Draft *Exxon Valdez* Oil Spill Restoration Plan Summary of Alternatives for Public Comment

We need your help to determine how to restore the injuries from the *Exxon Valdez* Oil Spill. You can let us know your views by attending a public meeting in your community.

PUBLIC MEETINGS

WHERE	WHEN

If you cannot attend the public meetings, please send us your comments by August __, 1993 on the enclosed comment sheet. For additional copies of this brochure or for more information contact:

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Thank you,
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[Note to reviewers, Page 1 of the brochure begins here.]

How Should the Trustees Spend the *Exxon Valdez* Civil Settlement?

Your comments are Needed!

The purpose of this brochure is to give you the opportunity to express your opinion about the best use of the *Exxon Valdez* civil settlement funds. By going through this brochure and attending meetings you have a chance to tell us what you like and dislike about alternative ways to spend the money. You can also make recommendations about things we may have overlooked. If you cannot attend the meetings, please note your ideas on the enclosed response form and mail it back to us by August ___, 1993.

The U.S. National Environmental Policy Act requires that an Environmental Impact Statement be part of any significant federal action such as the program for restoring injuries caused by the oil spill. The Draft Environmental Impact Statement and the full text of the Draft Restoration Plan, however, will not be available until June. Because many people are unavailable during the summer, this summary is being released now to allow the public to give the Trustees their ideas. If you would like, you may wait to see the Draft Environmental Impact Statement and Draft Restoration Plan this June before you make your comments.

In addition to including information found here, the Draft Environmental Impact Statement will analyze the impacts of these alternatives on the physical, biological, social, and economic aspects of the environment. It will help the Trustees and the public understand the consequences of alternative methods of spending the civil settlement funds.

The information you provide will be used to prepare a final restoration plan that will be presented to the public this fall. The plan adopted by the Trustee Council may contain parts of several of the alternatives presented here plus new information provided by you.

DRAFT

What is the Restoration Plan?

The *Exxon Valdez* Restoration Plan will provide long-term guidance for the Trustee Council to use when allocating the civil settlement funds for restoring injuries caused by the oil spill. The Council will implement the plan through annual work plans. The annual work plan is a mix of restoration activities to be funded based on the policies and budget guidelines of the plan, future public comments and changing restoration needs. The plan may be changed by the Trustees in response to new information about the injuries and recovery, new technologies, or as social and economic conditions change.

The Trustee Council allocates funds from the civil settlement for activities to restore the oil spill injuries. The Trustee Council *does not* direct land uses on federal, state, or private lands and *does not* manage fish and wildlife resources. Land use and fish and game management decisions are made by the appropriate federal or state agencies. The Trustee Council may make recommendations to state and federal agencies, provide funds for state and federal management, or fund research to provide information to those agencies or other groups. The Trustee Council may also purchase private land or private property rights, but no purchases will be forced on an unwilling seller.

BACKGROUND

Shortly after midnight on March 24, 1989 the T/V *Exxon Valdez* ran aground on Bligh Reef in Prince William Sound spilling 11 million gallons of North Slope crude oil. This was the largest tanker oil spill in United States history. All through the Spring, the oil moved along the coastline of Alaska contaminating the shoreline of Prince William Sound, the Kenai Peninsula, lower Cook Inlet, the Kodiak Archipelago, and the Alaska Peninsula. Portions of 1,200 miles of coastline were oiled, including part of one National Forest, four National Wildlife Refuges, and three National Parks.[1] Oil eventually reached shorelines nearly 600 miles from Bligh Reef.

On October 8, 1991, an agreement was approved by the U.S. District Court that settled the claims of the United States and the State of Alaska against Exxon Corporation and Exxon Shipping Company for various criminal violations and for recovery of civil damages resulting from the oil spill.

As part of the criminal plea agreement, the court fined Exxon and Exxon Shipping $150 million -- the largest fine ever imposed for an environmental crime. Of this amount, $125 million was forgiven due to their cooperation with the governments during the cleanup, timely payment of many private claims, and environmental precautions taken since the oil spill. The remaining $25 million was paid into the North American Wetlands Conservation Fund, and into the Victims of Crime Act Account.

The Exxon companies also agreed to pay $100 million as restitution. Fifty million dollars were paid to the United States and $50 million to the State of Alaska. The state and federal governments separately manage the $50 million payment that each has received. These funds are not under the authority of the Trustee Council and are not considered by this plan. However they must be used exclusively for restoration activities, within the State of Alaska, relating to the *Exxon Valdez* oil spill.

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[1]. Two turtle doves, and a partridge in a pear tree.

Civil Settlement and Restoration Fund

In the civil settlement, the Exxon companies agreed to pay the United States and the State of Alaska up to $900 million over a period of 10 years. The use of the civil settlement funds are the subject of this plan.

Who can spend the civil settlement money? Decisions on spending the civil settlement funds are made by a council of six state and federal Trustees:

State of Alaska Trustees:

- Commissioner of the Department of Environmental Conservation;
- Commissioner of the Department of Fish and Game; and
- Alaska Attorney General.

Federal Trustees:

- Secretary of the U.S. Department of the Interior;
- Secretary of the U.S. Department of Agriculture; and
- Administrator of the National Oceanic and Atmospheric Administration, U.S. Department of Commerce.

The Federal Trustees have appointed representatives to the Trustee Council from local federal agencies.

What are the rules for spending the civil settlement money?

- All decisions made by the Trustee Council (such as spending settlement funds) must be made by unanimous consent.
- The Trustees must use the settlement funds "...for the purposes of restoring, replacing, enhancing, or acquiring the equivalent of **natural resources** injured as a result of the Oil Spill and the reduced or lost **services** provided by such resources..." (except for the reimbursement of certain expenses to the governments).
- The settlement funds must be spent on restoration of natural resources in Alaska unless the Trustees unanimously agree that spending funds outside of the state is necessary for effective restoration.

The settlement defines **natural resources** as the land, fish, wildlife, biota, air, water, ground water, drinking water supplies, and other such resources belonging to or managed by the state or federal governments. Examples of natural resources are birds, fish, mammals, subtidal plants and organisms, and archaeology.

In addition to restoring natural resources, the settlement requires restoration funds be used to restore reduced or lost **services** provided by injured natural resources. For example, subsistence, commercial fishing, and recreation including sport-fishing and sport-hunting, are services that were damaged by injuries to fish and wildlife. Other damaged services include commercial tourism, and the enjoyment that people receive from the undisturbed wild areas.

Funding

The civil settlement requires Exxon to deposit funds each year beginning December 1991 and ending September 2001. Of the $900 million in the settlement, approximately $610 million remains for restoration.

The restoration fund has so far received $240 million from Exxon in two deposits. Of that amount, $107.3 million was withdrawn to reimburse the federal and state governments for cleanup; $19.5 million was withdrawn for the 1992 work plan; $13.3 million for the 1993 work plan; $20 million for interim habitat purchases including $7.5 million for the purchase

of inholdings in Kachemak Bay State Park, and Exxon took a one-time $39.9 millions deduction for allowable cleanup expenses after January 1, 1991. In addition, further reimbursements to the governments for cleanup and litigation expenses are allowed by the settlement. These are estimated to be $90 million.

[Note to reviewers, the brochure map (the spill-area map) will go on this page.

[Note to reviewers, Page 3 of the Brochure begins here]

What Was Injured By the Spill and Is It Recovering?

The *Exxon Valdez* oil spill injured resources and services throughout the spill area. The oil spill occurred just before the most biologically active season of the year in Southcentral Alaska. During the four-month period after the oil spill, seaward migration of salmon fry, major migrations of birds, and the primary reproductive period for most species of bird, mammals, fish, and marine invertebrates took place. The organisms involved in these critical periods of their life cycle encountered the most concentrated, volatile and damaging forms of oil. The oil spill also directly impacted archaeological resources, subsistence, recreation, designated wilderness areas, and wilderness qualities, aesthetics, and other services. Oil affected each resource and service differently; these injuries are briefly described below.

The *Exxon Valdez* oil spill was only one factor that affected the health of several populations in the area. We do not know the cause of the long-term declines of marbled murrelets, pigeon guillemots or harbor seals.

For some resources, the oil spill caused a measurable decline in their population. For example, an estimated 8,000 to 12,000 marbled murrelets were killed during the oil spill. For other resources, the spill caused an injury to one life stage, but that injury did not measurably lower the overall population. An example of a sublethal effect is abnormal herring fry. This has not yet caused a measurable population decline.

MAMMALS

HARBOR SEALS: The oil spill caused population declines and sublethal injuries to harbor seals. Many were directly oiled and an estimated 345 died. Oil residues found in seal bile were 5 to 6 times higher in oiled areas than unoiled areas in 1990. The population was declining prior to the oil spill which makes it difficult to know the continuing effects. There is no indication of recovery.

KILLER WHALES: The oil spill caused sublethal injuries to at least one of the killer whale pods in Prince William Sound. Debate continues about whether the oil spill caused a population decline. Thirteen whales out of 36 in the AB pod are missing and presumed dead. Circumstantial evidence links whale disappearance to the oil spill. Additionally, several adult males have collapsed dorsal fins. Social disruption of family units has been observed. In the AB pod, no new births were recorded in 1989 or 1990; one birth was recorded in 1991; and two births were recorded in 1992. These births show that the AB pod is beginning to recover.

RIVER OTTERS: The oil spill caused at least sublethal injuries to river otters. However, the population is difficult to census and it is unknown if there were population declines. Sublethal indicators of possible oil exposure remained in 1991. River otters feed in the intertidal and shallow subtidal areas and may still be exposed to oil persisting in the environment.

SEA OTTERS: The oil spill caused population declines and sublethal injuries to sea otters. It is estimated that 3,500 to 5,000 otters died. Surveys in 1989, 1990 and 1991 showed measurable differences in population numbers and survival between oiled and unoiled areas. In 1992, lower juvenile survival rates and higher than normal numbers of dead prime age otters indicate that the populations in Prince William Sound continue to be stressed. Sea otters feed in the lower intertidal and subtidal areas and may still be exposed to oil persisting in the environment. Little or no evidence of recovery has been detected.

BIRDS

BALD EAGLES: The oil spill caused sublethal injuries and possibly population declines in bald eagles. In 1989, 151 carcasses were recovered from beaches. Productivity in Prince William Sound was disrupted in 1989, but returned to normal in 1990. Exposure to oil and some sublethal injuries were found in 1989 and 1990, but no continuing effects were observed on populations. Bald eagles are recovering and may have recovered, from effects due to the oil spill.

BLACK OYSTERCATCHERS: The oil spill caused population declines and sublethal injuries to black oystercatchers. In 1989, nine carcasses were recovered from beaches, but the actual number killed were many more. In 1989, smaller eggs were found in oiled areas. Black oystercatchers feed in the intertidal areas and may still be exposed to oil persisting in the environment. The population is recovering although evidence of sublethal injuries persisted in 1992.

COMMON MURRES: The oil spill caused population declines and sublethal injuries at murre colonies within the oil spill area. In 1989, 10,428 carcasses were recovered from beaches representing between 175,000 to 300,000 murres killed. Measurable impacts on populations were recorded in 1989, 1990 and 1991. Breeding was still inhibited in some colonies in the Gulf of Alaska in 1992. The degree of recovery varies between colonies, however some colonies show little evidence of recovery.

HARLEQUIN DUCKS: The oil spill caused population declines and sublethal injuries to harlequin ducks. In 1989, 213 carcasses were recovered from beaches which probably represents over 400 birds killed. Post-spill samples showed oil contamination and poor health in 1989 and 1990. In the three years since the oil spill, it appears that harlequin ducks still are not successfully breeding in oiled areas. Harlequin ducks feed in the intertidal and shallow subtidal areas and may still be exposed to oil persisting in the environment. Although the population continues to show evidence of sublethal injuries and is not yet showing signs of recovering, it is possible that the decline has stabilized.

MARBLED MURRELETS: The oil spill caused population declines, but it is unknown if there were sublethal injuries. In 1989, 612 carcasses were recovered from beaches. It is estimated that 8,000 to 12,000 birds died. Measurable population effects were recorded in 1989, 1990 and 1991. Marbled murrelet populations were declining prior to the oil spill. In 1989, oil contamination was found in livers of adult birds. Although the recovery status in 1992 was uncertain and no signs of an increasing population have been observed, it is possible that the decline has stabilized.

PIGEON GUILLEMOTS: The oil spill caused population declines to pigeon guillemots. In 1989, 614 carcasses were recovered from beaches representing from 1,500 to 3,000 birds killed. Pigeon guillemot populations were declining prior to the spill. In 1989, oil contamination was found in birds and, externally, on eggs. The recovery status in 1992 is uncertain with no evidence of an increase in the population.

FISH

CUTTHROAT AND DOLLY VARDEN TROUT: The oil spill caused sublethal injuries and possibly population declines for these two species. Differences in the survival and growth between anadromous adult populations in the oiled and unoiled areas persisted from 1989 to 1991 despite less indications of oil exposure. This was possibly due to continuing injury to the food base, however, scientists disagree as to whether these differences in survival and growth existed before the spill. It is unknown whether these species are recovering.

PACIFIC HERRING: The oil spill caused sublethal injuries to Pacific herring. It is unknown whether this will result in a population decline. Measurable differences in egg counts between oiled and unoiled areas were found in 1989 and 1990. Lethal and sublethal effects on eggs and larvae were evident in 1989 and, to a lesser extent, in 1990. In 1991 there were no differences between oiled and unoiled areas. It is possible that the 1989 year class was injured which could result in reduced recruitment to the adult population. If so, an adult population decline will not become apparent until 1993. Overall recovery status is unknown.

PINK SALMON: The oil spill caused sublethal injuries to wild stock populations, and there is debate on whether the wild stock population has declined. Abnormal fry were observed in 1989 and egg mortality continued to be higher than expected in 1990 and 1991. The debate about population declines focuses on the whether the observed injuries necessarily result in reduced adult returns. Reduced growth of juveniles was found in 1989 and 1991, which correlates with reduced survival. In 1992, there was continued evidence of sublethal injuries. Overall recovery status is unknown.

ROCKFISH: The oil spill caused at least sublethal injuries, however, it is unknown whether or not population declines also occurred. Twenty dead fish were found in 1989, but only a few were in condition to be analyzed. Those showed exposure to oil with some sublethal injuries. Closures to salmon fisheries increased the fishing pressure on rockfish and the increasing catch may be impacting the population. It is unknown if the population has recovered from sublethal injuries, or the from any population decline.

SOCKEYE SALMON: Kenai River and Red Lake sockeye salmon stocks both suffered population declines as well as sublethal injuries. Smolt survival continues to be poor in both systems due to overescapements that occurred at Red Lake in 1989 and in the Kenai system in 1987, 1988, and 1989. As a result, adult returns are expected to be low in 1994 and successive years. Overall recovery status is unknown.

COASTAL HABITAT

COASTAL HABITAT - INTERTIDAL ZONE: The oil spill caused population declines and sublethal injuries to the populations of plants and animals that live in the area between low and high tide. The lower intertidal and, to some extent, the mid intertidal zones are recovering. However, in the upper intertidal zone, some species have not recovered, and oil persists in and under mussel beds. Intertidal organisms were impacted by both oiling and clean-up, particularly the high pressure hot water washing. Recovery varies by species largely based on their position within the intertidal zone.

COASTAL HABITAT - SUBTIDAL ZONE: The oil spill caused population declines and sublethal injuries to the populations of plants and animals found below low tide. Eel grass and some species of algae appear to be recovering. Amphipods in eel grass beds recovered to pre-spill densities in 1991. Leather stars and helmet crabs showed little sign of recovery through 1991. Overall recovery is variable by species.

ARCHAEOLOGY

ARCHAEOLOGY: Twenty-four archaeological sites are known to have been adversely affected by oiling, clean-up activities, or looting and vandalism linked to the oil spill. An additional 113 sites are estimated to have been similarly affected. Injuries attributed to increased looting and vandalism which have been linked to the oil spill are still occurring. Archaeological sites and artifacts cannot recover, they are finite non-renewable resources.

DESIGNATED WILDERNESS AREAS: Hundreds of miles of wilderness coastlines were affected by oil. Some oil remains embedded in the sediments of these areas.

SERVICES

RECREATION AND COMMERCIAL TOURISM: The nature and extent of injury varied by user group and by areas of use. About one quarter of survey respondents reported no change in their recreation experience, but others reported avoiding the spill area, reduced wildlife sightings, residual oil and more people. They also reported changes in their perception of recreation opportunities in terms of increased vulnerability to future oil spills, erosion of wilderness, a sense of permanent change, concern about long-term ecological effects and, in some, a sense of optimism. There are indications that declines in recreation activities reported in 1989 appear to have reversed in 1990, but there is no evidence that they have achieved pre-spill values.

RECREATION: SPORT FISHING AND HUNTING: Between 1989 and 1990, a decline in sport fishing effort (number of anglers, fishing trips and fishing days) was recorded for Prince William Sound, Cook Inlet and the Kenai Peninsula. In 1992, an emergency order restricting cutthroat trout fishing was issued for western Prince William Sound due to low adult returns. The closure is expected to continue at least through 1993. Sport hunting of harlequin ducks was reduced by restrictions imposed in 1991 and 1992 in response to damage assessment studies. It is likely that these restrictions will continue until the species shows signs of recovery.

PASSIVE USE: In 1991, over 90% of those surveyed nation-wide were aware of the oil spill. Over 50% believed that the oil spill was the largest environmental accident caused by humans anywhere in the world. There was also a perception that the values of wild areas has diminished. Although some people's feelings of lost values are diminishing as they sense some recovery is occurring, others' feelings have not changed as they do not believe recovery is occurring. Until oil is completely removed or degrades naturally, injury to wilderness values will continue.

SUBSISTENCE: Subsistence harvests of fish and wildlife in 9 of 15 villages surveyed declined from 4 to 78 percent in 1989 when compared to pre-spill averages. Seven of the 15 villages show continued decline in use in 1990 and 1991. This decline was particularly noticeable in the Prince William Sound villages of Chenega and Tatitlek. In 1989, chemical analysis indicated that most resources tested, including fish, marine mammals, deer, and ducks, were safe to eat, but that shellfish from oiled beaches should not be eaten. However, villagers believe that contamination to subsistence food sources continue to be dangerous to their health and some subsistence species continue to decline.

COMMERCIAL FISHING: During 1989, emergency commercial fishery closures were ordered throughout the spill area. This affected salmon, herring, crab shrimp, rockfish and sablefish. The 1989 closures resulted in sockeye over-escapement in the Kenai River and in the Red Lake system (Kodiak Island). In 1990, a portion of Prince William Sound was closed to shrimp fishing. Spill-related sockeye over-escapement is anticipated to result in low adult returns in 1994 and 1995. These over-escapements may result in closure or harvest restrictions during these and, perhaps, subsequent years. Injuries and recovery status of rockfish, pink salmon, shellfish and herring are uncertain.

[Note to reviewers, this begins pages 4 and 5 of the brochure]

What are the Alternatives?

Five alternatives have been developed for your review. Each alternative presents a different way of approaching restoration. Each uses different policies and emphasizes different categories of restoration activities to restore injuries caused by the spill. This and the next page summarize the policy questions and categories of restoration activities. The following two pages present the five alternatives.

Alternative 1, Natural Recovery, will allow the spill-affected area recover on its own, but monitor its recovery and continue normal agency management. **Alternative 2, Habitat Protection,** will protect injured resources and services by protecting their habitat so they can recover on their own without further disruption. **Alternatives 3 through 5, Limited Restoration, Moderate Restoration, and Comprehensive Restoration,** present a progression of restoration activities, with each successive alternative increasing the scope of activities.

Issues and Policy Questions

The planning process raised five significant issues. Table ___ presents these issues as questions. Different answers to these questions will influence which restoration activities are conducted.

ISSUE	POLICY QUESTION
Injuries Addressed	Should restoration actions address ALL injured resources or only those which had a measurable population decline because of the spill?
Status of Resource Recovery	Should restoration actions cease when a resource has recovered?
Effectiveness of Restoration Actions	Should the plan include only those restoration actions that produce substantial improvement over unaided recovery or also those that produce at least some improvement?
Location	Should restoration activities take place in the spill area only or anywhere in Alaska provided there is a link to injured resources or services?
Strategies for Human Use	To what extent should restoration actions be used to increase opportunities for human use?

Injuries Addressed: *Should restoration actions address ALL injured resources or only those which had a measurable population decline because of the oil spill?*

Resources and services injured by the oil spill are in Table ___. Injuries to resources produced either a decline in population or a sublethal effect. An example of population decline is the loss of 35-70% of the breeding common murres in the Gulf of Alaska and resulting decline in future generations. An example of sublethal injuries is abnormalities in larvae. Sublethal injuries may not result in a lower population because they may not affect the productivity of the species or the species may be able to compensate for the injury. However, there also may

be enough variability in the natural abundance of the species to mask effects of the injuries, or scientific measurement techniques may not be sensitive enough to measure a small effect on the population.

Alternative 3 reflects the view that if an injury was not severe enough to produce a detectable change in population, then settlement funds should not be spent to restore it. Rather, funds should be concentrated on the worst-injured resources. All other alternatives reflect the view that even sublethal injuries could become serious over time and, if something can be done to redress the injury, it should be done before more serious effects show themselves.

RESOURCES			SERVICES
Population Decline	Sublethal	Other	
Black oystercatcher Common murre Harbor seal Harlequin duck Intertidal organisms Marbled murrelet Pigeon guillemot Sea otter Sockeye salmon Subtidal organisms	Bald eagle * Cutthroat trout * Dolly Varden * Killer whale Pacific herring * Pink salmon River otter Rockfish	Archaeology Designated wilderness areas	Commercial fishing Passive use Recreation and commercial tourism Recreation - sport fishing Recreation - sport hunting Subsistence

* For these species, the Trustees' scientists have considerable disagreement over the conclusions to be drawn from the results of the damage assessment studies.

Status of Resource Recovery: *Should restoration actions cease when a resource has recovered?*

No resources have recovered from population decline. However, some sublethal injuries have recovered. As resources recover, this issue will become more important. Table _____ on page ____ shows current expectations about when many resources may recover. The table is based on the best available information from agency and peer reviewer scientists. These estimates will certainly change as recovery continues, monitoring uncovers more information, and scientists learn more about each species.

Alternatives 2 and 3 reflect the view that the goal of the settlement is to restore injured resources and services and that restoration activities should cease once the resource or service has recovered. Alternatives 4 and 5 reflect the view that certain actions, especially protection and enhancement, should continue even after resources have recovered to offset other adverse effects and improve the condition of injured resources and services.

Effectiveness of Restoration Actions: *Should the plan include only those restoration actions that produce **substantial** improvement over natural recovery or also include those that produce at least **some** improvement?*

Many restoration actions were suggested by scientists, agencies, and the public. They were

evaluated to determine how much of an improvement they would produce over unaided recovery.

Alternatives 3 and 4 reflect the view that unless a restoration action is likely to produce **substantial** improvement, it should not be funded. Alternatives 2 and 5 reflect the view that the Trustees should fund all restoration activities that offer at least **some** promise of helping injured resources and services; the cumulative effect of many such activities may result in a more meaningful and substantial improvement.

Location: *Should restoration activities take place in the oil spill area only or anywhere in Alaska provided there is a link to injured resources or services?*

The map of the oil spill area is on page ____. The oil spill area includes the maximum extent that oil reached along the shoreline of Alaska. It also includes the adjacent land up to the watershed divide, and the area of immediate human use for communities severely affected by the spill. Alternatives 2 and 3 reflect the view that restoration activities should be limited to the spill area to focus them on the populations and services directly affected. Alternatives 4 and 5 include restoration activities within Alaska because some projects outside the spill area may be far more effective than those possible within the spill area. For example, increasing common murre populations in the Pribilof Islands, outside the spill area, may do more to increase the numbers of that species in Alaska than would comparable projects within the spill area.

Strategies for Human Use: *To what extent should restoration actions be used to increase opportunities for human use?*

Many of the restoration options for recreation or fishing would increase human use of the spill area. However, too much additional use could be detrimental to recovery of injured resources and services. Three different strategies for human use are reflected in alternatives 3, 4 and 5, only. Alternative 3 emphasizes restoration activities that would **protect existing uses** such as constructing outhouses in over-used areas, or improved trails where hiking is damaging wetlands, or providing information about the safety of subsistence foods. Alternative 4 emphasizes restoration activities that would **increase existing uses** such as increasing opportunities for fish harvest above prespill levels or constructing a new public-use cabin. Alternative 5 emphasizes restoration activities that would **encourage appropriate new uses** such as providing new visitor centers or attracting new commercial facilities on public land. Restoration activities would comply with existing land-use plans, and agency procedures such as those requiring public notice.

What Are the Categories of the Restoration Plan?

The alternatives emphasize different categories of restoration activities. This section describes the activities that fall within each category. Not all categories are included in every alternative.

HABITAT PROTECTION.

Habitat protection and acquisition on private land. Sometimes even careful resource development such as timber harvest or subdivisions can adversely affect resources or services injured by the spill. The Trustee Council may purchase private land or partial interests such as conservation easements, mineral, or timber rights as a method of restoration. The Council's recent action to allocate funds to purchase inholdings in Kachemak Bay State Park is an example of habitat protection and acquisition on private land.

Since there will not be enough money in any alternative to buy or protect all habitat important to recovery, it is necessary to prioritize available land through a ranking process. The criteria for this ranking are currently being developed. Some of the most important criteria are the degree of importance of the land to injured resources or services and the number of resources or services which rely on a given parcel. Land which is highly important to many species and services will generally receive top priority.

The following injured resources and services might benefit from the purchase of private land or property rights: salmon and trout, bald eagle, black oystercatcher, common murre, harbor seal, harlequin duck, marbled murrelet, pigeon guillemot, river otter, sea otter, areas adjacent to particularly productive intertidal areas, recreation and commercial tourism, archaeology, and important subsistence harvest areas. Alternative #3 would target purchases for services and for those resources whose populations declined because of the spill. Alternatives 2, 4, and 5 would target habitat acquisition for the all injured resources and services.

There is not enough money in the entire civil settlement to purchase all lands important to injured resources and services. The cost per acre will vary depending on the land, and the private rights that are purchased. For example, valuable timber land will be more expensive than similar land without marketable timber. Also, purchase of partial interests such as easements or mineral rights will be somewhat less expensive and may increase the number of acres that can be protected. In each alternative, there is an estimate of the acreage that might be purchased under that alternative.

Habitat protection on public land. Federal and state agencies manage the public land and water. Protective changes in their management practices may benefit injured resources and services. Examples of these changes include amending agency management plans, changing regulations, and designating public land and water as special areas. Examples of special areas include scientific research reserves, recreation areas, parks, critical habitat areas, and marine sanctuaries. Any of these management changes would have to be approved and implemented by the appropriate state or federal agency, or in some cases by the Alaska State Legislature or the U.S. Congress. Since land and water management actions could extend to any public upland, intertidal area, and marine waters, the actions could potentially benefit most injured resources and services. At this time the Trustee Council has no specific proposals for revising land-use management practices or creating special designations.

GENERAL RESTORATION. Since 1989, agencies and the public have proposed hundreds of ideas for restoration. Some ideas help restore injuries by directly manipulating resources. Examples are building fish passes or public-use cabins, testing subsistence foods for continuing oil contamination, or seeding the intertidal areas. Other ideas focus on managing human use to aid restoration. Examples are redirecting hunting and fishing harvest, or reducing human disturbance around sensitive bird colonies. General Restoration does not include habitat protection or oil spill preparedness activities. In each alternative, enough money is allocated for General Restoration to fund all activities that have been identified and that meet the policies of that alternative. In addition, each alternative allocates enough additional funds to General Restoration to provide a reserve for General Restoration activities that may be identified in the future.

SPILL PREVENTION AND RESPONSE. Varying levels of spill prevention and response are also part of several alternatives. These activities would reduce stress on recovering resources and services by improving and protecting water quality. Components of prevention and response include:

Research and development on developing technologies, such as in-situ burning and spill tracking systems, can assist in spill prevention and response.

Equipment, such as telecommunications and weather information systems, could be installed or updated in order to gather and transmit response and prevention information quickly. Funding spill response depots and volunteer response corps would improve cleanup capabilities.

Chronic marine pollution sources can be reduced by building oily waste disposal sites in port communities to deter marine disposal of oily wastes by small boats, cruise ships and ferries.

MONITORING AND RESEARCH PROGRAM. The monitoring and research program could include one or more of the following, although the number of components will vary between alternatives.

Recovery Monitoring would assess the rate of recovery of injured resources and services, and determine when recovery has occurred.

Restoration Monitoring would evaluate the effectiveness of specific restoration activities, identify where additional restoration activities may be appropriate, and determine when delayed injury occurs.

Ecosystem Monitoring would follow long-term trends in the distribution and abundance of injured resources and the quality and quantity of services. Monitoring could also detect residual spill effects and provide ecological baseline information to assess the impacts of future oil spills and other disturbances.

Restoration Research would focus on the design, development and implementation of new technologies and approaches to restore resources not recovering or recovering at unacceptable rates.

ENDOWMENTS. An endowment is not a restoration activity. It is a method of funding restoration. The Exxon Corporation has been depositing funds into the restoration fund since

1991 and will continue to do so until 2001. The Trustees could spend the entire settlement during that time or they could save some for future use. An endowment is a savings program to fund restoration after Exxon deposits end. It would use part of the settlement funds to create a savings account. The savings account could fund a low but constant level of restoration activities indefinitely. An endowment could be used to fund some or all restoration activities. Habitat acquisition, however, does not lend itself to an endowment. Purchase of land or other private property rights are usually made all at once.

The size of an endowment determines the amount of interest it earns and the number of restoration activities it can fund. If approximately 20% of the remaining settlement funds were placed into an endowment and the principal inflation-proofed, the endowment could fund at least $3 million worth of restoration activities indefinitely, and possibly somewhat more depending on assumptions about future interest rates. This amount is enough to continue the Trustee Council's monitoring program at a minimum level, and provide some funds for other monitoring components. If twice that amount were placed into the endowment, the additional funds could be used for fund general restoration, basic research, or spill prevention.

ADMINISTRATION AND PUBLIC INFORMATION. Funding is required to manage the restoration program. Providing the public with information about recovery and restoration will also consume a portion of the settlement monies. As the number of restoration projects increase and the complexity of management duties grow, the percentage of funds in each alternative that is proposed for these expenses also rises.

[Note to reviewers, this begins page 6]

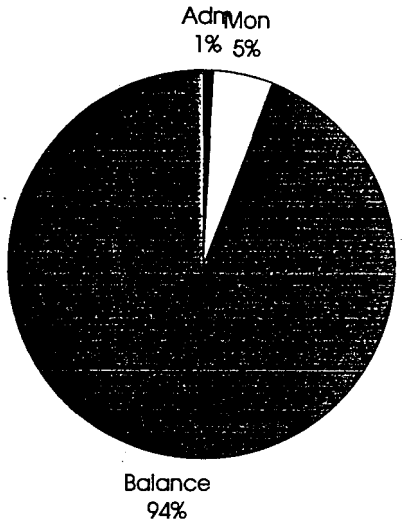
DESCRIPTION OF ALTERNATIVES

ALTERNATIVE 1 - NATURAL RECOVERY

No action other than monitoring and normal agency management.	
ISSUES	**POLICIES**
Injuries Addressed	Monitor all injured resources and services
Status of Resource Recovery	Monitor resources not recovered.
Effectiveness of Restoration Actions	Not applicable
Location	Monitor within the spill area.
Strategies for Human Use	Not applicable.

What would happen to resources and services injured by the oil spill if no restoration actions were taken other than monitoring? Table ____ describes expected times for natural recovery of injured resources and services, if expected patterns of use continue. They range from a few years to 120 years and are unknown for five resources. Archaeological resources and wilderness are not expected to recover. Monitoring of natural recovery is the only restoration action in this alternative. This alternative is the no-action alternative in the draft Environmental Impact Statement that will be released in June.

Alternative 1 - Allocation



Cost allocations are presented for illustration only .

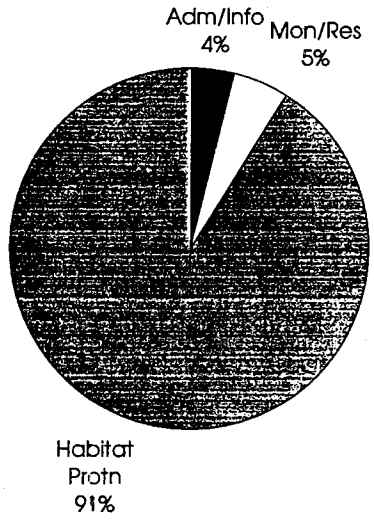
Allocations are expressed as percent of remainder of civil settlement.

ALTERNATIVE 2 - HABITAT PROTECTION

Protect injured resources and services within the spill area from further degradation or disturbance.	
ISSUES	**POLICIES**
Injuries Addressed	All injured resources and services
Status of Resource Recovery	Resources not recovered and resources recovered
Effectiveness of Restoration Actions	Provide some improvement over unaided recovery
Location	Activities within the spill area
Strategies for Human Use	Protect or increase existing use through habitat protection

The goal of this alternative is to protect strategic lands and habitats important to the long-term recovery of resources and services injured by the Exxon Valdez oil spill. In this alternative, 91% of the remaining settlement funds would be dedicated to habitat protection. Monitoring and Habitat Protection are the only restoration actions included in this alternative. Habitat Protection includes the acquisition of private land interests or changes in public land management. Monitoring will evaluate the effectiveness of habitat protection measures undertaken and follow the progress of natural recovery. These activities would be limited to the spill area.

Alternative 2 - Allocation



Cost allocations are presented for illustration only .

Allocations are expressed as percent of remainder of civil settlement.

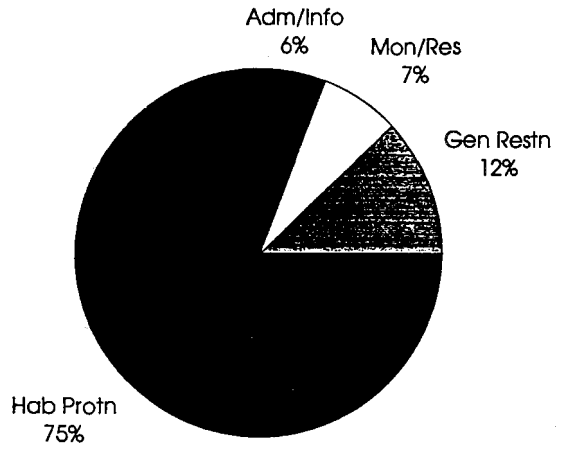
ALTERNATIVE 3 - LIMITED RESTORATION

Take the most effective actions within the spill area to protect and restore injured services and resources whose population has declined. Maintain the existing character of the affected area.	
ISSUES	**POLICIES**
Injuries Addressed	Injured services and resources whose populations declined
Status of Resource Recovery	Resources not recovered
Effectiveness of Restoration Actions	Provide substantial improvement over unaided recovery
Location	Activities within the spill area.
Strategies for Human Use	Protect existing use

The goal of this alternative is to help the worst-injured resources and services recover as efficiently as possible. As its name implies, this alternative is limited in that it addresses only the most severe injuries until the resource or service recovers, includes actions most likely to produce significant improvement over unaided recovery, is limited to the spill area, and does not fund activities that would substantially increase human use of the spill area. Only a few restoration activities meet these standards.

This alternative sets aside 75% of the remaining settlement funds for habitat protection. Of the General Restoration options that have been evaluated, only 21 meet the criteria of this alternative (See page ____). Spill Prevention and Response is not included. Monitoring would evaluate the effectiveness of restoration actions and follow the progress of natural recovery.

Alternative 3 - Allocation



Cost allocations are presented for illustration only .

Allocations are expressed as percent of remainder of civil settlement.

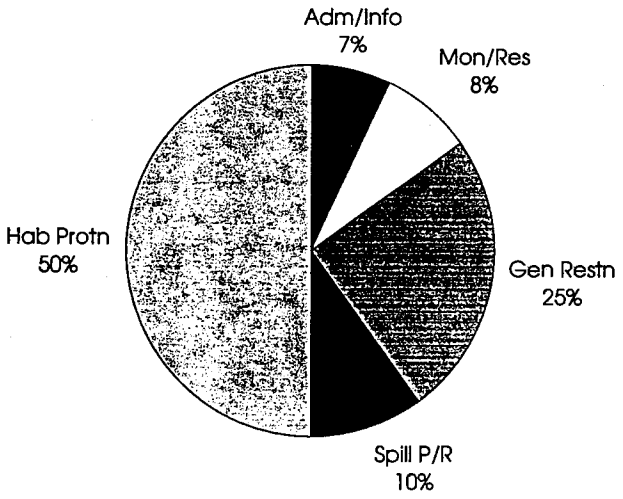
ALTERNATIVE 4 - MODERATE RESTORATION

Take the most effective actions within Alaska to protect and restore all injured resources and services. Increase, to a limited extent, opportunities for human use in the affected area.	
ISSUES	**POLICIES**
Injuries Addressed	All injured resources and services
Status of Resource Recovery	Resources not recovered
Effectiveness of Restoration Actions	Provide substantial improvement over unaided recovery
Location	Activities within Alaska
Strategies for Human Use	Protect or increase existing use

The goal of this alternative is to help all injured resources and services recover as efficiently as possible. It is similar to Alternative 3 in limiting restoration actions to resources not yet recovered and setting the same high standard of effectiveness. It differs from Alternative 3 in addressing additional species injured at a sublethal level, including activities within Alaska but outside the spill area, and increasing opportunities for human use of the area to a limited extent.

This alternative sets aside 50% of the remaining settlement funds for habitat protection. Of the General Restoration options that have been evaluated, 31 meet the criteria for this alternative. Spill Prevention and Response includes research and development to improve spill technology and equipment such as telecommunications and weather information systems. The Monitoring Program includes ecosystem monitoring and restoration research in addition to evaluating the effectiveness of restoration actions and following the progress of natural recovery.

Alternative 4 - Allocation



Cost allocations are presented for illustration only .

Allocations are expressed as percent of remainder of civil settlement.

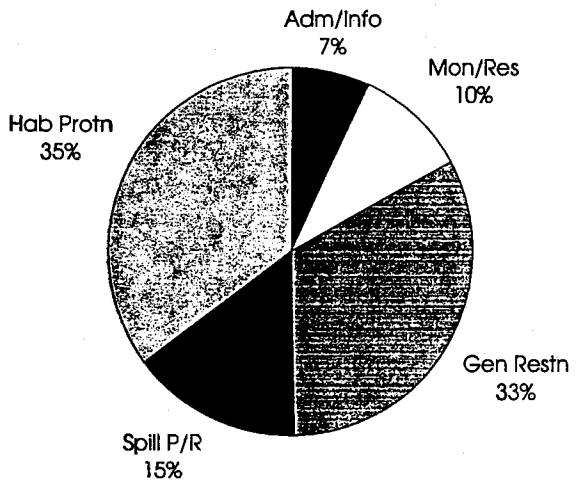
ALTERNATIVE 5 - COMPREHENSIVE RESTORATION

Take all effective actions within Alaska to protect, restore, and enhance all injured resources and services. Increase opportunities for human use in the affected area.	
ISSUES	**POLICIES**
Injuries Addressed	All injured resources and services
Status of Resource Recovery	Resources not recovered and resources recovered
Effectiveness of Restoration Actions	Provide some improvement over unaided recovery
Location	Activities within Alaska
Strategies for Human Use	Protect or increase existing use or encourage appropriate new use

The goal of this alternative is to help all injured resources and services return to or exceed prespill levels. It is similar to Alternative 4 in addressing all injured resources and services and including activities within Alaska but outside the spill area. It is more expansive than Alternative 4 in including restoration actions for resources whether or not they have recovered, including any action likely to produce at least some improvement over unaided recovery, and encouraging appropriate new human uses.

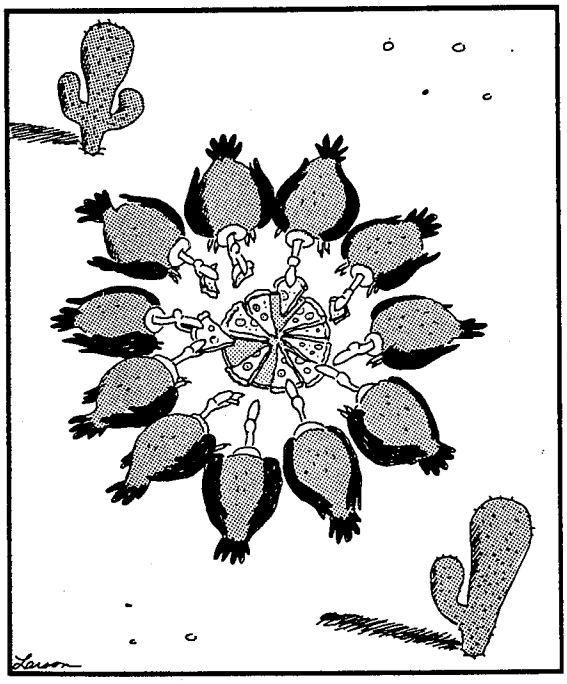
This alternative sets aside 35% of the remaining settlement funds for habitat protection. Of the General Restoration options that have been evaluated, 47 meet the standards of this alternative. Spill Prevention and Response would address chronic sources of pollution as well as research and development to improve spill technology and equipment such as telecommunications and weather information systems. The Monitoring Program includes ecosystem monitoring, restoration research, restoration monitoring, and natural recovery monitoring

Alternative 5 - Allocation



Cost allocations are presented for illustration only .

Allocations are expressed as percent of remainder of civil settlement.



Perspectives in nature we rarely enjoy

[Note to reviewers, Page 7 of the brochure begins here.]

COMPARISON OF ALTERNATIVES

This table shows the resources and services included in each alternative. It also presents current expectations about when resources will recover. For some species, there is substantial disagreement on the exact mechanism of the injury and how long it will take to recover. For many species much is unknown about when and how recovery will take place. These estimates will certainly change as recovery continues, monitoring uncovers more information and scientists learn more about each species.

Resource/Service	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Expected Natural Recovery (Yrs. from 1989)	Comments
Black oystercatcher						Less than 30 years	Recovering.
Common murres						Less than 120 years	Recovery varies by colony.
Harbor seals						Unknown	In decline before spill. Population may have stabilized.
Harlequin ducks						Less than 50 years (maybe)	Still no reproduction within spill area.
Intertidal organisms						Less than 25 years	Recovering in most places.
Marbled murrelet						Less than 50 years to stabilize the population	In decline before spill. May be still declining; may be stable.
Pigeon guillemots						Less than 50 years to stabilize the population	In decline before spill. Probably still declining.
Sea otters						Less than 50 years	Population stable, but not recovering.
Sockeye salmon						Less than 50 years	Not yet recovering in Kenai River.
Subtidal organisms						Less than 10 years (most places)	Recovering in most places.
Bald eagles						Less than 6 years	Back to pre-spill population by 1993-1995.
Cutthroat trout						Less than 20 years	
Dolly Varden						Less than 20 years	
Killer whales						Less than 20 years	Recovering.
Pacific herring						Unknown	Population decline may be documented after 1993.
Pink salmon						Unknown	
River otters						Unknown	
Rockfish						Unknown	
Archaeology						Will not recover	
Commercial Fishing						Recovery differs by species.	Currently no closures, although some may be implemented to help populations recover.
Recreation						Recovering slowly	
Recreation - Sport Fishing						Recovery differs by species.	Closures may continue until populations recover.

Subsistence						Recovering	Harvest continues to be below pre-spill levels.
Designated Wilderness Areas						Dependant on rate that persistent oil is degrading.	

The table below compares spending guidelines and restoration activities within the five alternatives. The spending for each restoration category gives a sense of the emphasis of the restoration program envisioned by each alternative. They are guidelines and not fixed allocations.

ALLOCATION	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Administration and Public Information	1%	4%	6%	7%	7%
Monitoring and Research	5%	5%	7%	8%	10%
• Recovery Monitoring					
• Restoration Monitoring					
• Ecosystem Monitoring					
• Restoration Research					
General Restoration			12%	25%	33%
(For examples of general restoration activities within each alternative see page __.)					
Habitat Protection		91%	75%	50%	35%
Spill Prevention and Response				10%	15%
• Research and Development					
• Equipment					
• Chronic Marine Pollution					
Balance	94%				

Allocation expressed as percent of the remainder of the civil settlement.

In general, how does each alternative benefit recovery?

Alternative 1 would produce no improvement over natural recovery. Natural recovery means that no restoration activities will be undertaken.

Alternative 2 would improve natural recovery by preventing some habitat disturbances that might otherwise occur. Benefits accrue to resources and services linked to upland habitat.

Alternative 3 has the greatest potential to improve recovery of the worst injured resources within the spill area . However, it makes no provision for future oil spills and for sublethal injuries unless there is a measurable population decline. It also funds activities that protect existing human use.

In addition, to the benefits in alternative 3, **alternative 4** addresses potential problems before they occur. It addresses sublethal effects before they produce population decline; prepares for future oil spills through ecosystem monitoring, research and spill prevention and response activities; and reaches outside the spill are if necessary to find better restoration opportunities. It also funds activities that increase human use. These assurances are provided at some expense to habitat protection.

In addition to the benefits in alternative 4, **alternative 5** would enhance recovery of some resources and services beyond prespill levels though actions such as fisheries enhancement or addressing chronic marine sources of oil pollution. Enhancement benefits some resources and services more than others. This alternative allocates the least amount of money to habitat protection.

Endowment. Whether or not funds are placed into an endowment is a decision about the timing of when restoration activities should occur. The alternatives compared above assume that the funds are spent within ten years. Twenty percent of the remaining restoration funds could be placed into a savings account. If so, fewer restoration activities could be accomplished with ten years, but the annual interest from the account could fund recovery monitoring and possibly a few other restoration activities indefinitely. It is also possible to place 40% of the funds into a savings account and use the annual interest to fund a larger amount of restoration activities indefinitely.

[Note to reviewers, Page 8 of the brochure begins here.]

General Restoration

The General Restoration category of alternatives 3 through 5 includes various restoration actions which have been suggested throughout the planning process. The suggestions were evaluated by scientists and peer reviewers. Those that were determined to be effective have been combined into general options and are listed below. Those general options may include a number of specific projects. The option evaluation considered: how recovery was aided and whether further potential injury could be prevented. Other considerations included negative effects, how many species benefit, human health and safety, and cost effectiveness. No options were identified for restoring subtidal resources, air, water, sediment or designated wilderness areas. The list on this page provides examples of restoration options that passed the evaluation process. New options will continue to be evaluated as the restoration plan is implemented.

The amount of funding allocated to general restoration in all alternatives includes substantially more than the amount needed to fund all the options identified in this list.

Many options would have wide-ranging impacts throughout the spill area. Most options that help resources also help the services that are dependent upon them. An option targeted to improve the recovery of a single resource may greatly benefit other resources that occur in the same area.

This is especially true of the activities that protect marine, coastal and upland habitats. In additions, options that benefit the foundation of a food web, such as marine invertebrates, would ultimately benefit top predators such as whales and eagles.

* The asterisk in the table denotes those options which may produce **substantial** improvement in the recovery of a biological resource. Those without an "*" may produce at least **some** improvement in recovery.

	MAMMALS Alternatives	3	4	5
	HARBOR SEAL: Determine the effects of disturbance on harbor seals and implement actions to reduce adverse effects.			x
*	Implement cooperative programs between fishermen and agencies to provide voluntary methods to reduce incidental take of harbor seals during fishing.	x	x	x
*	Implement cooperative programs between subsistence users and agencies to assess the effects of subsistence harvest.	x	x	x
*	**KILLER WHALE:** Determine techniques for changing black cod fishery gear to avoid conflicts with fishermen and implement actions to remove adverse effects.		x	x

* **SEA OTTER:** Determine the effects of disturbance of upland activities on sea otters and implement actions to reduce adverse effects. This would have benefits in local areas only.	x	x	x
* Determine if eliminating oil from mussel beds removes a potential source of continuing contamination to sea otter food and take appropriate action. This would have benefits in local areas only.	x	x	x
* Implement cooperative programs between subsistence users and agencies to assess the effects of subsistence harvest.	x	x	x
RIVER OTTER: Develop sport and trapping harvest guidelines to aid in the recovery of injured populations.			x

FISH Alternatives	3	4	5
* **SOCKEYE SALMON:** Intensify management of sockeye salmon on the Kenai River and Red Lake to reduce the risk of overescapement.	x	x	x
Improve access to salmon streams by building fish passes to increase the area where salmon can successfully spawn and rear. This would have benefits in local areas only.			x
Fertilize Coghill Lake in PWS to improve sockeye rearing success within the lake and increase sockeye population in PWS.		x	x
* Improve survival rates of salmon eggs to fry by using egg boxes, net pens or hatchery rearing.	x	x	x
* **PINK SALMON:** Intensify management by incorporating coded-wire tagging and stock separation to ensure and accelerate the recovery of the wild stock.		x	x
Construct salmon spawning channels and other instream improvements to increase spawning production and provide long-term enhancement. This would have benefits in local areas only.			x
Improve access to salmon streams by building fish passes to increase the area where salmon can successfully spawn and rear. This would have benefits in local areas only.			x
* Relocate hatchery runs of pink salmon to reduce the interception rate of wild stocks of pink salmon.		x	x
Improve survival rates of salmon eggs to fry by using egg boxes, net pens, or hatchery rearing. This would have benefits in local areas only.			x
Update the Alaska Anadromous Streams Catalog to ensure that the necessary protection and regulation is provided for all listed salmon streams in the spill area.			x
* **CUTTHROAT TROUT:** Intensify management of cutthroat trout and its dependent sport fishery by determining local distribution, abundance, and productivity.		x	x
Update the Alaska Anadromous Streams Catalogue to ensure necessary protection and regulation for all listed anadromous streams in the spill area.			x
* **DOLLY VARDEN:** Intensify management of Dolly Varden and its dependent sport fishery by determining local distribution, abundance and productivity.		x	x

	3	4	5
* **PACIFIC HERRING:** Intensify management to improve recovery by allowing increased precision in stock assessment and manipulation of harvest levels.		x	x
* **ROCKFISH:** Intensify management of the rockfish fishery to modify the harvest to compensate for injury from the spill.		x	x
BIRDS Alternatives	3	4	5
BLACK OYSTERCATCHER: Accelerate the recovery of the upper intertidal zone to improve the rate of recovery in site-specific areas.			X
* Remove predators from islands that previously supported black oystercatchers. Effectiveness varies by location.		X	X
COMMON MURRE: Reduce disturbance at breeding colonies to eliminate factors which could slow the recovery of affected murre colonies.			X
* Use artificial stimuli such as decoys or vocalizations to encourage recovery at affected colonies and accelerate recolonization of historic colonies.	X	X	X
* Remove predators at injured colonies or remove predators from islands that previously supported murres.	X	X	X
HARLEQUIN DUCK: Modify sport hunting harvest guidelines in the areas of injured populations to speed the rate of recovery during the recovery phase.			X
* Determine if eliminating oil from mussel beds removes a potential source of continuing contamination in feeding areas and take appropriate action. This would have benefits in local areas only.	X	X	X
* **MARBLED MURRELET:** Minimize the incidental capture of birds in fishing nets by changes in gear or timing of fishing.	X	X	X
* **PIGEON GUILLEMOT:** Control predator access or remove predators from islands that previously supported birds.	X	X	X
BALD EAGLE: No options other than habitat protection have been identified.			
COASTAL HABITAT Alternatives	3	4	5
* **INTERTIDAL ORGANISMS:** Accelerate the recovery of the upper intertidal zone to aid intertidal resources in localized areas.	x	x	x
SUBTIDAL ORGANISMS: No restoration options have been identified.			
DESIGNATED WILDERNESS AREAS	3	4	5
No options have been identified for Designated Wilderness Areas or Wilderness Study Areas.			
ARCHAEOLOGY Alternatives	3	4	5

Develop a site stewardship program using local residents to monitor nearby archaeological sites to discourage looting and vandalism.	x	x	x
Increase law enforcement and agency presence to patrol and monitor archaeological sites within the spill area would protect sites from looting and vandalism.	x	x	x
Preserve archaeological sites and artifacts within the spill area to provide some measure of permanent protection for select archaeological resources.	x	x	x
Acquire replacements for artifacts from the spill area as a means of preserving and studying artifacts which were taken from the spill area prior to the spill.		x	x

SERVICES	Alternatives	3	4	5
Resource options shown above also benefit many services.				
RECREATION AND COMMERCIAL TOURISM: Develop new backcountry public recreation facilities to protect both recreation and the resources on which it depends; for example, by providing an outhouse in a heavily used area.		x	x	x
Plan and market public land for commercial recreational use to provide additional opportunities for commercial operators and recreationists to use public lands.				x
Create new visitor centers or build a marine environmental institute to benefit all injured resources. Increase public awareness of the nature of injury and recovery and an understanding of the ecosystem of the area.				x
RECREATION - SPORT FISHING: Replace lost harvest opportunities by creating new fisheries for salmon or trout.		x	x	x
SUBSISTENCE: Replace lost harvest opportunities by creating new salmon runs.				x
Test subsistence foods for continued contamination as a means of restoring confidence in the safety of subsistence resources within the spill area.		x	x	x
Provide new access to traditional foods in areas outside the spill area to restore lost use.		x	x	x
Develop subsistence mariculture sites to benefit subsistence users by providing a source of uncontaminated shellfish for their diets.				x
Develop a shellfish hatchery and technical research center to benefit subsistence users by providing a source of uncontaminated shellfish for their diets.				x
COMMERCIAL FISHING: Replace harvest opportunities by creating new fish runs to replace commercial fishing opportunities lost due to fishing closures or reduced harvest.		x	x	x
PASSIVE USE: No options other than habitat protection have been identified for this resource.				

[Note to Reviewers, Page 9 of the brochure begins here]

How should these issues be resolved?

INTRODUCTION

The Trustees can use the settlement funds in a variety of ways. We would like to know your views about the appropriate policies, categories of restoration activities, and spending guidelines. Please fill out the questions on this page and let the Trustees know which approaches you believe will best restore the injuries of the oil spill. If you need more information, please come to one of the public meetings. Also, feel free to comment on other parts of the plan alternatives in the space provided. Attach additional sheets if you need more space. Thanks for your help!

QUESTIONS ABOUT ISSUES AND POLICIES

The alternatives presented policy questions. The answers to those questions will help guide some restoration activities. The policy questions are reprinted below. Please mark the appropriate box to let us know your views.

If you think that these policies should apply to some restoration activities but not others, please write your views down in the space provided beneath each question. For example, if you think that some general restoration activities are appropriate outside the spill area but that habitat protection should concentrate only on the spill area, you would write that information in the comment space under question four.

ISSUES AND POLICY QUESTIONS
Injuries Addressed: Should restoration actions address ALL injured resources or only those which had a measurable population decline because of the spill? ☐ Target restoration activities only to resources whose populations declined because of the spill. ☐ Target restoration activities to all injured resources ☐ No preference Comments:
Status of Resource Recovery: Should restoration actions cease when a resource has recovered? ☐ Continue appropriate activities even after resources recover. ☐ Cease funding restoration once a resource recovers. ☐ No preference Comments:
Effectiveness of Restoration Actions: Should the plan include only those restoration actions that produce substantial improvement over unaided recovery or also those that produce at least some improvement?

☐ Fund all effective restoration actions
☐ Fund only highly effect restoration actions
☐ No preference
Comments:

Location: Should restoration activities take place in the spill area only or anywhere in Alaska provided there is a link to injured resources or services?

☐ Fund activities within the spill-area only.
☐ Allocate some funds for activities outside the spill-area but within Alaska. The activities must be linked to injured resources or services.
☐ No preference
Comments:

Strategies for Human Use: To what extent should restoration actions be used to increase opportunities for human use?

☐ Do not fund activities that increase human use.
☐ Fund only habitat protection.
☐ Only fund restoration activities that are designed not to increase use levels but only to protect existing human use. Examples are recreation facilities that protect the environment in over-used areas, or testing the safety of subsistence foods.
☐ Fund restoration activities that protect or increase existing uses. Examples are funding to increase existing sport- or commercial fishing runs, or funding to construct recreation facilities such as public-use cabins.
☐ In addition to activities that protect or increase existing human use, also fund appropriate new uses. Examples are new fishing runs, commercial facilities, or visitor centers.
☐ No preference
Comments:

QUESTIONS ABOUT CATEGORIES OF THE RESTORATION PROGRAM

The questions below discuss the different categories of restoration activities. The questions ask about what groups of activities you believe the trustees should fund.

Spill Prevention and Response. The alternatives propose using up to 15% of the remaining settlement funds for spill prevention and response to prevent catastrophic and chronic oil pollution.

Should the Trustee Council fund spill prevention and response activities?

- ☐ No
- ☐ Yes. *Please indicate which spill prevention and response activities you believe are appropriate (you may mark more than one answer):*
  - ☐ Spill prevention and response technology.
  - ☐ Infrastructure
  - ☐ Prevention of chronic pollution
  - ☐ Other:

Comments:

Monitoring and Research. Some components of monitoring and research are included in all alternatives. We would like to know your views.

Should the Trustee Council fund monitoring and research activities?

- ☐ No
- ☐ Yes. *Please indicate which monitoring and research activities you believe are appropriate (you may mark more than one answer):*
  - ☐ Recovery monitoring
  - ☐ Restoration monitoring
  - ☐ Ecological monitoring
  - ☐ Restoration Research
  - ☐ Other:

Comments:

Endowment. Some alternatives assume that the settlement funds will be spent within ten years. Others propose placing 20% to 40% of the remaining settlement funds into a savings account to fund restoration, spill prevention, research, or monitoring after that time.

Are you in favor of an endowment or savings account of some kind?

- ☐ No, I believe the funds should be spent within 10 years.
- ☐ Yes. *Please indicate what the annual endowment earnings should be spent on (you may mark more than one answer):*
  - ☐ Research and Monitoring
  - ☐ General Restoration
  - ☐ Spill preparedness
  - ☐ Habitat Acquisition
  - ☐ Other:

Comments:

QUESTIONS ABOUT SPENDING GUIDELINES

The table below shows the spending guidelines in the five alternatives. If one of the alternatives reflects your view of how the funds should be allocated, please circle the name of that alternative. If not, please put write in your percentages in the space to the right. If needed, you may write in new suggestions for restoration plan components in the blank lines. If you believe that an endowment is appropriate, please put in the appropriate percentage in the endowment line. (Make sure your percentages add to 100%!).

	Alternative #1 Natural Recovery	Alternative #2 Habitat Protection	Alternative #3 Limited Restoration	Alternative #4 Moderate Restoration	Alternative #5 Comprehensive Restoration	*YOUR ALTERNATIVE* If none our alternatives reflect your views about allocating the funds, please write your percentages below.	
Administration & Public Information	1%	4%	6%	7%	7%		Administration & Public Information
Monitoring & Research	5%	5%	7%	8%	10%		Monitoring & Research
General Restoration			12%	25%	33%		General Restoration
Spill Preparedness				10%	15%		Spill Preparedness
Endowment							Endowment
Habitat Protection		91%	75%	50%	35%		Habitat Protection
Balance	94%						Balance
Total:	100%	100%	100%	100%	100%		
						100%	Total

HABITAT PROTECTION: PRIVATE LANDS

Habitat Protection on private lands is a major element in all but the natural recovery alternative of the draft Restoration Plan. Habitat protection on private lands may include acquisition of full title or acquisition of partial rights such as conservation easements and timber rights. Partial rights may be less expensive than full title. Because land purchases are negotiated and are dependent both on price and on the will of the seller, final purchases will be dependent on landowner's preferences as well as those of the public and the trustees. (The habitat protection process was described in the Restoration Framework Supplement.)

In response to public support, the Trustee Council is proceeding in advance of the Restoration Plan by protecting several imminently threatened parcels. For example, the Trustee Council decided to go ahead with the purchase of inholdings in Kachemak Bay State Park.

We are requesting your views on several issues concerning Habitat Protection on private lands. Please answer the questions below.

1. When purchasing land we can purchase large areas that protect the overall landscape or integrity of the habitat, or purchase small but important parcels such as stream corridors and camping areas to stretch the funds. Would you prefer acquisitions to emphasize:

- ☐ a few large parcels of land
- ☐ many small parcels of land
- ☐ mix of large and small parcels
- ☐ no preference

2. Buying habitat may affect the economic condition or quality of life in your community. We'd like your views on this.

What positive impacts would you like habitat protection to have in your community?

_____

_____

_____

_____

What negative impacts would you like habitat protection to avoid in your community?

_____

_____

3. Acquired lands or interests will be managed to aid the recovery of injured resources and services. Should these lands or interests in these lands be retained forever?

☐ No
☐ Yes
☐ No Preference

4. All habitat protection will benefit resources and services injured by the spill. Should the decision to purchase lands also protect resources and services not injured by the spill?

☐ No
☐ Yes
☐ No Preference

5. Other comments?

COMMENTS

Please use the space below to write comments. Any comment you write will be greatly appreciated. Thank you.

Draft *Exxon Valdez* Oil Spill Restoration Plan Summary of Alternatives for Public Comment

We need your help to determine how to restore the injuries from the *Exxon Valdez* Oil Spill. You can let us know your views by attending a public meeting in your community.

PUBLIC MEETINGS

WHERE	WHEN

If you cannot attend the public meetings, please send us your comments by August __, 1993 on the enclosed comment sheet. For additional copies of this brochure or for more information contact:

Exxon Valdez Oil Spill Restoration Office
645 "G" Street
Anchorage, Alaska 99501
(907) 278-8012

Thank you,
Exxon Valdez Oil Spill Trustee Council

Charles E. Cole
Attorney General
State of Alaska

Carl L. Rosier
Commissioner
Alaska Department of Fish and Game

John A. Sandor
Commissioner
Alaska Department of Environmental Conservation

DRAFT

Michael A. Barton
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Alaska Region - USDA Forest Service

Paul Gates
Interim Trustee Council Representative
U.S. Department of the Interior

Steven Pennoyer
Director, Alaska Region
National Marine Fisheries Service

[Note to reviewers, Page 1 of the brochure begins here.]

How Should the Trustees Spend the *Exxon Valdez* Civil Settlement?

Your comments are Needed!

The purpose of this brochure is to give you the opportunity to express your opinion about the best use of the *Exxon Valdez* civil settlement funds. By going through this brochure and attending meetings you have a chance to tell us what you like and dislike about alternative ways to spend the money. You can also make recommendations about things we may have overlooked. If you cannot attend the meetings, please note your ideas on the enclosed response form and mail it back to us by August ___, 1993.

The U.S. National Environmental Policy Act requires that an Environmental Impact Statement be part of any significant federal action such as the program for restoring injuries caused by the oil spill. The Draft Environmental Impact Statement and the full text of the Draft Restoration Plan, however, will not be available until June. Because many people are unavailable during the summer, this summary is being released now to allow the public to give the Trustees their ideas. If you would like, you may wait to see the Draft Environmental Impact Statement and Draft Restoration Plan this June before you make your comments.

In addition to including information found here, the Draft Environmental Impact Statement will analyze the impacts of these alternatives on the physical, biological, social, and economic aspects of the environment. It will help the Trustees and the public understand the consequences of alternative methods of spending the civil settlement funds.

The information you provide will be used to prepare a final restoration plan that will be presented to the public this fall. The plan adopted by the Trustee Council may contain parts of several of the alternatives presented here plus new information provided by you.

DRAFT

What is the Restoration Plan?

The *Exxon Valdez* Restoration Plan will provide long-term guidance for the Trustee Council to use when allocating the civil settlement funds for restoring injuries caused by the oil spill. The Council will implement the plan through annual work plans. The annual work plan is a mix of restoration activities to be funded based on the policies and budget guidelines of the plan, future public comments and changing restoration needs. The plan may be changed by the Trustees in response to new information about the injuries and recovery, new technologies, or as social and economic conditions change.

The Trustee Council allocates funds from the civil settlement for activities to restore the oil spill injuries. The Trustee Council *does not* direct land uses on federal, state, or private lands and *does not* manage fish and wildlife resources. Land use and fish and game management decisions are made by the appropriate federal or state agencies. The Trustee Council may make recommendations to state and federal agencies, provide funds for state and federal management, or fund research to provide information to those agencies or other groups. The Trustee Council may also purchase private land or private property rights, but no purchases will be forced on an unwilling seller.

BACKGROUND

Shortly after midnight on March 24, 1989 the T/V *Exxon Valdez* ran aground on Bligh Reef in Prince William Sound spilling 11 million gallons of North Slope crude oil. This was the largest tanker oil spill in United States history. All through the Spring, the oil moved along the coastline of Alaska contaminating the shoreline of Prince William Sound, the Kenai Peninsula, lower Cook Inlet, the Kodiak Archipelago, and the Alaska Peninsula. Portions of 1,200 miles of coastline were oiled, including part of one National Forest, four National Wildlife Refuges, and three National Parks.[1] Oil eventually reached shorelines nearly 600 miles from Bligh Reef.

On October 8, 1991, an agreement was approved by the U.S. District Court that settled the claims of the United States and the State of Alaska against Exxon Corporation and Exxon Shipping Company for various criminal violations and for recovery of civil damages resulting from the oil spill.

As part of the criminal plea agreement, the court fined Exxon and Exxon Shipping $150 million -- the largest fine ever imposed for an environmental crime. Of this amount, $125 million was forgiven due to their cooperation with the governments during the cleanup, timely payment of many private claims, and environmental precautions taken since the oil spill. The remaining $25 million was paid into the North American Wetlands Conservation Fund, and into the Victims of Crime Act Account.

The Exxon companies also agreed to pay $100 million as restitution. Fifty million dollars were paid to the United States and $50 million to the State of Alaska. The state and federal governments separately manage the $50 million payment that each has received. These funds are not under the authority of the Trustee Council and are not considered by this plan. However they must be used exclusively for restoration activities, within the State of Alaska, relating to the *Exxon Valdez* oil spill.

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[1]. Two turtle doves, and a partridge in a pear tree.

Civil Settlement and Restoration Fund

In the civil settlement, the Exxon companies agreed to pay the United States and the State of Alaska up to $900 million over a period of 10 years. The use of the civil settlement funds are the subject of this plan.

Who can spend the civil settlement money? Decisions on spending the civil settlement funds are made by a council of six state and federal Trustees:

State of Alaska Trustees:

- Commissioner of the Department of Environmental Conservation;
- Commissioner of the Department of Fish and Game; and
- Alaska Attorney General.

Federal Trustees:

- Secretary of the U.S. Department of the Interior;
- Secretary of the U.S. Department of Agriculture; and
- Administrator of the National Oceanic and Atmospheric Administration, U.S. Department of Commerce.

The Federal Trustees have appointed representatives to the Trustee Council from local federal agencies.

What are the rules for spending the civil settlement money?

- All decisions made by the Trustee Council (such as spending settlement funds) must be made by unanimous consent.
- The Trustees must use the settlement funds "...for the purposes of restoring, replacing, enhancing, or acquiring the equivalent of **natural resources** injured as a result of the Oil Spill and the reduced or lost **services** provided by such resources..." (except for the reimbursement of certain expenses to the governments).
- The settlement funds must be spent on restoration of natural resources in Alaska unless the Trustees unanimously agree that spending funds outside of the state is necessary for effective restoration.

The settlement defines **natural resources** as the land, fish, wildlife, biota, air, water, ground water, drinking water supplies, and other such resources belonging to or managed by the state or federal governments. Examples of natural resources are birds, fish, mammals, subtidal plants and organisms, and archaeology.

In addition to restoring natural resources, the settlement requires restoration funds be used to restore reduced or lost **services** provided by injured natural resources. For example, subsistence, commercial fishing, and recreation including sport-fishing and sport-hunting, are services that were damaged by injuries to fish and wildlife. Other damaged services include commercial tourism, and the enjoyment that people receive from the undisturbed wild areas.

Funding

The civil settlement requires Exxon to deposit funds each year beginning December 1991 and ending September 2001. Of the $900 million in the settlement, approximately $610 million remains for restoration.

The restoration fund has so far received $240 million from Exxon in two deposits. Of that amount, $107.3 million was withdrawn to reimburse the federal and state governments for cleanup; $19.5 million was withdrawn for the 1992 work plan; $13.3 million for the 1993 work plan; $20 million for interim habitat purchases including $7.5 million for the purchase

of inholdings in Kachemak Bay State Park, and Exxon took a one-time $39.9 millions deduction for allowable cleanup expenses after January 1, 1991. In addition, further reimbursements to the governments for cleanup and litigation expenses are allowed by the settlement. These are estimated to be $90 million.

[Note to reviewers, the brochure map (the spill-area map) will go on this page.

[Note to reviewers, Page 3 of the Brochure begins here]

What Was Injured By the Spill and Is It Recovering?

The *Exxon Valdez* oil spill injured resources and services throughout the spill area. The oil spill occurred just before the most biologically active season of the year in Southcentral Alaska. During the four-month period after the oil spill, seaward migration of salmon fry, major migrations of birds, and the primary reproductive period for most species of bird, mammals, fish, and marine invertebrates took place. The organisms involved in these critical periods of their life cycle encountered the most concentrated, volatile and damaging forms of oil. The oil spill also directly impacted archaeological resources, subsistence, recreation, designated wilderness areas, and wilderness qualities, aesthetics, and other services. Oil affected each resource and service differently; these injuries are briefly described below.

The *Exxon Valdez* oil spill was only one factor that affected the health of several populations in the area. We do not know the cause of the long-term declines of marbled murrelets, pigeon guillemots or harbor seals.

For some resources, the oil spill caused a measurable decline in their population. For example, an estimated 8,000 to 12,000 marbled murrelets were killed during the oil spill. For other resources, the spill caused an injury to one life stage, but that injury did not measurably lower the overall population. An example of a sublethal effect is abnormal herring fry. This has not yet caused a measurable population decline.

MAMMALS

HARBOR SEALS: The oil spill caused population declines and sublethal injuries to harbor seals. Many were directly oiled and an estimated 345 died. Oil residues found in seal bile were 5 to 6 times higher in oiled areas than unoiled areas in 1990. The population was declining prior to the oil spill which makes it difficult to know the continuing effects. There is no indication of recovery.

KILLER WHALES: The oil spill caused sublethal injuries to at least one of the killer whale pods in Prince William Sound. Debate continues about whether the oil spill caused a population decline. Thirteen whales out of 36 in the AB pod are missing and presumed dead. Circumstantial evidence links whale disappearance to the oil spill. Additionally, several adult males have collapsed dorsal fins. Social disruption of family units has been observed. In the AB pod, no new births were recorded in 1989 or 1990; one birth was recorded in 1991; and two births were recorded in 1992. These births show that the AB pod is beginning to recover.

RIVER OTTERS: The oil spill caused at least sublethal injuries to river otters. However, the population is difficult to census and it is unknown if there were population declines. Sublethal indicators of possible oil exposure remained in 1991. River otters feed in the intertidal and shallow subtidal areas and may still be exposed to oil persisting in the environment.

SEA OTTERS: The oil spill caused population declines and sublethal injuries to sea otters. It is estimated that 3,500 to 5,000 otters died. Surveys in 1989, 1990 and 1991 showed measurable differences in population numbers and survival between oiled and unoiled areas. In 1992, lower juvenile survival rates and higher than normal numbers of dead prime age otters indicate that the populations in Prince William Sound continue to be stressed. Sea otters feed in the lower intertidal and subtidal areas and may still be exposed to oil persisting in the environment. Little or no evidence of recovery has been detected.

BIRDS

BALD EAGLES: The oil spill caused sublethal injuries and possibly population declines in bald eagles. In 1989, 151 carcasses were recovered from beaches. Productivity in Prince William Sound was disrupted in 1989, but returned to normal in 1990. Exposure to oil and some sublethal injuries were found in 1989 and 1990, but no continuing effects were observed on populations. Bald eagles are recovering and may have recovered, from effects due to the oil spill.

BLACK OYSTERCATCHERS: The oil spill caused population declines and sublethal injuries to black oystercatchers. In 1989, nine carcasses were recovered from beaches, but the actual number killed were many more. In 1989, smaller eggs were found in oiled areas. Black oystercatchers feed in the intertidal areas and may still be exposed to oil persisting in the environment. The population is recovering although evidence of sublethal injuries persisted in 1992.

COMMON MURRES: The oil spill caused population declines and sublethal injuries at murre colonies within the oil spill area. In 1989, 10,428 carcasses were recovered from beaches representing between 175,000 to 300,000 murres killed. Measurable impacts on populations were recorded in 1989, 1990 and 1991. Breeding was still inhibited in some colonies in the Gulf of Alaska in 1992. The degree of recovery varies between colonies, however some colonies show little evidence of recovery.

HARLEQUIN DUCKS: The oil spill caused population declines and sublethal injuries to harlequin ducks. In 1989, 213 carcasses were recovered from beaches which probably represents over 400 birds killed. Post-spill samples showed oil contamination and poor health in 1989 and 1990. In the three years since the oil spill, it appears that harlequin ducks still are not successfully breeding in oiled areas. Harlequin ducks feed in the intertidal and shallow subtidal areas and may still be exposed to oil persisting in the environment. Although the population continues to show evidence of sublethal injuries and is not yet showing signs of recovering, it is possible that the decline has stabilized.

MARBLED MURRELETS: The oil spill caused population declines, but it is unknown if there were sublethal injuries. In 1989, 612 carcasses were recovered from beaches. It is estimated that 8,000 to 12,000 birds died. Measurable population effects were recorded in 1989, 1990 and 1991. Marbled murrelet populations were declining prior to the oil spill. In 1989, oil contamination was found in livers of adult birds. Although the recovery status in 1992 was uncertain and no signs of an increasing population have been observed, it is possible that the decline has stabilized.

PIGEON GUILLEMOTS: The oil spill caused population declines to pigeon guillemots. In 1989, 614 carcasses were recovered from beaches representing from 1,500 to 3,000 birds killed. Pigeon guillemot populations were declining prior to the spill. In 1989, oil contamination was found in birds and, externally, on eggs. The recovery status in 1992 is uncertain with no evidence of an increase in the population.

FISH

CUTTHROAT AND DOLLY VARDEN TROUT: The oil spill caused sublethal injuries and possibly population declines for these two species. Differences in the survival and growth between anadromous adult populations in the oiled and unoiled areas persisted from 1989 to 1991 despite less indications of oil exposure. This was possibly due to continuing injury to the food base, however, scientists disagree as to whether these differences in survival and growth existed before the spill. It is unknown whether these species are recovering.

PACIFIC HERRING: The oil spill caused sublethal injuries to Pacific herring. It is unknown whether this will result in a population decline. Measurable differences in egg counts between oiled and unoiled areas were found in 1989 and 1990. Lethal and sublethal effects on eggs and larvae were evident in 1989 and, to a lesser extent, in 1990. In 1991 there were no differences between oiled and unoiled areas. It is possible that the 1989 year class was injured which could result in reduced recruitment to the adult population. If so, an adult population decline will not become apparent until 1993. Overall recovery status is unknown.

PINK SALMON: The oil spill caused sublethal injuries to wild stock populations, and there is debate on whether the wild stock population has declined. Abnormal fry were observed in 1989 and egg mortality continued to be higher than expected in 1990 and 1991. The debate about population declines focuses on the whether the observed injuries necessarily result in reduced adult returns. Reduced growth of juveniles was found in 1989 and 1991, which correlates with reduced survival. In 1992, there was continued evidence of sublethal injuries. Overall recovery status is unknown.

ROCKFISH: The oil spill caused at least sublethal injuries, however, it is unknown whether or not population declines also occurred. Twenty dead fish were found in 1989, but only a few were in condition to be analyzed. Those showed exposure to oil with some sublethal injuries. Closures to salmon fisheries increased the fishing pressure on rockfish and the increasing catch may be impacting the population. It is unknown if the population has recovered from sublethal injuries, or the from any population decline.

SOCKEYE SALMON: Kenai River and Red Lake sockeye salmon stocks both suffered population declines as well as sublethal injuries. Smolt survival continues to be poor in both systems due to overescapements that occurred at Red Lake in 1989 and in the Kenai system in 1987, 1988, and 1989. As a result, adult returns are expected to be low in 1994 and successive years. Overall recovery status is unknown.

COASTAL HABITAT

COASTAL HABITAT - INTERTIDAL ZONE: The oil spill caused population declines and sublethal injuries to the populations of plants and animals that live in the area between low and high tide. The lower intertidal and, to some extent, the mid intertidal zones are recovering. However, in the upper intertidal zone, some species have not recovered, and oil persists in and under mussel beds. Intertidal organisms were impacted by both oiling and clean-up, particularly the high pressure hot water washing. Recovery varies by species largely based on their position within the intertidal zone.

COASTAL HABITAT - SUBTIDAL ZONE: The oil spill caused population declines and sublethal injuries to the populations of plants and animals found below low tide. Eel grass and some species of algae appear to be recovering. Amphipods in eel grass beds recovered to pre-spill densities in 1991. Leather stars and helmet crabs showed little sign of recovery through 1991. Overall recovery is variable by species.

ARCHAEOLOGY

ARCHAEOLOGY: Twenty-four archaeological sites are known to have been adversely affected by oiling, clean-up activities, or looting and vandalism linked to the oil spill. An additional 113 sites are estimated to have been similarly affected. Injuries attributed to increased looting and vandalism which have been linked to the oil spill are still occurring. Archaeological sites and artifacts cannot recover, they are finite non-renewable resources.

DESIGNATED WILDERNESS AREAS: Hundreds of miles of wilderness coastlines were affected by oil. Some oil remains embedded in the sediments of these areas.

SERVICES

RECREATION AND COMMERCIAL TOURISM: The nature and extent of injury varied by user group and by areas of use. About one quarter of survey respondents reported no change in their recreation experience, but others reported avoiding the spill area, reduced wildlife sightings, residual oil and more people. They also reported changes in their perception of recreation opportunities in terms of increased vulnerability to future oil spills, erosion of wilderness, a sense of permanent change, concern about long-term ecological effects and, in some, a sense of optimism. There are indications that declines in recreation activities reported in 1989 appear to have reversed in 1990, but there is no evidence that they have achieved pre-spill values.

RECREATION: SPORT FISHING AND HUNTING: Between 1989 and 1990, a decline in sport fishing effort (number of anglers, fishing trips and fishing days) was recorded for Prince William Sound, Cook Inlet and the Kenai Peninsula. In 1992, an emergency order restricting cutthroat trout fishing was issued for western Prince William Sound due to low adult returns. The closure is expected to continue at least through 1993. Sport hunting of harlequin ducks was reduced by restrictions imposed in 1991 and 1992 in response to damage assessment studies. It is likely that these restrictions will continue until the species shows signs of recovery.

PASSIVE USE: In 1991, over 90% of those surveyed nation-wide were aware of the oil spill. Over 50% believed that the oil spill was the largest environmental accident caused by humans anywhere in the world. There was also a perception that the values of wild areas has diminished. Although some people's feelings of lost values are diminishing as they sense some recovery is occurring, others' feelings have not changed as they do not believe recovery is occurring. Until oil is completely removed or degrades naturally, injury to wilderness values will continue.

SUBSISTENCE: Subsistence harvests of fish and wildlife in 9 of 15 villages surveyed declined from 4 to 78 percent in 1989 when compared to pre-spill averages. Seven of the 15 villages show continued decline in use in 1990 and 1991. This decline was particularly noticeable in the Prince William Sound villages of Chenega and Tatitlek. In 1989, chemical analysis indicated that most resources tested, including fish, marine mammals, deer, and ducks, were safe to eat, but that shellfish from oiled beaches should not be eaten. However, villagers believe that contamination to subsistence food sources continue to be dangerous to their health and some subsistence species continue to decline.

COMMERCIAL FISHING: During 1989, emergency commercial fishery closures were ordered throughout the spill area. This affected salmon, herring, crab shrimp, rockfish and sablefish. The 1989 closures resulted in sockeye over-escapement in the Kenai River and in the Red Lake system (Kodiak Island). In 1990, a portion of Prince William Sound was closed to shrimp fishing. Spill-related sockeye over-escapement is anticipated to result in low adult returns in 1994 and 1995. These over-escapements may result in closure or harvest restrictions during these and, perhaps, subsequent years. Injuries and recovery status of rockfish, pink salmon, shellfish and herring are uncertain.

[Note to reviewers, this begins pages 4 and 5 of the brochure]

What are the Alternatives?

Five alternatives have been developed for your review. Each alternative presents a different way of approaching restoration. Each uses different policies and emphasizes different categories of restoration activities to restore injuries caused by the spill. This and the next page summarize the policy questions and categories of restoration activities. The following two pages present the five alternatives.

Alternative 1, Natural Recovery, will allow the spill-affected area recover on its own, but monitor its recovery and continue normal agency management. **Alternative 2, Habitat Protection,** will protect injured resources and services by protecting their habitat so they can recover on their own without further disruption. **Alternatives 3 through 5, Limited Restoration, Moderate Restoration, and Comprehensive Restoration,** present a progression of restoration activities, with each successive alternative increasing the scope of activities.

Issues and Policy Questions

The planning process raised five significant issues. Table ___ presents these issues as questions. Different answers to these questions will influence which restoration activities are conducted.

ISSUE	POLICY QUESTION
Injuries Addressed	Should restoration actions address ALL injured resources or only those which had a measurable population decline because of the spill?
Status of Resource Recovery	Should restoration actions cease when a resource has recovered?
Effectiveness of Restoration Actions	Should the plan include only those restoration actions that produce substantial improvement over unaided recovery or also those that produce at least some improvement?
Location	Should restoration activities take place in the spill area only or anywhere in Alaska provided there is a link to injured resources or services?
Strategies for Human Use	To what extent should restoration actions be used to increase opportunities for human use?

Injuries Addressed: *Should restoration actions address ALL injured resources or only those which had a measurable population decline because of the oil spill?*

Resources and services injured by the oil spill are in Table ___. Injuries to resources produced either a decline in population or a sublethal effect. An example of population decline is the loss of 35-70% of the breeding common murres in the Gulf of Alaska and resulting decline in future generations. An example of sublethal injuries is abnormalities in larvae. Sublethal injuries may not result in a lower population because they may not affect the productivity of the species or the species may be able to compensate for the injury. However, there also may

be enough variability in the natural abundance of the species to mask effects of the injuries, or scientific measurement techniques may not be sensitive enough to measure a small effect on the population.

Alternative 3 reflects the view that if an injury was not severe enough to produce a detectable change in population, then settlement funds should not be spent to restore it. Rather, funds should be concentrated on the worst-injured resources. All other alternatives reflect the view that even sublethal injuries could become serious over time and, if something can be done to redress the injury, it should be done before more serious effects show themselves.

RESOURCES			SERVICES
Population Decline	Sublethal	Other	
Black oystercatcher	Bald eagle	Archaeology	Commercial fishing
Common murre	* Cutthroat trout	Designated	Passive use
Harbor seal	* Dolly Varden	wilderness areas	Recreation and commercial
Harlequin duck	* Killer whale		tourism
Intertidal organisms	Pacific herring		Recreation - sport fishing
Marbled murrelet	* Pink salmon		Recreation - sport hunting
Pigeon guillemot	River otter		Subsistence
Sea otter	Rockfish		
Sockeye salmon			
Subtidal organisms			

* For these species, the Trustees' scientists have considerable disagreement over the conclusions to be drawn from the results of the damage assessment studies.

Status of Resource Recovery: *Should restoration actions cease when a resource has recovered?*

No resources have recovered from population decline. However, some sublethal injuries have recovered. As resources recover, this issue will become more important. Table _____ on page ____ shows current expectations about when many resources may recover. The table is based on the best available information from agency and peer reviewer scientists. These estimates will certainly change as recovery continues, monitoring uncovers more information, and scientists learn more about each species.

Alternatives 2 and 3 reflect the view that the goal of the settlement is to restore injured resources and services and that restoration activities should cease once the resource or service has recovered. Alternatives 4 and 5 reflect the view that certain actions, especially protection and enhancement, should continue even after resources have recovered to offset other adverse effects and improve the condition of injured resources and services.

Effectiveness of Restoration Actions: *Should the plan include only those restoration actions that produce **substantial** improvement over natural recovery or also include those that produce at least **some** improvement?*

Many restoration actions were suggested by scientists, agencies, and the public. They were

evaluated to determine how much of an improvement they would produce over unaided recovery.

Alternatives 3 and 4 reflect the view that unless a restoration action is likely to produce **substantial** improvement, it should not be funded. Alternatives 2 and 5 reflect the view that the Trustees should fund all restoration activities that offer at least **some** promise of helping injured resources and services; the cumulative effect of many such activities may result in a more meaningful and substantial improvement.

Location: *Should restoration activities take place in the oil spill area only or anywhere in Alaska provided there is a link to injured resources or services?*

The map of the oil spill area is on page ____. The oil spill area includes the maximum extent that oil reached along the shoreline of Alaska. It also includes the adjacent land up to the watershed divide, and the area of immediate human use for communities severely affected by the spill. Alternatives 2 and 3 reflect the view that restoration activities should be limited to the spill area to focus them on the populations and services directly affected. Alternatives 4 and 5 include restoration activities within Alaska because some projects outside the spill area may be far more effective than those possible within the spill area. For example, increasing common murre populations in the Pribilof Islands, outside the spill area, may do more to increase the numbers of that species in Alaska than would comparable projects within the spill area.

Strategies for Human Use: *To what extent should restoration actions be used to increase opportunities for human use?*

Many of the restoration options for recreation or fishing would increase human use of the spill area. However, too much additional use could be detrimental to recovery of injured resources and services. Three different strategies for human use are reflected in alternatives 3, 4 and 5, only. Alternative 3 emphasizes restoration activities that would **protect existing uses** such as constructing outhouses in over-used areas, or improved trails where hiking is damaging wetlands, or providing information about the safety of subsistence foods. Alternative 4 emphasizes restoration activities that would **increase existing uses** such as increasing opportunities for fish harvest above prespill levels or constructing a new public-use cabin. Alternative 5 emphasizes restoration activities that would **encourage appropriate new uses** such as providing new visitor centers or attracting new commercial facilities on public land. Restoration activities would comply with existing land-use plans, and agency procedures such as those requiring public notice.

What Are the Categories of the Restoration Plan?

The alternatives emphasize different categories of restoration activities. This section describes the activities that fall within each category. Not all categories are included in every alternative.

HABITAT PROTECTION.

Habitat protection and acquisition on private land. Sometimes even careful resource development such as timber harvest or subdivisions can adversely affect resources or services injured by the spill. The Trustee Council may purchase private land or partial interests such as conservation easements, mineral, or timber rights as a method of restoration. The Council's recent action to allocate funds to purchase inholdings in Kachemak Bay State Park is an example of habitat protection and acquisition on private land.

Since there will not be enough money in any alternative to buy or protect all habitat important to recovery, it is necessary to prioritize available land through a ranking process. The criteria for this ranking are currently being developed. Some of the most important criteria are the degree of importance of the land to injured resources or services and the number of resources or services which rely on a given parcel. Land which is highly important to many species and services will generally receive top priority.

The following injured resources and services might benefit from the purchase of private land or property rights: salmon and trout, bald eagle, black oystercatcher, common murre, harbor seal, harlequin duck, marbled murrelet, pigeon guillemot, river otter, sea otter, areas adjacent to particularly productive intertidal areas, recreation and commercial tourism, archaeology, and important subsistence harvest areas. Alternative #3 would target purchases for services and for those resources whose populations declined because of the spill. Alternatives 2, 4, and 5 would target habitat acquisition for the all injured resources and services.

There is not enough money in the entire civil settlement to purchase all lands important to injured resources and services. The cost per acre will vary depending on the land, and the private rights that are purchased. For example, valuable timber land will be more expensive than similar land without marketable timber. Also, purchase of partial interests such as easements or mineral rights will be somewhat less expensive and may increase the number of acres that can be protected. In each alternative, there is an estimate of the acreage that might be purchased under that alternative.

Habitat protection on public land. Federal and state agencies manage the public land and water. Protective changes in their management practices may benefit injured resources and services. Examples of these changes include amending agency management plans, changing regulations, and designating public land and water as special areas. Examples of special areas include scientific research reserves, recreation areas, parks, critical habitat areas, and marine sanctuaries. Any of these management changes would have to be approved and implemented by the appropriate state or federal agency, or in some cases by the Alaska State Legislature or the U.S. Congress. Since land and water management actions could extend to any public upland, intertidal area, and marine waters, the actions could potentially benefit most injured resources and services. At this time the Trustee Council has no specific proposals for revising land-use management practices or creating special designations.

GENERAL RESTORATION. Since 1989, agencies and the public have proposed hundreds of ideas for restoration. Some ideas help restore injuries by directly manipulating resources. Examples are building fish passes or public-use cabins, testing subsistence foods for continuing oil contamination, or seeding the intertidal areas. Other ideas focus on managing human use to aid restoration. Examples are redirecting hunting and fishing harvest, or reducing human disturbance around sensitive bird colonies. General Restoration does not include habitat protection or oil spill preparedness activities. In each alternative, enough money is allocated for General Restoration to fund all activities that have been identified and that meet the policies of that alternative. In addition, each alternative allocates enough additional funds to General Restoration to provide a reserve for General Restoration activities that may be identified in the future.

SPILL PREVENTION AND RESPONSE. Varying levels of spill prevention and response are also part of several alternatives. These activities would reduce stress on recovering resources and services by improving and protecting water quality. Components of prevention and response include:

Research and development on developing technologies, such as in-situ burning and spill tracking systems, can assist in spill prevention and response.

Equipment, such as telecommunications and weather information systems, could be installed or updated in order to gather and transmit response and prevention information quickly. Funding spill response depots and volunteer response corps would improve cleanup capabilities.

Chronic marine pollution sources can be reduced by building oily waste disposal sites in port communities to deter marine disposal of oily wastes by small boats, cruise ships and ferries.

MONITORING AND RESEARCH PROGRAM. The monitoring and research program could include one or more of the following, although the number of components will vary between alternatives.

Recovery Monitoring would assess the rate of recovery of injured resources and services, and determine when recovery has occurred.

Restoration Monitoring would evaluate the effectiveness of specific restoration activities, identify where additional restoration activities may be appropriate, and determine when delayed injury occurs.

Ecosystem Monitoring would follow long-term trends in the distribution and abundance of injured resources and the quality and quantity of services. Monitoring could also detect residual spill effects and provide ecological baseline information to assess the impacts of future oil spills and other disturbances.

Restoration Research would focus on the design, development and implementation of new technologies and approaches to restore resources not recovering or recovering at unacceptable rates.

ENDOWMENTS. An endowment is not a restoration activity. It is a method of funding restoration. The Exxon Corporation has been depositing funds into the restoration fund since

1991 and will continue to do so until 2001. The Trustees could spend the entire settlement during that time or they could save some for future use. An endowment is a savings program to fund restoration after Exxon deposits end. It would use part of the settlement funds to create a savings account. The savings account could fund a low but constant level of restoration activities indefinitely. An endowment could be used to fund some or all restoration activities. Habitat acquisition, however, does not lend itself to an endowment. Purchase of land or other private property rights are usually made all at once.

The size of an endowment determines the amount of interest it earns and the number of restoration activities it can fund. If approximately 20% of the remaining settlement funds were placed into an endowment and the principal inflation-proofed, the endowment could fund at least $3 million worth of restoration activities indefinitely, and possibly somewhat more depending on assumptions about future interest rates. This amount is enough to continue the Trustee Council's monitoring program at a minimum level, and provide some funds for other monitoring components. If twice that amount were placed into the endowment, the additional funds could be used for fund general restoration, basic research, or spill prevention.

ADMINISTRATION AND PUBLIC INFORMATION. Funding is required to manage the restoration program. Providing the public with information about recovery and restoration will also consume a portion of the settlement monies. As the number of restoration projects increase and the complexity of management duties grow, the percentage of funds in each alternative that is proposed for these expenses also rises.

[Note to reviewers, this begins page 6]

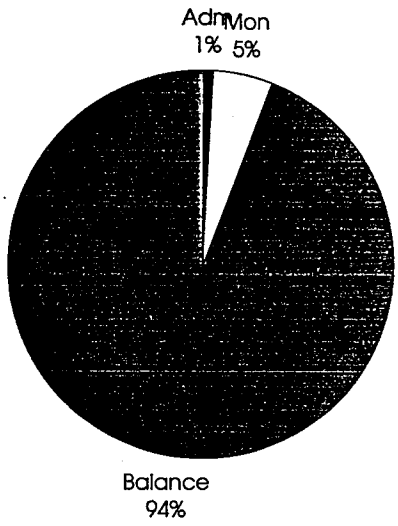
DESCRIPTION OF ALTERNATIVES

ALTERNATIVE 1 - NATURAL RECOVERY

No action other than monitoring and normal agency management.	
ISSUES	**POLICIES**
Injuries Addressed	Monitor all injured resources and services
Status of Resource Recovery	Monitor resources not recovered.
Effectiveness of Restoration Actions	Not applicable
Location	Monitor within the spill area.
Strategies for Human Use	Not applicable.

What would happen to resources and services injured by the oil spill if no restoration actions were taken other than monitoring? Table ____ describes expected times for natural recovery of injured resources and services, if expected patterns of use continue. They range from a few years to 120 years and are unknown for five resources. Archaeological resources and wilderness are not expected to recover. Monitoring of natural recovery is the only restoration action in this alternative. This alternative is the no-action alternative in the draft Environmental Impact Statement that will be released in June.

Alternative 1 - Allocation



Cost allocations are presented for illustration only .

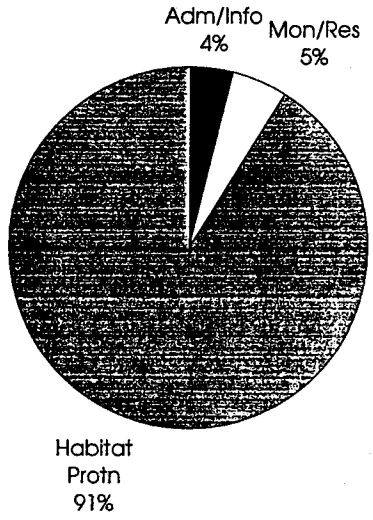
Allocations are expressed as percent of remainder of civil settlement.

ALTERNATIVE 2 - HABITAT PROTECTION

Protect injured resources and services within the spill area from further degradation or disturbance.	
ISSUES	**POLICIES**
Injuries Addressed	All injured resources and services
Status of Resource Recovery	Resources not recovered and resources recovered
Effectiveness of Restoration Actions	Provide some improvement over unaided recovery
Location	Activities within the spill area
Strategies for Human Use	Protect or increase existing use through habitat protection

The goal of this alternative is to protect strategic lands and habitats important to the long-term recovery of resources and services injured by the Exxon Valdez oil spill. In this alternative, 91% of the remaining settlement funds would be dedicated to habitat protection. Monitoring and Habitat Protection are the only restoration actions included in this alternative. Habitat Protection includes the acquisition of private land interests or changes in public land management. Monitoring will evaluate the effectiveness of habitat protection measures undertaken and follow the progress of natural recovery. These activities would be limited to the spill area.

Alternative 2 - Allocation



Cost allocations are presented for illustration only .

Allocations are expressed as percent of remainder of civil settlement.

ALTERNATIVE 3 - LIMITED RESTORATION

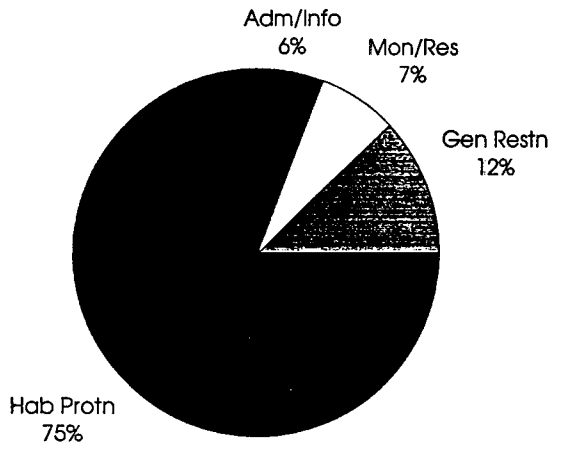
Take the most effective actions within the spill area to protect and restore injured services and resources whose population has declined. Maintain the existing character of the affected area.

ISSUES	POLICIES
Injuries Addressed	Injured services and resources whose populations declined
Status of Resource Recovery	Resources not recovered
Effectiveness of Restoration Actions	Provide substantial improvement over unaided recovery
Location	Activities within the spill area.
Strategies for Human Use	Protect existing use

The goal of this alternative is to help the worst-injured resources and services recover as efficiently as possible. As its name implies, this alternative is limited in that it addresses only the most severe injuries until the resource or service recovers, includes actions most likely to produce significant improvement over unaided recovery, is limited to the spill area, and does not fund activities that would substantially increase human use of the spill area. Only a few restoration activities meet these standards.

This alternative sets aside 75% of the remaining settlement funds for habitat protection. Of the General Restoration options that have been evaluated, only 21 meet the criteria of this alternative (See page ____). Spill Prevention and Response is not included. Monitoring would evaluate the effectiveness of restoration actions and follow the progress of natural recovery.

Alternative 3 - Allocation



Cost allocations are presented for illustration only .

Allocations are expressed as percent of remainder of civil settlement.

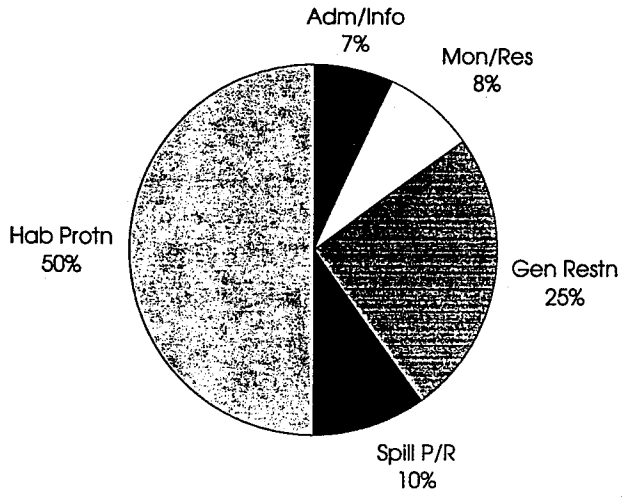
ALTERNATIVE 4 - MODERATE RESTORATION

Take the most effective actions within Alaska to protect and restore all injured resources and services. Increase, to a limited extent, opportunities for human use in the affected area.	
ISSUES	**POLICIES**
Injuries Addressed	All injured resources and services
Status of Resource Recovery	Resources not recovered
Effectiveness of Restoration Actions	Provide substantial improvement over unaided recovery
Location	Activities within Alaska
Strategies for Human Use	Protect or increase existing use

The goal of this alternative is to help all injured resources and services recover as efficiently as possible. It is similar to Alternative 3 in limiting restoration actions to resources not yet recovered and setting the same high standard of effectiveness. It differs from Alternative 3 in addressing additional species injured at a sublethal level, including activities within Alaska but outside the spill area, and increasing opportunities for human use of the area to a limited extent.

This alternative sets aside 50% of the remaining settlement funds for habitat protection. Of the General Restoration options that have been evaluated, 31 meet the criteria for this alternative. Spill Prevention and Response includes research and development to improve spill technology and equipment such as telecommunications and weather information systems. The Monitoring Program includes ecosystem monitoring and restoration research in addition to evaluating the effectiveness of restoration actions and following the progress of natural recovery.

Alternative 4 - Allocation



Cost allocations are presented for illustration only .

Allocations are expressed as percent of remainder of civil settlement.

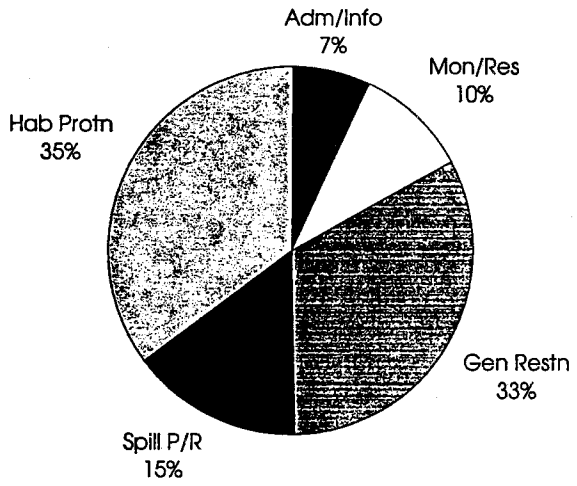
ALTERNATIVE 5 - COMPREHENSIVE RESTORATION

Take all effective actions within Alaska to protect, restore, and enhance all injured resources and services. Increase opportunities for human use in the affected area.	
ISSUES	**POLICIES**
Injuries Addressed	All injured resources and services
Status of Resource Recovery	Resources not recovered and resources recovered
Effectiveness of Restoration Actions	Provide some improvement over unaided recovery
Location	Activities within Alaska
Strategies for Human Use	Protect or increase existing use or encourage appropriate new use

The goal of this alternative is to help all injured resources and services return to or exceed prespill levels. It is similar to Alternative 4 in addressing all injured resources and services and including activities within Alaska but outside the spill area. It is more expansive than Alternative 4 in including restoration actions for resources whether or not they have recovered, including any action likely to produce at least some improvement over unaided recovery, and encouraging appropriate new human uses.

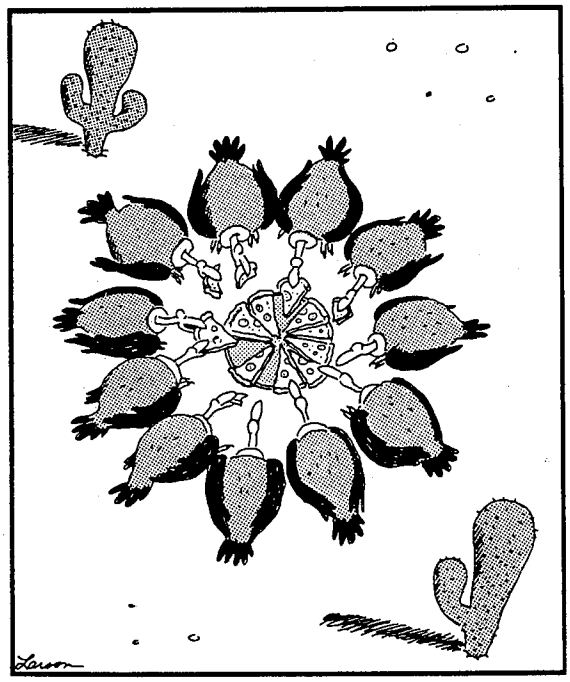
This alternative sets aside 35% of the remaining settlement funds for habitat protection. Of the General Restoration options that have been evaluated, 47 meet the standards of this alternative. Spill Prevention and Response would address chronic sources of pollution as well as research and development to improve spill technology and equipment such as telecommunications and weather information systems. The Monitoring Program includes ecosystem monitoring, restoration research, restoration monitoring, and natural recovery monitoring

Alternative 5 - Allocation



Cost allocations are presented for illustration only .

Allocations are expressed as percent of remainder of civil settlement.



Perspectives in nature we rarely enjoy

[Note to reviewers, Page 7 of the brochure begins here.]

COMPARISON OF ALTERNATIVES

This table shows the resources and services included in each alternative. It also presents current expectations about when resources will recover. For some species, there is substantial disagreement on the exact mechanism of the injury and how long it will take to recover. For many species much is unknown about when and how recovery will take place. These estimates will certainly change as recovery continues, monitoring uncovers more information and scientists learn more about each species.

Resource/Service	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Expected Natural Recovery (Yrs. from 1989)	Comments
Black oystercatcher						Less than 30 years	Recovering.
Common murres						Less than 120 years	Recovery varies by colony.
Harbor seals						Unknown	In decline before spill. Population may have stabilized.
Harlequin ducks						Less than 50 years (maybe)	Still no reproduction within spill area.
Intertidal organisms						Less than 25 years	Recovering in most places.
Marbled murrelet						Less than 50 years to stabilize the population	In decline before spill. May be still declining; may be stable.
Pigeon guillemots						Less than 50 years to stabilize the population	In decline before spill. Probably still declining.
Sea otters						Less than 50 years	Population stable, but not recovering.
Sockeye salmon						Less than 50 years	Not yet recovering in Kenai River.
Subtidal organisms						Less than 10 years (most places)	Recovering in most places.
Bald eagles						Less than 6 years	Back to pre-spill population by 1993-1995.
Cutthroat trout						Less than 20 years	
Dolly Varden						Less than 20 years	
Killer whales						Less than 20 years	Recovering.
Pacific herring						Unknown	Population decline may be documented after 1993.
Pink salmon						Unknown	
River otters						Unknown	
Rockfish						Unknown	
Archaeology						Will not recover	
Commercial Fishing						Recovery differs by species.	Currently no closures, although some may be implemented to help populations recover.
Recreation						Recovering slowly	
Recreation - Sport Fishing						Recovery differs by species.	Closures may continue until populations recover.

Subsistence						Recovering	Harvest continues to be below pre-spill levels.
Designated Wilderness Areas						Dependant on rate that persistent oil is degrading.	

The table below compares spending guidelines and restoration activities within the five alternatives. The spending for each restoration category gives a sense of the emphasis of the restoration program envisioned by each alternative. They are guidelines and not fixed allocations.

ALLOCATION	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Administration and Public Information	1%	4%	6%	7%	7%
Monitoring and Research	5%	5%	7%	8%	10%
• Recovery Monitoring					
• Restoration Monitoring					
• Ecosystem Monitoring					
• Restoration Research					
General Restoration			12%	25%	33%
(For examples of general restoration activities within each alternative see page __.)					
Habitat Protection		91%	75%	50%	35%
Spill Prevention and Response				10%	15%
• Research and Development					
• Equipment					
• Chronic Marine Pollution					
Balance	94%				

Allocation expressed as percent of the remainder of the civil settlement.

In general, how does each alternative benefit recovery?

Alternative 1 would produce no improvement over natural recovery. Natural recovery means that no restoration activities will be undertaken.

Alternative 2 would improve natural recovery by preventing some habitat disturbances that might otherwise occur. Benefits accrue to resources and services linked to upland habitat.

Alternative 3 has the greatest potential to improve recovery of the worst injured resources within the spill area . However, it makes no provision for future oil spills and for sublethal injuries unless there is a measurable population decline. It also funds activities that protect existing human use.

In addition, to the benefits in alternative 3, **alternative 4** addresses potential problems before they occur. It addresses sublethal effects before they produce population decline; prepares for future oil spills through ecosystem monitoring, research and spill prevention and response activities; and reaches outside the spill are if necessary to find better restoration opportunities. It also funds activities that increase human use. These assurances are provided at some expense to habitat protection.

In addition to the benefits in alternative 4, **alternative 5** would enhance recovery of some resources and services beyond prespill levels though actions such as fisheries enhancement or addressing chronic marine sources of oil pollution. Enhancement benefits some resources and services more than others. This alternative allocates the least amount of money to habitat protection.

Endowment. Whether or not funds are placed into an endowment is a decision about the timing of when restoration activities should occur. The alternatives compared above assume that the funds are spent within ten years. Twenty percent of the remaining restoration funds could be placed into a savings account. If so, fewer restoration activities could be accomplished with ten years, but the annual interest from the account could fund recovery monitoring and possibly a few other restoration activities indefinitely. It is also possible to place 40% of the funds into a savings account and use the annual interest to fund a larger amount of restoration activities indefinitely.

[Note to reviewers, Page 3 of the brochure begins here.]

General Restoration

The General Restoration category of alternatives 3 through 5 includes various restoration actions which have been suggested throughout the planning process. The suggestions were evaluated by scientists and peer reviewers. Those that were determined to be effective have been combined into general options and are listed below. Those general options may include a number of specific projects. The option evaluation considered: how recovery was aided and whether further potential injury could be prevented. Other considerations included negative effects, how many species benefit, human health and safety, and cost effectiveness. No options were identified for restoring subtidal resources, air, water, sediment or designated wilderness areas. The list on this page provides examples of restoration options that passed the evaluation process. New options will continue to be evaluated as the restoration plan is implemented.

The amount of funding allocated to general restoration in all alternatives includes substantially more than the amount needed to fund all the options identified in this list.

Many options would have wide-ranging impacts throughout the spill area. Most options that help resources also help the services that are dependent upon them. An option targeted to improve the recovery of a single resource may greatly benefit other resources that occur in the same area.

This is especially true of the activities that protect marine, coastal and upland habitats. In additions, options that benefit the foundation of a food web, such as marine invertebrates, would ultimately benefit top predators such as whales and eagles.

* The asterisk in the table denotes those options which may produce **substantial** improvement in the recovery of a biological resource. Those without an "*" may produce at least **some** improvement in recovery.

	MAMMALS — Alternatives	3	4	5
	HARBOR SEAL: Determine the effects of disturbance on harbor seals and implement actions to reduce adverse effects.			x
*	Implement cooperative programs between fishermen and agencies to provide voluntary methods to reduce incidental take of harbor seals during fishing.	x	x	x
*	Implement cooperative programs between subsistence users and agencies to assess the effects of subsistence harvest.	x	x	x
*	**KILLER WHALE:** Determine techniques for changing black cod fishery gear to avoid conflicts with fishermen and implement actions to remove adverse effects.		x	x

* **SEA OTTER:** Determine the effects of disturbance of upland activities on sea otters and implement actions to reduce adverse effects. This would have benefits in local areas only.	x	x	x
* Determine if eliminating oil from mussel beds removes a potential source of continuing contamination to sea otter food and take appropriate action. This would have benefits in local areas only.	x	x	x
* Implement cooperative programs between subsistence users and agencies to assess the effects of subsistence harvest.	x	x	x
RIVER OTTER: Develop sport and trapping harvest guidelines to aid in the recovery of injured populations.			x

FISH Alternatives	3	4	5
* **SOCKEYE SALMON:** Intensify management of sockeye salmon on the Kenai River and Red Lake to reduce the risk of overescapement.	x	x	x
Improve access to salmon streams by building fish passes to increase the area where salmon can successfully spawn and rear. This would have benefits in local areas only.			x
Fertilize Coghill Lake in PWS to improve sockeye rearing success within the lake and increase sockeye population in PWS.		x	x
* Improve survival rates of salmon eggs to fry by using egg boxes, net pens or hatchery rearing.	x	x	x
* **PINK SALMON:** Intensify management by incorporating coded-wire tagging and stock separation to ensure and accelerate the recovery of the wild stock.		x	x
Construct salmon spawning channels and other instream improvements to increase spawning production and provide long-term enhancement. This would have benefits in local areas only.			x
Improve access to salmon streams by building fish passes to increase the area where salmon can successfully spawn and rear. This would have benefits in local areas only.			x
* Relocate hatchery runs of pink salmon to reduce the interception rate of wild stocks of pink salmon.		x	x
Improve survival rates of salmon eggs to fry by using egg boxes, net pens, or hatchery rearing. This would have benefits in local areas only.			x
Update the Alaska Anadromous Streams Catalog to ensure that the necessary protection and regulation is provided for all listed salmon streams in the spill area.			x
* **CUTTHROAT TROUT:** Intensify management of cutthroat trout and its dependent sport fishery by determining local distribution, abundance, and productivity.		x	x
Update the Alaska Anadromous Streams Catalogue to ensure necessary protection and regulation for all listed anadromous streams in the spill area.			x
* **DOLLY VARDEN:** Intensify management of Dolly Varden and its dependent sport fishery by determining local distribution, abundance and productivity.		x	x

	3	4	5
* **PACIFIC HERRING:** Intensify management to improve recovery by allowing increased precision in stock assessment and manipulation of harvest levels.		x	x
* **ROCKFISH:** Intensify management of the rockfish fishery to modify the harvest to compensate for injury from the spill.		x	x
BIRDS Alternatives	3	4	5
BLACK OYSTERCATCHER: Accelerate the recovery of the upper intertidal zone to improve the rate of recovery in site-specific areas.			X
* Remove predators from islands that previously supported black oystercatchers. Effectiveness varies by location.		X	X
COMMON MURRE: Reduce disturbance at breeding colonies to eliminate factors which could slow the recovery of affected murre colonies.			X
* Use artificial stimuli such as decoys or vocalizations to encourage recovery at affected colonies and accelerate recolonization of historic colonies.	X	X	X
* Remove predators at injured colonies or remove predators from islands that previously supported murres.	X	X	X
HARLEQUIN DUCK: Modify sport hunting harvest guidelines in the areas of injured populations to speed the rate of recovery during the recovery phase.			X
* Determine if eliminating oil from mussel beds removes a potential source of continuing contamination in feeding areas and take appropriate action. This would have benefits in local areas only.	X	X	X
* **MARBLED MURRELET:** Minimize the incidental capture of birds in fishing nets by changes in gear or timing of fishing.	X	X	X
* **PIGEON GUILLEMOT:** Control predator access or remove predators from islands that previously supported birds.	X	X	X
BALD EAGLE: No options other than habitat protection have been identified.			
COASTAL HABITAT Alternatives	3	4	5
* **INTERTIDAL ORGANISMS:** Accelerate the recovery of the upper intertidal zone to aid intertidal resources in localized areas.	x	x	x
SUBTIDAL ORGANISMS: No restoration options have been identified.			
DESIGNATED WILDERNESS AREAS	3	4	5
No options have been identified for Designated Wilderness Areas or Wilderness Study Areas.			
ARCHAEOLOGY Alternatives	3	4	5

Develop a site stewardship program using local residents to monitor nearby archaeological sites to discourage looting and vandalism.	x	x	x
Increase law enforcement and agency presence to patrol and monitor archaeological sites within the spill area would protect sites from looting and vandalism.	x	x	x
Preserve archaeological sites and artifacts within the spill area to provide some measure of permanent protection for select archaeological resources.	x	x	x
Acquire replacements for artifacts from the spill area as a means of preserving and studying artifacts which were taken from the spill area prior to the spill.		x	x

SERVICES Alternatives	3	4	5
Resource options shown above also benefit many services.			
RECREATION AND COMMERCIAL TOURISM: Develop new backcountry public recreation facilities to protect both recreation and the resources on which it depends; for example, by providing an outhouse in a heavily used area.	x	x	x
Plan and market public land for commercial recreational use to provide additional opportunities for commercial operators and recreationists to use public lands.			x
Create new visitor centers or build a marine environmental institute to benefit all injured resources. Increase public awareness of the nature of injury and recovery and an understanding of the ecosystem of the area.			x
RECREATION - SPORT FISHING: Replace lost harvest opportunities by creating new fisheries for salmon or trout.	x	x	x
SUBSISTENCE: Replace lost harvest opportunities by creating new salmon runs.			x
Test subsistence foods for continued contamination as a means of restoring confidence in the safety of subsistence resources within the spill area.	x	x	x
Provide new access to traditional foods in areas outside the spill area to restore lost use.	x	x	x
Develop subsistence mariculture sites to benefit subsistence users by providing a source of uncontaminated shellfish for their diets.			x
Develop a shellfish hatchery and technical research center to benefit subsistence users by providing a source of uncontaminated shellfish for their diets.			x
COMMERCIAL FISHING: Replace harvest opportunities by creating new fish runs to replace commercial fishing opportunities lost due to fishing closures or reduced harvest.	x	x	x
PASSIVE USE: No options other than habitat protection have been identified for this resource.			

[Note to Reviewers, Page 9 of the brochure begins here]

How should these issues be resolved?

INTRODUCTION

The Trustees can use the settlement funds in a variety of ways. We would like to know your views about the appropriate policies, categories of restoration activities, and spending guidelines. Please fill out the questions on this page and let the Trustees know which approaches you believe will best restore the injuries of the oil spill. If you need more information, please come to one of the public meetings. Also, feel free to comment on other parts of the plan alternatives in the space provided. Attach additional sheets if you need more space. Thanks for your help!

QUESTIONS ABOUT ISSUES AND POLICIES

The alternatives presented policy questions. The answers to those questions will help guide some restoration activities. The policy questions are reprinted below. Please mark the appropriate box to let us know your views.

If you think that these policies should apply to some restoration activities but not others, please write your views down in the space provided beneath each question. For example, if you think that some general restoration activities are appropriate outside the spill area but that habitat protection should concentrate only on the spill area, you would write that information in the comment space under question four.

ISSUES AND POLICY QUESTIONS
Injuries Addressed: Should restoration actions address ALL injured resources or only those which had a measurable population decline because of the spill? ☐ Target restoration activities only to resources whose populations declined because of the spill. ☐ Target restoration activities to all injured resources ☐ No preference Comments:
Status of Resource Recovery: Should restoration actions cease when a resource has recovered? ☐ Continue appropriate activities even after resources recover. ☐ Cease funding restoration once a resource recovers. ☐ No preference Comments:
Effectiveness of Restoration Actions: Should the plan include only those restoration actions that produce substantial improvement over unaided recovery or also those that produce at least some improvement?

☐ Fund all effective restoration actions
☐ Fund only highly effect restoration actions
☐ No preference
Comments:

Location: Should restoration activities take place in the spill area only or anywhere in Alaska provided there is a link to injured resources or services?

☐ Fund activities within the spill-area only.
☐ Allocate some funds for activities outside the spill-area but within Alaska. The activities must be linked to injured resources or services.
☐ No preference
Comments:

Strategies for Human Use: To what extent should restoration actions be used to increase opportunities for human use?

☐ Do not fund activities that increase human use.
☐ Fund only habitat protection.
☐ Only fund restoration activities that are designed not to increase use levels but only to protect existing human use. Examples are recreation facilities that protect the environment in over-used areas, or testing the safety of subsistence foods.
☐ Fund restoration activities that protect or increase existing uses. Examples are funding to increase existing sport- or commercial fishing runs, or funding to construct recreation facilities such as public-use cabins.
☐ In addition to activities that protect or increase existing human use, also fund appropriate new uses. Examples are new fishing runs, commercial facilities, or visitor centers.
☐ No preference
Comments:

QUESTIONS ABOUT CATEGORIES OF THE RESTORATION PROGRAM

The questions below discuss the different categories of restoration activities. The questions ask about what groups of activities you believe the trustees should fund.

Spill Prevention and Response. The alternatives propose using up to 15% of the remaining settlement funds for spill prevention and response to prevent catastrophic and chronic oil pollution.

Should the Trustee Council fund spill prevention and response activities?

- ☐ No
- ☐ Yes. *Please indicate which spill prevention and response activities you believe are appropriate (you may mark more than one answer):*
  - ☐ Spill prevention and response technology.
  - ☐ Infrastructure
  - ☐ Prevention of chronic pollution
  - ☐ Other:

Comments:

Monitoring and Research. Some components of monitoring and research are included in all alternatives. We would like to know your views.

Should the Trustee Council fund monitoring and research activities?

- ☐ No
- ☐ Yes. *Please indicate which monitoring and research activities you believe are appropriate (you may mark more than one answer):*
  - ☐ Recovery monitoring
  - ☐ Restoration monitoring
  - ☐ Ecological monitoring
  - ☐ Restoration Research
  - ☐ Other:

Comments:

Endowment. Some alternatives assume that the settlement funds will be spent within ten years. Others propose placing 20% to 40% of the remaining settlement funds into a savings account to fund restoration, spill prevention, research, or monitoring after that time.

Are you in favor of an endowment or savings account of some kind?

- ☐ No, I believe the funds should be spent within 10 years.
- ☐ Yes. *Please indicate what the annual endowment earnings should be spent on (you may mark more than one answer):*
  - ☐ Research and Monitoring
  - ☐ General Restoration
  - ☐ Spill preparedness
  - ☐ Habitat Acquisition
  - ☐ Other:

Comments:

QUESTIONS ABOUT SPENDING GUIDELINES

The table below shows the spending guidelines in the five alternatives. If one of the alternatives reflects your view of how the funds should be allocated, please circle the name of that alternative. If not, please put write in your percentages in the space to the right. If needed, you may write in new suggestions for restoration plan components in the blank lines. If you believe that an endowment is appropriate, please put in the appropriate percentage in the endowment line. (Make sure your percentages add to 100%!).

	Alternative #1 Natural Recovery	Alternative #2 Habitat Protection	Alternative #3 Limited Restoration	Alternative #4 Moderate Restoration	Alternative #5 Comprehensive Restoration	*YOUR ALTERNATIVE* If none our alternatives reflect your views about allocating the funds, please write your percentages below.	
Administration & Public Information	1%	4%	6%	7%	7%		Administration & Public Information
Monitoring & Research	5%	5%	7%	8%	10%		Monitoring & Research
General Restoration			12%	25%	33%		General Restoration
Spill Preparedness				10%	15%		Spill Preparedness
Endowment							Endowment
Habitat Protection		91%	75%	50%	35%		Habitat Protection
Balance	94%						Balance
Total:	100%	100%	100%	100%	100%		
						100%	Total

HABITAT PROTECTION: PRIVATE LANDS

Habitat Protection on private lands is a major element in all but the natural recovery alternative of the draft Restoration Plan. Habitat protection on private lands may include acquisition of full title or acquisition of partial rights such as conservation easements and timber rights. Partial rights may be less expensive than full title. Because land purchases are negotiated and are dependent both on price and on the will of the seller, final purchases will be dependent on landowner's preferences as well as those of the public and the trustees. (The habitat protection process was described in the Restoration Framework Supplement.)

In response to public support, the Trustee Council is proceeding in advance of the Restoration Plan by protecting several imminently threatened parcels. For example, the Trustee Council decided to go ahead with the purchase of inholdings in Kachemak Bay State Park.

We are requesting your views on several issues concerning Habitat Protection on private lands. Please answer the questions below.

1. When purchasing land we can purchase large areas that protect the overall landscape or integrity of the habitat, or purchase small but important parcels such as stream corridors and camping areas to stretch the funds. Would you prefer acquisitions to emphasize:

- ☐ a few large parcels of land
- ☐ many small parcels of land
- ☐ mix of large and small parcels
- ☐ no preference

2. Buying habitat may affect the economic condition or quality of life in your community. We'd like your views on this.

What positive impacts would you like habitat protection to have in your community?

_____

_____

_____

_____

What negative impacts would you like habitat protection to avoid in your community?

_____

_____

3. Acquired lands or interests will be managed to aid the recovery of injured resources and services. Should these lands or interests in these lands be retained forever?

☐ No
☐ Yes
☐ No Preference

4. All habitat protection will benefit resources and services injured by the spill. Should the decision to purchase lands also protect resources and services not injured by the spill?

☐ No
☐ Yes
☐ No Preference

5. Other comments?

COMMENTS

Please use the space below to write comments. Any comment you write will be greatly appreciated. Thank you.

Draft *Exxon Valdez* Oil Spill Restoration Plan Summary of Alternatives for Public Comment

We need your help to determine how to restore the injuries from the *Exxon Valdez* Oil Spill. You can let us know your views by attending a public meeting in your community.

PUBLIC MEETINGS

WHERE	WHEN

If you cannot attend the public meetings, please send us your comments by August __, 1993 on the enclosed comment sheet. For additional copies of this brochure or for more information contact:

Exxon Valdez Oil Spill Restoration Office
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Anchorage, Alaska 99501
(907) 278-8012

Thank you,
Exxon Valdez Oil Spill Trustee Council

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Attorney General
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Steven Pennoyer
Director, Alaska Region
National Marine Fisheries Service

[Note to reviewers, Page 1 of the brochure begins here.]

How Should the Trustees Spend the *Exxon Valdez* Civil Settlement?

Your comments are Needed!

The purpose of this brochure is to give you the opportunity to express your opinion about the best use of the *Exxon Valdez* civil settlement funds. By going through this brochure and attending meetings you have a chance to tell us what you like and dislike about alternative ways to spend the money. You can also make recommendations about things we may have overlooked. If you cannot attend the meetings, please note your ideas on the enclosed response form and mail it back to us by August ___, 1993.

The U.S. National Environmental Policy Act requires that an Environmental Impact Statement be part of any significant federal action such as the program for restoring injuries caused by the oil spill. The Draft Environmental Impact Statement and the full text of the Draft Restoration Plan, however, will not be available until June. Because many people are unavailable during the summer, this summary is being released now to allow the public to give the Trustees their ideas. If you would like, you may wait to see the Draft Environmental Impact Statement and Draft Restoration Plan this June before you make your comments.

In addition to including information found here, the Draft Environmental Impact Statement will analyze the impacts of these alternatives on the physical, biological, social, and economic aspects of the environment. It will help the Trustees and the public understand the consequences of alternative methods of spending the civil settlement funds.

The information you provide will be used to prepare a final restoration plan that will be presented to the public this fall. The plan adopted by the Trustee Council may contain parts of several of the alternatives presented here plus new information provided by you.

DRAFT

What is the Restoration Plan?

The *Exxon Valdez* Restoration Plan will provide long-term guidance for the Trustee Council to use when allocating the civil settlement funds for restoring injuries caused by the oil spill. The Council will implement the plan through annual work plans. The annual work plan is a mix of restoration activities to be funded based on the policies and budget guidelines of the plan, future public comments and changing restoration needs. The plan may be changed by the Trustees in response to new information about the injuries and recovery, new technologies, or as social and economic conditions change.

The Trustee Council allocates funds from the civil settlement for activities to restore the oil spill injuries. The Trustee Council *does not* direct land uses on federal, state, or private lands and *does not* manage fish and wildlife resources. Land use and fish and game management decisions are made by the appropriate federal or state agencies. The Trustee Council may make recommendations to state and federal agencies, provide funds for state and federal management, or fund research to provide information to those agencies or other groups. The Trustee Council may also purchase private land or private property rights, but no purchases will be forced on an unwilling seller.

BACKGROUND

Shortly after midnight on March 24, 1989 the T/V *Exxon Valdez* ran aground on Bligh Reef in Prince William Sound spilling 11 million gallons of North Slope crude oil. This was the largest tanker oil spill in United States history. All through the Spring, the oil moved along the coastline of Alaska contaminating the shoreline of Prince William Sound, the Kenai Peninsula, lower Cook Inlet, the Kodiak Archipelago, and the Alaska Peninsula. Portions of 1,200 miles of coastline were oiled, including part of one National Forest, four National Wildlife Refuges, and three National Parks.[1] Oil eventually reached shorelines nearly 600 miles from Bligh Reef.

On October 8, 1991, an agreement was approved by the U.S. District Court that settled the claims of the United States and the State of Alaska against Exxon Corporation and Exxon Shipping Company for various criminal violations and for recovery of civil damages resulting from the oil spill.

As part of the criminal plea agreement, the court fined Exxon and Exxon Shipping $150 million -- the largest fine ever imposed for an environmental crime. Of this amount, $125 million was forgiven due to their cooperation with the governments during the cleanup, timely payment of many private claims, and environmental precautions taken since the oil spill. The remaining $25 million was paid into the North American Wetlands Conservation Fund, and into the Victims of Crime Act Account.

The Exxon companies also agreed to pay $100 million as restitution. Fifty million dollars were paid to the United States and $50 million to the State of Alaska. The state and federal governments separately manage the $50 million payment that each has received. These funds are not under the authority of the Trustee Council and are not considered by this plan. However they must be used exclusively for restoration activities, within the State of Alaska, relating to the *Exxon Valdez* oil spill.

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[1]. Two turtle doves, and a partridge in a pear tree.

Civil Settlement and Restoration Fund

In the civil settlement, the Exxon companies agreed to pay the United States and the State of Alaska up to $900 million over a period of 10 years. The use of the civil settlement funds are the subject of this plan.

Who can spend the civil settlement money? Decisions on spending the civil settlement funds are made by a council of six state and federal Trustees:

State of Alaska Trustees:

- Commissioner of the Department of Environmental Conservation;
- Commissioner of the Department of Fish and Game; and
- Alaska Attorney General.

Federal Trustees:

- Secretary of the U.S. Department of the Interior;
- Secretary of the U.S. Department of Agriculture; and
- Administrator of the National Oceanic and Atmospheric Administration, U.S. Department of Commerce.

The Federal Trustees have appointed representatives to the Trustee Council from local federal agencies.

What are the rules for spending the civil settlement money?

- All decisions made by the Trustee Council (such as spending settlement funds) must be made by unanimous consent.
- The Trustees must use the settlement funds "...for the purposes of restoring, replacing, enhancing, or acquiring the equivalent of **natural resources** injured as a result of the Oil Spill and the reduced or lost **services** provided by such resources..." (except for the reimbursement of certain expenses to the governments).
- The settlement funds must be spent on restoration of natural resources in Alaska unless the Trustees unanimously agree that spending funds outside of the state is necessary for effective restoration.

The settlement defines **natural resources** as the land, fish, wildlife, biota, air, water, ground water, drinking water supplies, and other such resources belonging to or managed by the state or federal governments. Examples of natural resources are birds, fish, mammals, subtidal plants and organisms, and archaeology.

In addition to restoring natural resources, the settlement requires restoration funds be used to restore reduced or lost **services** provided by injured natural resources. For example, subsistence, commercial fishing, and recreation including sport-fishing and sport-hunting, are services that were damaged by injuries to fish and wildlife. Other damaged services include commercial tourism, and the enjoyment that people receive from the undisturbed wild areas.

Funding

The civil settlement requires Exxon to deposit funds each year beginning December 1991 and ending September 2001. Of the $900 million in the settlement, approximately $610 million remains for restoration.

The restoration fund has so far received $240 million from Exxon in two deposits. Of that amount, $107.3 million was withdrawn to reimburse the federal and state governments for cleanup; $19.5 million was withdrawn for the 1992 work plan; $13.3 million for the 1993 work plan; $20 million for interim habitat purchases including $7.5 million for the purchase

of inholdings in Kachemak Bay State Park, and Exxon took a one-time $39.9 millions deduction for allowable cleanup expenses after January 1, 1991. In addition, further reimbursements to the governments for cleanup and litigation expenses are allowed by the settlement. These are estimated to be $90 million.

[Note to reviewers, the brochure map (the spill-area map) will go on this page.

[Note to reviewers, Page 3 of the Brochure begins here]

What Was Injured By the Spill and Is It Recovering?

The *Exxon Valdez* oil spill injured resources and services throughout the spill area. The oil spill occurred just before the most biologically active season of the year in Southcentral Alaska. During the four-month period after the oil spill, seaward migration of salmon fry, major migrations of birds, and the primary reproductive period for most species of bird, mammals, fish, and marine invertebrates took place. The organisms involved in these critical periods of their life cycle encountered the most concentrated, volatile and damaging forms of oil. The oil spill also directly impacted archaeological resources, subsistence, recreation, designated wilderness areas, and wilderness qualities, aesthetics, and other services. Oil affected each resource and service differently; these injuries are briefly described below.

The *Exxon Valdez* oil spill was only one factor that affected the health of several populations in the area. We do not know the cause of the long-term declines of marbled murrelets, pigeon guillemots or harbor seals.

For some resources, the oil spill caused a measurable decline in their population. For example, an estimated 8,000 to 12,000 marbled murrelets were killed during the oil spill. For other resources, the spill caused an injury to one life stage, but that injury did not measurably lower the overall population. An example of a sublethal effect is abnormal herring fry. This has not yet caused a measurable population decline.

MAMMALS

HARBOR SEALS: The oil spill caused population declines and sublethal injuries to harbor seals. Many were directly oiled and an estimated 345 died. Oil residues found in seal bile were 5 to 6 times higher in oiled areas than unoiled areas in 1990. The population was declining prior to the oil spill which makes it difficult to know the continuing effects. There is no indication of recovery.

KILLER WHALES: The oil spill caused sublethal injuries to at least one of the killer whale pods in Prince William Sound. Debate continues about whether the oil spill caused a population decline. Thirteen whales out of 36 in the AB pod are missing and presumed dead. Circumstantial evidence links whale disappearance to the oil spill. Additionally, several adult males have collapsed dorsal fins. Social disruption of family units has been observed. In the AB pod, no new births were recorded in 1989 or 1990; one birth was recorded in 1991; and two births were recorded in 1992. These births show that the AB pod is beginning to recover.

RIVER OTTERS: The oil spill caused at least sublethal injuries to river otters. However, the population is difficult to census and it is unknown if there were population declines. Sublethal indicators of possible oil exposure remained in 1991. River otters feed in the intertidal and shallow subtidal areas and may still be exposed to oil persisting in the environment.

SEA OTTERS: The oil spill caused population declines and sublethal injuries to sea otters. It is estimated that 3,500 to 5,000 otters died. Surveys in 1989, 1990 and 1991 showed measurable differences in population numbers and survival between oiled and unoiled areas. In 1992, lower juvenile survival rates and higher than normal numbers of dead prime age otters indicate that the populations in Prince William Sound continue to be stressed. Sea otters feed in the lower intertidal and subtidal areas and may still be exposed to oil persisting in the environment. Little or no evidence of recovery has been detected.

BIRDS

BALD EAGLES: The oil spill caused sublethal injuries and possibly population declines in bald eagles. In 1989, 151 carcasses were recovered from beaches. Productivity in Prince William Sound was disrupted in 1989, but returned to normal in 1990. Exposure to oil and some sublethal injuries were found in 1989 and 1990, but no continuing effects were observed on populations. Bald eagles are recovering and may have recovered, from effects due to the oil spill.

BLACK OYSTERCATCHERS: The oil spill caused population declines and sublethal injuries to black oystercatchers. In 1989, nine carcasses were recovered from beaches, but the actual number killed were many more. In 1989, smaller eggs were found in oiled areas. Black oystercatchers feed in the intertidal areas and may still be exposed to oil persisting in the environment. The population is recovering although evidence of sublethal injuries persisted in 1992.

COMMON MURRES: The oil spill caused population declines and sublethal injuries at murre colonies within the oil spill area. In 1989, 10,428 carcasses were recovered from beaches representing between 175,000 to 300,000 murres killed. Measurable impacts on populations were recorded in 1989, 1990 and 1991. Breeding was still inhibited in some colonies in the Gulf of Alaska in 1992. The degree of recovery varies between colonies, however some colonies show little evidence of recovery.

HARLEQUIN DUCKS: The oil spill caused population declines and sublethal injuries to harlequin ducks. In 1989, 213 carcasses were recovered from beaches which probably represents over 400 birds killed. Post-spill samples showed oil contamination and poor health in 1989 and 1990. In the three years since the oil spill, it appears that harlequin ducks still are not successfully breeding in oiled areas. Harlequin ducks feed in the intertidal and shallow subtidal areas and may still be exposed to oil persisting in the environment. Although the population continues to show evidence of sublethal injuries and is not yet showing signs of recovering, it is possible that the decline has stabilized.

MARBLED MURRELETS: The oil spill caused population declines, but it is unknown if there were sublethal injuries. In 1989, 612 carcasses were recovered from beaches. It is estimated that 8,000 to 12,000 birds died. Measurable population effects were recorded in 1989, 1990 and 1991. Marbled murrelet populations were declining prior to the oil spill. In 1989, oil contamination was found in livers of adult birds. Although the recovery status in 1992 was uncertain and no signs of an increasing population have been observed, it is possible that the decline has stabilized.

PIGEON GUILLEMOTS: The oil spill caused population declines to pigeon guillemots. In 1989, 614 carcasses were recovered from beaches representing from 1,500 to 3,000 birds killed. Pigeon guillemot populations were declining prior to the spill. In 1989, oil contamination was found in birds and, externally, on eggs. The recovery status in 1992 is uncertain with no evidence of an increase in the population.

FISH

CUTTHROAT AND DOLLY VARDEN TROUT: The oil spill caused sublethal injuries and possibly population declines for these two species. Differences in the survival and growth between anadromous adult populations in the oiled and unoiled areas persisted from 1989 to 1991 despite less indications of oil exposure. This was possibly due to continuing injury to the food base, however, scientists disagree as to whether these differences in survival and growth existed before the spill. It is unknown whether these species are recovering.

PACIFIC HERRING: The oil spill caused sublethal injuries to Pacific herring. It is unknown whether this will result in a population decline. Measurable differences in egg counts between oiled and unoiled areas were found in 1989 and 1990. Lethal and sublethal effects on eggs and larvae were evident in 1989 and, to a lesser extent, in 1990. In 1991 there were no differences between oiled and unoiled areas. It is possible that the 1989 year class was injured which could result in reduced recruitment to the adult population. If so, an adult population decline will not become apparent until 1993. Overall recovery status is unknown.

PINK SALMON: The oil spill caused sublethal injuries to wild stock populations, and there is debate on whether the wild stock population has declined. Abnormal fry were observed in 1989 and egg mortality continued to be higher than expected in 1990 and 1991. The debate about population declines focuses on the whether the observed injuries necessarily result in reduced adult returns. Reduced growth of juveniles was found in 1989 and 1991, which correlates with reduced survival. In 1992, there was continued evidence of sublethal injuries. Overall recovery status is unknown.

ROCKFISH: The oil spill caused at least sublethal injuries, however, it is unknown whether or not population declines also occurred. Twenty dead fish were found in 1989, but only a few were in condition to be analyzed. Those showed exposure to oil with some sublethal injuries. Closures to salmon fisheries increased the fishing pressure on rockfish and the increasing catch may be impacting the population. It is unknown if the population has recovered from sublethal injuries, or the from any population decline.

SOCKEYE SALMON: Kenai River and Red Lake sockeye salmon stocks both suffered population declines as well as sublethal injuries. Smolt survival continues to be poor in both systems due to overescapements that occurred at Red Lake in 1989 and in the Kenai system in 1987, 1988, and 1989. As a result, adult returns are expected to be low in 1994 and successive years. Overall recovery status is unknown.

COASTAL HABITAT

COASTAL HABITAT - INTERTIDAL ZONE: The oil spill caused population declines and sublethal injuries to the populations of plants and animals that live in the area between low and high tide. The lower intertidal and, to some extent, the mid intertidal zones are recovering. However, in the upper intertidal zone, some species have not recovered, and oil persists in and under mussel beds. Intertidal organisms were impacted by both oiling and clean-up, particularly the high pressure hot water washing. Recovery varies by species largely based on their position within the intertidal zone.

COASTAL HABITAT - SUBTIDAL ZONE: The oil spill caused population declines and sublethal injuries to the populations of plants and animals found below low tide. Eel grass and some species of algae appear to be recovering. Amphipods in eel grass beds recovered to pre-spill densities in 1991. Leather stars and helmet crabs showed little sign of recovery through 1991. Overall recovery is variable by species.

ARCHAEOLOGY

ARCHAEOLOGY: Twenty-four archaeological sites are known to have been adversely affected by oiling, clean-up activities, or looting and vandalism linked to the oil spill. An additional 113 sites are estimated to have been similarly affected. Injuries attributed to increased looting and vandalism which have been linked to the oil spill are still occurring. Archaeological sites and artifacts cannot recover, they are finite non-renewable resources.

DESIGNATED WILDERNESS AREAS: Hundreds of miles of wilderness coastlines were affected by oil. Some oil remains embedded in the sediments of these areas.

SERVICES

RECREATION AND COMMERCIAL TOURISM: The nature and extent of injury varied by user group and by areas of use. About one quarter of survey respondents reported no change in their recreation experience, but others reported avoiding the spill area, reduced wildlife sightings, residual oil and more people. They also reported changes in their perception of recreation opportunities in terms of increased vulnerability to future oil spills, erosion of wilderness, a sense of permanent change, concern about long-term ecological effects and, in some, a sense of optimism. There are indications that declines in recreation activities reported in 1989 appear to have reversed in 1990, but there is no evidence that they have achieved pre-spill values.

RECREATION: SPORT FISHING AND HUNTING: Between 1989 and 1990, a decline in sport fishing effort (number of anglers, fishing trips and fishing days) was recorded for Prince William Sound, Cook Inlet and the Kenai Peninsula. In 1992, an emergency order restricting cutthroat trout fishing was issued for western Prince William Sound due to low adult returns. The closure is expected to continue at least through 1993. Sport hunting of harlequin ducks was reduced by restrictions imposed in 1991 and 1992 in response to damage assessment studies. It is likely that these restrictions will continue until the species shows signs of recovery.

PASSIVE USE: In 1991, over 90% of those surveyed nation-wide were aware of the oil spill. Over 50% believed that the oil spill was the largest environmental accident caused by humans anywhere in the world. There was also a perception that the values of wild areas has diminished. Although some people's feelings of lost values are diminishing as they sense some recovery is occurring, others' feelings have not changed as they do not believe recovery is occurring. Until oil is completely removed or degrades naturally, injury to wilderness values will continue.

SUBSISTENCE: Subsistence harvests of fish and wildlife in 9 of 15 villages surveyed declined from 4 to 78 percent in 1989 when compared to pre-spill averages. Seven of the 15 villages show continued decline in use in 1990 and 1991. This decline was particularly noticeable in the Prince William Sound villages of Chenega and Tatitlek. In 1989, chemical analysis indicated that most resources tested, including fish, marine mammals, deer, and ducks, were safe to eat, but that shellfish from oiled beaches should not be eaten. However, villagers believe that contamination to subsistence food sources continue to be dangerous to their health and some subsistence species continue to decline.

COMMERCIAL FISHING: During 1989, emergency commercial fishery closures were ordered throughout the spill area. This affected salmon, herring, crab shrimp, rockfish and sablefish. The 1989 closures resulted in sockeye over-escapement in the Kenai River and in the Red Lake system (Kodiak Island). In 1990, a portion of Prince William Sound was closed to shrimp fishing. Spill-related sockeye over-escapement is anticipated to result in low adult returns in 1994 and 1995. These over-escapements may result in closure or harvest restrictions during these and, perhaps, subsequent years. Injuries and recovery status of rockfish, pink salmon, shellfish and herring are uncertain.

[Note to reviewers, this begins pages 4 and 5 of the brochure]

What are the Alternatives?

Five alternatives have been developed for your review. Each alternative presents a different way of approaching restoration. Each uses different policies and emphasizes different categories of restoration activities to restore injuries caused by the spill. This and the next page summarize the policy questions and categories of restoration activities. The following two pages present the five alternatives.

Alternative 1, Natural Recovery, will allow the spill-affected area recover on its own, but monitor its recovery and continue normal agency management. **Alternative 2, Habitat Protection,** will protect injured resources and services by protecting their habitat so they can recover on their own without further disruption. **Alternatives 3 through 5, Limited Restoration, Moderate Restoration, and Comprehensive Restoration,** present a progression of restoration activities, with each successive alternative increasing the scope of activities.

Issues and Policy Questions

The planning process raised five significant issues. Table ___ presents these issues as questions. Different answers to these questions will influence which restoration activities are conducted.

ISSUE	POLICY QUESTION
Injuries Addressed	Should restoration actions address ALL injured resources or only those which had a measurable population decline because of the spill?
Status of Resource Recovery	Should restoration actions cease when a resource has recovered?
Effectiveness of Restoration Actions	Should the plan include only those restoration actions that produce substantial improvement over unaided recovery or also those that produce at least some improvement?
Location	Should restoration activities take place in the spill area only or anywhere in Alaska provided there is a link to injured resources or services?
Strategies for Human Use	To what extent should restoration actions be used to increase opportunities for human use?

Injuries Addressed: *Should restoration actions address ALL injured resources or only those which had a measurable population decline because of the oil spill?*

Resources and services injured by the oil spill are in Table ___. Injuries to resources produced either a decline in population or a sublethal effect. An example of population decline is the loss of 35-70% of the breeding common murres in the Gulf of Alaska and resulting decline in future generations. An example of sublethal injuries is abnormalities in larvae. Sublethal injuries may not result in a lower population because they may not affect the productivity of the species or the species may be able to compensate for the injury. However, there also may

be enough variability in the natural abundance of the species to mask effects of the injuries, or scientific measurement techniques may not be sensitive enough to measure a small effect on the population.

Alternative 3 reflects the view that if an injury was not severe enough to produce a detectable change in population, then settlement funds should not be spent to restore it. Rather, funds should be concentrated on the worst-injured resources. All other alternatives reflect the view that even sublethal injuries could become serious over time and, if something can be done to redress the injury, it should be done before more serious effects show themselves.

RESOURCES			SERVICES
Population Decline	Sublethal	Other	
Black oystercatcher Common murre Harbor seal Harlequin duck Intertidal organisms Marbled murrelet Pigeon guillemot Sea otter Sockeye salmon Subtidal organisms	Bald eagle * Cutthroat trout * Dolly Varden * Killer whale Pacific herring * Pink salmon River otter Rockfish	Archaeology Designated wilderness areas	Commercial fishing Passive use Recreation and commercial tourism Recreation - sport fishing Recreation - sport hunting Subsistence

* For these species, the Trustees' scientists have considerable disagreement over the conclusions to be drawn from the results of the damage assessment studies.

Status of Resource Recovery: *Should restoration actions cease when a resource has recovered?*

No resources have recovered from population decline. However, some sublethal injuries have recovered. As resources recover, this issue will become more important. Table _____ on page ____ shows current expectations about when many resources may recover. The table is based on the best available information from agency and peer reviewer scientists. These estimates will certainly change as recovery continues, monitoring uncovers more information, and scientists learn more about each species.

Alternatives 2 and 3 reflect the view that the goal of the settlement is to restore injured resources and services and that restoration activities should cease once the resource or service has recovered. Alternatives 4 and 5 reflect the view that certain actions, especially protection and enhancement, should continue even after resources have recovered to offset other adverse effects and improve the condition of injured resources and services.

Effectiveness of Restoration Actions: *Should the plan include only those restoration actions that produce **substantial** improvement over natural recovery or also include those that produce at least **some** improvement?*

Many restoration actions were suggested by scientists, agencies, and the public. They were

evaluated to determine how much of an improvement they would produce over unaided recovery.

Alternatives 3 and 4 reflect the view that unless a restoration action is likely to produce **substantial** improvement, it should not be funded. Alternatives 2 and 5 reflect the view that the Trustees should fund all restoration activities that offer at least **some** promise of helping injured resources and services; the cumulative effect of many such activities may result in a more meaningful and substantial improvement.

Location: *Should restoration activities take place in the oil spill area only or anywhere in Alaska provided there is a link to injured resources or services?*

The map of the oil spill area is on page ____. The oil spill area includes the maximum extent that oil reached along the shoreline of Alaska. It also includes the adjacent land up to the watershed divide, and the area of immediate human use for communities severely affected by the spill. Alternatives 2 and 3 reflect the view that restoration activities should be limited to the spill area to focus them on the populations and services directly affected. Alternatives 4 and 5 include restoration activities within Alaska because some projects outside the spill area may be far more effective than those possible within the spill area. For example, increasing common murre populations in the Pribilof Islands, outside the spill area, may do more to increase the numbers of that species in Alaska than would comparable projects within the spill area.

Strategies for Human Use: *To what extent should restoration actions be used to increase opportunities for human use?*

Many of the restoration options for recreation or fishing would increase human use of the spill area. However, too much additional use could be detrimental to recovery of injured resources and services. Three different strategies for human use are reflected in alternatives 3, 4 and 5, only. Alternative 3 emphasizes restoration activities that would **protect existing uses** such as constructing outhouses in over-used areas, or improved trails where hiking is damaging wetlands, or providing information about the safety of subsistence foods. Alternative 4 emphasizes restoration activities that would **increase existing uses** such as increasing opportunities for fish harvest above prespill levels or constructing a new public-use cabin. Alternative 5 emphasizes restoration activities that would **encourage appropriate new uses** such as providing new visitor centers or attracting new commercial facilities on public land. Restoration activities would comply with existing land-use plans, and agency procedures such as those requiring public notice.

What Are the Categories of the Restoration Plan?

The alternatives emphasize different categories of restoration activities. This section describes the activities that fall within each category. Not all categories are included in every alternative.

HABITAT PROTECTION.

Habitat protection and acquisition on private land. Sometimes even careful resource development such as timber harvest or subdivisions can adversely affect resources or services injured by the spill. The Trustee Council may purchase private land or partial interests such as conservation easements, mineral, or timber rights as a method of restoration. The Council's recent action to allocate funds to purchase inholdings in Kachemak Bay State Park is an example of habitat protection and acquisition on private land.

Since there will not be enough money in any alternative to buy or protect all habitat important to recovery, it is necessary to prioritize available land through a ranking process. The criteria for this ranking are currently being developed. Some of the most important criteria are the degree of importance of the land to injured resources or services and the number of resources or services which rely on a given parcel. Land which is highly important to many species and services will generally receive top priority.

The following injured resources and services might benefit from the purchase of private land or property rights: salmon and trout, bald eagle, black oystercatcher, common murre, harbor seal, harlequin duck, marbled murrelet, pigeon guillemot, river otter, sea otter, areas adjacent to particularly productive intertidal areas, recreation and commercial tourism, archaeology, and important subsistence harvest areas. Alternative #3 would target purchases for services and for those resources whose populations declined because of the spill. Alternatives 2, 4, and 5 would target habitat acquisition for the all injured resources and services.

There is not enough money in the entire civil settlement to purchase all lands important to injured resources and services. The cost per acre will vary depending on the land, and the private rights that are purchased. For example, valuable timber land will be more expensive than similar land without marketable timber. Also, purchase of partial interests such as easements or mineral rights will be somewhat less expensive and may increase the number of acres that can be protected. In each alternative, there is an estimate of the acreage that might be purchased under that alternative.

Habitat protection on public land. Federal and state agencies manage the public land and water. Protective changes in their management practices may benefit injured resources and services. Examples of these changes include amending agency management plans, changing regulations, and designating public land and water as special areas. Examples of special areas include scientific research reserves, recreation areas, parks, critical habitat areas, and marine sanctuaries. Any of these management changes would have to be approved and implemented by the appropriate state or federal agency, or in some cases by the Alaska State Legislature or the U.S. Congress. Since land and water management actions could extend to any public upland, intertidal area, and marine waters, the actions could potentially benefit most injured resources and services. At this time the Trustee Council has no specific proposals for revising land-use management practices or creating special designations.

GENERAL RESTORATION. Since 1989, agencies and the public have proposed hundreds of ideas for restoration. Some ideas help restore injuries by directly manipulating resources. Examples are building fish passes or public-use cabins, testing subsistence foods for continuing oil contamination, or seeding the intertidal areas. Other ideas focus on managing human use to aid restoration. Examples are redirecting hunting and fishing harvest, or reducing human disturbance around sensitive bird colonies. General Restoration does not include habitat protection or oil spill preparedness activities. In each alternative, enough money is allocated for General Restoration to fund all activities that have been identified and that meet the policies of that alternative. In addition, each alternative allocates enough additional funds to General Restoration to provide a reserve for General Restoration activities that may be identified in the future.

SPILL PREVENTION AND RESPONSE. Varying levels of spill prevention and response are also part of several alternatives. These activities would reduce stress on recovering resources and services by improving and protecting water quality. Components of prevention and response include:

Research and development on developing technologies, such as in-situ burning and spill tracking systems, can assist in spill prevention and response.

Equipment, such as telecommunications and weather information systems, could be installed or updated in order to gather and transmit response and prevention information quickly. Funding spill response depots and volunteer response corps would improve cleanup capabilities.

Chronic marine pollution sources can be reduced by building oily waste disposal sites in port communities to deter marine disposal of oily wastes by small boats, cruise ships and ferries.

MONITORING AND RESEARCH PROGRAM. The monitoring and research program could include one or more of the following, although the number of components will vary between alternatives.

Recovery Monitoring would assess the rate of recovery of injured resources and services, and determine when recovery has occurred.

Restoration Monitoring would evaluate the effectiveness of specific restoration activities, identify where additional restoration activities may be appropriate, and determine when delayed injury occurs.

Ecosystem Monitoring would follow long-term trends in the distribution and abundance of injured resources and the quality and quantity of services. Monitoring could also detect residual spill effects and provide ecological baseline information to assess the impacts of future oil spills and other disturbances.

Restoration Research would focus on the design, development and implementation of new technologies and approaches to restore resources not recovering or recovering at unacceptable rates.

ENDOWMENTS. An endowment is not a restoration activity. It is a method of funding restoration. The Exxon Corporation has been depositing funds into the restoration fund since

1991 and will continue to do so until 2001. The Trustees could spend the entire settlement during that time or they could save some for future use. An endowment is a savings program to fund restoration after Exxon deposits end. It would use part of the settlement funds to create a savings account. The savings account could fund a low but constant level of restoration activities indefinitely. An endowment could be used to fund some or all restoration activities. Habitat acquisition, however, does not lend itself to an endowment. Purchase of land or other private property rights are usually made all at once.

The size of an endowment determines the amount of interest it earns and the number of restoration activities it can fund. If approximately 20% of the remaining settlement funds were placed into an endowment and the principal inflation-proofed, the endowment could fund at least $3 million worth of restoration activities indefinitely, and possibly somewhat more depending on assumptions about future interest rates. This amount is enough to continue the Trustee Council's monitoring program at a minimum level, and provide some funds for other monitoring components. If twice that amount were placed into the endowment, the additional funds could be used for fund general restoration, basic research, or spill prevention.

ADMINISTRATION AND PUBLIC INFORMATION. Funding is required to manage the restoration program. Providing the public with information about recovery and restoration will also consume a portion of the settlement monies. As the number of restoration projects increase and the complexity of management duties grow, the percentage of funds in each alternative that is proposed for these expenses also rises.

[Note to reviewers, this begins page 6]

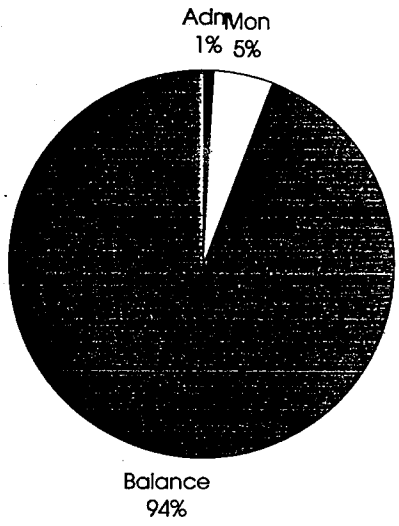
DESCRIPTION OF ALTERNATIVES

ALTERNATIVE 1 - NATURAL RECOVERY

No action other than monitoring and normal agency management.	
ISSUES	**POLICIES**
Injuries Addressed	Monitor all injured resources and services
Status of Resource Recovery	Monitor resources not recovered.
Effectiveness of Restoration Actions	Not applicable
Location	Monitor within the spill area.
Strategies for Human Use	Not applicable.

What would happen to resources and services injured by the oil spill if no restoration actions were taken other than monitoring? Table ____ describes expected times for natural recovery of injured resources and services, if expected patterns of use continue. They range from a few years to 120 years and are unknown for five resources. Archaeological resources and wilderness are not expected to recover. Monitoring of natural recovery is the only restoration action in this alternative. This alternative is the no-action alternative in the draft Environmental Impact Statement that will be released in June.

Alternative 1 - Allocation



Cost allocations are presented for illustration only .

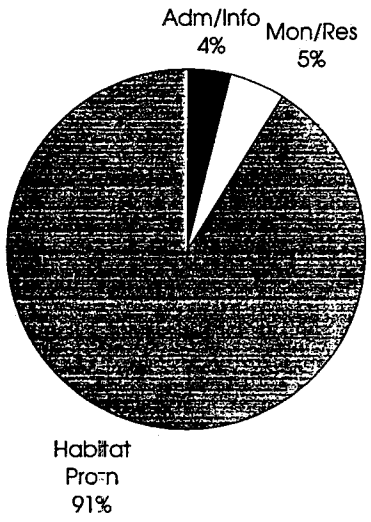
Allocations are expressed as percent of remainder of civil settlement.

ALTERNATIVE 2 - HABITAT PROTECTION

Protect injured resources and services within the spill area from further degradation or disturbance.	
ISSUES	**POLICIES**
Injuries Addressed	All injured resources and services
Status of Resource Recovery	Resources not recovered and resources recovered
Effectiveness of Restoration Actions	Provide some improvement over unaided recovery
Location	Activities within the spill area
Strategies for Human Use	Protect or increase existing use through habitat protection

The goal of this alternative is to protect strategic lands and habitats important to the long-term recovery of resources and services injured by the Exxon Valdez oil spill. In this alternative, 91% of the remaining settlement funds would be dedicated to habitat protection. Monitoring and Habitat Protection are the only restoration actions included in this alternative. Habitat Protection includes the acquisition of private land interests or changes in public land management. Monitoring will evaluate the effectiveness of habitat protection measures undertaken and follow the progress of natural recovery. These activities would be limited to the spill area.

Alternative 2 - Allocation



Cost allocations are presented for illustration only .

Allocations are expressed as percent of remainder of civil settlement.

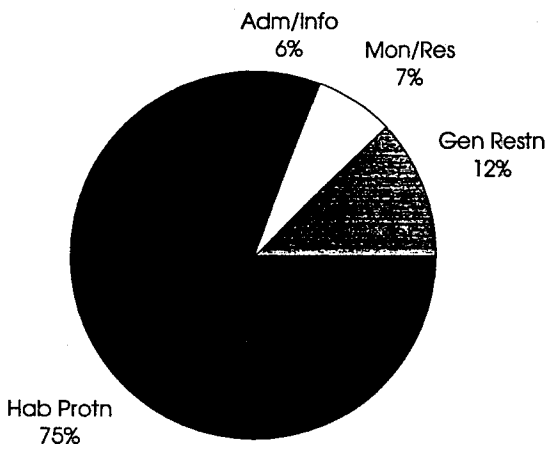
ALTERNATIVE 3 - LIMITED RESTORATION

Take the most effective actions within the spill area to protect and restore injured services and resources whose population has declined. Maintain the existing character of the affected area.	
ISSUES	**POLICIES**
Injuries Addressed	Injured services and resources whose populations declined
Status of Resource Recovery	Resources not recovered
Effectiveness of Restoration Actions	Provide substantial improvement over unaided recovery
Location	Activities within the spill area.
Strategies for Human Use	Protect existing use

The goal of this alternative is to help the worst-injured resources and services recover as efficiently as possible. As its name implies, this alternative is limited in that it addresses only the most severe injuries until the resource or service recovers, includes actions most likely to produce significant improvement over unaided recovery, is limited to the spill area, and does not fund activities that would substantially increase human use of the spill area. Only a few restoration activities meet these standards.

This alternative sets aside 75% of the remaining settlement funds for habitat protection. Of the General Restoration options that have been evaluated, only 21 meet the criteria of this alternative (See page ____). Spill Prevention and Response is not included. Monitoring would evaluate the effectiveness of restoration actions and follow the progress of natural recovery.

Alternative 3 - Allocation



Cost allocations are presented for illustration only .

Allocations are expressed as percent of remainder of civil settlement.

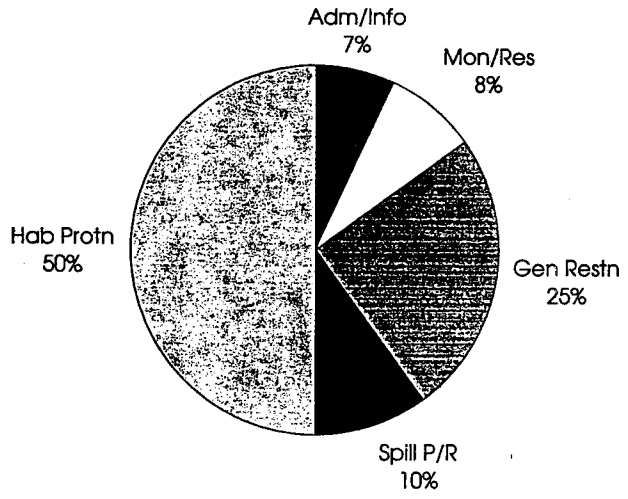
ALTERNATIVE 4 - MODERATE RESTORATION

Take the most effective actions within Alaska to protect and restore all injured resources and services. Increase, to a limited extent, opportunities for human use in the affected area.	
ISSUES	**POLICIES**
Injuries Addressed	All injured resources and services
Status of Resource Recovery	Resources not recovered
Effectiveness of Restoration Actions	Provide substantial improvement over unaided recovery
Location	Activities within Alaska
Strategies for Human Use	Protect or increase existing use

The goal of this alternative is to help all injured resources and services recover as efficiently as possible. It is similar to Alternative 3 in limiting restoration actions to resources not yet recovered and setting the same high standard of effectiveness. It differs from Alternative 3 in addressing additional species injured at a sublethal level, including activities within Alaska but outside the spill area, and increasing opportunities for human use of the area to a limited extent.

This alternative sets aside 50% of the remaining settlement funds for habitat protection. Of the General Restoration options that have been evaluated, 31 meet the criteria for this alternative. Spill Prevention and Response includes research and development to improve spill technology and equipment such as telecommunications and weather information systems. The Monitoring Program includes ecosystem monitoring and restoration research in addition to evaluating the effectiveness of restoration actions and following the progress of natural recovery.

Alternative 4 - Allocation



Cost allocations are presented for illustration only .

Allocations are expressed as percent of remainder of civil settlement.

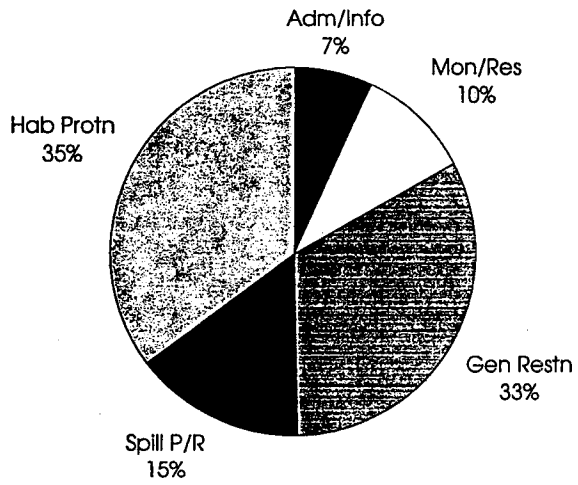
ALTERNATIVE 5 - COMPREHENSIVE RESTORATION

Take all effective actions within Alaska to protect, restore, and enhance all injured resources and services. Increase opportunities for human use in the affected area.	
ISSUES	**POLICIES**
Injuries Addressed	All injured resources and services
Status of Resource Recovery	Resources not recovered and resources recovered
Effectiveness of Restoration Actions	Provide some improvement over unaided recovery
Location	Activities within Alaska
Strategies for Human Use	Protect or increase existing use or encourage appropriate new use

The goal of this alternative is to help all injured resources and services return to or exceed prespill levels. It is similar to Alternative 4 in addressing all injured resources and services and including activities within Alaska but outside the spill area. It is more expansive than Alternative 4 in including restoration actions for resources whether or not they have recovered, including any action likely to produce at least some improvement over unaided recovery, and encouraging appropriate new human uses.

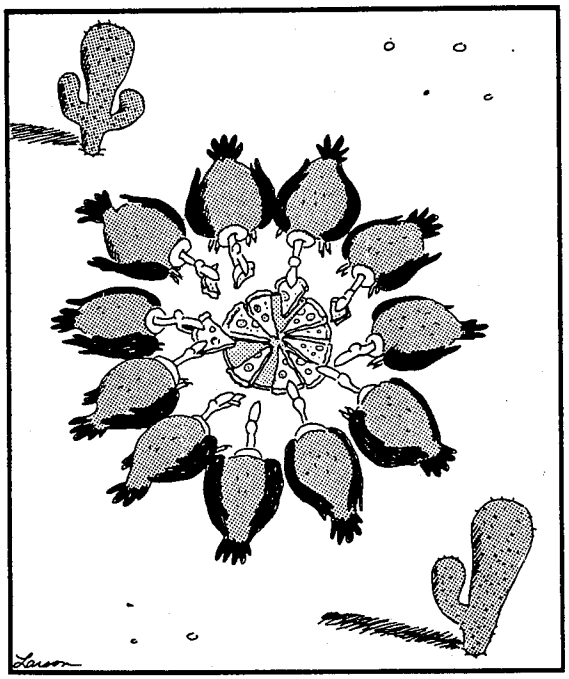
This alternative sets aside 35% of the remaining settlement funds for habitat protection. Of the General Restoration options that have been evaluated, 47 meet the standards of this alternative. Spill Prevention and Response would address chronic sources of pollution as well as research and development to improve spill technology and equipment such as telecommunications and weather information systems. The Monitoring Program includes ecosystem monitoring, restoration research, restoration monitoring, and natural recovery monitoring

Alternative 5 - Allocation



Cost allocations are presented for illustration only .

Allocations are expressed as percent of remainder of civil settlement.



Perspectives in nature we rarely enjoy

[Note to reviewers, Page 7 of the brochure begins here.]

COMPARISON OF ALTERNATIVES

This table shows the resources and services included in each alternative. It also presents current expectations about when resources will recover. For some species, there is substantial disagreement on the exact mechanism of the injury and how long it will take to recover. For many species much is unknown about when and how recovery will take place. These estimates will certainly change as recovery continues, monitoring uncovers more information and scientists learn more about each species.

Resource/Service	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Expected Natural Recovery (Yrs. from 1989)	Comments
Black oystercatcher						Less than 30 years	Recovering.
Common murres						Less than 120 years	Recovery varies by colony.
Harbor seals						Unknown	In decline before spill. Population may have stabilized.
Harlequin ducks						Less than 50 years (maybe)	Still no reproduction within spill area.
Intertidal organisms						Less than 25 years	Recovering in most places.
Marbled murrelet						Less than 50 years to stabilize the population	In decline before spill. May be still declining; may be stable.
Pigeon guillemots						Less than 50 years to stabilize the population	In decline before spill. Probably still declining.
Sea otters						Less than 50 years	Population stable, but not recovering.
Sockeye salmon						Less than 50 years	Not yet recovering in Kenai River.
Subtidal organisms						Less than 10 years (most places)	Recovering in most places.
Bald eagles						Less than 6 years	Back to pre-spill population by 1993-1995.
Cutthroat trout						Less than 20 years	
Dolly Varden						Less than 20 years	
Killer whales						Less than 20 years	Recovering.
Pacific herring						Unknown	Population decline may be documented after 1993.
Pink salmon						Unknown	
River otters						Unknown	
Rockfish						Unknown	
Archaeology						Will not recover	
Commercial Fishing						Recovery differs by species.	Currently no closures, although some may be implemented to help populations recover.
Recreation						Recovering slowly	
Recreation - Sport Fishing						Recovery differs by species.	Closures may continue until populations recover.

	Subsistence						Recovering	Harvest continues to be below pre-spill levels.
	Designated Wilderness Areas						Dependant on rate that persistent oil is degrading.	

The table below compares spending guidelines and restoration activities within the five alternatives. The spending for each restoration category gives a sense of the emphasis of the restoratior program envisioned by each alternative. They are guidelines and not fixed allocations.

ALLOCATION	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Administration and Public Information	1%	4%	6%	7%	7%
Monitoring and Research	5%	5%	7%	8%	10%
• Recovery Monitoring					
• Restoration Monitoring					
• Ecosystem Monitoring					
• Restoration Research					
General Restoration			12%	25%	33%
(For examples of general restoration activities within each alternative see page __.)					
Habitat Protection		91%	75%	50%	35%
Spill Prevention and Response				10%	15%
• Research and Development					
• Equipment					
• Chronic Marine Pollution					
Balance	94%				

Allocation expressed as percent of the remainder of the civil settlement.

In general, how does each alternative benefit recovery?

Alternative 1 would produce no improvement over natural recovery. Natural recovery means that no restoration activities will be undertaken.

Alternative 2 would improve natural recovery by preventing some habitat disturbances that might otherwise occur. Benefits accrue to resources and services linked to upland habitat.

Alternative 3 has the greatest potential to improve recovery of the worst injured resources within the spill area . However, it makes no provision for future oil spills and for sublethal injuries unless there is a measurable population decline. It also funcs activities that protect existing human use.

In addition, to the benefits in alternative 3, **alternative 4** addresses potential problems before they occur. It addresses sublethal effects before they produce population decline; prepares for future oil spills through ecosystem monitoring, research and spill prevention and response activities; and reaches outside the spill are if necessary to find better restoration opportunities. It also funds activities that increase human use. These assurances are provided at some expense to habitat protection.

In addition to the benefits in alternative 4, **alternative 5** would enhance recovery of some resources and services beyond prespill levels though actions such as fisheries enhancement or addressing chronic marine sources of oil pollution. Enhancement benefits some resources and services more than others. This alternative allocates the least amount of money to habitat protection.

Endowment. Whether or not funds are placed into an endowment is a decision about the timing of when restoration activities should occur. The alternatives compared above assume that the funds are spent within ten years. Twenty percent of the remaining restoration funds could be placed into a savings account. If so, fewer restoration activities could be accomplished with ten years, but the annual interest from the account could fund recovery monitoring and possibly a few other restoration activities indefinitely. It is also possible to place 40% of the funds into a savings account and use the annual interest to fund a larger amount of restoration activities indefinitely.

[Note to reviewers, Page 8 of the brochure begins here.]

General Restoration

The General Restoration category of alternatives 3 through 5 includes various restoration actions which have been suggested throughout the planning process. The suggestions were evaluated by scientists and peer reviewers. Those that were determined to be effective have been combined into general options and are listed below. Those general options may include a number of specific projects. The option evaluation considered: how recovery was aided and whether further potential injury could be prevented. Other considerations included negative effects, how many species benefit, human health and safety, and cost effectiveness. No options were identified for restoring subtidal resources, air, water, sediment or designated wilderness areas. The list on this page provides examples of restoration options that passed the evaluation process. New options will continue to be evaluated as the restoration plan is implemented.

The amount of funding allocated to general restoration in all alternatives includes substantially more than the amount needed to fund all the options identified in this list.

Many options would have wide-ranging impacts throughout the spill area. Most options that help resources also help the services that are dependent upon them. An option targeted to improve the recovery of a single resource may greatly benefit other resources that occur in the same area.

This is especially true of the activities that protect marine, coastal and upland habitats. In additions, options that benefit the foundation of a food web, such as marine invertebrates, would ultimately benefit top predators such as whales and eagles.

* The asterisk in the table denotes those options which may produce **substantial** improvement in the recovery of a biological resource. Those without an "*" may produce at least **some** improvement in recovery.

	MAMMALS — Alternatives	3	4	5
	HARBOR SEAL: Determine the effects of disturbance on harbor seals and implement actions to reduce adverse effects.			x
*	Implement cooperative programs between fishermen and agencies to provide voluntary methods to reduce incidental take of harbor seals during fishing.	x	x	x
*	Implement cooperative programs between subsistence users and agencies to assess the effects of subsistence harvest.	x	x	x
*	**KILLER WHALE:** Determine techniques for changing black cod fishery gear to avoid conflicts with fishermen and implement actions to remove adverse effects.		x	x

* **SEA OTTER:** Determine the effects of disturbance of upland activities on sea otters and implement actions to reduce adverse effects. This would have benefits in local areas only.	x	x	x
* Determine if eliminating oil from mussel beds removes a potential source of continuing contamination to sea otter food and take appropriate action. This would have benefits in local areas only.	x	x	x
* Implement cooperative programs between subsistence users and agencies to assess the effects of subsistence harvest.	x	x	x
RIVER OTTER: Develop sport and trapping harvest guidelines to aid in the recovery of injured populations.			x

FISH Alternatives	3	4	5
* **SOCKEYE SALMON:** Intensify management of sockeye salmon on the Kenai River and Red Lake to reduce the risk of overescapement.	x	x	x
Improve access to salmon streams by building fish passes to increase the area where salmon can successfully spawn and rear. This would have benefits in local areas only.			x
Fertilize Coghill Lake in PWS to improve sockeye rearing success within the lake and increase sockeye population in PWS.		x	x
* Improve survival rates of salmon eggs to fry by using egg boxes, net pens or hatchery rearing.	x	x	x
* **PINK SALMON:** Intensify management by incorporating coded-wire tagging and stock separation to ensure and accelerate the recovery of the wild stock.		x	x
Construct salmon spawning channels and other instream improvements to increase spawning production and provide long-term enhancement. This would have benefits in local areas only.			x
Improve access to salmon streams by building fish passes to increase the area where salmon can successfully spawn and rear. This would have benefits in local areas only.			x
* Relocate hatchery runs of pink salmon to reduce the interception rate of wild stocks of pink salmon.		x	x
Improve survival rates of salmon eggs to fry by using egg boxes, net pens, or hatchery rearing. This would have benefits in local areas only.			x
Update the Alaska Anadromous Streams Catalog to ensure that the necessary protection and regulation is provided for all listed salmon streams in the spill area.			x
* **CUTTHROAT TROUT:** Intensify management of cutthroat trout and its dependent sport fishery by determining local distribution, abundance, and productivity.		x	x
Update the Alaska Anadromous Streams Catalogue to ensure necessary protection and regulation for all listed anadromous streams in the spill area.			x
* **DOLLY VARDEN:** Intensify management of Dolly Varden and its dependent sport fishery by determining local distribution, abundance and productivity.		x	x

	3	4	5
* **PACIFIC HERRING:** Intensify management to improve recovery by allowing increased precision in stock assessment and manipulation of harvest levels.		x	x
* **ROCKFISH:** Intensify management of the rockfish fishery to modify the harvest to compensate for injury from the spill.		x	x
BIRDS Alternatives	3	4	5
BLACK OYSTERCATCHER: Accelerate the recovery of the upper intertidal zone to improve the rate of recovery in site-specific areas.			X
* Remove predators from islands that previously supported black oystercatchers. Effectiveness varies by location.		X	X
COMMON MURRE: Reduce disturbance at breeding colonies to eliminate factors which could slow the recovery of affected murre colonies.			X
* Use artificial stimuli such as decoys or vocalizations to encourage recovery at affected colonies and accelerate recolonization of historic colonies.	X	X	X
* Remove predators at injured colonies or remove predators from islands that previously supported murres.	X	X	X
HARLEQUIN DUCK: Modify sport hunting harvest guidelines in the areas of injured populations to speed the rate of recovery during the recovery phase.			X
* Determine if eliminating oil from mussel beds removes a potential source of continuing contamination in feeding areas and take appropriate action. This would have benefits in local areas only.	X	X	X
* **MARBLED MURRELET:** Minimize the incidental capture of birds in fishing nets by changes in gear or timing of fishing.	X	X	X
* **PIGEON GUILLEMOT:** Control predator access or remove predators from islands that previously supported birds.	X	X	X
BALD EAGLE: No options other than habitat protection have been identified.			
COASTAL HABITAT Alternatives	3	4	5
* **INTERTIDAL ORGANISMS:** Accelerate the recovery of the upper intertidal zone to aid intertidal resources in localized areas.	x	x	x
SUBTIDAL ORGANISMS: No restoration options have been identified.			
DESIGNATED WILDERNESS AREAS	3	4	5
No options have been identified for Designated Wilderness Areas or Wilderness Study Areas.			
ARCHAEOLOGY Alternatives	3	4	5

Develop a site stewardship program using local residents to monitor nearby archaeological sites to discourage looting and vandalism.	x	x	x
Increase law enforcement and agency presence to patrol and monitor archaeological sites within the spill area would protect sites from looting and vandalism.	x	x	x
Preserve archaeological sites and artifacts within the spill area to provide some measure of permanent protection for select archaeological resources.	x	x	x
Acquire replacements for artifacts from the spill area as a means of preserving and studying artifacts which were taken from the spill area prior to the spill.		x	x

SERVICES Alternatives	3	4	5
Resource options shown above also benefit many services.			
RECREATION AND COMMERCIAL TOURISM: Develop new backcountry public recreation facilities to protect both recreation and the resources on which it depends; for example, by providing an outhouse in a heavily used area.	x	x	x
Plan and market public land for commercial recreational use to provide additional opportunities for commercial operators and recreationists to use public lands.			x
Create new visitor centers or build a marine environmental institute to benefit all injured resources. Increase public awareness of the nature of injury and recovery and an understanding of the ecosystem of the area.			x
RECREATION - SPORT FISHING: Replace lost harvest opportunities by creating new fisheries for salmon or trout.	x	x	x
SUBSISTENCE: Replace lost harvest opportunities by creating new salmon runs.			x
Test subsistence foods for continued contamination as a means of restoring confidence in the safety of subsistence resources within the spill area.	x	x	x
Provide new access to traditional foods in areas outside the spill area to restore lost use.	x	x	x
Develop subsistence mariculture sites to benefit subsistence users by providing a source of uncontaminated shellfish for their diets.			x
Develop a shellfish hatchery and technical research center to benefit subsistence users by providing a source of uncontaminated shellfish for their diets.			x
COMMERCIAL FISHING: Replace harvest opportunities by creating new fish runs to replace commercial fishing opportunities lost due to fishing closures or reduced harvest.	x	x	x
PASSIVE USE: No options other than habitat protection have been identified for this resource.			

[Note to Reviewers, Page 9 of the brochure begins here]

How should these issues be resolved?

INTRODUCTION

The Trustees can use the settlement funds in a variety of ways. We would like to know your views about the appropriate policies, categories of restoration activities, and spending guidelines. Please fill out the questions on this page and let the Trustees know which approaches you believe will best restore the injuries of the oil spill. If you need more information, please come to one of the public meetings. Also, feel free to comment on other parts of the plan alternatives in the space provided. Attach additional sheets if you need more space. Thanks for your help!

QUESTIONS ABOUT ISSUES AND POLICIES

The alternatives presented policy questions. The answers to those questions will help guide some restoration activities. The policy questions are reprinted below. Please mark the appropriate box to let us know your views.

If you think that these policies should apply to some restoration activities but not others, please write your views down in the space provided beneath each question. For example, if you think that some general restoration activities are appropriate outside the spill area but that habitat protection should concentrate only on the spill area, you would write that information in the comment space under question four.

ISSUES AND POLICY QUESTIONS
Injuries Addressed: Should restoration actions address ALL injured resources or only those which had a measurable population decline because of the spill? ☐ Target restoration activities only to resources whose populations declined because of the spill. ☐ Target restoration activities to all injured resources ☐ No preference Comments:
Status of Resource Recovery: Should restoration actions cease when a resource has recovered? ☐ Continue appropriate activities even after resources recover. ☐ Cease funding restoration once a resource recovers. ☐ No preference Comments:
Effectiveness of Restoration Actions: Should the plan include only those restoration actions that produce substantial improvement over unaided recovery or also those that produce at least some improvement?

☐ Fund all effective restoration actions
☐ Fund only highly effect restoration actions
☐ No preference
Comments:

Location: Should restoration activities take place in the spill area only or anywhere in Alaska provided there is a link to injured resources or services?

☐ Fund activities within the spill-area only.
☐ Allocate some funds for activities outside the spill-area but within Alaska. The activities must be linked to injured resources or services.
☐ No preference
Comments:

Strategies for Human Use: To what extent should restoration actions be used to increase opportunities for human use?

☐ Do not fund activities that increase human use.
☐ Fund only habitat protection.
☐ Only fund restoration activities that are designed not to increase use levels but only to protect existing human use. Examples are recreation facilities that protect the environment in over-used areas, or testing the safety of subsistence foods.
☐ Fund restoration activities that protect or increase existing uses. Examples are funding to increase existing sport- or commercial fishing runs, or funding to construct recreation facilities such as public-use cabins.
☐ In addition to activities that protect or increase existing human use, also fund appropriate new uses. Examples are new fishing runs, commercial facilities, or visitor centers.
☐ No preference
Comments:

QUESTIONS ABOUT CATEGORIES OF THE RESTORATION PROGRAM

The questions below discuss the different categories of restoration activities. The questions ask about what groups of activities you believe the trustees should fund.

Spill Prevention and Response. The alternatives propose using up to 15% of the remaining settlement funds for spill prevention and response to prevent catastrophic and chronic oil pollution.

Should the Trustee Council fund spill prevention and response activities?

- ☐ No
- ☐ Yes. *Please indicate which spill prevention and response activities you believe are appropriate (you may mark more than one answer):*
  - ☐ Spill prevention and response technology.
  - ☐ Infrastructure
  - ☐ Prevention of chronic pollution
  - ☐ Other:

Comments:

Monitoring and Research. Some components of monitoring and research are included in all alternatives. We would like to know your views.

Should the Trustee Council fund monitoring and research activities?

- ☐ No
- ☐ Yes. *Please indicate which monitoring and research activities you believe are appropriate (you may mark more than one answer):*
  - ☐ Recovery monitoring
  - ☐ Restoration monitoring
  - ☐ Ecological monitoring
  - ☐ Restoration Research
  - ☐ Other:

Comments:

Endowment. Some alternatives assume that the settlement funds will be spent within ten years. Others propose placing 20% to 40% of the remaining settlement funds into a savings account to fund restoration, spill prevention, research, or monitoring after that time.

Are you in favor of an endowment or savings account of some kind?

- ☐ No, I believe the funds should be spent within 10 years.
- ☐ Yes. *Please indicate what the annual endowment earnings should be spent on (you may mark more than one answer):*
  - ☐ Research and Monitoring
  - ☐ General Restoration
  - ☐ Spill preparedness
  - ☐ Habitat Acquisition
  - ☐ Other:

Comments:

QUESTIONS ABOUT SPENDING GUIDELINES

The table below shows the spending guidelines in the five alternatives. If one of the alternatives reflects your view of how the funds should be allocated, please circle the name of that alternative. If not, please put write in your percentages in the space to the right. If needed, you may write in new suggestions for restoration plan components in the blank lines. If you believe that an endowment is appropriate, please put in the appropriate percentage in the endowment line. (Make sure your percentages add to 100%!).

	Alternative #1 Natural Recovery	Alternative #2 Habitat Protection	Alternative #3 Limited Restoration	Alternative #4 Moderate Restoration	Alternative #5 Comprehensive Restoration	*YOUR ALTERNATIVE* If none our alternatives reflect your views about allocating the funds, please write your percentages below.	
Administration & Public Information	1%	4%	6%	7%	7%		Administration & Public Information
Monitoring & Research	5%	5%	7%	8%	10%		Monitoring & Research
General Restoration			12%	25%	33%		General Restoration
Spill Preparedness				10%	15%		Spill Preparedness
Endowment							Endowment
Habitat Protection		91%	75%	50%	35%		Habitat Protection
Balance	94%						Balance
Total:	100%	100%	100%	100%	100%		
						100%	Total

HABITAT PROTECTION: PRIVATE LANDS

Habitat Protection on private lands is a major element in all but the natural recovery alternative of the draft Restoration Plan. Habitat protection on private lands may include acquisition of full title or acquisition of partial rights such as conservation easements and timber rights. Partial rights may be less expensive than full title. Because land purchases are negotiated and are dependent both on price and on the will of the seller, final purchases will be dependent on landowner's preferences as well as those of the public and the trustees. (The habitat protection process was described in the Restoration Framework Supplement.)

In response to public support, the Trustee Council is proceeding in advance of the Restoration Plan by protecting several imminently threatened parcels. For example, the Trustee Council decided to go ahead with the purchase of inholdings in Kachemak Bay State Park.

We are requesting your views on several issues concerning Habitat Protection on private lands. Please answer the questions below.

1. When purchasing land we can purchase large areas that protect the overall landscape or integrity of the habitat, or purchase small but important parcels such as stream corridors and camping areas to stretch the funds. Would you prefer acquisitions to emphasize:

- ☐ a few large parcels of land
- ☐ many small parcels of land
- ☐ mix of large and small parcels
- ☐ no preference

2. Buying habitat may affect the economic condition or quality of life in your community. We'd like your views on this.

What positive impacts would you like habitat protection to have in your community?

_____

_____

_____

_____

What negative impacts would you like habitat protection to avoid in your community?

_____

_____

3. Acquired lands or interests will be managed to aid the recovery of injured resources and services. Should these lands or interests in these lands be retained forever?

☐ No
☐ Yes
☐ No Preference

4. All habitat protection will benefit resources and services injured by the spill. Should the decision to purchase lands also protect resources and services not injured by the spill?

☐ No
☐ Yes
☐ No Preference

5. Other comments?

COMMENTS

Please use the space below to write comments. Any comment you write will be greatly appreciated. Thank you.

Draft *Exxon Valdez* Oil Spill Restoration Plan Summary of Alternatives for Public Comment

We need your help to determine how to restore the injuries from the *Exxon Valdez* Oil Spill. You can let us know your views by attending a public meeting in your community.

PUBLIC MEETINGS

WHERE	WHEN

If you cannot attend the public meetings, please send us your comments by August __, 1993 on the enclosed comment sheet. For additional copies of this brochure or for more information contact:

Exxon Valdez Oil Spill Restoration Office
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Anchorage, Alaska 99501
(907) 278-8012

Thank you,
Exxon Valdez Oil Spill Trustee Council

Charles E. Cole
Attorney General
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U.S. Department of the Interior

Steven Pennoyer
Director, Alaska Region
National Marine Fisheries Service

[Note to reviewers, Page 1 of the brochure begins here.]

How Should the Trustees Spend the *Exxon Valdez* Civil Settlement?

Your comments are Needed!

The purpose of this brochure is to give you the opportunity to express your opinion about the best use of the *Exxon Valdez* civil settlement funds. By going through this brochure and attending meetings you have a chance to tell us what you like and dislike about alternative ways to spend the money. You can also make recommendations about things we may have overlooked. If you cannot attend the meetings, please note your ideas on the enclosed response form and mail it back to us by August ___, 1993.

The U.S. National Environmental Policy Act requires that an Environmental Impact Statement be part of any significant federal action such as the program for restoring injuries caused by the oil spill. The Draft Environmental Impact Statement and the full text of the Draft Restoration Plan, however, will not be available until June. Because many people are unavailable during the summer, this summary is being released now to allow the public to give the Trustees their ideas. If you would like, you may wait to see the Draft Environmental Impact Statement and Draft Restoration Plan this June before you make your comments.

In addition to including information found here, the Draft Environmental Impact Statement will analyze the impacts of these alternatives on the physical, biological, social, and economic aspects of the environment. It will help the Trustees and the public understand the consequences of alternative methods of spending the civil settlement funds.

The information you provide will be used to prepare a final restoration plan that will be presented to the public this fall. The plan adopted by the Trustee Council may contain parts of several of the alternatives presented here plus new information provided by you.

DRAFT

What is the Restoration Plan?

The *Exxon Valdez* Restoration Plan will provide long-term guidance for the Trustee Council to use when allocating the civil settlement funds for restoring injuries caused by the oil spill. The Council will implement the plan through annual work plans. The annual work plan is a mix of restoration activities to be funded based on the policies and budget guidelines of the plan, future public comments and changing restoration needs. The plan may be changed by the Trustees in response to new information about the injuries and recovery, new technologies, or as social and economic conditions change.

The Trustee Council allocates funds from the civil settlement for activities to restore the oil spill injuries. The Trustee Council *does not* direct land uses on federal, state, or private lands and *does not* manage fish and wildlife resources. Land use and fish and game management decisions are made by the appropriate federal or state agencies. The Trustee Council may make recommendations to state and federal agencies, provide funds for state and federal management, or fund research to provide information to those agencies or other groups. The Trustee Council may also purchase private land or private property rights, but no purchases will be forced on an unwilling seller.

BACKGROUND

Shortly after midnight on March 24, 1989 the T/V *Exxon Valdez* ran aground on Bligh Reef in Prince William Sound spilling 11 million gallons of North Slope crude oil. This was the largest tanker oil spill in United States history. All through the Spring, the oil moved along the coastline of Alaska contaminating the shoreline of Prince William Sound, the Kenai Peninsula, lower Cook Inlet, the Kodiak Archipelago, and the Alaska Peninsula. Portions of 1,200 miles of coastline were oiled, including part of one National Forest, four National Wildlife Refuges, and three National Parks.[1] Oil eventually reached shorelines nearly 600 miles from Bligh Reef.

On October 8, 1991, an agreement was approved by the U.S. District Court that settled the claims of the United States and the State of Alaska against Exxon Corporation and Exxon Shipping Company for various criminal violations and for recovery of civil damages resulting from the oil spill.

As part of the criminal plea agreement, the court fined Exxon and Exxon Shipping $150 million -- the largest fine ever imposed for an environmental crime. Of this amount, $125 million was forgiven due to their cooperation with the governments during the cleanup, timely payment of many private claims, and environmental precautions taken since the oil spill. The remaining $25 million was paid into the North American Wetlands Conservation Fund, and into the Victims of Crime Act Account.

The Exxon companies also agreed to pay $100 million as restitution. Fifty million dollars were paid to the United States and $50 million to the State of Alaska. The state and federal governments separately manage the $50 million payment that each has received. These funds are not under the authority of the Trustee Council and are not considered by this plan. However they must be used exclusively for restoration activities, within the State of Alaska, relating to the *Exxon Valdez* oil spill.

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[1]. Two turtle doves, and a partridge in a pear tree.

Civil Settlement and Restoration Fund

In the civil settlement, the Exxon companies agreed to pay the United States and the State of Alaska up to $900 million over a period of 10 years. The use of the civil settlement funds are the subject of this plan.

Who can spend the civil settlement money? Decisions on spending the civil settlement funds are made by a council of six state and federal Trustees:

State of Alaska Trustees:

- Commissioner of the Department of Environmental Conservation;
- Commissioner of the Department of Fish and Game; and
- Alaska Attorney General.

Federal Trustees:

- Secretary of the U.S. Department of the Interior;
- Secretary of the U.S. Department of Agriculture; and
- Administrator of the National Oceanic and Atmospheric Administration, U.S. Department of Commerce.

The Federal Trustees have appointed representatives to the Trustee Council from local federal agencies.

What are the rules for spending the civil settlement money?

- All decisions made by the Trustee Council (such as spending settlement funds) must be made by unanimous consent.
- The Trustees must use the settlement funds "...for the purposes of restoring, replacing, enhancing, or acquiring the equivalent of **natural resources** injured as a result of the Oil Spill and the reduced or lost **services** provided by such resources..." (except for the reimbursement of certain expenses to the governments).
- The settlement funds must be spent on restoration of natural resources in Alaska unless the Trustees unanimously agree that spending funds outside of the state is necessary for effective restoration.

The settlement defines **natural resources** as the land, fish, wildlife, biota, air, water, ground water, drinking water supplies, and other such resources belonging to or managed by the state or federal governments. Examples of natural resources are birds, fish, mammals, subtidal plants and organisms, and archaeology.

In addition to restoring natural resources, the settlement requires restoration funds be used to restore reduced or lost **services** provided by injured natural resources. For example, subsistence, commercial fishing, and recreation including sport-fishing and sport-hunting, are services that were damaged by injuries to fish and wildlife. Other damaged services include commercial tourism, and the enjoyment that people receive from the undisturbed wild areas.

Funding

The civil settlement requires Exxon to deposit funds each year beginning December 1991 and ending September 2001. Of the $900 million in the settlement, approximately $610 million remains for restoration.

The restoration fund has so far received $240 million from Exxon in two deposits. Of that amount, $107.3 million was withdrawn to reimburse the federal and state governments for cleanup; $19.5 million was withdrawn for the 1992 work plan; $13.3 million for the 1993 work plan; $20 million for interim habitat purchases including $7.5 million for the purchase

of inholdings in Kachemak Bay State Park, and Exxon took a one-time $39.9 millions deduction for allowable cleanup expenses after January 1, 1991. In addition, further reimbursements to the governments for cleanup and litigation expenses are allowed by the settlement. These are estimated to be $90 million.

[Note to reviewers, the brochure map (the spill-area map) will go on this page.

[Note to reviewers, Page 3 of the Brochure begins here]

What Was Injured By the Spill and Is It Recovering?

The *Exxon Valdez* oil spill injured resources and services throughout the spill area. The oil spill occurred just before the most biologically active season of the year in Southcentral Alaska. During the four-month period after the oil spill, seaward migration of salmon fry, major migrations of birds, and the primary reproductive period for most species of bird, mammals, fish, and marine invertebrates took place. The organisms involved in these critical periods of their life cycle encountered the most concentrated, volatile and damaging forms of oil. The oil spill also directly impacted archaeological resources, subsistence, recreation, designated wilderness areas, and wilderness qualities, aesthetics, and other services. Oil affected each resource and service differently; these injuries are briefly described below.

The *Exxon Valdez* oil spill was only one factor that affected the health of several populations in the area. We do not know the cause of the long-term declines of marbled murrelets, pigeon guillemots or harbor seals.

For some resources, the oil spill caused a measurable decline in their population. For example, an estimated 8,000 to 12,000 marbled murrelets were killed during the oil spill. For other resources, the spill caused an injury to one life stage, but that injury did not measurably lower the overall population. An example of a sublethal effect is abnormal herring fry. This has not yet caused a measurable population decline.

MAMMALS

HARBOR SEALS: The oil spill caused population declines and sublethal injuries to harbor seals. Many were directly oiled and an estimated 345 died. Oil residues found in seal bile were 5 to 6 times higher in oiled areas than unoiled areas in 1990. The population was declining prior to the oil spill which makes it difficult to know the continuing effects. There is no indication of recovery.

KILLER WHALES: The oil spill caused sublethal injuries to at least one of the killer whale pods in Prince William Sound. Debate continues about whether the oil spill caused a population decline. Thirteen whales out of 36 in the AB pod are missing and presumed dead. Circumstantial evidence links whale disappearance to the oil spill. Additionally, several adult males have collapsed dorsal fins. Social disruption of family units has been observed. In the AB pod, no new births were recorded in 1989 or 1990; one birth was recorded in 1991; and two births were recorded in 1992. These births show that the AB pod is beginning to recover.

RIVER OTTERS: The oil spill caused at least sublethal injuries to river otters. However, the population is difficult to census and it is unknown if there were population declines. Sublethal indicators of possible oil exposure remained in 1991. River otters feed in the intertidal and shallow subtidal areas and may still be exposed to oil persisting in the environment.

SEA OTTERS: The oil spill caused population declines and sublethal injuries to sea otters. It is estimated that 3,500 to 5,000 otters died. Surveys in 1989, 1990 and 1991 showed measurable differences in population numbers and survival between oiled and unoiled areas. In 1992, lower juvenile survival rates and higher than normal numbers of dead prime age otters indicate that the populations in Prince William Sound continue to be stressed. Sea otters feed in the lower intertidal and subtidal areas and may still be exposed to oil persisting in the environment. Little or no evidence of recovery has been detected.

BIRDS

BALD EAGLES: The oil spill caused sublethal injuries and possibly population declines in bald eagles. In 1989, 151 carcasses were recovered from beaches. Productivity in Prince William Sound was disrupted in 1989, but returned to normal in 1990. Exposure to oil and some sublethal injuries were found in 1989 and 1990, but no continuing effects were observed on populations. Bald eagles are recovering and may have recovered, from effects due to the oil spill.

BLACK OYSTERCATCHERS: The oil spill caused population declines and sublethal injuries to black oystercatchers. In 1989, nine carcasses were recovered from beaches, but the actual number killed were many more. In 1989, smaller eggs were found in oiled areas. Black oystercatchers feed in the intertidal areas and may still be exposed to oil persisting in the environment. The population is recovering although evidence of sublethal injuries persisted in 1992.

COMMON MURRES: The oil spill caused population declines and sublethal injuries at murre colonies within the oil spill area. In 1989, 10,428 carcasses were recovered from beaches representing between 175,000 to 300,000 murres killed. Measurable impacts on populations were recorded in 1989, 1990 and 1991. Breeding was still inhibited in some colonies in the Gulf of Alaska in 1992. The degree of recovery varies between colonies, however some colonies show little evidence of recovery.

HARLEQUIN DUCKS: The oil spill caused population declines and sublethal injuries to harlequin ducks. In 1989, 213 carcasses were recovered from beaches which probably represents over 400 birds killed. Post-spill samples showed oil contamination and poor health in 1989 and 1990. In the three years since the oil spill, it appears that harlequin ducks still are not successfully breeding in oiled areas. Harlequin ducks feed in the intertidal and shallow subtidal areas and may still be exposed to oil persisting in the environment. Although the population continues to show evidence of sublethal injuries and is not yet showing signs of recovering, it is possible that the decline has stabilized.

MARBLED MURRELETS: The oil spill caused population declines, but it is unknown if there were sublethal injuries. In 1989, 612 carcasses were recovered from beaches. It is estimated that 8,000 to 12,000 birds died. Measurable population effects were recorded in 1989, 1990 and 1991. Marbled murrelet populations were declining prior to the oil spill. In 1989, oil contamination was found in livers of adult birds. Although the recovery status in 1992 was uncertain and no signs of an increasing population have been observed, it is possible that the decline has stabilized.

PIGEON GUILLEMOTS: The oil spill caused population declines to pigeon guillemots. In 1989, 614 carcasses were recovered from beaches representing from 1,500 to 3,000 birds killed. Pigeon guillemot populations were declining prior to the spill. In 1989, oil contamination was found in birds and, externally, on eggs. The recovery status in 1992 is uncertain with no evidence of an increase in the population.

FISH

CUTTHROAT AND DOLLY VARDEN TROUT: The oil spill caused sublethal injuries and possibly population declines for these two species. Differences in the survival and growth between anadromous adult populations in the oiled and unoiled areas persisted from 1989 to 1991 despite less indications of oil exposure. This was possibly due to continuing injury to the food base, however, scientists disagree as to whether these differences in survival and growth existed before the spill. It is unknown whether these species are recovering.

PACIFIC HERRING: The oil spill caused sublethal injuries to Pacific herring. It is unknown whether this will result in a population decline. Measurable differences in egg counts between oiled and unoiled areas were found in 1989 and 1990. Lethal and sublethal effects on eggs and larvae were evident in 1989 and, to a lesser extent, in 1990. In 1991 there were no differences between oiled and unoiled areas. It is possible that the 1989 year class was injured which could result in reduced recruitment to the adult population. If so, an adult population decline will not become apparent until 1993. Overall recovery status is unknown.

PINK SALMON: The oil spill caused sublethal injuries to wild stock populations, and there is debate on whether the wild stock population has declined. Abnormal fry were observed in 1989 and egg mortality continued to be higher than expected in 1990 and 1991. The debate about population declines focuses on the whether the observed injuries necessarily result in reduced adult returns. Reduced growth of juveniles was found in 1989 and 1991, which correlates with reduced survival. In 1992, there was continued evidence of sublethal injuries. Overall recovery status is unknown.

ROCKFISH: The oil spill caused at least sublethal injuries, however, it is unknown whether or not population declines also occurred. Twenty dead fish were found in 1989, but only a few were in condition to be analyzed. Those showed exposure to oil with some sublethal injuries. Closures to salmon fisheries increased the fishing pressure on rockfish and the increasing catch may be impacting the population. It is unknown if the population has recovered from sublethal injuries, or the from any population decline.

SOCKEYE SALMON: Kenai River and Red Lake sockeye salmon stocks both suffered population declines as well as sublethal injuries. Smolt survival continues to be poor in both systems due to overescapements that occurred at Red Lake in 1989 and in the Kenai system in 1987, 1988, and 1989. As a result, adult returns are expected to be low in 1994 and successive years. Overall recovery status is unknown.

COASTAL HABITAT

COASTAL HABITAT - INTERTIDAL ZONE: The oil spill caused population declines and sublethal injuries to the populations of plants and animals that live in the area between low and high tide. The lower intertidal and, to some extent, the mid intertidal zones are recovering. However, in the upper intertidal zone, some species have not recovered, and oil persists in and under mussel beds. Intertidal organisms were impacted by both oiling and clean-up, particularly the high pressure hot water washing. Recovery varies by species largely based on their position within the intertidal zone.

COASTAL HABITAT - SUBTIDAL ZONE: The oil spill caused population declines and sublethal injuries to the populations of plants and animals found below low tide. Eel grass and some species of algae appear to be recovering. Amphipods in eel grass beds recovered to pre-spill densities in 1991. Leather stars and helmet crabs showed little sign of recovery through 1991. Overall recovery is variable by species.

ARCHAEOLOGY

ARCHAEOLOGY: Twenty-four archaeological sites are known to have been adversely affected by oiling, clean-up activities, or looting and vandalism linked to the oil spill. An additional 113 sites are estimated to have been similarly affected. Injuries attributed to increased looting and vandalism which have been linked to the oil spill are still occurring. Archaeological sites and artifacts cannot recover, they are finite non-renewable resources.

DESIGNATED WILDERNESS AREAS: Hundreds of miles of wilderness coastlines were affected by oil. Some oil remains embedded in the sediments of these areas.

SERVICES

RECREATION AND COMMERCIAL TOURISM: The nature and extent of injury varied by user group and by areas of use. About one quarter of survey respondents reported no change in their recreation experience, but others reported avoiding the spill area, reduced wildlife sightings, residual oil and more people. They also reported changes in their perception of recreation opportunities in terms of increased vulnerability to future oil spills, erosion of wilderness, a sense of permanent change, concern about long-term ecological effects and, in some, a sense of optimism. There are indications that declines in recreation activities reported in 1989 appear to have reversed in 1990, but there is no evidence that they have achieved pre-spill values.

RECREATION: SPORT FISHING AND HUNTING: Between 1989 and 1990, a decline in sport fishing effort (number of anglers, fishing trips and fishing days) was recorded for Prince William Sound, Cook Inlet and the Kenai Peninsula. In 1992, an emergency order restricting cutthroat trout fishing was issued for western Prince William Sound due to low adult returns. The closure is expected to continue at least through 1993. Sport hunting of harlequin ducks was reduced by restrictions imposed in 1991 and 1992 in response to damage assessment studies. It is likely that these restrictions will continue until the species shows signs of recovery.

PASSIVE USE: In 1991, over 90% of those surveyed nation-wide were aware of the oil spill. Over 50% believed that the oil spill was the largest environmental accident caused by humans anywhere in the world. There was also a perception that the values of wild areas has diminished. Although some people's feelings of lost values are diminishing as they sense some recovery is occurring, others' feelings have not changed as they do not believe recovery is occurring. Until oil is completely removed or degrades naturally, injury to wilderness values will continue.

SUBSISTENCE: Subsistence harvests of fish and wildlife in 9 of 15 villages surveyed declined from 4 to 78 percent in 1989 when compared to pre-spill averages. Seven of the 15 villages show continued decline in use in 1990 and 1991. This decline was particularly noticeable in the Prince William Sound villages of Chenega and Tatitlek. In 1989, chemical analysis indicated that most resources tested, including fish, marine mammals, deer, and ducks, were safe to eat, but that shellfish from oiled beaches should not be eaten. However, villagers believe that contamination to subsistence food sources continue to be dangerous to their health and some subsistence species continue to decline.

COMMERCIAL FISHING: During 1989, emergency commercial fishery closures were ordered throughout the spill area. This affected salmon, herring, crab shrimp, rockfish and sablefish. The 1989 closures resulted in sockeye over-escapement in the Kenai River and in the Red Lake system (Kodiak Island). In 1990, a portion of Prince William Sound was closed to shrimp fishing. Spill-related sockeye over-escapement is anticipated to result in low adult returns in 1994 and 1995. These over-escapements may result in closure or harvest restrictions during these and, perhaps, subsequent years. Injuries and recovery status of rockfish, pink salmon, shellfish and herring are uncertain.

[Note to reviewers, this begins pages 4 and 5 of the brochure]

What are the Alternatives?

Five alternatives have been developed for your review. Each alternative presents a different way of approaching restoration. Each uses different policies and emphasizes different categories of restoration activities to restore injuries caused by the spill. This and the next page summarize the policy questions and categories of restoration activities. The following two pages present the five alternatives.

Alternative 1, Natural Recovery, will allow the spill-affected area recover on its own, but monitor its recovery and continue normal agency management. **Alternative 2, Habitat Protection,** will protect injured resources and services by protecting their habitat so they can recover on their own without further disruption. **Alternatives 3 through 5, Limited Restoration, Moderate Restoration, and Comprehensive Restoration,** present a progression of restoration activities, with each successive alternative increasing the scope of activities.

Issues and Policy Questions

The planning process raised five significant issues. Table ___ presents these issues as questions. Different answers to these questions will influence which restoration activities are conducted.

ISSUE	POLICY QUESTION
Injuries Addressed	Should restoration actions address ALL injured resources or only those which had a measurable population decline because of the spill?
Status of Resource Recovery	Should restoration actions cease when a resource has recovered?
Effectiveness of Restoration Actions	Should the plan include only those restoration actions that produce substantial improvement over unaided recovery or also those that produce at least some improvement?
Location	Should restoration activities take place in the spill area only or anywhere in Alaska provided there is a link to injured resources or services?
Strategies for Human Use	To what extent should restoration actions be used to increase opportunities for human use?

Injuries Addressed: *Should restoration actions address ALL injured resources or only those which had a measurable population decline because of the oil spill?*

Resources and services injured by the oil spill are in Table ___. Injuries to resources produced either a decline in population or a sublethal effect. An example of population decline is the loss of 35-70% of the breeding common murres in the Gulf of Alaska and resulting decline in future generations. An example of sublethal injuries is abnormalities in larvae. Sublethal injuries may not result in a lower population because they may not affect the productivity of the species or the species may be able to compensate for the injury. However, there also may

be enough variability in the natural abundance of the species to mask effects of the injuries, or scientific measurement techniques may not be sensitive enough to measure a small effect on the population.

Alternative 3 reflects the view that if an injury was not severe enough to produce a detectable change in population, then settlement funds should not be spent to restore it. Rather, funds should be concentrated on the worst-injured resources. All other alternatives reflect the view that even sublethal injuries could become serious over time and, if something can be done to redress the injury, it should be done before more serious effects show themselves.

RESOURCES			SERVICES
Population Decline	Sublethal	Other	
Black oystercatcher Common murre Harbor seal Harlequin duck Intertidal organisms Marbled murrelet Pigeon guillemot Sea otter Sockeye salmon Subtidal organisms	Bald eagle * Cutthroat trout * Dolly Varden * Killer whale Pacific herring * Pink salmon River otter Rockfish	Archaeology Designated wilderness areas	Commercial fishing Passive use Recreation and commercial tourism Recreation - sport fishing Recreation - sport hunting Subsistence

* For these species, the Trustees' scientists have considerable disagreement over the conclusions to be drawn from the results of the damage assessment studies.

Status of Resource Recovery: *Should restoration actions cease when a resource has recovered?*

No resources have recovered from population decline. However, some sublethal injuries have recovered. As resources recover, this issue will become more important. Table ____ on page ____ shows current expectations about when many resources may recover. The table is based on the best available information from agency and peer reviewer scientists. These estimates will certainly change as recovery continues, monitoring uncovers more information, and scientists learn more about each species.

Alternatives 2 and 3 reflect the view that the goal of the settlement is to restore injured resources and services and that restoration activities should cease once the resource or service has recovered. Alternatives 4 and 5 reflect the view that certain actions, especially protection and enhancement, should continue even after resources have recovered to offset other adverse effects and improve the condition of injured resources and services.

Effectiveness of Restoration Actions: *Should the plan include only those restoration actions that produce **substantial** improvement over natural recovery or also include those that produce at least **some** improvement?*

Many restoration actions were suggested by scientists, agencies, and the public. They were

evaluated to determine how much of an improvement they would produce over unaided recovery.

Alternatives 3 and 4 reflect the view that unless a restoration action is likely to produce **substantial** improvement, it should not be funded. Alternatives 2 and 5 reflect the view that the Trustees should fund all restoration activities that offer at least **some** promise of helping injured resources and services; the cumulative effect of many such activities may result in a more meaningful and substantial improvement.

Location: *Should restoration activities take place in the oil spill area only or anywhere in Alaska provided there is a link to injured resources or services?*

The map of the oil spill area is on page ____. The oil spill area includes the maximum extent that oil reached along the shoreline of Alaska. It also includes the adjacent land up to the watershed divide, and the area of immediate human use for communities severely affected by the spill. Alternatives 2 and 3 reflect the view that restoration activities should be limited to the spill area to focus them on the populations and services directly affected. Alternatives 4 and 5 include restoration activities within Alaska because some projects outside the spill area may be far more effective than those possible within the spill area. For example, increasing common murre populations in the Pribilof Islands, outside the spill area, may do more to increase the numbers of that species in Alaska than would comparable projects within the spill area.

Strategies for Human Use: *To what extent should restoration actions be used to increase opportunities for human use?*

Many of the restoration options for recreation or fishing would increase human use of the spill area. However, too much additional use could be detrimental to recovery of injured resources and services. Three different strategies for human use are reflected in alternatives 3, 4 and 5, only. Alternative 3 emphasizes restoration activities that would **protect existing uses** such as constructing outhouses in over-used areas, or improved trails where hiking is damaging wetlands, or providing information about the safety of subsistence foods. Alternative 4 emphasizes restoration activities that would **increase existing uses** such as increasing opportunities for fish harvest above prespill levels or constructing a new public-use cabin. Alternative 5 emphasizes restoration activities that would **encourage appropriate new uses** such as providing new visitor centers or attracting new commercial facilities on public land. Restoration activities would comply with existing land-use plans, and agency procedures such as those requiring public notice.

What Are the Categories of the Restoration Plan?

The alternatives emphasize different categories of restoration activities. This section describes the activities that fall within each category. Not all categories are included in every alternative.

HABITAT PROTECTION.

Habitat protection and acquisition on private land. Sometimes even careful resource development such as timber harvest or subdivisions can adversely affect resources or services injured by the spill. The Trustee Council may purchase private land or partial interests such as conservation easements, mineral, or timber rights as a method of restoration. The Council's recent action to allocate funds to purchase inholdings in Kachemak Bay State Park is an example of habitat protection and acquisition on private land.

Since there will not be enough money in any alternative to buy or protect all habitat important to recovery, it is necessary to prioritize available land through a ranking process. The criteria for this ranking are currently being developed. Some of the most important criteria are the degree of importance of the land to injured resources or services and the number of resources or services which rely on a given parcel. Land which is highly important to many species and services will generally receive top priority.

The following injured resources and services might benefit from the purchase of private land or property rights: salmon and trout, bald eagle, black oystercatcher, common murre, harbor seal, harlequin duck, marbled murrelet, pigeon guillemot, river otter, sea otter, areas adjacent to particularly productive intertidal areas, recreation and commercial tourism, archaeology, and important subsistence harvest areas. Alternative #3 would target purchases for services and for those resources whose populations declined because of the spill. Alternatives 2, 4, and 5 would target habitat acquisition for the all injured resources and services.

There is not enough money in the entire civil settlement to purchase all lands important to injured resources and services. The cost per acre will vary depending on the land, and the private rights that are purchased. For example, valuable timber land will be more expensive than similar land without marketable timber. Also, purchase of partial interests such as easements or mineral rights will be somewhat less expensive and may increase the number of acres that can be protected. In each alternative, there is an estimate of the acreage that might be purchased under that alternative.

Habitat protection on public land. Federal and state agencies manage the public land and water. Protective changes in their management practices may benefit injured resources and services. Examples of these changes include amending agency management plans, changing regulations, and designating public land and water as special areas. Examples of special areas include scientific research reserves, recreation areas, parks, critical habitat areas, and marine sanctuaries. Any of these management changes would have to be approved and implemented by the appropriate state or federal agency, or in some cases by the Alaska State Legislature or the U.S. Congress. Since land and water management actions could extend to any public upland, intertidal area, and marine waters, the actions could potentially benefit most injured resources and services. At this time the Trustee Council has no specific proposals for revising land-use management practices or creating special designations.

GENERAL RESTORATION. Since 1989, agencies and the public have proposed hundreds of ideas for restoration. Some ideas help restore injuries by directly manipulating resources. Examples are building fish passes or public-use cabins, testing subsistence foods for continuing oil contamination, or seeding the intertidal areas. Other ideas focus on managing human use to aid restoration. Examples are redirecting hunting and fishing harvest, or reducing human disturbance around sensitive bird colonies. General Restoration does not include habitat protection or oil spill preparedness activities. In each alternative, enough money is allocated for General Restoration to fund all activities that have been identified and that meet the policies of that alternative. In addition, each alternative allocates enough additional funds to General Restoration to provide a reserve for General Restoration activities that may be identified in the future.

SPILL PREVENTION AND RESPONSE. Varying levels of spill prevention and response are also part of several alternatives. These activities would reduce stress on recovering resources and services by improving and protecting water quality. Components of prevention and response include:

Research and development on developing technologies, such as in-situ burning and spill tracking systems, can assist in spill prevention and response.

Equipment, such as telecommunications and weather information systems, could be installed or updated in order to gather and transmit response and prevention information quickly. Funding spill response depots and volunteer response corps would improve cleanup capabilities.

Chronic marine pollution sources can be reduced by building oily waste disposal sites in port communities to deter marine disposal of oily wastes by small boats, cruise ships and ferries.

MONITORING AND RESEARCH PROGRAM. The monitoring and research program could include one or more of the following, although the number of components will vary between alternatives.

Recovery Monitoring would assess the rate of recovery of injured resources and services, and determine when recovery has occurred.

Restoration Monitoring would evaluate the effectiveness of specific restoration activities, identify where additional restoration activities may be appropriate, and determine when delayed injury occurs.

Ecosystem Monitoring would follow long-term trends in the distribution and abundance of injured resources and the quality and quantity of services. Monitoring could also detect residual spill effects and provide ecological baseline information to assess the impacts of future oil spills and other disturbances.

Restoration Research would focus on the design, development and implementation of new technologies and approaches to restore resources not recovering or recovering at unacceptable rates.

ENDOWMENTS. An endowment is not a restoration activity. It is a method of funding restoration. The Exxon Corporation has been depositing funds into the restoration fund since

1991 and will continue to do so until 2001. The Trustees could spend the entire settlement during that time or they could save some for future use. An endowment is a savings program to fund restoration after Exxon deposits end. It would use part of the settlement funds to create a savings account. The savings account could fund a low but constant level of restoration activities indefinitely. An endowment could be used to fund some or all restoration activities. Habitat acquisition, however, does not lend itself to an endowment. Purchase of land or other private property rights are usually made all at once.

The size of an endowment determines the amount of interest it earns and the number of restoration activities it can fund. If approximately 20% of the remaining settlement funds were placed into an endowment and the principal inflation-proofed, the endowment could fund at least $3 million worth of restoration activities indefinitely, and possibly somewhat more depending on assumptions about future interest rates. This amount is enough to continue the Trustee Council's monitoring program at a minimum level, and provide some funds for other monitoring components. If twice that amount were placed into the endowment, the additional funds could be used for fund general restoration, basic research, or spill prevention.

ADMINISTRATION AND PUBLIC INFORMATION. Funding is required to manage the restoration program. Providing the public with information about recovery and restoration will also consume a portion of the settlement monies. As the number of restoration projects increase and the complexity of management duties grow, the percentage of funds in each alternative that is proposed for these expenses also rises.

[Note to reviewers, this begins page 6]

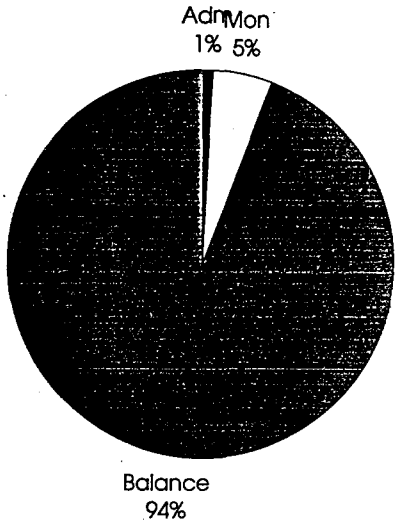
DESCRIPTION OF ALTERNATIVES

ALTERNATIVE 1 - NATURAL RECOVERY

No action other than monitoring and normal agency management.	
ISSUES	**POLICIES**
Injuries Addressed	Monitor all injured resources and services
Status of Resource Recovery	Monitor resources not recovered.
Effectiveness of Restoration Actions	Not applicable
Location	Monitor within the spill area.
Strategies for Human Use	Not applicable.

What would happen to resources and services injured by the oil spill if no restoration actions were taken other than monitoring? Table ____ describes expected times for natural recovery of injured resources and services, if expected patterns of use continue. They range from a few years to 120 years and are unknown for five resources. Archaeological resources and wilderness are not expected to recover. Monitoring of natural recovery is the only restoration action in this alternative. This alternative is the no-action alternative in the draft Environmental Impact Statement that will be released in June.

Alternative 1 - Allocation



Cost allocations are presented for illustration only .

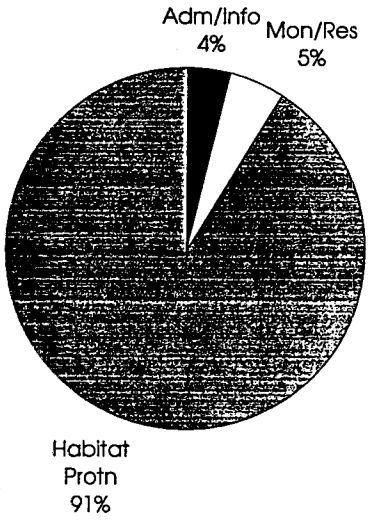
Allocations are expressed as percent of remainder of civil settlement.

ALTERNATIVE 2 - HABITAT PROTECTION

Protect injured resources and services within the spill area from further degradation or disturbance.	
ISSUES	**POLICIES**
Injuries Acdressed	All injured resources and services
Status of Resource Recovery	Resources not recovered and resources recovered
Effectiveness of Restoration Actions	Provide some improvement over unaided recovery
Location	Activities within the spill area
Strategies for Human Use	Protect or increase existing use through habitat protection

The goal of this alternative is to protect strategic lands and habitats important to the long-term recovery of resources and services injured by the Exxon Valdez oil spill. In this alternative, 91% of the remaining settlement funds would be dedicated to habitat protection. Monitoring and Habitat Protection are the only restoration actions included in this alternative. Habitat Protection includes the acquisition of private land interests or changes in public land management. Monitoring will evaluate the effectiveness of habitat protection measures undertaken and follow the progress of natural recovery. These activities would be limited to the spill area.

Alternative 2 - Allocation



Cost allocations are presented for illustration only .

Allocations are expressed as percent of remainder of civil settlement.

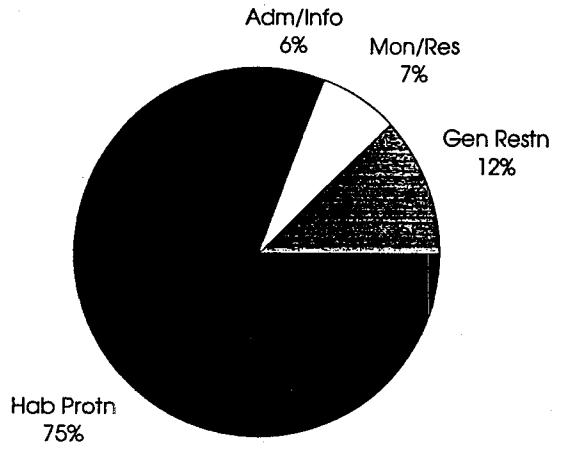
ALTERNATIVE 3 - LIMITED RESTORATION

Take the most effective actions within the spill area to protect and restore injured services and resources whose population has declined. Maintain the existing character of the affected area.	
ISSUES	**POLICIES**
Injuries Addressed	Injured services and resources whose populations declined
Status of Resource Recovery	Resources not recovered
Effectiveness of Restoration Actions	Provide substantial improvement over unaided recovery
Location	Activities within the spill area.
Strategies for Human Use	Protect existing use

The goal of this alternative is to help the worst-injured resources and services recover as efficiently as possible. As its name implies, this alternative is limited in that it addresses only the most severe injuries until the resource or service recovers, includes actions most likely to produce significant improvement over unaided recovery, is limited to the spill area, and does not fund activities that would substantially increase human use of the spill area. Only a few restoration activities meet these standards.

This alternative sets aside 75% of the remaining settlement funds for habitat protection. Of the General Restoration options that have been evaluated, only 21 meet the criteria of this alternative (See page ____). Spill Prevention and Response is not included. Monitoring would evaluate the effectiveness of restoration actions and follow the progress of natural recovery.

Alternative 3 - Allocation



Cost allocations are presented for illustration only .

Allocations are expressed as percent of remainder of civil settlement.

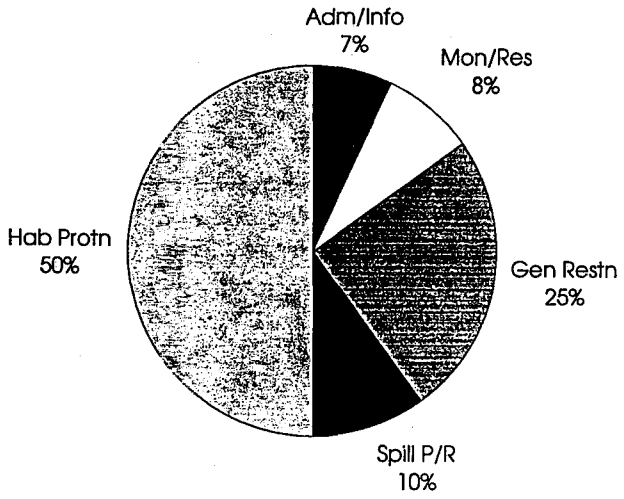
ALTERNATIVE 4 - MODERATE RESTORATION

Take the most effective actions within Alaska to protect and restore all injured resources and services. Increase, to a limited extent, opportunities for human use in the affected area.	
ISSUES	**POLICIES**
Injuries Addressed	All injured resources and services
Status of Resource Recovery	Resources not recovered
Effectiveness of Restoration Actions	Provide substantial improvement over unaided recovery
Location	Activities within Alaska
Strategies for Human Use	Protect or increase existing use

The goal of this alternative is to help all injured resources and services recover as efficiently as possible. It is similar to Alternative 3 in limiting restoration actions to resources not yet recovered and setting the same high standard of effectiveness. It differs from Alternative 3 in addressing additional species injured at a sublethal level, including activities within Alaska but outside the spill area, and increasing opportunities for human use of the area to a limited extent.

This alternative sets aside 50% of the remaining settlement funds for habitat protection. Of the General Restoration options that have been evaluated, 31 meet the criteria for this alternative. Spill Prevention and Response includes research and development to improve spill technology and equipment such as telecommunications and weather information systems. The Monitoring Program includes ecosystem monitoring and restoration research in addition to evaluating the effectiveness of restoration actions and following the progress of natural recovery.

Alternative 4 - Allocation



Cost allocations are presented for illustration only .

Allocations are expressed as percent of remainder of civil settlement.

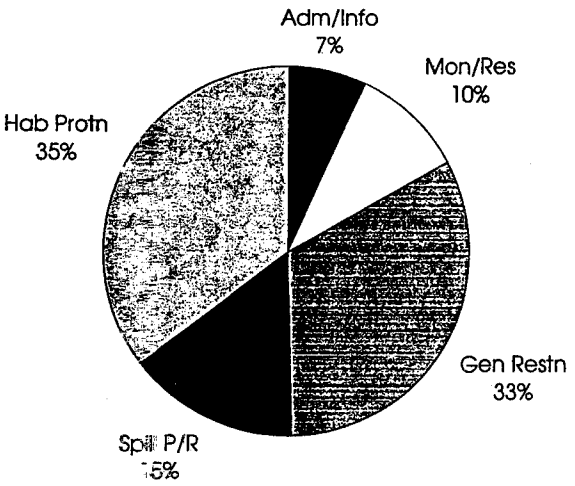
ALTERNATIVE 5 - COMPREHENSIVE RESTORATION

Take all effective actions within Alaska to protect, restore, and enhance all injured resources and services. Increase opportunities for human use in the affected area.	
ISSUES	**POLICIES**
Injuries Addressed	All injured resources and services
Status of Resource Recovery	Resources not recovered and resources recovered
Effectiveness of Restoration Actions	Provide some improvement over unaided recovery
Location	Activities within Alaska
Strategies for Human Use	Protect or increase existing use or encourage appropriate new use

The goal of this alternative is to help all injured resources and services return to or exceed prespill levels. It is similar to Alternative 4 in addressing all injured resources and services and including activities within Alaska but outside the spill area. It is more expansive than Alternative 4 in including restoration actions for resources whether or not they have recovered, including any action likely to produce at least some improvement over unaided recovery, and encouraging appropriate new human uses.

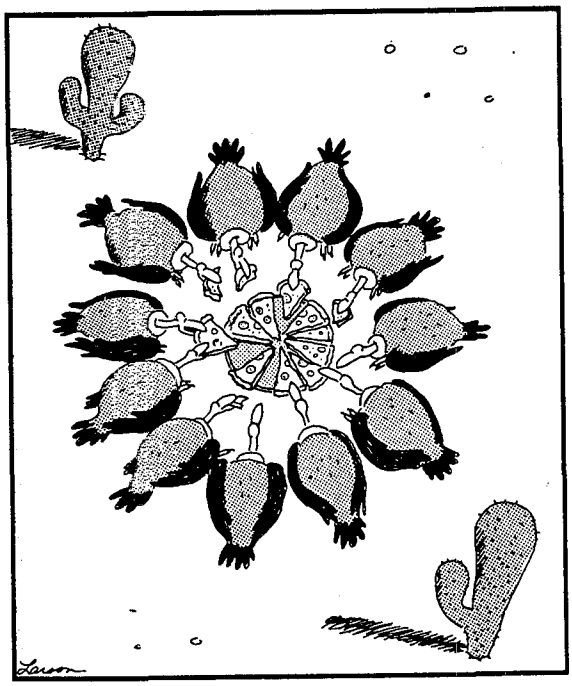
This alternative sets aside 35% of the remaining settlement funds for habitat protection. Of the General Restoration options that have been evaluated, 47 meet the standards of this alternative. Spill Prevention and Response would address chronic sources of pollution as well as research and development to improve spill technology and equipment such as telecommunications and weather information systems. The Monitoring Program includes ecosystem monitoring, restoration research, restoration monitoring, and natural recovery monitoring

Alternative 5 - Allocation



Cost allocations are presented for illustration only .

Allocations are expressed as percent of remainder of civil settlement.



Perspectives in nature we rarely enjoy

[Note to reviewers, Page 7 of the brochure begins here.]

COMPARISON OF ALTERNATIVES

This table shows the resources and services included in each alternative. It also presents current expectations about when resources will recover. For some species, there is substantial disagreement on the exact mechanism of the injury and how long it will take to recover. For many species much is unknown about when and how recovery will take place. These estimates will certainly change as recovery continues, monitoring uncovers more information and scientists learn more about each species.

Resource/Service	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Expected Natural Recovery (Yrs. from 1989)	Comments
Black oystercatcher						Less than 30 years	Recovering.
Common murres						Less than 120 years	Recovery varies by colony.
Harbor seals						Unknown	In decline before spill. Population may have stabilized.
Harlequin ducks						Less than 50 years (maybe)	Still no reproduction within spill area.
Intertidal organisms						Less than 25 years	Recovering in most places.
Marbled murrelet						Less than 50 years to stabilize the population	In decline before spill. May be still declining; may be stable.
Pigeon guillemots						Less than 50 years to stabilize the population	In decline before spill. Probably still declining.
Sea otters						Less than 50 years	Population stable, but not recovering.
Sockeye salmon						Less than 50 years	Not yet recovering in Kenai River.
Subtidal organisms						Less than 10 years (most places)	Recovering in most places.
Bald eagles						Less than 6 years	Back to pre-spill population by 1993-1995.
Cutthroat trout						Less than 20 years	
Dolly Varden						Less than 20 years	
Killer whales						Less than 20 years	Recovering.
Pacific herring						Unknown	Population decline may be documented after 1993.
Pink salmon						Unknown	
River otters						Unknown	
Rockfish						Unknown	
Archaeology						Will not recover	
Commercial Fishing						Recovery differs by species.	Currently no closures, although some may be implemented to help populations recover.
Recreation						Recovering slowly	
Recreation - Sport Fishing						Recovery differs by species.	Closures may continue until populations recover.

Subsistence						Recovering	Harvest continues to be below pre-spill levels.
Designated Wilderness Areas						Dependant on rate that persistent oil is degrading.	

The table below compares spending guidelines and restoration activities within the five alternatives. The spending for each restoration category gives a sense of the emphasis of the restoration program envisioned by each alternative. They are guidelines and not fixed allocations.

ALLOCATION	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Administration and Public Information	1%	4%	6%	7%	7%
Monitoring and Research	5%	5%	7%	8%	10%
• Recovery Monitoring					
• Restoration Monitoring					
• Ecosystem Monitoring					
• Restoration Research					
General Restoration			12%	25%	33%
(For examples of general restoration activities within each alternative see page __.)					
Habitat Protection		91%	75%	50%	35%
Spill Prevention and Response				10%	15%
• Research and Development					
• Equipment					
• Chronic Marine Pollution					
Balance	94%				

Allocation expressed as percent of the remainder of the civil settlement.

In general, how does each alternative benefit recovery?

Alternative 1 would produce no improvement over natural recovery. Natural recovery means that no restoration activities will be undertaken.

Alternative 2 would improve natural recovery by preventing some habitat disturbances that might otherwise occur. Benefits accrue to resources and services linked to upland habitat.

Alternative 3 has the greatest potential to improve recovery of the worst injured resources within the spill area . However, it makes no provision for future oil spills and for sublethal injuries unless there is a measurable population decline. It also funds activities that protect existing human use.

In addition, to the benefits in alternative 3, **alternative 4** addresses potential problems before they occur. It addresses sublethal effects before they produce population decline; prepares for future oil spills through ecosystem monitoring, research and spill prevention and response activities; and reaches outside the spill are if necessary to find better restoration opportunities. It also funds activities that increase human use. These assurances are provided at some expense to habitat protection.

In addition to the benefits in alternative 4, **alternative 5** would enhance recovery of some resources and services beyond prespill levels though actions such as fisheries enhancement or addressing chronic marine sources of oil pollution. Enhancement benefits some resources and services more than others. This alternative allocates the least amount of money to habitat protection.

Endowment. Whether or not funds are placed into an endowment is a decision about the timing of when restoration activities should occur. The alternatives compared above assume that the funds are spent within ten years. Twenty percent of the remaining restoration funds could be placed into a savings account. If so, fewer restoration activities could be accomplished with ten years, but the annual interest from the account could fund recovery monitoring and possibly a few other restoration activities indefinitely. It is also possible to place 40% of the funds into a savings account and use the annual interest to fund a larger amount of restoration activities indefinitely.

[Note to reviewers, Page 8 of the brochure begins here.]

General Restoration

The General Restoration category of alternatives 3 through 5 includes various restoration actions which have been suggested throughout the planning process. The suggestions were evaluated by scientists and peer reviewers. Those that were determined to be effective have been combined into general options and are listed below. Those general options may include a number of specific projects. The option evaluation considered: how recovery was aided and whether further potential injury could be prevented. Other considerations included negative effects, how many species benefit, human health and safety, and cost effectiveness. No options were identified for restoring subtidal resources, air, water, sediment or designated wilderness areas. The list on this page provides examples of restoration options that passed the evaluation process. New options will continue to be evaluated as the restoration plan is implemented.

The amount of funding allocated to general restoration in all alternatives includes substantially more than the amount needed to fund all the options identified in this list.

Many options would have wide-ranging impacts throughout the spill area. Most options that help resources also help the services that are dependent upon them. An option targeted to improve the recovery of a single resource may greatly benefit other resources that occur in the same area.

This is especially true of the activities that protect marine, coastal and upland habitats. In additions, options that benefit the foundation of a food web, such as marine invertebrates, would ultimately benefit top predators such as whales and eagles.

* The asterisk in the table denotes those options which may produce **substantial** improvement in the recovery of a biological resource. Those without an "*" may produce at least **some** improvement in recovery.

	MAMMALS — Alternatives	3	4	5
	HARBOR SEAL: Determine the effects of disturbance on harbor seals and implement actions to reduce adverse effects.			x
*	Implement cooperative programs between fishermen and agencies to provide voluntary methods to reduce incidental take of harbor seals during fishing.	x	x	x
*	Implement cooperative programs between subsistence users and agencies to assess the effects of subsistence harvest.	x	x	x
*	**KILLER WHALE:** Determine techniques for changing black cod fishery gear to avoid conflicts with fishermen and implement actions to remove adverse effects.		x	x

* **SEA OTTER:** Determine the effects of disturbance of upland activities on sea otters and implement actions to reduce adverse effects. This would have benefits in local areas only.	x	x	x
* Determine if eliminating oil from mussel beds removes a potential source of continuing contamination to sea otter food and take appropriate action. This would have benefits in local areas only.	x	x	x
* Implement cooperative programs between subsistence users and agencies to assess the effects of subsistence harvest.	x	x	x
RIVER OTTER: Develop sport and trapping harvest guidelines to aid in the recovery of injured populations.			x

FISH Alternatives	3	4	5
* **SOCKEYE SALMON:** Intensify management of sockeye salmon on the Kenai River and Red Lake to reduce the risk of overescapement.	x	x	x
Improve access to salmon streams by building fish passes to increase the area where salmon can successfully spawn and rear. This would have benefits in local areas only.			x
Fertilize Coghill Lake in PWS to improve sockeye rearing success within the lake and increase sockeye population in PWS.		x	x
* Improve survival rates of salmon eggs to fry by using egg boxes, net pens or hatchery rearing.	x	x	x
* **PINK SALMON:** Intensify management by incorporating coded-wire tagging and stock separation to ensure and accelerate the recovery of the wild stock.		x	x
Construct salmon spawning channels and other instream improvements to increase spawning production and provide long-term enhancement. This would have benefits in local areas only.			x
Improve access to salmon streams by building fish passes to increase the area where salmon can successfully spawn and rear. This would have benefits in local areas only.			x
* Relocate hatchery runs of pink salmon to reduce the interception rate of wild stocks of pink salmon.		x	x
Improve survival rates of salmon eggs to fry by using egg boxes, net pens, or hatchery rearing. This would have benefits in local areas only.			x
Update the Alaska Anadromous Streams Catalog to ensure that the necessary protection and regulation is provided for all listed salmon streams in the spill area.			x
* **CUTTHROAT TROUT:** Intensify management of cutthroat trout and its dependent sport fishery by determining local distribution, abundance, and productivity.		x	x
Update the Alaska Anadromous Streams Catalogue to ensure necessary protection and regulation for all listed anadromous streams in the spill area.			x
* **DOLLY VARDEN:** Intensify management of Dolly Varden and its dependent sport fishery by determining local distribution, abundance and productivity.		x	x

* **PACIFIC HERRING:** Intensify management to improve recovery by allowing increased precision in stock assessment and manipulation of harvest levels.	x	x	
* **ROCKFISH:** Intensify management of the rockfish fishery to modify the harvest to compensate for injury from the spill.	x	x	

BIRDS Alternatives	3	4	5
BLACK OYSTERCATCHER: Accelerate the recovery of the upper intertidal zone to improve the rate of recovery in site-specific areas.			X
* Remove predators from islands that previously supported black oystercatchers. Effectiveness varies by location.		X	X
COMMON MURRE: Reduce disturbance at breeding colonies to eliminate factors which could slow the recovery of affected murre colonies.			X
* Use artificial stimuli such as decoys or vocalizations to encourage recovery at affected colonies and accelerate recolonization of historic colonies.	X	X	X
* Remove predators at injured colonies or remove predators from islands that previously supported murres.	X	X	X
HARLEQUIN DUCK: Modify sport hunting harvest guidelines in the areas of injured populations to speed the rate of recovery during the recovery phase.			X
* Determine if eliminating oil from mussel beds removes a potential source of continuing contamination in feeding areas and take appropriate action. This would have benefits in local areas only.	X	X	X
* **MARBLED MURRELET:** Minimize the incidental capture of birds in fishing nets by changes in gear or timing of fishing.	X	X	X
* **PIGEON GUILLEMOT:** Control predator access or remove predators from islands that previously supported birds.	X	X	X
BALD EAGLE: No options other than habitat protection have been identified.			

COASTAL HABITAT Alternatives	3	4	5
* **INTERTIDAL ORGANISMS:** Accelerate the recovery of the upper intertidal zone to aid intertidal resources in localized areas.	x	x	x
SUBTIDAL ORGANISMS: No restoration options have been identified.			

DESIGNATED WILDERNESS AREAS	3	4	5
No options have been identified for Designated Wilderness Areas or Wilderness Study Areas.			

ARCHAEOLOGY Alternatives	3	4	5

Develop a site stewardship program using local residents to monitor nearby archaeological sites to discourage looting and vandalism.	x	x	x
Increase law enforcement and agency presence to patrol and monitor archaeological sites within the spill area would protect sites from looting and vandalism.	x	x	x
Preserve archaeological sites and artifacts within the spill area to provide some measure of permanent protection for select archaeological resources.	x	x	x
Acquire replacements for artifacts from the spill area as a means of preserving and studying artifacts which were taken from the spill area prior to the spill.		x	x

SERVICES	Alternatives	3	4	5
Resource options shown above also benefit many services.				
RECREATION AND COMMERCIAL TOURISM: Develop new backcountry public recreation facilities to protect both recreation and the resources on which it depends; for example, by providing an outhouse in a heavily used area.		x	x	x
Plan and market public land for commercial recreational use to provide additional opportunities for commercial operators and recreationists to use public lands.				x
Create new visitor centers or build a marine environmental institute to benefit all injured resources. Increase public awareness of the nature of injury and recovery and an understanding of the ecosystem of the area.				x
RECREATION - SPORT FISHING: Replace lost harvest opportunities by creating new fisheries for salmon or trout.		x	x	x
SUBSISTENCE: Replace lost harvest opportunities by creating new salmon runs.				x
Test subsistence foods for continued contamination as a means of restoring confidence in the safety of subsistence resources within the spill area.		x	x	x
Provide new access to traditional foods in areas outside the spill area to restore lost use.		x	x	x
Develop subsistence mariculture sites to benefit subsistence users by providing a source of uncontaminated shellfish for their diets.				x
Develop a shellfish hatchery and technical research center to benefit subsistence users by providing a source of uncontaminated shellfish for their diets.				x
COMMERCIAL FISHING: Replace harvest opportunities by creating new fish runs to replace commercial fishing opportunities lost due to fishing closures or reduced harvest.		x	x	x
PASSIVE USE: No options other than habitat protection have been identified for this resource.				

[Note to Reviewers, Page 9 of the brochure begins here]

How should these issues be resolved?

INTRODUCTION

The Trustees can use the settlement funds in a variety of ways. We would like to know your views about the appropriate policies, categories of restoration activities, and spending guidelines. Please fill out the questions on this page and let the Trustees know which approaches you believe will best restore the injuries of the oil spill. If you need more information, please come to one of the public meetings. Also, feel free to comment on other parts of the plan alternatives in the space provided. Attach additional sheets if you need more space. Thanks for your help!

QUESTIONS ABOUT ISSUES AND POLICIES

The alternatives presented policy questions. The answers to those questions will help guide some restoration activities. The policy questions are reprinted below. Please mark the appropriate box to let us know your views.

If you think that these policies should apply to some restoration activities but not others, please write your views down in the space provided beneath each question. For example, if you think that some general restoration activities are appropriate outside the spill area but that habitat protection should concentrate only on the spill area, you would write that information in the comment space under question four.

ISSUES AND POLICY QUESTIONS
Injuries Addressed: Should restoration actions address ALL injured resources or only those which had a measurable population decline because of the spill? ☐ Target restoration activities only to resources whose populations declined because of the spill. ☐ Target restoration activities to all injured resources ☐ No preference Comments:
Status of Resource Recovery: Should restoration actions cease when a resource has recovered? ☐ Continue appropriate activities even after resources recover. ☐ Cease funding restoration once a resource recovers. ☐ No preference Comments:
Effectiveness of Restoration Actions: Should the plan include only those restoration actions that produce substantial improvement over unaided recovery or also those that produce at least some improvement?

☐ Fund all effective restoration actions
☐ Fund only highly effect restoration actions
☐ No preference
Comments:

Location: Should restoration activities take place in the spill area only or anywhere in Alaska provided there is a link to injured resources or services?

☐ Fund activities within the spill-area only.
☐ Allocate some funds for activities outside the spill-area but within Alaska. The activities must be linked to injured resources or services.
☐ No preference
Comments:

Strategies for Human Use: To what extent should restoration actions be used to increase opportunities for human use?

☐ Do not fund activities that increase human use.
☐ Fund only habitat protection.
☐ Only fund restoration activities that are designed not to increase use levels but only to protect existing human use. Examples are recreation facilities that protect the environment in over-used areas, or testing the safety of subsistence foods.
☐ Fund restoration activities that protect or increase existing uses. Examples are funding to increase existing sport- or commercial fishing runs, or funding to construct recreation facilities such as public-use cabins.
☐ In addition to activities that protect or increase existing human use, also fund appropriate new uses. Examples are new fishing runs, commercial facilities, or visitor centers.
☐ No preference
Comments:

QUESTIONS ABOUT CATEGORIES OF THE RESTORATION PROGRAM

The questions below discuss the different categories of restoration activities. The questions ask about what groups of activities you believe the trustees should fund.

Spill Prevention and Response. The alternatives propose using up to 15% of the remaining settlement funds for spill prevention and response to prevent catastrophic and chronic oil pollution.

Should the Trustee Council fund spill prevention and response activities?

- ☐ No
- ☐ Yes. *Please indicate which spill prevention and response activities you believe are appropriate (you may mark more than one answer):*
  - ☐ Spill prevention and response technology.
  - ☐ Infrastructure
  - ☐ Prevention of chronic pollution
  - ☐ Other:

Comments:

Monitoring and Research. Some components of monitoring and research are included in all alternatives. We would like to know your views.

Should the Trustee Council fund monitoring and research activities?

- ☐ No
- ☐ Yes. *Please indicate which monitoring and research activities you believe are appropriate (you may mark more than one answer):*
  - ☐ Recovery monitoring
  - ☐ Restoration monitoring
  - ☐ Ecological monitoring
  - ☐ Restoration Research
  - ☐ Other:

Comments:

Endowment. Some alternatives assume that the settlement funds will be spent within ten years. Others propose placing 20% to 40% of the remaining settlement funds into a savings account to fund restoration, spill prevention, research, or monitoring after that time.

Are you in favor of an endowment or savings account of some kind?

- ☐ No, I believe the funds should be spent within 10 years.
- ☐ Yes. *Please indicate what the annual endowment earnings should be spent on (you may mark more than one answer):*
  - ☐ Research and Monitoring
  - ☐ General Restoration
  - ☐ Spill preparedness
  - ☐ Habitat Acquisition
  - ☐ Other:

Comments:

QUESTIONS ABOUT SPENDING GUIDELINES

The table below shows the spending guidelines in the five alternatives. If one of the alternatives reflects your view of how the funds should be allocated, please circle the name of that alternative. If not, please put write in your percentages in the space to the right. If needed, you may write in new suggestions for restoration plan components in the blank lines. If you believe that an endowment is appropriate, please put in the appropriate percentage in the endowment line. (Make sure your percentages add to 100%!).

	Alternative #1 Natural Recovery	Alternative #2 Habitat Protection	Alternative #3 Limited Restoration	Alternative #4 Moderate Restoration	Alternative #5 Comprehensive Restoration	*YOUR ALTERNATIVE* If none our alternatives reflect your views about allocating the funds, please write your percentages below.	
Administration & Public Information	1%	4%	6%	7%	7%		Administration & Public Information
Monitoring & Research	5%	5%	7%	8%	10%		Monitoring & Research
General Restoration			12%	25%	33%		General Restoration
Spill Preparedness				10%	15%		Spill Preparedness
Endowment							Endowment
Habitat Protection		91%	75%	50%	35%		Habitat Protection
Balance	94%						Balance
Total:	100%	100%	100%	100%	100%		
						100%	Total

HABITAT PROTECTION: PRIVATE LANDS

Habitat Protection on private lands is a major element in all but the natural recovery alternative of the draft Restoration Plan. Habitat protection on private lands may include acquisition of full title or acquisition of partial rights such as conservation easements and timber rights. Partial rights may be less expensive than full title. Because land purchases are negotiated and are dependent both on price and on the will of the seller, final purchases will be dependent on landowner's preferences as well as those of the public and the trustees. (The habitat protection process was described in the Restoration Framework Supplement.)

In response to public support, the Trustee Council is proceeding in advance of the Restoration Plan by protecting several imminently threatened parcels. For example, the Trustee Council decided to go ahead with the purchase of inholdings in Kachemak Bay State Park.

We are requesting your views on several issues concerning Habitat Protection on private lands. Please answer the questions below.

1. When purchasing land we can purchase large areas that protect the overall landscape or integrity of the habitat, or purchase small but important parcels such as stream corridors and camping areas to stretch the funds. Would you prefer acquisitions to emphasize:

- ☐ a few large parcels of land
- ☐ many small parcels of land
- ☐ mix of large and small parcels
- ☐ no preference

2. Buying habitat may affect the economic condition or quality of life in your community. We'd like your views on this.

What positive impacts would you like habitat protection to have in your community?

_____

_____

_____

_____

What negative impacts would you like habitat protection to avoid in your community?

_____

_____

3. Acquired lands or interests will be managed to aid the recovery of injured resources and services. Should these lands or interests in these lands be retained forever?

☐ No
☐ Yes
☐ No Preference

4. All habitat protection will benefit resources and services injured by the spill. Should the decision to purchase lands also protect resources and services not injured by the spill?

☐ No
☐ Yes
☐ No Preference

5. Other comments?

COMMENTS

Please use the space below to write comments. Any comment you write will be greatly appreciated. Thank you.

Draft *Exxon Valdez* Oil Spill Restoration Plan Summary of Alternatives for Public Comment

We need your help to determine how to restore the injuries from the *Exxon Valdez* Oil Spill. You can let us know your views by attending a public meeting in your community.

PUBLIC MEETINGS

WHERE	WHEN

If you cannot attend the public meetings, please send us your comments by August __, 1993 on the enclosed comment sheet. For additional copies of this brochure or for more information contact:

Exxon Valdez Oil Spill Restoration Office
645 "G" Street
Anchorage, Alaska 99501
(907) 278-8012

Thank you,
Exxon Valdez Oil Spill Trustee Council

Charles E. Cole
Attorney General
State of Alaska

Carl L. Rosier
Commissioner
Alaska Department of Fish and Game

John A. Sandor
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Alaska Department of Environmental Conservation

Michael A. Barton
Regional Forester
Alaska Region - USDA Forest Service

Paul Gates
Interim Trustee Council Representative
U.S. Department of the Interior

Steven Pennoyer
Director, Alaska Region
National Marine Fisheries Service

[Note to reviewers, Page 1 of the brochure begins here.]

How Should the Trustees Spend the *Exxon Valdez* Civil Settlement?

Your comments are Needed!

The purpose of this brochure is to give you the opportunity to express your opinion about the best use of the *Exxon Valdez* civil settlement funds. By going through this brochure and attending meetings you have a chance to tell us what you like and dislike about alternative ways to spend the money. You can also make recommendations about things we may have overlooked. If you cannot attend the meetings, please note your ideas on the enclosed response form and mail it back to us by August ___, 1993.

The U.S. National Environmental Policy Act requires that an Environmental Impact Statement be part of any significant federal action such as the program for restoring injuries caused by the oil spill. The Draft Environmental Impact Statement and the full text of the Draft Restoration Plan, however, will not be available until June. Because many people are unavailable during the summer, this summary is being released now to allow the public to give the Trustees their ideas. If you would like, you may wait to see the Draft Environmental Impact Statement and Draft Restoration Plan this June before you make your comments.

In addition to including information found here, the Draft Environmental Impact Statement will analyze the impacts of these alternatives on the physical, biological, social, and economic aspects of the environment. It will help the Trustees and the public understand the consequences of alternative methods of spending the civil settlement funds.

The information you provide will be used to prepare a final restoration plan that will be presented to the public this fall. The plan adopted by the Trustee Council may contain parts of several of the alternatives presented here plus new information provided by you.

DRAFT

What is the Restoration Plan?

The *Exxon Valdez* Restoration Plan will provide long-term guidance for the Trustee Council to use when allocating the civil settlement funds for restoring injuries caused by the oil spill. The Council will implement the plan through annual work plans. The annual work plan is a mix of restoration activities to be funded based on the policies and budget guidelines of the plan, future public comments and changing restoration needs. The plan may be changed by the Trustees in response to new information about the injuries and recovery, new technologies, or as social and economic conditions change.

The Trustee Council allocates funds from the civil settlement for activities to restore the oil spill injuries. The Trustee Council *does not* direct land uses on federal, state, or private lands and *does not* manage fish and wildlife resources. Land use and fish and game management decisions are made by the appropriate federal or state agencies. The Trustee Council may make recommendations to state and federal agencies, provide funds for state and federal management, or fund research to provide information to those agencies or other groups. The Trustee Council may also purchase private land or private property rights, but no purchases will be forced on an unwilling seller.

BACKGROUND

Shortly after midnight on March 24, 1989 the T/V *Exxon Valdez* ran aground on Bligh Reef in Prince William Sound spilling 11 million gallons of North Slope crude oil. This was the largest tanker oil spill in United States history. All through the Spring, the oil moved along the coastline of Alaska contaminating the shoreline of Prince William Sound, the Kenai Peninsula, lower Cook Inlet, the Kodiak Archipelago, and the Alaska Peninsula. Portions of 1,200 miles of coastline were oiled, including part of one National Forest, four National Wildlife Refuges, and three National Parks.[1] Oil eventually reached shorelines nearly 600 miles from Bligh Reef.

On October 8, 1991, an agreement was approved by the U.S. District Court that settled the claims of the United States and the State of Alaska against Exxon Corporation and Exxon Shipping Company for various criminal violations and for recovery of civil damages resulting from the oil spill.

As part of the criminal plea agreement, the court fined Exxon and Exxon Shipping $150 million -- the largest fine ever imposed for an environmental crime. Of this amount, $125 million was forgiven due to their cooperation with the governments during the cleanup, timely payment of many private claims, and environmental precautions taken since the oil spill. The remaining $25 million was paid into the North American Wetlands Conservation Fund, and into the Victims of Crime Act Account.

The Exxon companies also agreed to pay $100 million as restitution. Fifty million dollars were paid to the United States and $50 million to the State of Alaska. The state and federal governments separately manage the $50 million payment that each has received. These funds are not under the authority of the Trustee Council and are not considered by this plan. However they must be used exclusively for restoration activities, within the State of Alaska, relating to the *Exxon Valdez* oil spill.

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[1]. Two turtle doves, and a partridge in a pear tree.

Civil Settlement and Restoration Fund

In the civil settlement, the Exxon companies agreed to pay the United States and the State of Alaska up to $900 million over a period of 10 years. The use of the civil settlement funds are the subject of this plan.

Who can spend the civil settlement money? Decisions on spending the civil settlement funds are made by a council of six state and federal Trustees:

State of Alaska Trustees:

- Commissioner of the Department of Environmental Conservation;
- Commissioner of the Department of Fish and Game; and
- Alaska Attorney General.

Federal Trustees:

- Secretary of the U.S. Department of the Interior;
- Secretary of the U.S. Department of Agriculture; and
- Administrator of the National Oceanic and Atmospheric Administration, U.S. Department of Commerce.

The Federal Trustees have appointed representatives to the Trustee Council from local federal agencies.

What are the rules for spending the civil settlement money?

- All decisions made by the Trustee Council (such as spending settlement funds) must be made by unanimous consent.
- The Trustees must use the settlement funds "...for the purposes of restoring, replacing, enhancing, or acquiring the equivalent of **natural resources** injured as a result of the Oil Spill and the reduced or lost **services** provided by such resources..." (except for the reimbursement of certain expenses to the governments).
- The settlement funds must be spent on restoration of natural resources in Alaska unless the Trustees unanimously agree that spending funds outside of the state is necessary for effective restoration.

The settlement defines **natural resources** as the land, fish, wildlife, biota, air, water, ground water, drinking water supplies, and other such resources belonging to or managed by the state or federal governments. Examples of natural resources are birds, fish, mammals, subtidal plants and organisms, and archaeology.

In addition to restoring natural resources, the settlement requires restoration funds be used to restore reduced or lost **services** provided by injured natural resources. For example, subsistence, commercial fishing, and recreation including sport-fishing and sport-hunting, are services that were damaged by injuries to fish and wildlife. Other damaged services include commercial tourism, and the enjoyment that people receive from the undisturbed wild areas.

Funding

The civil settlement requires Exxon to deposit funds each year beginning December 1991 and ending September 2001. Of the $900 million in the settlement, approximately $610 million remains for restoration.

The restoration fund has so far received $240 million from Exxon in two deposits. Of that amount, $107.3 million was withdrawn to reimburse the federal and state governments for cleanup; $19.5 million was withdrawn for the 1992 work plan; $13.3 million for the 1993 work plan; $20 million for interim habitat purchases including $7.5 million for the purchase

of inholdings in Kachemak Bay State Park, and Exxon took a one-time $39.9 millions deduction for allowable cleanup expenses after January 1, 1991. In addition, further reimbursements to the governments for cleanup and litigation expenses are allowed by the settlement. These are estimated to be $90 million.

[Note to reviewers, the brochure map (the spill-area map) will go on this page.

[Note to reviewers, Page 3 of the Brochure begins here]

What Was Injured By the Spill and Is It Recovering?

The *Exxon Valdez* oil spill injured resources and services throughout the spill area. The oil spill occurred just before the most biologically active season of the year in Southcentral Alaska. During the four-month period after the oil spill, seaward migration of salmon fry, major migrations of birds, and the primary reproductive period for most species of bird, mammals, fish, and marine invertebrates took place. The organisms involved in these critical periods of their life cycle encountered the most concentrated, volatile and damaging forms of oil. The oil spill also directly impacted archaeological resources, subsistence, recreation, designated wilderness areas, and wilderness qualities, aesthetics, and other services. Oil affected each resource and service differently; these injuries are briefly described below.

The *Exxon Valdez* oil spill was only one factor that affected the health of several populations in the area. We do not know the cause of the long-term declines of marbled murrelets, pigeon guillemots or harbor seals.

For some resources, the oil spill caused a measurable decline in their population. For example, an estimated 8,000 to 12,000 marbled murrelets were killed during the oil spill. For other resources, the spill caused an injury to one life stage, but that injury did not measurably lower the overall population. An example of a sublethal effect is abnormal herring fry. This has not yet caused a measurable population decline.

MAMMALS

HARBOR SEALS: The oil spill caused population declines and sublethal injuries to harbor seals. Many were directly oiled and an estimated 345 died. Oil residues found in seal bile were 5 to 6 times higher in oiled areas than unoiled areas in 1990. The population was declining prior to the oil spill which makes it difficult to know the continuing effects. There is no indication of recovery.

KILLER WHALES: The oil spill caused sublethal injuries to at least one of the killer whale pods in Prince William Sound. Debate continues about whether the oil spill caused a population decline. Thirteen whales out of 36 in the AB pod are missing and presumed dead. Circumstantial evidence links whale disappearance to the oil spill. Additionally, several adult males have collapsed dorsal fins. Social disruption of family units has been observed. In the AB pod, no new births were recorded in 1989 or 1990; one birth was recorded in 1991; and two births were recorded in 1992. These births show that the AB pod is beginning to recover.

RIVER OTTERS: The oil spill caused at least sublethal injuries to river otters. However, the population is difficult to census and it is unknown if there were population declines. Sublethal indicators of possible oil exposure remained in 1991. River otters feed in the intertidal and shallow subtidal areas and may still be exposed to oil persisting in the environment.

SEA OTTERS: The oil spill caused population declines and sublethal injuries to sea otters. It is estimated that 3,500 to 5,000 otters died. Surveys in 1989, 1990 and 1991 showed measurable differences in population numbers and survival between oiled and unoiled areas. In 1992, lower juvenile survival rates and higher than normal numbers of dead prime age otters indicate that the populations in Prince William Sound continue to be stressed. Sea otters feed in the lower intertidal and subtidal areas and may still be exposed to oil persisting in the environment. Little or no evidence of recovery has been detected.

BIRDS

BALD EAGLES: The oil spill caused sublethal injuries and possibly population declines in bald eagles. In 1989, 151 carcasses were recovered from beaches. Productivity in Prince William Sound was disrupted in 1989, but returned to normal in 1990. Exposure to oil and some sublethal injuries were found in 1989 and 1990, but no continuing effects were observed on populations. Bald eagles are recovering and may have recovered, from effects due to the oil spill.

BLACK OYSTERCATCHERS: The oil spill caused population declines and sublethal injuries to black oystercatchers. In 1989, nine carcasses were recovered from beaches, but the actual number killed were many more. In 1989, smaller eggs were found in oiled areas. Black oystercatchers feed in the intertidal areas and may still be exposed to oil persisting in the environment. The population is recovering although evidence of sublethal injuries persisted in 1992.

COMMON MURRES: The oil spill caused population declines and sublethal injuries at murre colonies within the oil spill area. In 1989, 10,428 carcasses were recovered from beaches representing between 175,000 to 300,000 murres killed. Measurable impacts on populations were recorded in 1989, 1990 and 1991. Breeding was still inhibited in some colonies in the Gulf of Alaska in 1992. The degree of recovery varies between colonies, however some colonies show little evidence of recovery.

HARLEQUIN DUCKS: The oil spill caused population declines and sublethal injuries to harlequin ducks. In 1989, 213 carcasses were recovered from beaches which probably represents over 400 birds killed. Post-spill samples showed oil contamination and poor health in 1989 and 1990. In the three years since the oil spill, it appears that harlequin ducks still are not successfully breeding in oiled areas. Harlequin ducks feed in the intertidal and shallow subtidal areas and may still be exposed to oil persisting in the environment. Although the population continues to show evidence of sublethal injuries and is not yet showing signs of recovering, it is possible that the decline has stabilized.

MARBLED MURRELETS: The oil spill caused population declines, but it is unknown if there were sublethal injuries. In 1989, 612 carcasses were recovered from beaches. It is estimated that 8,000 to 12,000 birds died. Measurable population effects were recorded in 1989, 1990 and 1991. Marbled murrelet populations were declining prior to the oil spill. In 1989, oil contamination was found in livers of adult birds. Although the recovery status in 1992 was uncertain and no signs of an increasing population have been observed, it is possible that the decline has stabilized.

PIGEON GUILLEMOTS: The oil spill caused population declines to pigeon guillemots. In 1989, 614 carcasses were recovered from beaches representing from 1,500 to 3,000 birds killed. Pigeon guillemot populations were declining prior to the spill. In 1989, oil contamination was found in birds and, externally, on eggs. The recovery status in 1992 is uncertain with no evidence of an increase in the population.

FISH

CUTTHROAT AND DOLLY VARDEN TROUT: The oil spill caused sublethal injuries and possibly population declines for these two species. Differences in the survival and growth between anadromous adult populations in the oiled and unoiled areas persisted from 1989 to 1991 despite less indications of oil exposure. This was possibly due to continuing injury to the food base, however, scientists disagree as to whether these differences in survival and growth existed before the spill. It is unknown whether these species are recovering.

PACIFIC HERRING: The oil spill caused sublethal injuries to Pacific herring. It is unknown whether this will result in a population decline. Measurable differences in egg counts between oiled and unoiled areas were found in 1989 and 1990. Lethal and sublethal effects on eggs and larvae were evident in 1989 and, to a lesser extent, in 1990. In 1991 there were no differences between oiled and unoiled areas. It is possible that the 1989 year class was injured which could result in reduced recruitment to the adult population. If so, an adult population decline will not become apparent until 1993. Overall recovery status is unknown.

PINK SALMON: The oil spill caused sublethal injuries to wild stock populations, and there is debate on whether the wild stock population has declined. Abnormal fry were observed in 1989 and egg mortality continued to be higher than expected in 1990 and 1991. The debate about population declines focuses on the whether the observed injuries necessarily result in reduced adult returns. Reduced growth of juveniles was found in 1989 and 1991, which correlates with reduced survival. In 1992, there was continued evidence of sublethal injuries. Overall recovery status is unknown.

ROCKFISH: The oil spill caused at least sublethal injuries, however, it is unknown whether or not population declines also occurred. Twenty dead fish were found in 1989, but only a few were in condition to be analyzed. Those showed exposure to oil with some sublethal injuries. Closures to salmon fisheries increased the fishing pressure on rockfish and the increasing catch may be impacting the population. It is unknown if the population has recovered from sublethal injuries, or the from any population decline.

SOCKEYE SALMON: Kenai River and Red Lake sockeye salmon stocks both suffered population declines as well as sublethal injuries. Smolt survival continues to be poor in both systems due to overescapements that occurred at Red Lake in 1989 and in the Kenai system in 1987, 1988, and 1989. As a result, adult returns are expected to be low in 1994 and successive years. Overall recovery status is unknown.

COASTAL HABITAT

COASTAL HABITAT - INTERTIDAL ZONE: The oil spill caused population declines and sublethal injuries to the populations of plants and animals that live in the area between low and high tide. The lower intertidal and, to some extent, the mid intertidal zones are recovering. However, in the upper intertidal zone, some species have not recovered, and oil persists in and under mussel beds. Intertidal organisms were impacted by both oiling and clean-up, particularly the high pressure hot water washing. Recovery varies by species largely based on their position within the intertidal zone.

COASTAL HABITAT - SUBTIDAL ZONE: The oil spill caused population declines and sublethal injuries to the populations of plants and animals found below low tide. Eel grass and some species of algae appear to be recovering. Amphipods in eel grass beds recovered to pre-spill densities in 1991. Leather stars and helmet crabs showed little sign of recovery through 1991. Overall recovery is variable by species.

ARCHAEOLOGY

ARCHAEOLOGY: Twenty-four archaeological sites are known to have been adversely affected by oiling, clean-up activities, or looting and vandalism linked to the oil spill. An additional 113 sites are estimated to have been similarly affected. Injuries attributed to increased looting and vandalism which have been linked to the oil spill are still occurring. Archaeological sites and artifacts cannot recover, they are finite non-renewable resources.

DESIGNATED WILDERNESS AREAS: Hundreds of miles of wilderness coastlines were affected by oil. Some oil remains embedded in the sediments of these areas.

SERVICES

RECREATION AND COMMERCIAL TOURISM: The nature and extent of injury varied by user group and by areas of use. About one quarter of survey respondents reported no change in their recreation experience, but others reported avoiding the spill area, reduced wildlife sightings, residual oil and more people. They also reported changes in their perception of recreation opportunities in terms of increased vulnerability to future oil spills, erosion of wilderness, a sense of permanent change, concern about long-term ecological effects and, in some, a sense of optimism. There are indications that declines in recreation activities reported in 1989 appear to have reversed in 1990, but there is no evidence that they have achieved pre-spill values.

RECREATION: SPORT FISHING AND HUNTING: Between 1989 and 1990, a decline in sport fishing effort (number of anglers, fishing trips and fishing days) was recorded for Prince William Sound, Cook Inlet and the Kenai Peninsula. In 1992, an emergency order restricting cutthroat trout fishing was issued for western Prince William Sound due to low adult returns. The closure is expected to continue at least through 1993. Sport hunting of harlequin ducks was reduced by restrictions imposed in 1991 and 1992 in response to damage assessment studies. It is likely that these restrictions will continue until the species shows signs of recovery.

PASSIVE USE: In 1991, over 90% of those surveyed nation-wide were aware of the oil spill. Over 50% believed that the oil spill was the largest environmental accident caused by humans anywhere in the world. There was also a perception that the values of wild areas has diminished. Although some people's feelings of lost values are diminishing as they sense some recovery is occurring, others' feelings have not changed as they do not believe recovery is occurring. Until oil is completely removed or degrades naturally, injury to wilderness values will continue.

SUBSISTENCE: Subsistence harvests of fish and wildlife in 9 of 15 villages surveyed declined from 4 to 78 percent in 1989 when compared to pre-spill averages. Seven of the 15 villages show continued decline in use in 1990 and 1991. This decline was particularly noticeable in the Prince William Sound villages of Chenega and Tatitlek. In 1989, chemical analysis indicated that most resources tested, including fish, marine mammals, deer, and ducks, were safe to eat, but that shellfish from oiled beaches should not be eaten. However, villagers believe that contamination to subsistence food sources continue to be dangerous to their health and some subsistence species continue to decline.

COMMERCIAL FISHING: During 1989, emergency commercial fishery closures were ordered throughout the spill area. This affected salmon, herring, crab shrimp, rockfish and sablefish. The 1989 closures resulted in sockeye over-escapement in the Kenai River and in the Red Lake system (Kodiak Island). In 1990, a portion of Prince William Sound was closed to shrimp fishing. Spill-related sockeye over-escapement is anticipated to result in low adult returns in 1994 and 1995. These over-escapements may result in closure or harvest restrictions during these and, perhaps, subsequent years. Injuries and recovery status of rockfish, pink salmon, shellfish and herring are uncertain.

[Note to reviewers, this begins pages 4 and 5 of the brochure]

What are the Alternatives?

Five alternatives have been developed for your review. Each alternative presents a different way of approaching restoration. Each uses different policies and emphasizes different categories of restoration activities to restore injuries caused by the spill. This and the next page summarize the policy questions and categories of restoration activities. The following two pages present the five alternatives.

Alternative 1, Natural Recovery, will allow the spill-affected area recover on its own, but monitor its recovery and continue normal agency management. **Alternative 2, Habitat Protection,** will protect injured resources and services by protecting their habitat so they can recover on their own without further disruption. **Alternatives 3 through 5, Limited Restoration, Moderate Restoration, and Comprehensive Restoration,** present a progression of restoration activities, with each successive alternative increasing the scope of activities.

Issues and Policy Questions

The planning process raised five significant issues. Table ___ presents these issues as questions. Different answers to these questions will influence which restoration activities are conducted.

ISSUE	POLICY QUESTION
Injuries Addressed	Should restoration actions address ALL injured resources or only those which had a measurable population decline because of the spill?
Status of Resource Recovery	Should restoration actions cease when a resource has recovered?
Effectiveness of Restoration Actions	Should the plan include only those restoration actions that produce substantial improvement over unaided recovery or also those that produce at least some improvement?
Location	Should restoration activities take place in the spill area only or anywhere in Alaska provided there is a link to injured resources or services?
Strategies for Human Use	To what extent should restoration actions be used to increase opportunities for human use?

Injuries Addressed: *Should restoration actions address ALL injured resources or only those which had a measurable population decline because of the oil spill?*

Resources and services injured by the oil spill are in Table ___. Injuries to resources produced either a decline in population or a sublethal effect. An example of population decline is the loss of 35-70% of the breeding common murres in the Gulf of Alaska and resulting decline in future generations. An example of sublethal injuries is abnormalities in larvae. Sublethal injuries may not result in a lower population because they may not affect the productivity of the species or the species may be able to compensate for the injury. However, there also may

be enough variability in the natural abundance of the species to mask effects of the injuries, or scientific measurement techniques may not be sensitive enough to measure a small effect on the population.

Alternative 3 reflects the view that if an injury was not severe enough to produce a detectable change in population, then settlement funds should not be spent to restore it. Rather, funds should be concentrated on the worst-injured resources. All other alternatives reflect the view that even sublethal injuries could become serious over time and, if something can be done to redress the injury, it should be done before more serious effects show themselves.

RESOURCES			SERVICES
Population Decline	Sublethal	Other	
Black oystercatcher	Bald eagle	Archaeology	Commercial fishing
Common murre	* Cutthroat trout	Designated	Passive use
Harbor seal	* Dolly Varden	wilderness areas	Recreation and commercial
Harlequin duck	* Killer whale		tourism
Intertidal organisms	Pacific herring		Recreation - sport fishing
Marbled murrelet	* Pink salmon		Recreation - sport hunting
Pigeon guillemot	River otter		Subsistence
Sea otter	Rockfish		
Sockeye salmon			
Subtidal organisms			

* For these species, the Trustees' scientists have considerable disagreement over the conclusions to be drawn from the results of the damage assessment studies.

Status of Resource Recovery: *Should restoration actions cease when a resource has recovered?*

No resources have recovered from population decline. However, some sublethal injuries have recovered. As resources recover, this issue will become more important. Table _____ on page _____ shows current expectations about when many resources may recover. The table is based on the best available information from agency and peer reviewer scientists. These estimates will certainly change as recovery continues, monitoring uncovers more information, and scientists learn more about each species.

Alternatives 2 and 3 reflect the view that the goal of the settlement is to restore injured resources and services and that restoration activities should cease once the resource or service has recovered. Alternatives 4 and 5 reflect the view that certain actions, especially protection and enhancement, should continue even after resources have recovered to offset other adverse effects and improve the condition of injured resources and services.

Effectiveness of Restoration Actions: *Should the plan include only those restoration actions that produce **substantial** improvement over natural recovery or also include those that produce at least **some** improvement?*

Many restoration actions were suggested by scientists, agencies, and the public. They were

evaluated to determine how much of an improvement they would produce over unaided recovery.

Alternatives 3 and 4 reflect the view that unless a restoration action is likely to produce **substantial** improvement, it should not be funded. Alternatives 2 and 5 reflect the view that the Trustees should fund all restoration activities that offer at least **some** promise of helping injured resources and services; the cumulative effect of many such activities may result in a more meaningful and substantial improvement.

Location: *Should restoration activities take place in the oil spill area only or anywhere in Alaska provided there is a link to injured resources or services?*

The map of the oil spill area is on page ____. The oil spill area includes the maximum extent that oil reached along the shoreline of Alaska. It also includes the adjacent land up to the watershed divide, and the area of immediate human use for communities severely affected by the spill. Alternatives 2 and 3 reflect the view that restoration activities should be limited to the spill area to focus them on the populations and services directly affected. Alternatives 4 and 5 include restoration activities within Alaska because some projects outside the spill area may be far more effective than those possible within the spill area. For example, increasing common murre populations in the Pribilof Islands, outside the spill area, may do more to increase the numbers of that species in Alaska than would comparable projects within the spill area.

Strategies for Human Use: *To what extent should restoration actions be used to increase opportunities for human use?*

Many of the restoration options for recreation or fishing would increase human use of the spill area. However, too much additional use could be detrimental to recovery of injured resources and services. Three different strategies for human use are reflected in alternatives 3, 4 and 5, only. Alternative 3 emphasizes restoration activities that would **protect existing uses** such as constructing outhouses in over-used areas, or improved trails where hiking is damaging wetlands, or providing information about the safety of subsistence foods. Alternative 4 emphasizes restoration activities that would **increase existing uses** such as increasing opportunities for fish harvest above prespill levels or constructing a new public-use cabin. Alternative 5 emphasizes restoration activities that would **encourage appropriate new uses** such as providing new visitor centers or attracting new commercial facilities on public land. Restoration activities would comply with existing land-use plans, and agency procedures such as those requiring public notice.

What Are the Categories of the Restoration Plan?

The alternatives emphasize different categories of restoration activities. This section describes the activities that fall within each category. Not all categories are included in every alternative.

HABITAT PROTECTION.

Habitat protection and acquisition on private land. Sometimes even careful resource development such as timber harvest or subdivisions can adversely affect resources or services injured by the spill. The Trustee Council may purchase private land or partial interests such as conservation easements, mineral, or timber rights as a method of restoration. The Council's recent action to allocate funds to purchase inholdings in Kachemak Bay State Park is an example of habitat protection and acquisition on private land.

Since there will not be enough money in any alternative to buy or protect all habitat important to recovery, it is necessary to prioritize available land through a ranking process. The criteria for this ranking are currently being developed. Some of the most important criteria are the degree of importance of the land to injured resources or services and the number of resources or services which rely on a given parcel. Land which is highly important to many species and services will generally receive top priority.

The following injured resources and services might benefit from the purchase of private land or property rights: salmon and trout, bald eagle, black oystercatcher, common murre, harbor seal, harlequin duck, marbled murrelet, pigeon guillemot, river otter, sea otter, areas adjacent to particularly productive intertidal areas, recreation and commercial tourism, archaeology, and important subsistence harvest areas. Alternative #3 would target purchases for services and for those resources whose populations declined because of the spill. Alternatives 2, 4, and 5 would target habitat acquisition for the all injured resources and services.

There is not enough money in the entire civil settlement to purchase all lands important to injured resources and services. The cost per acre will vary depending on the land, and the private rights that are purchased. For example, valuable timber land will be more expensive than similar land without marketable timber. Also, purchase of partial interests such as easements or mineral rights will be somewhat less expensive and may increase the number of acres that can be protected. In each alternative, there is an estimate of the acreage that might be purchased under that alternative.

Habitat protection on public land. Federal and state agencies manage the public land and water. Protective changes in their management practices may benefit injured resources and services. Examples of these changes include amending agency management plans, changing regulations, and designating public land and water as special areas. Examples of special areas include scientific research reserves, recreation areas, parks, critical habitat areas, and marine sanctuaries. Any of these management changes would have to be approved and implemented by the appropriate state or federal agency, or in some cases by the Alaska State Legislature or the U.S. Congress. Since land and water management actions could extend to any public upland, intertidal area, and marine waters, the actions could potentially benefit most injured resources and services. At this time the Trustee Council has no specific proposals for revising land-use management practices or creating special designations.

GENERAL RESTORATION. Since 1989, agencies and the public have proposed hundreds of ideas for restoration. Some ideas help restore injuries by directly manipulating resources. Examples are building fish passes or public-use cabins, testing subsistence foods for continuing oil contamination, or seeding the intertidal areas. Other ideas focus on managing human use to aid restoration. Examples are redirecting hunting and fishing harvest, or reducing human disturbance around sensitive bird colonies. General Restoration does not include habitat protection or oil spill preparedness activities. In each alternative, enough money is allocated for General Restoration to fund all activities that have been identified and that meet the policies of that alternative. In addition, each alternative allocates enough additional funds to General Restoration to provide a reserve for General Restoration activities that may be identified in the future.

SPILL PREVENTION AND RESPONSE. Varying levels of spill prevention and response are also part of several alternatives. These activities would reduce stress on recovering resources and services by improving and protecting water quality. Components of prevention and response include:

Research and development on developing technologies, such as in-situ burning and spill tracking systems, can assist in spill prevention and response.

Equipment, such as telecommunications and weather information systems, could be installed or updated in order to gather and transmit response and prevention information quickly. Funding spill response depots and volunteer response corps would improve cleanup capabilities.

Chronic marine pollution sources can be reduced by building oily waste disposal sites in port communities to deter marine disposal of oily wastes by small boats, cruise ships and ferries.

MONITORING AND RESEARCH PROGRAM. The monitoring and research program could include one or more of the following, although the number of components will vary between alternatives.

Recovery Monitoring would assess the rate of recovery of injured resources and services, and determine when recovery has occurred.

Restoration Monitoring would evaluate the effectiveness of specific restoration activities, identify where additional restoration activities may be appropriate, and determine when delayed injury occurs.

Ecosystem Monitoring would follow long-term trends in the distribution and abundance of injured resources and the quality and quantity of services. Monitoring could also detect residual spill effects and provide ecological baseline information to assess the impacts of future oil spills and other disturbances.

Restoration Research would focus on the design, development and implementation of new technologies and approaches to restore resources not recovering or recovering at unacceptable rates.

ENDOWMENTS. An endowment is not a restoration activity. It is a method of funding restoration. The Exxon Corporation has been depositing funds into the restoration fund since

1991 and will continue to do so until 2001. The Trustees could spend the entire settlement during that time or they could save some for future use. An endowment is a savings program to fund restoration after Exxon deposits end. It would use part of the settlement funds to create a savings account. The savings account could fund a low but constant level of restoration activities indefinitely. An endowment could be used to fund some or all restoration activities. Habitat acquisition, however, does not lend itself to an endowment. Purchase of land or other private property rights are usually made all at once.

The size of an endowment determines the amount of interest it earns and the number of restoration activities it can fund. If approximately 20% of the remaining settlement funds were placed into an endowment and the principal inflation-proofed, the endowment could fund at least $3 million worth of restoration activities indefinitely, and possibly somewhat more depending on assumptions about future interest rates. This amount is enough to continue the Trustee Council's monitoring program at a minimum level, and provide some funds for other monitoring components. If twice that amount were placed into the endowment, the additional funds could be used for fund general restoration, basic research, or spill prevention.

ADMINISTRATION AND PUBLIC INFORMATION. Funding is required to manage the restoration program. Providing the public with information about recovery and restoration will also consume a portion of the settlement monies. As the number of restoration projects increase and the complexity of management duties grow, the percentage of funds in each alternative that is proposed for these expenses also rises.

[Note to reviewers, this begins page 6]

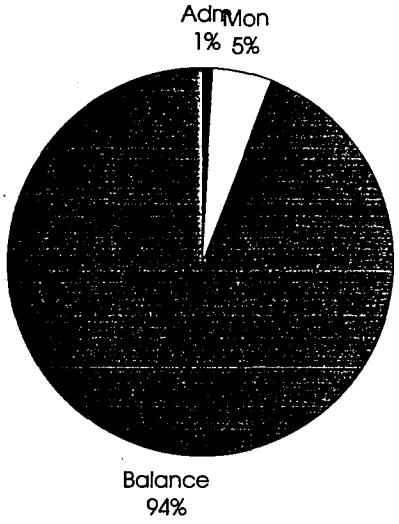
DESCRIPTION OF ALTERNATIVES

ALTERNATIVE 1 - NATURAL RECOVERY

No action other than monitoring and normal agency management.	
ISSUES	**POLICIES**
Injuries Addressed	Monitor all injured resources and services
Status of Resource Recovery	Monitor resources not recovered.
Effectiveness of Restoration Actions	Not applicable
Location	Monitor within the spill area.
Strategies for Human Use	Not applicable.

What would happen to resources and services injured by the oil spill if no restoration actions were taken other than monitoring? Table ____ describes expected times for natural recovery of injured resources and services, if expected patterns of use continue. They range from a few years to 120 years and are unknown for five resources. Archaeological resources and wilderness are not expected to recover. Monitoring of natural recovery is the only restoration action in this alternative. This alternative is the no-action alternative in the draft Environmental Impact Statement that will be released in June.

Alternative 1 - Allocation



Cost allocations are presented for illustration only .

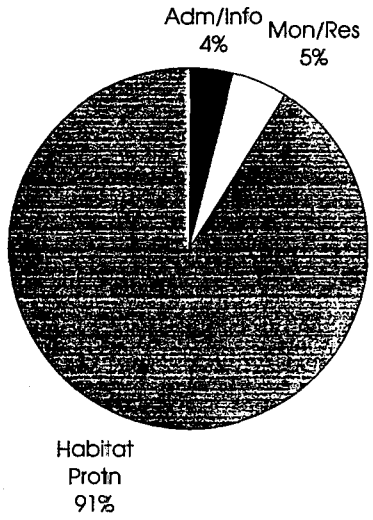
Allocations are expressed as percent of remainder of civil settlement.

ALTERNATIVE 2 - HABITAT PROTECTION

Protect injured resources and services within the spill area from further degradation or disturbance.	
ISSUES	**POLICIES**
Injuries Addressed	All injured resources and services
Status of Resource Recovery	Resources not recovered and resources recovered
Effectiveness of Restoration Actions	Provide some improvement over unaided recovery
Location	Activities within the spill area
Strategies for Human Use	Protect or increase existing use through habitat protection

The goal of this alternative is to protect strategic lands and habitats important to the long-term recovery of resources and services injured by the Exxon Valdez oil spill. In this alternative, 91% of the remaining settlement funds would be dedicated to habitat protection. Monitoring and Habitat Protection are the only restoration actions included in this alternative. Habitat Protection includes the acquisition of private land interests or changes in public land management. Monitoring will evaluate the effectiveness of habitat protection measures undertaken and follow the progress of natural recovery. These activities would be limited to the spill area.

Alternative 2 - Allocation



Cost allocations are presented for illustration only .

Allocations are expressed as percent of remainder of civil settlement.

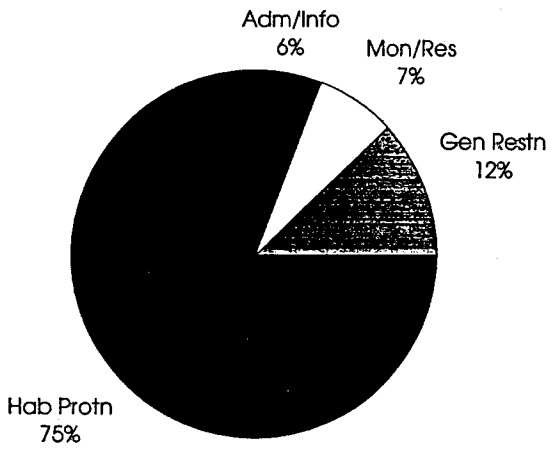
ALTERNATIVE 3 - LIMITED RESTORATION

Take the most effective actions within the spill area to protect and restore injured services and resources whose population has declined. Maintain the existing character of the affected area.	
ISSUES	**POLICIES**
Injuries Addressed	Injured services and resources whose populations declined
Status of Resource Recovery	Resources not recovered
Effectiveness of Restoration Actions	Provide substantial improvement over unaided recovery
Location	Activities within the spill area.
Strategies for Human Use	Protect existing use

The goal of this alternative is to help the worst-injured resources and services recover as efficiently as possible. As its name implies, this alternative is limited in that it addresses only the most severe injuries until the resource or service recovers, includes actions most likely to produce significant improvement over unaided recovery, is limited to the spill area, and does not fund activities that would substantially increase human use of the spill area. Only a few restoration activities meet these standards.

This alternative sets aside 75% of the remaining settlement funds for habitat protection. Of the General Restoration options that have been evaluated, only 21 meet the criteria of this alternative (See page ____). Spill Prevention and Response is not included. Monitoring would evaluate the effectiveness of restoration actions and follow the progress of natural recovery.

Alternative 3 - Allocation



Cost allocations are presented for illustration only .

Allocations are expressed as percent of remainder of civil settlement.

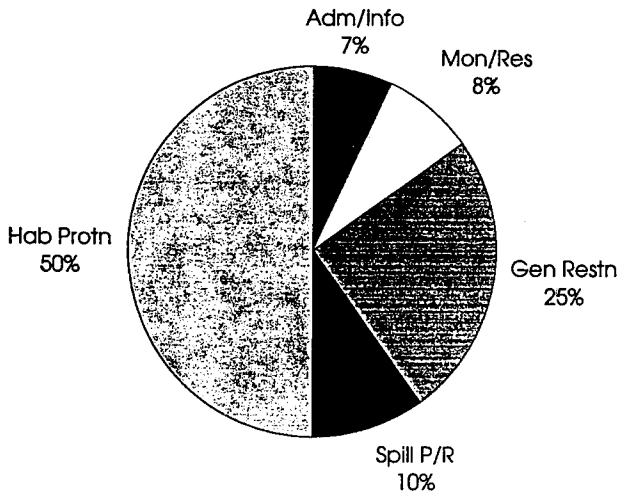
ALTERNATIVE 4 - MODERATE RESTORATION

Take the most effective actions within Alaska to protect and restore all injured resources and services. Increase, to a limited extent, opportunities for human use in the affected area.	
ISSUES	**POLICIES**
Injuries Addressed	All injured resources and services
Status of Resource Recovery	Resources not recovered
Effectiveness of Restoration Actions	Provide substantial improvement over unaided recovery
Location	Activities within Alaska
Strategies for Human Use	Protect or increase existing use

The goal of this alternative is to help all injured resources and services recover as efficiently as possible. It is similar to Alternative 3 in limiting restoration actions to resources not yet recovered and setting the same high standard of effectiveness. It differs from Alternative 3 in addressing additional species injured at a sublethal level, including activities within Alaska but outside the spill area, and increasing opportunities for human use of the area to a limited extent.

This alternative sets aside 50% of the remaining settlement funds for habitat protection. Of the General Restoration options that have been evaluated, 31 meet the criteria for this alternative. Spill Prevention and Response includes research and development to improve spill technology and equipment such as telecommunications and weather information systems. The Monitoring Program includes ecosystem monitoring and restoration research in addition to evaluating the effectiveness of restoration actions and following the progress of natural recovery.

Alternative 4 - Allocation



Cost allocations are presented for illustration only .

Allocations are expressed as percent of remainder of civil settlement.

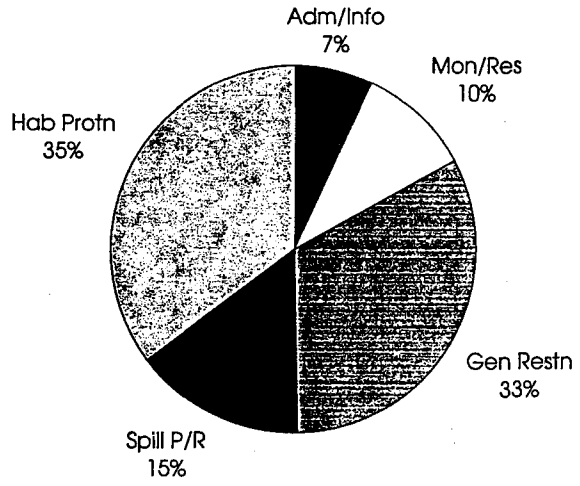
ALTERNATIVE 5 - COMPREHENSIVE RESTORATION

Take all effective actions within Alaska to protect, restore, and enhance all injured resources and services. Increase opportunities for human use in the affected area.	
ISSUES	**POLICIES**
Injuries Addressed	All injured resources and services
Status of Resource Recovery	Resources not recovered and resources recovered
Effectiveness of Restoration Actions	Provide some improvement over unaided recovery
Location	Activities within Alaska
Strategies for Human Use	Protect or increase existing use or encourage appropriate new use

The goal of this alternative is to help all injured resources and services return to or exceed prespill levels. It is similar to Alternative 4 in addressing all injured resources and services and including activities within Alaska but outside the spill area. It is more expansive than Alternative 4 in including restoration actions for resources whether or not they have recovered, including any action likely to produce at least some improvement over unaided recovery, and encouraging appropriate new human uses.

This alternative sets aside 35% of the remaining settlement funds for habitat protection. Of the General Restoration options that have been evaluated, 47 meet the standards of this alternative. Spill Prevention and Response would address chronic sources of pollution as well as research and development to improve spill technology and equipment such as telecommunications and weather information systems. The Monitoring Program includes ecosystem monitoring, restoration research, restoration monitoring, and natural recovery monitoring

Alternative 5 - Allocation



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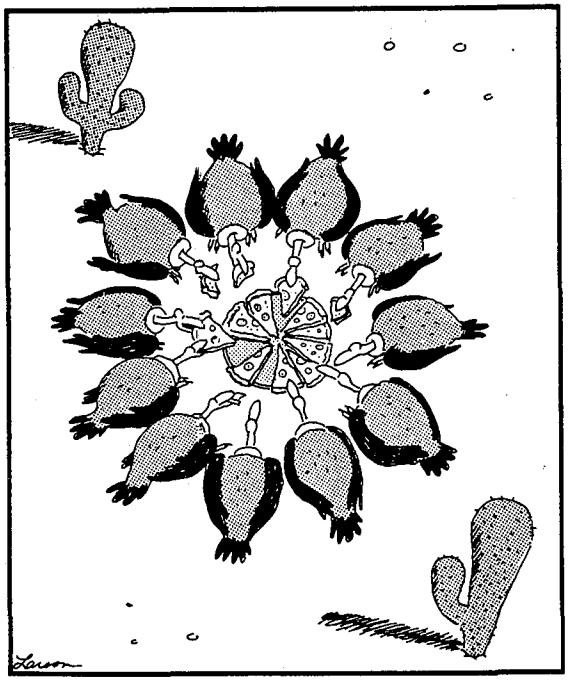

Perspectives in nature we rarely enjoy

[Note to reviewers, Page 7 of the brochure begins here.]

COMPARISON OF ALTERNATIVES

This table shows the resources and services included in each alternative. It also presents current expectations about when resources will recover. For some species, there is substantial disagreement on the exact mechanism of the injury and how long it will take to recover. For many species much is unknown about when and how recovery will take place. These estimates will certainly change as recovery continues, monitoring uncovers more information and scientists learn more about each species.

	Resource/Service	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Expected Natural Recovery (Yrs. from 1989)	Comments
	Black oystercatcher						Less than 30 years	Recovering.
	Common murres						Less than 120 years	Recovery varies by colony.
	Harbor seals						Unknown	In decline before spill. Population may have stabilized.
	Harlequin ducks						Less than 50 years (maybe)	Still no reproduction within spill area.
	Intertidal organisms						Less than 25 years	Recovering in most places.
	Marbled murrelet						Less than 50 years to stabilize the population	In decline before spill. May be still declining; may be stable.
	Pigeon guillemots						Less than 50 years to stabilize the population	In decline before spill. Probably still declining.
	Sea otters						Less than 50 years	Population stable, but not recovering.
	Sockeye salmon						Less than 50 years	Not yet recovering in Kenai River.
	Subtidal organisms						Less than 10 years (most places)	Recovering in most places.
	Bald eagles						Less than 6 years	Back to pre-spill population by 1993-1995.
	Cutthroat trout						Less than 20 years	
	Dolly Varden						Less than 20 years	
	Killer whales						Less than 20 years	Recovering.
	Pacific herring						Unknown	Population decline may be documented after 1993.
	Pink salmon						Unknown	
	River otters						Unknown	
	Rockfish						Unknown	
	Archaeology						Will not recover	
	Commercial Fishing						Recovery differs by species.	Currently no closures, although some may be implemented to help populations recover.
	Recreation						Recovering slowly	
	Recreation - Sport Fishing						Recovery differs by species.	Closures may continue until populations recover.

Subsistence						Recovering	Harvest continues to be below pre-spill levels.
Designated Wilderness Areas						Dependant on rate that persistent oil is degrading.	

The table below compares spending guidelines and restoration activities within the five alternatives. The spending for each restoration category gives a sense of the emphasis of the restoration program envisioned by each alternative. They are guidelines and not fixed allocations.

ALLOCATION	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Administration and Public Information	1%	4%	6%	7%	7%
Monitoring and Research	5%	5%	7%	8%	10%
• Recovery Monitoring					
• Restoration Monitoring					
• Ecosystem Monitoring					
• Restoration Research					
General Restoration			12%	25%	33%
(For examples of general restoration activities within each alternative see page __.)					
Habitat Protection		91%	75%	50%	35%
Spill Prevention and Response				10%	15%
• Research and Development					
• Equipment					
• Chronic Marine Pollution					
Balance	94%				

Allocation expressed as percent of the remainder of the civil settlement.

In general, how does each alternative benefit recovery?

Alternative 1 would produce no improvement over natural recovery. Natural recovery means that no restoration activities will be undertaken.

Alternative 2 would improve natural recovery by preventing some habitat disturbances that might otherwise occur. Benefits accrue to resources and services linked to upland habitat.

Alternative 3 has the greatest potential to improve recovery of the worst injured resources within the spill area . However, it makes no provision for future oil spills and for sublethal injuries unless there is a measurable population decline. It also funds activities that protect existing human use.

In addition, to the benefits in alternative 3, **alternative 4** addresses potential problems before they occur. It addresses sublethal effects before they produce population decline; prepares for future oil spills through ecosystem monitoring, research and spill prevention and response activities; and reaches outside the spill are if necessary to find better restoration opportunities. It also funds activities that increase human use. These assurances are provided at some expense to habitat protection.

In addition to the benefits in alternative 4, **alternative 5** would enhance recovery of some resources and services beyond prespill levels though actions such as fisheries enhancement or addressing chronic marine sources of oil pollution. Enhancement benefits some resources and services more than others. This alternative allocates the least amount of money to habitat protection.

Endowment. Whether or not funds are placed into an endowment is a decision about the timing of when restoration activities should occur. The alternatives compared above assume that the funds are spent within ten years. Twenty percent of the remaining restoration funds could be placed into a savings account. If so, fewer restoration activities could be accomplished with ten years, but the annual interest from the account could fund recovery monitoring and possibly a few other restoration activities indefinitely. It is also possible to place 40% of the funds into a savings account and use the annual interest to fund a larger amount of restoration activities indefinitely.

[Note to reviewers, Page 8 of the brochure begins here.]

General Restoration

The General Restoration category of alternatives 3 through 5 includes various restoration actions which have been suggested throughout the planning process. The suggestions were evaluated by scientists and peer reviewers. Those that were determined to be effective have been combined into general options and are listed below. Those general options may include a number of specific projects. The option evaluation considered: how recovery was aided and whether further potential injury could be prevented. Other considerations included negative effects, how many species benefit, human health and safety, and cost effectiveness. No options were identified for restoring subtidal resources, air, water, sediment or designated wilderness areas. The list on this page provides examples of restoration options that passed the evaluation process. New options will continue to be evaluated as the restoration plan is implemented.

The amount of funding allocated to general restoration in all alternatives includes substantially more than the amount needed to fund all the options identified in this list.

Many options would have wide-ranging impacts throughout the spill area. Most options that help resources also help the services that are dependent upon them. An option targeted to improve the recovery of a single resource may greatly benefit other resources that occur in the same area.

This is especially true of the activities that protect marine, coastal and upland habitats. In additions, options that benefit the foundation of a food web, such as marine invertebrates, would ultimately benefit top predators such as whales and eagles.

* The asterisk in the table denotes those options which may produce **substantial** improvement in the recovery of a biological resource. Those without an "*" may produce at least **some** improvement in recovery.

	MAMMALS — Alternatives	3	4	5
	HARBOR SEAL: Determine the effects of disturbance on harbor seals and implement actions to reduce adverse effects.			x
*	Implement cooperative programs between fishermen and agencies to provide voluntary methods to reduce incidental take of harbor seals during fishing.	x	x	x
*	Implement cooperative programs between subsistence users and agencies to assess the effects of subsistence harvest.	x	x	x
*	KILLER WHALE: Determine techniques for changing black cod fishery gear to avoid conflicts with fishermen and implement actions to remove adverse effects.		x	x

* **SEA OTTER:** Determine the effects of disturbance of upland activities on sea otters and implement actions to reduce adverse effects. This would have benefits in local areas only.	x	x	x
* Determine if eliminating oil from mussel beds removes a potential source of continuing contamination to sea otter food and take appropriate action. This would have benefits in local areas only.	x	x	x
* Implement cooperative programs between subsistence users and agencies to assess the effects of subsistence harvest.	x	x	x
RIVER OTTER: Develop sport and trapping harvest guidelines to aid in the recovery of injured populations.			x

FISH Alternatives	3	4	5
* **SOCKEYE SALMON:** Intensify management of sockeye salmon on the Kenai River and Red Lake to reduce the risk of overescapement.	x	x	x
Improve access to salmon streams by building fish passes to increase the area where salmon can successfully spawn and rear. This would have benefits in local areas only.			x
Fertilize Coghill Lake in PWS to improve sockeye rearing success within the lake and increase sockeye population in PWS.		x	x
* Improve survival rates of salmon eggs to fry by using egg boxes, net pens or hatchery rearing.	x	x	x
* **PINK SALMON:** Intensify management by incorporating coded-wire tagging and stock separation to ensure and accelerate the recovery of the wild stock.		x	x
Construct salmon spawning channels and other instream improvements to increase spawning production and provide long-term enhancement. This would have benefits in local areas only.			x
Improve access to salmon streams by building fish passes to increase the area where salmon can successfully spawn and rear. This would have benefits in local areas only.			x
* Relocate hatchery runs of pink salmon to reduce the interception rate of wild stocks of pink salmon.		x	x
Improve survival rates of salmon eggs to fry by using egg boxes, net pens, or hatchery rearing. This would have benefits in local areas only.			x
Update the Alaska Anadromous Streams Catalog to ensure that the necessary protection and regulation is provided for all listed salmon streams in the spill area.			x
* **CUTTHROAT TROUT:** Intensify management of cutthroat trout and its dependent sport fishery by determining local distribution, abundance, and productivity.		x	x
Update the Alaska Anadromous Streams Catalogue to ensure necessary protection and regulation for all listed anadromous streams in the spill area.			x
* **DOLLY VARDEN:** Intensify management of Dolly Varden and its dependent sport fishery by determining local distribution, abundance and productivity.		x	x

	3	4	5
* **PACIFIC HERRING:** Intensify management to improve recovery by allowing increased precision in stock assessment and manipulation of harvest levels.		x	x
* **ROCKFISH:** Intensify management of the rockfish fishery to modify the harvest to compensate for injury from the spill.		x	x
BIRDS Alternatives	3	4	5
BLACK OYSTERCATCHER: Accelerate the recovery of the upper intertidal zone to improve the rate of recovery in site-specific areas.			X
* Remove predators from islands that previously supported black oystercatchers. Effectiveness varies by location.		X	X
COMMON MURRE: Reduce disturbance at breeding colonies to eliminate factors which could slow the recovery of affected murre colonies.			X
* Use artificial stimuli such as decoys or vocalizations to encourage recovery at affected colonies and accelerate recolonization of historic colonies.	X	X	X
* Remove predators at injured colonies or remove predators from islands that previously supported murres.	X	X	X
HARLEQUIN DUCK: Modify sport hunting harvest guidelines in the areas of injured populations to speed the rate of recovery during the recovery phase.			X
* Determine if eliminating oil from mussel beds removes a potential source of continuing contamination in feeding areas and take appropriate action. This would have benefits in local areas only.	X	X	X
* **MARBLED MURRELET:** Minimize the incidental capture of birds in fishing nets by changes in gear or timing of fishing.	X	X	X
* **PIGEON GUILLEMOT:** Control predator access or remove predators from islands that previously supported birds.	X	X	X
BALD EAGLE: No options other than habitat protection have been identified.			
COASTAL HABITAT Alternatives	3	4	5
* **INTERTIDAL ORGANISMS:** Accelerate the recovery of the upper intertidal zone to aid intertidal resources in localized areas.	x	x	x
SUBTIDAL ORGANISMS: No restoration options have been identified.			
DESIGNATED WILDERNESS AREAS	3	4	5
No options have been identified for Designated Wilderness Areas or Wilderness Study Areas.			
ARCHAEOLOGY Alternatives	3	4	5

Develop a site stewardship program using local residents to monitor nearby archaeological sites to discourage looting and vandalism.	x	x	x
Increase law enforcement and agency presence to patrol and monitor archaeological sites within the spill area would protect sites from looting and vandalism.	x	x	x
Preserve archaeological sites and artifacts within the spill area to provide some measure of permanent protection for select archaeological resources.	x	x	x
Acquire replacements for artifacts from the spill area as a means of preserving and studying artifacts which were taken from the spill area prior to the spill.		x	x

SERVICES Alternatives	3	4	5
Resource options shown above also benefit many services.			
RECREATION AND COMMERCIAL TOURISM: Develop new backcountry public recreation facilities to protect both recreation and the resources on which it depends; for example, by providing an outhouse in a heavily used area.	x	x	x
Plan and market public land for commercial recreational use to provide additional opportunities for commercial operators and recreationists to use public lands.			x
Create new visitor centers or build a marine environmental institute to benefit all injured resources. Increase public awareness of the nature of injury and recovery and an understanding of the ecosystem of the area.			x
RECREATION - SPORT FISHING: Replace lost harvest opportunities by creating new fisheries for salmon or trout.	x	x	x
SUBSISTENCE: Replace lost harvest opportunities by creating new salmon runs.			x
Test subsistence foods for continued contamination as a means of restoring confidence in the safety of subsistence resources within the spill area.	x	x	x
Provide new access to traditional foods in areas outside the spill area to restore lost use.	x	x	x
Develop subsistence mariculture sites to benefit subsistence users by providing a source of uncontaminated shellfish for their diets.			x
Develop a shellfish hatchery and technical research center to benefit subsistence users by providing a source of uncontaminated shellfish for their diets.			x
COMMERCIAL FISHING: Replace harvest opportunities by creating new fish runs to replace commercial fishing opportunities lost due to fishing closures or reduced harvest.	x	x	x
PASSIVE USE: No options other than habitat protection have been identified for this resource.			

[Note to Reviewers, Page 9 of the brochure begins here]

How should these issues be resolved?

INTRODUCTION

The Trustees can use the settlement funds in a variety of ways. We would like to know your views about the appropriate policies, categories of restoration activities, and spending guidelines. Please fill out the questions on this page and let the Trustees know which approaches you believe will best restore the injuries of the oil spill. If you need more information, please come to one of the public meetings. Also, feel free to comment on other parts of the plan alternatives in the space provided. Attach additional sheets if you need more space. Thanks for your help!

QUESTIONS ABOUT ISSUES AND POLICIES

The alternatives presented policy questions. The answers to those questions will help guide some restoration activities. The policy questions are reprinted below. Please mark the appropriate box to let us know your views.

If you think that these policies should apply to some restoration activities but not others, please write your views down in the space provided beneath each question. For example, if you think that some general restoration activities are appropriate outside the spill area but that habitat protection should concentrate only on the spill area, you would write that information in the comment space under question four.

ISSUES AND POLICY QUESTIONS
Injuries Addressed: Should restoration actions address ALL injured resources or only those which had a measurable population decline because of the spill? ☐ Target restoration activities only to resources whose populations declined because of the spill. ☐ Target restoration activities to all injured resources ☐ No preference Comments:
Status of Resource Recovery: Should restoration actions cease when a resource has recovered? ☐ Continue appropriate activities even after resources recover. ☐ Cease funding restoration once a resource recovers. ☐ No preference Comments:
Effectiveness of Restoration Actions: Should the plan include only those restoration actions that produce substantial improvement over unaided recovery or also those that produce at least some improvement?

☐ Fund all effective restoration actions
☐ Fund only highly effect restoration actions
☐ No preference
Comments:

Location: Should restoration activities take place in the spill area only or anywhere in Alaska provided there is a link to injured resources or services?

☐ Fund activities within the spill-area only.
☐ Allocate some funds for activities outside the spill-area but within Alaska. The activities must be linked to injured resources or services.
☐ No preference
Comments:

Strategies for Human Use: To what extent should restoration actions be used to increase opportunities for human use?

☐ Do not fund activities that increase human use.
☐ Fund only habitat protection.
☐ Only fund restoration activities that are designed not to increase use levels but only to protect existing human use. Examples are recreation facilities that protect the environment in over-used areas, or testing the safety of subsistence foods.
☐ Fund restoration activities that protect or increase existing uses. Examples are funding to increase existing sport- or commercial fishing runs, or funding to construct recreation facilities such as public-use cabins.
☐ In addition to activities that protect or increase existing human use, also fund appropriate new uses. Examples are new fishing runs, commercial facilities, or visitor centers.
☐ No preference
Comments:

QUESTIONS ABOUT CATEGORIES OF THE RESTORATION PROGRAM

The questions below discuss the different categories of restoration activities. The questions ask about what groups of activities you believe the trustees should fund.

Spill Prevention and Response. The alternatives propose using up to 15% of the remaining settlement funds for spill prevention and response to prevent catastrophic and chronic oil pollution.

Should the Trustee Council fund spill prevention and response activities?

- ☐ No
- ☐ Yes. *Please indicate which spill prevention and response activities you believe are appropriate (you may mark more than one answer):*
  - ☐ Spill prevention and response technology.
  - ☐ Infrastructure
  - ☐ Prevention of chronic pollution
  - ☐ Other:

Comments:

Monitoring and Research. Some components of monitoring and research are included in all alternatives. We would like to know your views.

Should the Trustee Council fund monitoring and research activities?

- ☐ No
- ☐ Yes. *Please indicate which monitoring and research activities you believe are appropriate (you may mark more than one answer):*
  - ☐ Recovery monitoring
  - ☐ Restoration monitoring
  - ☐ Ecological monitoring
  - ☐ Restoration Research
  - ☐ Other:

Comments:

Endowment. Some alternatives assume that the settlement funds will be spent within ten years. Others propose placing 20% to 40% of the remaining settlement funds into a savings account to fund restoration, spill prevention, research, or monitoring after that time.

Are you in favor of an endowment or savings account of some kind?

- ☐ No, I believe the funds should be spent within 10 years.
- ☐ Yes. *Please indicate what the annual endowment earnings should be spent on (you may mark more than one answer):*
  - ☐ Research and Monitoring
  - ☐ General Restoration
  - ☐ Spill preparedness
  - ☐ Habitat Acquisition
  - ☐ Other:

Comments:

QUESTIONS ABOUT SPENDING GUIDELINES

The table below shows the spending guidelines in the five alternatives. If one of the alternatives reflects your view of how the funds should be allocated, please circle the name of that alternative. If not, please put write in your percentages in the space to the right. If needed, you may write in new suggestions for restoration plan components in the blank lines. If you believe that an endowment is appropriate, please put in the appropriate percentage in the endowment line. (Make sure your percentages add to 100%!).

	Alternative #1 Natural Recovery	Alternative #2 Habitat Protection	Alternative #3 Limited Restoration	Alternative #4 Moderate Restoration	Alternative #5 Comprehensive Restoration	*YOUR ALTERNATIVE* If none our alternatives reflect your views about allocating the funds, please write your percentages below.	
Administration & Public Information	1%	4%	6%	7%	7%		Administration & Public Information
Monitoring & Research	5%	5%	7%	8%	10%		Monitoring & Research
General Restoration			12%	25%	33%		General Restoration
Spill Preparedness				10%	15%		Spill Preparedness
Endowment							Endowment
Habitat Protection		91%	75%	50%	35%		Habitat Protection
Balance	94%						Balance
Total:	100%	100%	100%	100%	100%		
						100%	Total

HABITAT PROTECTION: PRIVATE LANDS

Habitat Protection on private lands is a major element in all but the natural recovery alternative of the draft Restoration Plan. Habitat protection on private lands may include acquisition of full title or acquisition of partial rights such as conservation easements and timber rights. Partial rights may be less expensive than full title. Because land purchases are negotiated and are dependent both on price and on the will of the seller, final purchases will be dependent on landowner's preferences as well as those of the public and the trustees. (The habitat protection process was described in the Restoration Framework Supplement.)

In response to public support, the Trustee Council is proceeding in advance of the Restoration Plan by protecting several imminently threatened parcels. For example, the Trustee Council decided to go ahead with the purchase of inholdings in Kachemak Bay State Park.

We are requesting your views on several issues concerning Habitat Protection on private lands. Please answer the questions below.

1. When purchasing land we can purchase large areas that protect the overall landscape or integrity of the habitat, or purchase small but important parcels such as stream corridors and camping areas to stretch the funds. Would you prefer acquisitions to emphasize:

- ☐ a few large parcels of land
- ☐ many small parcels of land
- ☐ mix of large and small parcels
- ☐ no preference

2. Buying habitat may affect the economic condition or quality of life in your community. We'd like your views on this.

What positive impacts would you like habitat protection to have in your community?

_____

_____

_____

_____

What negative impacts would you like habitat protection to avoid in your community?

_____

_____

3. Acquired lands or interests will be managed to aid the recovery of injured resources and services. Should these lands or interests in these lands be retained forever?

☐ No
☐ Yes
☐ No Preference

4. All habitat protection will benefit resources and services injured by the spill. Should the decision to purchase lands also protect resources and services not injured by the spill?

☐ No
☐ Yes
☐ No Preference

5. Other comments?

COMMENTS

Please use the space below to write comments. Any comment you write will be greatly appreciated. Thank you.