like to see research directed at what is high economic priority in the area. There has to be more direction on what you want. If you were a scientist trying to respond to this, you need some more restricted guidance.

Jim - the heart of this is is there a way to express this aspect. The mission statement needs the word "balance".

Spies - Principle #2 has both aspects.

Glenn - it is probably not possible to determine balance in advance.

Jim - what is a guiding principle that would reflect the economic well being of the people?

Glenn - when possible, restoration will take advantage of enhancing

resources and services that affect the ability of people to make a living in the spill area.

Where the opportunity presents itself consistent with goals, restoration will take advantage to enhance the species people exploit making the living from the area.

It is not possible to define that socio-economic state, so you have to put it in the context of natural state.

Jess - he has a question on existing institutions. There are agencies mandated to protect and enhance and provide for particular resources.

Jim - should there be a risk statement required by a proponent of a particular project that may enhance a resource or service that affects the ability to make a living?

John - #6 somewhat covers that.

Jim - #6 needs to be split into two different issues.

John - we should say the economic factors and traditional uses.

Pete - he doesn't think there are enough words. Restoration will take advantage of enhancing injured resources that affect the ability to make a living in the spill area while sustaining other important resources. The restoration should enhance those resources and services.

Molly - you want a stronger prioritization.

Pete - there are certain goods and services that we value and those should be given a higher priority than those that we do not extract high value goods and services.

Jim - he asked George and Pam to agree on the language during a break. Pete will be the editor.

Molly - Jess stated you consider other agency responsibility and mandates in considering the prioritization.

Jim - there is a principle in #6 that has been debated before, and that is risk analysis. Should someone proposing a project, do a risk statement giving the potential negative impacts?

Bob - there is a word with two meanings. "Enhancement" means to make things better. In taking advantage of enhancement, that is what you do first. Enhancement can also mean raise above that which would naturally occur.

Molly - you are not just focusing on enhancement but also

restoration.

Jim - priority attention will be given to resources and services that affect the ability of people to make a living in the spill area.

John and Andy will write a statement on negative impacts.

GUIDING PRINCIPLES

6. Efficient - cost/benefit

7. Possible negative effects must be assessed.

8. Restoration must include a meaningful, public participation process at all levels - planning, project design, implementation and review.

John - he would like to add: RFP's will go out to the public and will not be developed primarily within agency projects and will be related to a series of strategies. Implementation of restoration activities will use all available scientific information. Just the words "competitive process" don't make a lot of sense.

Jeep - if they are put out for competitive bid, the agencies are preempted.

Jim - he asked George to give a rendition of OPEN.

George - OPEN has industry and the public involved at every level. OPEN is a Canadian-sponsored network. He is the chief scientist. It is the first mega project attempted and is done in the Atlantic Ocean. It is a corporation. The board includes people from industry. Most of the people come from the fishing industry. Down through the scientific management, industry is involved. In the most recent round of OPEN funding, we now have industrial involvement in every scientific project and in carrying out the research. Funding is another aspect involving industry. Industry also kicks in a major amount. It will be a 1/3 of the total budget and will be "in kind" contributions. We believe very strongly that these marine ecosystem projects are so large and complicated that no single agency can possibly solve these problems. OPEN is five years old. All research done on the ecosystem level involves all of the agencies, industry and science. This is the only way to get meaningful information.

Jim - If you submit a project and you have not described the local members involved in the project, you may not quality for your project. If you are studying harbor seals, you should have input from the local community.

George - the direction has to come from the top. If you don't

impose this sort of thing, you will get a lot of people who don't want to play this game. The things that you want to know, you won't get, unless you do this.

BREAK 10:35 - 10:45

Jim - The question is going to be what is the rule. What should a principle be with regard to integrated research?

Alex - the first sentence of #4 should be adequate to encompass what Jim has talked about.

Jim - we want to be able to make a guiding statement. Shouldn't the information tell us about what is going on in the spill area? There should be a guiding principle telling whether you should synthesize the information coming in.

John - standardized protocol sometimes restricts research. The data should be directly correlatable.

Jim - what is a guiding principle for synthesizing information?

John - he prefers the general wording of #8 over #9. We need to integrate research, protocol, databases, field activities and improve access so all users know what is going on.

Integrated Research

- -Synthesis
- -Integration
- -Data access/distribution
- -Consistent (compatible format)
  - -physical site

John - we could go forward with a unified set of data that makes the overall dataset more useful.

Spies - there are also some examples of things that have failed, such as Chesapeake Bay. We have to look at what might be successful.

Leslie - a number of the statements are covered perfectly well.

Jim - #8, #4, #9, #10 were all an effort to deal with the issue of integration. We are not interested in funding the development of a new database. He is not sure of what the answer is to integrated research and proper synthesis.

Glenn - you can do this if you make it an affirmative responsibility of the researchers and if you give them help and hardware.

Jim - he asked to turn these into two or three guiding principles.

John - the integrated understanding and access to the public are important.

Jim - integration where you require some basic compatible format is an issue.

Spies - we need to build a parallel construction.

Jim - restoration efforts and information about the environment should be available in a format that is user friendly and compatible.

Andy - what people mostly want is information about what is going on. Researchers don't want people interpreting their raw data. The discussion of the public access is about access to the information and what is going on. We are talking about making sure that datasharing among the PI's is adhered to. The hardest thing to determine is who has the data.

Jeep - one of the problems with integration is we have a problem of scale. Some have integrated different parts because it related to their projects. They have not been able to integrate the volume. In addition, we need to get the information accessed to the public. The scientist need to have better communication. We need to have follow up. We need to have some theme effort in synthesizing information. The actual collation and synthesis have not matured at all.

John - one of the concerns he hears from the public is they should be able to draw their own conclusions from data. They don't get the information until it has been massaged. There is some concern that there may be some trends that are not statistically significant.

Pete - even the best of these reports after being peer reviewed almost never include the entire database, and yet it has been funded by public resources. There is a principle that deserves discussion on the public's right to pure information.

Jim - he asked Pete to work with John on what this principle would look like.

Glenn - restoration research will be integrated at all levels - planning, conduct, reporting and access.

Restoration will provide an integrated synthesis of findings, results and an indication of important remaining issues or gaps.

Jim - #4, #8, #9, and #10 are set aside. The formulation of the following statements was assigned:

John and Pete - access question
Alex and Spies - restoration research on all levels
Glenn - synthesis

Pete - the annual review might be open to the public.

Spies - this was done during the litigation phase.

Eric - this is pretty similar to what was conducted in Cordova and helps to focus and guide.

Jim - this is the five-year anniversary of the spill. Think about how we would like to have the public involved.

Jim - #10 will be left in and will be debated when we come back.

Lunch 12:15 - 1:15

Meeting reconvened at 1:40.

Jim - integrated research and synthesis is a principle.

Alex, Bob and Glenn provided the following statement:

Integrated Research and Synthesis

4. To contribute to the understanding of the spill area ecosystem, restoration should be integrated at all levels (planning, conduct, reporting and access) to the maximum extent feasible and productive; priority in allocation of limited resources will be given to strategies that are clearly integrated into an ecosystem approach.

Restoration will include an interpreted synthesis of findings, results, and an indication of important remaining issues or gaps in knowledge.

John provided the following statement to deal with should there be a guiding principle stating that information will be accessible to the public:

Restoration must reflect public ownership of the process by timely release and reasonable access to information and data.

Glenn - there is an affirmative responsibility on the part of the TC. With the systems in place now, you should be able to hook in anywhere to INTERNET.

Pete - final reports should be put in electronic format to be accessed through INTERNET.

Eric - people use the terms "data" and "information" loosely, but

they have distinctive meanings.

Pete - here we are dealing with general principles, public ownership of the process and the data resulting from this process.

Spies - this data question needs a lot of looking into.

Glenn - you will do as much as you can afford.

Jim - when we get there, we will have a process for dealing with that.

John - we can take advantage of existing systems, such as the state-wide network run by the university.

Pam and George developed the following statement:

5. Priority shall be given to restoring sustainable levels of injured resources and services which have economic and cultural value to people living in and using the oil-spill area, as long as this is consistent with other goals.

Eric - an issue that is implicit is that there are a lot of people who do not live in the oil-spill area but may use the oil-spill area.

John - he suggested deleting "people" from the above statement.

Glenn - there is a good psychological effect when you do personalize it.

Pete - people in the spill area will certainly have a greater stake. There is also a great deal of interest from people far away from this.

Jim - isn't the effort to sustain the living resources there? You don't want to make detrimental impacts to the remaining resources.

Glenn - the greater stake is the people dependent on the area for their livelihood.

Pete - that would come out of this process anyway.

John - leaving the phrase in would send a positive message to the people in the oil-spill area.

Pam - she disagrees with John; there are other people who care outside but have very little representation.

John - a lot of people feel very disenfranchised.

Pete - both prospectives are valid.

Jim - the TC has a fiduciary responsibility to the people of the United States. The settlement was required to include a MOA between the State of Alaska and the United States.

Steve - it seems we are talking about two different things. You are trying to include a diversity of the ecosystem.

Jim - he would add to the statement "it doesn't have detrimental impacts," which may be implied already.

Glenn - we have focused on the real issue, and it is a matter of whether people want to acknowledge in a special way the needs of people who depend on the resources of the area affected for their livelihood. You either want to do that or you don't.

George - these people should be given some level of priority, and it should be stated right up front.

Pete - Just looking within the state, there is likely to be an increase in involvement of the public in claiming their rights to various resources in the system. Commercial fishermen have been outcompeted by public policies of sport fishermen and environmentalist. These policies will be an important debate on the political stage in the future.

Glenn - you don't have to put all elements in this principle. It was notable by its absence that nothing quite like this was in any of the guiding principles.

Pete - we are trying to give priorities. If we go through all the principles, it will be rare that you will get something that fits all of them.

Kim - if you took a vote about which is more important clams or sea otters, you have to be careful about building in tradeoffs to the system.

John - when you look at economic and cultural value, practically all the resources have value.

Eric - there is a stated policy, which speaks to negative impact, which is already out on the table. The TC has spoken to this point.

Jim - George's point is a valid one. Priority will be given to restoring sustainable resources.

Glenn - he would add "reasonably consistent."

Jim - you will invest in that which has economic and cultural value to the people.

Pete - you need to add subsistence because "economic" and "cultural" don't cover it.

Jim - the terms "consumptive" and "nonconsumptive" would get too controversial. He suggested adding "including subsistence".

Glenn - it is an affirmation. There is no reason not to add it.

John - he suggested using "traditional uses".

Jim - let's agree to say there should be more clarification from someone in the community.

Pete - it should be fundamentally equal to the other values we are discussing.

Pam - she suggested adding "economic, cultural and subsistence value".

Pete - does use of pelts fall within this category?

Jim - that is a cultural use.

Gail - having subsistence in there does define what this priority needs to do. She is very comfortable with having subsistence there.

Jim - George and Gail will work on some language here.

Byron - has a problem with sustainable levels. It gets into the area of normal agency management. It would be tough to define that.

Jim - can you identify a species that doesn't have a responsibility of regulatory sustainable?

Byron - an example would be herring. We really don't have control of that part of the definition.

Jim - the Department of Fish and Game is obliged by the constitution to manage for sustainable.

Byron - our goal is to restore them to at least prespill condition.

Pam - she didn't want to see restoration money go to things like creating an artificial run of salmon. People may get use to this remote run of salmon, and we would have to have an endowment for this to happen. That would be a misuse of restoration money.

Byron - that would be self maintaining.

Alex - he agrees with Byron. You don't need the verbiage.

Pete - he suggested using "self-sustaining" instead of "sustainable."

Glenn - it would rule out a future in which humans are involved in the management. Our presences and activities have an effect. Self sustaining is too limited.

Mark - he would like to speak against what Pam was talking about. We are going too far into making policy with these particular principles.

Pam - if restoration money had to be used forever for that salmon project, it is an aquaculture responsibility.

Mark - he would like to see sustainable removed. The point is you are giving priority to economic and cultural value.

Kim - he stated maybe we are trying to do too many things with this statement. The whole subject of restoration ought to be dealt with separate.

Glenn - it should be impossible to define a case of restoring an unsustainable level.

John - he stated he could provide a case.

Pam - there is a whole issue which Jess brought up regarding what is up to the agencies and what is up to restoration. We can take out sustainable and add another guiding principle.

Jim - he wants to pick up policies now and look at redundancies later. Let's look at #10.

Eric - #9 is covered in the revised #4.

Alex - #10 is feedback and is a very important principle.

Leslie - #2 reads as follows: Restoration should contribute to a healthy, productive and biologically diverse ecosystem within the spill area.

John - we should use cost-saving measures where possible. We should develop a principle that incorporates this.

Leslie - the restoration program is part of other activities going on.

Restoration should give priority to those that take advantage of cost-sharing opportunities where effective and do so in a manner which integrates EVOS and non-EVOS projects.

Jim - there should be priority given to those who get the agencies

and public involved.

Sandy - partnership might be some of what you are talking about.

Bob - he stated that the whole rest of the guiding principles will weed out things.

Jim - he asked for a word that would take care of crummy projects.

Spies - he stated there are other guiding principles which will take care of this.

Mark - he would like to add "cost-sharing opportunities will be encouraged".

Jim - the issue of why we have so many stand-alone projects will come up.

Pete - we are confounding some issues. This is a principle which talks about getting efficient use of the dollar by integrating this work with other ongoing work. It is not necessarily promoting interaction between agencies.

Jim - participants in restoration will take advantage of cost-sharing opportunities where appropriate.

Is there an efficiency to be gained through collaborative efforts? So if there is an opportunity, should we take advantage of it?

Mark - sometimes there is, and sometimes there isn't.

Spies - the public has criticized the overlap of EVOS goals and the normal management functions of agencies. He is not sure the above statement captures this thought.

Jim - so let's say something separately.

Dave - he is confused. You talked about some things already in the draft Restoration Plan. How are these meshing?

Jim - should there be a principle that deals with efficiencies of agency activities?

Bob - there is already a policy that we do not fund normal agency activities.

Jim - we can do a printout of the guiding principles.

Mark - he thought we were looking at everything.

Jim - Eric will pick up these as guiding principles.

Molly - the Restoration Plan from a management prospective has policies. We are trying to incorporate those policies into the guiding principles. This is a further laundry list of this.

Jim - this will address what are the things you think ought to be done to accomplish the objective.

Eric - #6 and #9 jump out as not being expressly identified.

Jim - he wants to clarify what he wants to get accomplished by 3:00 p.m. tomorrow afternoon and would like to go back to introductions for those who are just joining us.

He would like to have a management structure with a goal that is understandable. Strategies would be things we are actually going to do. Underneath strategies, we should also have timelines for those strategies. The management structure would get to an overview of the ecosystem, general description of the various species of that ecosystem, including the people that live in the spill area, a mission statement, guiding principles, a list of the resources and species we are focusing on, goals, specific objectives of measurable efforts, strategies and timelines for those strategies. He would like to develop a list of species and resources. By 3:00 tomorrow, he would like to have the guiding principles, list of species and resources, the goals, and what are things we should be doing for each of the species.

We could use the guiding principles including the policies.

Are there species of natural resources which need to be added to this list?

Byron - forage fish.

Spies - do we want to add everything that may add to the recovery of a resource?

Alex - what Bob suggested is much more appropriate. On forage fish, we are interested in how they relate to injured resources.

Pete - two other categories of resources we might consider talking about are: 1) things that might help in the restoration of the health of the ecosystem system, and 2) those which have not been assessed in the past but for which there is reasonable argument demonstrating damage and which deserve attention.

Mark - we need some mechanism for looking at those things we are not sure were or were not injured.

Glenn - Being unfamiliar with the work that was conducted, how certain are we that the net we cast out there caught all the resources injured?

Pete - we can be certain that this list does not include all the injured resources. For a lot of them, there were not damage assessment programs built around them because of lack of prespill data and the mobility of the organism.

We chose some things as representative members, such as harlequin ducks. It summers and winters in the Sound and reproduces in the Sound. Therefore, there was opportunity to study the effects.

Jim - should we have an amendment to a guiding principle?

Restoration may include a review/assessment of a resource that has not been identified as "injured" or when there is reasonable presentation of scientific or local knowledge that indicates potential injury.

Sandy - we asked the public if we should limit expenditures to those species that were hurt the most. The public said cast a broader net.

Alex - this might be a separate principle. He is uncomfortable that this group is going to take this list and start adding things. Do we have the expertise here to make these judgements? Later, you need some structure to add to the list.

Jim - we might be combining too much in #1.

Pete - it requires a reassessment of some group.

Jim - does anyone object to the concept?

John - he objects; we could spend an enormous amount of money establishing damage.

Pete - the fact that a lot of time has gone by and these species were not included means it is not terribly likely there is evidence to establish magnitude.

Mark - we need to focus on one but not preclude the other.

Pete - he would like to include these ones that support the injured resources.

Mark - we sometimes lose sight that the work is to restore injured resources.

Glenn - concepts matter. The system was injured and is more than the sum of individual parts. We have created an overemphasis on detractable species.

Mark - we need to lose the term "species" and look at resources.

Jim - Eric, George and Pete will get together to discuss this and bring something back tomorrow.

Eric - this is leaving the door ajar to entertain possible species. It says we are not going to rule it out.

Jim - Eric will incorporate the guiding principles. We will review our work to date. Do we need to debate if there is another injured resource that may not get accomplished through the guiding principle?

Byron - sea floor sediment should be added.

Bob - subtidal ecosystem covers this.

Clams were listed separately because of the Native communities.

John - his concern is about mussels. It seems they were the vector providing the hypothetical contamination.

Pete - mussel beds have a lot of other things going for it because it is a part of subsistence and gives the perception of a soiled environment. It makes a lot of the Native communities suspicious about the foods and deserves a separate category.

Jim - under intertidal, we should add mussels. Could we put mussel under intertidal and let it be a specific resource that we are focusing on? It will be added under fish/shellfish.

Alex - you are talking about mussels as an injured resource?

Art - they were certainly injured. The intertidal life zone should be included.

Jim - there is an issue about mussels beyond the health of the ecosystem.

Pete - we are talking about the quality rather than the quantity. The other issue is the continued contamination of the sediments under the mussels. Is that consistent with the mechanism which created this list?

Spies - there is a paper from England which could make the case for injury.

Alex - you have to include physical environment.

Spies - we ought to measure the hydrocarbons in the sediment over time.

Jim - we assume that would lead to specific measurable healthy resources.

Spies - we ought to know when the system is clean.

Glenn - we are in restoration, and when you reach into the tool box for the tool, there is not much you can do except natural restoration. If you are relying on natural restoration, you can't assume it into being. The adoption of the technique of natural restoration is your rationale for monitoring.

Jim - does the issue of intertidal resources take care of Byron's problem?

Byron - as long as it includes sediment.

Jim - is there anything else on this list?

Pam - she has a problem with designated wilderness area.

Jim - under natural resources, is there anything to add that is injured?

Glenn - he would add shoreline ecosystems. A lot of the oil lodged fairly high up on gravelly beaches. They get a new coat each winter. The lodged oil becomes a part of an oil zone or pool. The shoreline vegetation is rooted in that stuff. That is an injured system and the organism in it.

Jim - is this related to site-analysis work, Ernie's project?

Mark - it primarily looks at the intertidal.

Glenn - plants will be rooted in this, and it will be incorporated in their environment. It is not as economically important as some others, but it is there.

Pete - there was some discussion about invasion of clean-up crews.

Jim - he is troubled whether we should have other potentially damaged resources. Is there scientific knowledge that we should go look at it?

Bob - there are a lot of areas that are designated wilderness that have oil on the shoreline. It is not worthy at this point of going and getting rid of it.

Glenn - he is not talking about a treatment action but an assessment.

Jim - we are going to look at intertidal and subtidal resources. Is there a noun?

Glenn - oiled beach ecosystems need to be evaluated.

Jim - what is it that you think ought to be looked at?

Art - it is the storm berm.

Mark - storm berm is included in the intertidal.

Jim - is this list generally sufficient?

Mark - if someone wants to come in and make a reasonable case, would we be able to pick that project up? We can make a case that goldeneyes were injured.

Alex - there are other birds where mortality is noted.

Bob - these lists should be updated with new information.

Jim - if injury can be substantiated, it can go on the list. We should have a process of how that comes through.

Pete - it is a big disincentive to the public.

Jim - you have to come in with some presentation to get it added to the list.

Pete - there are grounds for another list of species for which there are reasonable grounds for injury. It would include goldeneyes, Northwest crows and some loons.

Spies - rockfish are there because there were 20 or 30 turned in after the spill, and you could probably make the same argument for some species of birds.

Pete - some species have been ignored because of the legal process.

Jim - there should be something about an annual review for consideration of additional species. There are other potentially injured species, and a list should be developed.

Eric - it makes all sorts of sense, but there is perhaps some inconsistency with what has been adopted in the Restoration Plan and tying it back to injured resources.

Pete - with the lower standard of reasonable presumption, the list could get bigger.

Eric - the Restoration Plan says you can study spill-injured resources. We are discussing a process by which we would amend the policy which has been adopted to this point.

Jim - if we need to have other potentially injured resources, maybe we should think about it over night.

Bob - the concept that wilderness is injured is quite explicit. When we talk about recreation and tourism, that is what we talk about.

Glenn - this list is a list of injured resources.

Byron - this is not a complete list.

Glenn - you are saying that public land, that has wilderness values but is not designated, is not appropriate to be considered.

Bob - it is considered under passive use.

Glenn - he teaches a course on wilderness management. Wilderness and recreation are not identical. Recreation is a use that is prominent among the wilderness uses. It also provides biodiversity. There shouldn't be any debate about that.

John - a lot of lands that have aesthetic importance don't fit under wilderness.

Bob - he is unsure of the practical implications of a name change.

Jim - there are public lands that are in a wilderness state.

Bob - he stated, of course, there are wild qualities.

Sandy - those study areas were included under the definition of designated.

Jim - is there something that would be accomplished for the public good that would be obviated by Wilderness?

Pam - wilderness is something people care about and is an intrinsic value to all the species in there.

Jim - habitat protection does not necessarily assume human use.

Art - everything that we rate for wilderness is in private ownership.

Jim - we have an obligation that ought not prevent us from raising issues of public good.

Are there additional lost or reduced services?

Dan - what services are we talking about - direct or secondary? How close a link does it have to be?

Sandy - one provided by the resources injured.

Bob - it has to be a public resource which the TC has

responsibility for.

Jim - he is curious about how commercial fishing got the link.

Mark - it is a service provided by the resource in common.

Jim - isn't the argument that it has to be related to a resource?

Mark - the resource is fish.

Jim - do we have an obligation to fill the net of seiners because they were injured? He will invite the attorneys to be here tomorrow at 11:30. There is a question of should we invest in recreation services.

Mark - the issue is more how you would go about it.

Jim - DNR and Community and Regional Affairs will be at the next TC meeting.

Are there other services that should be added? These are things that we are going to invest some money into. Communications is an issue for which we need to have specific goals. How effectively are we letting the public know what is going on?

Pete - how about getting a group of scientists together?

Jim - there is a guiding principle for synthesis, and there could be a strategy for quarterly meetings. This could also include a resource center for providing for public input and public retrieval of information.

Administration needs some overall objectives and measurables. We ought to say what we are doing and why, and what it will lead to.

Andy - what about quality assurance?

Jim - someone used this earlier.

Andy - it is a management process, and this would be a good place to put it. It would apply across all the processes you have there. It is certainly something to consider.

Pete - this is implicit in good science.

Andy - he has been involved with it in both extremes. It can be incredibly cost consuming. We can't assume that all the work being done should not have some general guidelines to meet.

Spies - quality assurance includes what your objectives are. It has a lot to do with experimental design. If you went through it in a rigorous way, it might require quality assurance. It depends

on how formal you want the process.

Eric - is peer review post study? Is there any pre-study design?

Spies - in 1993, those projects approved for funding had to come back for a detailed study plan which is then sent out for peer review.

Jim - if we need to work on modifying a guiding principle, we will pick it up under administration.

Eric will take the list and turn it into goals. We will establish a process for "meat on the bones" to make some clear indication of what are the strategies that would lead to those measurable objectives. We will then work on assignments and meet in 30 days to complete the tasks.

Meeting recessed until 8:30 a.m. on 1/14/94.

ECOSYSTEM-BASED MANAGEMENT STRUCTURE MEETING
JANUARY 14, 1994
8:30 A.M.

ATTENDEES

Jim Ayers
Eric Myers
Bob Spies
Pete Peterson
George Rose
Glenn Juday
Byron Morris (t)
Alex Werthheimer
Dave Gibbons
Sandy Rabinowitch
Jerome Montague (t)
Mark Brodersen
Torie Baker
Dan Hull
John French
Gail Evanoff
Steve Planchon
Kim Sundberg
Pam Brodie
Leslie Holland-Bartels
Andy Guenther
Tony DeGange
Bob Loeffler
Art Weiner
Jess Grunblatt
LJ Evans
Barbara Iseah
Alex Swiderski

HANDOUTS

Revised Guiding Principles
Revised Injured Resources

Jim - Eric and Bob provided a revised copy of the Guiding Principles. Nothing done here is irrevocable; therefore, draft was stamped on the revised principles. Have we sufficiently covered the issue that species could get in?

Tony - forage fish populations could have some effect on kittiwake. Are we comfortable enough with the last sentence in #1 as far as injury goes?

Spies - we may have to pick up a lot of these species under other principles.

Jim - #1 is a little cumbersome; it is like three different principles. He suggested adding: reflecting the health of the ecosystem.

Bob - he suggested adding: which may reflect the general condition of other resources.

Jim - Eric and Glenn can further wordsmith #1.

Glenn - you need some threshold qualifier that the information is significant.

Spies - Tony's comment on kittiwakes was very insightful.

Tony - #2 captures a whole lot but #1 excludes.

Pete - #1 and #4 are almost contradictory.

Spies - those principles are not really contradictory if you look at what the injured resources depend on. Maybe we need to expand this more so that our private language around this table more clearly expresses this.

Jim - those things are to balance each other. We are going to try to have some measurable focus. We are not going to do major essays by scientists. We are going to look at more than the injured resources. On the other hand, we have the court decree and the attorneys who are going to jump in immediately. He is trying to figure out a management structure so that you scientist can go out and do what you need to do.

Kim - we need some graphics which show interconnection, like a food web.

Spies - those could come at a strategy level.

Jess - does #14 help? Your proposal must relate to the justification.

Glenn - he has described a potential problem.

Bob - one way to study forage fish is through kittiwakes.

Jim - we have a circle that says we are going to do monitoring as it relates to these species. We are going to synthesize this information and say there is a lot we don't know. We ought to go look at something else. We go do that because we have information that says we need to look. Do we need to provide the opportunity which says let's get those things on our list? We don't have a

description of what that process is. The other approach is when we get over to goals, and we have a goal that says we will have a healthy population of fish. For example, what are the actions that we are going to take to get that healthy population of forage fish?

Spies - we are looking at forage fish because there are consistent problems with foraging sea birds. There have been long-term declines in these species since the 1970s.

Jim - we are going to study kittiwakes for general ecosystem health. Should we only have this come up when we are trying to come up with specific objectives?

Alex - we should make #2, #1.

Pete - if kittiwakes help you understand forage production, it can easily be defended scientifically.

Spies - you can justify them as ecosystem health indicators or study kittiwakes because they are important for the same reason as macrozooplankton.

Jim - you have to describe how that action will lead to the improvement of one of these measurable objectives. You could get in, but you have to come through a door.

Pete - don't we have opportunity to include something in the form of examples. Isn't it better to outline the application of the principle with examples, such as black kittiwakes. It would be clear that it could be done and would not have to be argued 20 times about why that resource is of benefit.

Spies - we are trying to make these principles as airtight as possible but I don't know if we can do that.

Alex - these principles should be reordered.

Mark - we have essentially eliminated services. We have got to get services back in there and have equal weight. I thought they were to be included.

Jim - Mark can work with Eric to make those additions.

Sandy - the process would be well served to have an additional list that would be modified periodically. If you have a list that has confidence in it, the lawyers will buy it. I think the lawyers are still working the process more than they should. They should be legal advisers. They should not drive this process to the extent that it has.

Jim - we have got to establish what the avenue of entry is to go and involve yourself in a project. We identify that there is this

gap that can be filled.

Glenn - There is another potential audience that needs to be reassured that has been skeptical, and that is the general public. There may be the withdrawal of approval, which needs to be addressed. There is the larger issue of weighing out the rationale that is clearest to the broadest range of the people. It might be worth trying to hammer out some short, concise way.

Jim - won't that be satisfied when you move over to goals and objectives?

Glenn - I suppose so. It asks them to hang with the process a little bit, and we should tell them why.

Bob - this discussion reflects a language problem. What we are identifying is a working hypothesis to benefit a resource. As long as the hypothesis is accepted by your peer reviewers, you should be able to study it. The answers to your questions become pretty apparent.

Jim - scientist have a hypothesis and go study things.

Spies - hypothesis is appropriate.

Glenn - it will produce the wrong kind of action if anyone takes refuge in a list. The list may not satisfy the why.

Jim - we will detail in a newsletter what are the projects we are doing and why we are spending money, scientifically and according to the court decree.

If someone wants to work with Alex, Eric and Bob to reorder things in the guiding principles, they can.

Eric - there could be a problem if we had a general principle that modifies the general principle for services.

Jim - he asked Dave to work with the above committee.

Dave - you do services that are linked to the resources. Building a boardwalk to some lake for sportfishing is an example. There have been some proposals in the past where the linkage has been very tenuous.

Eric - #16 speaks to that point.

Jim - Eric, move us to goals. Kim had a good idea about a diagram showing how we are studying from the various trophic levels of the various species. Are we covering everything or have we missed something?

Spies - we could make the injured species some kind of node in the food web. (Diagram was provided)

Art - Mike Fry did a diagram exactly like that.

Kim - a diagram could show people how other things are important.

Pam - can we bring up if we have any problems with other guiding principles?

Jim - he wanted to get the skeleton together so that when we left here, we could synthesize the process. Later small groups could put "meat on the bones." He was hoping to get goals finished today.

Pam - there are some things that need to be addressed. A couple of these, #5 and #6, aren't at eighth grade level. Also the very last one doesn't say anything about private interests like aquaculture associations. It is something the TC has to decide on how much it is subsidizing. There needs to be a guiding principle. What worries me is the TC getting into a situation of perpetually funding.

Mark - we don't set policies for the TC. That is not something that comes under the guiding principles.

Pam - I thought these were suggestions.

Mark - these are to implement the Restoration Plan. It is not appropriate trying to manipulate the TC into making decisions on the projects.

Pam - I thought this was going to be presented to the TC, and they will accept it or change it.

Jim - these will be presented to the TC for implementation of the Restoration Plan.

Alex - Pam has a good point. Why should the TC be bound that they can't fund a government agency but a private institution for something that they would normally do?

Jim - he is proposing that this group take this issue for consideration to the TC. Mark sees this as a manipulation, and Pam asks is public input manipulation.

Eric - there is nothing that is inconsistent with the policies in the Restoration Plan. There should not be conflict with what is in the Restoration Plan and what is in the guiding principles.

Dave - this would be in addition to the policies set in the draft Restoration Plan.

Jerome - it seems to be a bad idea to add other entities because it is hard to say what the other entities do.

Jim - what he had in mind by inviting a variety of people was to try to get informed consent and continue to help narrow the focus so that we are investing our funds for specific activities that the public will understand, because it is their money. We have to be careful that we don't direct a guiding principle to something we are trying to tinker with down in a strategy.

Pam - the guiding principle should be directed to in addition to what normally happens.

Mark - in terms of private entities, most are in a yearly struggle for survival. When the TC votes they have the responsibility to make sure the money is used wisely. They would take care of any problems with private entities where it is not a wise use of money. We don't need to box them in.

Jim - The more scientific question is what is the restoration of a natural resource. Targeting aquaculture is not legitimate.

Pete - this document is meant to elucidate the plan. Then it guides those organizations who wish to propose things in the restoration process. For those who prepare proposals, will they come back to a group headed by Jim or will some proposals bypass the review step that use to be headed by the Restoration Team.

Jim - that is an excellent question. The TC has made it clear that they expect not only review but a recommendation. He will work with liaison groups and the public to make recommendations to the TC. They also expect a scientific comment from the Chief Scientist.

Mark - will this be used on the 1994 projects?

Jim - I don't think we are going to get there. Many of the things said will influence his decision. He can't say if this will be the official document. He will give it to the TC as a draft document. These things are on a parallel track.

Mark - the 1995 projects will be put together using this?

Dave - this is an evolutionary process and the 1994 Work Plan was developed under a different set of criteria. It really has to be finessed. These allow for some projects outside the oil-spill area to be incorporated. Some projects were thrown out based on that threshold criteria.

Eric - there was an internal process that kicked them out?

Dave - yes.

Jim - he would like to set in motion a 1995 calendar.

Spies - these 300 ideas arrived, and sieves of criteria were evolved. We are not trying to drive the process from the inside.

Jim - he would like to get to the point where we can say we need to get the best people in the world to look at kittiwakes as opposed to saying if you are thinking of getting some money, could you give us a proposal.

He would love it if the TC had a guiding principle on considering the environmental conditions at hand and the economic conditions of an agency or an entity.

Dan - the point that Pam brought up is interesting, but for clarification the aquaculture associations are quasi-public institutions. They fall in between.

Pete - the same could be said for Native corporations.

Mark - what is the next step for tweaking these now?

Jim - Mark, Eric and Bob will meet during a break to discuss these.

Torie - we have to realize that we have to encourage partnerships. I see this lacking here. I don't see anything that reflects collaborative and multi-discipline. Competitive, collaborative, multi-discipline proposals should be expanded upon. Self-fulfilling agendas should be discouraged.

Eric - Policy #17 came verbatim from the draft Restoration Plan.

Bob - multi-disciplinary confuses him.

Jim - Torie and Glenn, would you take #5 and add simple words like "collaborative" and "partnership" and help it out?

Glenn - you have to face up front the incentives.

Jim - that is a different issue. It is true that we talked originally about the OPEN projects.

Glenn - you have to change the structure of how things are set up. One of the tools is sponsoring a collaborative meeting.

George - you need another principle based on what Torie said.

Torie - #17 could be modified.

Eric - priority will be given to projects which involve collaboration with public entities.

Pete - for #10, the issue of public participation, is it appropriate to add that projects will be given priority for those with public involvement and participation?

Eric - this injured resources list is directly from the Restoration Plan but is organized in a slightly different plan. This does not include mussels or sediments, which indicates this was produced as part of the Restoration Plan. If we want to develop goals, at what level do we want to establish them? He suggests organizing goals at the level of resource groupings. The goal is very general. The objective is lifted verbatim from the Restoration Plan as it was adopted by the TC. What we are going to attempt to do is set about the task of identifying appropriate goals for whatever grouping we are dealing with. We will move into the categories of strategies which are appropriate for any given resource and its associated objectives.

Spies - we are at a point where we are starting to shift. It may be time to leave the old categories behind for some other ecological designation. It will reflect the new emphasis on health of the ecosystem.

Glenn - I am glad you said that because the list only leaves me half satisfied.

Pete - the structure sends a message that there are natural groupings that link them together in a functional context.

Eric - he asked for nominations for an alternative taxonomy and suggested taking a break to work on that.

Jim - when we get to strategies, I want to keep the definitions consistent with the Restoration Plan. The Restoration Plan is the foundation, and the structure has to tie back.

Break 10:20 to 10:40

The following diagram was developed by a subgroup:

Categorized by system of primary restoration effort

Upland
Archaeology
Wilderness
Dolly Varden
Cutthroat

Nearshore

Sea otter	Clams
River otter	Mussels
Harlequins	Intertidal organisms
Bald Eagle	Subtidal organisms
Oystercatcher	Sediments

Pelagic
Killer whale
Harbor seals
Rockfish
Herring
Salmon
Murre
Murrelets
Pigeon guillemot

Steve - he suggested using a matrix.

Pete - he stated a matrix is not an effective communication tool.

Pam - it is important to show the species which use more than one of these.

Leslie - the goal is to have objectives related to the effort. It would show where the restoration efforts would be directed.

Dave - for harlequin ducks, the restoration effort is protection.

Andy - he is not sure it matters that much. The idea is by presenting it with this twist on it, we may affect how people view everything that comes after. For the purpose of presenting the management structure, it means bringing the ecosystem approach in as soon as we can.

This is done for pragmatic reasons, but it also sends a very strong message.

Alex - we have the same problem of artificially categorizing. Some simple graphic model that shows how that particular resource is a part of these different components may be sufficient. You put the ecosystem idea up front with each resource.

Pete - what are we preparing this for and wouldn't it be fairly expensive?

Alex - he sees it as a simple figure for each of these species.

Spies - all that has been done by people in this organization to attempt to tell the public what is going on.

Jim - we are trying to say the TC is trying to restore the healthy ecosystem of the spill area. One of the things as a goal is to have this concept of a healthy upland system. We would have three major goals.

Spies - is this document going to the public?

Jim - this will be an appendix to the Restoration Plan.

We didn't add the supratidal issue. Does it need to be included?

Gail - my concern is of the upper intertidal area where the water line hits our average mean high tide. We have our winter tides which is supra. We have a finite ecosystem happening there. Nesting, foraging and reproductive activity are happening--very different from the mid-tide. It is very distinct and does have its place in this plan.

Jim - Leslie, how do you see putting that in?

Leslie - I think that is appropriate. If that can be put in language. You can call nearshore, shore and put it there.

Kim - sediments could be in the uplands too. Maybe we could incorporate it as a sediment and it would be addressed.

Alex - we could have sediment as a subset of supratidal.

Jim - for right now, the goal would be to have a healthy, productive upland system. One of the things we would have as a specific objective is a healthy population of Dolly Varden, and then what are the things we are doing to make sure would be our strategies.

Bob - he would suggest that wherever you put pink salmon, you should put Dolly Varden.

Pete - the reason Dolly Varden and cutthroat trout were put under upland is because of the environments in which they were damaged.

You could start the section with this chart and go through species by species and talk about what needs to be done.

Glenn - you could supplement it with the specific recognition of

the need to have some ecosystem study done. Otherwise you are back where you started from with no integration.

Pete - that is explicit in these principles.

Glenn - you have at least a definitional ecosystem study.

Pete - we are not dealing at that level yet.

Jim - we would have this approach and have Alex put together an introductory diagram and walk into those three major goals. He would like to give those assignments and identify those strategies. Should we have salmon under two or three goals?

Dave - habitat protection is linked to pink salmon and that would be an upland. Another under pink salmon might be to build a fish ladder for access to uplands. Another might be a prey base.

Jess - we need to remove the idea of primary. You have weighted pelagic.

Spies - Maybe we should go back to Alex's idea of having a matrix. A dot could be put where any activities occur.

Pete - he would argue that this would be a supplement and not a replacement.

Jim diagramed the following:

> Goal #1 - Healthy, productive upland system
>
> Objective #1 - Healthy, productive population of pink salmon
>
> Strategy #1 - Habitat protection - the identification and acquisition of anadromous stream areas in conjunction with protection of other resources

Jess - as long as you can keep the sense that all these are equal players, you have achieved the purpose.

Alex S. - when you go to your damaged resource level, you then again say what components of the ecosystem these resources belong in. You do it from a general sense down to a species sense. He wanted Pete to comment on the benthos component.

Pete - the nearshore is effectively all those things that are dependent on the benthos.

Andy - the ecosystem structure lends itself very nicely. We don't need to get lost in detail at this point. You would have a footnote about related projects. Diagrams and matrix are more introductory to this information and get your teaching done.

Steve - it gets you into an integrated approach right out of the chute.

Jim - we want to make sure that we get everyone's name and address. The effort to get out by 3:00 means if Eric, Bob and Andy will help make an organizational structure that people can accept, we could get a package everyone can go away with. He would like to get some advice on assignments to go develop strategies. What are the strategies that are scientifically sound that we are going to spend the money on?

Spies - he suggested thinking about organizing the people around the goals.

Jim - there was a legal question for Alex.

Mark - why is commercial fishing a service which falls under the settlement?

Alex S. - you can clearly address the natural resources that commercial fishermen rely on. All the attorneys would agree. The question is can you address the service directly. You can't actually do something for the service. Commercial fishing is just another service provided by some of the resources. I have heard discussion that in some ways some of the natural resources provide service to others. Commercial fishermen are attempting to secure recovery. The charge is still to restore the natural resources and services.

Spies - are those lost-use recoveries?

Alex S. - I would think. They are trying to recover pinks for lost use. We are trying to restore the resources that provided those services. The lawsuits won't necessarily restore the service.

Mark - our charge is to try to make the resource provide the service again.

Alex S. - the settlement allows us to restore natural resources and services. We need to look at the MOA.

Bob - he read the definition of natural resources from the draft Restoration Plan.

Dave - you are not creating it for the general public but a portion of the public.

Break until 1:15.

Jim - we have the guiding principles, and we have ordered the ecosystem approach. We have a mission statement. We have an order of description of the spill area. We have the diagram and/or the

matrix. We then go into the goals. We need to put together the objectives that go with the goals. He would like to get input on that part of the process. He would like to talk about how we use that as the umbrella for reaching those proposals. He would like to have this package together for you to review.

Andy - it might have to appear in the mail early next week. They have prepared two different presentations of the same thing. We have the matrix approach first. We tried to start with what Jim had written up for the goals. There are two pages of pelagic, one page of nearshore and one page of upland. You have objectives for species in more than one of these goals. This serves as a way of organizing these ideas under the objectives and strategies. You can see how this can be used. A key factor will not simply be to decide what your strategy is. You can open this up to the world of creative people to see if they have better strategies for meeting the objectives. That feedback is used to produce an RFP. The RFP lists the kinds of things that successful proposals would have. That would come from the management guidelines.

Bob - it is important to think where in the process this goes. You are generating a hypothesis. You may be generating the hypothesis by species. You want to do it as interdisciplinary as you can. You begin to synthesize and see the links. You begin to see where the crosses and gaps are. You might use this to see how all the pelagic projects fit together. This may be more in the evaluation stage than the idea stage.

Jim - there are those who say we should just take the professionals instead of opening this up. We need to figure out a way to have the best ideas possible so we are stimulating the public at large and reaching the objectives. Are we then going to be able to measure what you spent your money on?

Kim - the goal statement is the same for pelagic and nearshore. Organizationally is it okay to have one goal for the whole system?

Andy - do you think this is a structure for describing the management?

Kim - it all has to feed up into one goal.

Andy - the integration occurs differently for different objectives.

Spies - you are trying to send a message on context.

Alex - you could handle Kim's point by restating the mission statement.

Jim - there is something to be said for having goals that say to the public we are thinking in terms of the uplands, ocean and nearshore, as opposed to saying we are thinking about the

ecosystem.

Pete - this is more tangible, and you can relate to them because of their spatial grounding.

Andy - if he was trying to submit a successful proposal, he would have to show them that he has someone on his team who knows about murrelet and harbor seal foraging. He would have to show up front that he can meet the objectives. He would want to bring in someone who knows everything about murrelets. This gets at how OPEN gets at the interdisciplinary teams.

George - the teams are made up of all those who could get at the objectives. Their work would be clearly and closely linked.

Glenn - he would recognize that he looks at this as a very significant moment in the post-spill events. Finally, we can satisfy some of the nagging problems that were there all along.

Dan - he likes it set out this way because it identifies different needs of members of the public.

Byron - he thinks the litmus test is pink salmon, and we just have to develop it further. Under the strategies as you have them, the original for seabirds broke out the categories. Do you propose to subdivide strategies another level?

Jim - the basis is the Restoration Plan which is the foundation. That foundation is very clear because it follows the court decree as well as science.

Byron - I think we should, and it relates all this back to the Restoration Plan.

Jim - you wouldn't have something you couldn't clearly define. We need to state that you would identify your associations. What other things of this particular strategy are you impacting?

Andy - it links objectives.

Jim - it serves very well in satisfying the integrated research.

Alex - in talking about strategies, you talked about whether agencies provided strategies. They are mandated to provide them but those are not the only strategies. The public can help refine them. You also solicit other strategies that could compliment or replace. You have to get the Trustee agencies to provide strategies to meet the objectives, but that doesn't mean they are exclusive.

Jim - should we take this to the agencies or should we have a discussion and invite people, including the agencies, to tell what

are the strategies?

Spies - everyone could identify themselves and tell what their interests are.

Glenn - he would suggest doing this in the form of a sponsored workshop. There are certain fiduciary responsibilities.

Eric - you can depend on the fact that the agencies will advance the strategies.

Pete - he has a procedural comment. You had proposed that these workshops are focused around birds, for instance. I think it would be better to be organized by habitats. There are important issues of intertidal resources affecting nearshore consumers. It would seem to be important to structure these around the system you want to focus on.

Bob - you would use the workshop to prove just the opposite. You generate the ideas using a workshop similar. You would use an evaluative tool to ensure the links are made and then maybe hold a follow-up workshop.

Pete - it is fundamentally wrong to focus on species. Could you conceive of a workshop on each of these species? I can't.

Spies - those workshops were fairly expensive.

Pete - you actually sort and resort people during the workshops and come back and talk about what the different groups came up with.

George - your strategy would be to maximize integration.

Andy - if we have a competitive process, the proposals become confidential. We want to have the proposed strategies as broad as we can within the RFP. We then leave this to the interdisciplinary team on how to accomplish it.

George - you have one meeting where this all comes out.

Jim - then they go away and send in proposals. The agencies will not have a problem whatever the setup is.

Spies - where do you hand off the ball intellectually?

Glenn - something fairly unusual happened. Scientist put their best ideas out there. An integrated study came together rather than peoples' competitive proprietary advantage.

Jim - people come to the meeting and get a general drift of the approach. You ask them what ideas do you have to contribute and with some discussions, we break into species specific.

Spies - they come back in teams and bring back ideas.

Glenn - you get a first level of community-wide participation.

Andy - you say tell us how completely you are going to do this. He understands this meeting as taking these objectives and implementing strategies. Then you let the teams of people submit proposals that are confidential on how they are going to implement the strategies.

Members of the public would probably be part of the teams. To the extent that you can, find people without conflicts. You will get a broad range of ideas.

Alex - past performance is one of the guiding principles.

Glenn - actual competition is not always good. It could be inefficient.

Leslie - it is a very dynamic process. I strongly agree with taking an opportunity to develop strategies in an interdisciplinary form. People put down good ideas on the table. It draws people to the EVOS process. It becomes an extremely valuable document built on the thought process.

Spies - we might as well do something that benefits the whole process.

Pete - there should be a commitment to producing a product of the proceedings of the workshop.

Andy - this group could go around again on the objectives and get a lot accomplished.

Eric - he would like to hear from Mark and Dave on the development of the objectives. The history is distilled in the objectives.

Dave - basically this same thing has done for the damage assessment.

Spies - it was inefficient because we had the PR's reviewing all the projects.

Mark - we need to make sure we do it better next time.

Dave - a small group of RPWG put together the objectives. There are a lot of strategies that have been identified, and that might be a good starting point.

Spies - a lot of people put a lot of work into dealing with those meetings. We don't want to re-invent things.

John - he doesn't want the strategies to be an exclusive set.

Bob - these objectives are suppose to define the endpoints of restoration. They were initially called the definition of recovery.

Tony - they are fairly narrow, and they are not in an ecological context.

Mark - they weren't designed for that but to tell you when you were finished.

Pete - if some of the concern is monitoring the ecosystem over some longer period of time, that almost by definition doesn't have an endpoint. That is behind some of the arguments for a trust fund that would allow for continued work.

What if the system returns to a recovered pelagic ecosystem, is that when you want to stop monitoring?

Alex - some monitoring would go back to agency responsibility.

Glenn - there are certain aspects which are going to be very long term. We are in a hurry to spend the money, and it may be that damage goes on for a multi-decade period.

Spies - he was hoping we would lay out some independent rational way of how we count animals.

Jim - you have got to have a timeline. How often are you proposing this, and how much does this cost?

Glenn - it depends on the results of what you find out. Not knowing is not an excuse for making the best guess you can.

Andy - a good proposal might answer that question for you.

Bob - this process is a way to generate unsolicited proposals. We haven't set up a way to say no. We don't want to lead people on to give us proposals. We should find a way to set limits.

Jim - you will have to deal with the reality.

Spies - I am afraid the proposals will say we will have to do everything every year.

Alex - it would be nice to have so the proposers know the current thinking.

Glenn - you would need to inform the community where that thinking is.

John - why can't we fund monitoring for five years?

Andy - there would be performance criteria.

John - what is to prevent the monitoring commitment?

Sandy - we did allow for multi-year plans.

Glenn - NSF has been the source of multi-year grants.

George - OPEN does five-year proposals. We commit to the whole five years, subject to performance. The money is released year by year.

Spies - If you reach your objective in year two, then you have reached your objective.

Alex - one problem is you have all sorts of different projects. If you are doing a monitoring project, you are under different constraints.

Eric - money could be budgeted for a multi-year initiative and not necessarily released on an annual basis. It doesn't seem particularly problematic.

George - there is plenty of room in OPEN for maneuverability. There is flexibility in this, but to be fair to the researchers, you have to make some type of long-term commitment.

Jim - Andy, Eric and Bob will finish this and put it into the package. We would pick up some of these other issues. He doesn't know about this guidance for integration. There has got to be a review process including the guiding principles. Multi-year funding has got to be a consideration. What if we got the package to you next week and you got comments back to us on any holes? Also include any recommendations. Should we have a series of opportunities for people to get together? Should there be a major discussion with this as the umbrella where people would present their ideas on how to proceed? What should some of the criteria be for evaluation of projects? He intends to present a draft of the concept to the Trustees. He would like to use it as guidance for 1995. He doesn't see how we could use it for 1994.

Mark - he is not sure what his responsibility is in terms of getting his comments in.

Andy - the goal would be to try to get as much as what we have talked about in some cohesive form. We need to work backwards from when the TC has to vote on the work plan. We could prepare a meatier version for review.

John - we need to set specific timelines.

Andy - we could make some stab at it.

Jim - what is a reasonable timeline?

Mark - we have to squeeze this in.

John - he sees very little time.

Mark - if we are going to have a workshop, we need to give some advance notice.

Andy - some people have said they have some raw material. If that can be delivered ASAP, it would help.

Bob - we already have that.

Mark - the review is primarily on the guiding principles to get together a package to send to participants for the master workshop.

Glenn - what specific steps are we going to take to broaden the scope of awareness?

Bob - the combination of an informal mailing list, word of mouth and the PAG will take care of that.

Jim - staff will get this draft out of the door by Wednesday or Thursday. Fax numbers were requested for this purpose. Is it possible to get comments back by the 26th? He would like to have one more iteration.

Eric - we are talking about the guiding principles and the goals and objectives.

Jim - plus a series of recommendations on process are solicited.

Pete - you have to worry if too many people would come to the workshop.

Jim - it is the fifth anniversary of the spill. We need some presentation on where we are which includes the public.

Glenn - how confident are we the TC is going to buy into any of this?

Spies - he senses a real positive development of people working together. We are setting the agenda for future marine research. We have to convey that sense to the Trustees.

Jim - The Cordova workshop had a broader prospective. He would like to use the opportunity on the 31st to have a presentation about the ecosystem and the Cordova workshop.

Andy diagramed the following:

Package

1. Mission Statement
   general physical description of the area ecosystem - physical species
2. Guiding Principles
3. Injured resource/ecosystem list, with Leslie's diagram
4. List of goals, objectives and strategies
5. 1994 timeline for:
   i. strategy for workshop
   ii. develop new strategy list
   iii. solicit and review proposals
   iv. make awards, develop

Jim - Eric and Alex will work out the changes to the matrix. He can't go anywhere without us. The TC is not going to move forward if you are not on board.

Dan - Bob said that he is putting together administrative procedures. Is it possible to see something of that in the package?

Jim - yes, we will try to get it out.

Andy - is there anything else people would like to see in the package?

Glenn - there have been a few ideas for the PR effort to let people know the process is changing in a pretty significant way.

Eric - communications is a component of the management procedures.

Jim - we need to involve the public and make an effort. A number of people are interested in the EIS process. What we are not doing is making a major departure. We are putting together a management structure for implementation of the Restoration Plan.

Eric - we need to improve public communication.

Jim - we are adjourned with deep appreciation.

Meeting adjourned at 3:15.

ECOSYSTEM BASED MANAGEMENT STRUCTURE MEETING SIGN-IN SHEET

January 13, 1994

NAME (Please Print)	Address	Affiliation
Molly McCammon	645 G St.	Trustee Council
John French	900 Trident Way, Kodiak	UAF - FITC / PAG 486-1505
Tony DeGange	1011 E. Tudor Rd., Anch 99503	Fish & Wildlife service
Leslie Holland-Bartels	1011 E. Tudor Rd Anch 99503	National Biological Survey
Sandy Rabinowitch	2525 Gambell Street	Dept. Interior
ERIC F. MYERS	2834 knik ANCH AK 99517	EVOS Trustee Council
Glenn Patrick Juday	Forest Sciences Dept. 309 O'Neill UAF Fai 99775	UAF School of Ag. & Land Resources Mgt.
GEORGE ROSE	DFO SCIENCE BRANCH, P.O. BOX 5667, ST. JOHN'S, NF CANADA A1C5X1	DFO CANADA / OPEN.
DAVE GIBBONS	P.O. 1628 - Juneau U.S. Forest Service	U.S. Forest Service
Mack Brodessen	410 willoughby Ave Suite 105 Juneau AK 99801	Dept. of Environmental Conservation
Bob Loeffler	DEC / EVOS ~~EVOS~~	DEC
ART WEINER	645 G Street	ADNR
BOB SPIES	2155 Las Positas Ct, Ste. S LIVERMORE, CA 94550	APPLIED MARINE SCIENCES
Andy Gunther	"	"

ECOSYSTEM BASED MANAGEMENT STRUCTURE MEETING SIGN-IN SHEET

January 13, 1994

NAME (Please Print)	Address	Affiliation
Barbara Iseah		
LJ Evans	645 G St.	Trustee Council
Jess Grunblatt	"	DNR - TC
Steve Planchon	601 W 5th #550 99501	The Nature Conservancy
Kim Sundberg	333 Raspberry Rd 99518	ADF&G
TORIE BAKER	PO BOX 1159 CORDOVA	CORDOVA DISTRICT FISHERMEN UNITED -- PWS FISHERIES PLANING GROUP
Dan Hull	6541 Brodgit Anchorage 99502	PWSAC / PWSFERPG
Tom Von Brockin	Box 2144 - Valdez, AK. 99686	PWSCORS / City of Vdz / PWS Community College
Charles H "Pete" Peterson	Univ. of North Carolina, Institute of Marine Sciences, Morehead City, NC	
Pamela Brodie	241 E. 5th Ave #205, Anch. 99501	Sierra Club (also PAG)
Glenn Patrick Juday	Forest Sci. Dept. Room 309 O'Neill Univ. of Alaska Fairbanks 99775-0080	U AF
GEORGE ROSE	DFO SCIENCE BRANCH, P.O. Box 5667, ST. JOHN'S NF CANADA A1C5X1	DFO CANADA / OPEN
DAVE GIBBONS	Juneau	USFS
Mark Brodersen	410 Willoughby Suite 105 Juneau AK 99801	DEC

ECOSYSTEM BASED MANAGEMENT STRUCTURE MEETING SIGN-IN SHEET

January 13, 1994

NAME (Please Print)	Address	Affiliation
Robert Loeffler	EVOS	DEC
ART WEINER	645 G Street	ADNR
BOB SPIES	2155 Las Positas Ct, Ste S LIVERMORE, CA 94550	APPLIED MARINE SCIENCES
JESS GRUNBLATT	645 G St	ADNR
GAIL K. EVANOFF	PO Box 8003 Chenega Bay	Chenega Bay Chenega Corp.
Alex Wertheimer	11305 Glacier Highway, Juneau	NMFS, Auke Bay Laboratory
Andy Crowther	2155 Las Positas Ct, Ste S Livermore, CA 94550	Applied Marine Sciences
Bob Spies	"	"

AGENDA
JANUARY 13 - 14, 1994

DRAFT

Ecosystem-based Management Structure for Implementing the EVOS Restoration Plan

I. Discussion of Draft Guiding Principles for Implementation of the Restoration Plan

(Examples)

1. Restoration will focus upon injured resources. Restoration may include resources for which there was no documented injury if such activities will indirectly benefit an injured resource.

2. Restoration should contribute to maintenance and enhancement of a healthy, productive, and biologically diverse ecosystem within the spill area.

3. Restoration must take an ecosystem approach in order to understand what ecological factors control the populations of key species. Without this understanding, it will not be possible to undertake effective restoration and enhancement programs.

4. Restoration and monitoring must contribute to an integrated understanding of the spill area ecosystem. An essential step in reaching this goal is to link various existing data bases on natural resources and the environment in the spill area, and then ensure their access to scientists, students, and the general public.

5. Restoration must take into account socioeconomic factors to recognize the quality of life within the spill area and the need for viable opportunities to establish and sustain a reasonable standard of living.

6. Restoration must be conducted as efficiently as possible, reflecting a proper balance between costs and benefits. Also, possible negative effects on resources must be considered in undertaking specific restoration projects.

7. Restoration must include a meaningful public participation process at all levels--planning, project design, implementation, and review.

II Identification of species, processes, and services that reflect the spill area ecosystem to be addressed by the Restoration Plan.

Injured Species list
People
Other

over

III. **Development of g[illegible] are consistent with the [illegible] principles.**

(Examples)

Goal X - A healthy [illegible]

Objective 1: [illegible] by...

Strategy a) Monitoring of migration

IV. **Development of spe[illegible] an objective has been at[illegible].**

V. **Development of res[illegible] through the data sy[illegible].**

OTHER

VI. **Discussion of integr[illegible].**

VII. **What about species [illegible]**

VIII. **Time lines for strat[illegible] (i.e. 5 years vs. 30 years).**

IX. **Meat on the bones.**

X. **Next meeting.**

Adjourn

RESTORATION IMPLEMENTATION

ECOSYSTEM-BASED MANAGEMENT STRUCTURE

Workshop Handouts

Exxon Valdez Oil Spill Trustee Council
January 13-14, 1994

MISSION STATEMENT

The mission of the Trustee Council and all participants in Council efforts is to efficiently restore the environment injured by the *Exxon Valdez* oil spill to a healthy, productive, world renown ecosystem, while taking into account the importance of the quality of life and the need for viable opportunities to establish and sustain a reasonable standard of living.

The restoration will be accomplished through the development and implementation of a comprehensive, interdisciplinary recovery and rehabilitation program that includes:

- Natural Recovery
- Monitoring and Research
- Resource and Service Restoration
- Habitat Acquisition and Protection
- Resource and Service Enhancement
- Replacement
- Meaningful Public Participation
- Project Evaluation
- Fiscal Accountability
- Efficient Administration

GOAL

A mental concept of what you want.

OBJECTIVE

Pertaining to a material or measurable specific object (as distinguished from a mental concept).

STRATEGY

Activity or expenditure that is directed toward accomplishment of an objective (i.e., who, what, where, when, how).

CATEGORY OF RESTORATION STRATEGY

- Monitoring and Research
- Habitat Protection
- General Restoration

TIMELINE/COSTS

INJURED RESOURCES/SERVICES and MANAGEMENT PROCESSES

Natural Resources

- Marine Mammals
  - Harbor seal
  - Sea otter
  - Killer Whale
- Fish/Shellfish
  - Sockeye salmon
  - Clams
  - Cutthroat trout
  - Dolly Varden
  - Rockfish
  - Pacific herring
  - Pink salmon
- Seabirds
  - Common murre
  - Harlequin duck
  - Marbled murrelet
  - Pigeon guillemot
  - Bald eagle
  - Black Oystercatcher
- Terrestrial Animals
  - River otter
- Intertidal organisms
- Subtidal organisms

Other Resources

- Archeological Resources
- Designated Wilderness

Lost or Reduced Services

Commercial Fishing
Passive Uses
Recreation/Tourism
Subsistence

MAMAGEMENT PROCESSES

Administration
Integrated Research
Information Management
Communications

INJURED RESOURCES			
BIOLOGICAL RESOURCES		OTHER	SERVICES (Human Uses)
Recovering Bald eagle Black oystercatcher Killer whale Sockeye salmon (Red Lake)	**Not Recovering** Common murre Harbor seal Harlequin duck Intertidal ecosys. Marbled murrelet Pacific herring Pigeon guillemot Pink salmon Sea otter Sockeye salmon (Kenai River) Subtidal ecosys.	Archaeological Resc Desig Wilderness Areas	Commercial fishing Passive uses Rec. and tourism Subsistence
Recovery Unknown Clams Cutthroat trout Dolly Varden River otter Rockfish			

DRAFT

GUIDING PRINCIPLES

1. Restoration will focus upon injured resources. Restoration may include resources for which there was no documented injury if such activities will benefit an injured resource.

2. Restoration should contribute to ~~the maintenance~~ and ~~enhancement of a healthy~~, productive and biologically diverse ecosystem within the spill area.

3. Restoration must take an ecosystem approach in order to understand what ecological factors control the populations of key species. Without this understanding, it will not be possible to undertake effective restoration and enhancement programs.

4. Restoration and monitoring must contribute to an integrated understanding of the spill area ecosystem. An essential step in reaching this goal is to link various existing data bases on natural resources and the environment in the spill area, and ~~then~~ ensure their access to scientists, students and the general public.

5. Restoration must take into account socioeconomic factors to recognize the quality of life within the spill area and the need for viable opportunities to establish and sustain a reasonable standard of living.

DRAFT

6. Restoration must be conducted as efficiently as possible, reflecting a proper balance between costs and benefits. Also, possible negative effects on resources must be considered in undertaking specific restoration projects.

7. Restoration must include a meaningful public participation process at all levels — planning, project design, implementation and review.

8. Priority in allocation of limited resources should be given to strategies that are clearly integrated into an ecosystem approach.

9. Restoration research should be integrated to the maximum extent feasible and productive.

10. Restoration actions should be guided and reevaluated in an on-going manner in light of information and results obtained from previous damage assessment studies and restoration actions.

11. Past performance should be taken into consideration when making determinations regarding future commitments regarding restoration strategies.

12. ...

Example - SEABIRDS

GOAL: To have healthy, productive populations of seabirds in the spill area.

Harlequin Duck: (not recovering)

Objective: Healthy productive populations of Harlequins as determined by prespill populations, or when differences between oiled and unoiled areas are eliminated.

Strategies:

- Monitoring and Research
  - Brood surveys to determine harlequin reproduction rates;
  - evaluate whether continued exposure to oil is causing reproductive failure.

- Habitat Protection and Acquisition...

- General Restoration...

(note: timelines and cost necessary for each strategy)

"MEAT ON THE BONES"

PROCESS FOR DEVELOPING STRATEGIES

1) Resource Category Work Sessions (ie., marine mammals)

2) Scientific review

3) Development of draft work plan

4) Trustee Council review

5) Public review

6) Final Trustee action

Work Session Structure

- Small groups
  - Affected user groups
  - Agencies
  - Independent scientists
  - Staff Facilitator
- Review previous projects and data
- Follow Guiding Principles
- Develop strategies to meet objectives
- Prioritize

GUIDING PRINCIPLES

REVISED

1. Restoration will focus upon injured resources. Restoration may include resources for which there was no documented injury if such activities will benefit an injured resource.

2. (revised) Restoration should contribute to a healthy, productive and biologically diverse ecosystem within the spill area.

2a) Restoration shall take advantage of cost sharing opportunities where effective.

3) (revised) Restoration must take an ecosystem approach in order to understand what factors control the populations of key species.

4) (revised) Restoration should be integrated at all levels (planning, conduct, reporting and access) to the maximum extent feasible and productive to contribute to the understanding of the spill area ecosystem. Priority in allocation of limited resources will be given to strategies that are clearly integrated into an ecosystem approach.

4a) Restoration will include an interpreted synthesis of findings, results, and an indication of important remaining issues or gaps in knowledge.

5) (revised) Priority shall be given to restoring injured resources and services which have economic, cultural and subsistence value to people living in or using the oil spill area, as long as this is consistent with other goals.

6) Restoration must be conducted as efficiently as possible, reflecting a proper balance between costs and benefits.

6a) Possible negative effects on resources must be assessed in undertaking specific restoration projects.

7. Restoration must include a meaningful public participation process at all levels — planning, project design, implementation and review.

8. (consumed in re-write of 4)

9. (consumed in re-write of 4)

10. (revised) Restoration should be guided and reevaluated in an on-going manner in light of information and results obtained from previous damage assessment studies and restoration actions.

11. Past performance should be taken into consideration when making determinations regarding future commitments regarding restoration strategies.

12. (new/Art W.) Proposed restoration actions should state a clear, measurable and achievable end point.

INJURED RESOURCES			
BIOLOGICAL RESOURCES		OTHER	SERVICES (Human Uses)
Recovering Bald eagle Black oystercatcher Killer whale Sockeye salmon (Red Lake)	**Not Recovering** Common murre Harbor seal Harlequin duck Intertidal ecosys. Marbled murrelet Pacific herring Pigeon guillemot Pink salmon Sea otter Sockeye salmon (Kenai River) Subtidal ecosys.	Archaeological Resc Desig Wilderness Areas	Commercial fishing Passive uses Rec. and tourism Subsistence
Recovery Unknown Clams Cutthroat trout Dolly Varden River otter Rockfish			

MARINE MAMMALS

GOAL: To have healthy, productive populations of marine mammals in the spill area.

Harbor Seal: (not recovering)

Objective: A population level of harbor seals in the oiled area comparable to that which would have likely occurred in the absence of the spill.

Killer Whale: (recovering)

Objective: Recovery of the injured AB killer whale pod to the 1988 level (of 36 individuals).

MARINE MAMMALS (con't)

Sea Otter: (recovering)

Objective: A population abundance and distribution of sea otters comparable to prespill abundance and distribution, and when all ages appear healthy.

FISH/SHELLFISH

Clams: (recovery unknown)

Objective: Populations and productivity that are at prespill levels.

Cutthroat Trout and Dolly Varden: (recovery unknown)

Objective: Growth rates within oiled areas that are comparable to those for unoiled areas.

FISH/SHELLFISH (con't)

Pacific Herring: (not recovering)

Objective: Populations that are healthy and productive and exist at prespill abundances. (One indication of recovery is when the age-class structure and the relative strength of the spawning run in Prince William Sound are comparable to those in Sitka Sound.)

Pink Salmon: (not recovering)

Objective: Populations that are healthy and productive and exist at prespill abundances. (An indication of recovery is when egg mortalities in oiled areas match prespill levels or levels in unoiled areas.)

FISH/SHELLFISH (con't)

Rockfish: (recovery unknown)

Objective: Populations levels are unknown, but indications of recovery are when habitat use and physiological indices have returned to prespill conditions.

Sockeye Salmon (Kenai River): (not recovering)

Objective: Populations that are healthy and productive and exist at prespill levels. (One indication of recovery is when Kenai and Skilak Lakes support Sockeye smolt outmigrations comparable to prespill levels.)

FISH/SHELLFISH (con't)

Sockeye Salmon (Red Lake): (recovering)

Objective: A population that is healthy, productive, and exist at prespill levels in Red Lake.

SEABIRDS

Bald Eagle: (recovering or possibly recovered)

Objective: Population and productivity comparable to prespill levels.

Black Oystercatcher: (recovering)

Objective: Prespill population levels, and growth and production in oiled areas that are comparable to those in unoiled areas.

SEABIRDS (con't)

Common Murre: (not recovering)

Objective: Prespill populations at all injured colonies.

Harlequin Duck: (not recovering)

Objective: Prespill populations, or when differences between oiled and unoiled areas are eliminated.

SEABIRDS (con't)

Marbled Murrelets: (not recovering)

Objective: Population trends that are stable or increasing.

Pigeon Guillemots: (not recovering)

Objective: Population trends that are stable or increasing.

TERRESTRIAL MAMMALS

River Otter: (recovery unknown)

Objective: Population levels are unknown but indications of recovery are when use and physiological indices have returned to prespill conditions.

INTERTIDAL/SUBTIDAL ORGANISMS

Intertidal Ecosystem: (some injuries persist in upper intertidal)

Objective: For each intertidal habitat (lower, middle, and upper) community composition, population abundance of component species, and ecosystem functions and services at levels that would have prevailed in the absence of the oil spill.

Subtidal Ecosystem: (not recovering)

Objective: Community composition, population abundance of component species, and ecosystem functions and services in each injured subtidal habitat that have returned to levels that would have prevailed in the absence of the oil spill.

OTHER RESOURCES

Archaeology

Objective: An end to spill-related injury, and looting and vandalism that are at or below prespill levels.

Designated Wilderness Areas

Objective: Wilderness areas where oil is no longer encountered, and that the public perceives to be recovered from the spill.

SERVICES

Subsistence

Objective: Subsistence resources that are healthy and productive and exist at prespill levels, and people that are confident that the resources are safe to eat. (One indication that recovery has occurred is when the cultural values provided by gathering, preparing, and sharing food are reintegrated into community life.)

SERVICES (con't)

Commercial Fishing

Objective: Population levels and distribution of injured or replacement fish used by the commercial fish industry match conditions that would have existed had the spill not occurred. Because of the difficulty of separating spill-related effects from other changes in fish runs, the Trustee Council may use prespill conditions as a substitute measure for conditions that would have existed had the spill not occurred.

SERVICES (con't)

Recreation and Tourism

Objective: Recreation and tourism fish and wildlife resources are recovered, recreation use of oiled beaches is no longer impaired, and facilities and management capabilities can accommodate changes in human use.

SERVICES (con't)

Passive Use

Objective: A public that perceives that aesthetic and intrinsic values associated with the spill area are no longer diminished by the oil spill.

WORKING DRAFT #3

GUIDING PRINCIPLES

1. Restoration will focus upon injured resources. Restoration may include resources for which there was no documented injury if such activities will benefit an injured resource. In addition, restoration may be considered when there is a presentation of reasonable scientific or local knowledge that indicates potential injury.

2. Restoration should contribute to a healthy, productive and biologically diverse ecosystem within the spill area.

3. Restoration shall take advantage of cost sharing opportunities where effective.

4. Restoration must take an ecosystem approach in order to understand what factors control the populations of key species.

5. Restoration should be integrated at all levels (planning, conduct, reporting and access) to the maximum extent feasible and productive to contribute to the understanding of the spill area ecosystem. Priority in allocation of limited resources will be given to strategies that are clearly integrated into an ecosystem approach.

6. Restoration will include an interpreted synthesis of findings, results, and an indication of important remaining issues or gaps in knowledge.

7. Priority shall be given to restoring injured resources and services which have economic, cultural and subsistence value to people living in or using the oil spill area, as long as this is consistent with other goals.

8. Restoration must be conducted as efficiently as possible, reflecting a proper balance between costs and benefits.

9. Possible negative effects on resources must be assessed in undertaking specific restoration projects.

10. Restoration must include a meaningful public participation process at all levels — planning, project design, implementation and review.

11. Restoration must reflect public ownership of the process by timely release and reasonable access to information and data.

12. Restoration should be guided and reevaluated as information is obtained from damage assessment studies and restoration actions.

13. Past performance should be taken into consideration when making determinations regarding future commitments regarding restoration strategies.

14. Proposed restoration actions should state a clear, measurable and achievable end point.

15. Restoration activities will occur primarily with the spill area. Limited restoration activities outside the spill area, but within Alaska, may be considered under the following conditions:

- when the most effective restoration actions for an injured migratory population are in a part of its range outside the spill area, or
- when the information acquired from research and monitoring activities outside the spill are will be significant for restoration or understanding injuries within the spill area.

16. Projects designed to restore or enhance an injured service:

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

17. Competitive proposals for restoration projects will be encouraged.

18. Restoration projects will be subject to open, independent scientific review before Trustee Council approval.

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

These Guiding Principles reflect and elaborate on the Policies identified in Chapter 2 of the Draft *Exxon Valdez* Oil Spill Restoration Plan (November 1993).

Further guidance regarding the categories of restoration action — General Restoration, Habitat Protection and Acquisition, Monitoring and Research, and Public Information and Administration — are provided in Chapter 3 of the Draft *Exxon Valdez* Oil Spill Restoration Plan (November 1993).

INJURED RESOURCES

- Marine Mammals
  - Harbor seal
  - Sea otter
  - Killer whale
- Fish
  - Sockeye salmon
  - Cutthroat trout
  - Dolly Varden
  - Rockfish
  - Pacific herring
  - Pink salmon
- Birds
  - Common murre
  - Harlequin duck
  - Marbled murrelet
  - Pigeon guillemot
  - Bald eagle
  - Black oystercatcher
- Terrestrial Animals
  - River otter
- Intertidal Resources
  - Clams
  - Mussels
  - Intertidal organisms
  - Intertidal sediments
- Subtidal Resources
  - Subtidal organisms
  - Subtidal sediments
- Archeological Resources
- Designated Wilderness

Lost or Reduced Services

Commercial Fishing
Passive Uses
Recreation/Tourism
Subsistence

MANAGEMENT PROCESSES

Administration
Integrated Research
Information Management
Communications

	ECOSYSTEM		
RESOURCE	PELAGIC	INTERTIDAL	UPLAND
Harbor seal	X	X	
Sea otter		X	X
Killer whale	X		
Sockeye salmon	X	X	X
Cutthroat trout	X	X	X
Dolly Varden	X	X	X
Rockfish	X		
Pacific herring	X	X	
Pink salmon	X	X	X
Common murre	X		X
Harlequin duck		X	X
Marbled murrelet	X		X
Pigeon guillemot	X		X
Bald eagle		X	X
Black oystercatcher		X	X
River otter		X	X
Clams		X	
Mussels		X	
Intertidal organisms		X	X
Subtidal organisms	X		
Sediments	X	X	
Archeological Resources			X
Designated Wilderness			X

Pelagic Ecosystem

Sockeye salmon
Pink salmon
Cutthroat trout
Dolly varden
Pacific herring
Rockfish
Killer whale
Harbor seal
Subtidal organisms
Subtidal sediments
Common murre
Marbled murrelet
Pigeon guillemot

Intertidal Ecosystem

Sockeye salmon
Pink salmon
Cutthroat trout
Dolly varden
Pacific herring
Harbor seal
River otter
Sea otter
Clams
Mussels
Intertidal organisms
Intertidal sediments
Bald eagle
Harlequin duck
Black oystercatcher

Upland Ecosystem

Sockeye salmon
Pink salmon
Cutthroat trout
Dolly varden
Intertidal organisms
Sediments
River otter
Sea otter
Common murre
Harlequin duck
Marbled murrelet
Pigeon guillemot
Bald eagle
Black oystercatcher
Archeological resources
Designated wilderness

Pelagic

Goal: A pelagic ecosystem that supports healthy populations of resources and services injured by the spill.

1. Objective : A population level of **harbor seals** in the oiled area comparable to that which would have likely occurred in the absence of the spill.

Strategy: Determine the temporal and spatial distribution of forage fish in the feeding habitat.

2. Objective: Recovery of the injured AB **killer whale pod** to the 1988 level (of 36 individuals).

3. Objective: Populations of **Pacific Herring** that are healthy and productive and exist at prespill abundances. (One indication of recovery is when the age-class structure and the relative strength of the spawning run in Prince William Sound are comparable to those in Sitka Sound.)

Strategy: Determine the temporal and spatial distribution of forage fish in the feeding and fry rearing locations.

4. Objective: Populations of **Pink Salmon** that are healthy and productive and exist at prespill abundances. (An indication of recovery is when egg mortalities in oiled areas match prespill levels or levels in unoiled areas.)

Strategy: Determine the temporal and spatial distribution of forage fish in fry rearing locations.

5. Objective: Populations of **Rockfish** levels are unknown, but indications of recovery are when habitat use and physiological indices have returned to prespill conditions.

6. Objective: Populations **of Sockeye Salmon (Kenai River)** that are healthy and productive and exist at prespill levels. (One indication of recovery is when Kenai and Skilak Lakes support Sockeye smolt outmigrations comparable to prespill levels.)

7. Objective: A population of **Sockeye Salmon (Red Lake)** that is healthy, productive, and exist at prespill levels in Red Lake.

8. Objective: Prespill populations of **Common Murres** at all injured colonies.

Stragegy: Determine the temporal and spatial distribution of forage fish in the feeding habitat.

9. Objective: Population trends in **Marbled Murrelets** that are stable or increasing.

Strategy: Determine murrelet populations using boat surveys.
Strategy: Determine the temporal and spatial distribution of forage fish in the feeding habitat.

10. Objective: Population trends in **Pigeon Guillemots** that are stable or increasing.

Strategy: Determine the temporal and spatial distribution of forage fish in the feeding habitat.

Nearshore

Goal: A nearshore ecosystem that supports healthy populations of resources and services injured by the spill.

1. Objective: A population abundance and distribution of **sea otters** comparable to prespill abundance and distribution, and when all ages appear healthy.

2. Objective: Clam populations and productivity that are at prespill levels.

3. Objective: Mussel...

4. Objective: Bald Eagle population and productivity comparable to prespill levels.

5. Objective: For **Black Oystercatchers,** prespill population levels, and growth and production in oiled areas that are comparable to those in unoiled areas.

6. Objective: For **Harlequin Ducks,** prespill populations or when differences between oiled and unoiled areas are eliminated.

7. Objective: For **River Otters,** population levels are unknown but indications of recovery are when use and physiological indices have returned to prespill conditions.

8. Objective: For each **intertidal orgamisms** (lower, middle, and upper), community composition, population abundance of component species, and ecosystem functions and services at levels that would have prevailed in the absence of the oil spill.

9. Objective: Intertidal sediments...

10. Objective: For **Intertidal Organisms,** community composition, population abundance of component species, and ecosystem functions and services in each injured subtidal habitat that have returned to levels that would have prevailed in the absence of the oil spill.

11. Objective: Subtidal Sediments

12. Objective: Growth rates for Cutthroat Trout and Dolly Varden Trout within oiled areas that are comparable to those for unoiled areas.

Strategy: Determine the temporal and spatial distribution of forage fish in the feeding habitat.

Upland

Goal: A upland ecosystem that supports healthy populations of resources and services injured by the spill.

1. Objective: Growth rates for **Cutthroat Trout and Dolly Varden Trout** within oiled areas that are comparable to those for unoiled areas.

2. Objective: For **Archaeology,** an end to spill-related injury, and looting and vandalism that are at or below prespill levels.

3. Objective: Designated Wilderness Areas where oil is no longer encountered, and that the public perceives to be recovered from the spill.

4. Objective: Population trends in **Marbled Murrelets** that are stable or increasing.

Strategy: Protect marbled murrelet nesting habitat.