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OIL SPILL RESTORATION PLANNING OFFICE

PROCEEDINGS OF THE WORKSHOP ON
PROGRAMS TO PROTECT
MARINE HABITATS

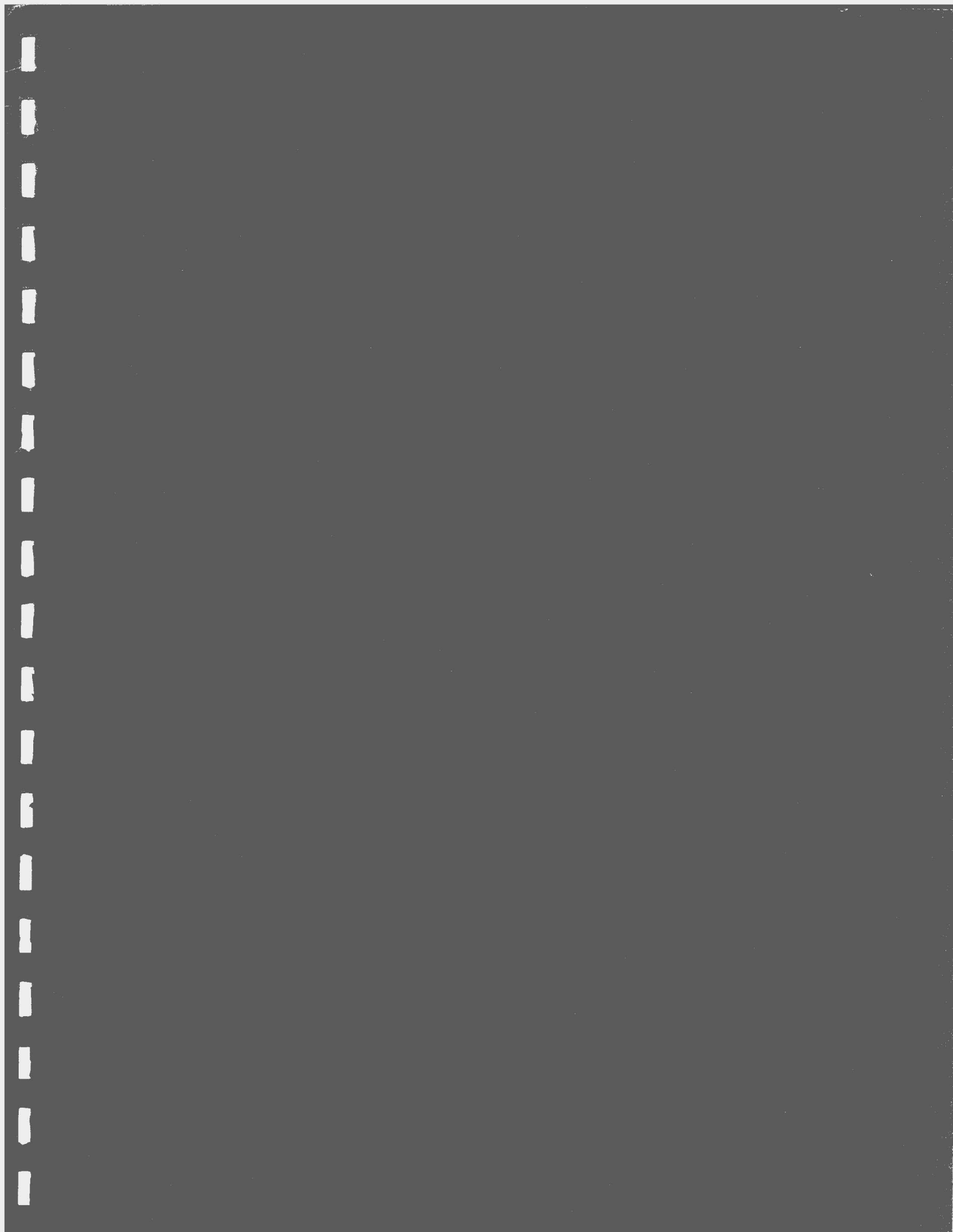
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**Proceedings of the Workshop
on Programs to Protect
Marine Habitats**

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RESTORATION PLANNING WORK GROUP WORKSHOP MARINE HABITAT PROTECTION OPTIONS

On August 1 and 2, 1991, the oil spill Restoration Planning Work Group (RPWG) held a workshop in Anchorage, Alaska, to address potential restoration strategies for natural resources and services affected by the Exxon Valdez oil spill (EVOS) which occurred on March 24, 1989. The workshop provided a forum for discussions among the RPWG members, regional and national managers, and administrators of protected marine habitats and resources. The objective of the workshop was to determine the potential for implementing various marine habitat management designations that facilitate and enhance restoration of natural resources injured by the oil spill.

The workshop participants provided the RPWG with information related to existing protected marine habitats and resources, their administration and management, and the applicability of using protective marine habitat designations in the context of the EVOS restoration efforts.

The format for the workshop was informal. The speakers were asked to provide introductory information on their respective designated areas and to participate in a round-table discussion related to potential EVOS restoration strategies.

This document summarizes the presentations and discussions from the workshop. A list of speakers is included as Appendix A, and attendees of the workshop are included as Appendix B.

INTRODUCTION

Stan Senner, Alaska Department of Fish and Game

The RPWG has been charged with making recommendations for the long-term restoration of Prince William Sound, Gulf of Alaska, lower Cook Inlet, and other areas affected by the EVOS. The RPWG is a multi-agency task force that includes representatives from the U.S. Environmental Protection Agency (EPA), National Oceanic and Atmospheric Administration (NOAA), U.S. Department of the Interior, U.S. Department of Agriculture (USDA), Alaska Department of Environmental Conservation (ADEC), Alaska Department of Fish and Game (ADFG), and Alaska Department of Natural Resources (ADNR).

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The RPWG's purpose is not to assess the damages, but to identify and evaluate an array of restoration opportunities and recommend an appropriate restoration strategy to the trustee agencies. However, restoration cannot occur until a funding source is secured either from Exxon, or from the state or federal governments in anticipation of monies from Exxon. In the settlement proposed last spring, the money that was to be for restoration was in the hundreds of millions of dollars. Although this settlement was ultimately overturned, it illustrates the potential level of funding for the restoration program. Consequently, the RPWG needs to be prepared to develop a restoration program that might entail funding of one to two billion dollars¹.

Detailed results of the Natural Resources Damage Assessment (NRDA) are confidential due to the pending litigation. A copy of the 18-page summary document, prepared by state and federal governments in April 1991, and released by the federal government, was provided to each participant in this workshop. This is a public document summarizing injuries from the EVOS and is not confidential.

The RPWG recommendations for restoration may include some long-term protection programs for marine habitats and the fish and wildlife that depend on those habitats. A number of options currently exist, including the designation of national marine sanctuaries, national parks, state parks, and state special areas. The creation of new designations specifically suited to this situation is also a possibility.

Ultimately, the RPWG's objective is to evaluate different types of designations, either new or existing, to determine if they will meet the restoration needs of the resources that were impacted by the EVOS. A reasonable relationship of cost in proportion to value of the injured resources must be developed to help determine the most cost-effective alternative in the restoration process.

MODEL OF THE OIL SPILL Art Weiner, ADNR

As an introduction to the workshop, Art Weiner showed a computer-generated video developed by NOAA, that depicted the dispersal of the oil spilled along the Alaskan Coast. The model, which incorporated a mix of mathematical modeling and observations made during the spill, graphically illustrated the extent of the spill. The model estimated that the spill encompassed approximately 28,500 square kilometers along Cook Inlet and the Gulf of Alaska by June 20, 1989. This video is available through the Hazardous Materials, Response and Assessment Division of NOAA.

¹ Since the time of the workshop, a \$900 million settlement has been accepted by the court for restoration.

REVIEW OF THE RESTORATION PROCESS

Stan Senner, ADFG

Even though Exxon proclaims that everything is fine in Prince William Sound, there are still lingering effects from the EVOS. Although the media was focused on damaged beaches, it is important to realize that the intertidal and nearshore biota were also severely affected. Invertebrates and plants were impacted from the oil spill, as well as from the cleanup efforts. People tend to forget about the creatures at the base of the food chains. The effects on a number of the species have gone far beyond the immediate effects of the spill, and restoration needs to be viewed on an ecosystem-wide basis.

Some of the existing protected areas affected by the oil spill include Chugach National Forest, Kenai Fjords National Park, Katmai National Park, Aniakchak National Monument and Preserve, Alaska Maritime National Wildlife Refuge (including the Barren Islands), Kodiak National Wildlife Refuge, Becharof National Wildlife Refuge, Kachemak Bay State Wilderness Park, Afognak State Refuge, and state parks scattered throughout the area. In total, 19 state marine parks, 2 state parks, 1 state wilderness area, 1 state recreation area, 3 national park units, 1 national forest, and 4 national wildlife refuges were impacted by the EVOS.

There are three basic phases to contending with the EVOS: response, the NRDA, and restoration. Response involves locating oil on beaches and in the open water areas, then using this information when organizing the cleanup. Determining the technology needed for cleanup is probably the primary initial effort that is directed toward the spill. The second step, the NRDA, actually occurs concurrently with the cleanup. This process is, in this case, the litigation-sensitive research that goes into building a case against Exxon. The third step is restoration, which is the focus of this workshop.

The RPWG's purpose is to determine the best way to mitigate the injuries to the natural resources through a restoration process. Restoration, as defined by the NRDA regulations, includes direct restoration, in-kind replacement of the damaged resources, and the acquisition of equivalent resources. State and federal agencies are attempting to assess damages to resources within the affected area and to determine whether natural recovery will be adequate. If it is determined that natural recovery is not adequate, then other alternatives are needed to accelerate restoration, replacement, or acquisition of equivalent resources.

An important part of the restoration effort is to prevent further degradation of the habitats on which injured species depend. By designating these habitats as protected areas, a management authority becomes responsible for maintaining the habitat and protecting it from disturbance or conflicting resource uses. If a plant or animal population is recovering slowly, protection may aid in the recovery by preventing further injury. The creation of a protected area may not expedite the recovery of a species, but it may add protection during the period needed for recovery.

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NATIONAL MARINE SANCTUARY PROGRAM
Miles Croom, (NOAA) Sanctuaries and Reserves Division

The National Marine Sanctuary Program is set up to enhance the existing regulatory management authorities and fill gaps that are identified in resource protection. The philosophy of the program is not to duplicate, but to identify ways the resource can be better protected. The program's intention is to work with existing authorities to accomplish this goal. Another distinguishing feature of the program is that it is the only federal program designed to afford conservation and management on an integrated, ecosystem-wide basis, rather than focusing on particular uses, species, or resources.

There are currently nine national marine sanctuaries; an additional seven sites are in various stages of the designation process. The Florida Keys is the largest national marine sanctuary (2,600 sq nautical miles) followed, upon designation, by Monterey Bay (2,200 sq nautical miles), Channel Islands (1,252 sq nautical miles), Gulf of the Farallones (948 sq nautical miles), and the smallest sanctuary, Fagatele Bay (0.25 sq nautical mile).

Title III of the Marine Protection, Research, and Sanctuaries Act is the enabling legislation for the National Marine Sanctuary Program. The goals of Title III are as follows:

- resource protection,
- research to aid in resource management decision making,
- environmental education and information transfer, and
- promoting multiple uses of the resources within a sanctuary, compatible with the primary goal of resource protection.

Priorities of the NOAA Sanctuaries and Reserves Division are to designate new sanctuaries and reserves, to make existing designated sites fully operational, and to develop or improve research and monitoring, education and interpretation, and resource protection programs. The results of the research are applied to determine appropriate sanctuary boundaries; monitor and predict resource and habitat changes; plan for compatible future uses and developments; predict and assess regulatory impacts on resources; interpret resource values; and identify activities that directly or indirectly affect resource values. The educational programs include design and production of printed materials, such as posters and brochures; development of marine-related curricula and teacher training workshops; sanctuary excursions and lecture series; design and production of exhibits; and outreach programs. Resource protection programs include surveillance and monitoring activities, in conjunction with "interpretive enforcement", designed to ensure the long-term health and conservation of the qualities and values for which the area was designated as a sanctuary.

The purpose of creating sanctuaries is to guarantee control (i.e., protection) of key areas and habitats. An evaluation is conducted prior to designation to determine what methodologies are appropriate to create and manage a particular sanctuary. Land is not acquired to establish national marine sanctuaries except when needed for onshore facilities (i.e., offices, boat support facilities, visitor centers). Regulatory jurisdiction for the National Marine Sanctuary Program ends at the mean high tide line. The program is up for re-authorization next year. Hopefully, the re-authorization will include language that authorizes land purchases for sanctuaries.

The Site Evaluation List (SEL) is the first step in identifying a site for consideration under the program. Sites selected for listing possess qualities of special national significance. However, it is important to note that sites on the SEL do not have to be pristine. A site on the SEL may not necessarily become a marine sanctuary, because part of the evaluation process involves assessing the potential threats, impacts, and activities that might require regulation and evaluation of the relative benefits of the designation. The management plan design may be based on potential threats to the site. The evaluation process is used to determine whether a marine sanctuary designation is needed.

The SEL and criteria for being placed on the SEL are being revised. SEL criteria are divided into four categories:

- (1) natural resource values: habitat protection, fisheries resources, and ecological and conservation qualities;
- (2) human use values: historical, educational, aesthetic, recreational, and research;
- (3) estimated impacts and threats to resources: pollution and exploitation of resources; and
- (4) management of concerns: coordination with other programs, management of an integral ecosystem, accessibility, surveillance and enforcement, and economic considerations.

Part of the process in completing the SEL involves six or seven regional teams identifying and evaluating potential sites around the country. There is then a series of public meetings and other public involvement processes to review the nominations. Those sites with the highest value, after being evaluated according to the listed criteria, will be placed on the SEL. Based on these reviews, some sites are picked to become active candidate sites for sanctuary designation. Once the site is selected as a candidate, the National Environmental Protection Act (NEPA) process begins, and an environmental impact statement, a management plan, and regulations are drafted. It also initiates the formal consultation between NOAA, the regional fishery management councils, and other federal, state, and local entities that have interests in the area. In the case of the proposed

North Puget Sound Marine Sanctuary, the boundary would be the deep water mark at Padilla Bay, so there will need to be a number of cooperative programs. The proposed sanctuary is totally within state waters and involves 38 different interested parties, including Tribes, port districts, cities, and counties.

Some potential sites in Alaska will be considered for addition to the SEL. However, if there was a legislative act that required designating a specific site, such as in Prince William Sound, then that designation would bypass the SEL process and advance the site to the active candidate phase of the designation process.

In the past, sites have not been prioritized on the SEL, but this is being considered. The problem with implementing a strict priority ranking system is that it would hamper the designation of sites not at the top of the priority list. One solution may be to have three or four categories of priorities; any site within the highest category could be selected as an active candidate for designation. Sites could be moved from category to category as threats to resources change, or as the ability to designate additional sites increases.

The latest re-authorization of Title III specifies how money from fines is to be distributed. There are separate accounts ranging from restoration and improved management in the sanctuary where the damage occurred, to using the monies in other sanctuaries, to using the money for better administration at headquarters level. The money from fines does go back into the program, not into the general fund. Before 1986, the money went to the U.S. Treasury.

It costs approximately \$500,000 to designate a national marine sanctuary. In 1981, the budget for the sanctuary and reserves program was around \$4.8 million and there were only three small and two fairly large sanctuaries. By the end of the Reagan Administration, the budget was down to about \$3 million, but there were seven or eight sanctuaries. By 1994, under the Bush Administration, the per sanctuary expenditure should be back to what it was in 1981. At Gulf of the Farallones National Marine Sanctuary, the operating budget is roughly \$500,000. An attempt is made to keep staffing down to about 65% of the budget to allocate money for research.

The Florida Keys National Marine Sanctuary was recently created and adjoins Biscayne National Park, John Pennicamp State Coral Reef Park, Everglades National Park, and Fort Jefferson National Monument. Two existing national marine sanctuaries in that area, Looe Key and Key Largo, will be incorporated into the largest national marine sanctuary when the management plan is finalized. "Areas to be avoided" is another new designation set up through the U.S. Coast Guard and will help control shipping and vessel traffic through the sanctuary. This, however, does not apply to military vessels.

The Florida Keys National Marine Sanctuary may be a good example for this group to examine. In this case, a separate piece of legislation established the sanctuary. It required that NOAA prepare a comprehensive management plan and environmental impact statement by May 1993. The legislation directed EPA and the State of Florida to prepare

a Comprehensive Water Quality Protection Plan by May 1992. NOAA is also working as part of this effort and is required to establish an advisory council to assist the U.S. Secretary of Commerce in developing and implementing the management plan. The act prohibits oil and gas development and hard minerals mining, and restricts commercial vessel traffic within "areas to be avoided". The comprehensive management plan should facilitate all uses consistent with resource protection; consider ocean area zoning for the sanctuary; incorporate regulations to enforce water quality protection programs; ensure cooperation between sanctuary management and other federal, state, and local authorities; promote education about coral reef conservation and navigational safety; identify research needs and long-term monitoring programs; identify funding sources; and incorporate the two existing, smaller sanctuaries into one large structure.

In the Florida Keys, a diverse group will participate, along with the advisory council, in sanctuary management. This group includes the NOAA, EPA, Florida DNR, Florida Department of Environmental Regulation, Florida Department of Community Affairs, Florida Marine Fisheries Commission and the various regional fishery management councils, South Florida Water Management District, and Monroe County government. A series of regional scoping meetings have already been held. Technical workshops are being planned to devise water quality studies; set up liaison offices; establish liaisons with the federal, state, and local agencies; sign agreements with The Nature Conservancy for educational and scientific activities; and solicit private donations.

Although some groups may have complaints about the designation of these sanctuaries, most people, if asked, would not like to see them removed. In an area like Alaska that depends on its fishing industry and other natural resources for its livelihood, the support of fishermen and other citizens will be critical to initiating any activity related to designating a national marine sanctuary. In areas to be managed for multiple uses such as commercial fishing, transportation, and conservation, the people of Alaska will have to determine what activities are appropriate and how to manage them in the context of a marine protected area. National marine sanctuaries cannot be all things to all people. They are not established as a tactic for prohibiting particular uses or to control access to certain resources. Rather, national marine sanctuaries are designated to ensure the long-term protection of significant national resources. Management is instituted in an integrated way, complementing existing authorities and adding additional protective mechanisms only where needed. Based on the previous NOAA experience in Alaska, it is important to prepare the constituency, conduct public meetings, and get public comments early in the process.

NATIONAL ESTUARINE RESERVE RESEARCH SYSTEM
PADILLA BAY NATIONAL ESTUARINE RESEARCH RESERVE
Terence Stevens, Washington State Department of Ecology
(NOAA)

The National Estuarine Reserve Research System (NERRS) is a partnership program between federal and state governments. It is authorized under the Coastal Zone Management Act, Section 315. Funds are available and the current budget is about \$3.4 million in state pass-through money. This money is available for site acquisition, development, monitoring, education, and construction. The budget for reserves is smaller now than it was seven or eight years ago even though the number of reserves has increased from 9 to 19.

A national estuarine research reserve is an area that is a representative estuarine ecosystem suitable for long-term research. A reserve may include an estuarine system in its entirety, or at least the key land and water portions of an estuary constituting, to the extent feasible, a natural unit. A reserve is set aside as a natural field lab to provide long-term opportunities for research, education, and interpretation of the ecological relationships within the area. Monitoring and protection are stressed. On the national level, a three-tier program has been established to delegate funds for characterization studies, inventories within the reserves, community profile documents, and, on an annual basis, long-term monitoring projects. A state may apply for federal funding for site selection, preparation of documents, and research necessary to complete basic characterization studies. The total federal share for this group of predesignation tasks may not exceed \$100,000 of which up to \$25,000 may be used for site selection and staffing.

The research reserve management plan describes the uses, establishes priorities, and outlines a permitting system for regulating activities. The Padilla Bay Management Plan specifies that activities cannot degrade water quality, salinity, and food regimes. It also delineates all existing codes and regulations used to protect the resource, including the Washington Shoreline Management Act and the federal Clean Water Act. The management plan can be designed for the diverse use elements being addressed for the reserve. Estuarine research reserves are open to the public to the extent permitted under state and federal law. Multiple uses are allowed within reserves to the degree specified by the management plan. For example, clamming, hunting, and crabbing are all grandfathered into the Padilla Bay Management Plan.

Each reserve has a single budget, even if the reserve has multiple sites. The present budget for each reserve is \$70,000 a year for operations, \$20,000 for monitoring, and \$20,000 for education. These amounts are set in the guidelines, not in the Congressional Act. Congress determines the overall acquisition and development dollars available to states and it is currently \$5 million per reserve.

Up to \$100,000 in federal funds can be used for predesignation tasks. An additional \$40,000 can be provided to develop the management plan. This is all prior to designation. These are all federal dollars, and they are all a 50-50 federal-state match. Operational funds are available up to \$70,000 dollars per year, per reserve, and are matched 70-30.

The unique thing about the NERRS is that the state prepares a management plan and a draft environmental impact statement, which is eventually adopted by NOAA. The management plan provides the authority for determining activities within the reserve. Padilla Bay is a national reserve managed by the Washington State Department of Ecology (WDOE). Within the reserve system, there is a huge variation in federal, state, and local involvement. Of the 19 reserves, only about half are fully developed. There are facilities, programs, and activities onsite at Padilla Bay. Some nonprofit groups are directly involved in operations, and there are some contracts with universities for research and monitoring programs. There are also tremendous variations on how programs are implemented within the federal guidelines.

The NERRS is designed to provide for long-term research in areas of representative estuarine ecosystems. These areas do not have to be pristine to be designated. Although restoration of degraded ecosystems is not a primary purpose of the system, such activities may be permitted to improve the representative character and integrity of a reserve. Restoration activity must be carefully planned and approved by NOAA and be consistent with the reserve's management plan.

Although university research is conducted at the Padilla Bay reserve, the reserve has not attracted large scale research projects. Historically, there has not been much research conducted in Padilla Bay and therefore, few baseline data are available. About 20% of management time is spent promoting research activities in the Padilla Bay reserve. The physical facilities at the reserve were built to attract research activities. These include an overnight bunk room, kitchen facilities, and a wet lab onsite. This enhances the prospect of attracting students doing graduate studies.

The federal guidelines note specifically that national marine sanctuaries and estuarine reserves may not overlap, although they may be adjacent. The guidelines also have a narrowly defined process by which the states apply to have an area designated, develop the management criteria, draft management plans and environmental impact statements, as well as determining site acquisition and development. The period for applying for funds is well defined. Designation time is actually fairly short; the Padilla Bay reserve came on-line in two years.

Public participation is encouraged in a number of ways. At the Padilla Bay reserve, the local board of county commissioners is involved in balancing controversial management decisions. Many of the reserves have advisory committees to oversee their management. Public participation starts early in the site selection process. As part of the application process, methodology for holding public meetings must be identified. Public hearings are required after the draft EIS is published, and before the management plan is finalized.

The WDOE/Shorelines and Coastal Zone Management (CZM) Program initiated the proposal for the Padilla Bay National Estuarine Research Reserve. Under the state CZM program, potential sites were evaluated several years ago. The governor set up a steering committee which was chaired by a representative from the Washington State Department of Wildlife. This committee established a technical advisory committee and different subcommittees for boundary selection, research, education, and interpretation. Recommendations from the committees were used in developing the draft management plan.

The state evaluated 20 different sites. Padilla Bay was one of the only large, near-shore habitats with significant seagrass beds and without any designation for protection. Because of Washington's long history of selling second class tidelands, about 9,500 acres of second class tidelands in Padilla Bay, (of 10,000 acres total) were in private ownership. The state has been buying these privately owned tidelands. Ongoing litigation began in 1982 when a major investment firm that owns 7,000 acres in Padilla Bay filed a suit based on the "taking issue". The state Parks Department has two islands within the Padilla Bay reserve boundary, which are managed under a memorandum of agreement.

There are some things that can be done to facilitate local acceptance of a national reserve. Farmers were especially concerned that their land use practices such as, pesticide and chemical usage, would be affected or shut down by the designation of the Padilla Bay reserve. The management plan responded to these concerns by including an understanding that the surrounding uses are historic in nature and unless these practices were shown to be damaging the resources, they would continue. To deal with concerns of citizens in the vicinity of Padilla Bay, an oversight committee, consisting of the local board of county commissioners was established. Any concerns or criticisms from the local citizens can be directed to the oversight committee. A "hands-on working with the locals" approach has been the best approach for the Padilla Bay Research Reserve.

The budget for Padilla Bay is \$350,000 every 2 years from WDOE. These funds are used for matching funds because almost all of the funds out of NOAA grant programs (state pass-through funds) require a 50-50 match. A few grants require 70-30, which is better for the state. Acquisition and development funds are all 50-50. At Padilla Bay, about \$175,000 in state funding is used to run facilities and educational programs each year. Federal funding for operations is \$70,000 per year. In addition, non-profit organizations contributed about \$10,000 to \$20,000 this year.

All Padilla Bay staff are state employees. Currently, there are five state positions, plus an additional five or six that are involved in research and education projects. These additional staff members are state employees, but are funded either federally or privately. There is also additional staffing from a nonprofit foundation, the Padilla Bay Foundation, that was established in 1988. Most reserves find themselves working hand in hand with local or regional environmental organizations.

Now, Alaska, under its Coastal Zone Management Act, has a designation called Areas Meriting Special Attention (AMSA). It is not a regulatory mechanism, but it suggests the need for special regulation of an area. This is similar to Washington's Shoreline Management Act which has a classification called Shorelines of Statewide Significance.

To designate a research reserve in Alaska and to maintain state regulatory control of the area, it may be desirable to designate an area as a state refuge or sanctuary and then have it incorporated into the national reserve system.

NATIONAL MARINE SANCTUARIES
GULF OF THE FARALLONES NATIONAL MARINE SANCTUARY, CALIFORNIA
Ed Ueber
(NOAA)

The Gulf of the Farallones and Cordell Bank National Marine Sanctuaries are the largest actively managed marine areas in the United States. These sanctuaries were selected because of their high biotic productivities. Gulf of the Farallones is the highest producing fisheries area on the West Coast (excluding Alaska) and also has the largest concentration of seabirds and marine mammals. Much of the shoreline within the sanctuary is state or federal park land; however, the sanctuary does not include state waters.

There is incredible support for this sanctuary from the local community. Commercial fishing interests are the major support groups for the sanctuary. The sanctuary regulations prohibit it from managing fisheries. Instead, the California Department of Fish and Game (CDFG) Pacific Fisheries Management Council manages the fishery resource within the reserve.

The United States Fish and Wildlife Service (USFWS) attempted to establish a buffer zone around the islands to protect Steller sea lion populations. What resulted was a closure around parts of the island for half of the year. This closure was actually established by the CDFG. One of the problems with the closure, however, was that the CDFG could only regulate activities related to fish and game; activities like sightseeing were still allowed. These activities may have just as much impact on animals within the sanctuary as the fishing industry. The major problems seem to be associated with noise from activities, along with urchin and abalone diving. To try to alleviate some of these problems, vessel speed and noise restrictions were established.

In a similar situation, the Alaska Maritime Refuge would not be able to close the water to such activities, but could prohibit access to the island. The Gulf of the Farallones Sanctuary would have to close the water to everybody, not just to fisherman. Title III states that the first authority of fishing regulation goes to regional fishery management councils. If NOAA determines that those regulations are not adequate, then the sanctuary program

can implement its own regulations for the sanctuary. However, this has never been done. Title III gives the sanctuary the authority, while the regulations define what actions can be taken. Each sanctuary is different. For example, the Florida Keys has some restrictions, including regulation of spear fishing and trapping, mostly because of the damage anchoring causes to coral. A sanctuary can also apply different regulations within different areas of the sanctuary.

The Coast Guard in San Francisco monitors oil tanker movement through the sanctuary. NOAA's Hazardous Materials Division also works on this. California is developing an oil contingency plan for its entire coast. The state has not yet hired the 140 staff needed for this new program. Under current protocol, the Coast Guard contacts the sanctuary in the event of a spill. Although the sanctuaries have access to some oil spill equipment inside the bay, the equipment is not sufficient to handle large spills within the sanctuary. The sanctuary has no policy on the use of dispersant and, therefore, can do very little except to assess the damage. The CDFG has never allowed the use of dispersant anywhere in the state and would most likely deny use within the sanctuary. The EPA always defers decisions on when to use dispersant to the states and state lands commissions.

Oil and gas production, discharge of materials, dredging, and dredge disposal activities are prohibited within the sanctuary. Enforcement of sanctuary regulations is aided by the ability to fine violators. Fines for violations are now \$50,000 a day. New legislation proposes that this amount should be raised to a ceiling of \$250,000 per day. Other violations include discharging materials, running aground, damaging coral, and anchoring. Additionally, if something is discharged outside of the sanctuary, but material drifts into the sanctuary damaging sanctuary resources, a fine can be imposed for each day the material remains. Some vessels have been impounded for violations at the Florida Keys National Marine Sanctuary.

UNITED STATES DEPARTMENT OF THE INTERIOR
Sanford Rabinowitch
(NPS)

The National Park Service (NPS) administers about 354 national parks, which include 80 million acres around the United States and its territories. There are 15 national parks and approximately 54 million acres of park lands in Alaska. Kenai Fjords National Park, Katmai National Park and Preserve, and Aniakchak National Monument and Preserve were affected by the EVOS. Katmai National Park was the most severely impacted.

National parks are governed by legislation dating back to 1916. The language from this legislation which guides the NPS is "to conserve the scenery and the natural and historic objects and the wildlife therein unimpaired for future generations." There were two significant amendments to the Park Service Organic Act made in 1970 and 1978. The 1970 amendment stressed a unification of the park system. The 1978 amendment, the Redwoods

Amendment, stated that the parks shall not be used in degradation of the resource values. There is a lot of legislation pertaining to the parks and there are differences within each park's enabling legislation. There are also specific references to specific species.

The primary purpose of the NPS can be summarized as a role of stewardship of the nation's most protected lands. Although people assume the National Park System administers only uplands, there are many examples of marine waters being included in the NPS including Glacier Bay National Park in Alaska, Everglades National Park in Florida, and Fort Jefferson National Monument off the Florida Keys.

National parks are actually described in terms of both gross and net acres. Gross acres are the total number of acres within a park's designated boundary. The net acres are those that are federally owned. Private land use within park boundaries is not statutorily controlled. However, there is case law now that demonstrates that uses can be controlled on a case by case basis if there is an imminent threat, or actual damage to park resources.

Kenai Fjords National Park has two resource people and an average of 1.3 law enforcement people throughout the year. The total annual operating budget is roughly \$569,000. Katmai National Park has three resource people, two law enforcement people, and an operating budget of almost \$1 million. Aniakchak National Monument employs an average of 0.25 person, has no law enforcement personnel, and has an annual budget of about \$125,000.

The USFWS administers 466 national wildlife refuges nationwide, encompassing 91 million acres. Of these, 16 units and 77 million acres are in Alaska. Four refuge units were hit by the spill.

There are a total of 44 staff members in the four refuges, and the budget is \$3.5 million. Research is conducted by the USFWS. There are two to three law enforcement people at each refuge, who are assisted by special agents.

The statutory authority is the 1966 Refuge Administration Act, the Refuge Act of 1942, and other acts. The refuges have very specific stated purposes and tend to focus on species, treaty obligations, subsistence responsibilities, and water quality. Many private lands within refuges are subject to the refuge regulations.

A significant difference between refuges and parks is that the refuge mandate is geared more toward wildlife, conservation, and the resources. Although the park mandate includes these mandates as well, it also needs to include visitor use and enjoyment. A refuge can close down if there is some kind of critical resource need. However, the NPS would have to go through a lengthy process to close a park because of the public access requirements. In contrast to the national wildlife refuges in Alaska, the national wildlife refuges in the lower 48 states are closed to any use unless specifically opened.

CHANNEL ISLANDS NATIONAL PARK, CALIFORNIA
C. Mack Shaver

There are many similarities between the Channel Islands National Park and the other management units discussed at this workshop. When national parks are created, they generate a great deal of political and national interest. National parks are not created in response to one perceived need. It would be difficult for a coalition of people in southern California to have created a national park to prevent oil drilling in the Santa Barbara Channel; but actually, the Channel Islands National Park was created, in part, because there was a threat of oil production in some very sensitive habitats.

The Channel Islands National Park is only about 10 years old; however, the Channel Islands National Monument is nearly 60 years old. An Act of Congress is required to create a national park. All of the other national park system designations, such as national monuments and national seashores, may be created by presidential proclamation. For an example of the cost of creating the park, Santa Rosa Island, which is about 54,000 acres, cost \$29 million to purchase. Santa Cruz Island, with an area of 62,000 acres, is 90% owned by The Nature Conservancy and is managed as part of the park; but if the NPS was to purchase it, it would cost roughly \$170 million. The cost of national parks today can be rather high, because, for the most part, they do not come out of the public domain.

Channel Islands National Park is 250,000 acres, with an operating budget of approximately \$3 million. There are approximately 35 permanent employees and 30 seasonal employees. The park is about half staffed and half developed. It is as much a growing park as the Alaska parks. But because it has been around longer and is surrounded by 17 million people, it has received more attention from Congress. As a result, the operating budget is larger than Alaskan parks.

There are approximately 30 agencies that have management responsibilities in or immediately adjacent to the park, including the Channel Islands National Marine Sanctuary. The park encompasses all five Channel Islands, plus 1 nautical mile of water around them. The national marine sanctuary, when it was created, included the waters to 6 nautical miles outside the islands, but not the islands themselves. The state has jurisdiction over territorial waters for 3 nautical miles out from the islands. Thus, there are three very distinct, overlapping jurisdictions involved. In addition, the U.S. Navy operates the Pacific Missile Test Range, which includes areas south of the islands. Even though the Navy has no true management responsibility within these waters, it carries clout as to what goes on because of the sensitive and hazardous nature of its activities. In addition, the National Marine Fisheries Service is very active in the area because of the dense marine mammal populations.

There are shipping lanes running north-south from Los Angeles to San Francisco between the islands and the mainland. They actually enter the Channel Islands National Marine Sanctuary and the park. An average of 11 tankers a day travel through the shipping

lanes. In addition, there are 14 oil platforms in that same area, not within the shipping lanes, but some are very close. The marine sanctuary designation includes a 6-mile buffer between the platforms and the sanctuary. If the sanctuary was not there, oil production could occur within a mile of the islands (at the park boundary). The closest oil spill response facilities are on platform Gail, but all of the harbors have major response facilities. There is no major response facility on the islands. It would take approximately one hour to respond to a spill from the closest response facility in Santa Barbara, assuming the response team was ready.

The NPS has jurisdiction on the water's surface within 1 nautical mile of the islands. Their duties include law enforcement, enforcement of fish and game regulations, and participation in search and rescue operations. The state has the primary jurisdiction on the sea floor and in the water column. However, the national marine sanctuary has jurisdiction on the sea floor and water column for activities such as disturbance of the sea floor, discharge of hazardous materials, and protection of shipwrecks. The CDFG regulates protection and harvest of marine resources. The NPS has been tracking the decline in abalone around the islands for five years, and may be able to establish one or more of the islands as a harvest refuge and completely close those islands to harvesting of abalone. The sanctuary does not have the authority to regulate the abalone fishery. However, it appears the state is going to support this action and establish a state zone. The NPS has used its resources to evaluate the situation, but the state needs to provide the regulation.

Channel Islands National Park has the first and perhaps the only completed inventory and monitoring program within the NPS. An inventory and monitoring handbook has been produced that lists the 12 significant biomes within the park and protocols for inventorying and monitoring the resources within those biomes. Preparation of the handbooks cost \$13 million. They are a model that can be used in any park. Only five of the handbooks are being used at this time. The handbooks now in use are those for intertidal areas, kelp forests, seabirds, land birds, and other land resources. There is also an inventorying and monitoring system for underwater cultural resources (shipwrecks). The handbooks are extremely time consuming and very expensive to produce. For example, kelp forest monitoring is done every other week for 5 months. Each trip consists of about 10 divers making three dives a day for 1 week. About two-thirds of the divers on the trips are volunteers from universities or other agencies. If everyone involved in the kelp forest monitoring program were paid, it would cost an estimated \$1.5 million annually, including the boat costs.

No additional navigational aids were added to the area when the sanctuary was formed; an extensive system of navigational aids was already in place. The Navy has some radar coverage outside the Channel Islands in the Pacific Missile Test Range. There is also some radar coverage within the shipping lanes and all of the platforms have radar which is kept on at all times.

The sanctuary can restrict air traffic over the area. NOAA ordered some very stringent minimum altitude restrictions, particularly over pinniped rookeries, seabird colonies, and all of the islands. NOAA ordered the restrictions, and they remain unchallenged by the Federal Aviation Administration.

Marine law enforcement is jointly conducted by the marine sanctuary and the NPS. NOAA officers cannot write citations for fish and game violations and NPS infractions, but they provide a boat and two ranger positions. The NPS marine law enforcement is performed by uniformed park rangers using the NOAA boat. This program has worked very well.

Local support and political timing were ideal for making the islands public land. People were interested in the islands after having them off limits for so many years. The military was running out of uses for its parts of the islands, and it was getting very expensive for private landowners to maintain ranches on the islands.

KENAI FJORDS NATIONAL PARK, ALASKA

Anne Castellina
(NPS)

Kenai Fjords National Park encompasses 570,000 acres. Current staffing at the park includes the superintendent, and one full-time and one part-time resource management specialist. No substantial inventory or monitoring programs have been conducted in the park except for what is being done in response to the EVOS. There are however, studies being conducted on eagles and goats, oil spill research on intertidal areas and vegetation, and an interagency study of wolverines by the U.S. Forest Service, USFWS, and State Parks. These and other studies are permitted and the NPS benefits by receiving baseline data.

Kenai Fjords National Park overlaps or adjoins several other designated areas. The state recently transferred Nuka Island to the State Park System. Pye and Chiswell Islands are part of the Alaska Maritime National Wildlife Refuge, as are most of the islands along the coast. There are also numerous state and federal protected lands around the park, including Kenai National Wildlife Refuge, Chugach National Forest, Caines Head State Recreation Area, and Kachemak Bay State Park.

Areas within the park are relatively pristine. However, some areas are used extensively by the public. Aialik Bay is heavily used by sailboats, recreational boats, and tour boats from the Seward area. Nuka Bay is used by commercial fishermen, shrimpers, fly-in sport anglers, and boaters from the Homer area. The fjords in between these two areas receive very little use because they are so remote.

Gold mining operations within the park could impact the quality of the marine environment. One miner recently received approval for his plan of operations, and he is expected to begin work on his claim in the near future. The operation is relatively small, but it will require an expanded level of compliance monitoring for the park.

The Bureau of Land Management (BLM) is in the process of conveying 77,000 acres of lands within the park to two nearby Native villages. The 77,000 acres include all of the fjords, many of the better anchorages, and other prime areas. The two Native villages were given selection rights to these lands under the Alaska Native Claims Settlement Act (ANCSA). This land conveyance may be contested on the grounds that the entire conveyance package is inappropriate. The Native-selected lands are not traditional use areas, and there is no subsistence use allowed in Kenai Fjords National Park. It is the only national park in Alaska which does not authorize this use.

The selected lands will be managed by the NPS until actual conveyance takes place. These lands include the most heavily visited areas of the park. There are also archaeological sites within the Native-selected lands which will have to be managed as cultural-archaeological sites. The NPS has recommended that 88% percent of the park receive a wilderness designation, including all 77,000 acres of the selected land. However, once conveyance has been completed, the Natives can do anything with the lands (e.g., logging, aquaculture, mining, building).

The biggest problem is that the park does not own these selected lands. If the restoration process could include acquisition of these lands, or a way to retain control of these lands, they could be protected. The fjords are the heart of the park and are about to be conveyed. The Native villages have said that they would be more than willing to sell the park this land, or trade it for land in the Arctic National Wildlife Refuge (ANWR) or undesignated land in the lower 48 states.

National parks in Alaska, with the exception of Glacier Bay, do not have jurisdiction over the water. The park management boundary is the high tide mark and landward. The state has jurisdiction over the water. This is a significant problem because of the water-oriented activities that affect the park (i.e., commercial ice collection operations). ADNR is responsible for permitting these operations. They have never denied a permit for ice collection, but do place certain restrictions on it. The NPS, as the upland manager, can voice concerns to ADNR, but the NPS does not have any actual authority. During the oil spill, whenever cleanup questions involved intertidal and upland areas, the state usually deferred the decision to the upland manager. That was a good cooperative effort.

ALASKA MARITIME NATIONAL WILDLIFE REFUGE

John Martin
(USFWS)

The Alaska Maritime National Wildlife Refuge is part of the National Wildlife Refuge System. The refuge is very spread-out, from southeast Alaska to the Aleutian Islands, to Barrow. It is made up of about 3,500 different islands, rocks, and reefs, and encompasses about 4.9 million acres. As a general rule, refuges do not own water. However, the Alaska Maritime Refuge is one of the few refuges in the nation that claims ownership of the water. About 783,000 acres of the Alaska Maritime Refuge is in the marine environment, including tidelands, submerged lands, and the water column. Refuge control of marine areas has been contested by the state.

The refuge is often thought of as pristine isolated highlands, but the only battle of World War II fought on American soil took place on part of the refuge, Attu Island. Kiska Island was also occupied by the Americans and the Japanese during the war. There is a lot of wartime debris (artifacts) scattered along the islands. In addition, this is probably the only national wildlife refuge that was used for nuclear ordinance testing.

One purpose for the Alaska Maritime Refuge is the protection of marine mammals and birds, and the marine resources upon which they rely. The refuge is currently examining the feeding regions of the bird populations which nest in the refuge. In some cases, the feeding areas being studied are beyond the refuge boundaries. In addition, the refuge is working toward the eradication of fox populations which prey on marine bird colonies on the islands. Both Arctic and red foxes were introduced to the islands. Each year, the eradication program focuses on the removal of fox populations from one island. In addition to the concentrated effort in the first year, return trips are needed each year for about three or four more years to check for strays that may have been missed. Thus, it actually takes several years to ensure the complete eradication of foxes from a single island.

There is also a strong endangered species program because of the Aleutian Canada goose which used to be an endangered species, but is now a threatened species. Geese from the Buldir population are now being transplanted to other islands in the Aleutian chain. The endangered Aleutian shield fern is also found within the refuge. Marine mammal populations around the islands are also monitored.

As in the other sanctuaries discussed, there are overlapping jurisdictions within the Alaska Maritime Refuge. There are four military bases on the refuge. The USFWS has jurisdiction over all fish and wildlife conservation issues on the refuge. The Aleutian Islands are also a Biosphere Reserve.

Some of the basic regulations for this refuge are derived from the Marine Mammal Act, Migratory Bird Treaty Act, and Endangered Species Act. In addition, there is another set of refuge regulations, so there are actually two layers of regulations on refuge lands

The EVOS was the thirty-first oil spill to hit the refuge. Most spills are not investigated due to lack of access or, in some cases, the spills are not considered a real concern. Introduction of rats due to shipwrecks is considered to be a larger threat to resources in the refuge than most oil spills. Rats can exterminate an entire species on an island.

ALASKA STATE PARKS, STATE MARINE PARKS
Jack Sinclair, Alaska State Parks
(ADNR)

Alaska State Parks are administered by the ADNR. Lands that are classified as park lands in the state are given a special land use designation. According to the state attorney general, this means these lands are withdrawn from public domain and are no longer available for multiple uses.

The Alaska Constitution, Section 7, is the enabling legislation providing for special purpose sites. The purpose of the Alaska State Parks system is to provide for the outdoor recreational needs of present and future generations, to preserve and protect areas of natural significance, to preserve and interpret Alaska's cultural heritage, to protect and manage areas of significant scientific and educational values, and to provide support to the state's tourism industry.

Within the Division of Parks, there are several different types of management units. The marine parks in Prince William Sound are all small. They were actually created as part of a linkage with the State of Washington and Provincial Government of British Columbia Marine Parks Systems. The intent was to provide anchorages or small parks, enabling recreational boat travel up the entire coast between Washington and Alaska.

There are three main purposes of the Alaska marine parks:

- maintain natural, cultural, and scenic values;
- maintain existing lawful use of fish and wildlife resources; and
- promote and support recreation and tourism in the state.

The Division of Land and Water Management helped coordinate the management plan for all state lands within the Prince William Sound area. The plan helped determine what uses were appropriate. All tidelands within Prince William Sound are lands of the state. Some of the highlights from the plan regarding commercial development were that the majority of economically valuable mineral resources were located on privately owned land at the time of plan development; timber will be harvested on private land and U.S. Forest Service land only; future resource transfer sites will be protected across state tidelands near mineral and timber resources; and traditional commercial fishing grounds adjacent to state tidelands and near fish hatcheries will be protected. Wilderness values on

which can be applied to protect resources. Any crucial activity occurring on national wildlife refuges requires a special use permit. For instance, a permit is required for charter boat operations within refuge waters or if refuge land is entered. The one exception to the special use permitting process is commercial fishing. The permitting process ADFG uses functions as the special use permit. If a use is proposed that the refuge feels would be detrimental to resources, it can impose restrictions. However, it is very difficult for the refuge to manage islands in cases where the state rather than the refuge has jurisdiction over the marine environment.

The comprehensive management plan for the refuge describes four different management categories: intensive, moderate, minimal, and designated wilderness. The uses listed in the marine area section of the management plan were identified through public meetings and included uses occurring at the time of plan development. Under the land management sections, there is a much larger listing. Oil and gas leasing is not permitted in wilderness or in minimal management category lands. In the intensive and moderate categories, these activities may be permitted subject to a potential national interest determination and a compatibility determination.

There are several other regulatory processes in the refuge. The Code of Federal Regulations statute that prohibits harassment of wildlife is not preventative. In contrast to a national marine sanctuary, a national marine refuge can not have restrictive zones to prevent harassment. The USFWS can establish a special use area through an administrative action to regulate activities on a more restrictive level. Any critical habitat for endangered species can be totally restricted.

This year's budget for the refuge was about \$2 million. The staff includes about 50 to 55 people, plus another 20 or 30 volunteers. The refuge has a 120-foot vessel for transportation around the islands. A refuge naturalist works on the ferry that runs from Homer to Kodiak and down the Aleutian chain. There is also a small visitors center in Homer. Funding has recently been appropriated for acquisition and planning of a new headquarters and visitors center in Homer. The center will be about 13,000 square feet and will include a large seabird exhibit. This facility is estimated to cost \$20 million.

The effects of tour boats on seabirds has been questioned. It seems that the birds become acclimated to visitations. There are concerns about helicopter operations, but a study conducted in the North Sea indicated that once the birds become acclimated to the helicopters, this activity does not seem to be a problem.

Each year, the refuge participates in a seminar on seabirds for tour boat operators. The operators are very cooperative and adhere to the rules of not disturbing the birds and other wildlife. They actually provide a substantial amount of additional information on these populations. If there was a biological problem, a limit on the number of tour boats could probably be imposed. However, it is very difficult to impose special regulations. There are some special regulations in the Swan Lake System of the Kenai Peninsula which prohibit landing airplanes on the lakes, but these types of regulations are not common.

management plans determine what the park will include as far as facilities, shelters, latrines, docks, and ranger stations. The planning process includes public comment and agency review. To stop further resource damage in Alaskan marine parks, several things can be done, such as building platforms for tents, and adding latrines and mooring buoys.

The governor has vetoed the budget for the marine parks operation; consequently, there will be no operation after August 30, 1991. This does not mean that management of the marine parks will stop, although there will not be a resident park ranger. Hopefully, in the next legislative session, there will be a push to get an operating budget for these parks.

There are no regulations prohibiting commercial vessels from anchoring within a marine park. However, any buoy anchored as a permanent structure in the park would need a permit. This type of activity may be prohibited if it becomes a problem in the future. Commercial fishing in a state park is specifically allowed.

Not enough information is available to determine if designations attract more people to an area. There has not been much advertisement about the marine parks. However, there has been a substantial amount of historical use in these areas. The marine parks have some of the better anchorages, and they are more of a draw than the actual park establishment.

Facility development is based on indications from users. A user survey was conducted this year to assess what facilities people wanted in the parks. The Alaska State Parks somewhat shifts its development plans to accommodate changes in user groups. By going through the management plan process, ideally, the information gathered during the development of a park can be used when establishing a park, rather than making changes afterward. There is not an overall philosophy to try to increase visitation in the parks. However, the Division of Land and Water Management is actually allowing floating lodges, refueling areas, and docks in appropriate areas.

Alaska State Parks is not required to allow aquaculture, but it can permit it. South Esther Island Marine Park has the world's largest fish hatchery within its boundary. As a result, there is specific language to accommodate the permitting of aquaculture operations within this state park, as long as development is compatible with park statutes. The actual definition of aquaculture is still being determined for state parks; however, it must be a public, nonprofit operation.

One of the most alarming situations about the oil spill, aside from the physical oiling of the resources, was that there was only a vague idea of what resources were at risk within the state parks. Although the purpose in managing the marine park system is to provide anchorages, the parks also have many vital resources that are basically unknown. This year, Alaska marine park personnel have gone through the marine parks around Valdez and near Whittier to assess the intertidal and terrestrial resources. These surveys will provide a basis from which to assess any future development.

state tidelands which are adjacent to proposed wilderness areas in the Chugach National Forest will be maintained. This is a large concern for upland managers that do not own the tidelands. There is a concern about what kind of mineral entries will be allowed, or leases that might take place within the tidelands. The Prince William Sound Area Plan recommended that the lands adjacent to the proposed wilderness areas be consistent with the recommendations for wilderness values. Under the plan, marine state parks control the waters and uplands that they own and can permit or restrict certain activities, such as commercial projects and construction of structures.

When the marine parks were created, the acreage was kept to a minimum, so the largest is only about 1,000 acres. Most of that is tideland rather than upland. Generally the upland portions of marine parks include lands within the scenic view from that anchorage. The intended purpose behind this strategy is that, since the land is withdrawn from public domain, mining or timber activities would not be allowed within that viewshed.

A legislative process is necessary to designate parks which exceed 640 acres. Areas that are critical to management and are less than 640 acres can be administratively created by an Interagency Land Management Assignment (ILMA). This has been done in many areas in the Alaska State Parks system through an application with the Division of Land and Water Management. These are not permanent conveyances, but are usually 99-year assignments with renewal options. This process can be accomplished within a year. It is ideal if the entire watershed is included in the designation.

Public participation in creating these parks is very important in both the affected communities near the area and in Anchorage, which has many of the potential users. Designation costs vary, and management costs, based on having a ranger for 8 months each year, are about \$30,000 annually.

To maintain resource values, resources need to be determined. Alaskan state marine parks are relatively new. The Alaskan State Park system was created in late 1960s and it was not until the late 1970s that the idea of a state marine park was developed. This is the first full year that the marine parks have been in operation. There is just one ranger, stationed in Whittier, who is responsible for all of Prince William Sound. There are seven marine parks near Whittier, and they are the most heavily used.

The ADNR develops a management plan for each marine park unit of the Alaskan state marine park system to determine the specific purposes and uses for each. During the preparation of the management plan, the commission consults with the ADFG; municipalities; private land owners; the U.S. Forest Service; organizations concerned with conservation, recreation, and tourism; and other interested parties. A management plan for each marine park unit established before June 14, 1990, will be completed by June 14, 1995 and those established after June 14, 1990, will have 5 years to complete their plans. The

area permit which is required for any land use activity in these areas. Field inspections are conducted year-round on those activities. Activities that are encouraged and do not require a special use permit include hunting, fishing, trapping, nonmotorized public access, hiking, skiing, camping, boating, and berry picking. Multiple uses which predate the creation of special use areas or that fulfill an important public need are permitted, as long as they can be conducted in a manner that is compatible with the purposes for which that particular area was established. Most of these areas have a purpose statement within their respective statutes. State-owned uplands, tidelands, and submerged lands are all eligible for designation. In addition, critical habitat areas can also include private lands.

Most of the special areas are coastal and include tidal and submerged lands, although this is not particularly by design. They are still state lands, but the ADFG oversees them through a direct permit authority (special area permit). The legislation that designates these areas includes a purpose statement which specifies that the areas are to be managed to maintain habitat, conserve the fish and wildlife resources, and manage those resources for public use. Special areas, unlike most state lands, have an additional protective mechanism in that criminal penalties can be assessed for violations of the special area permit regulations. Violations are Class A misdemeanors which carry fines of \$5,000 and/or a year in jail for an individual, or \$100,000 or three times the monetary gain expected from the action for a company. These fines are in addition to restitution costs. There are no fees for special area permits or for public use in these areas. The two exceptions are the public access permits required for McNeil River Sanctuary and Walrus Island Sanctuary.

When a special area includes private lands, the state does not have eminent domain, but does have authority to acquire land from willing sellers. No special areas permit authority exists over private land within refuges or sanctuaries, but private lands within critical habitat areas are subject to the permit requirements. Permit authority means that if someone wants to develop private land within a critical habitat area, that person would need a special areas permit, similar to the U.S. Army Corps 404 Permit to develop wetlands. The state does not encourage creation of a special area that has an irreconcilable conflict within it.

Special areas boundaries can and often do go beyond mean high water. However, the ADFG still regulates the fisheries harvest. Designation of a special area cannot change harvest regulations, but recommendations can be made to the boards of ADFG through the planning process.

There is a statutory requirement to annually propose additional critical habitat areas. This requirement is fulfilled by canvassing ADFG for ideas. There has not been any attempt to select sites to represent biogeographic regions in the state. Some people have suggested looking at what it takes to maintain major species. An attempt is being made to focus on selecting special areas of statewide, national, or international significance.

The state parks in Prince William Sound and outside of the Gulf of Alaska affected by the spill are Horseshoe Bay State Marine Park, Driftwood Bay State Marine Park, Kachemak Bay State Park, Kodiak State Park, and Caines Head State Recreation Area. Horseshoe Bay (Latouche Island) was the only marine park significantly impacted by the oil spill. Chicken Island, a small island just north of Horseshoe Bay in Latouche Passage, was the most impacted area of the park. That area is still being cleaned up. This park is located in a very remote area and gets very little visitation. It is not typical to advise recreational users about oiled beaches, although if people ask, they will be told. To date, the parks have not closed any areas due to oil on the beaches.

The state parks do not have specific user designations, such as kayak only areas. There are some areas where only a kayak could go, but there is no special designation. Within the planning process, zoning classification could prohibit certain activities, such as helicopter drop-offs, if a wilderness designation was appropriate.

Alyeska requested and obtained permission from the State Parks Division to set up permanent anchors in south Esther Island to protect the hatchery and to set up an oil containment boom. After getting the permit, Alyeska also requested to amend the permit to locate two large container cars on the shore, which would be visible from the marine park. These containers were eventually located in Whittier instead.

Park rangers that are in the field are commissioned-under the ADFG to enforce fish and game harvest regulations. They are not commissioned to enforce habitat violations, but can assist ADFG in those situations. State park rangers have three commissions under which they have enforcement authority: ADNR, Department of Public Safety (all are special officers with the Alaska State Troopers and can enforce all state regulations within state parks), and ADFG. Alaska State Parks manages the water, submerged lands, and tidelands. In Alaska, ADNR (which includes Alaska State Parks) is actually the land manager for the submerged lands.

**ALASKA STATE REFUGES, SANCTUARIES AND
CRITICAL HABITAT AREAS**

Debra Clausen, ADFG Habitat Division
(ADFG)

Alaska has state refuges, critical habitat areas, and sanctuaries that are collectively called special areas. These multiple-use state lands were established by the legislature for the protection of productive fish and wildlife habitats, the conservation of fish and wildlife populations, and public use and enjoyment of these resources. Special areas in Alaska have a history that is as old as the state itself; the first two special areas were established in 1960. There are now 30 areas encompassing approximately 3 million acres. Land management responsibilities are shared between ADFG and ADNR. In addition to the usual activities managed by ADNR, such as permits and leases, the ADFG Habitat Division issues a special

areas and never really see increases in its budget is that ADFG already reviews actions on state lands, and no additional staff hours are necessary. This allows the program to accept new areas and still operate at the same level of management.

ADFG does not budget for managing these areas on an area-by-area basis. The ADFG fish and wildlife biologists manage their respective resources on all state lands regardless of the land's status. The additional functions the special areas program provide are the development of a management plan and special areas permit authority. It costs about \$70,000 to develop a management plan. There is a public information program available which includes a brochure for each area and a statewide brochure, at an annual cost of about \$2,000 for each area. There is not a budget for signs.

There are three or four special areas for which oil and gas permit applications are common. Other typical permit applications are requests for roads, cabins, and camping for entire seasons. Many special areas are open for mineral entry, although, most do not have any mineral potential. Some areas are withdrawn from mineral entry. The Anchorage Coastal Wildlife Refuge is legislatively closed to mineral entry, but others have been closed administratively. Basically, the special area is as good as the legislation that creates it. Recent designations (since 1985) have more detail in their statutes. As an example, an area can be closed to oil and gas leases by the statutes. If the legislation is silent, then administrative authority can still be used. One advantage of the management plan process is that potential multiple uses are examined and certain activities can be regulated under the plan.

Timber harvest is allowed if it benefits the purposes for which the area was created. There are no prohibitions against habitat manipulation or enhancement, however, funding has not been provided for these types of actions.

There is one full-time habitat biologist in the program to coordinate policy development and to develop management plans statewide for all special areas. Each year, one management plan is completed through a public planning process. ADFG habitat biologists administer the necessary permits and conduct the field inspections. The reason legislators have established these areas is that it guarantees the lands will remain in public ownership and that they are managed for fish and wildlife habitat and for public use.

Special area designations seem to really make a difference. These areas get more attention in terms of public use management. For instance, trespass cabins, a big problem on state lands, have really been cleaned up on our refuge system. An inventory has been completed, and they have either been permitted or removed.

Recently, there are more and more local proposals, but these are often referred to the municipal programs. The Anchorage Coastal Wildlife Refuge statute says that municipal lands which are within the refuge boundary under a cooperative agreement can be managed as part of the refuge, so municipal agreements can be included.

When a bill to designate special areas is being considered for introduction into the legislature, the costs are usually presented to the sponsor of the area, along with an indication that it would be appropriate to have a fiscal note accompany the bill. Usually, it seems the bill continues on without the fiscal note, and the area gets established without any additional funding. In addition, funds are requested through the department process, but the funds are in competition with a wide variety of other items. Management of the areas are relatively low profile. The real strength of the program is that all the statutory and regulatory authority needed to administer and enforce the area is in place. However, the program does not have the authority to develop access, or build facilities in some of the more popular areas.

If there is no money to accompany the designation of an area, it would take at least five years to develop the management plan. The major cost of designating an area occurs when the management plan is being prepared, and that cost depends, in part, on how much permitting is needed. The permit process starts immediately after designation and is not dependent on completion of the management plan.

Getting an area designated requires sponsoring legislation in addition to strong local support. Good legislation is the basis for good management. Existing legislation provides the authority, but does not detail the specific needs of the newly created areas.

Once in the system, it would take a legislative action to remove a site from designation. This has not been done to date, but trades have taken place. Implementing a trade also takes a legislative action. The special areas program would not be in favor of acquiring lands that might have a different use in the future. There have been suggestions to include a sunset clause for some of these areas, but it does not seem appropriate to protect fish and wildlife for a short period. Once the time has been dedicated to developing a management plan, designation should provide long-term protection.

The statutes do not explicitly define the differences between refuges and sanctuaries; however, sanctuaries are generally smaller and more closely managed in terms of public access. Refuges tend to be less restrictive in terms of public access, however, permits are required for off-road vehicles. Critical habitat areas are typically managed for dependent fish or wildlife.

A significant difference between the management of special areas and other state lands is that ADFG has statutory authority over special areas, but only maintains an advisory role to ADNR for other state lands. Within special areas, ADFG has the authority to restrict uses which conflict with its fish and wildlife objectives. On other state lands, ADFG can only recommend actions to ADNR. The reason the program is able to include new

A list of questions posed by the RPWG and the discussion that followed is summarized below.

- Is protection of marine habitats necessary and desirable for restoration?

If the present low level of development and access pressure in the state continues, we need to determine whether areas really have to be protected through designation to encourage restoration. Designation would provide the mechanism and authority to enforce regulations and maintain the integrity of the ecosystem. It would also provide the impetus for authorities to cooperate to maintain the ecosystem. In some cases, those capabilities exist without the designation; however, designation would make cooperative efforts more likely.

- What do existing designations have to contribute to the restoration of individual resources or an ecosystem?

There is a need to define just how each protective designation of an area would assist the restoration process. For instance, protective designations mandate that particular resources within the area are of high priority and cannot be compromised by other uses. This establishes a precedence and eliminates the potential for other uses which might harm the health of these resources. Once properly defined, the protection designation would allow environmental quality of resources to be maintained, allow managers to take pressure off resources so they are not further degraded, and perhaps allow enhancement of resources without interference from competing users. The underlying premise is that it would allow resources time to restore themselves, without the possibility of further degradation to the population or the environment. Time is one of the main restorative tools.

Another important factor in the establishment of protected designation areas is the provision in the guidelines for long-term monitoring programs which are aimed at management-oriented issues. One of the main objectives in the Estuarine Research Reserve Program at Padilla Bay is long-term monitoring to answer the questions related to damage assessment and the determination of potential impacts of proposed changes to land or water use within the area.

- Is the existing management capability sufficient?
- If additional protection is desirable, should we expand existing management and use current designations?

Two things that need to be determined are (1) whether restoration activities can be implemented under the existing authority, and (2) whether the existing management authority provides protection of the restoration activity from similar types of problems in the future. If not, then the existing authority is probably not sufficient. An example would be

**RESTORATION AND THE ENVIRONMENTAL/
POLITICAL/USER CONTEXT**
Discussion

Our restoration approach must consider the needs and desires of a variety of interest groups. There are pros and cons to each type of designation which need to be addressed in terms of the effects on users.

It is evident that there are many commercial interests to consider in restoration planning, including the fishing, tourism, mining, and timber industries. There is a certain volatility because the economic interests rise and fall. There are also political boundaries of state, federal, and Native lands and the sensitivities that go with these. There are Native interests from the regional corporation level down to village corporations which include both profit and nonprofit corporations.

It seems that all of the protected areas that have been discussed have had very strong local and political support. Smaller state parks (up to 640 acres) could be established through the designation process with just a few signatures, but larger units typically take legislative or congressional action. Also, the consequences of poor support must be considered. Some kind of support is required, whether it be the local grassroots support that brings the legislators around, or something that the politicians and scientists can sell. There must be some compelling reason for creating the area. If someone asks the question, "what if we don't do it," and the answer is "there will not be much difference," then it is not likely to be successful. If the compelling reason is good science, but it is not necessarily a politically favorable action, it may also fail.

Another option is to expand an already existing refuge or sanctuary rather than creating another entirely new area. In the case of the Native lands in Kenai Fjords National Park, a purchase may be possible. A marine sanctuary in federal waters could theoretically be designated by the Secretary of Commerce in the face of public opposition, but is not likely to happen. Because there is so much public land in Alaska, it may be fairly easy to extend boundaries of jurisdiction, but it seems that the key is to include some of the water area when doing so.

DISCUSSION AND SYNTHESIS

A discussion and synthesis followed the workshop presentations. The views and ideas expressed below are not necessarily the opinion of the group as a whole, or of individual attendees of the workshop.

is needed to accomplish these tasks (e.g., public involvement, congressional assistance). Then, we will have to develop a strategy. If it is determined that the present designations are not sufficient to meet the goals of restoration, we must identify designations which would facilitate recovery of injured resources.

There is a need to evaluate how resources in designated areas are currently being managed. If the mandates of existing designated areas require the maintenance of existing resources, then, theoretically, restoration efforts would not be impacted by current management practices. It is essential to determine whether the restoration process can be accomplished under the existing management mandates of designated areas, or if something else is needed. If current mandates are insufficient, we need to determine if restoration goals can be achieved through modifying existing mandates, or developing new protection designations. We also need to determine if the state or federal governments would support the implementation of new mandates or designations.

- How do different designations interact with each other and with other management capabilities and needs?

Implementation of a designation status would put a clear emphasis and focus on habitat restoration in those areas. This would provide a basis for getting a mixture of planning and research through various means. Very often, especially in the case of marine sanctuaries and estuarine reserves, the planning process provides a vehicle for multi-agency coordination and communication. It aids in understanding other agencies' rules and regulations, and how they apply.

- Should we create new designations?

Perhaps an entirely new designation is in order, such as an ecosystem reserve, to take ecological interactions into account. A joint designation of an estuarine reserve and a sanctuary could be designed to have an integration of the regulations and management programs. It might also be desirable to couple a federal designation with one of the state designations to provide some underlying management authority.

There would also be internal political usefulness to the development of a designated status for habitats targeted for restoration. Agencies investing large sums of money in restoration may feel that some kind of direction in managing it is needed, such as that provided by official designation.

The public wants to see impacted areas returned to the way they were. However, they do not want to be restricted from these areas. One advantage of creating new kinds of designations would be that the designations could be designed to deal with the issues specific to this incident, while not necessarily carrying nonapplicable restrictions which might come with an already existing program. A precedent may have been set in the case of the recent fire in Yellowstone National Park.

the decline of the abalone in the Channel Islands. In this case, the managers have the authority to document the decline, but do not have the authority to do anything about it, and neither does the sanctuary. In situations like this, each of the agencies involved must agree that restoration is necessary and be willing to take whatever action is needed to protect the resource.

Within the State of Alaska, the ADEC classifies waters by various uses. There are seven different use categories for freshwater criteria and an additional seven categories for marine criteria. For marine waters, these categories include water used for aquaculture; fish processing; industry; contact recreation; secondary recreation; growth and propagation of fish, shellfish, aquatic life, and wildlife; and harvesting for consumption of raw mollusks or other aquatic life. Different levels of protection are applied depending on the classification of the water. Currently, most of the Alaskan state waters are classified under categories which provide for less stringent protection. However, waters can be reclassified through the public hearing process to provide more stringent protection. Enforcement of these criteria is by the ADEC; however, the state must provide sufficient evidence to prove that criteria would be violated to deny the proposed use.

In contrast, within a marine sanctuary, the burden of proof that an action is not going to harm the resource is on the user, not the sanctuary. This is statutory authority from Title III. Similarly, under the Clean Water Act, if a user wants to exceed the standards for a water body as it is classified, that user must prove that the desired action, such as a discharge, will not degrade the environment.

Several years ago, NOAA proposed a number of sites for future consideration as national marine sanctuaries. It may be possible for NOAA to resurrect that proposal now, given the current need for protecting areas in Alaska. A site would still have to meet the basic test in Title III, that being does the site possess natural resource or human use values of special national significance. If yes, the site could be put on the SEL and considered further.

Once it is determined that protection is a necessary element of the restoration process, we need to identify the types of things which would be needed to provide further protection. Several determinations will need to be made:

- 1) determine that a resource was injured as a result of the spill,
- 2) determine that there is a continued threat to these resources, and
- 3) determine that current management systems do not provide sufficient protection and that the resources are likely to degrade further or fail to recover from spill injuries.

Once these factors are established, we have to determine what is needed to implement an adequate protection program. We need to identify the political process which

framework for identifying and categorizing sensitive habitats in Prince William Sound. It would be prudent to expand these surveys to other areas in the Sound to identify all of the sensitive areas. This would provide a basis from which to consider areas for protective designation.

The ESI surveys we conducted did not include political, public, or cultural attributes. There should be matrixing of these issues, along with ecological sensitivity, to provide guidance on the use or level of protection of designations. At the very least, it would provide a vehicle for documenting the special attributes of areas within the Sound. This would not only serve to identify potential areas for protection now, but it could also be used as a basis for restoration of habitats from future impacts.

FINAL INSIGHTS/COMMENTS FROM GUESTS

A listing of advantages of establishing protected area designations for restoration was developed by the workshop participants and is included as Appendix C.

Miles Croom (NOAA). National marine sanctuaries are designed to coordinate existing authorities, identify gaps in regulatory management structures, and enhance ecosystem protection. They play a valuable role from that standpoint.

Jack Sinclair (ASP). I have two points to make: one dealing with state marine parks and the other with state lands which border critical federal lands or wilderness areas. The state marine parks were set up to maintain natural, cultural, and scenic values; maintain fish and wildlife resources; and facilitate recreation and tourism. But without some sort of scientific knowledge of our resources, we are just laypeople overseeing a wonderful resource. Unless we somehow designate the water body that is within the marine park as having special qualities that would coincide with a state refuge, sanctuary, or critical habitat, we are just waiting for the next incident to find out what really happened. Right now, there is no incentive to study these areas, unless we can get some university to study them. The lack of research in the marine areas leaves a big hole in our management capabilities.

My other point is related to land designations for species protection, such as sea otters. I can think of one or two areas which might be suitable for that type of program. One example is the northwestern lagoon of Kenai Fjords, which is prime habitat for otters. This site would fit the needs of a state sanctuary designation. There are options available which we could realistically consider right now. I am not-trying to go against the grain of the Prince William Sound Area Plan, but that document was completed before the spill. We look at things a little bit differently now.

Anne Castellina (NPS). As a Park Service Manager, I do not have enough management discretion to protect the park. What is needed is some sort of cooperative management agreement with the state, designating adjacent offshore areas, or joint

In creating a new designation, you could create a new authority or could borrow concepts from existing ones. In the case of the proposed Alaska Coastal Biological Reserve bill (considered in the state legislature in 1990), the public perception was that it was something new, but in fact it was borrowed from an existing authority. A sunset clause could also be included, for example, in the year 2130 an area reverts back to the same status it was at the time of the spill. It is up to Alaska to decide if it wants sunset legislation.

We have to ask whether we should be taking areas which were damaged by the oil spill and protect them while they are recovering by setting up a reserve, or should we take an area that was not damaged and protect it while it is still in good condition. Both approaches are valid. Protecting an existing healthy habitat is the equivalent resource approach, whereas protecting the injured resource is a more direct restoration approach. In reality, almost any area we were to protect in Prince William Sound, unless it were a very small discrete unit, would most likely encompass both healthy and damaged areas.

- How should choices be analyzed and recommendations be made?

We need to consider the protection of habitats to maintain their present capacity to support life and to enable the recovery of an injured resource as part of the restoration process. In other words, restoration should not only include efforts that directly enhance populations, but should also function to maintain habitats so populations can recover on their own. The goal of the restoration efforts is to restore injured resources. The NRDA regulations state that a habitat can be restored to the baseline of where the ecosystem would have been had there not been an oil spill.

A firm rationale for protection of habitats as a means of restoration must be established if it is to be successful. It must be determined if protection of habitats is necessary, and also, if protection in itself is sufficient to attain restoration goals. The feasibility of other options must also be examined.

In designing designation strategies, the ecosystem as a whole should be taken into consideration. The current designation mandates, in most cases, do not include the marine environment. There is no unification of regulations which adequately cover the entirety of the coastal ecosystem in areas we want to protect. We might want to think about the inclusion of the marine environment under proposed designation programs. A few states have initiated ocean management planning.

During the EVOS, the Environmental Sensitivities Index (ESI) was used extensively to identify ecologically-sensitive coastal habitats in the path of the spill. Because many of these areas were already mapped, we were able to characterize them prior to the spill, or in some cases immediately afterward. We learned that this technique provided the

Ed Ueber (NOAA). Perhaps the confidentiality is hurting the case, because the public is uninformed of the magnitude and persistence of the impacts from the spill, and they could get the impression that restoration is not needed. Maybe there should be some sort of change in departmental policy to better inform the public and gain their support.

Stan Senner (ADFG). I do not think that is possible at this point.

Terence Stevens (WDOE). Has anyone taken the goals and objectives of the restoration effort and evaluated the salient points within any of the designation classifications to determine what realistic opportunities exist?

Stan Senner. We will be doing those types of analyses after this workshop. We wanted to get input from this group first.

management with USFWS. It does not really matter who actually owns or manages the area, as long as it is managed as an ecosystem. We, as managers, need to start working on restoration programs ourselves and not wait for the settlement. We have to get on with management now and hope that money is available later.

Ed Ueber (NOAA). The important thing to do is to communicate with other agencies and gain social and political support for the types of designations we would like to establish. Efforts will likely fail without this support. We need to tailor regulations specifically for the needs of proposed designations (e.g., protection, authorized activities). Any designation proposed can be made to fit into the act.

Debra Clausen (ADFG). Whatever proposal is finally drafted will need to be compelling, or it will not sell. People want to feel that the area is being restored to what it was before the spill.

Terence Stevens (WDOE). Getting people to buy into this type of restoration program is really important. They need to feel a part of the process. We also need to look at the whole ecosystem and not just those portions that tourists see. Things like cooperative management, including adjoining areas, or joining various governmental program designations may be helpful to our overall objective of complete restoration.

C. Mack Shaver (NPS). No single designation will do all of the things that are necessary to fully restore and protect ecosystems within Prince William Sound. No matter what set of designations are ultimately selected, it is imperative that the public and agencies involved are committed to the same goals, which are the protection and restoration of the ecosystem.

John Martin (AMNWR). We need strong public involvement and support in these efforts. We can not leave the people feeling like they have had no input into the process. Without their support, our efforts will fail.

Stan Senner (ADFG). To date, significant public participation in the restoration planning process has been lacking. The work group has made substantial efforts to inform and involve the public through the restoration symposium and numerous public meetings in the smaller communities. However, the veil of litigation has dampened public participation opportunities. Once the court cases are settled, public participation will be further encouraged. We really need public participation and support during the designation process. The RWPG is looking forward to the time when the public can be brought back into the restoration planning process. Unfortunately, because of the pending court cases, we have to be confidential in our preliminary restoration planning. We hope that once funds are released, there will be enough flexibility in the ways the funds can be spent that we can enjoy the full participation of the public in designing the final restoration plans.

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ACE 30000710

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ACE 30000713

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ACE 30000715

Appendix C. Advantages of Establishing a Protected Area

ACE 30000716

ADVANTAGES OF ESTABLISHING A PROTECTED AREA

- Defines and documents purpose and attributes.
- Provides emphasis and focus.
- Targets special values.
- Vehicle for multi-agency communication, planning, and coordination.
- Vehicle to take actions which might not otherwise happen under existing laws.
- Shifts burden of proof to the user (proof that actions will not hurt the resources).
- Enhances long-term research and monitoring.
- Guides research beneficial to resource.
- Gives authority to implement restoration and provide long-term protection.

