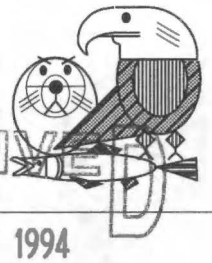
Exxon Valdez Oil Spill Trustee Council

Restoration Update

December 1993 Volume 1 Number 1



Trustees Pursue Comprehensive Approach

The Exxon Valdez Oil Spill Trustee Council moved forward with a comprehensive approach to restoration and recovery of the resources injured by the 1989 spill at their November 30 meeting.

"The Trustees' actions will provide a balanced approach to restoration of the Alaskan ecosystem injured by the oil spill," said newly-appointed Executive Director Jim Ayers.

The Trustee Council sanctioned projects ranging from Kodiak to Prince William Sound. They approved a *Draft Restoration Plan* which will guide all future restoration actions, adopted a mission statement to help focus future Trustee actions, and released the list of proposed 1994 projects for public review.

The *Draft Restoration Plan*, which still must comply with the National Environmental Protection Act process, will be used to guide annual decisions on how to spend the bulk of the civil settlement monies.

The plan outlines an ecosystem approach which includes general restoration, monitoring and research, and habitat protection. The deadline for public comment on the plan is January 14, 1994.

The *Draft 1994 Work Plan* includes a number of general restoration projects proposed for the coming year, such as a project for restoration of sockeye salmon in Prince William Sound to replace salmon lost as a result of the oil spill, work to remove oil from mussel beds, and treatment of oiled beaches near the village of Chenega.

"I'm confident that the Trustees' direction will result in wise use of the settlement funds to understand and restore the injured ecosystem in the spill area," said Jim Ayers, Executive Director.

Monitoring and research projects under consideration include the development of a marine research institute that would enable better monitoring and restoration of resources damaged by the spill.

Other research projects under consideration include fisheries projects to determine the causes of recent drops in pink salmon and herring populations in Prince William Sound and sockeye on the Kenai Peninsula, and projects to assess the condition of various indicator species such as marine mammals and seabirds.

Action planned on habitat protection includes evaluation and ranking of additional parcels of land for their importance to species injured by the spill. The Trustees also directed Ayers to initiate discussions and preliminary negotiations with the owners of seventeen parcels which were already highly ranked.

"It's been two years of long hard work to get the restoration to this point," said Ayers. "I'm confident that the Trustees' direction will result in wise use of the settlement funds to understand and restore the injured eocsystem in the spill area."

Restoration Update

This is the first edition of a newsletter we sincerely hope will keep you—the interested public—informed about actions, policies and plans of the Exxon Valdez Oil Spill Trustee Council.

Publication of the Restoration Update will depend, in part, on events but will hopefully occur at least six times a year. Please drop us a note or call and let us know what you think:

Jim Ayers or Molly McCammon
Trustee Council Restoration Office
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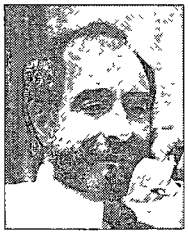
In Anchorage, call 278-8012
In Alaska, call toll-free at
1-800-478-7745
Outside Alaska, call toll-free at
1-800-283-7745.



Introducing Jim Ayers

The Trustees have established a clear direction based on a comprehensive ecosystem approach to assure the most effective restoration program possible. This approach is critical to the long-term health and recovery of the damaged resources and services.

I believe a responsible, efficient management structure and strategy is key to our success. To that end we must establish measurable objectives based on our mission. The Trustees have directed me to improve and expand our communication and involvement of the public, with emphasis on the Public Advisory Group and the impacted communities.

I have begun a reorganization of the staff at the direction of the Trustees and will have a new structure in place by February 1. Molly McCammon has been hired as the Director of Operations and will focus on day-to-day operations in the Anchorage office, including project oversight.

We will soon appoint a Director of Administration to focus on Council finances, provide quarterly reports and audits, and develop an annual report.

The public's goals of protecting habitat, improving our understanding of the resources through monitoring and research, and conducting general restoration work to provide for the long-term health and recovery of the ecosystem are achievable. By working together with the Trustees in positive, constructive ways we can attain worthwhile goals and accomplish the mission.

I feel privileged to be selected for this tremendous job and am excited about the opportunity to work with all of you in moving forward the efforts of the Trustee Council.

Jim Ayers was hired as Executive Director November 23, 1993 He has nearly 20 years of experience in private enterprise and public administration, most recently as Director of the Alaska Marine Highway System and Deputy Commissioner of the Alaska Department of Fish and Game.

Restoration Plan Outlines Policies

The Draft Restoration Plan incorporates nine general policies that address issues raised during public discussions:

- the restoration program will take an ecosystem approach;
- restoration activities may be considered for any injured resource or the service it provides;
- most restoration activities will occur within the spill area; a few may occur elsewhere in Alaska,
- activities will emphasize resources and services that have not recovered from injuries sustained as a result of the 1989 spill;
- activities must have a relationship to an injured resource, benefit the same user group that was injured and should be compatible with the character and public uses of the area;
- competitive proposals will be encouraged;
- restoration projects will be subject to independent scientific review,
- meaningful public participation will continue to be actively solicited; and
- government agencies involved will be funded only for restoration work not normally conducted.

Copies of the Restoration Plan are available at the Oil Spill Public Information Center.

Trustees Adopt Mission Statement

With the goal of clarifying and focusing Trustee Council activities, the Trustees adopted a mission statement on November 30.

"This statement is intended to be a very simple summary of what it is we're all about," Executive Director Jim Ayers said. "We should be able to measure every proposed action against this statement and see if it fits before going any further. It will serve as an additional measuring stick, supplementing the Restoration Plan."

Stating that neither the Draft Restoration Plan nor the mission statement are cast in stone, Ayers said new information might require that both be revised to meet new challenges.

Mission Statement of the Exxon Valdez Trustee Council

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

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

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

Habitat Protection Part of Ecosystem Approach

Comprehensive Habitat Protection Document Released

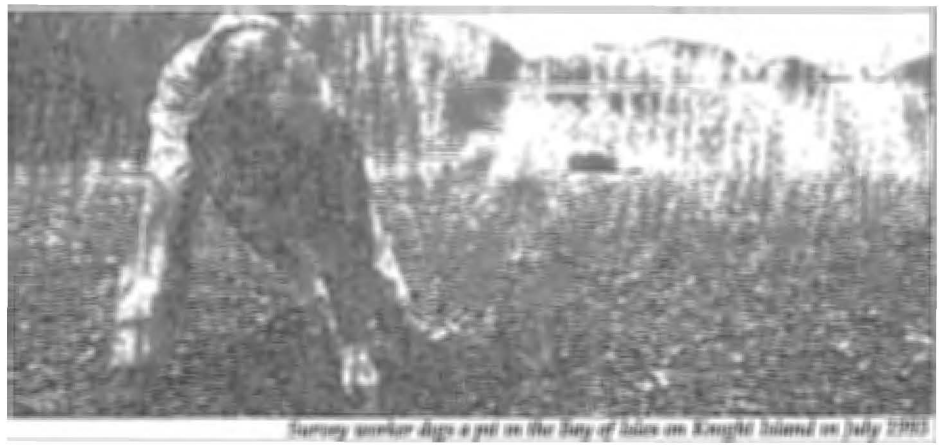
Another step in the process to protect some of the habitat important to species injured by the spill was completed when the Trustees reviewed the *Comprehensive Habitat Protection Process: Large Parcel Evaluation & Ranking* at their November 30 meeting.

As part of this process, Trustee staff contacted ninety landowners in the spill area, then evaluated and ranked eighty-one identified land parcels of one thousand acres or more for their importance to resources injured by the spill. The parcels were distributed throughout the spill region.

Each parcel had to meet certain threshold criteria in order to be considered. These included a seller, of either the parcel or certain property rights, who was willing to sell at or below fair market value, and clear linkage of the candidate lands to injuries to resources or services sustained from the *Exxon Valdez* oil spill.

There also had to be evidence that injured resources would benefit from protection of the parcel; and some reasonable way to incorporate the lands into an already-existing public land management system.

The Trustees directed Executive Director Jim Ayers to initiate discussions with the owners of seventeen parcels which received the highest rankings. The lands are located in Prince William Sound, on the Kenai Peninsula and in the Kodiak region. Ayers and staff are now assessing the need for a similar analysis of smaller parcels.



Survey worker digs a pit in the Bay of Isles on Knight Island in July 1993

Shoreline Survey Finds Oil Is Decreasing

Project Leader Ernie Piper and coastal geologist Dr. Jim Gibeaut reported at the November 30 Trustee Council meeting that they found a substantial decrease in subsurface oil in the spill region during the 1993 shoreline survey.

Gibeaut noted that the rate of decrease is slowing, however, and speculated that it may take another four years to see the amount of improvement observed between 1991 and 1993.

They also noted that overall oiling is markedly reduced, and that the effects of cleanup work are becoming more apparent over time, as indicated by reductions in oil remaining at sites which were cleaned more aggressively.

However, Piper said, surveyors found some oil residue—either surface or subsurface—at every one of the 59 study sites the team visited in Prince William Sound and the Kenai region.

A shoreline survey to continue to track changes in oiling conditions is being considered for next summer.

Workshop Evaluates Ecosystem Approach

Fishermen, scientists and citizens of Prince William Sound met in Cordova the first week in December to discuss an ecosystem approach to restoration of the resources injured by the Exxon Valdez oil spill.

The Trustee Council sponsored the Cordova workshop to help define the process and consolidate resources and information already available for Prince William Sound.

"We are engaged here to unite in our efforts," Executive Director Jim Ayers said at the opening of the workshop. "Managing restoration from an ecosystem perspective makes good scientific sense, and the products developed here will assist in the process of looking at the Sound and designing a comprehensive approach."

More than fifty researchers, including twelve internationally-recognized specialists in marine ecology and other relevant fields, discussed the Sound Ecosystem Assessment or "SEA" plan, during the December 4-6 workshop.

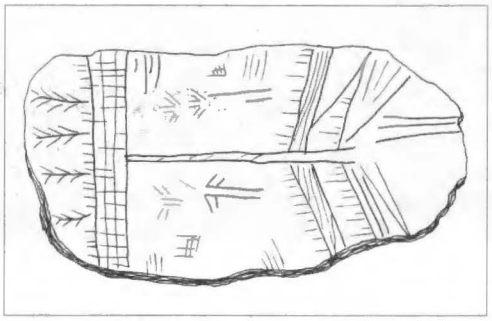
The plan was a first look at how an ecosystem approach to study of damaged resources in the sound might be structured, and was developed by fisheries specialists and scientists from Cordova who participated in the Prince William Sound Fisheries Ecosystem Research Planning Group.

Please see Page 4

Kodiak Cultural Artifacts Protected

The Trustee Council approved funding for an Alutiiq Archaeological Repository in Kodiak at its November 30 meeting.

The repository will protect and preserve artifacts from archaeological sites injured by the oil spill and cleanup work.



Incised slate tablet, about 7"x 3," similar to one found during Exxon Valdez cleanup work.

The Trustees agreed to provide $1.5 million to construct the facility, and the Kodiak Area Native Association pledged to provide staffing and upkeep.

"This action on the part of the Trustee Council will help to enhance and preserve the cultural richness of the Alutiiq people in the spill region," said Jerome Selby, Kodiak Island Borough Mayor. "We welcome and appreciate this support from the Trustees."

Construction of the facility will begin in 1994, Mayor Selby said.

Documents Available

Contact the Oil Spill Public Information Center for a copy of:

- *Draft 1994 Work Plan*
- *Comprehensive Habitat Protection Process: Large Parcel Evaluation & Ranking*
- *Draft Restoration Plan*

For more information or copies of other Trustee Council documents, contact the Oil Spill Public Information Center at 645 G Street, Anchorage, AK 99501, or call 907/278-8008, toll free in Alaska at 1-800-478-7745, or from outside Alaska at 1-800-283-7745.

Ecosystem Workshop

Continued frm page 3

The scientists commended the Cordova group for the quality of the SEA plan, and made suggestions to both broaden the scope and sharpen the focus of the study. They also underscored the importance of understanding toxic effects of remaining oil as one source of stress in the system, and endorsed the comprehensive approach as the basis for restoration.

The scientists recommended selection of certain key species as indicators to reflect the ecosystem as a whole. Species proposed included pink salmon, Pacific herring, harbor seals, black-legged kittiwakes, sea otters and harlequin ducks.

Comments will be synthesized into recommendations by the ecosystem study steering committee for presentation to the Trustee Council later in 1994.

For a copy of the SEA plan or additional information about the ecosystem workshop, contact the Prince William Sound Science Center at 907/424-5800.

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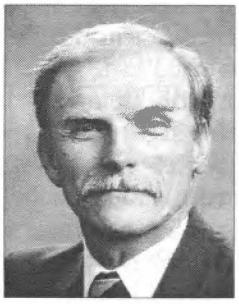
Exxon Valdez Oil Spill Trustee Council

Restoration Update

March 1994 Volume 1 Number 2

A Trustee Reflects on the Anniversary of the Spill

By Steve Pennoyer
NMFS Alaska Director



I was attending a series of meetings in Seattle in March of 1989 when I learned that the tanker *Exxon Valdez* had run aground and a major oil spill was occuring in Prince William Sound. The enormity of the event took a while to sink in. I had only been Alaska Director of the National Marine Fisheries Service for three months and had no idea that the oil spill would become almost a career of its own.

Five years later I can report parts of the spill area are on their way to recovery, but many injuries persist. We now know certain effects of the spill will continue for some time.

I know that some members of the public believe the Trustee Council has been moving too slowly in making decisions. Others disagree with our approach thus far to spending the settlement money. However, each of the six Trustees, although we may have differing viewpoints, take our agency trustee responsibilities very seriously. We make our decisions carefully, keeping long–term consequences in mind.

Trustee activities are now entering a new phase. With litigation behind us, the major focus is now on restoration. Restoration actually consists of a menu of strategies. The Trustees have settled on a comprehensive approach which includes direct restoration projects, research and monitoring, and habitat protection.

All three are essential elements of the plan that is embodied in the Draft Restoration Plan, now under review through the Environmental Impact Statement process. That plan purposefully does not prescribe a fixed allocation for each element. We as Trustees must exercise our best judgment, taking into account the advice of the public, to develop the proper proportions to ensure recovery.

Direct restoration projects are probably the most difficult to design. However, the Trustees will continue to support direct restoration projects that are found to be cost–effective in aiding recovery of injured species.

Much of the early research and monitoring focused on individual species. Now we are in the next stage: reviewing and synthesizing previous data and obtaining new information with the goal of understanding the underlying environmental factors which influence survival and reproduction of the bird, mammal and fish resources, all placed within the context of the *entire* marine ecosystem.

In 1994, ecosystem-based investigations will begin for the first time, starting in Prince William Sound. This is an exciting development from my perspective because, rather than simply measuring the *rate* of recovery, our research will help explain *why* some resources are or are not recovering. The residents of Cordova who worked on this project are

Continued on Page 4

Exxon Valdez Oil Spill Forum

Five Years Later: What have we learned?

The *Exxon Valdez* Oil Spill Trustee Council is sponsoring a free, public, half-day forum to update the public on the recovery of natural resources injured by the March 24, 1989 *Exxon Valdez* oil spill. The forum will take place on March 22, 1994, from 1:00 to 5:00 PM at the Regal Alaskan Hotel in Anchorage.

Scientists who have been studying the effects of the spill will present brief overviews on subjects ranging from the current status of birds, fish, marine mammals, subsistence resources, archaeological sites, the nearshore ecosystem and other related subjects.

Maps, photos, and other updated information about restoration of the *Exxon Valdez* oil spill will be on display. A *1994 Status Report* has been prepared and will be available at the forum, as well as other materials.

For more information, contact the Oil Spill Public Information Center, 645 G St., Anchorage, Alaska 99501 or call 907/278-8008, toll free within Alaska at 800/478-7745, outside Alaska at 800/283-7745

Restoration Plan: Update

Trustee Council staff are coordinating three major efforts related to the Draft Restoration Plan, which was released by the Trustees for public review on November 30, 1993. When final, the plan will be used to guide Trustee Council decision–making . . . regarding restoration activities for the remainder of the Council's existence.

EIS Process

The first effort involves writing the Environmental Impact Statement (EIS) for the Draft Restoration Plan. The Draft EIS will be available for public review in mid–June, and will examine the cumulative environmental impacts of the Restoration Plan. This is a programmatic, rather than a project-specific, EIS. The final EIS is expected to be completed by October 31 of this year.

Management Structure

With the concurrence of the Trustee Council, Executive Director Jim Ayers has embarked on the development of a management structure to implement the Draft Restoration Plan.

This involves organizing the Restoration Plan into clearly stated goals, objectives and strategies, in order to clarify the relationship between specific Trustee Council actions on projects and the overall restoration mission. The Draft Implementation Management Structure will be published as an appendix to the Restoration Plan, and will be subject to formal public comment through the EIS review process.

The Implementation Management Structure is being developed with the active involvement of public representatives, scientists, agency members, and representatives from communities in the spill area. A draft is expected for release in mid–May.

FY95 Work Plan

Council staff are also developing a process and timeline for the FY95 Work Plan. This will be covered in more detail in a later issue of this newsletter, but will include a greater emphasis on competitive proposals, and is geared towards Trustee Council action after the final Restoration Plan is adopted in late October.

Habitat Protection Process Moving Forward

On January 31 the Trustee Council approved a resolution to proceed with a habitat protection program for those large parcels (1,000 acres or more) previously identified as having high value to aiding the recovery of species injured by the spill. The executive director and agency staff are working on several related tasks as necessary parts of this process. These include:

- Developing a standardized appraisal process to be used to appraise the large land parcels approved for possible acquisition or other protection strategies. A final draft of the acquisition specifications is still under review.
- Working with willing sellers of the high value large parcels to identify proposed terms and conditions for habitat protection.
- Developing a recommended list of large parcels to be protected. This list includes analysis of (1) the degree of benefit which would be afforded injured resources and services if the parcel was protected from further development; (2) the balance of protection afforded throughout the spill area; (3) the cost associated with protecting the habitat; (4) the adequacy of the protection being proposed; and (5) the funds required to carry out the proposed restoration activities.

This effort is well underway and should be completed sometime this summer. A process for soliciting and analyzing small parcels is still under review.

Restoration Update

The *Restoration Update* is published approximately six times a year by the *Exxon Valdez* Oil Spill Trustee Council. Its purpose is to update interested members of the public about actions, policies and plans of the Trustee Council to restore resources and related services injured by the *Exxon Valdez* oil spill.

For more information, address correction or to request future articles on specific subjects, contact:

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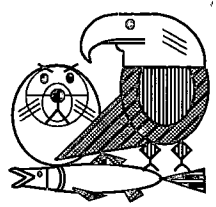


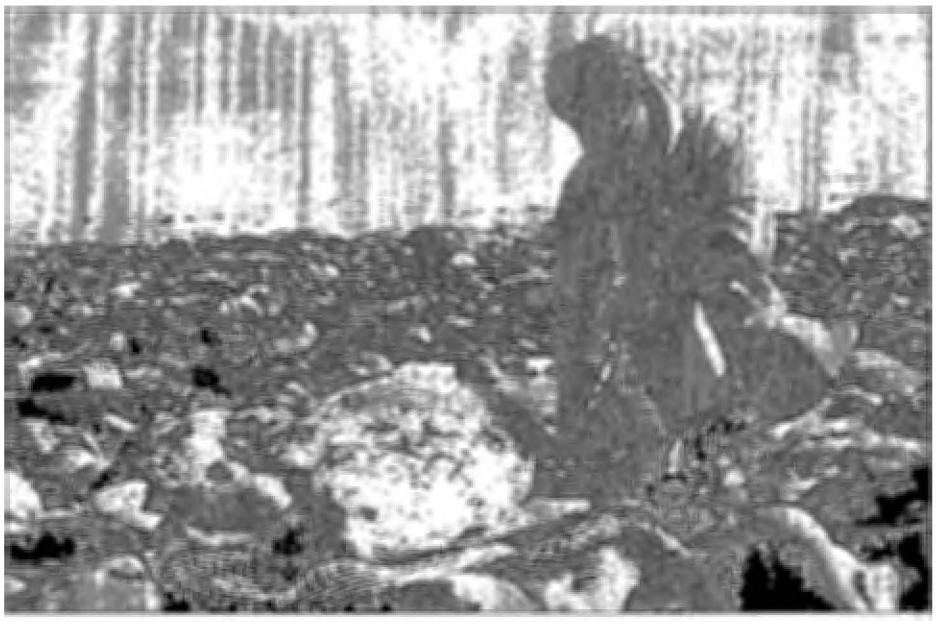
Work Plan Approved by Trustee Council

1994 Program Targets Research On Fisheries

The *Exxon Valdez* Oil Spill Trustee Council on January 31 approved a 1994 work plan which included funding for $14.6 million in restoration projects. A major focus of the 1994 program is on research to better understand the marine ecosystem injured by the 1989 oil spill.

"With this work plan, the Trustee Council is taking a comprehensive, balanced approach to restoration in the regions affected by the oil spill," Executive Director James R. Ayers said. "The Trustees' approach focuses on three components: (1) general restoration, (2) research and monitoring, and, (3) habitat protection. Each of these components is essential to the entire restoration process."

The Trustees approved nearly $10 million in projects for study of injured fisheries and the marine ecosystem in the spill region and restoration of fisheries resources affected by the spill. This funding included a research project proposed by a group of Cordova scientists, fishermen and residents to better understand fisheries impacts and to further knowledge of aspects of the marine ecosystem which may be out of balance due to the spill. Other projects approved by the Trustees will address Kenai River sockeye salmon overescapement problems and restoration of salmon resources in other areas of the oil spill-affected region, including the Kenai.



Brian Fadely of the Alaska Department of Fish and Game uses ultra sound equipment to assess the condition of a harbor seal prior to its return to Prince William Sound. The satellite-linked transmitter glued to its back in the spring of 1993 provided valuable information about the seal's movements throughout the summer and harmlessly fell off during its autumn molt. Approval was given to continue this study of harbor seals in 1994 by the Trustees at their January meeting. Photo by Lloyd Lowry, ADF&G

The Trustees also approved a number of management and administrative efficiency changes proposed by the Executive Director. These include changes in the administrative structure to reduce costs by over 20% in fiscal year 1994, taking steps to involve the public at a greater level in project planning and implementation, and increased fiscal oversight and reporting to the public.

The $14.6 million authorized on January 31 for the 1994 work plan is in addition to approximately $5 million already approved in November 1993 for time-critical projects for a total of about $20 million.

Long-Term Restoration Reserve Established

The Trustees at the January 31 meeting approved setting aside $12 million for a Restoration Reserve account.

These funds will be used by the Trustees to sustain restoration and research activities beyond the 2001 date when payments from Exxon will end. The Reserve concept has received a tremendous amount of support from citizens across the state, said Executive Director Jim Ayers.

Arliss Sturgulewski, a former state senator from Anchorage, has been one strong proponent of establishing such a reserve for the future.

"This is an issue I've worked on with the Trustee Council for over two years. I think it's very important that we leave a legacy for research that continues beyond the life of the settlement," Senator Sturgulewski said.

Trustees Approve Improvements to Institute of Marine Science

Anchorage – At the January 31 meeting the Trustee Council approved, in concept, financial support for infrastructure improvements at the Institute of Marine Science, or IMS, in Seward. The project would enhance the capabilities of the Trustee Council to carry out long-term research and monitoring in the area affected by the *Exxon Valdez* oil spill, particularly for restoring injured birds, marine mammals, and the northern Gulf of Alaska ecosystem.

Proposed improvements to the IMS facility would be located adjacent to the existing campus of the University of Alaska's Seward Marine Center. These improvements include laboratories, offices, a library, and support systems for the study and rehabilitation of marine mammals, marine birds, and other marine life as well as outdoor research areas and habitat for marine mammals and birds. A submersible research and support vessel would also be based at the facility, as well as public education facilities.

Overall, the total project capital budget as proposed would be approximately $47 million, of which $12.5 million from state criminal restitution funds has already been obtained. An additional $25 million is being sought from *Exxon Valdez* oil spill-related funds. Funding for the public education and visitation components of the project will come from other sources. Revenue generated from public education and visitation would be used to defray operational costs of the research facility.

A Draft Environmental Impact Statement is being prepared for the project by the Department of the Interior. Scoping meetings are being held in Seward on March 22 and Anchorage on March 24; public comments are requested by April 11. The Draft EIS should be available for public comment by late June, 1994.

Comments or questions about meetings, scoping or the EIS process, or requests to be added to the mailing list should be directed to Nancy Swanton, EIS Project Manager for the Proposed Infrastructure Improvements to the IMS, 949 East 36th Avenue, Room 603, Anchorage, AK 99508-4302. You may call Ms. Swanton at 907/271-6622 (fax 907/271-6507) or Mr. Kim Sundberg, Project Coordinator, at 907/267-2334 (fax 907/349-1723) at any time during the planning process.

Documents Available

For more information or copies of Trustee Council documents, contact the Oil Spill Public Information Center at 645 G St., Anchorage 99501, or by calling 907/278-8008, toll free within Alaska at 1-800-478-7745, or toll free from outside Alaska at 1-800-283-7745.

Pennoyer from Page 1

to be especially commended for their contributions to this effort.

The Trustee Council is also moving ahead with habitat protection. Last year the Trustees purchased inholdings in Kachemak Bay State Park lands and on Afognak Island in order to protect habitat critical to species injured by the spill. Agency staff are pursuing protection of other high value land parcels in Prince William Sound, the Kenai Peninsula, and the Kodiak/Afognak Archipelago, as well as putting in place a process for considering smaller parcels of important habitat for protection.

In addition, the Trustees have set aside $12 million into a reserve account for future research and monitoring activities because of growing evidence that injuries to some species will persist into the next century.

When I reflect on all that has happened since the spill, I wonder what long-term benefits will be gained from this massive effort. We want the northern Gulf of Alaska ecosystem to be healthy and productive so that the region's people and wildlife can thrive in a pristine environment. To help realize this goal the Trustee Council will continue to take positive actions to restore, protect and monitor natural resources injured by the spill.

But the Trustee Council members also have a responsibility for the environment beyond the spill area. We must leave a legacy to help people be better prepared to tackle future environmental disasters. The *Exxon Valdez* oil spill has provided lessons about preventing, preparing for, and responding to oil spills, and continues to teach us about restoring the environment in the unfortuante event that a spill does occur. I hope what we learn here will benefit people far beyond Prince William Sound and Alaska who may someday also face the problems we confronted on March 24, 1989.

Steve Pennoyer is a federal member of the Trustee Council and Alaska Regional Director of the National Marine Fisheries Service, a division of the National Oceanic and Atmospheric Administration.

Exxon Valdez Oil Spill Trustee Council

Restoration Update

May 1994 Volume 1 Number 3

An Invitation to Submit 1995 Restoration Projects

New document outlines process

The *Exxon Valdez* Oil Spill Trustee Council funds activities each year to restore resources and services injured by the 1989 *Exxon Valdez* Oil Spill. Trustee Council staff have prepared a packet of guidelines for submitting projects for use of the Restoration Fund during the next fiscal year (October 1994 through September 1995) which conform to the Trustee's ecosystem-based, balanced approach to restoration.

You can help the Trustee Council develop the 1995 restoration program by:

- reviewing the *Invitation to Submit Restoration Projects*, and
- submitting projects for 1995 based on the criteria described in the document.

The Trustee Council needs to receive your comments and restoration project descriptions by June 15, 1994, if they are to be used in developing a Draft 1995 Work Plan.

1995 Work Schedule

To be sure that your project is considered for funding in 1995, first obtain a copy of the *Invitation to Submit Restoration Projects* (see box on this page). Send your project descriptions to the Trustee Council by June 15, 1994. The Trustee Council will also be asking for project descriptions from federal and state resource agencies. All project descriptions will be subject to independent scientific review and examined by the Trustee Council's Public Advisory Group, a 15-member panel representing interest groups affected by the spill.

Using recommendations of the scientific review board, the Public Advisory Group, and agency staff, Trustee Council staff will compile the *Draft 1995 Work Plan*. Public review and comment on the draft work plan will take place during September.

The *Draft Work Plan* will describe restoration projects proposed for funding — how much they will cost, how they will help restore the resources and services injured by the spill, and whether competitive project proposals will be solicited to implement them or if the project will be conducted by a state or federal agency.

The *Invitation to Submit Restoration Projects* includes information for people who may be interested in submitting competetive project proposals. The Trustee Council is expected to meet and decide on projects for 1995 in late October 1994.

A Restoration Project Should...

Under the terms of the court–approved Settlement, the Trustee Council may only use restoration funds

"... for the purposes of restoring, replacing, enhancing, or acquiring the equivalent of ***natural resources*** *injured as a result of the oil spill and the reduced or lost* ***services*** *provided by such resources..."*

Only projects designed to restore injured resources or services as identified in the *Draft Restoration Plan* (published in November 1993) will be funded unless new scientific or local knowledge shows that other resources or services experienced an injury.

However, restoration actions may address resources for which there is not documented injury if these activities will benefit an injured resource or service. The *Invitation to Submit Restoration Projects* has detailed guidelines and the information needed to submit a project description.

Habitat protection and acquisition is *not* the subject of the *Invitation to Submit Restoration Projects*. The Trustee Council is currently soliciting nominations for small parcels of land (less than 1,000 acres) that should be protected. A Small Parcel Nomination Package is also available starting May 15, and is described in an article on Page 3.

Where to get more information

To request a copy of the ***Invitation to Submit Restoration Projects***, contact the Restoration Office by calling 907/278–8012, toll-free from within Alaska at 1–800–478–7745, or toll-free from outside Alaska at 1–800–283–7745.

Fish pathologist Corrine Davis and Cordova Fish and Game biologist John Wilcock collect samples of Pacific herring to analyze for the presence of VHS virus. *Photograph by Joe Sullivan.*

Study to investigate causes of Pacific herring decline

Ongoing problems with the Pacific herring run in Prince William Sound have prompted scientists working for the *Exxon Valdez* Oil Spill Trustee Council to expand research for this year to try to understand why the herring run is failing for the second year in a row.

Alaska Department of Fish and Game surveys and test fisheries conducted in April determined that far fewer herring than expected were returning to Prince William Sound, and many of those which returned were not spawning.

Skin lesions ranging from discolored or bloody spots to open ulcerated sores wre observed in 1993 and again ths year. The Fish and Game pathology laboratory in Juneau confirmed the presence of a virus — viral hemorrhagic septicemia virus, or VHSV — in fish with similar lesions in 1993 and again in 1994. The Trustee Council studies will investigate whether the virus is involved in the apparent decline in the herring spawning population and try to determine the magnitude of this effect.

Fisheries biologists are unsure if the virus is causing the decline in herring returns, or if it is even the cause of the lesions. VHSV has the potential to infect many species of bony fish (fish other than sharks and rays), but its presence does not always result in disease. The virus is harmless to humans.

The decline in herring observed in Prince William Sound is occurring at the same time as other spring herring runs in the state are breaking size and volume records. The Pacific herring is a long-lived fish — they can live as long as 15 years — and dramatic population declines such as this are unusual.

"Herring are an important food to a number of marine birds and mammals which were injured by the spill," said Dr. Robert Spies, Chief Scientist for the Trustee Council. "A major reduction in the number of herring in Prince William Sound has the potential for a significant impact throughout the ecosystem. Collapse of the herring population could seriously limit the recovery of other species injured by the spill such as otters, seals, and sea birds."

Draft EIS Available

Last year the Trustees prepared a draft plan for guiding future restoration actions. The *Draft Restoration Plan* describes a comprhensive, balanced approach toward restoration. The Trustee Council is now preparing an Environmental Impact Statement for the *Draft Restoration Plan* to comply with the requirements of the National Environmental Policy Act.

Both the *Draft Restoration Plan* and the *Draft Environmental Impact Statement* will be available for public review and comment for 45 days beginning about June 18.

To obtain a copy of the *Draft Restoration Plan*, the entire 400-page *Draft EIS* or a 30-page summary, contact the Oil Spill Public Information Center, 645 G St., Anchorage, AK 99501-3451, or call 907/278-8008, toll-free within Alaska at 1-800-478-7745, outside Alaska at 1-800-283-7745. The Draft EIS will also be available on computer diskette upon request.

Restoration Update

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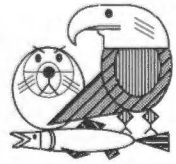


Other Restoration Activities and Funding Sources

Subsistence Planning

The Trustee Council on April 11 approved a new project for this year for subsistence restoration, planning and implementation.

For the next several months, the Alaska Departments of Fish and Game and Community and Regional Affairs, the U.S. Department of the Interior and the U.S. Forest Service will be helping subsistence communities and users develop a subsistence restoration plan, including a prioritized list of subsistence projects for the Draft 1995 Work Plan. Projects not eligible for funding by the Trustee Council as part of the 1995 Work Plan might be eligible for funding from the $5 million in criminal funds appropriated by the Alaska legislature for grants to unincorporated rural communities in the oil spill area.

To ensure that subsistence recommendations reflect and are consistent with the priorities of subsistence users, subsistence project ideas will be referred to the subsistence planning project coordinators at the Alaska Department of Fish and Game. For more information concerning the subsistence planning efforts, call Jim Fall or Rita Miraglia, Alaska Department of Fish and Game at 907/267–2353.

Recreation Projects

The 1993 Alaska Legislature also appropriated $4.75 million of the *Exxon Valdez* criminal settlement plus interest for a total of approximately $8.6 million to the Alaska Department of Natural Resources for "the construction or placement, within Prince William Sound, the southern Kenai Peninsula, and the coastal areas of the Kodiak Archipelago, of

See Page 4, **Activities**

Small Parcel Nominations

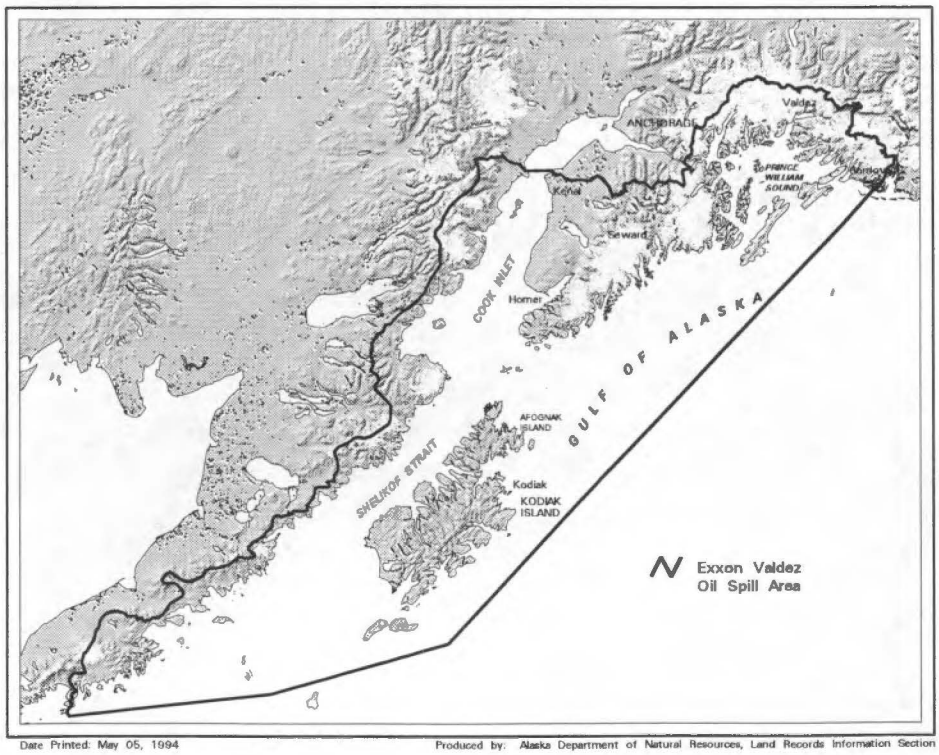
The *Exxon Valdez* Oil Spill Trustee Council requests that interested landowners participate in the restoration of resources and services injured by the *Exxon Valdez* oil spill by nominating parcels under 1,000 acres for possible protection or acquisition. Completed nominations must be postmarked by July 15, 1994 to be considered.

The Trustee Council last year approved a process for evaluating lands in the oil spill region that may be important to protect from various kinds of disturbance in order to assist restoration. Scientists working for the Trustees have identified protection of key habitat as an important tool for accomplishing restoration objectives.

Lands nominated for the Small Parcel Habitat Protection Process must meet the following criteria:

1. There is a willing seller of the parcel or property right;
2. The parcel is linked to the restoration of one or more injured resources and/or services;
3. The seller acknowledges that the governments can purchase the parcel or property rights only at fair market value;
4. The acquired property rights can reasonably be incorporated into public land management systems in a manner that will facilitate restoration objectives;
5. The parcel is located within the oil spill area. A map of the oil spill area is reproduced below.

If your small parcel meets all of these criteria and you would like a nomination package, contact the restoration office: *Exxon Valdez* Oil Spill Trustee Council, Attn: Small Parcel Process, 645 G Street, Suite 401, Anchorage, Alaska 99501–3451, or call the Oil Spill Public Information Center at 907/278–8008, toll free within Alaska at 1–800–478– 7745.



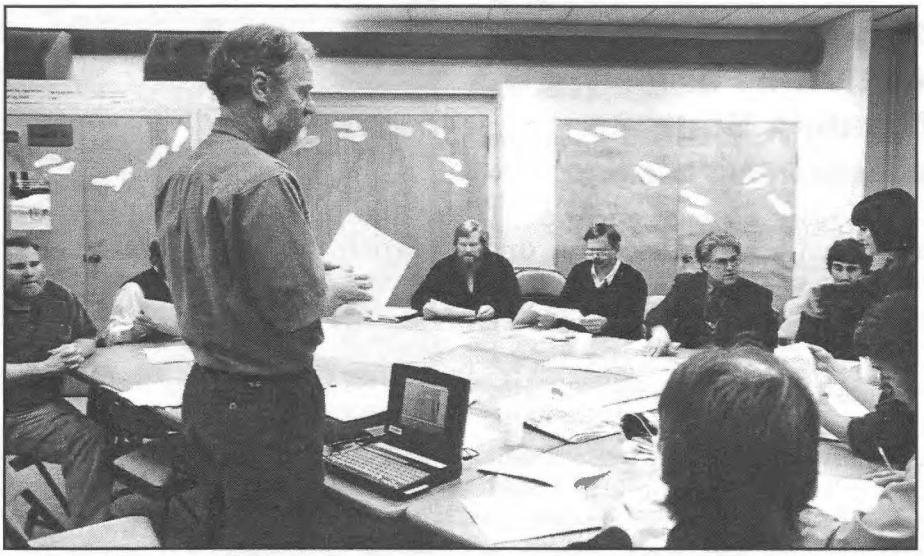
Activities, from Page 3

recreational amenities, including recreational cabins, trails, mooring buoys, floating docks and similar items, and the acquisition of sites and access rights for such amenities, that restore or enhance recreational services lost or diminished by the *Exxon Valdez* oil spill."

Earlier this year, the Department of Natural Resources established the Marine Recreation Project to administer these funds. In June the Department will issue an invitation to the public to submit suggestions for recreation project ideas. For more information concerning the Marine Recreation Project, call Ron Crenshaw at 907/762-2613.

Are we reaching you?

We are updating our mailing list. If you received this newsletter in the mail, please take a minute to check the mailing label. Is the address correct? If you would like to be added to the Trustee Council mailing list to receive the *Restoration Update* through the mail, please call Cherri Womack at 907/278-8012.



Alex Wertheimer of NOAA leads a discussion about research priorities for the pelagic or offshore ecosystem with other scientists during a workshop conducted in April. *Photo by L.J. Evans*

Research Priorities Workshop Held

Leading scientists help define restoration studies

Some of the best scientists in the state convened for three days in April to help the Trustee Council identify and prioritize appropriate ecosystem research objectives.

The goal is to better understand the injuries caused by the 1989 *Exxon Valdez* oil spill within the context of the entire ecosystem.

Preliminary recommendations are included in the *Invitation to Submit Restoration Projects* as guidance for suggested proposals.

These recommendations will be reviewed annually and modified at a mid-winter workshop with all field researchers in order to take into account new information recieved during the summer field season.

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Exxon Valdez Oil Spill Trustee Council

Restoration Update

July 1994 Volume 1 Number 4

Draft Oil Spill Restoration Plan and Environmental Impact Statement Released for Comments

A comprehensive Restoration Plan outlining activities to restore injuries from the *Exxon Valdez* oil spill and an accompanying Draft Environmental Impact Statement were released June 18, 1994 by the Trustee Council for public review and comment.

The Draft Restoration Plan is the culmination of a 3-year joint effort by federal and state agencies following the October 1991 court settlement between Exxon Corporation, the United States government and the State of Alaska.

Written comments will be accepted through August 1, 1994 and should be mailed or delivered to: *Exxon Valdez* Oil Spill Trustee Council, Attn: EIS Comments, 645 G Street, Suite 401, Anchorage, AK 99501-3451.

Public meetings have been taking place in Anchorage, Seward, Homer, Kodiak, Cordova and Valdez to provide information and take public comments on both the Draft Restoration Plan and the Draft EIS.

An additional teleconference hearing is scheduled for July 20 beginning at 7:00 pm. Access to the teleconference will be available to residents in all the communities and villages in the oil spill region. Contact an Alaska Legislative Information Office or L.J. Evans at the Trustee Council offices for information about participating in the teleconference meeting.

To deliver comments by telephone, call 278-8012, or dial toll-free within Alaska at 1-800-478-7745, toll-free from outside Alaska at 1-800-283-7745. Fishermen or subsistence users unable to access a regular telephone may provide comments by way of a collect marine operator call, through August 1.

For more information or copies of the Draft Restoration Plan or EIS, contact the Oil Spill Public Information Center at the same address or by calling 907/278-8012, toll-free within Alaska at 1-800-478-7745, toll-free outside Alaska at 1-800-283-7745.

Important Trustee Council Action Dates Coming Up

August 1	•	*DEIS & Draft Restoration Plan Comments and Public Advisory Group nominations due*
August 2	•	*Public Advisory Group meeting*
August 8	•	*Trustee Council Meeting (tentative)*
August 29	•	*Trustee Council Meeting (tentative)*
September 6	•	*Draft 1995 Work Plan out for Public Review*
October 6	•	*Public comment closes on Draft 1995 Work Plan*
October 31	•	*Trustee Council meeting to act on Draft 1995 Work Plan (tentative)*

On May 26, Governor Walter J. Hickel signed HB 447, which established Afognak Island State Park. The park consists of 42,000 acres of prime wildlife habitat and recreational use lands at Seal Bay and Tonki Cape on Afognak Island, purchased in 1993 by the Trustee Council as part of the habitat protection program. Pictured with Gov. Hickel at the signing ceremony are (left to right) *Sen. Fred Zharoff, Laurie Nottingham, Assistant Attorney General and State Trustee Designee Craig Tillery, Walt Ebell, Ralph Eluska and Rep. Cliff Davidson. Photo by Georgene Sink, Kodiak Daily Mirror.*

Oil Spill Region Fisheries Outlook

Commissioner Carl Rosier
Alaska Department of Fish and Game

Fisheries resources provide the primary livelihood for most residents of the *Exxon Valdez* oil spill area. Safely managing fish resources already injured by the oil spill for harvest by commercial, subsistence and recreational users can best be improved through intensified field research and monitoring. While using early information to give us a glimpse of what is happening in this summer's fisheries in the oil spill regions, I would like to show how field work sponsored by the Trustee Council and the Department of Fish and Game will help us do our job better.

For a second year the herring fisheries in Prince William Sound were disastrous. Herring abundance was estimated to be below the threshold of 22,000 tons required to sustain future harvests, and no commercial fisheries were allowed. The decision to not open the fishery was based on biologists' field surveys of herring spawn deposition. Additional field work was initiated this year by the Trustee Council to determine the effect of disease on herring and the ecosystem factors which affect herring production.

It is too early yet to make a call on this year's total pink salmon return to Prince William Sound, but an early fishery in Valdez Arm looks positive. Millions of pink salmon were harvested there for hatchery cost recovery needs in a recent opening. Fisheries biologists launched a long-term field research program this spring to determine ecosystem factors affecting pink salmon production. In-season decisions about management of fish stock are now more accurate with the aid of wide-scale recoveries of coded wire tags from tagged salmon.

While commercial salmon fisheries in Kodiak began slowly, they are now tracking on preseason forecast levels, with the exception of the Ayakulik River. Based on expected poor sockeye returns resulting from oil spill injuries, no commercial openings have been allowed on salmon returning to the Ayakulik system this year. Intensive monitoring at the stream indicates the present return is only meeting escapement requirements at this time.

The Trustee Council has made a significant commitment to achieving a better understanding of the ecosystem processes affected by the oil spill. In most cases the data collection necessary to gain this information can only take place in the real-life laboratories of Prince William Sound and the Gulf of Alaska. The knowledge thus gained will assist and influence agency decisions about management of fish stocks and other resources in order to enhance recovery and restoration. I continue to be optimistic that the Trustees will support good research and monitoring as a necessary part of a comprehensive, balanced approach to restoration.

A Cordova field crew samples pre-emergent pink salmon fry in March 1994 as part of a Trustee Council study. Photo by J. Johnson, ADF&G.

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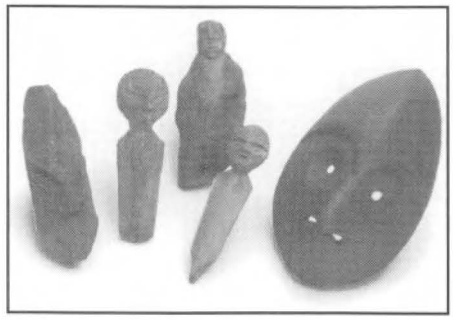
Kodiak Alutiiq Archaeological Repository

Groundbreaking ceremonies were held in Kodiak on May 26 for the construction of the Alutiiq Archaeological Repository, an 18,000 square-foot facility scheduled to be completed in February 1995.

Representing the Trustee Council, Fish and Game Commissioner Carl Rosier said that the Trustees "found considerable personal satisfaction in funding this outstanding restoration project conceived by the public in Kodiak."

The Archaeological Repository project was established by the Kodiak Area Native Association and the Trustee Council in cooperation with Natives of Kodiak, dedicated to the restoration and preservation of cultural resources injured by the *Exxon Valdez* oil spill. The Trustees approved funding of $1.5 million toward construction of the building. Other sources will provide funding for the total expense of $2.4 million. The Kodiak Area Native Association and Natives of Kodiak will be responsible for furnishing, staffing and maintaining the facility once the structure is complete.



Archaeological artifacts such as these Koniag masks and figurines will be part of the research collection at the Alutiiq Archaeological Repository. The full-sized mask (right) of a short-eared owl was found lying face down inside a storage box in a collapsed late Koniaq house at Karluk.

The Repository will provide safe, secure storage and access for the study of artifacts and other data recovered from archaeological sites in the Kodiak region. The center will also help to preserve the knowledge of traditional subsistence practices of the Native community, many of which were disrupted by the oil spill, and further public education to help reduce vandalism damage to archaeological sites and artifacts.

Institute of Marine Science Project DEIS

Meetings to gather comments on the Draft Environmental Impact Statement for the Proposed Institute of Marine Science Infrastructure Improvement Project are scheduled to take place in Seward on July 26 and in Anchorage on July 28, 1994.

Project team members will be available from 5:00 – 8:00 PM to discuss the project and answer questions. A presentation to describe the project will be delivered at 7:00 PM. The formal hearing to take public comment will begin at 8:00 PM. Both oral and written comments will be accepted at the meetings. In addition, written comments will be accepted until August 8, 1994.

The meetings will take place at the following locations:

Seward: Tuesday, July 26
Institute of Marine Science
K.M. Rae Building
125 Third Avenue

Anchorage: Thursday, July 28
Oil Spill Public Information Center
645 G Street, Suite 100

Written comments should be mailed or delivered to: Nancy K. Swanton, EIS Project Manager, 949 East 36th Ave., Room 603, Anchorage, AK 99508-4302. For more information, contact Nancy Swanton at 907/271-6622.

PAG Nominations

Deadline August 1

The *Exxon Valdez* Oil Spill Trustee Council is soliciting nominations for the Nov. 1994 – Oct. 1996 term of the Public Advisory Group. Members of the Public Advisory Group reflect balanced representation from the public at large and the following principal interests: aquaculture, commercial fishing, commercial tourism, environmental, conservation, forest products, local government, native landowners, recreational users, sport hunting and fishing, subsistence, and science/academic. Nominations will be accepted until August 1, 1994.

For more detailed information on the role of the Public Advisory Group or the nomination process, or to obtain copies of documents relating to the Public Advisory Group, contact Doug Mutter, U.S. Department of the Interior, at 907/271-5011.

1995 Work Plan Process Underway

Approximately 160 projects totaling almost $66 million were submitted in response to the invitation to submit 1995 restoration projects. These proposals are undergoing technical, legal and policy review, and will be presented for public comment in a Draft 1995 Work Plan in September.

Following review by the Public Advisory Group and other public comment, and further scientific review, the Trustee Council will consider the plan and take action at the end of October.

For more information contact the Oil Spill Public Information Center, 645 G Street, Anchorage, AK 99501-3451, or call 907/278-8008, toll free within Alaska at 1-800-478-7745, outside Alaska at 1-800-283-7745.

Forage Fish Project

Bruce Wright
NOAA/National Marine Fisheries Service

The Trustee Council has initiated a research effort this summer enable scientists to better understand the distribution, abundance, and availability of several small fish which are important as food sources to other species in the oil spill affected area. These "forage fish" include capelin, herring, pollock, sandlance, euphausiids, squid, and other similar species.

Scientists know that the availability of forage fish affects the distribution, abundance, growth and reproductive success of some other species injured by the oil spill, particularly harbor seals, pigeon guillemots, black-legged kittiwakes and marbled murrelets. More and better knowledge about forage fish is needed to aid efforts to restore these injured species.

The project will first involve a reconnaissance survey using a combination of hydroacoustics and net sampling techniques to estimate distribution and abundance of forage fish resources in Prince William Sound. This years' late summer field work will primarily be an exploration effort to locate forage fish schools and identify the fish species detected.

The forage fish study is expected to be a multi-year project. Subsequent years' tasks may include expansion of the survey area, incorporation of characterizing oceanographic parameters, and development of models to estimate productivity of forage fish as related to changing oceanographic conditions.

Coordination with several state and federal agencies is incorporated in the project to insure that forage fish surveys occur in areas appropriate to understand how fish abundance influences marine birds and mammals.

You can help

Residents of Prince William Sound may also have knowledge of areas of high forage fish abundance to contribute to this effort. The forage fish investigators would be interested in learning what residents know about forage fish in the Prince William Sound and oil spill areas. Important information would include spawning locations of capelin or sandlance (researchers have lots of information about herring spawning locations). The presence of abundant marine predator activity, such as seabirds, seals, sea lions, and whales, may be another indication of forage fish concentrations. Some fishing vessels may even locate large concentrations of forage fish species on their fish finders. Any of this information may be useful to the scientists who will be assessing forage fish populations.

If you have information about locations of forage fish concentrations please contact Bruce Wright, at 907/789-6600 or write National Marine Fisheries Service, Auke Bay Fisheries Laboratory, OOSDAR, 11305 Glacier Highway, Juneau, AK 99801-18626. The results of the 1994 forage fish survey work will be made available to the public in an annual report in early 1995.

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Restoration Update

September1994 Volume 1 Number 5

Draft 1995 Work Plan Out for Review

The Trustee Council has released the *Draft Fiscal Year 1995 Work Plan* for public review and comment. This document describes restoration programs being considered by the Trustees for action in federal fiscal year 1995 (October 1, 1994 – September 30, 1995).

The Trustees have not decided which projects should be part of the 1995 restoration program. When they make their decision in late October, they will take into consideration your comments as well as those from the Public Advisory Group.

You may make comments by writing or calling the Restoration Office by October 3rd. All written comments must be postmarked no later than October 3, 1994. A public meeting to take additional comments will take place on Wednesday, September 28, beginning at 7 P.M. at the Oil Spill Public Information Center, 645 G Street in Anchorage.The meeting will include a detailed briefing on the status of restoration activities, including habitat protection and acquisition efforts. Access to this meeting will be available via teleconference to residents of all the communities and villages in the oil spill region.

Contact your Alaska Legislative Information Office or L.J. Evans at the Trustee Council Office at 278-8012 for information about participating in the September 28 meeting.

1995 Work Plan Key Dates

September 28 – Public Meeting 7:00 pm, 645 G St. in Anchorage, or via teleconference

October 3 - **Deadline for public comments**

October 12 & 13– Public Advisory Group meeting, 645 G Street

October 31 (tentative) – Trustee Council meeting to make decisions about 1995 work plan

Where did 1995 projects come from?

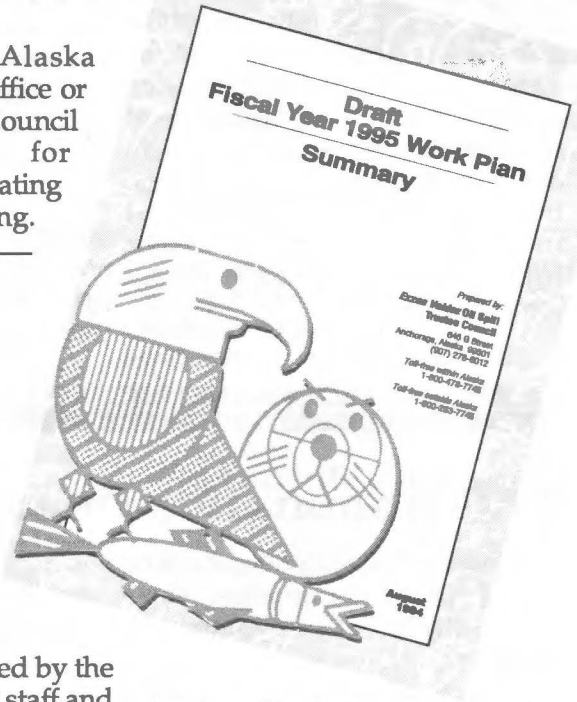
In May 1994 the Trustee Council published an Invi*tation to Submit Restoration Projects for Fiscal Year 1995.* A total of 172 projects were submitted and reviewed.

Proposals were assessed by the executive director, agency staff and a group of independent scientists for their scientific and technical merit as well as potential restoration benefit; some also received a preliminary legal review.

How can the public be involved?

The Trustees have asked the public to review the proposed projects with these major questions in mind:

- How will this project benefit restoration?
- If a long-term commitment is suggested, can this project be sustained financially?
- What is the appropriate balance for the 1995 work season? Do you have a priority regarding the funding level of various projects and/or of the various restoration categories?
- Is this project proposal an appropriate activity for a government agency, or would the project objectives be better served if a competitive contract were awarded to a non-Trustee organization?



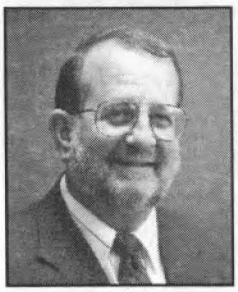
What documents are available, and where?

The *Draft FY 95 Work Plan: Summary* describes each project's cost, objective, and how

Continued on Page 3

New Trustee Council Member Representing U.S. Department of Agriculture

by Phil Janik, U.S. Forest Service Alaska Region



Since coming on board as the Alaska Regional Forester in May, I have learned a great deal about the mission of the *Exxon Valdez* Oil Spill Trustee Council and the complexity of our assignment. I am excited to be involved with such an important task as restoration of the resources and services injured by America's worst tanker spill.

It is clear that the Trustees have made a significant commitment to involve the public in as many steps and as early in the process as possible. I am glad to see this commitment to public participation because it is also one of my priorities within the Forest Service in Alaska.

There are a variety of approaches to restoration and various members of the public who strongly support each of them. The Trustees' job is to achieve an effective, reasonable balance among the priorities, but this will probably mean that no one will see all of the funds spent exactly as they would have wished.

One of the important areas in which the Forest Service is providing expertise to the restoration process is in overseeing appraisals of large land parcels under consideration for habitat protection. Staff are overseeing the appraisal of more than 575,000 acres throughout the spill area for their value to restoration efforts.

The Forest Service is one of the major land managers in the oil spill region. Shorelines in the Chugach National Forest were heavily oiled, and wildlife species which depend on those lands for habitat were affected. The Forest Service's experience in ecosystem management will blend and enhance implementation of the "comprehensive balanced approach" outlined in the Draft Restoration Plan.

Phil Janik was appointed as Alaska Regional Forester on May 4, 1994. He has spent 27 years of service with the federal government working with resource management issues and conflict resolution. He served as Alaska Director of Wildlife, Fisheries and Subsistence in the Forest Service from 1983 to 1989, and notes that he and his wife Pat are happy to be back in Alaska.

PAG Nomination Deadline Extended

The Trustees have extended the time period for accepting nominations for the Public Advisory Group to October 31.

The Public Advisory Group advises the Trustee Council on decisions related to the planning, evaluation and conduct of injury assessment and restoration activities using funds from the 1991 civil settlement. Public Advisory Group members will be selected to serve a two-year term. PAG members are compensated for travel and per diem for attendance at approximately five two-day meetings per year.

Nominations have not yet been received for representatives of the following interest groups: aquaculture, commercial tourism, and subsistence.

A copy of the charter for the Public Advisory Group and a packet of information on the nomination process are available by contacting the Oil Spill Public Information Center at 645 G St., Suite 100, Anchorage, AK 99501, or by calling 907/278-8008, toll-free within Alaska at 1-800-478-7745.

Nominations should be sent to the *Exxon Valdez* Oil Spill Trustee Council, 645 G Street, Anchorage, AK 99501. For more information, contact Douglas Mutter at 271-5011 or L.J. Evans at 278-8012.

Help Wanted!

Restoration Update

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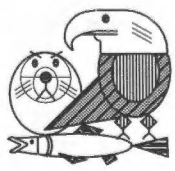

Habitat Protection: Small Parcel Update

Following a 60 day public solicitation, the Trustee Council received 274 nominations of small parcels of land for habitat protection. The parcels, each consisting of less than 1,000 acres, are being evaluated by staff for their benefit to the resources and services injured by the spill.

The nominated parcels are distributed throughout the spill region: roughly 65 percent are in the Kodiak area, 30 percent on the Kenai Peninsula, and 5 percent in Prince William Sound.

The multi-agency task force evaluating lands for habitat protection estimate that a ranked list of small parcels will be presented to the Trustee Council for consideration early next year.

The Trustees have committed to habitat protection as one component of a balanced approach to restoration. In addition to small parcels, the Trustee Council is currently negotiating for habitat protection on parcels of land greater than 1,000 acres in size. To date, acquisitions have occurred in Kachemak Bay State Park, Seal Bay on Afognak Island, and Orca Narrows in Prince William Sound.

Environmental Impact Statement Moves Towards Completion

At their meeting on August 23 the Trustee Council adirected staff to complete a Final Environmental Impact Statement for the Draft Restoration Plan that will guide the Council's future restoration activities.

The Final EIS, incorporating public comments and any necessary changes, will be available about September 23. The EIS process will formally close when the federal Trustees sign a Record of Decision in late October. The Trustees are also expected to consider and adopt a Final Restoration Plan at a meeting in late October.

Although this EIS will complete the National Environmental Policy Act (NEPA) compliance for the overall restoration program, individual projects will still have to be assessed for their potential environmental impacts.

For more information on the Restoration Plan Environmental Impact Statement, contact Rod Kuhn at 278-8012.

Draft 1995 Work Plan Available for Review

Continued from Page 1

completion of the project would restore resources and services injured by the spill. The *Summary* is being distributed to the entire Trustee Council mailing list and will also be available for review at libraries and some Legislative Information Offices in the spill region, as will the related documents described below.

Three other documents provide more detailed information about each project:

- *Supplement Volume I* includes brief descriptions of 93 projects evaluated to have high restoration benefit and strong technical merit.
- *Supplement Volume II* contains project descriptions for all other projects that were submitted but not included in *Supplement Volume I.* These include those with lower benefit or technical merit, and those with legal or policy concerns.
- *Supplement Volume III* contains detailed budget information for individual projects.

The Summary, Supplement Volume I and individual project descriptions or budgets are available from the Oil Spill Public Information Center upon request.

The Summary as well as Supplement Volumes I, II and III are available at libraries and some Legislative Information Offices in Anchorage and the spill area. To obtain copies of these documents or information about the location of reference copies in your community, contact the Oil Spill Public Information Center at 907/278-8012, toll free within Alaska at 1-800-283-7745, outside Alaska at 1-800-478-7745.

Research Proposals

Some resources injured by the spill are still not recovering. The research proposals contained in the Draft 1995 Work Plan reflect a multi-year effort to find out why these resources are showing little or no signs of recovery. Some of the questions being investigated include:

- What is causing the failure of Prince William Sound herring and pink salmon runs?
- What is causing the long-term decline in some marine mammals and seabirds?
- Is food availability limiting recovery of injured resources?
- What is limiting recovery in the nearshore ecosystem?
- Are the toxic effects of oil still constraining recovery of some resources?

Mussel Bed Cleanup

A team of workers removed oiled sediments underneath mussel beds in Prince William Sound over the course of this summer, removing a possible source of contamination from the marine food web.

Staff from the Alaska Department of Environmental Conservation, the National Oceanic and Atmospheric Administration and residents of the village of Chenega did work at twelve sites on five different islands.

Charles "Pete" Selanoff, Jr., Tom Sherman and Clint Gregorioff of Chenega remove oiled sediments which were underneath a mussel bed on Squirrel Island in Prince William Sound. The crew later replaced the mussels on top of a layer of clean sediments and cobbles. Photo by L.J. Evans.

The team collected the oiled mussels into buckets and set them aside, then removed the oiled sediments and laid down clean sediments in the same site. The bivalves were then replaced in the original location, matching as near as possible the original conditions. The difference is that with clean sediments underneath, the mussels will no longer be taking in and concentrating oil residues in their muscle tissue.

Oiled mussels are a problem because so many seabirds and marine mammals rely on them as a major food source. There are indications that some species which are recovering slowly, such as harlequin ducks, may be ingesting oil through the mussels they eat. This oil in turn may be affecting the reproduction of harlequin ducks. Trustee-sponsored surveys have failed for the last several years to turn up any successfully breeding harlequins in western Prince William Sound, an area where they used to be numerous.

The Trustee Council contracted with the Chenega Corporation to provide logistical support and labor for the effort, appropriately since several of the sites were on Chenega lands. The team worked on mussel beds on Eleanor, Disk, Chenega, Squirrel and Knight Islands during optimal tide cycles in June, July and August.

A small team from DEC and NOAA are currently assessing additional oiled mussel beds and sites of remaining contamination for possible cleanup work next year.

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Restoration Update

December 1994 Volume 1 Number 6

Trustees approve 1995 Work Plan

Habitat protection actions taken, new director appointed and other restoration programs move forward

The Trustee Council approved a $24 million Work Plan for 1995 to fund restoration projects, research and monitoring efforts, and science management and took important actions for habitat protection at recent meetings in Anchorage and Juneau.

The Trustees also accepted the resignation of Executive Director Jim Ayers at the December 2 meeting in Juneau. Ayers was selected by Governor Tony Knowles to serve as his Chief of Staff. The Trustee Council unanimously approved appointment of Molly McCammon as the new Executive Director. McCammon was formerly Director of Operations for the Trustee Council

"The Trustees have set the course for restoration actions with approval of the final Restoration Plan," McCammon said.

"After working closely with Jim Ayers and the staff over the last year, I look forward to following through with the comprehensive, balanced approach to restoration adopted by the Trustees."

The Trustee Council took the following additional actions:

- Set aside an additional $12 million in a Restoration Reserve for future restoration needs, indicating their goal of establishing a Reserve of more than $100 million by 2002. This brings the current total in this account to $24 million.

- Adopted a final Restoration Plan, incorporating a comprehensive, balanced approach to restoration. Approval of the plan followed a two-year process which included compliance with the National Environmental Policy Act and extensive public involvement.

- Authorized funding for infrastructure improvements at the University of Alaska–Fairbanks' Institute of Marine Science in Seward. The Trustee Council's $25 million funding will assist in development of a world-class marine research center to enhance the Trustee Council's capability for conducting studies to promote the restoration of marine mammals, seabirds and the marine ecosystem injured by the *Exxon Valdez* oil spill.

- Approved habitat protection packages negotiated with Akhiok–Kaguyak, Inc. and Old Harbor Native Corporation to protect some 200,000 acres of habitat on Kodiak Island within the Kodiak National Wildlife Refuge critical to fish and wildlife species injured by the spill. The protection packages involve combinations of fee simple purchase of lands, land exchanges, and additional protection measures negotiated with the Native corporations.

- Made offers for additional habitat protection packages to Koniag, Inc., Kodiak Island Borough and Afognak Joint Ventures for parcels in the Kodiak region, and Chenega Corp., Tatitlek Corp. and Eyak Corp. in Prince William Sound. Acceptance of all the offers would result in protection of more than 345,880 acres of critical habitat throughout the spill region. Copies of the resolutions and details on these offers are available by contacting the Oil Spill Public Information Center.

- Approved a resolution expressing strong support for habitat protection actions for private land inholdings in Kenai Fjords National Park owned by the English Bay and Port Graham corporations.

inside...

Overview of 1995

The Trustee Council's 1995 Work Plan includes projects to address restoration concerns through research, monitoring, general restoration actions, habitat protection and acquisition.

The 83 projects included in the 1995 Work Plan are organized into several packages with related objectives for greater effectiveness and more efficient management. A significant part of the work plan funding is directed at fisheries in the spill area, including pink salmon, herring and sockeye salmon restoration. Other projects deal with subsistence, marine mammals and birds, archaeology, oil toxicity and reduction of marine pollution.

A comprehensive scientific review of all projects and an update on findings from 1994 is planned to take place in January during a week-long workshop. Participants will include project principal investigators, peer reviewers, the Council's Chief Scientist, representatives of the public and Trustee Council staff.

A revised 1995 Work Plan Summary document is in preparation and will be available in December. In the meantime, a report listing projects approved for funding — *1995 Work Plan –Authorized Project Funding* — is available at the Oil Spill Public Information Center by calling 278-8008, toll-free within Alaska at 1-800-478-7745, toll-free from outside Alaska at 1-800-283-7745.

Fisheries Projects

Over half the funding for 1995 projects addresses concerns about pink salmon, herring, sockeye salmon, and other fish and shellfish that still show signs of injury. Specific restoration actions will be undertaken in some cases, such as collecting data to help fisheries managers target fisheries efficiently while protecting injured stocks. Other projects involve monitoring recovery of fishery populations, such as herring in Prince William Sound. A significant portion of 1995 funding is directed toward research. A major project in the research effort is the Prince William Sound System Investigation, an integrated, multi-year set of studies to analyze natural and spill-related factors affecting pink salmon and herring populations.

Other Marine Species

Another group of projects deals with restoration, monitoring and research involving other injured resources that are not recovering. These studies target marine mammals, seabird and forage fish interactions, nearshore ecosystem studies, intertidal and subtidal community structure and ongoing problem with seabirds.

Subsistence

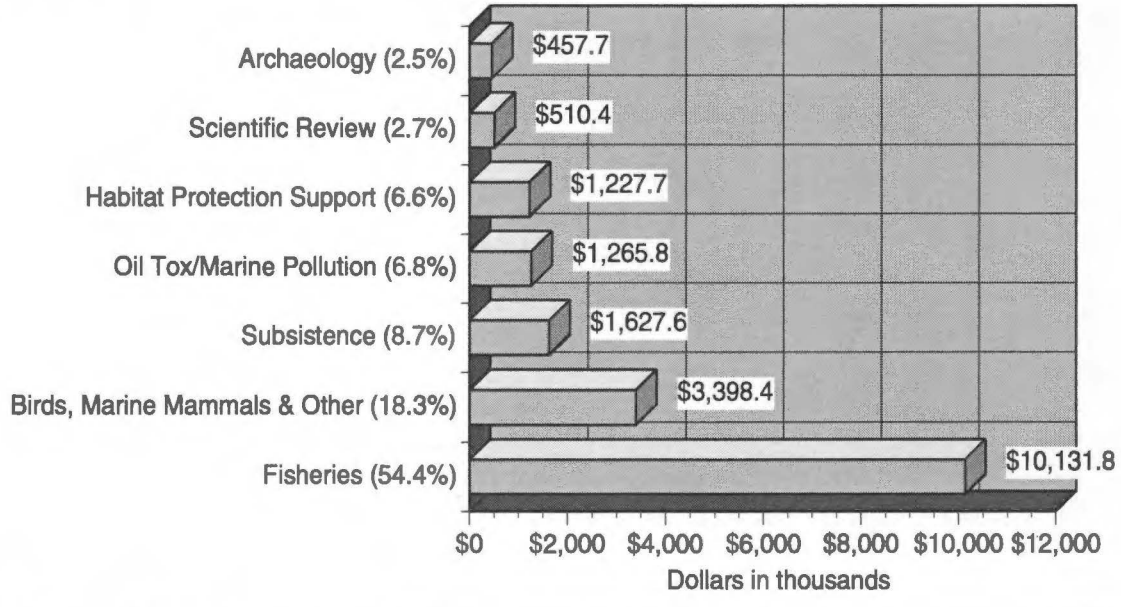
When dealing with fisheries problems and restoration of related resources the Trustees are also addressing issues of concern to subsistence users in the spill region. In addition, a number of 1995 projects will tackle other subsistence problems resulting from the spill through programs to facilitate sharing of traditional knowledge of subsistence practices between elders and youth, make use of traditional subsistence knowledge in data gathering, and identify and survey customary subsistence harvest areas for evidence of continuing oiling problems.

Archaeology

Problems with injured archaeological resources spill are addressed in projects to monitor injured archaeological sites for evidence of looting, and to complete site restoration work begun in 1994.

Work Plan Projects

How are funds allocated for 1995 projects?



Note: Allocation figures reflect FY 95 Work Plan authorizations through December 2, 1994. Individual project funding authorizations are conditioned upon the Executive Director's final approval following scientific and budget review of the detailed project descriptions and budgets and upon compliance with NEPA requirements. Funding totals do not include $24.9 million in funds authorized for development and construction of research infrastructure improvements at the Institute of Marine Science in Seward, or for the specific protection or acquisition of habitat.

Oil Toxicity & Reducing Marine Pollution

These projects include mussel bed cleanup and restoration in Prince William Sound and the Gulf of Alaska, hydrocarbon data analysis, and preparation of a comprehensive plan to properly dispose of oily waste in spill region communities, thus reducing a source of continuing stress from oil pollution in the marine environment.

Habitat Protection and Acquisition Support

The Trustees approved funding to support habitat protection and acquisition activities such as data collection, appraisals, title searches, etc. The amounts considered as part of the 1995 Work Plan do not include funding for specific acquisitions or protection actions.

Other Programs

The work plan includes funding to support both the annual work plan and the Trustees' overall restoration program. Overall program support includes administration of the Trustees' restoration objectives, management and review of the science program, and varied public information and involvement efforts.

Included as part of the public information program is support for the Oil Spill Public Information Center, a library resource used by the public and the Trustees. Planning is also underway for an interactive, multi-media computer program and geographical data base to allow members of the public, scientists and managers easy access to the extensive information developed through restoration programs.

Subsistence projects funded from both civil and criminal funds

Communities in the spill area will receive additional help in the coming year to restore subsistence resources and services injured by the 1989 *Exxon Valdez* oil spill with funding from both civil and state criminal settlement funds.

Following a subsistence restoration planning effort undertaken by the Subsistence Division of the Alaska Department of Fish and Game and funded by the Trustee Council, the Trustees approved $1.63 million in subsistence projects to be funded from the civil settlement funds in 1995 . These projects include programs to directly restore or replace subsistence resources, consult with subsistence users in order to incorporate traditional knowledge of the region in restoration planning, and survey remaining surface and subsurface oil in the spill region to monitor effects on subsistence resources and determine if additional cleanup is necessary.

Subsistence harvests in all the Alaska Native villages of Prince William Sound, lower Cook Inlet and Kodiak dropped notably in the year following the 1989 *Exxon Valdez* oil spill. Subsistence harvest in Chenega Bay and Tatitlek fell by more than 60 percent, and the range of subsistence resources used dropped by half. Key subsistence resources such as Pacific herring, harbor seals and pink salmon are not yet recovered from spill-related injuries.

The projects will approved by the full Trustee Council aid the communities in replacing and restoring traditional subsistence resources and in continuing traditional subsistence skills and practices. They will also serve to reduce harvest pressure on injured resources in subsistence areas affected by the spill.

In addition to these projects, seven grant proposals submitted to the Alaska Department of Community and Regional Affairs for funding from the *Exxon Valdez* state criminal settlement received a go-ahead from the state Trustee Council members on November 4. The projects funded by the grants will tackle a variety of subsistence-related concerns expressed by the residents of Tatitlek, Chenega Bay, Nanwalek and Port Graham.

"These projects are well-conceived and extremely important to restoration of normal subsistence practices in the small communities hardest hit by the *Exxon Valdez* oil spill," said Commissioner of the Alaska Department of Environmental Conservation and Trustee John Sandor at the November 4 meeting in Anchorage.

"I am personally very glad to see action taking place on these projects, as well as the subsistence projects funded by the full Trustee Council through the civil settlement funds," Sandor said.

The DCRA grant program was established with $5 million set aside by the Alaska Legislature from the $50 million in fines imposed on Exxon as part of the October 1991 court settlement of criminal charges and civil claims between the state and federal governments and Exxon Corporation. The legislation authorizing the grant program directed the Commissioner of DCRA to consult with the three state Trustees before awarding the grants.

Additional proposals are expected to come in the future from Kodiak-area villages.

Restoration Update

The Restoration Update is published approximately six times a year by the *Exxon Valdez* Oil Spill Trustee Council. Its purpose is to update interested members of the public about actions, policies and plans of the Trustee Council to restore resources and services injured by the *Exxon Valdez* oil spill.

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PAG Members Complete First Two Year Term

After serving for two years, the Trustee Council's first Public Advisory Group stepped down in October.

The 17 PAG members, 12 alternates and two ex-officio members from the Alaska Legislature were appointed by the Trustees in September, 1992. Setting up a public advisory group was mandated as part of the 1991 civil settlement between Exxon Corporation and the state and federal governments.

In the group's charter, PAG members were charged with advising the Trustee Council "on all decisions relating to...planning, evaluation and conduct of injury assessment [and] restoration activities." PAG meetings have taken place approximately every two months since the first meeting on October 29, 1992.

With the charter renewed, new nominations were solicited this fall for members to serve on the next two-year term. The Trustees are expected to make new appointments soon.

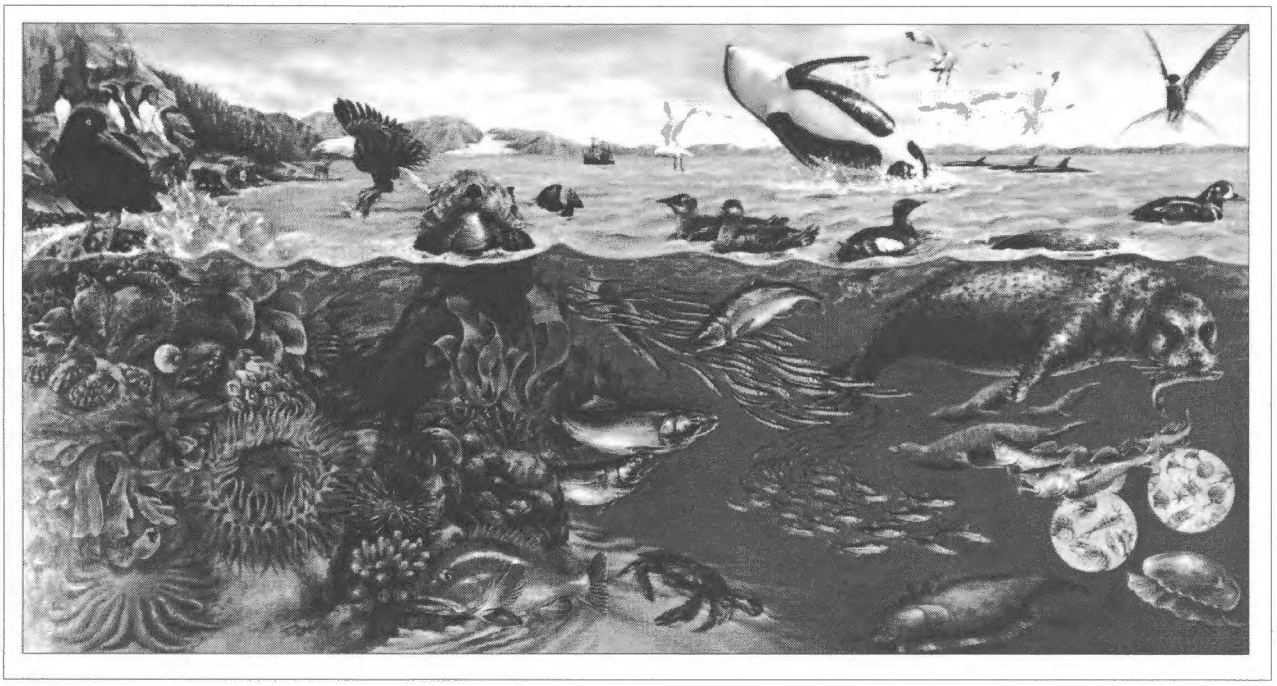
Each PAG member was presented a certificate of appreciation signed by all six Trustees, stating that "The *Exxon Valdez* Oil Spill Trustee Council extends our deep appreciation for your contribution to restoration of the resources and services injured by the *Exxon Valdez* oil spill as a member of the Public Advisory Group, October 1992 — October 1994."

PAG members, left to right: Rupert Andrews, Pamela Brodie, John French, Kimberly Benton, James King, James Diehl, Mary McBurney, Lew Williams, Donna Fischer (Co-Chair), Molly McCammon (Director of Operations), Bob Spies (Chief Scientist), and Doug Mutter (Designated Federal Officer).

Public Advisory Group Members ~ October 1992 - November 1994

Rupert E. Andrews
Dave Beck, Alternate
Kimberley Benton, Alternate
Pamela Brodie
James L. Cloud
Sarah Cronk, Alternate
James Diehl
Bill Elander, Alternate
Richard I. Eliason
Gail Evanoff, Alternate
Donna Fischer
John French
Sharon Gagnon, Alternate
Paul Gavora
James G. King
Richard A. Knecht
George Matz, Alternate
Vern C. McCorkle
Donald McCumby, Alternate
Gerald McCune
Mary McBurney, Alternate
John C. McMullen
Brenda Norcross, Alternate
E. Bradford Phillips
Dolly Reft, Alternate
John L. Sturgeon
Charles Totemoff
Dan Warren, Alternate
Llewellyn "Lew" W. Williams, Jr.

Cliff Davidson, *Alaska State House of Representatives*
Drue Pearce, *Alaska State Senate*



Alaska Marine Ecosystems Poster Available

As part of achieving the Trustee Council's public information and education goals, Anchorage artist Debra Dubac was commissioned this summer to produce a full-color poster showing the various components of Alaska marine ecosystems involved in the *Exxon Valdez* oil spill.

The 34"x27" poster depicts elements of the pelagic or deep water, intertidal and upland components of a marine area typical to the oil spill region. Explanatory text beneath the painting explains that the ecosystem components are connected to one another, and that all were injured to some extent by the spill.

The posters, produced and printed in Alaska on heavy recycled paper with vegetable-based inks, are available for $10 each. Contact the Oil Spill Public Information Center at 645 G Street, Anchorage, AK 99501-3451, or by calling 907/278-8008, toll-free within Alaska at 1-800-478-7745, outside Alaska at 1-800-283-7745.

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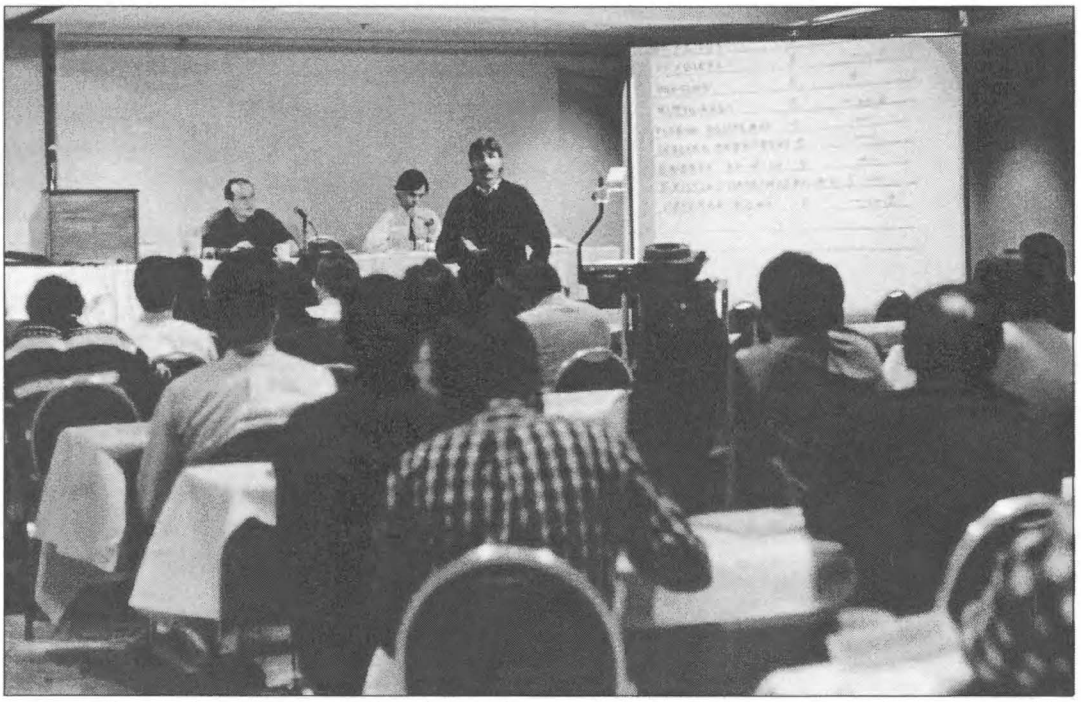
Exxon Valdez Oil Spill Trustee Council

Restoration Update

March 1995 Vol 2 No. 1

Workshop Participants Present 1994 Findings

More than 130 researchers, resource specialists and members of the public discussed key outcomes from restoration work completed in 1994 at the Trustee Council's annual Restoration Workshop in January. The group also began work on a financially sustainable, long-term approach to restoration compatible with the Council's *Restoration Plan*.



Restoration workshop attendees listen to Dave Irons of the U.S. Fish and Wildlife Service summarizing discussions that took place about birds injured by the ExxonValdez oil spill. Photo by L.J. Evans.

"The basic message is that, six years after the *Exxon Valdez* oil spill, recovery is occurring at different rates for different resources," said Chief Scientist Bob Spies. "This is a complicated process, and many factors influence the rate of recovery. The Trustee Council is doing every-thing practical to accelerate recovery where possible, and to understand what is constraining recovery for some resources."

Workshop presenters participated in numerous sessions and informal meetings in Anchorage during the four-day workshop. Each investigator provided a summary of the work completed last year, and an update on the status of recovery of injured resources and services. A more detailed discussion of the status of recovery is included in the Trustee Council's *1995 Annual Status Report*, which will be available in early April. The *Invitation to Submit Restoration Projects for Federal Fiscal Year 1996 and Draft Restoration Program* presents additional information on the status of injured resources and restoration needs, focusing on 1996 and extending to future years. Both of these documents are available at the Council offices or the Oil Spill Public Information Center.

Following are summaries of the major topics and findings discussed at the workshop.

Fish Resources: Stock Separation and Management

The Trustee Council recognizes that development of more efficient or effective management methods may be one of the best strategies to aid recovery of such injured resources as sockeye and pink salmon. Providing resource managers with better tools makes it possible to guide harvests and avoid further injury to spill-affected populations while allowing harvest to continue on undamaged populations.

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Inside...

Restoration Workshop

Continued from Page 1

Pink Salmon

Although record numbers of mixed stocks of pink salmon were harvested in Prince William Sound in 1994, the return from wild stock streams was below average. Management strategies have thus been developed to protect the wild salmon stocks, which were adversely affected by oiling at stream mouths.

'The basic message is that six years after the Exxon Valdez oil spill, recovery is occurring at different rates for different resources.'

Chief Scientist Bob Spies.

For the last several years, the Trustee Council has funded coded-wire marking of hatchery-raised pink salmon in Prince William Sound. While this method has provided valuable information, its major short-coming is that only a fraction of the fish can be marked. A new hatchery fish marking method called thermal otolith marking has been under development and will be implemented in 1995.

Raising the water temperature in hatcheries by a few degrees causes rings to form on a small bone in the fish's head — the otolith. These rings can be detected after the salmon grows to adulthood and returns to spawn. By using this technique, hatchery managers can mark *all* the smolts prior to release. When the pink salmon return, the presence of hatchery fish in proportion to wild fish can be determined and fishery openings can be managed to minimize harvest of wild stocks.

Researchers at the workshop described an overlap of at least one year while switching from the already established technique of inserting coded wire tags to complete reliance on thermal otolith marking. This will enable scientists to ensure the new method provides the expected results with sufficient accuracy.

Sockeye Salmon

The Kenai River sockeye population may have been injured because fishing was closed in 1989 for fear of oiling the catch. As a result, too many fish escaped to spawn. Fishery biologists feared the overabundant fry would starve once they had consumed all the available food, and the losses would show up in subsequent years as fewer sockeye returning to spawn in the Kenai river system. However, 1994 brought three times as many fish as expected, which suggests that major decreases predicted in 1995 and 1996 sockeye returns may not be as large as initially feared. These returns will be closely monitored and factored into future sockeye restoration activities.

To aid selective sockeye harvest in lower Cook Inlet, the Trustee Council has been supporting development since 1992 of a database of genetic information from 30 sub-populations of sockeye salmon from the Kenai/Skilak, western Cook Inlet, Kasilov and Susitna river systems. Using tissue samples from the commercial catch, stock composition estimates can now be provided within 48 hours to enable fishery managers to allocate harvest quotas. Fishery managers have also been using hydroacoustic techniques to count fish as a complement to other methods used.

These techniques have provided the Alaska Department of Fish and Game with additional tools to adjust the mixed-stock fishery in Cook Inlet and protect injured stocks, while also providing a lasting legacy for conservation of Kenai River and other Cook Inlet sockeye salmon in the future.

Trustee-sponsored management projects such as these are developed with defined endpoints and timelines. The objective is to phase out Trustee Council support, and turn the programs and techniques over to the management agencies and constituent groups for continued use.

Enhancement and Replacement

Enhancing, supplementing and replacing injured resources are among the options available for restoration. Enhancement and supplementation are general terms for actions that aid the survival of natural populations. Replacement is an appropriate restoration option either when the injured resource is no longer available or seriously reduced, or when harvest of a different resource would

Continued on Page 4

SEA Program Pink Salmon, Herring Studies Providing Results

The Sound Ecosystem Assessment or SEA program was launched by the Trustee Council in the spring of 1994 to conduct research on the ecological factors responsible for fluctuations in herring and pink salmon populations in Prince William Sound.

In 1994 SEA researchers began testing several hypotheses using data collected from oceanographic measurements and biological samples collected in western Prince William Sound. The hypotheses focus on understanding how sea water circulating in the upper layers of the sound, which varies seasonally and annually, influences the abundance, movement, timing and species composition of plankton available to feed fish, birds and mammals in the region.

SEA investigators believe that in years with high rates of sea water flushing through the sound there is a large reduction in the availability of plankton. This results in more juvenile herring, pink salmon and other small fish being eaten by larger fish and birds. Investigators also suspect that a combination of physical factors and predation have an influence on the losses of herring spawn each year. Several species of ducks, shorebirds and gulls are believed to be the major predators.

In 1994 researchers observed a generally counter-clockwise circulation in the upper 150 meters of the water circulation system through Prince William Sound. Below that depth a weaker clockwise spin was observed. Analysis indicated that water entering through Hinchinbrook Entrance was cooled and diluted as it passed through the sound, and that circulation was weaker in the northern and northwestern regions. The plankton bloom (a period of rapid population increase) was approximately 15 days later than in 1993. Researchers said most of this difference can be accounted for by cooler springtime temperatures in 1994.

Scientists at the Prince William Sound Science Center and the University of Alaska Fairbanks continue to analyze the data collected in 1994 and translate their findings into practical strategies for managing these important fishery resources. SEA scientists will investigate further in 1995 who eats whom in the surface waters of the sound, and how the survival of larval pink salmon and herring is affected by different physical and biological conditions.

Jim Murphy hauls in a CTD (current/temperature/depth) recorder while Dr. Ted Cooney looks on. The SEA program surveys collected nearly 1,000 CTD measurements during the 1994 field season. Photo by Robert Spies.

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Chenega resident Pete Selanoff, Jr. picks up oiled mussels for transfer to another part of the beach. Chenega residents worked with Alaska Department of Environmental Conservation and National Marine Fisheries Service staff to clean up twelve mussel beds in 1994. Photo by L.J. Evans.

Restoration Workshop

Continued from Page 2

allow natural recovery of the injured resource to take place.

Salmon Habitat Improvement During 1994, salmon habitat restoration and enhancement work was undertaken at four locations in Prince William Sound, one in lower Cook Inlet, and one on Afognak Island. The project was the result of a three-year survey of the spill area to identify appropriate, cost-effective instream habitat restoration and enhancement techniques and candidate locations. Workers at the six sites improved fish habitat and rehabilitated streams affected by environmental and human-induced factors, constructed fish passes, and repaired a waterfall bypass originally constructed in 1962.

Coghill Lake Sockeye At Coghill Lake in northwestern Prince William Sound, Trustee Council-funded work has been underway to increase production of an already-present but declining sockeye salmon run as a replacement fishery for sport and commercial harvests affected by the spill. Fertilizers are being added to the lake to encourage growth of plankton consumed by sockeye smolts. The availability of food in rearing lakes determines the growth and size of smolts that migrate to sea. Smolt size is an important factor contributing to ocean survival and subsequent adult returns. Over time, as the sockeye run increases, the sockeye will fertilize the lake themselves through the decomposition of spawned out carcasses.

The 1995 season will be the third of a five year fertilization plan for Coghill Lake. Sockeye fry were also added to the lake in 1994. Plankton production was significantly increased in 1993, but in 1994 results were less conclusive. Monitoring of results will continue to determine the project's success.

Chenega Chinook Release In 1994 the Trustee Council approved a local salmon run to be established at Crab Bay, as proposed by the residents of Chenega, to develop an alternate food source to replace subsistence resources injured by the oil spill. Last year, 50,000 Chinook smolts were barged by the Prince William Sound Aquaculture Corporation from the Esther Island hatchery to be reared for two weeks in net pens at Crab Bay by Chenega residents. The Aquaculture Corporation has donated egg-take and hatchery rearing for this project.

After only four days at the net-pen stage, 200 fish died from a disease which is not contagious to wild stocks. The Alaska Department of Fish and Game State Pathologist recommended that the fish be released early to avoid congestion and increased disease transmission among the penned smolts. Since the fish were released after only four days, it is uncertain whether they imprinted sufficiently to return to the area. Salmon returns will be monitored to evaluate the effectiveness of this project. Additional chinook fry will be released in 1995 as part of this ongoing project.

Bird Predator Removal Prior to 1930, foxes were introduced to most of the islands in southwestern Alaska for fur farming. These predators reduced populations of native birds, including black oystercatchers, common murres and pigeon guillemots. Since removal of the artificially-introduced predators would allow remnant populations of birds to increase or recolonize, the Trustee Council approved a project in 1994 to eliminate foxes on two islands near the western edge of the oil spill region.

The U.S. Fish and Wildlife Service has documented in the past that these types of predator removal projects are very effective in increasing bird populations. An increase of seabird populations in the Gulf of Alaska will make it more likely that birds can

repopulate areas that experienced the greatest spill impacts.

Fish and Wildlife Service workers removed 39 foxes from Simeonof and Chernabura Islands. Follow-up surveys in 1995 will assess bird population changes and verify that all foxes have been removed.

Marine Mammals

Harbor Seals Researchers working in Prince William Sound detected no signs of harbor seal recovery in 1994, either from spill-related effects or the area-wide decline which began prior to the spill.

Previous work has suggested that disease is not the cause of the ongoing decline, and reproduction rates appear to be normal. However, as in each of the years since the spill, surveyors in 1994 found approximately 40 percent fewer seals in the oiled areas of the sound than counted during a similar survey conducted the year before the spill.

Current hypotheses suggest that factors contributing to the harbor seal decline could include decreases in food availability, predation by killer whales or harvest by subsistence hunters. Projects are underway for 1995 which will examine the availability and abundance of the forage fish that harbor seals rely upon for food, gauge recovery of killer whales and investigate whale predation upon seals, and work with subsistence hunters who voluntarily want to manage their harvest patterns to aid in the recovery of harbor seals.

Sea Otters

Surveys of sea otters in Prince William Sound conducted in 1992 through 1994 suggest that population numbers remain low and that recovery of sea otters in oiled areas has not yet occurred. Continued monitoring of sea otters will be carried out as part of the Nearshore Ecosystem project (see Nearshore studies below).

Seabirds and Forage Fish

Populations of several fish-eating bird and mammal species have declined in Prince William Sound over the last 20 years, while species which depend on other food sources such as clams have not declined. Some forage fish, such as herring and juvenile salmon, are known to have been injured by the spill. Scientists say that changes in forage fish abundance or distribution may be constraining recovery of resources such as common murres, harbor seals, harlequin ducks, marbled murrelets and salmon. The Trustees funded a forage fish pilot study in 1994 to test techniques and collect data to aid in designing sampling methods for subsequent years.

Seabird surveys were conducted from boats at the same time hydroacoustic equipment on board assessed the presence of fish schooling underwater. Researchers noted that seabirds were often observed near dense schools of forage fish close to the water's surface, and that forage fish were found distributed in patches around seabird colonies. In future years the project will integrate seabird and forage fish research to determine if enough suitable food is available for these species.

Nearshore Ecosystem

The nearshore ecosystem includes the community of plants and animals that inhabit the relatively shallow water of shoreline areas. Much of the oil spilled by the *Exxon Valdez* ended up in this area, and the nearshore ecosystem suffered further disturbance as a result of cleanup activities.

Continued on Page 9

Archaeologist Mary Irving begins removal of the top layers at an archaeological site between Seward and Whittier. The site was studied and stabilized as part of a Trustee Council project to restore and protect archaeological sites injured because of the oil spill. Photo by Linda Yarborough, USFS.

Invitation for 1996 Work Projects Combined with Long-Term Plan

Do you have a Restoration Project you think the Trustee Council should consider? If so, the best time for you to make your suggestion is between now and May 1.

On March 24, the Trustee Council published an *Invitation to Submit Restoration Projects for Federal Fiscal Year 1996*. The *Invitation* provides the guidelines necessary for private contractors, agencies, universities, communities, and other interest groups to suggest restoration projects for 1996. Proposals are due May 1. The 1996 federal fiscal year begins October 1, 1995, and ends September 30, 1996.

Projects received before May 1 will be reviewed by the Trustee Council's scientific advisors, the Public Advisory Group, and trustee agency staff. Those recommended for funding will be published in late June in the Draft 1996 Work Plan. The Trustee Council plans to decide upon the final 1996 Work Plan at the end of August 1995.

If you would like to submit a project for evaluation, please contact the Restoration Office for a copy of the Invitation. Use the guidelines in the invitation to submit your project to the Trustee Council before May 1.

If you have questions about how to write a proposal, or how they will be evaluated, come to a meeting on Tuesday, April 18, 1995, at 2:30 PM, at the Restoration Office, 645 G Street in Anchorage. If you are not in Anchorage and would like to participate by teleconference, please call Rebecca Williams at 907/278-8012, toll-free within Alaska at 800-478-7745, or toll-free outside Alaska at 800-283-7745, by April 17. However, please call at any time if you have questions.

A Vision for the Future: *The Draft Restoration Program*

In January, more than 130 scientists, staff, and members of the public came together in Anchorage to review restoration activities over the past year, and develop a vision of the future — a forecast of work plan projects needed in the coming years to accomplish restoration objectives.

This vision is described in the *Draft Restoration Program: 1996 and Beyond* which is published as a part of the Invitation. For each injured resource and service, the document describes projects likely to be proposed for restoration including an estimate of the cost, what the project will accomplish, and when it will be finished. Collectively, the information provides a view of priorities for the work program for next year, and beyond.

"This is the first time we have had a long range view of our projected needs, "said Executive Director Molly McCammon. "With this information, we can realistically assess restoration needs, and put together a financially sustainable restoration program to make the best use of available funding."

The *Draft Restoration Program* is a starting point for this year's funding decisions by the Trustee Council. It has not yet been adopted by the Trustee Council, and is being distributed to the public for review and comment

The Draft Restoration Program: 1996 and Beyond or a shorter summary of the document is available by calling the Restoration Office. Comments are due by May 1 in order to be incorporated into the final decision process.

Public Meetings Taking Place in April

Trustee Council staff will be conducting meetings in the spill region during April to update the public on the status of restoration, what the Council has learned about recovery in the last year, and what the future holds for restoration activities. The team visiting each community will include the Chief Scientist or an expert working on a project particularly relevant to the area.

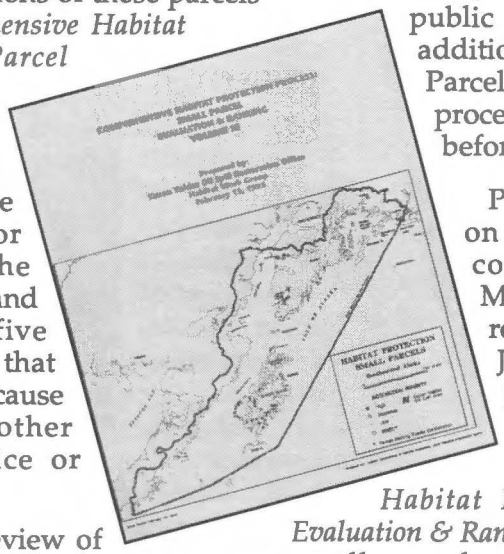
Public meetings are being scheduled in the following communities: Cordova, Homer, Valdez, Seldovia, Kodiak, Kenai,Tatitlek, Chenega, Port Graham and Seward. The dates and times of the meetings will be announced in local newspapers and other public media.

Please call the Trustee Council office at 907/278-8012 or the Oil Spill Public Information Center at 907/278-8008, toll free within Alaska at 1-800-478-7745 for additional information.

Update: small parcel habitat protection

Trustees seek public comment

The Trustee Council recently gave the green light for further consideration of protecting 22 small parcels important to the restoration of injured resources and services. Evaluations of these parcels were included in the *Comprehensive Habitat Protection Process: Small Parcel Evaluation & Ranking* reviewed at the Council's February 13 meeting.



Sixteen of the parcels were ranked as having "high" or "moderate" value to the restoration of injured resources and services, and an additional five tracts were designated "Parcels that Merit Special Consideration" because they contain unique or other outstanding resource, service or management values.

The evaluation included a review of small parcel nominations of less than 1,000 acres received during a public solicitation period in the summer of 1994. At the February 13 meeting, the Trustees authorized Executive Director Molly McCammon to oversee preliminary negotiations for acquisition and protection of the 22 parcels as part of the Council's overall program to protect habitat important to the recovery of resources or services injured by the oil spill.

In addition, the Trustees gave agencies and the public until March 31, 1995 to nominate additional small parcels for consideration. Parcels nominated in this supplementary process must receive agency sponsorship before they are evaluated.

Public comment is now being sought on these parcels. Based on public comment and further analysis, McCammon will present an initial recommendation to the Trustees by June 15, 1995 regarding those small parcels that should be protected using joint settlement funds.

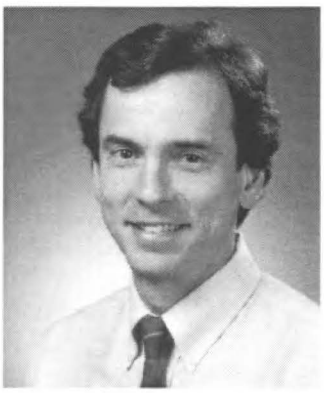
Copies of the *Comprehensive Habitat Protection Process: Small Parcel Evaluation & Ranking Vol. III*, which summarizes the small parcel evaluation process and provides information on the parcels under consideration, or the parcel nomination packet are available by contacting the Trustee Council office or the Oil Spill Public Information Center. All written comments should be sent to EVOS Trustee Council, 645 G Street, Suite 401, Anchorage, AK 99501.

Small Parcels Under Consideration

Parcel #	Parcel Name	Acres
PWS 5	Valdez Duck Flats	30
KEN 10	Kobylarz Subdivision	20
KEN 12	Baycrest	90
PWS 17	Ellamar Subdivision	172
KEN 19	Coal Creek Moorage	53
KAP 22	The Triplets	70
KEN 29	Tulin Parcel	220
KEN 34	Cone Parcel	100
PWS 52	Valdez, Hayward	10
KEN 54	Salamatof Parcel	1,260
KEN 55	Overlook Park	97
KAP 105	Three Saints Bay	48
KAP 130	Uyak Bay	318
KAP 142	Three Saints Bay	40
KAP 145	Termination Point	1,028
KEN 148	River Ranch	146
KEN 149	Perl Island	157
KAP 150	Karluk	5
KAP 220	Ayakulik River Mouth	56
KAP 226	Karluk River Lagoon	22
KEN 1001	Deep Creek Parcel	91
KEN 1004	Stephanka Tract	803

Burden and Rue Join Trustee Council

Recent appointments made by Governor Tony Knowles have resulted in changes in two Trustee Council members — the representatives for the Alaska Departments of Fish and Game and Environmental Conservation.



Frank Rue

As the new Commissioner of the Department of Fish and Game, Frank Rue is already familiar with the issues regarding restoration. He was appointed director of the Habitat Division in the Department of Fish and Game in 1988, and played an active role in response to the *Exxon Valdez* spill in 1989. Under his direction Habitat staff collected critical information about the effects of the oil on resources in the spill's path and monitored cleanup operations. The Oil Spill Impact Assessment and Restoration office was combined with the Habitat Division in 1993, making Rue also the director of Fish and Game's restoration activities.

Gene Burden

Gene Burden came to the post of Commissioner of the Alaska Department of Environmental Conservation after serving ten years in several posts at Tesoro Alaska Petroleum Company. He is familiar with the risks associated with oil spills, the importance of prevention and being prepared to respond if one should occur, and the issues involved in restoration. While he was working for Tesoro, the company responded to a 750,000 gallon underground oil spill at the Nikiski refinery on the Kenai Peninsula.

Governor Knowles praised both officials in their roles on the Trustee Council.

"Using the settlement funds wisely to assist restoration and recovery will benefit all Alaskans," Knowles said. "I'm confident that Gene and Frank, along with Bruce Botelho, will contribute to the Trustee Council's effectiveness in achieving its mission of restoring the injured resources in the spill region."

Since Governor Knowles retained Bruce Botelho as Attorney General, he will continue as the third State of Alaska Trustee Council member.

New Public Advisory Group to Meet

A new slate of members in the Trustee Council's Public Advisory Group has been selected and will hold its first meeting in Anchorage on March 23 and 24.

Representatives on the Public Advisory Group volunteer their time to advise the Trustees on issues of concern to the interest groups and communities they represent. They meet approximately four times a year and provide an additional avenue for public involvement in the restoration process.

The public advisory group members selected for the 1994 – 1996 term are listed to the right.

Public Advisory Group - 1995 - 1997 Term

Member	Principal Interest
Rupert Andrews	Sport Hunting & Fishing
Chris Beck	Public at Large
Karl Becker	Aquaculture
Kim Benton	Forest Products
Pamela Brodie	Environmental
Dave Cobb	Local Government
Chip Dennerlien	Conservation
James Diehl	Recreational Users
John French	Science/Academic
James King	Public at Large
Nancy Lethcoe	Commercial Tourism
Vern McCorkle	Public at Large
Brenda Schwantes	Subsistence
Thea Thomas	Commercial Fishing
Charles Totemoff	Native Landowners
Martha Vlasoff	Public at Large
Gordon Zerbetz	Public at Large

Ex-Officio Members

Alaska State Senator Georgianna Lincoln
Alaska State Representative Alan Austerman

Restoration Workshop

Continued from Page 5

Oiling Conditions

Residual subsurface oil lingers in patches on beaches within the spill region. At some locations the oil continues to cause contamination problems, especially in mussel beds. In 1994, assessment teams removed 38 tons of oiled sediment from beneath 12 oiled mussel beds in Prince William Sound, resulting in a 95 percent reduction of oil at those sites.

A 1995 project will conduct a final survey of oiled shorelines of concern to community residents in the Kodiak region.

Intertidal plants and invertebrates

The key to recovery in the upper intertidal zone appears to be re-establishment of the brown seaweed *Fucus* . A canopy of large leaves of adult plant needs to become re-established to provide shelter for young plants, snails, limpets and other invertebrates.

Fucus is a slow-growing plant which spreads outward from adult plants, regaining ground in crevices which retain moisture. Studies to determine the best restoration strategy for these intertidal communities will continue in 1995.

Harlequin ducks

Harlequin ducks still do not appear to be reproducing in significant numbers in the heavily oiled western half of Prince William Sound. Several years of studies have not yet allowed scientists to rule out oil exposure as an underlying cause of this decline, rather than some natural geographic differences between the western and eastern sides of the sound.

An integrated package of nearshore research projects has been developed and reviewed, and will be available for Trustee Council action at its meeting scheduled for March 31. Nearshore resources to be studied include sea otters, river otters, harlequin ducks, pigeon guillemots, black oystercatchers, mussels, clams, and other intertidal and subtidal organisms. More extensive discussion of 1994 findings on some of these resources is included in the *1995 Annual Status Report*.

Wallace Moonin of Port Graham cuts a salmon to dry as part of his traditional subsistence practices. Photo by Ron Stanek, ADF&G.

Subsistence Resources

Residents of some communities in the spill region continue to have concerns about the safety of their subsistence food resources. A 1994 project analyzed samples of subsistence resources from harvest areas used by communities in Prince William Sound, the Gulf of Alaska and Kodiak, and reported the test findings back to the communities. Tests conducted on shellfish, finfish and harbor seals all found hydrocarbon levels so low as to be within the margin of error for the tests.

In many cases the injured resources aided by other restoration projects are the same species, such as pink salmon, traditionally used as subsistence resources. The Trustee Council is supporting projects in 1995 to implement additional community outreach and involvement in the restoration program, enhance and replace subsistence resources, and survey oiled shorelines of concern to communities in the Kodiak region and near Chenega Bay.

Cultural Resources

During 1994, archaeologists monitored sites on the Kodiak and Katmai coasts, the outer Kenai coast, Kachemak Bay, and Prince William Sound. These archaeological sites were injured as a result of the spill, either directly, by oiling, or from cleanup activities or increased vandalism. Surveyors in 1994 did not find any new evidence of vandalism, but natural erosion continues to be a problem at some sites.

At two sites in Prince William Sound, archaeological excavations recovered data about early residents of the area. Evidence of house posts and the remains of tools were discovered at one site between Seward and Whittier, and layers of volcanic ash from eruptions 300 and 2,000 years ago were found. Information recovered from these sites will provide significant insights into the early residents of the sound.

Additional Information

For more information, contact the Oil Spill Public Information Center at 645 G Street, Anchorage, AK 99501, or call 907/278-8008, toll-free within Alaska at 1-800-478-7745, outside Alaska at 1-800-283-7745, or call the Trustee Council offices at 907/278-8012.

Trustee Council Meeting

The next meeting of the Trustee Council is scheduled to take place on Friday, March 31, from 2:00 – 4:00 PM, at 645 G Street in Anchorage. The agenda will include review of the Nearshore Ecosystem and Forage Fish integrated restoration projects. The meeting will be available by teleconference at Legislative Information Offices in the spill area.

For more information or to obtain a copy of the agenda, contact the Oil Spill Public Information Center at 907/278-8008, toll-free within Alaska at 1-800-478-7745.

New Documents, Marine Ecosystem Poster Available

The *1995 Annual Status Report* will be available in early April. The report summarizes the main elements of the Trustee Council's program in 1994, including the outcome of restoration activities and findings from research and monitoring projects.

The *Invitation to Submit 1996 Projects and Draft Restoration Program* includes an invitation to submit projects for the 1996 work plan and also presents a draft restoration program for public comment (see page 6).

As part of meeting its public information and education goals, the Trustee Council this winter produced a full-color poster showing the various components of Alaska marine ecosystems involved in the 1989 *Exxon Valdez* oil spill. Posters are available for $10 each.

To obtain any of these documents, contact the Oil Spill Public Information Center at 645 G Street, Anchorage, AK 99501-3451, or by calling 907/278-8008, toll-free within Alaska at 1-800-478-7745, outside Alaska at 1-800-283-7745.

Exxon Valdez Oil Spill Trustee Council
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Exxon Valdez Oil Spill Trustee Council

Restoration Update

May 1995 Vol 2 No. 2

Preliminary results:

PWS Herring Still In Decline

Cordova observers reported sightings of Pacific herring spawning in Prince William Sound during the last weeks of April. However, for the third year in a row, no commercial seine fishing for herring was allowed.

Alaska Department of Fish and Game staff from the Cordova office noted that the decline in herring biomass, although serious, was not as drastic as some feared, and may suggest moderately successful commercial harvests will be possible in future years.

Pathologists also noted the presence of lesions on some herring, which suggests that the *Ichthyophonus* virus is still present. More information on the source of the lesions will become available as analyses are completed as part of Project 95320S.

Although spawning fish were observed in more areas, the total biomass seems to be less than last year, according to John Wilcock of the Cordova Fish and Game Office.

"This year it looked like the largest accumulation of fish were near Montague Island," Wilcock said. "The preliminary estimate from sonar data was 10,000 tons, just in Rocky Bay, compared to last year's estimate of 20,000 tons of herring throughout the sound.

"This year we saw herring spawn on ten miles of beach in parts of the sound where spawning did not occur last year, but they were more spread out. Though there were at least some thousands of tons in other parts of the sound, by far the largest aggregation of herring we've seen this year from the air or on the water was at Montague."

Herring are an important element in the food chain of the Gulf of Alaska marine ecosystem. Seabirds and marine mammals rely on herring and other forage fish as part of their diets. Understanding the herring declines of recent years is an especially challenging restoration problem.

"The trouble with herring is their variability," Wilcock said. "Whatever generalization you can make for herring, the next time you look at them they will do just the opposite."

The Trustee Council is supporting research on herring through several different projects, including the Sound Ecosystem Assessment, an ecosystem-based examination of environmental factors that may be constraining recovery of pink salmon and herring, and a project being conducted by researchers at the National Marine Fisheries Service laboratory in Auke Bay to investigate the effects of oil on herring genetics.

Divers were in the field in early May conducting spawn deposition biomass surveys to provide a better estimate of how many fish are actually spawning. Wilcock said results of that data collection will be available in August.

For more information on Trustee Council herring studies, contact Joe Sullivan at 907/267-2213.

Calendar

June 1 • Trustee Council meeting in Cordova, 1 PM at Mt. Eccles Elementary School Auditorium.

June 13 & 14 • Public Advisory Group meeting in Anchorage at 645 G Street.

June 27 • Draft 1996 Work Plan available for public review. Comment period from June 27 through August 1.

August 25 • Trustee Council meeting in Anchorage to take action on 1996 Work Plan.

September 21 • Public Advisory Group meeting in Valdez.

Inside...

Habitat Protection

Small parcel program

Trustee Council could initiate negotiations by August

Sandra Cronland points out features of the Overlook Park KEN 55 small parcel near Homer to Eric Myers. This 97 acre parcel contains an extensive Kachemak Bay tidal pool area unique to the area and containing an especially diverse assortment of marine flora and fauna. The Trustee Council is considering possible acquisition of this parcel. Photo by Joe Sullivan, ADF&G.

Work continues on the Small Parcel habitat protection program with Trustee Council staff evaluating and ranking several additional private landowner nominations.

This program identifies opportunities for the Trustee Council to protect small parcels (less than 1,000 acres) of habitat important to resources injured by the spill. The Trustee Council works only with voluntary and willing private landowners who wish their land to be considered for protection.

Evaluation of recent small parcel nominations by a multi-agency working group is nearly complete. Preliminary negotiations, title searches, hazardous materials investigations and appraisals are moving forward on small parcels identified to date as being of substantial importance to restoration objectives.

It is estimated that a total of approximately 25 – 30 small parcels will be considered for possible purchase and protection through the Small Parcel program. The Trustee Council may review options for small parcel action at their August 25 meeting.

For more information about the Small Parcel program, contact Eric Myers at 907/278-8012.

The *Restoration Update* is published approximately six times a year by the *Exxon Valdez* Oil Spill Trustee Council. Its purpose is to update interested members of the public about actions, policies and plans of the Trustee Council to restore resources and services injured by the *Exxon Valdez* oil spill.

For more information, mailing address correction or to request future articles on specific subjects, contact:

Executive Director: • Molly McCammon *Director of Operations:* • Eric Myers *Editor:* • L.J. Evans

Exxon Valdez Oil Spill Trustee Council, 645 G Street, Suite 401, Anchorage, Alaska 99501-3451
Telephone: 907/278-8012, Toll-free within Alaska at 800-478-7745, Toll- free outside Alaska at 800-278-7745
FAX: 907/276-7178

Program Update

Large parcel discussions underway

Some land transfers imminent

Lands owned by Akhiok–Kaguyak Inc. and Old Harbor Corporations will be transferred to the U.S. Department of the Interior soon, resulting in protection of almost 152,000 acres of forest lands in the Kodiak National Wildlife Refuge.

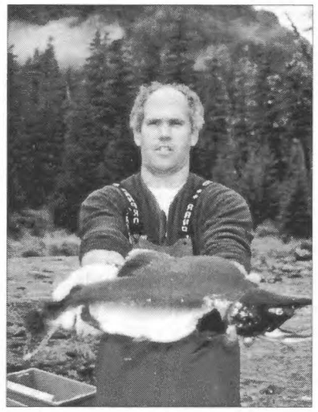
Transfer of another 115,000 acres of land owned by Koniag, Inc. is expected to follow shortly. Negotiations and appraisals continue for offers made by the Trustee Council to Afognak Joint Ventures, Chenega, Eyak and Tatitlek Corporations, as well as the Kodiak Island Borough. Talks are also underway with the English Bay and Port Graham Corporations. The current status of these habitat protection negotiations is summarized in the table shown below.

For more information on the status of the Trustee Council's habitat protection activities, call Carol Fries at 907/278-8012.

Status of Large Parcel Habitat Protection Actions

As of May 15, 1995

	Acreage	Purchase Price (In Millions)	Civil Trust Funds (In Millions)	Other $ Sources (In Millions)
Completed Transactions				
Kachemak Bay State Park Inholdings	23,800	$22.0	$7.5	$14.5
Seal Bay/Tonki Cape	41,549	$38.7	$38.7	
Orca Narrows Timber Rights	2,052	$3.45	$3.45	
Subtotal:	**67,401**	**$64.15**	**$49.65**	**$14.50**
Agreements Reached				
Akhiok – Kaguyak, Inc.	119,885	$46.0	$36.0	$10.0
Koniag	115,739	$28.5	$21.5	$7.0
Old Harbor	32,100	$14.5	$11.25	$3.25
Subtotal:	**267,724**	**$89.0**	**$68.75**	$20.25
Offers – Subject to Appraisals				
Afognak Joint Venture	48,728	$70.0	$70.0	$0
Chenega	74,554	$48.0	$38.0	$10.0
Eyak - Core Parcels	13,700	$21.0	$21.0	$0
Shuyak Island	25,665	$42.0	$42.0	$0
Tatitlek	56,785	$22.0	$12.0	$10.0
Subtotal:	**219,432**	**$203.0**	**$183.0**	**$20.0**
Negotiations Continuing				
English Bay	49,300			
Eyak – Orca Revised & Other Lands	49,700			
Port Graham	46,170			
Subtotal:	**145,170**			
Total:	**699,727**	**$356.2**	**$301.4**	**$54.75**



Project Geneticist Gary Miller collected muscle, liver, heart and retina tissue samples from pink salmon in Prince William Sound. The tissue samples were frozen in liquid nitrogen for transport to the Fish and Game genetics laboratory in Anchorage, where the genetic data was collected using DNA techniques and protein electrophoresis.

Photo by Jim Seeb, ADF&G.

Pink Salmon Genetics More Diverse Than Expected

Pink salmon that spawn in the upper reaches of streams in Prince William Sound are genetically distinct from salmon spawning in other areas of the same streams, according to 1994 Alaska Department of Fish and Game research funded by the Trustee Council. In fact, researchers say salmon spawned in the lower zones of different streams have more in common genetically than the salmon spawned in the upper reaches of the same streams.

Understanding the genetic structure of wild pink salmon populations inhabiting Prince William Sound is critical to both their management and conservation, according to fishery biologists.

"Pink salmon are known to stray among local streams, sometimes in large numbers," said Jim Seeb, Project Manager for ADF&G. "We also know that when they return to spawn, they home in to an area with some degree of geographical and temporal precision," Seeb said. "We're using genetics technology to understand just where the dividing lines are between specific populations."

In order to properly manage fisheries in Prince William Sound, ADF&G needs to know the genetic boundaries of pink salmon populations. Managing for the pink salmon spawning in every stream may not be necessary and may result in policies which adversely affect the fishing industry and waste management resources while not significantly aiding conservation and restoration efforts, Seeb said. On the other hand, managing for the whole sound as if the wild stock populations in individual streams did not matter could result in a loss of genetic adaptations and diversity.

Populations of fish adapt genetically in response to local conditions...

According to Seeb, fishery managers will be able to use Trustee-funded research results to better interpret and apply findings obtained from analyses on a population basis, more properly define the population-level nature of the oil spill damage documented in previous studies of damaged pink salmon, and guide the management-oriented restoration of oil spill-damaged pink salmon populations. The same knowledge of population structure will be used for genetic monitoring and risk assessment required to evaluate restoration proposals involving fish supplementation.

Prince William Sound is the center of one of the State of Alaska's largest aquaculture industries. Prince William Sound Aquaculture Corporation and Valdez Fisheries Development Association hatcheries release over 700 million salmon fry and smolts each year. ADF&G has been grappling for nearly a decade with managing the combined hatchery/wild stock fishery in order to prevent over fishing of wild stocks. The *Exxon Valdez* oil spill injuries to wild stocks, coupled with survival rates for hatchery fish, which exceed wild stocks by 10 to 1, has intensified ADF&G's concerns about protecting the wild stocks.

"We know that populations of fish adapt genetically in response to local conditions such as stream gradient, temperature, turbidity, and many other factors," Seeb said. However, genetic exchange between populations is restricted, and the accumulation of local adaptations produces diversity within the population which is responsible for many aspects of the "fitness," or survival rate, of the species.

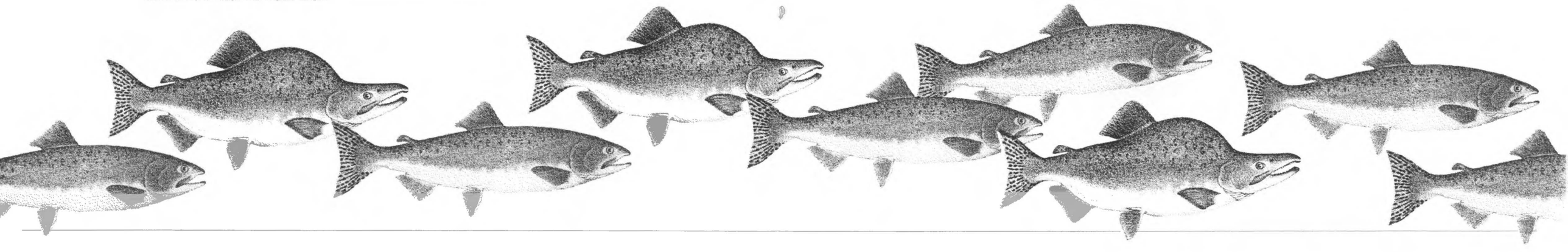
Diverse genetic population mixes provide a biological buffer to environmental change...

In the case of commercially harvested species like pink salmon, fitness includes peak productivity as well as long-term sustainability. Highly diverse genetic population mixes provide a biological buffer to environmental changes such as droughts, floods, major earthquakes, and other events which occur routinely in Alaskan ecosystems.

To date the Trustee Council has funded data collection and analysis of 18 odd- and 45 even-year pink salmon populations. A comprehensive set of genetic markers has been screened using two different laboratory approaches.

Preliminary results show that Prince William Sound populations are identifiable at least along major geographic boundaries. East Sound, West Sound, and South Sound Island populations have been found to be genetically different from one another. Recent laboratory results seem to show that significant genetic differences also can occur between populations spawning upstream and intertidally in the same stream, Seeb said.

Pink salmon genetics work proposed for 1996 is intended to provide a better understanding of the structure of diversity among all of the potentially influential factors, including early and late spawners and spawners in different bays and corridors. For more information contact Jim Seeb at 907/267-2385.



Attendees at area meetings discuss local concerns, restoration goals

At a meeting in Kodiak representatives of all the outlying Kodiak villages spoke with staff from the Trustee Council and from the Alaska Department of Fish and Game's Subsistence Division. Trustee Council representatives held public meetings in twelve communities in the spill region during April to provide an update on current activities and discuss options for the future. Meetings in other spill area communities will be held in the fall. Photo by Bruce Wright, NMFS.

Ground breaking for Alaska SeaLife Center May 21

Groundbreaking ceremonies for the Alaska SeaLife Center in Seward took place at 11:30 AM on Sunday, May 21. When completed, the SeaLife Center will provide a facility for long-term research and monitoring programs important to restoration of resources injured by the *Exxon Valdez* oil spill.

The center will consist of a research and wildlife rehabilitation facility as well as a public educational and visitation component. The Trustee Council in 1994 authorized $24.9 million in funding to support development of the research component of the SeaLife Center. Additional start-up funding came from the state's *Exxon Valdez* oil spill criminal restitution funds appropriated by the Alaska Legislature.

Alaska SeaLife Center

windows to the sea

A $10 million private funding campaign is underway to fund the public visitation component of the Center. The facility will include specialized resources for studies on marine mammals, marine birds and fish genetics.

The City of Seward is providing the land and will own the center; the Seward Association for the Advancement of Marine Science, a non-profit organization, will operate the facility.

Current plans are for the Alaska SeaLife Center to open its doors to researchers and the public in 1998.

For more information about the the Trustee Council's support of the Alaska SeaLife Center, call Kim Sundberg at 907/ 267-2342.

Oil Spill Public Info Center

More than 8,000 served

Staff at the Oil Spill Public Information Center recently received their 8,000th visitor since the opening of the library in September 1990. This unique library is funded by the Trustee Council to provide public access to information on the *Exxon Valdez* oil spill and subsequent restoration efforts.

During the past four and a half years, the library staff has answered over 12,000 questions about the spill and distributed 23,000 publications. Questions come in from people all over the world via phone, fax, regular mail and electronic mail.

OSPIC staff, l to r: Beverly Hayes, Technical Services Librarian; Carrie Holba, Head Librarian; and Jeff Lawrence, Library Technician.

Photo by L.J. Evans

"The question we get most often is is 'How did the oil spill affect thewildlife?' said Carrie Holba, the OSPIC's Head Librarian.

OSPIC regularly receives queries from students, teachers, writers, radio and television journalists, attorneys, agency personnel, scientists, business professionals, and librarians from Alaska and elsewhere.

The OSPIC collection includes information from the natural and social sciences, economics, and law pertaining to the *Exxon Valdez* oil spill, other spills in the marine environment, and restoration. Visitors to the OSPIC find answers to their questions in technical reports, books, journals, maps, video tapes, audio tapes, photographs and computerized databases.

Items in the circulating collection are available for check out by Anchorage residents. Users outside the Anchorage area may borrow these materials through interlibrary loan from their local public or academic library. OSPIC is also a contributing member of the Western Library Network, and a database of the OSPIC collection is available via Internet on SLED, the Alaska State Library's Statewide Library Electronic Doorway.

The OSPIC staff recently established a Home Page on the World Wide Web. Users can find out about the oil spill, library materials, and the latest Trustee Council publications and activities by typing http://www.alaska.net/~ospic.

To reach the OSPIC staff with *your* questions, call (907) 278-8008, toll-free from within Alaska at 1-800-478-7745, toll-free from outside Alaska at 1-800-283-7745, or via email to ospic@muskox.alaska.edu or ospic@calvino.alaska.net, or you may visit the library at 645 G Street in Anchorage. Hours are Monday – Friday, 9 AM – 4:30 PM.

New Science Coordinator On Board

A veteran of oil spill restoration work has returned to fill the position of Science Coordinator for the Trustee Council. In his new role, Stan Senner will facilitate coordination and communication among the Trustees, Chief Scientist Bob Spies, and the agency and private researchers working on *Exxon Valdez* restoration projects.

Senner is no stranger to the Council since he served as ADF&G's Restoration Program Manager from 1990 to 1992. He co-chaired the Trustee Council's Restoration Planning Work Group and played a key role in early development of the Restoration Plan. In 1992 he moved to a position as Director of the Migratory Bird Conservation Program for the National Audubon Society in Boulder, Colorado.

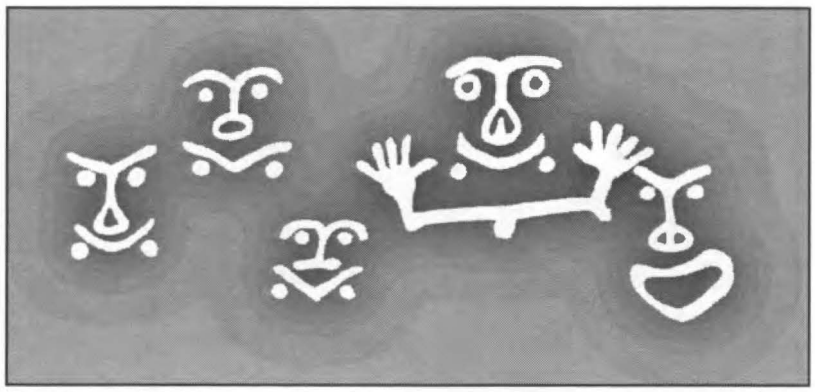
"I'm glad to be back in the middle of this ground-breaking program," Senner said. "Much discussion is taking place among scientists, industry and conservationists about restoration, but the Trustee Council has the resources and the opportunity to put new ideas into practice. We can add greatly to the knowledge of what can and should be restored following an environmental disaster such as the *Exxon Valdez* oil spill."

Kodiak's Alutiiq Museum Opens

The Alutiiq Museum and Archaeological Repository officially opened to the public on Saturday, May 13. Opening ceremonies marked completion of the Alutiiq Center, which houses the museum and repository on the first floor and office suites for Natives of Kodiak Inc. and Afognak Native Corporation on the second floor.

"The Trustee Council is pleased to have played a role in the creation of this facility," Craig Tillery, Assistant Alaska Attorney General said at the ceremonies. "The Trustees thank the people of Kodiak for working with us on this project. This Center will help to achieve an important restoration objective by providing the means to preserve and protect cultural resources injured by the 1989 oil spill."

Construction of the Archaeological Repository was partially funded with $1.5 million from the *Exxon Valdez* oil spill settlement funds. The regional and village Native corporations of Kodiak and the Kodiak Area Native Association jointly formed the Alutiiq Heritage Foundation to oversee operations of the center.



When designing the Alutiiq Museum and Archaeological Repostiory's logo, the staff incorporated figures which resemble several 1,000-year old petroglyphs found near a "Kachemak tradition" village site on Cape Alitak.

The museum will house and display artifacts, ethnographic pieces and archival collections from the Alutiiq culture in a facility with appropriate climate control and security features. The first exhibit on display at the museum is *Crossroads Alaska*, a collection of Native artifacts from Alaska and Siberia. Artifacts found during Kodiak archaeological excavations, including projects funded by the Trustee Council, will also be on display.

For more information about the Alutiiq Museum, call Rick Knecht at 907/486-7004.

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Restoration Update

August 1995 Vol 2 No. 3

D. Lindsey Hayes and Dave Tessler place a video camera near a pigeon guillemot nest on Naked Island in Prince William Sound. The camera will record the comings and goings of the parent birds bringing food to the chicks. Photo by L.J. Evans.

APEX Study: Does seabird recovery depend on forage fish?

An ecosystem-based project just underway this year as a pilot effort is exploring the possibility that a shift in food resources in Prince William Sound is preventing recovery of some injured bird populations from the oil spill.

The Apex Predator Ecosystem Experiment is investigating the relationship between continuing declines (or, in some cases, the failure to recover to pre-spill numbers) of pigeon guillemots, murres, and black-legged kittiwakes, and the availability of their main food resources. All of these top-of-the-food chain species were injured by the oil spill, and all feed on small fish referred to as "forage fish."

"Ecosystem studies such as the Apex project may help detect indirect effects on the wildlife in the sound from different sources," said Dr. Dave Duffy, Project Leader. "These include the oil spill, human efforts to ameliorate the oil spill, and future threats to the long-term sustainability of the Prince William Sound ecosystem."

Over the last 15 to 20 years, biologists have noted shifts in the species, distribution and abundance of forage fish, such as Pacific herring, capelin, juvenile pollock and sand lance, in the northern Gulf of Alaska and in Prince William Sound. Certain marine bird and mammal populations in the region which rely on small fish for a major part of their diets have declined during the same time period, making scientists speculate that there may be a connection. Seabird and mammal deaths resulting from the oil spill probably accelerated and intensified this decline, according to biologists.

Field biologists watching seabird nests in Prince William Sound and in the Barren Islands are gathering data on the number of eggs laid, chicks hatched and fledged, and the type and quantity of food brought back to the nests by adult birds to feed their young. Small radio transmitters attached to kittiwakes are providing information on how far the birds

Please see **APEX**, Page 4

Inside...

Calendar

August 25

Trustee Council meeting in Anchorage to take action on FY96 Work Plan. Contact Rebecca Williams at 907/278-8012

September 8*

Trustee Council meeting in Anchorage to take action on first round of small parcels. Contact Rebecca Williams at 907/278-8012.

September 19–20

Public Advisory Group meeting in Valdez and field trip to Prince William Sound. Contact Cherri Womac at 907/278-8012.

September 22–23

Elders/Youth Conference on Subsistence in Anchorage. Contact Rita Miraglia at 907/267-2358.

September 29–October 1

Pacific Seabird Restoration Symposium in Girdwood. Contact Catherine Berg at 907/786-3598.

December 12*

Trustee Council meeting in Anchorage on final projects for FY96 Work Plan. Contact Rebecca Williams 907/278-8012.

January 16–18, 1996

Annual Restoration Workshop in Anchorage. Contact: L.J. Evans 907/278-8012.

**Tentative dates*

New In Print

The following new or recently published documents are available by contacting the Oil Spill Public Information Center at 645 G St., Anchorage, AK 99501-3451, or by calling 907/278-8008, toll free at 1-800-478-7745 (within Alaska) or 1-800-283-7745 (outside Alaska).

Draft Fiscal Year 1996 Work Plan, Exxon Valdez Oil Spill Trustee Council.

1995 Annual Status Report, *Exxon Valdez* Oil Spill Trustee Council.

Impact of the oil spill on juvenile pink and chum salmon and their prey in critical nearshore habitats, A. Wertheimer, et al.

Effects of pink salmon escapement level on egg retention, preemergent fry and adult returns to the Kodiak and Chignik management areas caused by the Exxon Valdez *oil spill*, C.O. Swanton, et al.

Impacts of the Exxon Valdez *oil spill on bottomfish and shellfish in Prince William Sound*, E. Haynes, et al.

Sockeye overescapement, D.C. Schmidt et al.

Database management, C. DiCostanzo.

Assessment of injury to harbor seals in Prince William Sound, Alaska, and adjacent areas following the Exxon Valdez *oil spill*, K. Frost et al.

Technical support study for the restoration of Dolly Varden and cutthroat trout populations in Prince William Sound, S. Sharr et al.

Injury to Prince William Sound spot shrimp, C. Trowbridge.

Injury to demersal rockfish and shallow reef habitats in Prince William Sound, 1989-1991, A. Hoffman, et al.

Injury to salmon eggs and preemergent fry in Prince William Sound, S. Sharr et al.

Subsistence restoration project, R. Miraglia.

Characterization of upland habitat of the marbled murrelet in the Exxon Valdez *oil spill area*, R.L. DeVelice et al.

The **Restoration Update** is published approximately six times a year by the *Exxon Valdez* Oil Spill Trustee Council. Its purpose is to update interested members of the public about actions, policies and plans of the Trustee Council to restore resources and services injured by the *Exxon Valdez* oil spill.

For more information, mailing address correction, or to request future articles on specific subjects, contact L.J. Evans, Editor, at the address below.

Molly McCammon, *Executive Director*

Eric Myers, *Director of Operations*

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New pink salmon ID system in PWS ready to go

A new system to mark all the pink salmon released from fish hatcheries in Prince William Sound is in place and ready for operation, fishery managers reported last week. The technique, called thermal otolith mass-marking, uses temperature fluctuations in water circulating through the hatchery to cause identifiable marks to be formed in a tiny bone in the salmon called the otolith.

By marking all of the hatchery-raised pink salmon released into the sound, fish biologists will be able to differentiate hatchery-raised fish from wild pink salmon stocks. This information will allow investigation of factors still affecting the wild stocks injured by the 1989 oil spill.

The Trustee Council is funding the research and development phase of the project. Costs for continuing the program will be supported by the Prince William Sound Aquaculture Corporation and the Alaska Department of Fish and Game.

"This technique has been proven in other places, but it's never been applied on this scale for in-season management," said Mark Willette of the Department of Fish and Game.

In the usual hatchery environment, cold fresh water is constantly circulated through hundreds of trays or incubators holding the fertilized salmon eggs, and later hatched fish. Addition of a boiler unit to the hatchery allows the water temperature to be increased by the few degrees necessary to create bands in the otolith, or ear bone, as it grows. The critical time period is between October and December. Boilers have been plumbed in and test-fired in all four of the pink salmon hatcheries in Prince William Sound, Willette said.

Before the fish hatch, a small increase in the water temperature results in more calcium deposited in the otolith, which appears as a light ring when viewed under a microscope. A drop in temperature causes more protein to be laid down, resulting in a dark ring.

A change of 3 1/2 degrees for 24 hours creates one band. By precisely manipulating the water temperature, hatchery staff will be able to mark each fish released and make the marking patterns unique for each hatchery.

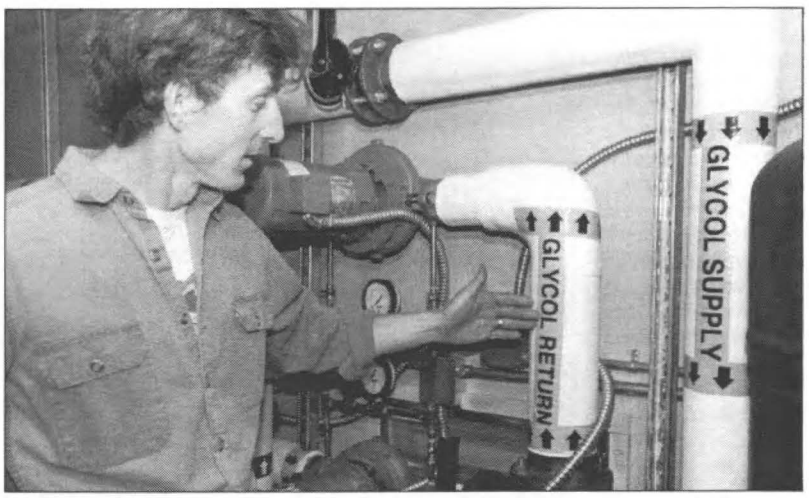
When an adult fish returns to spawn, the otolith has grown from smaller than the head of a pin at the time of marking to about the diameter of a pencil eraser. Field biologists will remove the otoliths from a percentage of the catch and send them to the Fish and Game lab in Juneau for analysis, where they will be examined under a microscope.

Information from the marked fish will be used to reduce the interception of wild pink salmon in mixed stock fisheries. The marked fish will also help answer questions about how much returning hatchery and wild stocks stray from their natal streams, evaluate factors which influence growth, and examine effects hatchery-grown fish may be having on the wild stocks. In additional studies being undertaken by NOAA, the otolith marking project will make it possible for NOAA investigators to tell if the fish from the sound stay together out in the ocean, or if they disperse, Willette said.

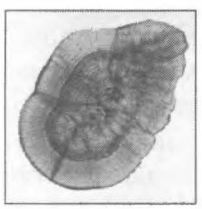
The otolith marking technique will replace a much more labor-intensive program of inserting coded wire tags into hatchery fish. Using coded wire tags to track the hatchery fish requires handling of each fish to be marked when it is just a few inches long. Only one in 600 of the fish released can be marked using this technique. Marking all of the fish from each hatchery will increase the degree of certainty possible when fishery managers are dealing with harvest allocations. Willette estimated that the first adult fish with marked otoliths will return in 1997.

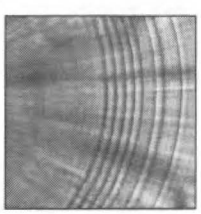
"Many subtle variables could be contributing to the declines we see in the wild stocks. The otolith marking program will give us greater flexibility and certainty to help answer these questions," Willette said.

For more information on the otolith marking project, contact Tim Joyce at the Cordova office of the Alaska Department of Fish and Game at 907/424-3212.



Chuck Pratt, Assistant Manager at AFK hatchery, points out the heat exchange system in the new boiler unit. Photo by L.J. Evans





Above is a microscopic view of a whole pink salmon otolith, at 100X magnification. The closeup of a marked otolith below at 400X magnification shows several bands of light and dark. The bands enable researchers to identify the year and hatchery where the fish spawned. Photos by Chris Munk, ADF&G.

Veterinarians Kathy Burek and Dan Mulcahy team up to surgically implant a tiny satellite transmitter in a common murre from East Amatuli in the Barren Islands. The transmitters will provide valuable data on how far the murres range to find food and where they go once the chicks have fledged.
Photo by L.J. Evans.

APEX cont. from Page 1

range to find their food.

Other teams of researchers are using state-of-the-art hydroacoustic equipment and field observations to collect information on the locations, quantities and kinds of forage fish present in the waters near nesting colonies, where the birds congregate, their fishing success rates, and how well they are able to locate the schools of forage fish.

"In other parts of the world the schools of fish and bird flocks are usually much larger... A big flock of seabirds in the Sound would be a hundred birds."

Concurrent studies conducted by the Sound Ecosystem Assessment project on salmon and herring productivity, and by Alaska Department of Fish and Game projects on harbor seals, will also contribute information to the APEX project.

In a related study, satellite radio transmitters were implanted in late July in ten murres and five tufted puffins at the Barren Islands to track their movements over the next few months. In addition, laboratory scientists are assessing the nutritional value to seabirds of various forage fish, as well as analyzing stomach contents to find out what the *fish* are eating.

"The shifts we've observed in availability of different forage fish seem to have an effect on how many chicks hatch and survive," said Duffy. "We think some of these fish may serve the birds as equivalent nutritionally to a square meal, while others may be equivalent to junk food."

Pre-spill data from the mid-1980's indicated that sand lance were much more abundant in the diet of pigeon guillemots in the sound then than they are now. It seems that sand lance keep recurring as a key species for seabirds, at least partly because their high fat content makes them especially valuable nutritionally, Duffy said. Sand lance also seem to be one of the species the birds can usually find close to shore.

Early reports from the field this summer are that most of the forage fish located are either large numbers of pollock, in a continuous deep layer, or small fish close to the surface and near to shore which the field researchers can't always identify, Duffy said. The fish are usually a couple hundred yards out and 100 feet or less deep. A lot of the smaller fish are probably sand lance, but the schools are small and there are few of them.

"A good part of the challenge turns out to be just catching some of the small fish close to shore that the hydroacoustic equipment identifies to find out for sure what they are," Duffy said.

Another early observation from the sound, Duffy said, is that the researchers don't seem to find many large schools of forage fish or large flocks of birds.

"In other parts of the world the schools of fish and bird flocks are usually much larger," Duffy said. "In most other marine systems, such as off Peru, the Galapagos Islands or California, or even in the deep Gulf of Alaska, a big flock of birds might be several thousand or even fifty thousand. We're finding that a big flock of seabirds in Prince William Sound would be a hundred birds. "

Duffy also reports that the region around the Barren Islands appears to be food-rich, while Prince William Sound seems poor. Also, predation pressure (gulls, eagles or other predators taking eggs and chicks) seems to be higher than he expected. The U.S. Fish and Wildlife Service field workers put up some scarecrows at kittiwake colonies to discourage bald eagles coming in for chicks.

"The scarecrows may have helped, but we're not sure yet. At the pigeon guillemot

"The challenges increase as the number of birds you're working with goes down..."

colonies the predators may also include river otters taking the young or eggs."

Duffy also noted this is one of the most difficult systems he has worked in for the study of seabirds.

"The challenges increase as the number of birds you're working with goes down. When there are relatively few of them, they are harder to track and find their nests. Birds that nest in precarious places, such as cliffs or deep nest holes, look for the nest sites that are the most difficult to get to because those are the ones that are the safest from predators. Of course, this also makes them hard for researchers to get to as well."

"These people (the field biologists) are living in the rain, working in the rain, every single day. The logistics of living out there and still having to do your work are pretty impressive. It takes a lot out of you. It's easy for me back in Anchorage to ask why aren't they always getting this or that data, but the reality of carrying out that suggestion can be extremely daunting."

Because the Apex project is considered a pilot project and there is no certainty that seabird productivity can be linked with forage fish, the project will undergo a thorough review of the first year's findings in December before a decision is made by the Trustee Council on continued funding.

For more information contact Bruce Wright at 907/789-6601.

Rob Suryan and Theresa Sauer weigh a black-legged kittiwake from a colony southeast of Eleanor Island in Prince William Sound. A small radio transmitter was glued to the kittiwake's tail feathers, then it was released to return to its nest. Photo by L.J. Evans.

Build a Pigeon Guillemot Nest Box

Building pigeon guillemots nest boxes and mounting the boxes under piers or in other suitable locations could protect eggs and chicks from predators and encourage adults to take up residence.

A set of construction directions for nest boxes with dimensions and complete materials lists are available upon request by contacting the Trustee Council office.

It is best if the boxes are in place by late February or early March so they are present when the guillemots start looking for nest sites.

The nest boxes were designed and tested by Mary Mahaffey of the Fish and Wildlife Service in Olympia, Washington.

To request a copy of the nest box directions, contact L.J. Evans at 907/278-8012, or write the EVOS Restoration Office, 645 G Street, Suite 401, Anchorage, AK 99501.

Illustrations by George C. West.

A traditional Alutiiq hunting hat adorned the table during the signing ceremonies. Emil Christiansen, signs for the Old Harbor Corp.as Interior Secretary Bruce Babbitt reviews a document. Standing, l to r, (partially obscured) Vera Inga, Akhiok Kaguyak, Inc. Board Member; Sharon Eluska; Dan Sakura, DOI; Daniel Yakanak, AKI Board Member; and Ralph Eluska, President of AKI. Photo by Walt Ebell.

Habitat protected on Kodiak Island

The presidents of two Alaska Native corporations signed agreements with Secretary of the Interior Bruce Babbitt on May 23 to protect more than 150,000 acres of prime habitat in the Kodiak region for species injured by the oil spill.

"These agreements will preserve important habitat, provide additional opportunities for hunting, subsistence, commercial and sport fishing, and other outdoor activities, and strengthen the local economy on Kodiak Island," Secretary Babbitt said in a statement.

"This is a tremendous victory for the salmon, bears and the people of the villages and the Kodiak region. It is an important milestone in the *Exxon Valdez* Oil Spill Trustee Council restoration program to heal the wounds from the 1989 disaster."

The lands owned by the corporations are within the Kodiak National Wildlife Refuge. The agreements, including purchase of surface title, negotiation of conservation easements and agreements for preservation of habitat on other lands which remain the property of the corporations, also allow for traditional hunting and fishing subsistence activities on certain lands near the villages.

Together, the agreements protect about 152,000 acres of land in perpetuity for a cost of $60.5 million, to be paid from *Exxon Valdez* civil settlement funds.

Emil Christiansen, President of Old Harbor Native Corporation, and Ralph Eluska, President of Akhiok-Kaguyak, Inc., represented their corporations. Secretary Babbitt, Assistant Secretary George T. Frampton, Jr. and Mollie Beattie, Director of the U.S. Fish and Wildlife Service, represented the Department of the Interior, and Molly McCammon, Executive Director, represented the *Exxon Valdez* Oil Spill Trustee Council, of which Secretary Babbitt is a member.

For information on the Kodiak National Wildlife Refuge, contact Jay Bellinger at 907/487-2600.

Youth/ Elders conference on subsistence and the oil spill to take place in September

A community conference on subsistence and the *Exxon Valdez* oil spill funded by the Trustee Council will take place in Anchorage on September 22 and 23. Four representatives from each of twenty communities in the oil spill area as well as invited Trustee Council agency staff and scientists are expected to attend.

The goal of the conference is to enhance the recovery of subsistence in the oil spill area. Conference participants will share concerns about natural resources and discuss ways local people can become involved in the restoration and use of subsistence resources.

Participants will discuss ways communities can re-invigorate subsistence practices, aid in actions to promote the recovery of subsistence resources and the health of the ecosystem, and incorporate local knowledge into natural resource recovery strategies. Scientists working on restoration projects will be available to answer questions about oil spill injuries and restoration of subsistence resources.

For more information contact Bill Simeone of the Alaska Department of Fish and Game Subsistence Division at 907/267-2309.

Kodiak shoreline survey finds little oil

"We found oil to be nonexistent or in trace amounts," was how surveyors summarized initial reports about this summer's observations on Kodiak beaches. This was the first shoreline oiling survey in the Kodiak area since 1991.

"At most locations we found no oil," said Jim Gibeaut, a geomorphologist hired by the Alaska Department of Environmental Conservation to assist with the survey.

Where oil was present, it was in isolated patches of mousse, soft asphalt with surface crusts or tar splotches, Gibeaut said. Only one location on the north end of Shuyak Island had subsurface oil and it was light and in a small area.

"This subsurface location as well as all other locations showed significant improvement since 1991," Gibeaut said.

As part of a 1995 Trustee Council funded project, an ADEC team experienced in tracking *Exxon Valdez* oil revisited 25 specific locations in June and July where oil was noted during the 1990 or 1991 Exxon and interagency shoreline surveys. They also visited several sites identified by Kodiak area community members as possibly having remaining contamination from the spill.

The team visited sites in Sturgeon Lagoon (southwest of Karluk), Uyak and Spiridon Bays (in the Larsen Bay area), one site on Afognak Island and about 12 sites dotted around Shuyak Island to the north.

The very light oiling conditions found in the Kodiak region relative to Prince William Sound can probably be attributed to three main factors, Gibeaut said. There was lighter initial oiling; the oil that reached the Kodiak beaches was thicker, emulsified oil and less able to penetrate into beach sediments and thus persist in subsurface layers; and the shorelines in that area are relatively high wave-energy shorelines, which tends to scour the oil residues off, he said.

Gibeaut speculated that this summer's scrutiny will probably be the last *Exxon Valdez* shoreline oiling survey in the Kodiak region.

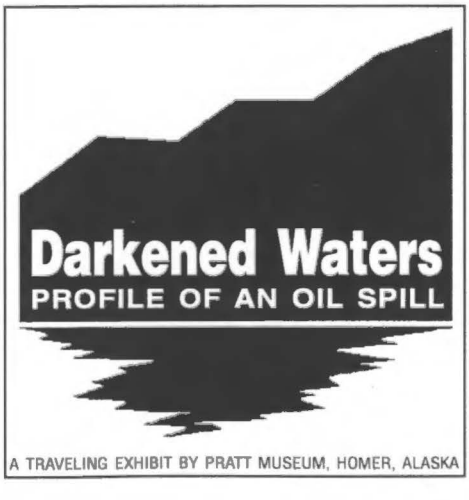
"We found that the Kodiak shorelines look very good with respect to shoreline oiling," he said.

A report analyzing the teams' findings will be completed this winter. For more information, call Ernie Piper at 907/269-7500.

Darkened Waters returns to Alaska

Six years after the spill, *Darkened Waters: Profile of an Oil Spill* is returning at last to Alaska.

In June of 1989, staff at the Pratt Museum in Homer prepared an exhibition about the *Exxon Valdez* oil spill that quickly became the museum's most visited attraction.



At the urging of hundreds of visitors from other parts of the U.S. as well as Alaska, the Pratt staff built a second exhibit which has since toured the nation. The original traveling exhibition premiered at the Oakland Museum in June, 1991.

The Pratt Museum has won national acclaim for *Darkened Waters*, which was awarded the Museums Alaska Award for Excellence in 1991.

Since June of 1991 the exhibition has traveled to 11 major venues, including the Smithsonian Institution's National Museum of Natural History in Washington, D.C.

The exhibit will tour Alaska for seven months:

Nov. 1-Dec. 15, 1995: Alaska State Museum, Juneau

Jan. 3 -Mar. 1, 1996: Anchorage Museum of History and Art

Mar. 20 - May 30, 1996: University of Alaska Museum, Fairbanks

The exhibition may keep traveling as interest in the subject matter remains high.

For more information on the itinerary of *Darkened Waters* following its Alaska venues, contact Mike O'Meara at the Pratt Museum, 3779 Bartlett Street, Homer, AK 99603, telephone at 907/235-8653.

Three hired in spill area villages to aid info exchange

The village councils of Chenega Bay, Tatitlek and Port Graham have each hired a local resident on a part-time basis to aid information exchange with the Trustee Council. The facilitators will assist in community outreach, including communication of traditional knowledge and local interests, between the villagers, the Trustee Council and scientists participating in restoration efforts.

In addition, the local facilitators will coordinate local support and equipment for researchers working on *Exxon Valdez* oil spill restoration projects in or near their communities.

Mike Eleshansky in Chenega Bay, Gary Kompkoff in Tatitlek, and Walter Meganack, Jr. in Port Graham will be the primary contact persons in their communities for oil spill restoration projects. This program is funded by the Trustee Council and coordinated through the Subsistence Division of the Alaska Department of Fish and Game.

Walter Meganack, Jr. (left), Gary Kompkoff and Mike Eleshansky met with Trustee Council staff and scientists in July to prepare for their roles as local facilitators. Photo by Rita Miraglia.

For information contact:

Rita Miraglia
Alaska Department of Fish and Game, Div. of Subsistence
phone: 907/267-2358

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phone: 907/573-5132

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Native Village of Tatitlek
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Walter Meganack, Jr.
Native Village of Port Graham
P.O. Box 5510
Port Graham, AK 99603
phone: 907/284-2227

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Exxon Valdez Oil Spill Trustee Council

Restoration Update

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Veterinarian Paul Snyder monitors a sedated sea otter while taking a blood sample. This 98 pound male sea otter was one of the largest ever captured by the National Biological Service team. The animal was measured and its overall health assessed before being revived and released back into Prince William Sound.

Photo by Jennifer DeGroot.

Why so slow to bounce back?

Nearshore Predator Project studies otters, harlequin ducks and pigeon guillemots to answer questions about recovery.

Recent information suggests that harlequin ducks, sea otters and pigeon guillemots are not recovering from injuries caused by the oil spill as quickly as biologists think they should. Since information was incomplete and uncertain, surveyors in the first year of field work on the Nearshore Vertebrate Predator project assessed indicators of the health, population and reproduction success of sea otters and harlequin ducks, as well as several of the invertebrate and fish species they rely on for food.

"We're looking at nutrition, health indicators and population factors which affect these predators and their prey species," project leader Leslie Holland-Bartels said. "The project is intended to find out what is hindering their recovery, and at the same time assess the status of recovery for the overall nearshore ecosystem in western Prince William Sound."

Shorelines throughout the spill area soaked up much of the oil spilled by the *Exxon Valdez*, Bartels said. The Nearshore Vertebrate Predator project uses the invertebrate-feeding sea otter and harlequin duck, and the fish-eating pigeon guillemot and river otter as indicators of environmental stress in an integrated approach to assess factors which may be constraining recovery of the overall nearshore ecosystem.

Please see page 4, Nearshore

Inside...

Calendar

November 15

Signing of Koniag purchase agreement in Washington, D.C. Contact: Rebecca Williams 907/278-8012.

November 20*

Trustee Council meeting in Juneau. Tentative action on small parcel package and Shuyak. Contact: Rebecca Williams 907/278-8012.

December 6 - 7

Public Advisory Group meeting in Anchorage.Contact: Cherri Womac 907/278-8012.

December 11

Trustee Council meeting in Anchorage on final projects for FY96 Work Plan and tentative action on Chenega and Tatitlek large parcels. Contact: Rebecca Williams 907/278-8012.

January 16-18

Annual Restoration Workshop in Anchorage. Contact: L.J. Evans 907/278-8012.

*Tentative dates

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FAX: 907/276-7178

New In Print

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Early marine salmon injury assessment in Prince William Sound, Willette, T.M. et al.

Biomarkers of damage to sea otters in Prince William Sound, Alaska, following potential exposure to oil spilled from the Exxon Valdez, Ballachey, B.

An intersection model for estimating sea otter mortality from the Exxon Valdez *oil spill along the Kenai Peninsula*, Bodkin, J.L. and M.S. Udevitz.

Surveys of sea otters in the Gulf of Alaska in response to the Exxon Valdez *oil spill*, DeGange, A.R. et al.

Experiments to determine drift patterns and rates of recovery of sea otter carcasses following the Exxon Valdez *oil spill*, Dorof, A.M. and A. R. DeGange.

Movements of weanling and adult female sea otters in Prince William Sound, Alaska, after the T/V Exxon Valdez *oil spill*, Monnett, C. and L.M. Rotterman.

Mortality and reproduction of female sea otters in Prince William Sound, Alaska, Monnett, C. and L.M. Rotterman.

Mortality and reproduction of sea otters oiled and treated as a result of the Exxon Valdez *oil spill*, Monnett, C. and L.M. Rotterman.

Mortality of sea otter weanlings in eastern and western Prince William Sound, Alaska, during the winter of 1990-91, Rotterman, L.M. and C. Monnett.

Detection of sea otters in boat-based surveys of Prince William Sound, Alaska, Udevitz, M.S. et al.

Stream habitat assessment project: Afognak Island, Kuwada, M.N. and K. Sundet.

Herring Bay experimental and monitoring studies, Highsmith, R.C. et al.

Injury to deep benthos, Feder, H.M.

Stream habitat assessment project: Prince William Sound and Lower Kenai Peninsula, Final Report Restoration Project 93051, Sundet, K. et al.

Survey of pigeon guillemot colonies in Prince William Sound, Final Report Restoration Project 93034, Sanger, G.A. and M.B. Cody.

Marine bird and sea otter population abundance of Prince William Sound: trends following the Exxon Valdez *oil spill, 1989-93, Final Report Restoration Project 93045*, Agler, B.A. et al.

The effects of the Exxon Valdez *oil spill on shallow subtidal communities in Prince William Sound, Final Report Restoration Project 93047*, Jewett, S.C. et al.

Information needs for habitat protection: marbled murrelet habitat identification, Final Report Restoration Project 93051B, Kuletz, K.J. et al.

Marine bird and sea otter abundance of Prince William Sound, Final Report Restoration Project 94159, Agler, B.A. et al.

Recovery monitoring of pigeon guillemot populations in Prince William Sound, Final Report Restoration Project 94173, Hayes, D.L.

The Alutiiq Dancers from Kodiak entertained participants at a Saturday night reception during the Community Conference on Subsistence in the Oil Spill.
Photo by Karen Shemet.

Conference Participants Discuss Subsistence Issues

Nearly 80 elders, youth, and other subsistence users from villages throughout the oil spill region participated in a Community Conference on Subsistence and the Oil Spill in Anchorage September 22–23 sponsored by the Trustee Council.

Improving communication between researchers and communities, and among communities in the spill region, was a major theme. Conference participants stressed the importance of involving young people in the restoration process and urged appointment of a Native trustee or advisor to the *Exxon Valdez* Oil Spill Trustee Council.

Working groups at the conference developed ideas for using local knowledge to help resources recover and for reinvigorating subsistence. Ideas included arranging for elders to educate western scientists about their local area, establishing internships to train local people in western research methods, and maintaining local journals of observations about the ecosystem.

Another major theme that emerged from the conference was the importance of self–reliance and the need to pursue some aspects of subsistence restoration, particularly spiritual healing, independent of Trustee Council support. Toward this end, conference participants recruited a steering committee to follow through on recommendations generated by the overall group. Pete Kompkoff, Monica Reidel, Walter Meganack, Jr., Lillian Elvsaas, Hank Eaton, Robert Ketelnikoff, Priscilla Skonberg, and Virginia Aleck will continue conference discussions. Conference participants also appointed a committee to plan a healing conference.

Conference attendees included residents from Akhiok, Chenega Bay, Chignik Bay, Chignik Lagoon, Chignik Lake, Cordova, Ivanof Bay, Karluk, Kodiak, Larsen Bay, Nanwalek, Old Harbor, Ouzinkie, Perryville, Port Lions, Port Graham, Seward, Seldovia, and Valdez. Tatitlek participants were unable to attend due to weather.

A conference summary will be mailed to all participants and available this winter at the Oil Spill Public Information Center. A video of the conference will also be provided to each community in the spill region. Contact Bill Simeon, Division of Subsistence, Alaska Department of Fish and Game at 907/267–2309 for more information.

Nearshore

Continued from page 1

The primary questions the project is addressing are: • Is the recovery of nearshore resources injured by the spill limited by slow population growth? • Are effects of oiling on intertidal or underwater habitats or underwater prey, such as sea urchins or forage fish, having a limiting effect on the recovery of species which use them for food?, and • Are changes in populations of prey species affecting the recovery of their predators?

Following is a brief summary of 1995 Nearshore Vertebrate Predator field work and findings that attempt to answer some of these questions.

For sea otters, the first question is: what is the present population in the areas hardest hit by the spill, and how does that compare to pre-spill estimates?

Sea Otters

For sea otters, the first question is: what is the present population in the areas hardest hit by the spill, and how does that compare to pre-spill estimates? Earlier studies indicated that sea otters were increasing at a natural rate from the low numbers resulting from 3,500 to 5,500 otter deaths following the 1989 oil spill. The 1995 aerial survey, however, provides some contrary data, and may indicate that numbers are not increasing or may even have decreased since the last survey in 1992.

"We want to be very cautious about interpreting these results," said Jim Bodkin. "There was variability in the 1992 survey that might lead to errors. That's why we're looking at so many different ways to answer questions about how sea otters and other injured resources are doing."

As part of this project, biologists in April walked approximately 40 miles of shorelines in southwestern Prince William Sound to count and assess the sex, age and condition of winter-killed sea otters. Biologists from the Alaska Science Center of the National Biological Service have conducted similar surveys in the same area every year since the spill. This year they identified twelve otter carcasses, compared to more than 20 last year.

Prior to the oil spill researchers would expect to find that 85 percent of the carcasses were either very young or very old animals, Bodkin said. In surveys from 1990 through 1992, results showed a much greater percentage of prime age adults than usual died over the winter. In 1994 surveyors found that the age distribution appeared to be returning to normal. Bodkin said that the proportion of prime age animals was again higher this year, perhaps indicating that young, usually healthy animals were still under some stress last winter that caused them to die early. Bodkin pointed out that unfortunately the sample was too small to identify a definite trend.

The harlequin ducks were captured during molting, when they are unable to fly. Several team members in kayaks herded groups of harlequins into a chute-and-trap system in shallow water. This was the first time this method has been used in Alaska. "Working with harlequins is a real challenge," said Dan Esler of the National Biological Service. "If you try to herd them onto shore they'll just dive under you and go somewhere else. Using kayaks allowed us to work in very shallow water where we couldn't have taken a skiff."
Photo by Paul Snyder.

A team of biologists captured six adult otters near Cordova for immune function analysis. In 1996 the tests will be conducted again on blood samples from animals in the oiled areas. Analysis will reveal anything the animals are being exposed to that might be affecting their ability to fight off disease.

Surveyors also counted sea otter pups in oiled and unoiled areas to estimate reproductive success. The ratio of pups to adults was not significantly different between the two areas, indicating that sea otters in the oiled area seem to be reproducing at about the same rate as in the unoiled areas.

Harlequin Ducks

Scientists captured more than 400 harlequin ducks during August and September to take blood samples, measure body size, weight, and determine muscle to fat ratio. Eighty-nine adult females were marked with radio transmitters in order to track their movements and survival. So far biologists report that most birds have stayed close to their molting sites.

Body condition of the birds was assessed by using a machine to measure total body electrical conductivity. A duck is gently restrained with a Velcro strap and placed on its back inside the cylindrical TOBEC machine, which is about 2 feet by 1 foot in size. Without harming the ducks, the machine measures the water content of the harlequin, which provides information on the proportions of body fat and muscle.

Blood samples were also taken from all adult females. Laboratory analyses will provide information about a broad array of indicators of the health of the ducks.

Intertidal/Subtidal Organisms

A third crew of scientists surveyed subtidal and intertidal areas for invertebrate and fish species which are food sources for all four of the predators under study.

"Our particular emphasis this year was on sea urchins because they are a primary food item for sea otters," said Tom Dean of Coastal Resources Associates, a contractor on the project. The group surveyed both subtidal and intertidal areas at Montague Island, Herring Bay and the Bay of Isles. Dean said the team also looked for nearshore fishes important in the diets of pigeon guillemots. They used side-scan sonar equipment to map underwater habitat for several important prey species.

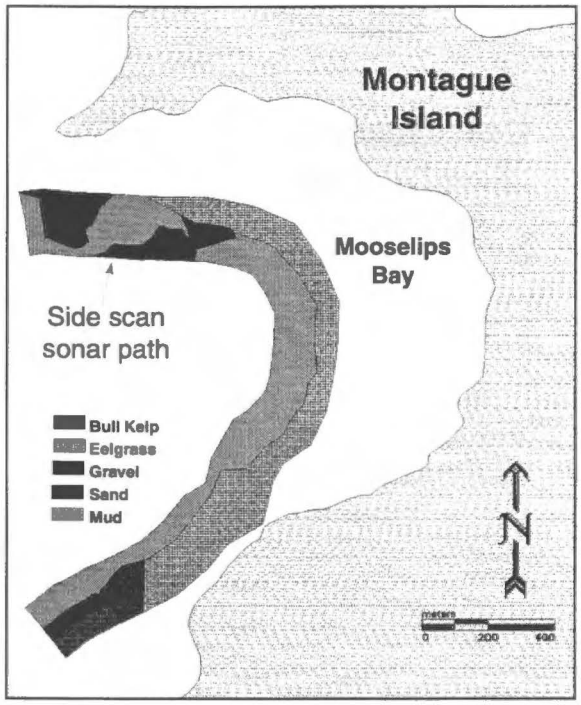
"We saw more sea urchins this year than we ever have before, and in fairly interesting areas," Dean said. The group found one large aggregation of small urchins in an eelgrass bed, unusual habitat for urchins, which are more commonly associated with kelp. Identifying preferred sea urchin habitat is a key objective of his study, Dean said.

"Once we found sea urchins in a particular underwater habitat, we were able to go to comparable areas and in almost every case we found large numbers of urchins." Dean pointed out that the urchins they found were relatively small — less than an inch in diameter — and the areas where they were located were "few and far between."

"Historically there haven't been many sea urchins in the sound," Dean said. "The increasing sea otter population may already have taken a toll on urchins prior to the spill." Dean speculated that otter deaths due to the oil spill have reduced the population enough in western Prince William Sound to encourage a resurgence in sea urchins.

Future Analysis

Bartels said all data are preliminary at this time and no conclusions can be drawn until analysis is complete. Reports from the 1995 field season should be ready next spring. Data collection on river otters is expected to get underway next summer, Bartels said. For more information, contact Leslie Holland-Bartels at 907/786-3312.



This map of part of a bay on Montague Island was made by side-scan sonar. The dark path shown represents a swath about 1.2 miles long and 650 feet wide and about 30 feet deep. Mapping with sonar makes it possible for scientists to know what features are on the ocean floor much less expensively than if the same information was obtained in a scuba dive survey. Map provided by Coastal Resources Associates.

"Once we found sea urchins in a particular underwater habitat, we were able to go to comparable areas and in almost every case we found large numbers of urchins."

Community Facilitator On Board

The Trustee Council has contracted with Chugach Regional Resources Commission to hire Martha Vlasoff as Community Involvement Coordinator in order to maintain and enhance communications with the communities affected by the oil spill.

Her responsibilities will include increasing the level of active involvement by community members in the restoration process, particularly in ongoing scientific studies; serving as a liaison between communities and the existing network of scientists, government agencies, Restoration Office personnel and the Trustee Council; and working with the Alaska Department of Fish and Game to integrate local traditional knowledge into the research and restoration process.

Martha Vlasoff will work with local facilitators who have been hired in Port Graham (Walter Meganack Jr.), Tatitlek (Gary Kompkoff) and Chenega (Mike Elashansky), along with additional facilitators to be hired in Cordova, Nanwalek, Seward and Valdez. Facilitators will also be hired to represent concerns from Kodiak and the Bristol Bay area. For more information contact Martha Vlasoff at 907/278-8012.

Radio Waves In Prince William Sound

Listeners to stations KCHU and KLAM can now tune in several times weekly to short radio programs about research and restoration in Prince William Sound.

The three to four minute programs, called *Sound Waves*, are produced by Jody Seitz of the Prince William Sound Science Center. Her goal is to make research on restoration and the ecology of the sound more accessible to the public, Seitz said.

Topics covered so far include marine ecosystems, how weather patterns in the Gulf of Alaska affect the sound, plankton, and the life cycle of Pacific herring. Future programs will focus on harbor seals, octopus, and the effects of oil on pink salmon.

The program airs on KCHU, the Valdez public radio station which also broadcasts in Cordova, Chenega, Glenallen and Whittier, on Monday at 12:15 PM, Tuesday at 8:25 AM, Thursday at 5:45 PM, and Saturday at 9:30 PM. KLAM in Cordova broadcasts the program at 4:00 PM on Tuesday, Thursday and Saturday. For more information contact Jody Seitz at 907/424-5800.

PWS Now On Compact Disc

A new compact disc with geographic and natural resource information about Prince William Sound is now available free from the National Biological Service. The CD contains information compiled from state and federal resource agencies as well as the software needed to view it on an IBM compatible computer.

The Prince William Sound/Copper River Integrated Ecosystem disc includes information about anchorages, camping beaches, elevation, land ownership/ status, shoreline oiling from the *Exxon Valdez* oil spill, the Trans-Alaska Pipeline System, roads, streams, section and township boundaries, and vegetation. The information is from 35 geographic information system databases. A user guide, documentation for each layer, and software for DOS PC's is included to allow examination of the contents.

For more information or to request a copy of the disk, contact Karen Oakley at 907/786-3579 or via internet at karen_oakley@nbs.gov.

FY 96 Work Plan Approved in August

Decision expected in December on additional funding

Highlights of the Trustee Council's 1996 restoration program include three multi–project ecosystem studies based in Prince William Sound. This emphasis on ecosystem investigations has been key to the Trustee's approach to restoration for the last two years.

It reflects the Trustee Council's understanding that restoration issues are complex and require a long–term approach to the physical and biological interactions that may be constraining recovery of the injured resources and services. Results of these efforts could have important implications for restoration, for how fish and wildlife resources are managed, and for the communities and individuals who depend upon the injured resources.

The three ecosystem studies include:

- The *Sound Ecosystem Assessment*, a program to investigate ecosystem processes that may be constraining recovery of herring and pink salmon.
- The *Seabird/Forage Fish* –or APEX– project, which examines the hypotheses that a change in the species or abundance of small fish which are the main food source for many larger species has prevented recovery of seabirds and marine mammals. This project was given interim funding in August. Last summer's results will be reviewed during November, and funding for next year is on the Trustee Council agenda for December.
- The *Nearshore Vertebrate Predator* project, which focuses on ecosystem relationships that may be constraining recovery of sea otters, river otters, harlequin ducks, and pigeon guillemots (see page 1 for a related story). The package is designed to determine whether or not populations are recovering, isolate processes constraining recovery, and identify potential activities to assist or accelerate recovery.

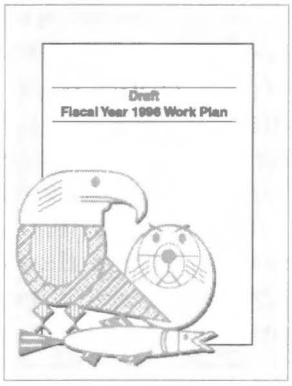
The Trustee Council annually approves restoration projects involving research, monitoring, and general restoration. In August, the Trustees approved two–thirds of an expected $18 million program for fiscal year 1996, which runs from October 1, 1995 – September 30, 1996.

The remaining funding will come before the Council on December 11, following additional technical review. Other projects approved in August address the recovery of salmon, herring, marine mammals, seabirds, archaeological resources and subsistence.

In addition to these projects, the Trustee Council approved $560,600 for Kenai River habitat improvements and recreation enhancements. This will complement several million dollars in other funds from various state and federal criminal sources.

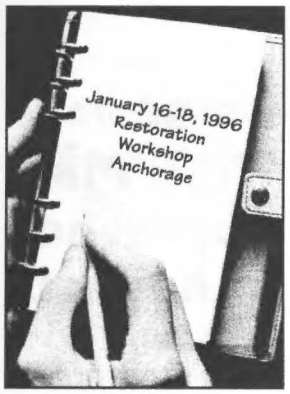
In other actions, the Trustee Council set aside an additional $12 million towards the Restoration Reserve. This is the third of nine projected payments into the Reserve that is expected to total $108 million (plus interest) and fund research and restoration activities after 2002.

Finally, the Trustee Council approved a budget of $3.4 million for public information, science management, and administration. This funding provides the management and administration necessary to efficiently implement the restoration program, and includes preparation of annual work plans, independent scientific review, public participation, and communicating the progress of restoration efforts to the public. This portion of the annual budget has deceased 29.2% from FY 94 funding.



Audit Underway

The Trustee Council has selected the firm of Elgee, Rehfeld and Funk of Juneau to conduct an external audit of the financial activities of the Council. The accounting firm will provide the Trustee Council with an independent assessment of all the funds held in trust and an analysis of expenditures against the trust to ensure that funds are properly reconciled. The audit of 1995 activities will be complete by March 1. For more information, contact Traci Cramer in the Juneau office at 907/586-7238.



Put these workshop dates on your calendar!

The 1996 Restortion Workshop is slated for January 16 – 18 at the Captain Cook Hotel in Anchorage. Scientists and members of the public attending this annual public workshop will review results from 1995 restoration work and help shape the future restoration program.

Scientists involved in restoration of the resources and services injured by the *Exxon Valdez* oil spill are expected to make presentations at the workshop. Abstracts of the results from all projects undertaken in 1995 will be compiled and available at the meetings. A final agenda is scheduled to be complete by early December. For more information about the Restoration Workshop call L.J. Evans or Stan Senner at 907/278-8012

Restoration information on the Internet

Staff at the Oil Spill Public Information Center set up an electronic home page on the World Wide Web last summer. Internet users can access summaries of the status of recovery, restoration activities, background information on the *Exxon Valdez* oil spill, and can request copies of material from the library. Users with graphic capability can download twenty photographs related to the spill and restortion activities.

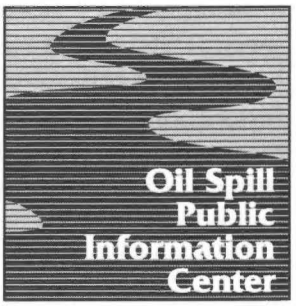
The web page can be reached at:

http://www.alaska.net/~ospic.

The email address for the OSPIC is:

ospic@muskox.alaska.edu.

OSPIC staff can be reached via regular telephone at 907/278-8008, toll free within Alaska at 1-800-478-7745, outside Alaska at 1-800-283-7745.



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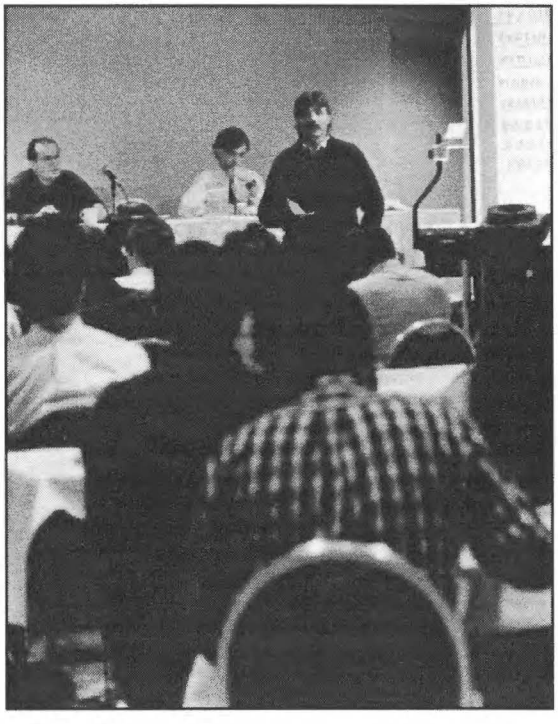
Restoration Update

January 1996 *Vol 3 No 1*

Traditional Knowledge, Integrated Approach Are Themes of 1996 Restoration Workshop

Incorporating local knowledge into the restoration program and forming links across different science disciplines are the major themes for the 1996 *Exxon Valdez* Oil Spill Restoration Workshop, to be held in Anchorage January 16 – 18. The workshop will bring together scientists, resource managers and members of the public for three days of intensive meetings to review the outcomes of last year's restoration work and help refine objectives for future restoration.

"This workshop has become an annual event because it promotes cooperation among people working in different fields and linkages across studies of different species and ecosystems," said Molly McCammon, Executive Director for the *Exxon Valdez* Oil Spill Trustee Council. "The restoration process benefits tremendously when that happens."



Over 150 researchers, resource managers and members of the public participated in the 1995 Restoration Workshop, including this session with Dave Irons of the National Biological Service discussing long-term impacts of the oil spill on sea birds.
Photo by L.J. Evans

The workshop is scheduled to begin Tuesday, January 16, at the Hotel Captain Cook, with registration at 8:00 AM. The workshop session begins at 9:00 AM and continues until 3 PM on Thursday, January 18. Anyone wishing to participate in the workshop should pre-register by contacting the Restoration Office at 907/278-8012. Workshop attendees will receive a special rate at the hotel; call 907/276-6000 to make reservations.

Keynote speakers at the workshop on Tuesday, January 16 will be Larry Merculieff and Thomas Albert on the topic of *Traditional Ecological Knowledge and Science: Successful Examples from Alaska*. Other presentations during the workshop will focus on ecosystem linkages; subsistence resources and archaeology; forage fish, salmon, and herring; marine mammals; birds and other topics related to restoration of resources injured by the 1989 *Exxon Valdez* oil spill.

For more information about the 1996 Restoration Workshop contact the Restoration Office at 907/278-8012.

Upcoming Events

January 16-18, 1996

Annual Restoration Workshop at the Hotel Captain Cook in Anchorage. Contact: L.J. Evans 907/278-8012 for more information.

January 30*

Trustee Council meeting in Anchorage. Contact Rebecca Williams 907/278-8012 for the agenda and further details.

February 15

Invitation to Submit Restoration Projects for Fiscal Year 1997 scheduled for distribution. Contact Bob Loeffler at 278-8012 for additional information.

March 13-14*

Public Advisory Group meeting in Anchorage. Contact Cherri Womac at 278-8012 for further information.

April 15

FY 97 proposals due. For more information contact Bob Loeffler at 278-8012.

June 5-7

Public Advisory Group meeting in Anchorage. Contact Cherri Womac at 278-8012 for agenda and details of the meeting.

June 24

Draft Work Plan for Fiscal Year 1997 scheduled for distribution. Comment period continues until August 9. Contact Bob Loeffler at 278-8012 for more information.

*Tentative dates

The ***Restoration Update*** is published approximately six times a year by the *Exxon Valdez* Oil Spill Trustee Council. Its purpose is to update interested members of the public about actions, policies and plans of the Trustee Council to restore resources and services injured by the *Exxon Valdez* oil spill. For more information, mailing address correction, or to request articles on specific subjects, contact:

Executive Director • Molly McCammon

Director of Operations • Eric Myers

Editor • L.J. Evans

Exxon Valdez Oil Spill Trustee Council, 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Telephone: 907/278-8012, toll-free within Alaska at 800/478-7745, toll-free outside Alaska at 800/278-7745.

Milestones

- The final *FY1996 Work Plan* is available now by calling the Oil Spill Public Information Center at 907/278-8008, toll-free at 800-478-7745 within Alaska, 800-283-7745 from outside Alaska.
- The Trustee Council and the Kodiak Island Borough reached an agreement at the Trustees' December 11, 1995 meeting for protection of 26,665 acres of prime habitat on Shuyak Island, at the northern tip of the Kodiak archipelago, for $42 million.

  The Kodiak Island Borough agreed to commit $6 million from the land sale to expansion of Kodiak's Fishery Industrial Technology Center. For additional information contact L.J. Evans at 907/278-8012.

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Restoration Update

March 1996 Vol 3 No. 2

SEA takes new approaches to pink salmon & herring

During an intense series of 24-hour surveys, SEA researchers sought to corroborate hydroacoustic data with the contents of fishing nets in specific areas of Prince William Sound. Margaret Powell writes down data as Shawna Karpovich weighs a fish and Jennifer Boldt prepares to take tissue samples. Photo by L.J. Evans.

The Trustee Council funded the Sound Ecosystem Assessment, or SEA, project to sort out the relationships among recent large declines in pink salmon and Pacific herring, the 1989 oil spill, and natural forces of climate and food availability. After two years of field work and data analysis, researchers are coming up with some of the answers.

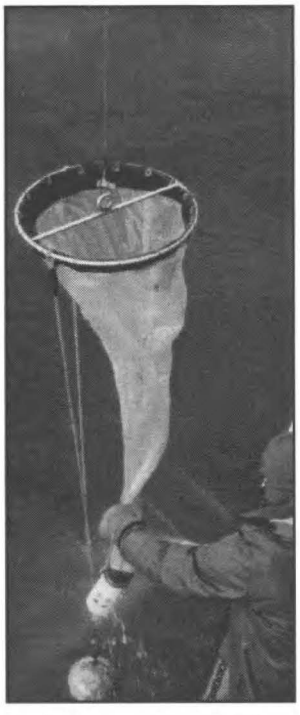
In the years after the 1989 oil spill, pink salmon fluctuated dramatically, and in 1993, the Pacific herring population crashed in Prince William Sound. Although considerable variability in the returns of both species is considered normal, these drastic declines were unexpected. Many people wondered if the oil spill was having a lasting negative effect on these valuable commercial resources. It was hard to tell if contamination from the spill had anything to do with the poor fishing, if the low returns were a result of natural forces in the ecosystem, or if a combination of these factors was the cause. Fishermen and resource managers wanted to know if anything could be done to prevent further declines or to accelerate recovery.

To help find the answers, the Trustee Council turned to the most knowledgeable experts: biologists, local fishermen, and fishery managers. Many of these experts felt strongly that while the oil spill may have contributed to the problems, the actual causes of the declines were much more complicated. Ocean conditions, availability of food, predation by other marine animals, and disease all were important factors controlling the production and recovery of pink salmon and herring. In addition, the experts felt the best aid to restoration was to develop an understanding of these controlling factors in order to improve management of the fisheries. The SEA project was developed in 1994 to answer these questions.

"The SEA project represents cutting-edge science," says Project Leader Dr. Ted Cooney of the University of Alaska

Continued on page 2

Inside...



A fine-mesh net is used to collect the small plants and animals that make up the bottom of the marine food chain. SEA researchers can examine the contents of the jar at the bottom of the net to determine what juvenile herring and pink salmon have available to eat
Photo by Bob Spies.

SEA Cont. from Page 1

Fairbanks Instititute of Marine Sciences. "We are developing a much better understanding of the large, underlying forces that drive the whole marine ecosystem in Prince William Sound. This information is going to prove invaluable, not only to restoration and improved management of pink salmon and herring, but to restoration of other injured resources as well."

SEA is a sophisticated, multi-component, interdisciplinary research program, involving specialists from the University of Alaska Fairbanks, Prince William Sound Science Center, Prince William Sound Aquaculture Corporation, the Copper River Delta Institute, and the Alaska Department of Fish and Game. These scientists are collecting data necessary for an ecosystem-level understanding of the two main processes which may control the variability of pink salmon and herring populations: the availability of food for juveniles resulting from physical factors such as tidal currents, salinity and water temperature; and predation on juveniles by other species.

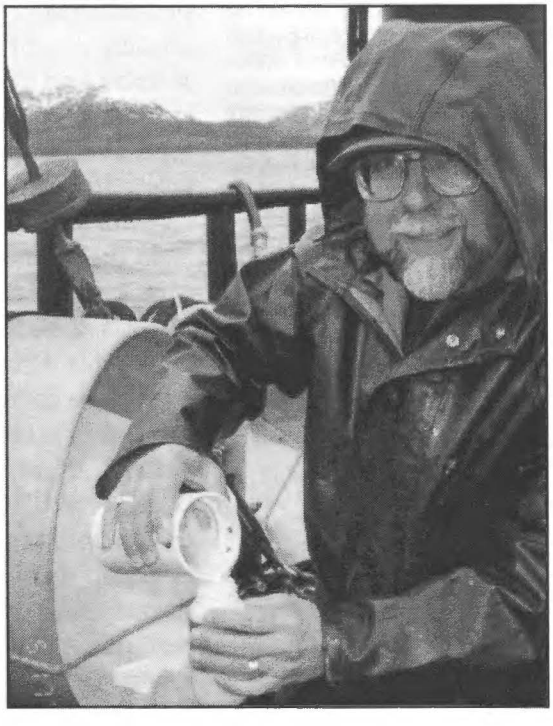
Program progress

Researchers working on the SEA project include physical and biological oceanographers, fishery scientists and experts in computer modeling. A significant amount of field work has taken place in the first two years to develop a clearer picture of the mechanisms and interactions which establish levels of juvenile pink salmon and herring survival each year. This information is being used to develop mathematical models of the ecosystem that will provide improved predictions of the returns of adult fish, and answer questons about the outcomes of proposed restoration or management activities.

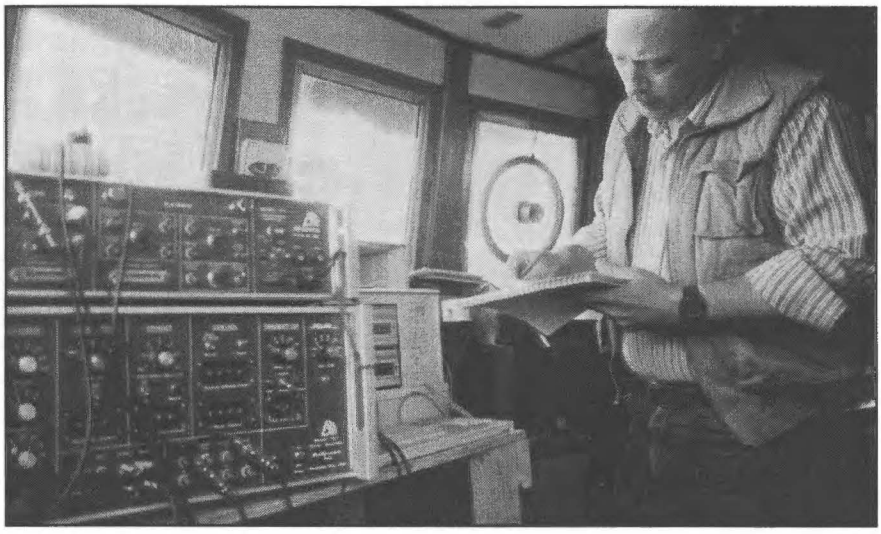
Some of the discoveries made by researchers in the SEA project are already generating information useful to the management of resources in the spill region. For example:

- Salmon fry that grew larger and were released from hatcheries later than normal survived much better than fry released at the usual size and time. Further work will help to determine if it is the size of the fry or the time they are released that is more important to survival.
- It is clear that walleye pollock are an important part of the Prince William Sound ecosystem, both as predators on juvenile salmon and as food for seabirds. The discovery of large schools of spawning pollock in the Port Bainbridge area may lead to development of a new commercial pollock fishery in the region.
- The SEA program has successfully developed and tested a computer model of ocean circulation in the Sound. Understanding ocean currents, especially the degree to which water from the Gulf of Alaska flows into and out of the Sound, is likely to be critical in predicting the amount of plankton available as food for pink salmon and herring fry and juveniles. Even in its early stages, this work has

Dr. Ted Cooney saves the plankton collected in the net pictured to the left for later examination in the laboratory.
Photo by Bob Spies.



changed scientists' understanding of ocean current patterns in Prince William Sound. For example, it appears that sometimes the Sound behaves more like a river, with sea water flowing through and returning to the Gulf, and sometimes more like a lake, resulting in less water exchange.



One of the major efforts of the SEA project has been collecting hydroacoustic data in Prince William Sound. Tom McClain on the Alaska Beauty records information from the hydroacoustic equipment as the vessel travels down a transect near Knight Island. Photo by L.J. Evans.

- SEA scientists have determined for the first time the locations where juvenile herring overwinter. Herring biologists think that juvenile survival over the winter is a key factor in determining the number of fish available for commercial harvest at age three or four. It will now be possible to study the survival of juvenile fish, and use this information to improve our predictions of the number of herring available for commercial fishing, subsistence use, and as food for other spill-injured species such as harbor seals and seabirds.

Scientific review and integration

All projects sponsored by the Trustee Council are regularly reviewed in detail by the Chief Scientist and other independent scientists from around North America. At the Restoration Workshop in January 1996, the scientific reviewers commented that the information being collected by SEA researchers will be of immense value for restoration and for the future management of natural resources in the oil spill region.

SEA project researchers are working on increased integration and collaboration, both within the elements of the SEA project and with the other two Trustee Council ecosystem projects, the Nearshore Vertebrate Predator project, or NVP, and the Apex Predator Experiment project, or APEX. Each of these restoration projects is examining different aspects of the marine ecosystem and species injured by the oil spill. More management decisions in the future will be based on known facts about populations of fish, seabirds and marine mammals as a result of these Trustee Council restoration projects. This is likely to result in accelerated recovery of the ecosystem as a whole, as well as recovery of important commercial and subsistence resources.

For more information about the SEA project, contact Joe Sullivan, Alaska Department of Fish and Game at 907/267-2213.

Mark Willette sorts the contents of a net sample into different species for counting. Analyzing data about the species and numbers of juvenile and adult fish is giving SEA researchers more information about who is eating whom. Photo by Jody Seitz.

Civil settlement, criminal funds, Alyeska settlement: What's the difference, anyway?

Keeping track of restoration funds can sometimes be confusing. News stories at the time of the October 1991 civil agreement between Exxon and the state and federal governments touted an "unprecedented $1 billion settlement." In addition, Alyeska Pipeline Service Co. agreed to pay $32 million in November 1992 to settle claims by the governments. Allocation of each of these "pots" of money—the Exxon civil and criminal funds, and the Alyeska funds—are guided by different sets of rules.

Government claims

On October 8, 1991 an agreement was approved by the United States District Court in Anchorage that settled the *civil* claims of the United States and the State of Alaska in exchange for the payment of civil damages. On that date, Exxon Corporation and Exxon Shipping Company also pled guilty to various *criminal* violations and agreed to pay restitution for injuries resulting from the oil spill. These are generally called the *civil* funds and the *criminal restitution* funds.

Civil Settlement

As part of the *civil settlement*, Exxon agreed to pay the United States and the State of Alaska up to $900 million over a period of 10 years. The guidelines for how the civil funds can be used are in a document called the Memorandum of Agreement and Consent Decree. The United States and the State of Alaska agreed to act as co-trustees, and the six-member *Exxon Valdez* Oil Spill Trustee Council was formed to manage the restoration process. The settlement with Exxon also has a reopener clause that allows the governments to claim up to an additional $100 million for restoration of populations, habitats or species that could not have been known or anticipated from information available at the time of settlement.

Criminal Judgment

Exxon pled guilty to criminal charges for violating provisions of three Federal laws: the Clean Water Act, the Migratory Bird Treaty Act, and the Refuse Act. The sentences imposed by the court included a *fine* of $150

Civil Settlement Funds

The settlement agreement specified that certain reimbursements to the governments and to Exxon, which totaled $213.6 million, came out of the funds at the outset. Since the Trustee Council was formed, additional funds have been allocated as follows:

- Annual work plans dealing with research, monitoring and general restoration for 1992 through 1996 have totaled $71.7 million. The Trustee Council also contributed $25.0 million toward construction of the Alaska SeaLife Center in Seward, a marine research facility which is expected to open in 1998 and will provide resources for conducting restoration research on marine mammals, seabirds and fish genetics.
- The Trustee Council has committed $161.5 million thus far to protect 361,000 acres of habitat important to recovery of resources injured by the spill. Negotiations are underway for a number of other large and small parcels throughout the spill region.
- Recognizing the likelihood that restoration needs will extend beyond the 2001 date when Exxon will end its payments, the Trustee Council in 1994 began depositing $12 million annually in a Restoration Reserve. This fund currently totals $36.0 million.
- Providing public information, science management, and administrative support to the restoration process has totaled $14.3 million through 1996.

million. The court forgave $125 million of the fine because of Exxon's cooperation with the governments during the cleanup, the corporation's timely payment of many private claims, and environmental precautions taken since the spill. Of the remaining $25 million fine, $12 million was paid into the North American Wetlands Conservation Fund, and $13 million into the Victims of Crime Act Account.

Exxon also agreed to pay $100 million as *criminal restitution*, divided evenly between the Federal Government and the State of Alaska. The District Court ordered that these restitution funds must be used "exclusively for restoration projects, within the State of Alaska, relating to the *Exxon Valdez* oil spill."

What's the difference?

The *civil* funds can be used only for restoration of injures resulting from the *Exxon Valdez* oil spill. The *criminal* funds can be used for these purposes as well as for preparation for future spills. For example, criminal funds have been used to fund various spill technology grants, which would not be a permissable use of the civil funds. Both the state and federal government coordinate use of the criminal funds with actions taken by the Trustee Council as they are allocating the civil funds.

See the shaded boxes on these pages for summaries of how these funds have been allocated. Note that the dollar amounts do not include interest earnings. The *1996 Annual Status Report* includes information on the past and estimated future uses of the civil settlement funds. A brief summary of how the criminal, civil and Alyeska funds are being used is included here.

For more information contact the Oil Spill Public Information Center at 907/278-8008, toll free at 1-800-478-7745 within Alaska, and 1-800-278-7745 from outside Alaska. The Internet address is ospic@muskox.alaska.edu, or you can reach the OSPIC world wide web page at:

http://www.alaska.net/~ospic

Federal Criminal Restitution Funds

The federal criminal restitution funds have been allocated so far as follows:

- $21 million to protect habitat within the Chugach National Forest in Prince William Sound.
- $20.5 million to protect habitat in the Kodiak National Wildlife Refuge.
- $7.5 million to the National Oceanic and Atmospheric Administration for shoreline monitoring, establishing an Estuarine Research Reserve in the spill area, and research leading to enhancements in navigational safety in Prince William Sound and Cook Inlet.

State Criminal Restitution Funds

The Alaska Legislature appropriated the state criminal funds as follows:

- $12.5 million to the City of Seward for the Alaska SeaLife Center.
- $7 million contribution to the purchase price for inholdings in Kachemak Bay State Park.
- $.5 million for construction of a Kachemak Bay State Park visitors center.
- $3.25 million for a shellfish hatchery and technical center.
- $4 million for a water delivery system to the Fort Richardson hatchery for sport fish production.
- $4.75 million for construction of recreational facilities within Prince William Sound, the Kenai Peninsula and the Kodiak Archipelago.
- $3 million to the Alaska Department of Fish and Game for habitat enhancement and restoration within the Kenai River watershed.
- $2 million for a grant to the Prince William Sound Aquaculture Corporation for upgrade of the Main Bay Hatchery.
- $3 million for additions to the University of Alaska Fairbanks Fishery Industrial Technology Center.
- $5 million to the Alaska Department of Community and Regional Affairs for grants to restore subsistence resources in small communities in the spill region.
- $5 million to the Alaska Department of Environmental Conservation for research on prevention and cleanup of future oil spills.

Alyeska Settlement

The Alyeska settlement was approved by both state and federal courts and resolved all spill–related legal claims by the governments against the company. The agreement is separate from private claims against Exxon. As part of the agreement the funds went to specific purposes. These included:

- $14.5 million to build oil spill response storage facilities and docks at Tatitlek and Chenega.
- $6 million for work in Cordova to build a road to a proposed oil spill response dock location and construct a response storage facility.
- $7.5 million towards purchase of inholdings in Kachemak Bay State Park.
- $200,000 for communications equipment at the Valdez Emergency Operations Center.
- $1.5 million to various communities through the State of Alaska for lost Fisheries Business Taxes.
- $2 million for reimbursements to the federal government.

Community Notes

Nine Community Involvement Local Facilitators have been hired in the spill region to aid information exchange with the Trustee Council. The facilitators are listed below.

Community Coordinator Martha Vlasoff is working with ADF&G Subsistence Division staff and Henry Huntington of the Inuit Circumpolar Conference to plan a Traditional Ecological Knowledge Protocol work session April 9 – 10, 1996 in Anchorage. All nine community facilitators will meet at the Restoration Office to discuss guidelines for collection of traditional knowledge and local hire through research projects. A draft protocol document will be produced at the work sessions for the community facilitators to take back to their villages for review.

On the second day of the work session there will be an opportunity for restoration project Principal Investigators to meet Local Facilitators and to work on creating opportunities for information exchange as part of 1996 field work. During the second day the Facilitators will also receive technical assistance on finalizing FY97 project proposals.

"We are hoping this exchange will provide a better understanding of the ecosystem from both points of view and greater respect for each one's contribution to the process," Vlasoff said.

Vlasoff said that a number of Principal Investigators have already expressed interest in working with communities to coordinate projects with local residents this field season.

Martha Vlasoff, Molly McCammon and Dan Moore from ADF&G will be traveling to the Kodiak Island villages March 27-30, 1996. This will be an opportunity for the villagers to voice their concerns on injured resources and discuss projects, as well as a chance for staff to brief village residents on the progress of the restoration program.

Local Community Facilitators

Gary Kompkoff	Tatitlek	325-2311
Don Kompkoff	Chenega Bay	573-5132
Walter Meganack, Jr.	Port Graham	284-2227
Helmer Olsen	Valdez Native Tribe	835-5589
Charles Moonin	Nanwalek	281-2225
Kenny Blatchford	Qutekcak (Seward)	224-3118
Bob Henrichs	Eyak Tribal Council (Cordova)	424-7739
Hank Eaton	Kodiak Tribal Council	486-4449
Virginia Aleck	Chignik Lake	845-2212

Coastal Currents On The Air

A new radio program about the Trustee Council's research and restoration program will be heard in the spill region beginning the week of March 18. Each two-minute broadcast can be heard at varying times over public radio stations in Chenega Bay, Cordova, Dillingham, Glenallen, Homer, Kodiak, Tatitlek, Valdez and Whittier, as well as in Anchorage and Juneau.

The series of radio programs, called Alaska Coastal Currents, were developed by Jody Seitz of Cordova, working with Steve Heimel of the Alaska Public Radio Network.

The pilot series of 13 programs cover a variety of subjects such as new methods of studying harbor seals, research showing major shifts in abundance of forage fish species, and information about the status of killer whales in Prince William Sound. The Trustee Council funded this pilot series of programs as part of its overall public information effort.

For more information, call Jody Seitz at 907/424-3719 or L.J. Evans at 907/278-8012.

Alaska Specialists Observe Wales Spill Cleanup

The British government recently accepted Governor Tony Knowles' offer to send Alaska oil spill experts to the site of the *Sea Empress* spill in Wales. Dr. Robert Spies, Chief Scientist for the *Exxon Valdez* Oil Spill Trustee Council, and John Bauer of the Alaska Department of Environmental Conservation, the state's shoreline cleanup manager during the *Exxon Valdez* response, spent four days in Wales in mid-March observing the areas affected by the *Sea Empress* oil spill and exchanging information on cleanup and restoration strategies with British environmental officials.

Spies reported that about 108 miles of shoreline had been oiled so far, compared to more than 1,500 miles oiled in Alaska following the *Exxon Valdez* spill.

"Oil did get inside the Milford Haven estuary, an area especially rich in wildlife," Spies said. "Other than that, I didn't see anything that compares with the kind of immediate, major impact on wildlife we saw after the *Exxon Valdez*."

The number of dead birds recovered are on the order of 3,000 so far, Spies said, with scoters, cormorants and murres among the dead. More than 30,000 oiled bird carcasses were recovered after the Alaska spill.

Bauer noted that there were several key differences between the spills. The *Sea Empress* spill was a different, lighter crude oil, and some of the spill was composed of a partially refined fuel oil. Also, British officials used chemical dispersants on any oil slicks that were at least one mile offshore, which helped to break up the slick before it got onshore.

"That's their strategy," Bauer said. "If the conditions are right, use lots of dispersants right away. They had aircraft with dispersants ready to fly at first light the morning after the wreck." Spies also noted that the weather has at times been extremely rough, helping to further break up and disperse the oil.

The Liberian tanker Sea Empress grounded February 15 at the entrance to Milford Haven, Wales. The tanker spilled an estimated 19 million gallons of crude, almost twice the amount spilled by the *Exxon Valdez* in 1989. Travel expenses for Bauer and Spies were paid for by the British Coastguard Agency. Contact: Stan Senner at 907/278-8012.

Audit of Trust Funds Complete

The trust funds overseen by the *Exxon Valdez* Oil Spill Trustee Council were given a clean bill of health in an independent audit released by the Trustee Council in Anchorage March 20.

The Juneau firm of Elgee, Rehfield and Funk conducted the audit as the result of a competitive solicitation authorized by the Trustee Council.

"We're pleased that the audit's findings affirm that our financial statements and accounting system are in good shape," the Council's Executive Director Molly McCammon said. "As part of its trust responsibilities, the Council wanted to assure the public that the trust funds are being well managed, and that's why having an audit done was a high priority."

The audit of the Trustee Council funds cost $48,710. A summary of the audit is contained in the 1996 Annual Status Report. Copies of the audit and Status Report are available by calling the Oil Spill Public Information Center at 907/278-8008, toll-free within Alaska at 1-800-478-7745.

Calendar

March 27–30

Community meetings in Kodiak Island villages. Contact Martha Vlasoff at 907/278-8012 for more information.

April 9–10

Traditional Ecological Knowledge protocols workshop. Contact Martha Vlasoff at 907/278-8012 for more information.

April 15

Project deadline for FY97. Contact Sandra Schubert at 907/278-8012 for more information.

June 5

Public Advisory Group meeting. Contact Doug Mutter at 907/271-5011 for more information.

August 7

Public Advisory Group meeting. Contact Doug Mutter at 907/271-5011 for more information.

August 30*

Trustee Council meeting on FY97 Final Work Plan. Contact Rebecca Williams for more information at 907/278-8012.

***Tentative date.**

The Restoration Update is published approximately six times a year by the *Exxon Valdez* Oil Spill Trustee Council. Its purpose is to update interested members of the public about actions, policies and plans of the Trustee Council to restore resources and services injured by the *Exxon Valdez* oil spill.

For more information, mailing address correction or to request future articles on specific subjects, contact:

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Documents

1996 Annual Status Report

Abstracts of 1995 Restoration Project Results

FY 1996 Work Plan

Invitation to Submit FY97 Restoration Proposals

Reports • Archaeology

1994 EVOS report, spill area site and collection plan, Restoration Project Final Report, Bittner, J.E. and D.R. Reger.

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Hydrocarbon mineralization potentials and microbial populations in marine sediments following the EVOS, Damage Assessment Final Report, Braddock, J.F. et al.

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Assessment of injuries to killer whales in Prince William Sound, Natural Resource Damage Assessment Final Report, Dahlheim, M.E. and C. O. Matkin. 1993.

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Exxon Valdez Oil Spill Trustee Council

Restoration Update

August 1996 Vol 3 No. 3

Council offers to purchase, protect high-value land in western PWS

The Offer

Cost
$34 Million

Fee Simple
38,000 acres

Conservation Easement
23,000 acres

Shoreline
100+ miles

Exclusions
Old Chenega Village site, small development sites & land on Evans and Latouche Islands

Eshamy Bay and Jackpot Bay have long been known as the most valuable salmon producing systems in western Prince William Sound. Together they contain 22 anadromous streams producing wild sockeye and pink salmon.

These areas, valuable for commercial, sport, subsistence and recreational uses, are targeted for permanent protection if a $34 million land deal offered by the Trustee Council is approved by the Native shareholders of Chenega Corporation.

The Trustee Council formally made the offer May 31 to purchase conservation easements and fee-simple land totalling 61,000 acres, including more than 100 miles of shoreline, much of it once covered by oil from the *Exxon Valdez*. The Chenega Corporation board of directors unanimously endorsed the deal, but it must also be approved by two-thirds of the village corporation's shareholders.

"Western Prince William Sound was hardest hit by the oil and continues to suffer lingering effects from the original injuries," said Molly McCammon, the Trustee Council's executive director. "This is valuable habitat for many of the species injured by the spill and it will go a long way toward long-term recovery in this area."

Eshamy Bay and Jackpot Bay are

Continued on page 5

FY 97 Draft Work Plan

The Trustee Council Restoration Office received 120 proposals requesting $33 million in funding for research, monitoring and general restoration projects during the next fiscal year. The Council has targeted approximately $16 million for these projects during Fiscal Year 1997.

The FY97 Draft Work Plan, released June 25, provides an abstract of each proposal, along with draft recommendations from Executive Director Molly McCammon and Chief Scientist Dr. Robert Spies.

McCammon has recommended that 71 projects totalling $16.7 million be given further consideration at the late August Council meeting. Of those, 48 are continuing projects and 23 are new.

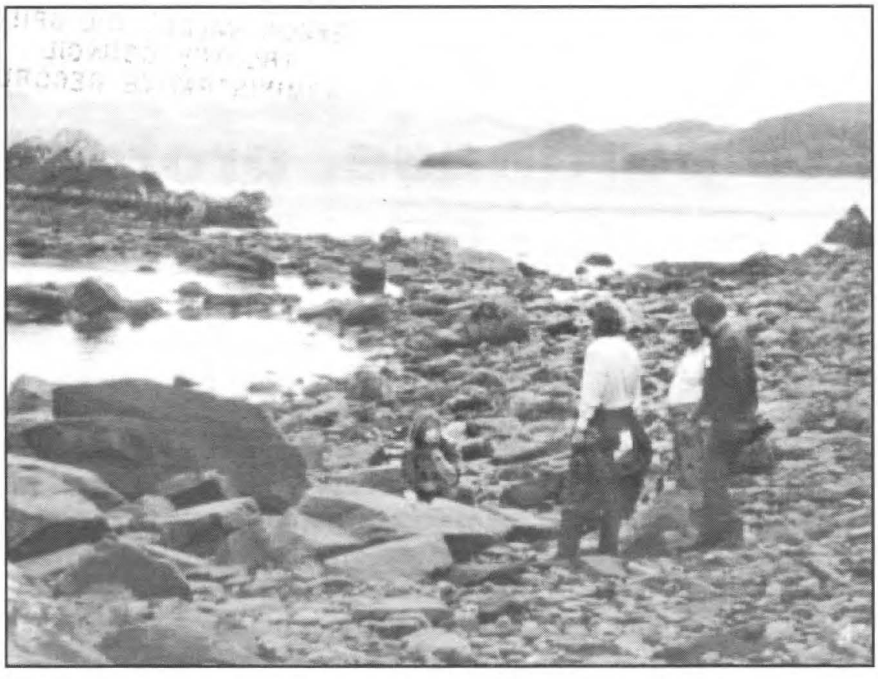
Communities from the spill area submitted 35 proposals, in part due to an outreach program initiated by the Council. Nearly two-thirds of those proposed projects were recommended for further consideration.

In addition to project proposals, the FY97 Draft Work Plan includes

Continued on page 3

Inside...

Oil removal to boost confidence in subsistence, recreational uses



Oil residues remain on popular subsistence beaches like this one on Evans Island. Above, ADEC's Diane Munson, Department of Interior Trustee Alternate Deborah Williams, Larry Evanoff of Chenega Bay and ADEC's Mark Broderson check the beach for oil during a 1994 survey. Below is a small sample of asphalt-like oil found on the beach.

More than 7 years after the *Exxon Valdez* spilled its cargo in Prince William Sound, restoration crews will be returning to selected beaches in a final effort to remove tar-like pockets of oil.

The *Exxon Valdez* Oil Spill Trustee Council approved expenditures up to $1.9 million to conduct a targeted cleanup near the Village of Chenega Bay in western Prince William Sound. Detailed plans for the cleanup are due to be finalized by the end of this year with the actual work scheduled to begin next summer.

Residents of Chenega Bay, which is centered in the area of the Sound hardest-hit by the spill, requested the cleanup, saying the presence of residual oil is a significant problem for the community. Residents told the Trustee Council that remaining oil affects the recovery of injured resources and confidence in subsistence use of the shorelines.

The residual oiling is not considered a high environmental risk to the resources, but the Council endorsed the plan in an effort to boost public confidence in the subsistence and recreational use of the tidelands.

For Chenega villagers, the tar-like remains have been compared to litter in a food-gathering area or patches of asphalt and mousse in a garden.

"It's clear that the impact of this spill on local residents is still hard-felt," said Molly McCammon, executive director of the Trustee Council.

"We will never be able to remove 100 percent of the oil from these beaches," she said. "However, we can target some of the most significant areas in terms of public use and make significant improvements."

A 1993 shoreline survey of Prince William Sound identified 225 locations with residual surface oiling, asphalt or mousse. The Chenega-area cleanup will target surface oil found at eight sites on Latouche, Evans and Elrington Islands. Those shorelines are covered with heavy boulders which hide the oil and protect it from the natural cleaning action of waves.

Tentative plans call for using all available cleaning methods on the selected beaches, including intensive manual cleanup, use of cleaning agents, cold-water flushing and bioremediation. One possibility could be to spread a commercial product known as PES-51 over some areas to help break up the oil. Cold water would be used to flush the oil and the surfactant to the tideline where both would be trapped by booms and scooped up. The advantage of PES-51 over other chemicals is that it can easily be removed from the water.

The Department of Environmental Conservation will oversee the cleanup. The Prince William Sound Economic Development Corporation will coordinate contracting for the cleanup, using local companies and local labor. The corporation is the Alaska Regional Development Organization for the area.

Virus found in herring pound fishery

A significant number of Pacific herring sampled from one spawn-on-kelp pound fishery in Southeast Alaska have been shown to carry the same deadly and contagious virus associated with the 1993 crash of the herring fishery in Prince William Sound.

After the Prince William Sound herring fishery crashed, it was determined that Viral Hemorrhagic Septicemia Virus (VHSV) exists at background levels in many populations of herring. But what caused the sudden spread of the disease?

Gary Marty, of the University of California—Davis, looked to stress as a major contributing factor.

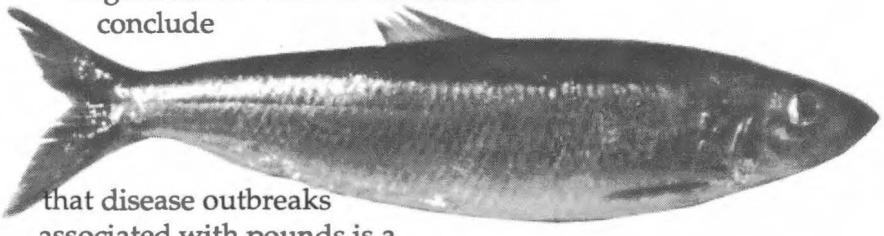
"It's like cold sores in humans," he said. "We carry around the herpes virus with no troubles, but under stress we exhibit cold sores. When the herring are stressed, they begin to exhibit lesions from VHSV and they die."

Stress can be caused in several ways, such as lack of food, pollution, and crowded conditions. Marty, in a study funded by the Trustee Council, decided to look for stress in the high-density environment of a pound fishery, in which several tons of herring are captured and placed in cages to spawn on a limited supply of kelp. The herring are then released back to the general population.

Marty sampled herring from the pound fishery in Craig and estimated that approximately 15 percent of the herring being released may have had the virus. "In my opinion, VHSV prevalence of 15 percent in released fish would be a serious threat to the fishery," he said.

Marty cautioned that the results are preliminary. The data demonstrate a strong need for further study, but no real conclusions, he said.

Regardless of whether further studies conclude that disease outbreaks associated with pounds is a problem, it should not be considered a threat to the pound fishery, Marty said. According to John Wilcock, ADF&G research biologist, there are management alternatives that would allow permit holders to continue the fishery, including open pounding, in which the kelp is moved to the fish instead of the fish moved to the kelp.



In managing the herring, ADF&G already assumes 100 percent mortality from the pound fishery, so another alternative is to not release the fish placed in the pounds.

Draft Work Plan

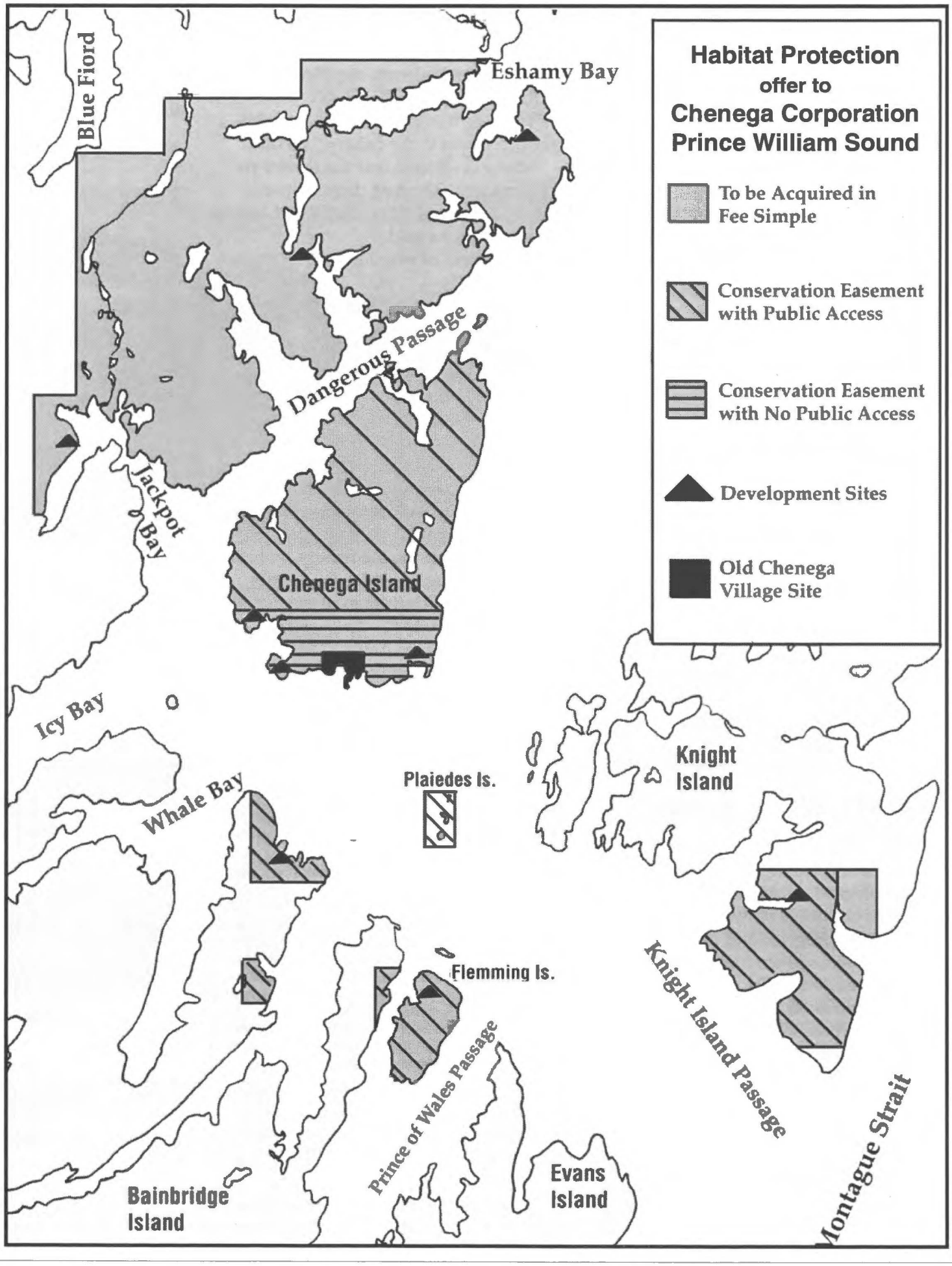
Continued from Page 1

information regarding proposals for archeological repositories, reduction of marine pollution, support for the habitat protection program and public information, science management and administration.

Comments on the draft work plan should be received at the Restoration Office by the end of the day August 9, 1996. A public meeting on the work plan will be held at 7 p.m. August 6 at the Oil Spill Public Information Office, 645 G Street in Anchorage. The public can participate via teleconference through local Legislative Information Offices or by calling Rebecca Williams at the Council office (278-8012).

Category	Explanation	No. of Projects	FY96 Cost
Fund	Project has high technical merit with significant contribution toward achieving restoration objectives.	13	$1,882,400
Fund Contingent	Same as above except that certain issues need to be resolved. Project recommended for approval if these issuse can be resolved.	43	$12,732,800
Defer Decision	A decision on funding cannot be made without more information. Defer decision until November or December 1996.	15	$2,129,000
	TOTAL	71	$16,744,200
Do Not Fund	Project is not legally permissable, has technical problems, or would not significantly contribute to restoration objectives.	49	$13,978,200

This table summarizes the executive director's preliminary recommendations on the research, monitoring, and general restoration projects.


Habitat Protection
offer to
Chenega Corporation
Prince William Sound
To be Acquired in Fee Simple
Conservation Easement with Public Access
Conservation Easement with No Public Access
Development Sites
Old Chenega Village Site
Blue Fiord
Eshamy Bay
Dangerous Passage
Jackpot Bay
Chenega Island
Icy Bay
Whale Bay
Plaiedes Is.
Knight Island
Flemming Is.
Knight Island Passage
Prince of Wales Passage
Montague Strait
Evans Island
Bainbridge Island

Near Island Research Facility Underway

The formal groundbreaking for the Near Island Research Facility in Kodiak was part ceremony and part celebration.

Construction on the $18 million salt-water research facility was made possible through a cooperative effort between seven federal, state and local agencies. About half of the funds will come from criminal and civil fines levied against Exxon after the 1989 oil spill.

Deborah Williams, assistant to Secretary of Interior Bruce Babbitt, said the event illustrated the resurrection occurring throughout the spill area. "We've been able to turn this disaster into remarkable things," she said. "We've taken a death and made something alive."

Williams noted that the trustees have focused strongly on protecting the habitat of the Kodiak area. So far, the trustees have spent $170 million protecting 279,000 acres of land on Kodiak, Afognak and Shuyak Islands. "And we're not done yet," she said.

The research facility will house offices and laboratories for the National Marine Fisheries Service, Alaska Department of Fish and Game, University of Alaska, and the National Park Service.

The Trustee Council's purchase of 26,665 acres on Shuyak Island from the Kodiak Island Borough included an agreement that $6 million of the purchase price would be contributed to the research facility.

The Alaska Legislature appropriated $3 million using money from the criminal settlement with Exxon. The remaining $9 million will be financed through revenue bonds to be paid from the long-term lease with the NMFS.

Photo by Cecil Ranney, Kodiak Daily Mirror

Construction of the Near Island Research Facility officially began with ceremonial shoveling by, from left, Don Collinsworth, Senator Ted Stevens, Borough Mayor Jerome Selby, Lt. Governor Fran Ulmer, University President Jerome Komisar, Fish and Game Commissioner Frank Rue and Katmai National Park Superintendent Bill Pierce.

Chenega

Cont. from Page 1

among the highest ranked parcels in the oil spill area for restoration of injured resources. The area has important restoration value for many of the species hit hardest by the spill, including harbor seals, harlequin ducks, marbled murrelets, pigeon guillemots, sea otters, sockeye salmon, Dolly Varden and cutthroat trout. The lands include most of Chenega Island, Flemming Island, the northern half of Evans Island and the southern tip of Knight Island.

The habitat package would include the outright purchase of nearly 38,000 acres, a portion of which would be managed as part of the Chugach National Forest. Other portions would be managed by the State of Alaska as a marine park. Conservation easements would protect another 23,000 acres.

The Native village corporation would keep the original village site of Chenega, which was destroyed in the 1964 earthquake. The rest of Chenega Island would be protected through conservation easements with the southern quarter of the island being off limits to the public. Chenega Corporation would also keep several small development sites ranging in size from 30 acres to 1.5 acres, with any future development consistent with restoration objectives.

If approved, the purchase will be the seventh in a series of large habitat protection agreements stemming from the *Exxon Valdez* oil spill. The Trustee Council has already purchased title, conservation easements or timber rights to 361,790 acres in the Kodiak, Cook Inlet and Prince William Sound regions.

The area has important restoration value for many of the species hit hardest by the spill, including harbor seals, harlequin ducks, marbled murrelets, pigeon guillemots, sea otters, sockeye salmon, Dolly Varden and cutthroat trout.

Community Notes

Taking a break during a visit to Kodiak Island communities, from left to right, Executive Director Molly McCammon, Kodiak-area Community Involvement Facilitator Hank Eaton, PAG member Brenda Schwantes, Community Coordinator Martha Vlasoff and ADF&G biologist Dan Moore.

Scientists and researchers have come to understand that traditional knowledge is a valuable tool in studying the ecosystems damaged by the *Exxon Valdez* oil spill. But how do researchers go about tapping into the wealth of insights from local residents?

In April, that question was discussed during a two-day workshop on how to best use Traditional Ecological Knowledge. The workshop resulted in development of draft protocols, which included the following statement:

"Working in, around, and with communities requires sensitivity to their cultures, customs, and traditions. Successful working relationships are built on mutual respect and trust. These protocols describe major elements of a research partnership, but their application depends on using common sense and acting with common courtesy."

The draft protocols were circulated in the spring. A revised version incorporating comments received will be circulated later this summer.

Executive Director Molly McCammon and community coordinator Martha Vlasoff visited Kodiak Island villages in March to hold informational meetings about ongoing restoration efforts.

The overriding concern expressed by the communities was their concern to be prepared for the next oil spill. The lifting of the oil export ban means oil tankers will be passing by Kodiak on their way to North Pacific Rim countries and villagers said they are incapable of protecting themselves from another spill. Linda Freed, of the Kodiak Island Borough, has been working on acquiring oil spill response equipment to help villagers protect subsistence resources.

Crab enhancement was another big concern. Several villagers wanted to know if aquaculture programs could help bring crab populations back to pre-spill levels. Crab populations were on the decline before the spill, but completely disappeared after the spill, they said. They wondered why crab and shrimp have not been put on the list of injured resources. McCammon directed Science Coordinator Stan Senner to work with ADF&G to prepare a report on the status of crab populations in the oil spill area.

Local Community Facilitators

Gary Kompkoff
Tatitlek
325-2311

Don Kompkoff
Chenega Bay
573-5132

Walter Meganack, Jr.
Port Graham
284-2227

Tina Wheeler
Valdez Native Tribe
835-5589

Hans Petersen
Nanwalek
281-2275

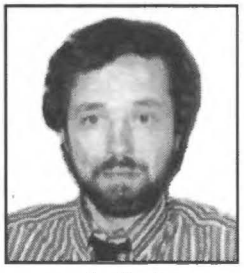
Victor Ashenfelter
Qutekcak (Seward)
224-3118

Bob Henrichs
Eyak Tribal Council (Cordova)
424-7739

Hank Eaton
Kodiak Tribal Council
486-4449

Virginia Aleck
Chignik Lake
845-2212

Hunt joins Council staff



Joe Hunt

Joe Hunt, a former reporter with the *Anchorage Times* and the *Peninsula Clarion*, has joined the *Exxon Valdez* Oil Spill Trustee Council as communications coordinator.

While writing for the *Anchorage Times*, Hunt spent three years reporting on Alaska's natural resources and environmental issues. He served as lead reporter for the *Exxon Valdez* oil spill before moving to Kenai to open the *Times'* Kenai Peninsula Bureau. Most recently, Hunt served as public information officer and constituent relations assistant for Governor Tony Knowles.

As communications coordinator, Hunt will oversee development of publications and work with media representatives worldwide to provide information on restoration efforts.

New In Print

These documents and reports are available at the Oil Spill Public Information Center, 645 G St, Anchorage, AK 99501, or by calling 907/278-8008, toll-free within Alaska at 800/478-7745, or toll-free outside Alaska at 800/283-7745.

Reports • Archaeology

1994 EVOS report, spill area site and collection plan, Restoration Project Final Report, Bittner, J.E. and D.R. Reger.

Archaeological site monitoring and restoration, Restoration Project 1994 Annual Report, Reger, D. et al.

Birds

Experimental harlequin duck breeding survey in Prince William Sound, Restoration Project 1994 Annual Report, Rosenberg, D.H.

Harbor Seals

Habitat use, behavior, and monitoring of harbor seals in Prince William Sound, Restoration Project 1994 Annual Report. Frost, K.F. et al.

Habitat use, behavior and monitoring of harbor seals in Prince William Sound, Restoration Project 1993 Annual Report, Frost, K.F. and L.F. Lowry.

Herring

The impact of adult pre-spawn herring on subsequent progeny, Restoration Project 1994 Annual Report, Carls, M.G. et al.

Forage fish study in Prince William Sound, Restoration Project 1994 Annual Report, UAF School of Fisheries.

Pink Salmon

Injury to pink salmon eggs and preemergent fry incubated in oiled gravel (laboratory study), Restoration Project 1994 Annual Report, Heintz, R.A. et al.

Instream habitat and stock restoration for salmon, Otter Creek Barrier bypass subproject, Restoration Project 1994 Final Report, Wedemeyer, K. and D. Gillikin.

Instream habitat and stock restoration for salmon, Shrode Creek barrier bypass subproject, Restoration Project 1994 Final Report, Wedemeyer, K. and D. Gillikin.

Use of aerial photograph, channel-type interpretations to predict habitat availability in small streams, Restoration Project 1994 Final Report, Olson, R.A.

Injury to salmon eggs and preemergent fry in Prince William Sound, Natural Resource Damage Assessment Final Report, Sharr, S. et al, 1994.

Shellfish

Injury to crabs outside Prince William Sound, Damage Assessment Final Report, Freese, J.L. and C.E. O'Clair.

Recovery monitoring and restoration of oiled mussel beds in Prince William Sound, Restoration Project 1993 Annual Report, Babcock, M. et al.

Recovery monitoring and restoration of oiled mussel beds in Prince William Sound, Restoration Project 1994 Annual Report, Babcock, M. et al.

Sockeye Salmon

Kenai River Sockeye salmon restoration, Restoration Project 1994 Annual Report, Tarbox, K.E. et al.

Restoration of Coghill Lakes sockeye salmon: 1994 annual report on nutrient enrichment restoration, Restoration Project 1994 Annual Report. Edmundson, J.A. et al.

Kenai River sockeye salmon restoration, Damage Assessment 1993 Annual Report, Tarbox, K.E. et al.

Chinook Salmon

Chenega chinook releae program, EVOS Restoration Project Annual Report, Ferren, H. and J. Milton

Subtidal

Fate and toxicity of spilled oil from the Exxon Valdez, EVOS Damage Assessment Final Report, Wolf, D.A.

Petroleum hydrocarbons in near-surface sea water of Prince William Sound, Alaska, following the EVOS, Report number II: Analysis of caged mussels, Damage Assessment Final Report, Short, J.W. and P. Rounds.

Hydrocarbon mineralization potentials and microbial populations in marine sediments following the EVOS, Damage Assessment Final Report, Braddock, J.F. et al.

Nearshore transport of hydrocarbons and sediments following the EVOS, Damage Assessment Final Report, Sale, D.M. et al.

Microbiology of subtidal sediments: monitoring microbial populations, Restoration Project 1993 Final Report, Braddock, J.F. and Z. Richter.

Subtidal monitoring: recovery of sediments in the Northwestern Gulf of Alaska, Restoration Project 1994 Annual Report, O'Clair, C.E. et al.

Assessment of oil spill impacts on fishery resources: measurement of hydrocarbons and their metabolites, and their effects, in important species, Natural Resource Damage Assessment Final Report, Varanasi, U., et al. 1995.

Whales

Assessment of injuries and recovery monitoring of Prince William Sound killer whales using photo-identification techniques, 1994 Restoration Project Final Report, Dahlheim, M.E. and C.O. Matkin.

Assessment of injuries to killer whales in Prince William Sound, Natural Resource Damage Assessment Final Report, Dahlheim, M.E. and C. O. Matkin. 1993.

Effects of the Exxon Valdez oil spill on the abundance and distribution of humpback whales in Prince William Sound, Natural Resource Damage Assessment Final Report, Dahlheim, M.E. and O. von Ziegesar, 1993.

The Restoration Update is published approximately six times a year by the *Exxon Valdez* Oil Spill Trustee Council. Its purpose is to update interested members of the public about actions, policies and plans of the Trustee Council to restore resources and services injured by the *Exxon Valdez* oil spill.

For more information, mailing address correction or to request future articles on specific subjects, contact:

Executive Director • Molly McCammon
Director of Operations • Eric Myers
Editor • Joe Hunt

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ospic@muskox.alaska.edu
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Calendar

August 6, 7 p.m.

Public Meeting to comment on the FY 97 Draft Work Plan. To participate via teleconference, contact your local Legislative Information Office or Rebecca Williams at the Restoration Office at 278-8012 or 800/478-7745.

August 7

Public Advisory Group will meet to discuss FY 97 Draft Work Plan. Contact Doug Mutter at 907/271-5011 for more information.

August 29*

Trustee Council meeting on FY97 Final Work Plan. Contact Rebecca Williams for more information at 907/278-8012.

* Tentative date

September 18-19

Public Advisory Group field trip to Port Graham and Lower Cook Inlet area. Open houses are tentatively scheduled as follows:

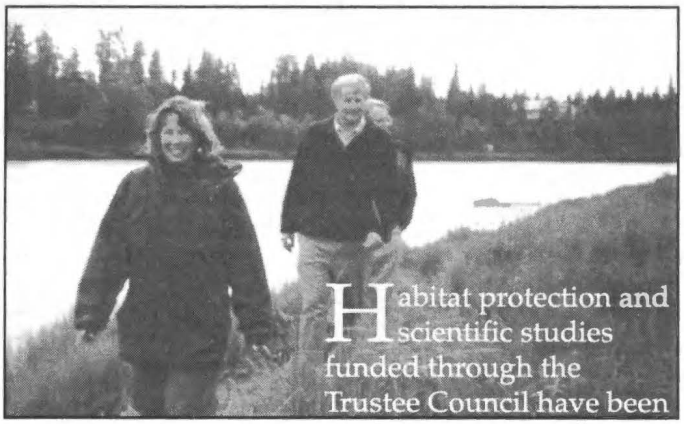
September 18

Port Graham Community Center	**11 am**
Seldovia Multi-Purpose Room	**6:30 pm**

September 19

Homer City Council Chambers	**11 am**

Knowles applauds Kenai River protections



Trustees voted during their June 28 meeting to offer to buy this 76-acre parcel on the Kenai River. Executive Director Molly McCammon, Department of Law Trustee Alternate Craig Tillery and Assistant Attorney General Alex Swiderski check out the property before making their recommendations to the Council.

Habitat protection and scientific studies funded through the Trustee Council have been vital components of a wide-ranging effort to protect the Kenai River, Governor Tony Knowles said recently in dedicating the new Kenai River Center.

"This dedication marks the culmination of a great deal of effort by many people to respond to the need for protection and enhancement of the Kenai River," Knowles said.

He pointed out that the Trustee Council has dedicated more than $11 million to purchase nearly 17,000 acres of land important to keeping the Kenai River healthy. The first two Kenai River parcels, valued at more than $2.4 million, were recently concluded. Offers are pending on several other parcels.

The Council also funded a key study to identify sockeye salmon using genetics. This information will allow fisheries managers to accurately identify salmon stocks by river system, therefore allowing better management of the commercial catch to ensure proper escapement to each system.

Another Council-funded science project is looking at the relationship between over-escapement and the effect on survival of salmon fry.

The Kenai River Center, located on the Kenai Spur Highway in Soldotna, provides visitors with information about the river and need for habitat protection and restoration. The center also houses state, federal and borough agencies and provides residents with a single location where they can get projects reviewed and assistance in complying with needed permits.

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Exxon Valdez Oil Spill Trustee Council

Restoration Update

October 1996 / Vol. 3 No. 4

'Creative' Tatitlek package approved

After two years of negotiations, the Trustee Council recently agreed to purchase 66,000 acres of Tatitlek Corporation lands in a package praised by both sides for its creativity and its flexibility. Trustees agreed to spend $33 million to protect the valuable habitat in eastern Prince William Sound.

A variety of methods were used in the package, including fee simple purchase, conservation easements with and without public access, and timber easements. "This is the most creative package the Trustee Council has seen by far," Trustee Deborah Williams told the Tatitlek Board of Directors. "It represents, I think, your unique needs and the ecological management needs that we felt were important."

"What is particularly interesting about this transaction," she said, "is that it does provide Tatitlek not only the kind of environmental protection around your lands that will sustain your shareholders for generations, but will also allow economic development."

Carroll Kompkoff, president of Tatitlek Corporation, thanked the Council for persevering through long and difficult negotiations. "We believe the results will provide long-term benefits to the public and the Tatitlek shareholders, as well as to the resources injured by the spill," Kompkoff said.

Continued on Page 2

Work plan set for FY97

The work plan for FY97 will provide $15.4 million for research, monitoring and general restoration projects for the Kodiak Island, Kenai Peninsula and Prince William Sound regions. Additional projects will be considered at the Trustee Council's December meeting.

The FY97 Work Plan is the document that sets the Trustee Council budget and identifies community projects, scientific studies and administrative duties for the fiscal year beginning October 1.

In addition to the work plan, the Council approved several capital projects, including $545,600 to the Alaska SeaLife Center to

Continued on Page 3

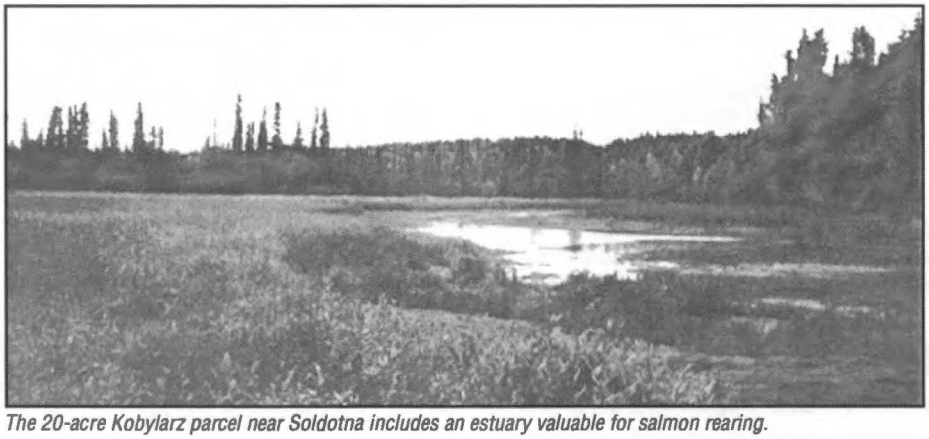
Kenai Peninsula

Exxon Valdez settlement funds benefit residents and visitors

Editor's Note: Restoring an injured ecosystem after a major oil spill is a task never before attempted on the scale now being done in Prince William Sound, lower Cook Inlet and the Kodiak Archipelago. Restoration efforts also include revitalizing human services such as subsistence, commercial fishing, and recreation.

The Exxon Valdez Oil Spill Trustee Council, funded by the $900 million civil settlement with Exxon, is bound by the courts and its trust responsibilities to restore both the environment and the human services injured by the spill. In addition, the federal and state governments are each investing $50 million from the Exxon criminal settlement into the spill region.

This is the first of a three-part series describing how that money is being spent in each region. This issue will focus on the Kenai Peninsula. Future issues will focus on Kodiak Island (including the Alaska Peninsula) and Prince William Sound.



The 20-acre Kobylarz parcel near Soldotna includes an estuary valuable for salmon rearing.

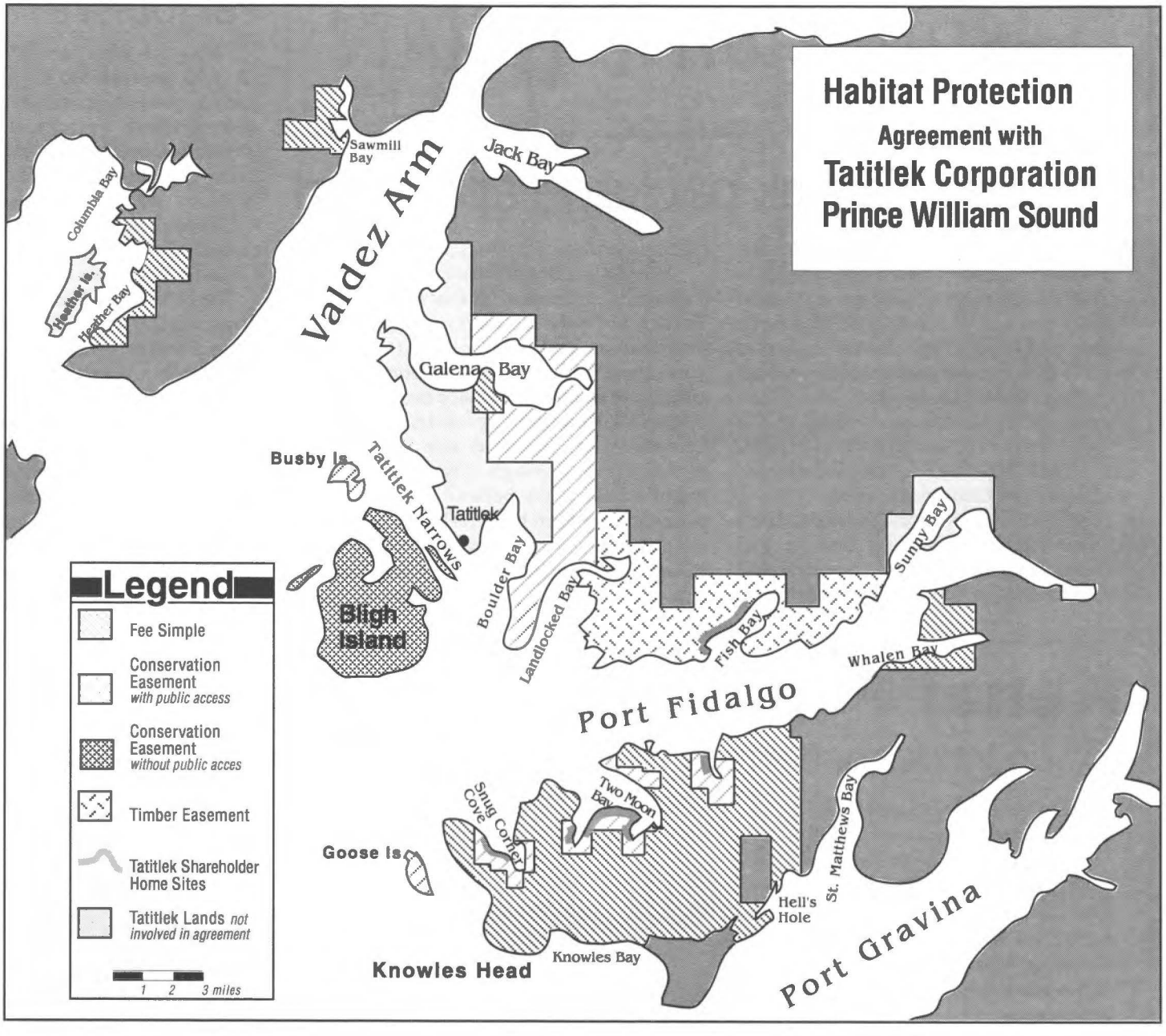
Alaskans who enjoy outdoor activities on the Kenai Peninsula are starting to see the benefits from dozens of projects funded by the *Exxon Valdez* criminal and civil settlements.

Kachemak Bay State Park has been unified through the purchase of 23,800 acres of park inholdings and fortified with new trails, public use cabins, campsites and mooring buoys.

Protection of the Kenai River has taken a big step forward, with progress on habitat protection, sockeye management, riverbank restoration and fisher education. The Council has purchased and protected several miles of Kenai River shoreline, financed important research into sockeye salmon genetics, sockeye over-escapement, and restoration of shoreline habitat destroyed by overuse.

The $55 million Alaska SeaLife

Continued on Page 3



Tatitlek

Continued from Page 1

The entire package must be approved by two-thirds of the Native cor-poration's shareholders.

The protection package includes a conservation easement covering Bligh Island, the closest point of land to the reef where the *Exxon Valdez* ran aground. Bligh Island is considered one of the most valuable parcels in Prince William Sound for its habitat and its importance as a subsistence harvest area.

A portion of the land would be administered as part of the Chugach National Forest. The remainder would be managed by the Alaska Division of Parks and Outdoor Recreation.

Executive Director Molly McCammon said the protection package represented a cooperative effort in which each side worked hard to make the best agreement possible. Under the agreement, Tatitlek Corporation would retain lands for future development and their shareholder land program. "It's a win-win opportunity," McCammon said.

Numerous species injured by the oil spill use the area for nesting, feeding, molting and wintering. The area is important to harlequin ducks, bald eagles, black oystercatchers, marbled murrelets, pigeon guillemots, harbor seals, sea otters and river otters.

Bligh Island has the highest nesting concentrations of pigeon guillemots in eastern Prince William Sound. The Hell's Hole area is highly productive for salmon, cutthroat trout and Dolly Varden and sees significant sport fishing use. The entire region is popular for recreational purposes and subsistence food gathering.

The Trustee Council will provide $23 million toward the purchase. The remaining $10 million will come from the federal portion of the *Exxon Valdez* criminal settlement.

Kenai Peninsula

Continued from Page 1

Center, now under construction in Seward, will improve our scientific understanding of the North Pacific, educate Alaskans and visitors about the marine environment and provide an economic boost to the community.

Residents of Port Graham and Nanwalek who subsist on local resources will see enhanced runs of pink and silver salmon to nearby streams. A pilot project is underway, working with the Qutekcak hatchery in Seward, to re-establish littleneck clams on some south peninsula beaches.

In addition to Kachemak Bay State Park improvements, recreational users will find better access to lands, a new 20-unit campground in the Anchor River area, and more cabins and trails along Resurrection Bay.

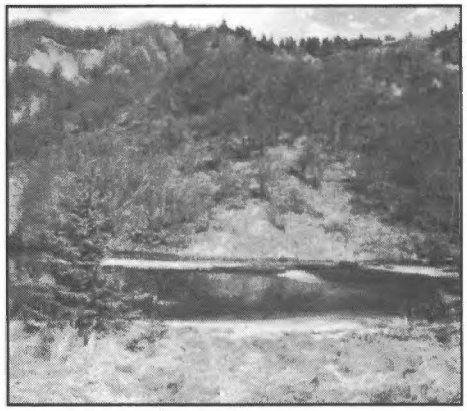
Many believe the real legacy of the Council's action will be our increased knowledge about our environment. The Council has funded hundreds of scientific studies throughout the spill region and has dedicated much of its funding for this purpose. The result will be better fisheries management and sustained use of our resources for generations to come.

Genetic research now allows biologists to clearly identify where the salmon passing along Cook Inlet beaches are heading. This will allow fisheries managers to open and close fisheries to ensure optimum escapement to all rivers.

Another study has provided valuable information about how overescapement affects future salmon returns.

By design, funding for administration of the Council is dwindling each year. When the money runs out, the Council will cease to exist. But as part of its legacy, it will leave behind about $150 million (including interest) in a reserve fund to continue restoration efforts.

Kenai River habitat protection includes restoration of damaged river banks, public education and construction of fishing platforms, such as this one funded by the Kenai River Sportfishing Association,



Overlook Park, a 99-acre scenic overlook above Homer, includes upland ponds and rich tidal pools. This parcel is currently under consideration for protection.

In time, with the Alaska SeaLife Center, the Near Island Research Center in Kodiak, the Prince William Sound Science Center in Cordova, and the Auke Bay Laboratory in Juneau, some think Alaska will become a mecca for cold-water marine science. This wealth of knowledge will help maintain our rich fisheries and our rich marine ecosystems and buoy our two leading industries, fishing and tourism.

It's been said many times that if one can find a silver lining in the oil spill, this is it. The action of the Trustee Council translates into vital habitat protection, more recreational access to lands, better fishing success, improved subsistence harvests, and a world of scientific knowledge once thought unachievable due to funding constraints.

Work Plan

Continued from Page 1

design and build a fish pass, allowing salmon to enter the center for educational and scientific purposes. The Council provided $1.17 million to support a waste management program for Cordova, Valdez, Whittier, Chenega and Tatitlek in an effort to reduce chronic sources of marine pollution. Kodiak Island Borough recieved $267,500 to support planning for a similar waste management program for island communities.

As part of the work plan, chinook salmon fry reared at the Wally Noerenberg Hatchery will continue to be released into Crab Bay near Chenega Bay to establish a subsistence fishery for that community.

Research into overescapement of sockeye salmon into Skilak and Akalura lakes has been ongoing for three years. The Council authorized $214,000 to finish the project during 1997 and produce a final report. The Council also approved a third year of funding for an attempt to establish subsistence clamming near Port Graham, Nanwalek, and Tatitlek. This project will receive $365,000 in 1997 to seed juvenile littleneck clams on lower Cook Inlet and Prince William Sound beaches.

For the third consecutive year, the Council has authorized $248,400 to fund a community involvement program which hires local residents in 10 spill-area communities to serve as liaisons between the Trustee Council, researchers, and communities.

The Council approved an additional $12 million to go into a restoration reserve account and $2.86 million for administration, science management and public information efforts.

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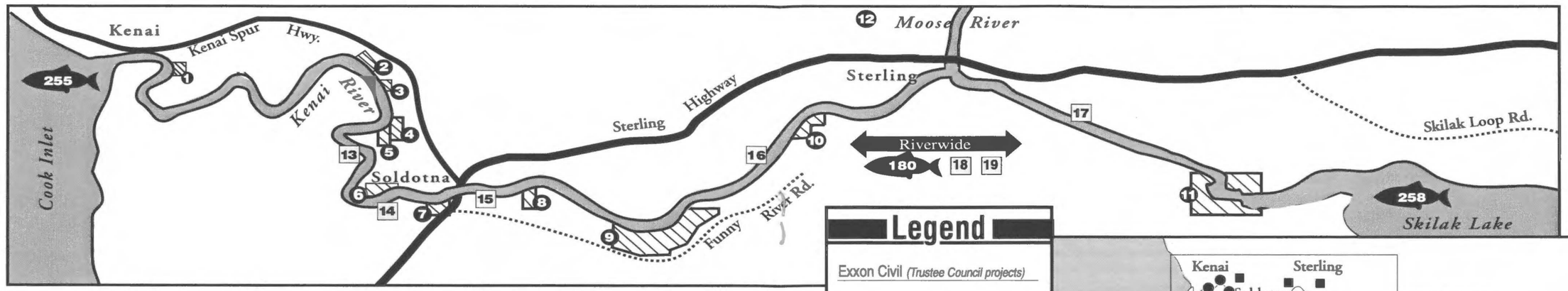


Habitat protection, recreation and scientific research

Exxon civil, criminal penalties to provide long-term benefits for Kenai Peninsula

The following projects are in various stages of completion. Many acquisition projects depend on successful negotiations with the private land owners. Trustee Council projects (civil settlement) are in black. Projects using state or federal criminal settlement funds are shaded in gray.

Civil Settlement

The Exxon Valdez Oil Spill Trustee Council, funded by the $900 million civil settlement with Exxon, was created to help restore natural resources injured by the spill through habitat protection and scientific studies. This fund is limited to restoration activities in the oil spill region.

Criminal Settlement

The State of Alaska received half of the $100 million criminal restitution resulting from the spill. This money has been designated for many uses in the spill region, including recreational facilities, interpretive programs and habitat improvements on the Kenai River. Federal agencies are also using some of their $50 million criminal fund on Kenai Peninsula projects.

1 Cone Parcel **$600,000**
100 acres near the mouth of the river along the Kenai River flats. Acquistion complete.

2 Oberts Parcel (The Pillars)
30-35 acres with 1400 feet of undisturbed shoreline in vital habitat area. Appraisal under review.

3 Oberts Parcel (Honeymoon Cove)
4.22 acres of undisturbed shoreline in high-impact recreational area. Appraisal under review.

4 Oberts Parcel (Big Eddy)
31.7 acres with about 1,200 feet of riverbank adjacent to the Kobylarz Parcel. Appraisal under review.

5 Kobylarz Parcel **$320,000**
20 acres with 1100 feet of riverbank frontage located on the Kenai River at Big Eddy. Offer accepted.

6 Girves Parcel **$1,835,000**
110 acres in a high use area of Soldotna. Acquisition complete.

7 Schilling Parcel
5.9 acres at confluence of the Kenai River and the Sterling Highway. Offer from landowner under consideration.

8 Patson Parcel **$375,000**
76 acres on the Kenai River by the Soldotna Airport with 1/4-mile of river frontage. Offer under consideration.

9 Salamatof Parcel **$2,540,000**
1,377 acres on the Kenai River with approximately 2 miles of riverbank frontage. Offer accepted.

10 River Ranch Parcel **$1,650,000**
146 acres with more than one mile of Kenai River Frontage. Offer under consideration.

11 Stephanka Parcel
803 acres with 2-3 miles of Kenai River frontage. Part of the KNA package below.

12 Kenai Native Association **$4,000,000**
To partially fund acquisition of 15,091 acres in the Kenai River/Moose River drainage area north of the Sterling Highway. Currently under consideration by Congress.

13 Slikok Creek Access **$265,000**
Ladders and boardwalks to and along river for fishing access, interpretive displays. (ADNR)

14 Habitat Restoration **$50,000**
Contribution toward project to restore and protect severely damaged riparian habitat at Riverbend Campground. (ADF&G)

15 Soldotna Creek Park **$300,000**
Restoration of heavily damaged park at Soldotna Creek. Includes elevated grate walk, vegetated biogrid, rootwad installation, bank revegetation. (ADF&G)

16 Morgan's Landing Access **$50,000**
Ladders and boardwalks to and along river for fishing access, interpretive displays. (ADNR)

17 Bing's Landing Access **$200,000**
Ladders and boardwalks to and along river for fishing access, interpretive displays. (ADNR)

18 Private Waterfront Projects **$60,000**
Small-scale demonstration projects, restoration and protection of riparian habitat on Kenai River frontage parcels using elevated walks, bio-engineering, revegetation, with monitoring. (ADF&G)

19 Public Lands Protection **$250,000**
Restoration of public riverbank damaged by use: Endicott sonar site, Kenai Keys site, Slikok Park, Centennial Park, the Sportsman's Lodge site, Ciechanski, and various campsites. (ADF&G)

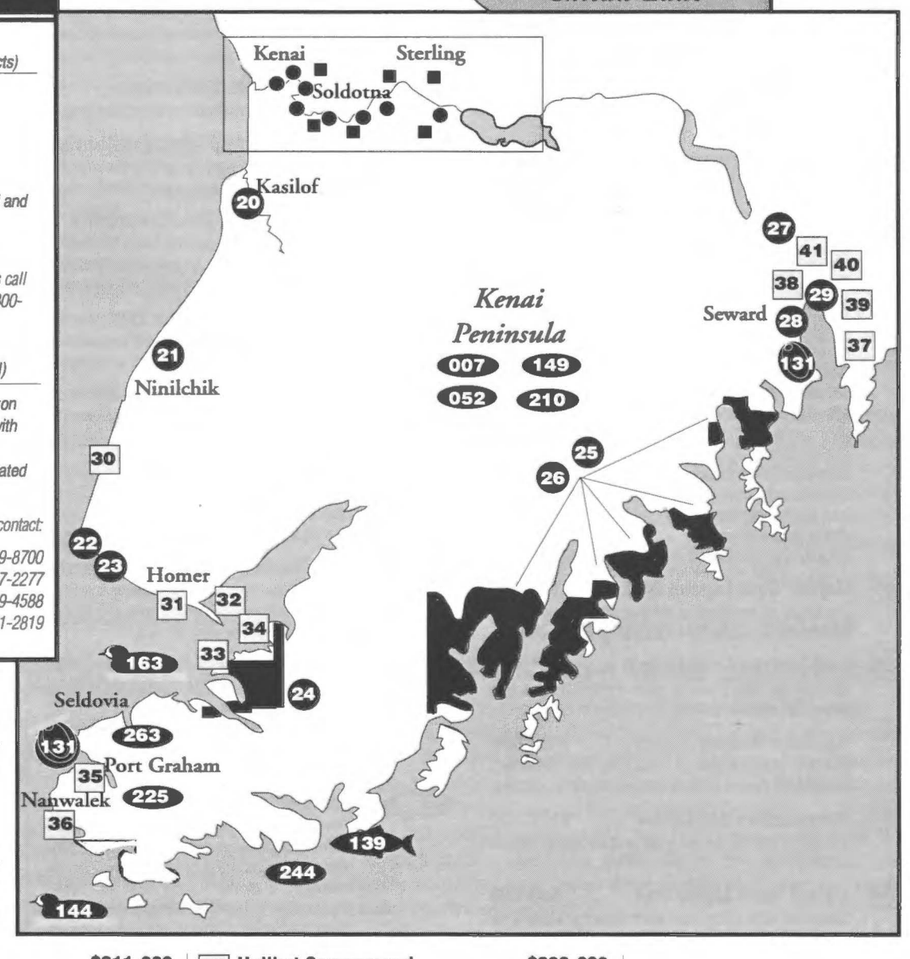
20 Coal Creek Moorage **$260,000**
53 acres located at the confluence of Coal Creek and Kasilof River. Offer accepted.

21 Cooper Parcel **$ 48,000**
The Ninilchik River flows through this 20 acre parcel two miles upstream from mouth. Offer under consideration.

22 Tulin Parcel **$1,200,000**
220 acres with 3/4 mile of shoreline and 1/4 mile along Diamond Creek. Acquisition complete.

23 Overlook Park **$244,000**
97 acres just below scenic overlook, with 3/4 mile of shoreline near tidal pools. Offer under consideration.

24 Kachemak Bay State Park **$7,500,000**
Provided partial funding of $22 million package to acquire 23,800 acres of park inholdings. Acquisition complete. Criminal fund provided another $7 million and state's settlement with Alyeska provided $7.5 million.



Legend

Exxon Civil *(Trustee Council projects)*

28 *habitat protection*

149 *community/subsistence*

Salmon, seabird, harbor seal and clam research projects

For more information on these projects call the Restoration Office at 278-8012 or 800-478-7745.

Exxon Criminal *(State and Federal)*

36 *Each project funded by the Exxon criminal settlement is marked with gray shaded squares. The agency responsible for each project is designated at the end of the project description.*

For more information on these projects contact:

ADNR (Division of Parks)	*269-8700*
ADF&G (Habitat Division)	*267-2277*
DCRA	*269-4588*
USFS	*271-2819*

25 English Bay
Possible purchase of 33,000 acres along the south shore of the Kenai Peninsula. Discussions ongoing.

26 Port Graham
Possible conservation easements and purchase of 46,170 acres along the south shore of the Kenai Peninsula. Discussions ongoing.

27 Grouse Lake **$211,000**
64 acre recreational site along western shore of Grouse Lake. Acquistion complete.

28 Lowell Point **$531,000**
19.4 acres includes 700 feet of shoreline popular for hiking, kayaking, beachcombing and fishing. Offer under review.

29 Alaska SeaLife Center **$24,900,00**
Partial funding of this $50.5 million center in Seward, due to open in 1998. Also $12.5 million from state criminal funds.

30 Halibut Campground **$300,000**
New 20-unit campground in the Anchor River area. (ADNR)

31 Beluga Slough Trail **$300,000**
Trail construction for wildlife viewing, interpretation, benches in Homer slough. (ADNR)

32 *Mud Bay Boardwalk* ***$150,600***
Construct boardwalk and viewing decks on Mud Bay at base of Homer Spit. (ADNR)

Continued on Page 6

Trampling of the river banks due to fishing pressure results in erosion and loss of habitat.

Habitat Protection and Recreation Projects, continued

33 Kachemak Bay State Park Improvements *(ADNR)*

Campsites ***$60,000***
21 new campsites throughout the park with tent platforms, food caches, fire rings and toilets.

Public Use Cabins ***$200,000***
5 new public use cabins for Halibut Cove, Leisure Lake, Moose Valley, Sadie Cove.

Trail System ***$310,000***
Construct hiking trails in Kachemak Bay State Park.

Mooring Buoys ***$20,000***
New buoys in Tutka, China Poot, Mallard Bays and Halibut Cove areas.

Grewingk Creek Bridge ***$100,000***
Suspension bridge to link popular areas of the park and the trail system.

Cabin Acquisitions ***$350,000***
Acquire 5 private cabins suitable for public use.

34 Halibut Cove Lagoon Dock $190,000
Construct public dock in Halibut Cove for access to Kachemak Bay State Park. (ADNR)

35 Port Graham Coho Project $438,800
Restore the natural run of coho in Port Graham area stream to improve subsistence harvest. (DCRA)

36 Nanwalek Sockeye Project $424,000
Sockeye salmon project on English Bay River provides a subsistence resource and restores a natural run. (DCRA)

37 Resurrection Bay Cabins $159,000
Construct cabins, buoys, trails and latrines in Thumb Cove. (ADNR)

38 Caines Head Alpine Trail $50,000
Construct hiking trail from North Beach to alpine area. (ADNR)

39 Resurrection Bay Trail $200,000
Develop day use parking, beach trailhead and interpretive exhibits. Requires acquistion of 20 acres and is subject to negotiation with landowners. (ADNR)

40 Interpretive Displays $40,000
Construct interpretive exhibits at Kenai Fjords Visitor Center and at SeaLife Center. (ADNR)

41 Darling Parcel $35,000
99 acre parcel along the Snow River in the Chugach National Forest. Acquisition complete. (USFS)

Science, Subsistence and Archaeology

The following symbols represent science, subsistence and archaeology projects funded by the Trustee Council from Exxon civil funds. The numbers are the actual file numbers for each of the projects.

007 Archaeological Site Monitoring
Monitoring of archaeological sites on public land injured by vandalism and oiling.

052 Community Involvement/Traditional Ecological Knowledge
Community facilitators in Port Graham, Nanwalek, Seldovia, Seward and six other communities in spill region serve as liaisons between the Trustee Council, researchers, and communities.

131 Clam Restoration
Pilot project to establish subsistence clam populations near Native villages in the oil spill region. The Qutekcak hatchery in Seward is rearing littleneck clams to be seeded near Nanwalek and Port Graham. Success could lead to similar clam seeding near other communities.

139 Port Dick Creek Restoration
Port Dick Creek restoration will increase spawning habitat to strengthen native salmon stocks.

144 Common Murre Population Monitoring
Common murres were hit hard by the oil spill. This project provides information about their recovery by counting murres at Barren Islands.

149 Archaeological Site Stewardship
Provides training and coordination for volunteers in Port Graham and Nanwalek to monitor vandalized sites in the oil spill area. Vandalism was a serious problem after the spill. Long term protection and restoration will be most successful if undertaken by local people.

163 APEX - Alaska Predator Ecosystem Experiment
This project compares reproductive abilities and diets of seabirds in Prince William Sound with similar data from Cook Inlet, considered a more suitable food environment.

180 Kenai Habitat Restoration/ Recreation Enhancement
Approximately 19 miles of the Kenai River's 166 miles of shoreline have serious habitat loss. Public lands have 5.4 miles of degraded shoreline. This 3-year project restores and protect ssalmon habitat on public lands.

210 Youth Area Watch
Involves local youth with ongoing restoration projects, giving them the skill and knowledge to participate in restoration activities now and in the future.

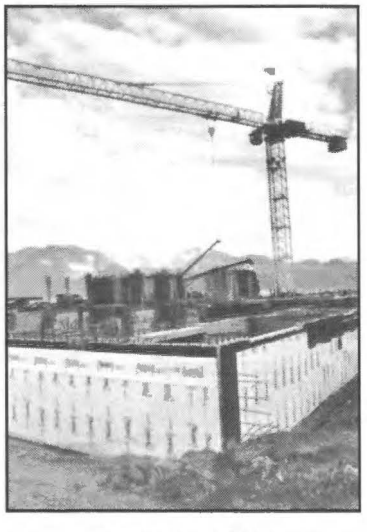
225 Port Graham Pink Salmon Subsistence Project
Enhances the Port Graham hatchery's ability to produce pink salmon for subsistence purposes. Because local runs of coho and sockeye salmon are at low levels, subsistence users are relying more on pink salmon.

244 Community Based Harbor Seal Management
Biological sampling of harbor seals is being done in Prince William Sound and Lower Cook Inlet. Village technicians in Port Graham, Seldovia, Nanwalek and six other communities are trained by the Harbor Seal Commission to collect samples for analysis.

255 Kenai River Sockeye Genetics
Five-year project identified genetic differences in Cook Inlet sockeye salmon. Information provided by this project is being used by fisheries managers to modify fishing areas and openings in order to improve management of Kenai River and other Upper Cook Inlet sockeye salmon stocks.

258 Sockeye Salmon Overescapement
Four-year project has produced scientific evidence to help evaluate the effects of overescapement.

263 Assessment, Protection, Enhancement of Salmon Streams
Provides inventory and assessment of four major salmon streams in Lower Cook Inlet with intent to improve habitat for better spawning success.



Construction of the Alaska SeaLife Center in Seward got underway this summer with opening scheduled for May 1998.

Researchers save eight in rescues at sea

Science came to the rescue twice this summer when U.S. Fish and Wildlife Service researchers on Trustee-funded APEX projects responded to mayday calls, saving eight people from disaster at sea.

On June 17, John Maniscalco and Bill Ostrand were collecting data from a USFWS vessel in Fish Bay off Port Fidalgo in Prince William Sound. They monitored a mayday from the *Wind Song* which was on fire near Goose Island, about 15 nautical miles away.

Maniscalco and Ostrand were the first to reach the scene and could see smoke coming from the engine room of the 40-foot wooden boat. Four people were on board with two survival suits. All four transferred to the rescue boat.

"About a minute after we moved away, we saw flames beginning to shoot out of the engine room and the entire boat engulfed in smoke," they said in a written report on the incident. "The *Wind Song* sank about an hour later."

The *Tiglax*, another USFWS vessel, was doing hydroacoustic studies July 25 near Chisik Island in Cook Inlet when researchers heard a mayday from a 20-foot Bayliner taking on water nearby. The caller reported his position as five miles north of Chisik Island before transmissions abruptly stopped, said John Piatt, lead researcher aboard the *Tiglax*.

The ADF&G vessel *Pendalus* was north of Chisik and did not see the vessel. On a hunch, *Tiglax* skipper Kevin Bell turned south toward Homer instead of north. The crew eventually spotted the capsized vessel bobbing in the waves about three miles away.

"When we got there, we found two adults and two children, wet and trying desperately to stay on the hull," Piatt said. "They're just darn lucky we happened to be in the area and then searched in the right direction." They had lifejackets but no survival suits.

The crew launched a Zodiak from the deck of the 125-foot *Tiglax* and quickly rescued all four. Piatt credited the crew for spotting the boat from so far away. A Coast Guard C-130 flew between the capsized boat and the *Tiglax* without spotting the vessel, he said.

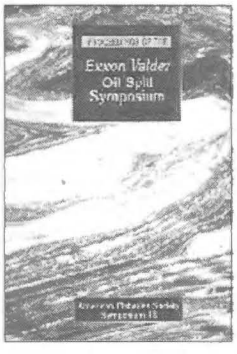
Comprehensive book on spill injuries published

A new book documenting the injuries caused by the *Exxon Valdez* oil spill has just been released providing the most comprehensive collection of Trustee-funded scientific papers published to date on the spill.

The *Exxon Valdez* Oil Spill Symposium Proceedings contains 61 scientific papers originally presented at a 1993 symposium organized by the Trustee Council. The volume is 996 pages and was edited by Bob Spies, Bruce Wright, Stanley (Jeep) Rice, and Doug Wolfe.

More than 150 authors contributed to the book and another 100 peer reviewers evaluated the sci-entific papers, making it a significant record of effort to determine the extent of the inuries caused by the spill.

Publication costs were partially underwritten by the Trustee Council to allow a lower sale price for this volume.



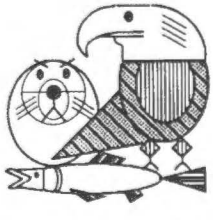
This book can be purchased by contacting the American Fisheries Society, Publication Fulfillment, P.O. Box 1020, Sewickley, PA 15143, phone: (412) 741-5700, fax: (414)741-0609. The cost is $35 for the book plus $4 for shipping inside the U.S. or $6 for shipping outside of the U.S.

Join the PUBLIC ADVISORY GROUP

The *Exxon Valdez* Oil Spill Trustee Council is seeking nominations for members of the PAG

The term for all 17 members of the Public Advisory Group will end soon. Nominations for membership will be accepted until the close of business on Monday, October 14, 1996. The PAG consists of 5 members selected from the public at large and 1 member representing each of the following user groups. Nominations are being sought for all categories.

- aquaculture
- commercial fishing
- commercial tourism
- environmental
- conservation
- forest products
- local government
- native landowners
- recreation users
- sport hunting/fishing
- subsistence
- science/academic



For more information, contact the Trustee Council Restoration Office at 907-278-8012 or 800-478-7745.

Kodiak taxpayers get relief through refuge land purchase

Taxpayers in the Kodiak Island Borough received an unexpected bonus from the sale of Native corporation land to the Kodiak National Wildlife Refuge. The Trustee-funded habitat protection program returned 109,000 acres of Native-owned land to the refuge in 1995.

In July, Refuge Manager Jay Bellinger presented the borough with a check for $240,000 in lieu of taxes on the newly acquired land, even though the land was not taxed under Native ownership.

Federal law requires the payment in lieu of taxes when the federal government acquires land from private sources. The borough will receive similar checks each year from now on, Bellinger said.

"And the amount is only going to increase as more land is added to the refuge," he said. "This is a real boon to the borough out here and will take the pressure off the taxpayers."

This year's payment was calculated using three-fourths of one percent of the fair market value for the land.

Borough Mayor Jerome Selby said the check was a pleasant surprise that proves the land sales were a win-win situation for everyone.

Advisory group hosts town meetings on lower peninsula

Residents of Seldovia told members of the Public Advisory Group (PAG) to continue long-term funding of science in the spill area to provide a foundation for better management of all species in the North Pacific.

In Homer, city planners asked for advice on how to apply for Council funding to re-establish tidal flushing on the mud flats near Mariner Park at the base of Homer Spit.

Residents of Port Graham hosted a potlatch luncheon, complete with young dancers, and asked questions about the habitat protection program and the process for funding restoration projects.

PAG members visited the lower Cook Inlet region September 18-19 to hear directly from those residents most affected by the oil spill. Last year, the group traveled to Prince William Sound and hosted meetings in Valdez and Chenega Bay.

A better understanding of the marine environment will help protect fisheries and wildlife and help maintain Alaska's commerical fishing and tourism industries, Seldovia residents said. One former commercial fisherman asked that the Council consider establishing a permanent fund to continue the scientific studies indefinitely

Executive Director Molly McCammon reminded residents that Trustees are creating areserve of approximately $150 million (including interest) and continuous financial support for science is one possible use for that fund.

Natural flushing of the mud flats on the east side of the Homer Spit has been non-existent since a 1994 storm closed a vital channel. City Council member Jack Cushing told the PAG that without the flushing, the area will become stagnant and the natural intertidal habitat will suffer.

Public Advisory Group members and agency staff walk the 220-acre Tulin parcel near Homer. The bluff property was recently acquired by the Trustee Council.

Trustee Council Meeting
Tuesday, October 15
2 p.m.

The EVOS Trustee Council will meet for approximately two hours via teleconference, primarily to discuss the Small Parcel habitat protection program.

The public is invited to participate in Anchorage at 645 G Street, 4th Floor Conference Rm or in Juneau at the US Forest Service Conference Room, Federal Building, Room 541A. For information on how to participate from other locations contact Rebecca or Cherri at 278-8012.

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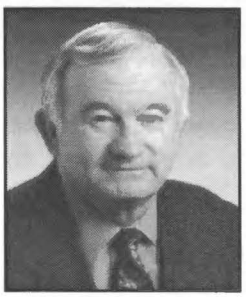
Exxon Valdez Oil Spill Trustee Council

Restoration Update

December 1996 / Vol. 3 No.5

Alaska SeaLife Center to integrate public education with a working lab



John Hendricks
Alaska SeaLife Center

The Alaska SeaLife Center in Seward is scheduled to open in May 1998, combining one of the world's premier cold water research facilities with one of the state's top tourist attractions. John Hendricks took over as the SeaLife Center's first director in September, after serving five years as executive director of the Texas State Aquarium. During a recent interview, he outlined his plans for meshing public education with scientific research.

RU. The Alaska SeaLife Center is described as the second marine facility of its type in the world. Where is the other one? And what makes these two facilities so different from others?

JH. The first one is in a fjord in Norway and what makes both radically different is the temperature and the quality of the water. The one in Norway uses raw water from the fjord . . . with direct cold-water feeding from 275 feet down.

RU. What's the big advantage of that?

JH. It's the quality of the water that comes out of there. It could be at 1,000 feet or at 10 feet, but it has to do with where the light penetrates, what the dissolved oxygen is, what are the biological levels in it, plus the chemistry of the water and above all, what is the temperature. The advantage is you bring directly into your facility the habitat of the animals that you want to study.

RU. And Resurrection Bay is ideal.

JH. The bottom of Resurrection Bay is like a fjord. The sides are steep and the water is deep and the ocean comes in its purest form. That's what we're looking for.

RU. The SeaLife Center is getting a reputation already as a place where the scientists will be put on display. Is that accurate?

JH. That is very accurate, but it has also caused great concern among scientists. I can assure them that they are not going to be trotted out like little

Continued on Page 2

Kodiak

Restoration benefits island residents and wildlife

This is the second in a series of articles describing how Exxon Valdez criminal and civil funds are being invested in the spill region. The Cook Inlet region was covered in the October 1996 issue. Prince William Sound will be featured in the next issue.

Commercial fishers, outdoor recreationists and taxpayers are beginning to feel the benefits from hundreds of millions of dollars being spent within the Kodiak Island Borough as part of restoration efforts using *Exxon Valdez* civil and criminal funds.

Approximately 60 percent of the spill area habitat targeted for protection can be found on Kodiak, Afognak and Shuyak islands. Nearly 335,000 acres have already been protected, much of it added to the Kodiak National Wildlife Refuge or developed into the new Afognak Island State Park.

This not only helps protect anadromous rivers and open up private land to fishing, hunting, hiking and camping, but it has also provided a bonus for taxpayers. Last July, Refuge Manager Jay Bellinger surprised the borough with a check for $240,000 in lieu of taxes on the 109,000 acres acquired by the refuge in 1995.

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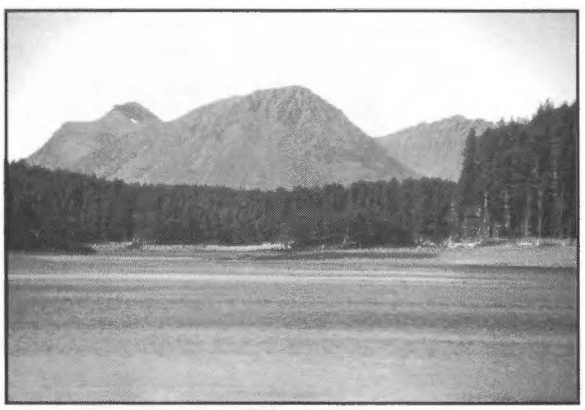
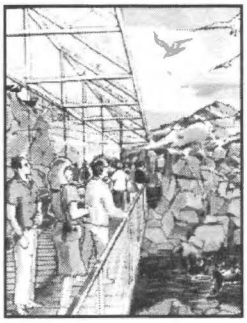


The forested mountains of Afognak Island as seen from Shuyak Island.



"The advantage is the SeaLife Center has people here who will be able to support the scientist. That takes the scientist away from the mechanics and the maintenance and the business of it and lets the scientist focus on the science."

Alaska SeaLife Center

Continued from Page 1

ponies or showdogs and go around the ring and do their little act. The reason they are there is to first of all do science. They're not there to entertain people all day.

Typically in science, exciting things don't happen every day. They happen periodically. So what we want to do is capture those high moments using an electronic medium and to capture the moments when a scientist feels most comfortable, talking about his or her work. Then we can use the electronic medium and use graphics to portray their work, focus on their work and what it means to Alaska and the Gulf of Alaska, and what it means to science in general, put those things on display and let the scientist go back to his office or her office and work.

Those who say they don't want to do their research there because they don't want to be a showdog, they don't have to worry about it.

RU. So will there be live interaction between scientists and the public?

JH. There can be if the scientist is comfortable with it. But just for a minute put yourself in the shoes of the SeaLife Center. From the middle of May to the middle of September, there's going to be from 1,000 to 3,000 people coming through the door every day. I mean, who's going to get to see the scientists? I think for the personal interviews with the scientists, we'll probably reserve that for groups (for example, college classes) on a scheduled basis.

RU. How are you going to satisfy the public's curiosity about marine life? The public has come to expect trained seals and jumping dolphins and big aquariums.

JH. As far as big aquariums, we're going to have a big aquarium. We're looking at how we can have several species of Alaska crab. When people come to Alaska and they want to see Alaska, what do you think of? King crab.

The Alaska SeaLife Center is scheduled to open in May 1998.

RU. I'd also like to see a big halibut in its environment.

JH. We're trying to figure out where to put a big halibut in its environment. The best place to put it is in with the birds. It's good for the halibut, but we're not quite sure it's good for the birds. But we're looking, where do we put a halibut and where can we put the biggest halibut we can handle. We're looking because a flounder is a flounder, but a halibut, now that's an impressive flatfish. That's Alaska.

I don't know of anyone else who has a king crab. I've got to go to the experts and ask have you ever tried this? Do you have reports I can borrow? Has this ever been done with king crab and halibut? And we can't do this without an octopus.

RU. The more things you mention here, the bigger the aquarium is getting.

JH. Not really. The three things we talked about are right there. The place for them all is in one room. Standing in one room I could turn around and look at every one of them. This is in addition to the mammals and birds. The invertebrates are going to be mixed with the mammals and the avians, not in the same container, but in the same space.

So you're going to go from an octopus over here to the crabs over there to the sea lion to the seal to the birds. You're really going to be looking under the waters of the Gulf of Alaska. It's going to be a really neat thing. We've got to figure out a way to get some kelp in there or manufacture artificial kelp if the animals keep eating it.

RU. Will there literally be a window under the sea where the public will be able to look directly under Resurrection Bay?

JH. The Japanese did this at Nagoya and other places and what they found was that unless they fed the fish, you could sit there all day long and not see anything. It's the same problem with the scientists. The scientist does something really super interesting maybe every couple weeks. Well that's not enough for the 3,000 people you have in there each day. They want to see it now. So we capture what they do or we replicate it and we put together the whole interesting package that for a scientist and his project might take three years. The public will get it in three minutes in video and graphics. They're going to get it concentrated.

RU. What about the marine mammals? Will they actually be on display?

JH. What we're doing is replicating the environment they live in. It's going to be a very familiar place to a sea lion. We'll be putting sea lions back into something that is very much like their home. The haulouts will be sculpted just like the haulouts out there.

Now, that's also good for the scientists because they have the animals out there in a very realistic environment for observational work. So, it's a controlled environment but it's a simulation of a natural environment. We don't want the environment to influence the animal's behavior or its physiology.

RU. What are the key advantages of conducting research through the SeaLife Center?

JH. It has a full time support staff. Typically what happens is that a scientist wants to do some work and he or she has to come in and hire people, set up a laboratory, set up an office. There are specific equipment needs, laboratory needs, cold storage facilities. In our case they come in and sit down and we ask what is it you want to do? And already on the premises are people who can handle marine mammals. And in many cases the animals will be there. All the mechanics will be there.

RU. Down to secretarial services?

JH. Down to accounting, secretarial services, purchasing, transportation, whatever it is that they want to carry out there work. And it's there 24 hours a day.

Scientists usually have to deal with lots of bureaucracy. I think one of the messages we have to get out there is we have one basic rule and that is to provide the best support possible at the best price possible.

RU. How will the scientists pay their way? Will they be charged set fees?

JH. They have to bring their own grants. The advantage is the SeaLife Center has people here who will be able to support the scientist. That takes the scientist away from the mechanics and the maintenance and the business of it and lets the scientist focus on the science.

RU. Do you envision a day when the SeaLife Center will be putting out its own grants?

JH. I envision a day when the SeaLife Center will be a place to pass grant money through, but we don't want to go through the work of processing the grants and checking out the people. I don't see the SeaLife Center as being a huge generator of funds where it would have the money itself to primarily fund research. I can see it having funds to provide matching funds. But I don't see it as being a primary funder of research, unless it is money passed through us by someone else.

RU. The SeaLife Center is projected to be the state's second largest tourist attraction. Is that correct?

JH. We intend to be second for a little while.

RU. Does that mean you're going to go for first?

JH. Why not?

RU. Is Seward ready for this?

JH. No. That's why I said it'll take a little while. There's an infrastructure there now that will bear 300,000 visitors. But there needs to be other infrastructure development. Parking has got to grow and become more sophisticated. Lodging has to grow somewhat. A number of other amenities are needed for folks to come. It depends where your market is and a lot of our market is going to be out-of-state folks. Our number one major group is going be what we call the rubber tire traffic from outside of Alaska. I could sit at the border point near Beaver Creek and meet most of our customers as they come through customs.

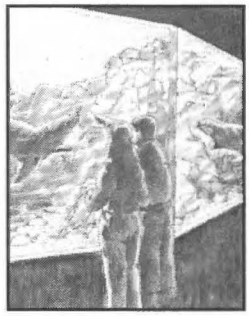
RU. Will the SeaLife Center be a tourism destination in itself or will it be another thing to do for those people going to Seward?

JH. Other then the Alamo, I don't know of any single thing that is a tourism destination in itself. Everything is always a part of a package and we will be thinking of ourselves always as part of the Alaska package.

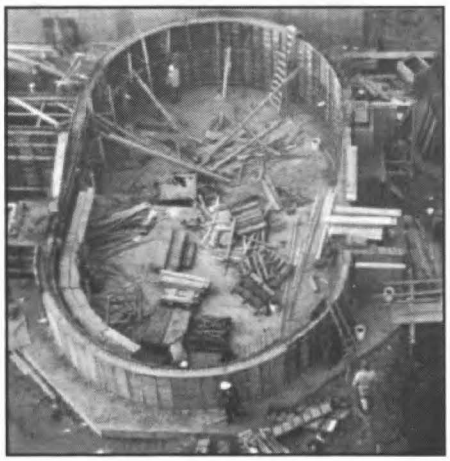
RU. There are a lot of people driving south from Anchorage who turn right at the Sterling Highway and never see Seward. Are you hoping to change their direction?

JH. When we look at that particular market, we'll change their direction.

Alaska has its mystique and its magic. And from entrance to exit, all the way through the thing, whatever we do we have to in some way include Alaska's past and its Native people because the people are really interesting too. The relationship between the people, the land, the ocean and the creatures that live in it, I think there's sort of a magic there. I hope to capture at least a taste of it and that's one of the hardest things in the world to do.



"(Researchers) are not going to be trotted out like little ponies or showdogs and go around the ring and do their little act. The reason they are there is to first of all do science. They're not there to entertain people all day."



One of the holding tanks for marine mammals is under construction at the Alaska SeaLife Center.

This custom-made tile greets visitors as they come through the door at the Alutiiq Museum.

Marine Recreation Projects

These projects, in various stages of planning and construction, are funded through the Exxon criminal settlement. For more information contact either (DNR) Alaska State Parks Kodiak Office 486-6352, (KIB) Kodiak Island Borough 486-9360, or (KOD) City of Kodiak 486-8665.

End of the Road Facilities
Trails, boardwalk, parking area and latrines. (KIB) $105,000

Island Lake Creek Trail
Trail completion, bridge, observation deck, boardwalk, signs. (KIB) $145,000

Abercrombie Park Trail
Beach access, bridges, boardwalks. (DNR) $60,000

Pasagshak River Rec Site
New 8-site campground with latrines. (DNR) $150,000

Shuyak Visitor Station
New trails and small visitor facility. (DNR) $150,000

Northend Park/Near Island
Trails to tidelands, decks, bridges, stairs, parking, signs. (KOD) $218,000

Sourdough Flats Rec Site
Trail, viewing stations, boat launch. (DNR) $75,000

Peregrebni Point Park
Launch ramp, floating dock. (DNR) $250,000

Public Use Cabins
Construct 4 cabins in Afognak Is. State Park. (DNR) $80,000

Kodiak area restoration

Continued from Page 1

Federal law requires the payment in lieu of taxes, even though the land was not taxed under Native ownership. Bellinger says the borough will receive similar checks each year and the amount will only go up as the refuge acquires more land.

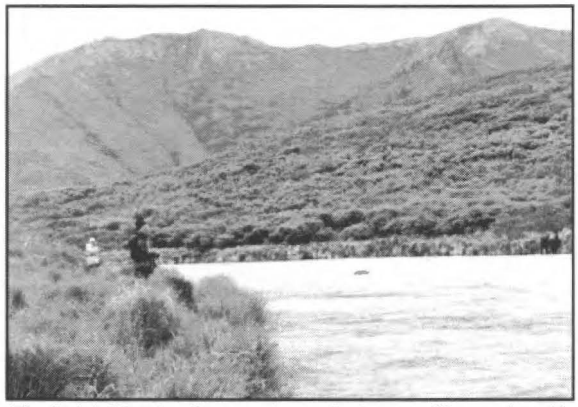
Negotiations continue for permanent protection of 57,082 acres of prime habitat along the Karluk and Sturgeon rivers. Both rivers are vital for producing salmon and are popular with hunters and sportfishers. That land is currently under a non-development easement through the year 2001. Negotiations are also underway for protection of 112,827 acres on Afognak Island, much of it slated for timber harvest.

Development of the Near Island Research Facility was made possible partly through the purchase of 26,665 acres on Shuyak Island from the Kodiak Island Borough. The borough agreed to commit $6 million from the $42 million pricetag to help fund construction.

The Trustee Council contributed $1.5 million to help fund the Alutiiq Museum, which opened in May of 1995. The museum's archaeological repository is the only artifact storage facility in the spill region. It is considered a vital resource for preserving and restoring artifacts found during Kodiak-area archaeological excavations.

In addition to the large habitat protection packages, the Trustee Council is considering another 15 sites in the Kodiak Archipelago through its small parcel program. The 1,028-acre tract at Termination Point, near Kodiak, is currently being appraised. Though this was named as the number one priority by the Kodiak Island Borough, ongoing litigation concerning the property may prevent any agreement soon. The borough has also offered more than 100 parcels of 10 acres each, which are currently being evaluated.

The acquisition of 26,625 acres on Shuyak Island could lead to expansion of Shuyak Island State Park with legislative approval.



The Karluk River is a large producer of salmon and is popular with hunters and sport fishers.

The Kodiak Waste Management Program is in its first year of planning an island-wide program to reduce chronic sources of marine pollution, such as waste oil and household cleansers. The Kodiak Island Borough will receive $267,500 this fiscal year to develop the program for island communities. A similar program in Prince William Sound is now in the implementation stage.

To boost the numbers of pink and coho salmon in Kodiak area waters, the Trustee Council funded building of a bypass in Little Waterfall Creek to open up more salmon spawning habitat in the upper reaches of the creek. This project received more than $170,000 over the last three years.

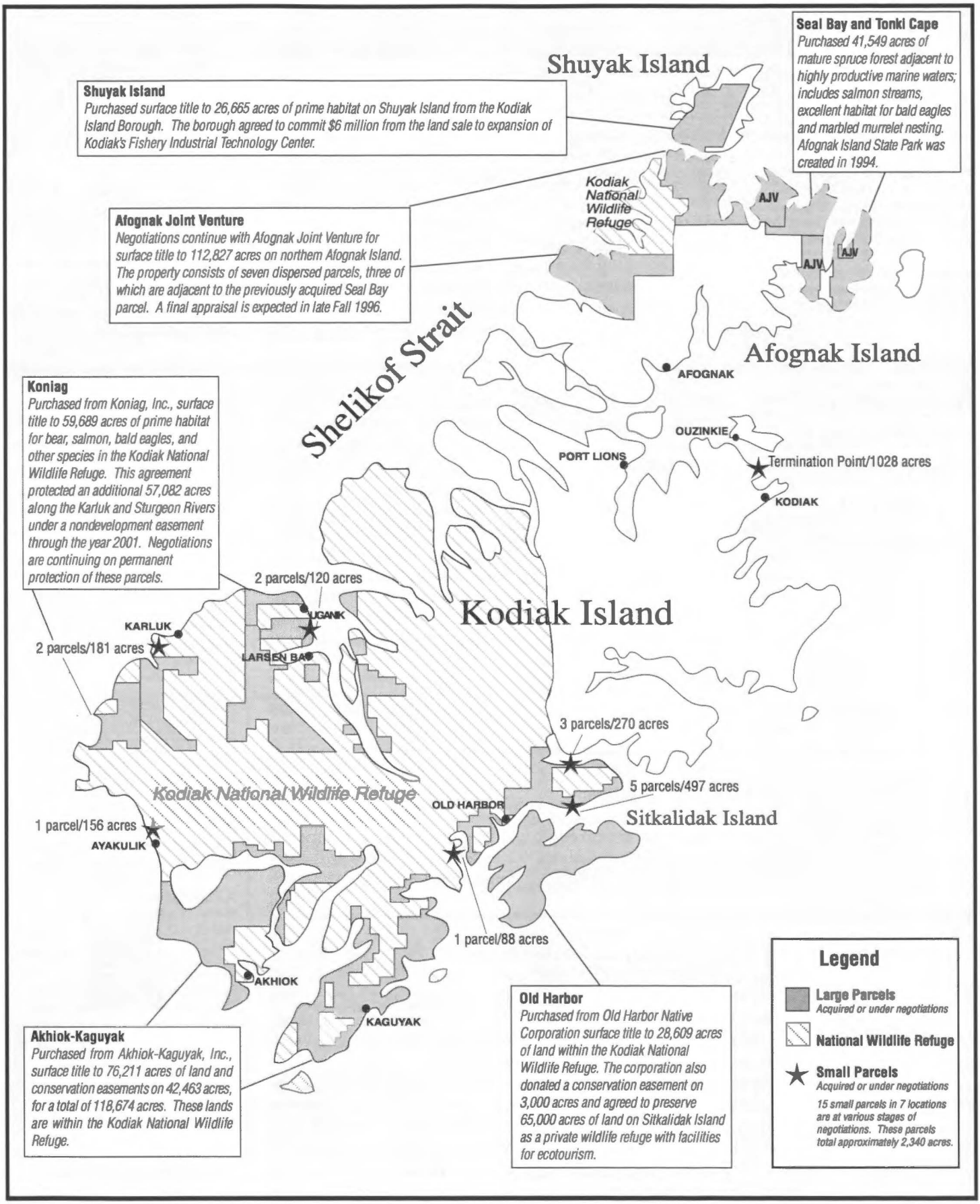
A study of Akalura and Red lakes on Kodiak Island is providing valuable information about how overescapement affects future salmon runs. Each of those lakes experienced overly large numbers of spawning salmon during the summer following the oil spill.

Several ongoing community involvement programs also affect the villages of Kodiak Island. Village residents are monitoring archaeological sites, assisting researchers with traditional knowledge of local ecosystems, and collecting biological samples of harbor seals for scientific study.

The state Division of Parks is investing $1.2 million from the Exxon criminal funds to provide trails, cabins, bridges, parking and latrines on public lands. Some of that money has been passed on to local governments for local projects.

The Department of Fish and Game picked up several weir sites as part of the large parcel program and negotiations continue for acquisition of the Karluk River weir.

Kodiak Island youth are attending a "Spirit Camp" on Afognak Island thanks to a $250,000 grant using criminal funds.


Shuyak Island
Seal Bay and Tonki Cape
Purchased 41,549 acres of mature spruce forest adjacent to highly productive marine waters; includes salmon streams, excellent habitat for bald eagles and marbled murrelet nesting. Afognak Island State Park was created in 1994.
Shuyak Island
Purchased surface title to 26,665 acres of prime habitat on Shuyak Island from the Kodiak Island Borough. The borough agreed to commit $6 million from the land sale to expansion of Kodiak's Fishery Industrial Technology Center.
Kodiak National Wildlife Refuge
AJV
AJV
AJV
Afognak Joint Venture
Negotiations continue with Afognak Joint Venture for surface title to 112,827 acres on northern Afognak Island. The property consists of seven dispersed parcels, three of which are adjacent to the previously acquired Seal Bay parcel. A final appraisal is expected in late Fall 1996.
Shelikof Strait
Afognak Island
AFOGNAK
Koniag
Purchased from Koniag, Inc., surface title to 59,689 acres of prime habitat for bear, salmon, bald eagles, and other species in the Kodiak National Wildlife Refuge. This agreement protected an additional 57,082 acres along the Karluk and Sturgeon Rivers under a nondevelopment easement through the year 2001. Negotiations are continuing on permanent protection of these parcels.
OUZINKIE
PORT LIONS
Termination Point/1028 acres
KODIAK
2 parcels/120 acres
Kodiak Island
KARLUK
2 parcels/181 acres
LARSEN BAY
3 parcels/270 acres
5 parcels/497 acres
Kodiak National Wildlife Refuge
OLD HARBOR
Sitkalidak Island
1 parcel/156 acres
AYAKULIK
1 parcel/88 acres
AKHIOK
KAGUYAK
Akhiok-Kaguyak
Purchased from Akhiok-Kaguyak, Inc., surface title to 76,211 acres of land and conservation easements on 42,463 acres, for a total of 118,674 acres. These lands are within the Kodiak National Wildlife Refuge.
Old Harbor
Purchased from Old Harbor Native Corporation surface title to 28,609 acres of land within the Kodiak National Wildlife Refuge. The corporation also donated a conservation easement on 3,000 acres and agreed to preserve 65,000 acres of land on Sitkalidak Island as a private wildlife refuge with facilities for ecotourism.
Legend
Large Parcels
Acquired or under negotiations
National Wildlife Refuge
Small Parcels
Acquired or under negotiations
15 small parcels in 7 locations are at various stages of negotiations. These parcels total approximately 2,340 acres.

Parks bill resolves Kenai River protection package

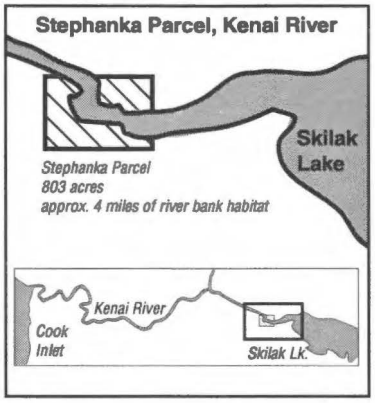
A parks bill signed into law November 12 by President Clinton has made it possible for theTrustee Council to proceed with a plan to protect 3,254 acres of fish and wildlife habitat on the Kenai River drainage.

The Kenai Natives Association has offered to sell the land as part of a larger federal land trade that required Congressional approval. The signing of the parks bill opens the door to complete the acquisition.

The Trustee Council authorized $4 million for the land, which includes 803 acres along the Kenai River one mile downstream from the outlet of Skilak Lake.

Approximately four miles of Kenai River shoreline is protected by the package. The land is an inholding within a designated wilderness area and will be managed by the U.S. Fish and Wildlife Service.

The remainder of the package is made up of two tracts along the Moose River, totalling 2,451 acres. The parcels, located three miles northeast of Sterling, protect more than two miles of shoreline used as rearing habitat by sockeye salmon fry.



Negotiations continuing on habitat protection packages

Action continues on a number of fronts to provide long-term protection of large tracts of habitat in the spill area.

A vote by the Chenega shareholders on the Trustee Council's proposal to protect 61,000 acres of land in western Prince William Sound is scheduled for December 4.

Details of a 66,000 acre package involving Tatitlek lands in eastern Prince William Sound are being hammered out. That package is still subject to shareholder approval.

Negotiations are underway once again with Eyak Corporation for a comprehensive protection package that would include Sheep Bay, Windy Bay and Port Gravina. Eyak had earlier rejected an offer of $7million to protect 11,200 acres.

Elsewhere, negotiations continue with English Bay Corp. for their inholdings in Kenai Fjords National Park and with Koniag, Inc., for permanent protection of the Karluk and Sturgeon rivers. The government's appraisal of Afognak Joint Venture lands is expected in early December.

Herring season returning to PWS

Seiners and herring pound fishers will return to Prince William Sound next April for the first harvest of herring since the population crashed in 1993.

Herring stocks are up high enough for the Alaska Department of Fish and Game to reopen the fishery. The preliminary forecast for the 1997 spring spawning biomass is 34,000 tons, well above the 22,000 ton minimum needed before a fishery can take place.

Seiners will be allocated 2,965 tons of the 5,100 tons targeted for harvest.

Restoration Workshop plans set

The 1997 Restoration Workshop will be held at the Hotel Captain Cook in Anchorage from January 23-25.

The Restoration Workshop is the annual seminar in which scientists present and review 1996 restoration work and help shape future restoration projects. It's open to the public.

Kai N. Lee, author of *Compass and Gyroscope: Integrating science and politics for the environment*, will be the keynote speaker for the event. Lee is director of the Center for Environmental Studies at Williams College in Massachusetts.

Special rates are available through the Hotel Captain Cook (800-478-3100 within Alaska, 800-843-1950 outside Alaska). To pre-register, call the Restoration Office at 278-8012.

Restoration Update *is published six times each year by the Exxon Valdez Oil Spill Trustee Council. Its purpose is to update interested members of the public about actions, policies and plans of the Trustee Council to restore resources and services injured by the Exxon Valdez oil spill.*

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Annual Reports and Final Reports In Print

These reports are available at the Oil Spill Public Information Center, 645 G St., Anchorage, AK 99501, or by calling 907/278-8008, 800/478-7745 (in Alaska) or 800/283-7745 (outside Alaska).

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Top federal trustees give restoration efforts high marks

The work of the *Exxon Valdez* Oil Spill Trustee Council should be a model for restoration efforts around the world, top federal trustees said during an October news conference in Washington, D.C. marking the fifth anniversary of the criminal and civil agreements with Exxon.

"Out of one of the darkest moments in Alaska's history, much good has come as a result of the settlement," said Assistant Interior Secretary George T. Frampton, Jr.

The key to the Trustee Council's success, Frampton said, was extensive public participation in developing a restoration plan, which was completed in November 1994. This allowed a remarkable amount of progress over the last two years toward achieving the goals of that plan, he said. "We have a truly comprehensive community-based science and monitoring program," Frampton said.

"There is no place else certainly in the United States — and maybe the world — where a more concentrated effort is being made to study marine resources," Frampton said. In addition, he said, "we have a land acquisition and habitat protection program that has been fantastically successful."

Under Secretary of Agriculture Jim Lyons said that habitat protection was "the most significant long-term method to restore the environment and the species that had been affected by the oil spill." These lands also open up more land for recreational use, he noted. "Make no mistake about it," he said. "These regions include world class fishing rivers and bays and prime wildlife viewing and hunting areas."

Douglas Hall, deputy director of the National Oceanic and Atmospheric Administration, told reporters that the research and monitoring program "has become a model for scientific cooperation." Data from this research is being used elsewhere in the country where restoration efforts are underway following an oil spill.

Executive Director Molly McCammon and Science Coordinator Stan Senner presented a slide program that detailed the progress being made toward restoration and the work remaining to be done.

Martha Stewart, Governor Knowles' aide in Washington, D.C., told reporters that research has helped Alaska fisheries knowledge advance 25 years over a five-year span. She said that further research is necessary "to better manage the human uses" of the spill area.

Trustee Council Meeting
Friday, December 6, 1996
10 a.m.

Agenda items include a) Public Advisory Group nominations, b) funding of the deferred projects from the FY97 Work Plan, c) discussion of traditional ecological knowledge protocols, d) archiving policy and e) habitat acquisition. A public comment period will begin at 11 a.m.

The public is invited to participate at the Juneau Federal Building, National Marine Fisheries Service Conference Rm 445C. The meeting will be teleconferenced to Anchorage at 645 G Street, 4th Floor Conference Rm. For information on how to participate from other locations, contact Rebecca Williams at 278-8012.

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Restoration Update

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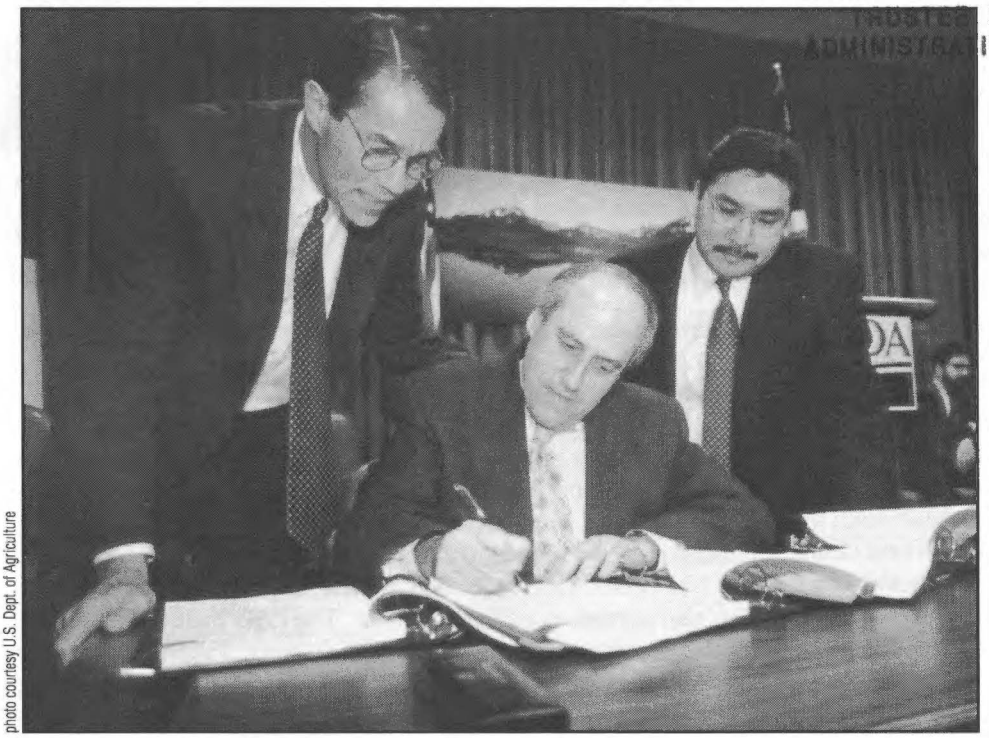


photo courtesy U.S. Dept. of Agriculture

Secretary of Agriculture Dan Glickman signs documents for the transfer of Chenega Corporation lands to the U.S. Forest Service and the State of Alaska. Governor Tony Knowles, left, and Chenega Corporation President Chuck Totemoff also took part in the Washington, D.C. signing ceremonies.

Heart of the spill country' protected

The western portions of Prince William Sound, where oil once sat a foot thick on the beaches, is headed for permanent protection with the formal signing last month of documents transferring the land to the state and federal governments.

Agriculture Secretary Dan Glickman joined Gov. Tony Knowles and Chuck Totemoff, president of Chenega Corporation, in signing the documents.

Secretary Glickman noted that the fish and wildlife on Chenega Corporation lands sustained some of the highest level of environmental harm from the spill. Two parcels included in the

See Chenega, Page 7

Negotiators agree on English Bay package

Trustees make offer for habitat within Kenai Fjords National Park

When the final score was tallied, there was little doubt about the public support for protection of habitat within Kenai Fjords National Park. Hundreds of letters, cards, faxes and phone calls poured in to encourage the Trustee Council to approve purchase of 32,000 acres of English Bay Corporation land within the park and an adjacent wildlife refuge.

The culmination of three years of evaluation and negotiation was reached last month when the Trustee Council voted to offer $14.1 million to purchase the land on the southern coast of the Kenai Peninsula in an effort to aid the recovery of species injured in the 1989 oil spill. The land includes some of the most valuable coastal habitat in the park. Six of seven parcels to be protected were hit by oil during the spill, injuring marine mammals, seabirds and intertidal plants and animals.

Seward Mayor Lou Bencardino told the Trustees that he

See English Bay, Page 3

photo by Joe Hunt

Chip Dennerlein, a member of the Council's Public Advisory Group and regional director for the National Parks and Conservation Association, testifies on the English Bay lands while Trustees Deborah Williams, Special Assistant to the Secretary, Department of the Interior, and Assistant Attorney General Craig Tillery listen.

New PAG members appointed

Five new members were named to the Public Advisory Group last month when Interior Secretary Bruce Babbitt formally approved a list submitted by the Trustee Council. The new PAG includes 11 members who were reappointed for a another two-year term.

Eleanor Huffines, of Palmer, has been named to represent commercial tourism on the PAG. Huffines is an instructor with the National Outdoor Leadership School working mostly in Prince William Sound. She replaces Nancy Lethcoe in that seat.

Chuck Meacham was named to replace John French as the representative for science and academia. Meacham, of Juneau, is a former deputy commissioner who retired from the Department of Fish and Game after 21 years in fisheries management and research.

Stacy Studebaker, a science teacher at Kodiak High School, was named to represent recreational users on the group. Studebaker created and hosts "My Green Earth," a nationally broadcast radio program on the environment. She replaces Jim Diehl on the PAG.

Babbitt appointed Kodiak resident Howard Valley to represent the forest products industry, replacing Kim Benton. Valley was raised in a logging camp on Afognak Island and has spent much of his life working with timber. He is chairman and chief operating officer for Afognak Joint Venture.

The subsistence position on the PAG went to Nancy Yeaton of Nanwalek. Yeaton is the natural resources specialist for the Nanwalek I.R.A. Council. She also serves as a facilitator in the Community Involvement Project, which helps tie restoration activities to community needs. Kodiak resident Brenda Schwantes moved from the subsistence position to a public-at-large position, replacing Gordon Zerbetz.

Torie Baker, Cordova, was named as the representative for commercial fishing replacing Thea Thomas. Baker commercially fishes for herring and salmon in Prince William Sound.

Sheri Buretta, Anchorage, was renamed to the PAG after serving one year with the group.

In addition to the six new members, the Trustees will choose another applicant to fill the public-at-large position vacated by PAG chairman Vern McCorkle, who resigned last month.

The PAG includes five public-at-large members and one member each representing various special interests. Two ex-officio members are appointed to represent the Alaska House and Senate.

The PAG provides advice on key decisions relating to planning, funding and carrying out restoration projects. Its members review specific issues as well as make recommendations concerning the overall direction of the restoration effort.

photo by Joe Hunt

New Public Advisory Group members attended their first meeting March 5. From left to right are Eleanor Huffines, Palmer; Stacy Studebaker, Kodiak; Nancy Yeaton, Nanwalek; Howard Valley, Kodiak; Sheri Buretta, Anchorage; and Torie Baker, Cordova. Not pictured is Chuck Meacham of Juneau.

Public Advisory Group 1997-1999

Rupert Andrews	Hunting/Fishing
Torie Baker	Comm. Fishing
Chris Beck	Public at Large
Pamela Brodie	Environmental
Sheri Buretta	Public at Large
Dave Cobb	Local Gov't
Chip Dennerlein	Conservation
Eleanor Huffines	Tourism
James King	Public at Large
Mary McBurney	Aquaculture
Charles Meacham	Science/Academic
Brenda Schwantes	Public at Large
Stacy Studebaker	Recreation
Chuck Totemoff	Native Landowners
Howard Valley	Forest Products
Nancy Yeaton	Subsistence
Vacant	Public at Large

Ex-Officio Members
Senator Loren Leman
Representative Alan Austerman

Trustees pay tribute to key players

Two high-level Clinton Administration officials who have played key roles in the restoration process have left their positions and their Washington, D.C. oversight of the Trustee Council.

George T. Frampton, Jr.

Assistant Secretary of the Interior, George T. Frampton, Jr., has served as a Trustee for the last three years. He said he planned to spend a few months relaxing with his family before pursuing other work in the natural resources field.

Douglas Hall, deputy director of the National Oceanic and Atmospheric Administration, recently left that position to work with The Nature Conservancy.

"I think much of what we're accomplishing today and that we've accomplished in the last three and a half years can be attributed directly to their insight, judgment, work and belief in this process," said Deborah Williams, who succeeded Frampton on the Trustee Council.

photo by Joe Hunt

Trustees Jim Wolfe, U.S. Forest Service; Commissioner Frank Rue, Alaska Department of Fish & Game; Deborah Williams, Special Assistant to the Secretary, Dept. of the Interior; and Assistant Attorney General Craig Tillery listen to testimony on English Bay lands.

English Bay

Continued from Page 1

normally testifies in favor of development proposals. "Normally I'm on the other side of the fence," he said. "But this project is a good one and I support it 100 percent and so does the city."

Chip Dennerlein, a member of the Public Advisory Group and regional director for the National Parks and Conservation Association, said that the Trustees had a unique opportunity. "You are the only hope for the acquisition of these lands and the restoration of these lands in a way that is compatible and favored by the owners as well as the constituent public," he said. "I hope you don't miss this opportunity."

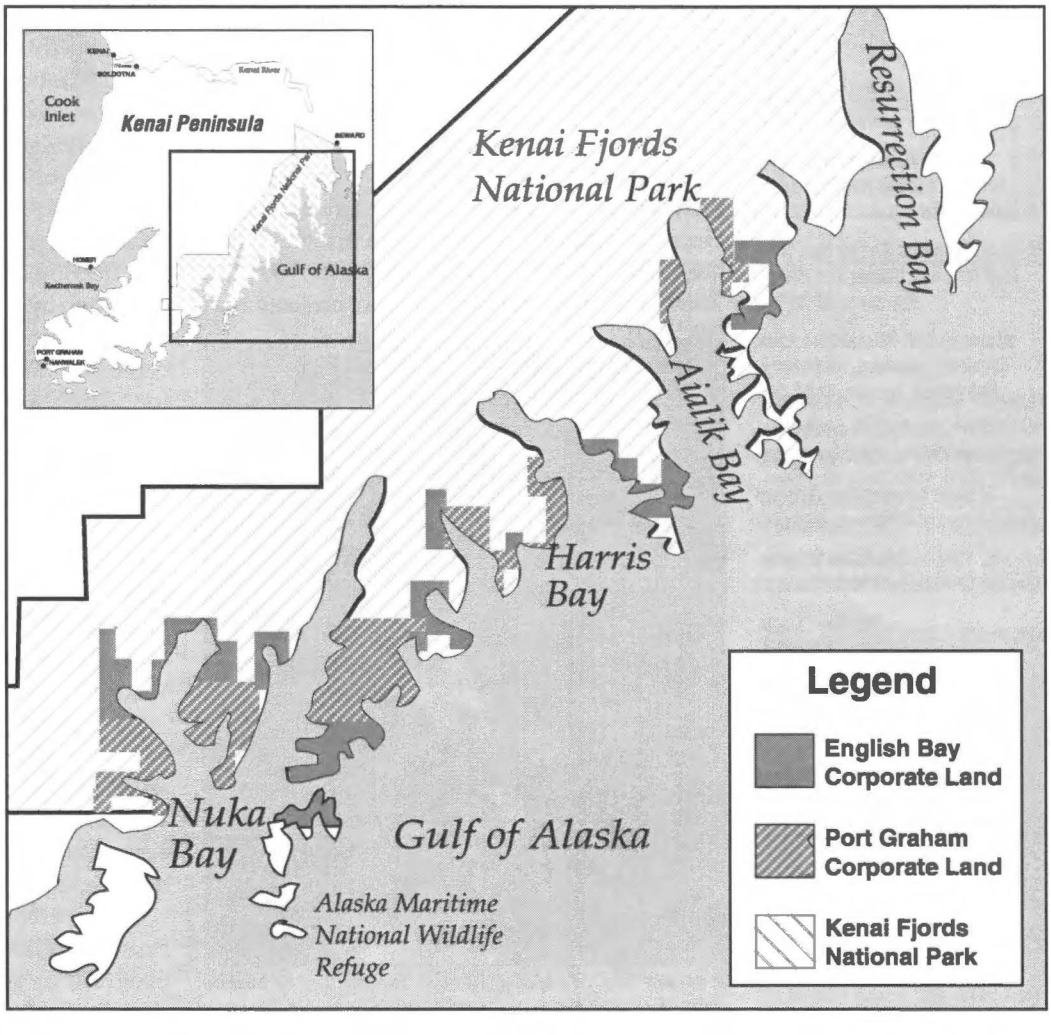
Blocks of English Bay Corporation land are spread throughout the park, with tracts on Resurrection Bay, Aialik Bay, Nuka Bay and several smaller bays, coves and islands. Coastal portions are used by numerous species injured by the spill, including harlequin ducks, black oystercatchers, harbor seals, sea otters and herring. Upland areas support river otters, marbled murrelets, spawning salmon and other species injured by the spill.

The habitat protection package was negotiated by the U.S. Department of Interior. It would add 30,200 acres of inholdings to the Kenai Fjords National Park and 2,270 acres to the adjacent Alaska Maritime National Wildlife Refuge.

The negotiated price is based on English Bay Corporation retaining a right of access to its land for certain hunting, fishing and other activities. This is consistent with rights retained by other sellers when large parcels were purchased by the Trustee Council. However, because its land is in a national park where hunting is prohibited, the corporation has agreed to sell its access rights on all but 9,000 acres in the southwest corner of the park, which are located closest to the village of Nanwalek (formerly known as English Bay). Up to $1.1 million will be spent to acquire these rights and that money will come from the *Exxon Valdez* criminal settlement with the federal government.

As part of the agreement, English Bay Corporation will deposit $500,000 from the sale proceeds into a special cultural conservation fund.

Map shows English Bay Corporation land within Kenai Fjords National Park. Discussions continue with Port Graham Corporation concerning the 46,000 acres it owns within the park boundaries.



Prince William Sound

Restoration benefits fisheries, recreation, subsistence

This is the third and final article in a series describing how Exxon Valdez criminal and civil funds are being invested in the spill region. Cook Inlet and Kodiak were covered in previous issues.

Prince William Sound, which took the brunt of the spill injury, is the focus for much of the research, monitoring and restoration efforts funded by the Trustee Council.

Researchers quietly ply the sound throughout the year counting, capturing, tagging, measuring, and sampling key species injured by the spill. Killer whales, harbor seals, sea otters, herring, pink salmon, harlequin ducks, marbled murrelets, and other fish and wildlife are being studied by researchers from throughout Alaska and the nation.

The Council has dedicated more than $7 million this fiscal year to fund its three primary science projects, the Sound Ecosystem Assessment (SEA) project, the Nearshore Vertebrate Predator (NVP) project, and Alaska Predator Ecosystem Experiment (APEX), which are staged primarily out of Cordova and Whittier. Those three projects are expected to cost more than $30 million before they are completed. Altogether the Council is expected to spend about $180 million on research and monitoring.

Research is also having a profound effect on commercial fishing and subsistence as well. Herring research became a high priority when the sound herring fishery collapsed in 1993. The Trustee Council funded several projects that helped identify a virus as the likely cause for the collapse. Other herring research has discovered for the first time where young herring spend the winter and scientists continue to study the energy reserves necessary for winter survival.

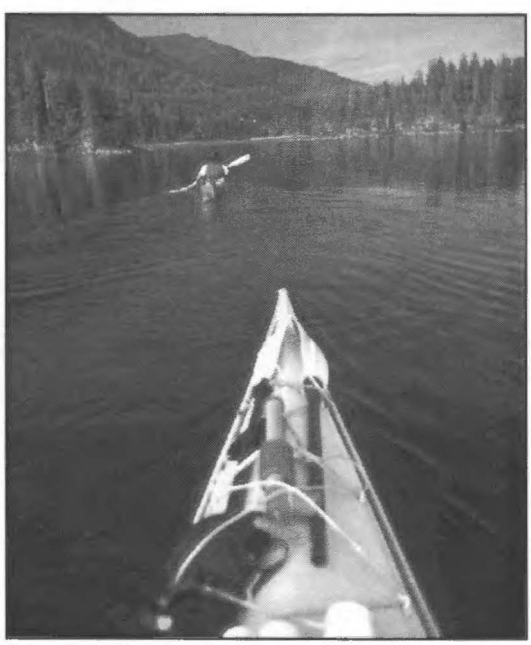


photo by Richard Larson

A kayaker enjoys paddling through Eshamy Bay in western Prince William Sound.

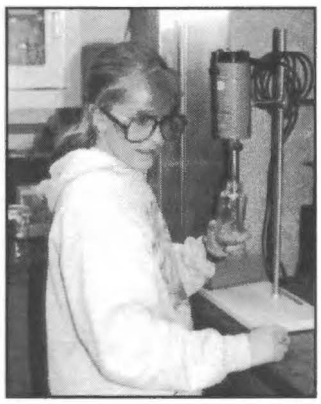


photo by Mel Henning

Stacy Evanoff, Chenega Bay, analyzes the pristane content of blue mussels as part of the Youth Area Watch project.

The Trustee Council's habitat protection programs are beginning to take hold in Prince William Sound with Chenega Corporation recently signing documents to sell nearly 60,000 acres to the federal and state governments (see story, page one).

The Trustee Council has accepted an offer of $33 million from Tatitlek Corporation for a creative land package that includes fee simple purchase, conservation easements or timber easements on 68,000 acres in central Prince William Sound. Shareholders must approve the package by a two-thirds vote.

Negotiations continue for up to 72,000 acres of land belonging to Eyak Corporation in eastern Prince William Sound. In 1995 the Trustees paid $3.65 million for timber rights on 2,052 acres belonging to Eyak Corporation in the Orca Narrows area.

The land packages not only help protect anadromous streams and other vital habitat, but also open up private land to fishing, hunting, hiking and camping. The Native corporations receive capital for future investments and benefits for shareholders. Subsistence users retain access for traditional hunting and fishing.

Several small parcels, valued for their strategic importance, have been purchased or are under consideration by the Trustee Council. An offer to purchase a 315-acre site within the boundaries of Horseshoe Bay State Marine Park on LaTouche Island has been accepted. Acquisition of 33.4 acres near Ellamar and 9.5 acres along the Valdez shoreline are complete.

The University of Alaska has offered to sell a 942-acre site on Jack Bay that includes three anadromous streams and good shoreline habitat. This property and two other parcels totaling 67 acres along the Valdez Duck Flats are currently being appraised.

In an effort to reduce chronic pollution in Prince William Sound, the Trustees are funding a program to stop marine pollution at its source. The Sound Waste Management Program, man-

Marine Recreation Projects

These projects, in various stages of planning and construction, are funded through the Exxon criminal settlement. For more information contact Ron Crenshaw at the Alaska State Parks Anchorage office (269-8704)

Second Salmon Run Facilities
Whittier - camping. $8,000

Allison Point Fishing Area
Valdez - expand parking, trails, restrooms, fishing dock. $450,000

Mineral Creek to Shoup Bay Trail
Trail between Valdez and Shoup Bay park. $200,000

Fleming Spit Recreation Area
Cordova - parking, restrooms, fish tables, access. $450,000

Mt. Eyak Trail System
Cordova - trail system. $120,000

Valdez Interpretive Display
Build displays at harbor. $20,000

W. PWS Interpretive Display
Dispays for Portage/Whittier. $40,000

Whittier Trails
Build hiking trails. $150,000

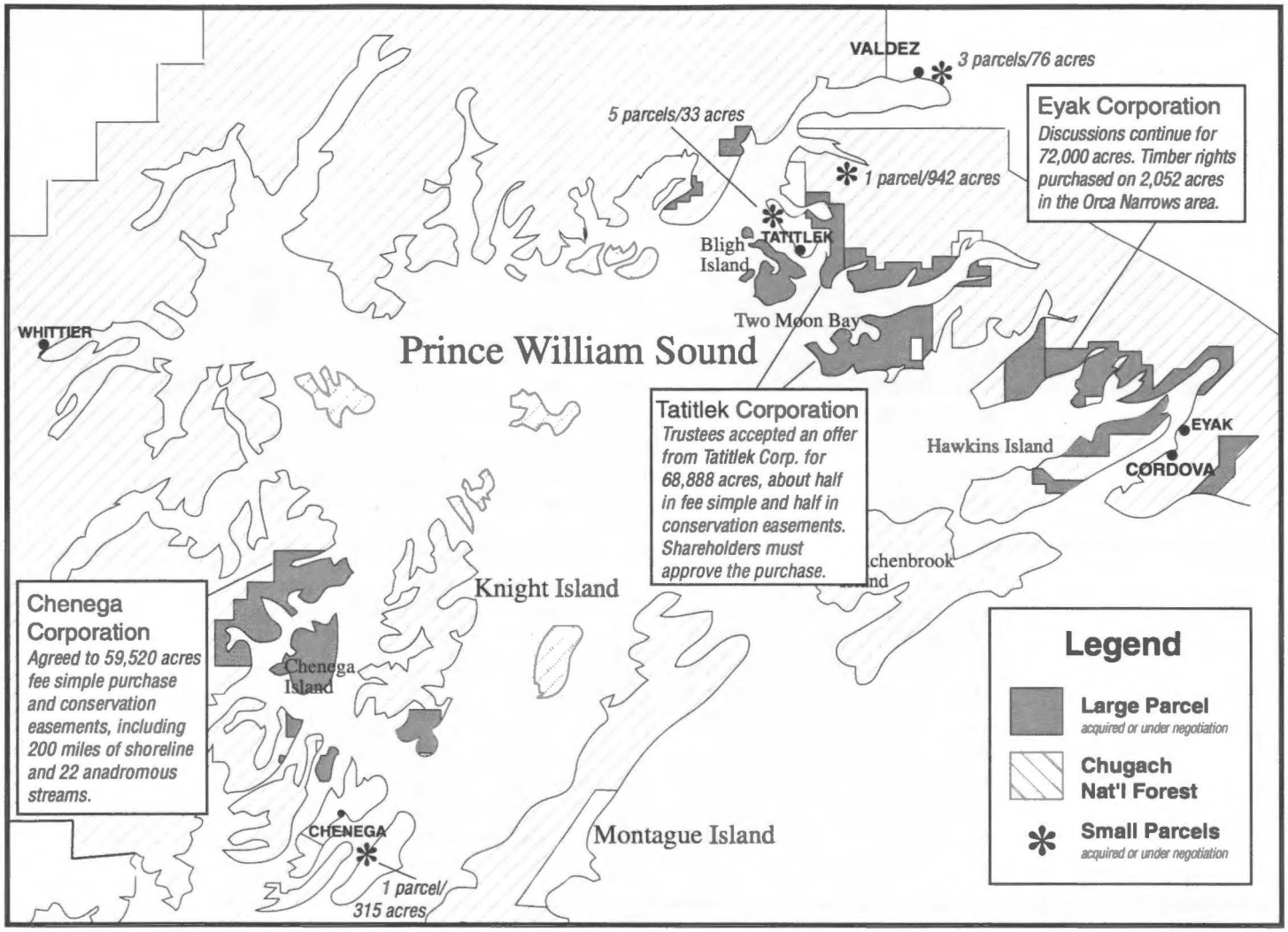
Shotgun Cove Hiking Trail
Whittier - build trail. $60,000

Shoup Bay Public Use Cabins
Cabins, trails, campsites. $185,000

Dock Point Beach Improvements
Valdez - trails, restrooms, kiosk, parking. $185,000

Chenega Bay Trail System
Shelter, boardwalks, signs. $200,000

Passage Canal Campsites
Campsites, trail, shelters. $170,000



aged by the Prince William Sound Economic Development Corporation, is designed to reduce small sources of marine pollution by providing facilities and services to properly dispose of used oil, household hazardous waste and recyclables. The $1.2 million project will coordinate efforts among various communities for temporary storage and then transfer some waste for proper disposal.

Students in the Chugach School District are learning about marine science in their own back yards as part of the Youth Area Watch project. This project places students in the field and in the laboratories where they get directly involved working with scientists, collecting samples, taking measurements and following through with laboratory analysis.

The Alaska Department of Natural Resources is using Exxon criminal settlement funds to build camping areas, hiking trails, interpretive displays, public use cabins, restrooms and other facilities throughout the sound. This includes $190,000 for the acquisition of 5.39 acres on Fleming Spit near Cordova for a recreation area. The Division of Parks and Outdoor Recreation is also working with cities and other groups to improve public facilities outside the park system.

The U.S. Forest Service, using Exxon criminal funds, recently completed purchase of the site of an historic Russian Orthodox church in the abandoned village of Kiniklik in the Northwest corner of the sound. The village was abandoned in 1911 after an epidemic swept through the area. Other small parcels are also being considered for acquisition by the Forest Service.

Criminal funds will also by used by the Forest Service to conduct research in the sound. A $165,000 research project mapping the nesting habitat of marbled murrelets will take place this summer. Another $200,000 will be spent over several years to assess management of new growth forests on newly acquired parcels that were logged prior to government acquisition.

Teresa Sauer, biological technician with the U.S. Fish and Wildlife Service, captures and measures kittiwakes as part of the APEX project. APEX research is conducted in Cook Inlet and Prince William Sound with kittiwake surveys around around Eleanor Island and Shoup Bay.

photo by Rob Suryan

Popular Soldotna "fishwalk" protected

The Trustee Council has authorized an offer to acquire one of the most popular Kenai River sport fishing spots in the City of Soldotna, ensuring long term protection of salmon habitat and securing access for fishing.

The Kenai River, where it passes below the Sterling Highway bridge, has long been one of the most popular fishing locations due to its ease of access and the run of red salmon that move upstream along its banks. The Trustee Council agreed to spend $698,000 to add the key 3.34 acre parcel to the list of Kenai River properties to be protected.

The Kenai River Sportfishing Association recently built a 178-foot fishing platform at the site to allow continued fishing while protecting the banks for rearing salmon. Acquisition of the site will allow extension of the "fishwalk" along the river front some 463 feet further downstream. It also creates a nearly continuous stretch of publicly owned river front from the bridge to Soldotna's Centennial Park.

"This is an important step for fish and fishermen," said Ben Ellis, executive director of the sport fishing association.

Governor Tony Knowles made acquisition of this and other Kenai River parcels one of his top priorities to meet the growing needs of sport fishing while at the same time protecting the river.

"Protection and enhancement are the keys to maintaining the Kenai River as a unique and scenic watershed," Knowles said. "We have purchased more than 1,800 acres along the Kenai River, which allows us to protect several miles of shoreline vital for rearing red and king salmon."

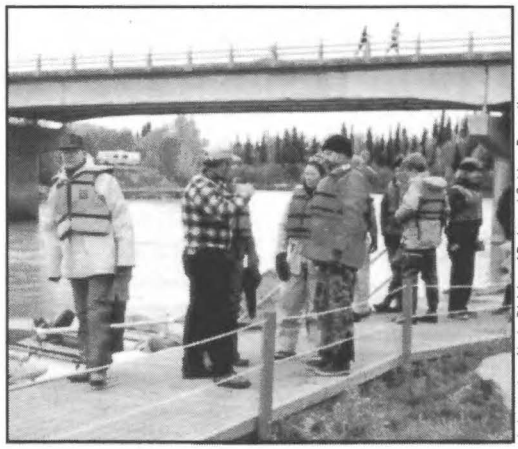


photo courtesy Alaska Division of Parks and Outdoor Recreation

Trustees and agency personnel inspect the grated "fishwalk" under the Kenai River bridge in Soldotna as part of tour of the area last fall. The acquisition of the river frontage will allow the fishwalk to be extended another 463 feet downstream.

Collectively, these acquisitions provide a cornerstone for a larger comprehensive Kenai River restoration effort that also includes bank stabilization and revegetation efforts; scientific research and monitoring to enhance the ability of resource managers to protect fishery resources; and improved management of human uses to reduce adverse impacts.

News in brief

Jim King gets seabird award

PAG member Jim King received a lifetime achievement award at the annual Pacific Seabird Group meeting in Portland. King, a career waterfowl biologist with the U.S. Fish and Wildlife Service, was honored for his contributions to the conservation and understanding of marine birds.

Dudiak 'Citizen of the Year'

Nick Dudiak, a Fish & Game biologist in Homer since 1977, was named Citizen of the Year by the Homer Chamber of Commerce. Dudiak, known as the father of the Homer Spit Fishing Hole, was honored for his efforts to educate the public about fishing, hunting, and conservation.

APEX wins for best poster

Mark Romano, a graduate student from the University of Oregon working on the APEX project, received the top student award for posters at the Pacific Seabird Group meeting in Portland. Romano's poster described an experiment in which he raised seabirds using diets of different species of forage fish.

Kenai River web site online

ADF&G's web site has added a page to address Kenai River issues and restoration. It can be found at: **www.state.ak.us/local/akpages/FISH.GAME/habitat/geninfo/webpage/Home1.htm**

Restoration Update *is published six times each year by the Exxon Valdez Oil Spill Trustee Council. Its purpose is to update interested members of the public about actions, policies and plans of the Trustee Council to restore resources and services injured by the Exxon Valdez oil spill.*

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Bill would add Shuyak property to state park

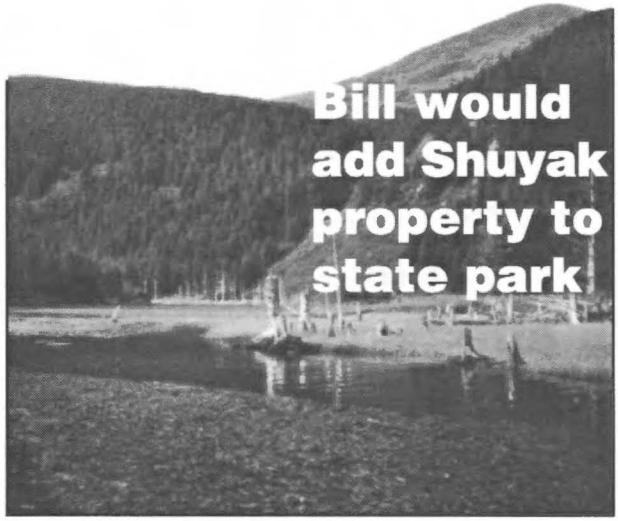

photo courtesy Alaska Division of Parks and Outdoor Recreation

Shuyak Island State Park

Bills have been introduced in the state House and Senate to nearly quadruple the size of Shuyak State Park. Companion bills were introduced by Sen. Jerry Mackie and Rep. Alan Austerman to add almost 37,000 acres to the park, a move with widespread support in the Kodiak region.

The state obtained title to 26,900 acres in 1995 when the Trustee Council provided the funds for the state to purchase the land from the Kodiak Island Borough for $42 million. An additional 10,000 acres was already in state hands.

If added to the park, the land will continue to be open to hunting, fishing and trapping, said Claire Holland, Kodiak District State Park Ranger. The island is becoming increasingly popular for fishing, hunting, recreational boating, hiking and wildlife viewing, she said.

If the Legislature passes the bills, most of the island will become park. About 200 acres of private land remain on the island and there is a 300 acre site that belongs to the federal government.

The House bill (HB89) has passed out of the Resource Committee and is being considered by the Finance Committee. The Senate bill (SB64) is currently in the Resource Committee.

Chenega

Continued from Page 1

purchase, Eshamy Bay and Jackpot Bay, are among the highest ranked parcels in the oil spill area for restoration of injured resources. Those two bays contain 22 anadromous streams.

"These lands are invaluable," Glickman said. "And they are now accessible to the people of this nation — for recreational and tourism purposes; for sport fishing and hunting; for simply their magnificent beauty. These uses are not only consistent with habitat protection, but limited development opportunities also will result in economic benefits for the State of Alaska, the Native Alaskans who live on the land and the nation."

Most of the 59,520 acres to be transferred will be managed by the U.S. Forest Service, with the state receiving about 16,000 of those acres. More than 200 miles of shoreline is protected in the package. The corporation will receive $34 million for the land, $10 million of which comes from Exxon's criminal settlement with the federal government.

"The western shores of Prince William Sound include the most beautiful bays and fjords to be found anywhere," Gov. Knowles said. "The *Exxon Valdez* oil spill did not change that. Today, nearly eight years after the spill, the area remains breathtakingly beautiful."

But it wasn't always that way. Knowles described the land as the heart of the spill country, where wildlife was oiled and re-oiled with each succeeding high tide. "The people of Chenega suffered through this spill as much as any single group," he said. "That's why it's enormously gratifying to be part of a creative package that protects these lands while at the same time meeting the economic needs and traditional subsistence needs of Chenega villagers."

The lands include most of Chenega Island, Fleming Island, the northern half of Evans Island and the southern tip of Knight Island. Under the agreement, the Chenega Corporation retains ownership of the original village site of Chenega, which was destroyed in the 1964 earthquake. It would also keep several small development sites.

In a vote taken in December, more than 80 percent of Chenega's shareholders approved selling the land and providing conservation easements. "This exchange gives Chenega shareholders a chance to invest in our future without having to develop our land or cut our timber to do it," Totemoff said. "Shareholders benefit economically and our traditions and subsistence lifestyle are protected."

Gov. Knowles called the habitat protection package a win-win-win for the people of Chenega, the natural resources and the general public. "History will judge the *Exxon Valdez* oil spill as the worst kind of spill in the worst possible place," Knowles said. "But the legacy of this spill will also be about people working together to restore the injured environment and to prevent anything like this from ever happening again."

"This exchange gives Chenega shareholders a chance to invest in our future without having to develop our land or cut our timber to do it. Shareholders benefit economically and our traditions and subsistence lifestyle are protected."

Chuck Totemoff
President, Chenega Corp.

Research looks for ways to reduce stress on herring

No one knows what triggered the deadly virus which decimated the Prince William Sound herring population in 1993 or what might trigger it again. Disease studies funded by the Trustee Council showed that stress, such as that from oil exposure, can cause outbreaks of the virus. Exxon Valdez oil spilled into Prince William Sound just as herring were returning to spawn and oil has always been a primary suspect for stressing the herring population. But what other stressors are there and what can be done to prevent future outbreaks?

Four years after being depleted by disease, herring are finally back to harvestable levels in the sound. As a way to reduced stress on the herring, the Board of Fisheries has enacted changes to the sound's pound fishery.

In a closed pound, the idea is to force a large amount of herring to spawn on a limited amount of kelp. Kelp hangs from several ropes which are strung across a large metal cage and then tons of herring are added to the mix.

"Some of the stressors they've identified that can kick off an outbreak of this disease are factors such as crowding and handling," said Dan Sharp, commercial fisheries biologist with the Alaska Department of Fish and Game. "They've done some oil tests where they've exposed herring to crude oil and this has triggered an outbreak of the disease. So there are a number of stressors that can cause the disease to occur."

One study conducted in Puget Sound and near Craig, Alaska, showed that within 48 hours of capture 15-20 percent of the herring in a closed pound were shedding the virus into the water. This has led to cautionary changes in the pound fishery.

Herring pounders are being encouraged to switch tactics. Instead of bringing the herring to the pound, they are being encouraged to bring the pound to the herring. Open pounding involves building a frame, suspending kelp on it, taking it to a place where herring are about to spawn, and hoping they spawn on the kelp.

Pounders which use open pounds will be given greater access to the herring and more kelp for their pens. "We will allow those people using open pounds to use more blades of kelp, roughly 33 percent more," said Sharp.

Closed pounding will still be allowed in the northeast corner of the sound. The Trustee Council recently provided funds to monitor herring from closed pounds for disease. To prevent an outbreak of VHS, researchers are planning to pump all the herring used in closed pounds, count them, test them for disease and sell them to recover some of the costs of the progam.

Request for Restoration Proposals

The Invitation to Submit Restoration Proposals for Federal Fiscal Year 1998 is now available. Proposals are due April 15, 1997. For more information contact the Trustee Council office at 907-278-8012 or 800-478-7745 (in Alaska) or 800-283-7745 (outside Alaska).

Restoration Office
645 G Street, Ste. 401
Anchorage, AK 99501-3451

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EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

RESTORATION UPDATE

June-July 1997

Volume 4 Number 2

Future of Kenai Fjords park assured

Agreement signed to protect fish and wildlife habitat

Interior Secretary Bruce Babbitt and English Bay Corporation President Don Emmal formalize the agreement transferring 32,470 acres. Photo courtesy Dept. of the Interior

After nine years patrolling the trails and coastline of Kenai Fjords National Park, Bud Rice witnessed a personal dream come true last month as Interior Secretary Bruce Babbitt signed documents to absorb 30,200 acres of private land into the park.

Rice served as park ranger during the summer of the *Exxon Valdez* oil spill. He watched helplessly as spilled oil washed over the park and oiled the flora and fauna that inhabit the coastal areas. "I made a personal vow to help assure the park would never face such destruction again," Rice said. "So eliminating any threat of development within the park by acquiring these lands means a lot to me."

Rice, who now serves as the agency liaison between the

See English Bay Signing, Page 3

Settlement funds benefit residents & visitors

Restoration following the *Exxon Valdez* oil spill is not solely about the plant and animal life which took the brunt of the spilled oil. It is also about the people who live, work and play in the region, all of whom were also victims of this environmental accident.

Commercial fishing families were left without fish to catch during the summer of 1989 when all fishing was closed due to the threat of oil. Since then, the lucrative herring fishery in Prince William Sound collapsed and returns of pink salmon have been erratic.

Recreation and tourism in the Sound came to an abrupt halt after the spill, affecting both individual kayakers and owners of tour boats. The industry had to fight for several years to regain the momentum it once had.

And for village residents, especially those in the direct path of the spill, the food from subsistence hunting, fishing and gathering became suspect due to possible contamination. For many subsistence users, this way of life has yet to return to normal.

When the state and federal governments negotiated a settlement of their joint lawsuit against Exxon, they kept the human impacts from the spill in mind. In addition to restoring the natural resources, the settlement specifies that the $900 million be used to restore the human services: commercial fishing, subsistence, and recreation and tourism.

Now, halfway through the Trustee Council's 10-year restoration plan, progress toward the human side of restoration is clearly evident.

Indirect benefits

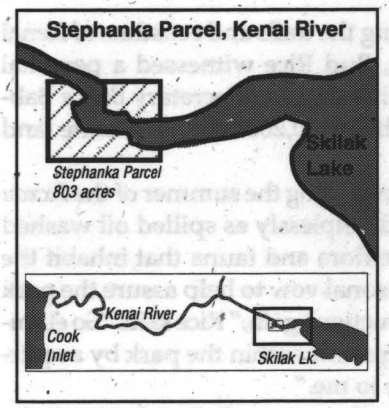
The primary strategy for restoring the human services that depend on the availability of natural resources is to restore the resources themselves. It's important to recognize, for ex-

See The Human Side, Page 4

Two mile stretch of Kenai River protected

Permanent protection for a stretch of wild Kenai River, one mile below the outlet of Skilak Lake, was assured recently when Interior Secretary Bruce Babbitt signed an agreement to acquire the land from the Kenai Natives Association.

The agreement, signed by Babbitt and KNA President Diana Zirul, was approved by Congress and the president late last year. The package combines conservation of the Kenai River drainage with development opportunities for KNA.



- It protects 803 acres along the Kenai River, including three islands and more than two miles of bank habitat on both sides of the river.
- It protects an additional 2,451 acres in the Moose River drainage area a few miles upstream from its confluence with the Kenai River.
- It redraws the boundaries of the Kenai National Wildlife Refuge to exclude some land owned by KNA, thereby lifting restrictions on development.
- It transfers a 5-acre site in Old Town Kenai, formerly used as refuge headquarters, to KNA.

The Trustee Council provided $4 million as part of the package to protect the Kenai and Moose river parcels. The land is considered important for restoration, primarily due to the miles of rearing habitat for red and king salmon, spawning habitat for pink salmon, and winter concentrations of bald eagles.

"This agreement will both protect fish and wildlife habitat on the Kenai River and provide Alaska Natives with significant new opportunities for economic development on the Kenai Peninsula," Babbitt said.

It had been a long time coming, following many years of discussions and negotiations. The agreement will allow KNA "greater flexibility" in using its lands, Zirul said. She pointed out that KNA will now have the freedom and the funding to promote economic development "while at the same time respecting and preserving our heritage."

This is the latest in a series of habitat protection and restoration efforts focused on the Kenai River. In addition to the KNA property, the Trustee Council has protected or made offers to protect another 1,800 acres along the Kenai River as part of a joint federal, state and local effort to ensure the future health of the river.

"Protecting the Kenai River is important to all Alaskans," said Gov. Tony Knowles. "By putting the river first, we all benefit."

Monitoring of Chenega-area cleanup is strengthened

The Trustee Council endorsed a plan to strengthen monitoring of the planned beach cleanup in the Chenega area of Prince William Sound this summer.

Representatives from several state and federal agencies reviewed a proposal to use a chemical agent known as PES-51 to break up the oil and allow for its removal. This product is applied during an incoming tide to protect intertidal flora and fauna from exposure. It was chosen over other products because it causes the oil to float on the surface of the water allowing for easy retrieval of both the residual oil and the chemical agent.

In addition, since only a half mile of beach will actually be treated and most of the chemical will quickly be diluted, any serious after-effects are not anticipated. However, the Trustee Council, during an April meeting, asked for stronger monitoring methods to minimize any potential risk to the ecosystem. The Council provided an additional $175,000 to the $1.9 million budget to increase the amount of boom and the number of days to collect floating oil. Signs will be placed on the beach and the site will be monitored for a year or more.

Residents of Chenega Bay were strongly supportive of chemical application to clean oil from nearby beaches. They originally requested the cleanup, saying the presence of residual oil prevents subsistence use of the beaches, inhibits recovery of injured species and impacts the community as a whole.

Residents of Chenega Bay believe it is better to use PES-51 than live with the continuing presence of oil, said Chuck Totemoff, president of Chenega Corporation.

In a letter to the Trustee Council, Totemoff pointed out that residents have experience with use of other chemicals on the beaches and that many of them participated in a 1993 test of PES-51. "Having been exposed to such a variety of non-chemical and chemical cleanup measures, the Chenega people unanimously support the use of PES-51," he wrote.

The cleanup will target surface oil found at eight sites on Latouche, Evans and Elrington Islands. Those shorelines are covered with heavy boulders which hide the oil and protect it from the natural cleaning action of waves.

Comments on Draft Work Plan due by July 15

The Draft Work Plan is expected to be released June 9, with recommendations on each of 119 proposals submitted by researchers and agencies hoping to have their projects funded during Fiscal Year 1998.

The annual Invitation for Proposals resulted in more than $23 million in funding requests for the fiscal year, which begins October 1. The proposals include 52 continuing projects, with $12.7 million in funding requests.

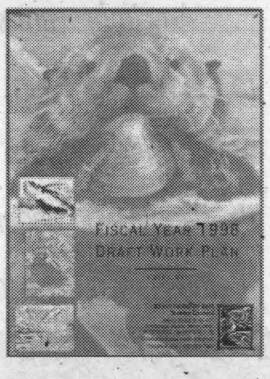
The Trustee Council is targeting a budget of approximately $14 million for the FY '98 Annual Work Plan. That is down from this year's funding of $16.2 million.

The Work Plan is the document that identifies community projects and scientific studies to be funded.

The Draft Work Plan will include recommendations by Executive Director Molly McCammon on which projects should receive funding and at what levels. The recommendations are reached after each proposal is reviewed by Chief Scientist Bob Spies and an advisory panel of scientists and experts in particular fields.

Reviewers make recommendations to McCammon and Spies, who then cull the number of projects to meet budget constraints. Trustee agencies and the Public Advisory Group also provide input. After the draft plan is issued, it is open for public comment for 36 days, culminating in a public hearing set for July 15. The Public Advisory Group will meet the following day to review the draft plan and pass its own recommendations to the Trustee Council.

In the end, it will be the Trustee Council which makes the funding decisions. The Trustees are scheduled to meet in Anchorage August 6 to set the work plan for FY '98.



English Bay signing *continued*

Continued from Page 1

Park Service and the Restoration Office, joined the crowd of 100 onlookers in applause as English Bay Corporation president Don Emmal and Secretary Babbitt signed the habitat protection agreement.

The acquisition of English Bay Corporation land within the park and within the adjacent Alaska Maritime National Wildlife Refuge has been enormously popular. Hundreds of letters, phone calls, faxes and e-mail messages poured into the Restoration Office from all over the country to endorse the plan.

The Trustee Council offered to acquire the parcel in February, providing $14.1 million for a total of 32,470 acres. In addition, $1.1 million was provided through the federal criminal settlement to compensate English Bay Corporation for traditional hunting and fishing rights. The corporation will retain those rights on 9,000 acres within the park.

"Our lands must provide for our people forever," Emmal told the crowd. "We will place our proceeds in a trust fund so we can ensure the financial security of our children. An archaeological fund will help preserve our culture."

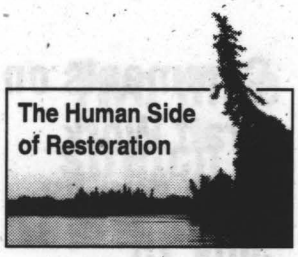
Parcels to be acquired are in blocks spread throughout the park, with tracts on Resurrection Bay, Aialik Bay, Nuka Bay and several smaller bays, coves and islands.

"This is a tremendous conservation achievement," Babbitt said. "This agreement — the permanent protection of these lands — will benefit fish and wildlife populations and provide increased opportunities for outdoor recreation."

Another key supporter of the agreement, corporation chairman Bobby Kvasnikoff, died in January before he could see his work come to fruition. According to Rice, there is a movement underway with the support of the Park Service to have a well-known 900-foot waterfall named after Kvasnikov.

"The waterfall can't help but bring a smile to your face and that's a reminder that Bobby brought a smile to everyone who knew him," Rice said. "His contribution to his people and to protecting this park will not be forgotten."

At left, the 900-foot waterfall on North Nuka Bay will be nominated as Kvasnikoff Falls in memory of Bobby Kvasnikoff of English Bay. Below, kayakers reach the head of McCarty Fjord in Kenai Fjords National Park. Photos by Bud Rice



The Human Side of Restoration

"Any improvement to the health of fish and wildlife benefits the people who depend on those resources for a living and for their personal enjoyment."

Frank Rue
Commissioner, Alaska Department of Fish and Game.

Continued from Page 1

ample, that everyone benefits from a healthy ecosystem. "Any improvement to the health of fish and wildlife benefits the people who depend on those resources for a living and for their personal enjoyment," said Trustee Frank Rue, Commissioner of the Alaska Department of Fish and Game.

Rue pointed to harbor seals as one example. Stopping the population decline in harbor seals not only adds to a healthy ecosystem, he said, but also provides wildlife viewing for tourism, maintains subsistence hunting and keeps commercial fishing from facing restrictions to protect the marine mammals.

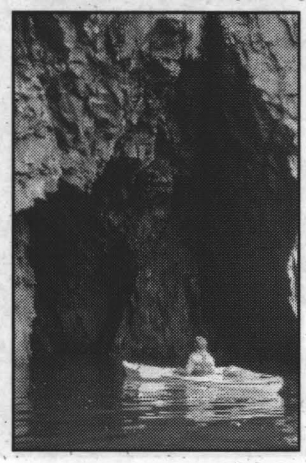
Bypass improvements on Little Waterfall Creek doubled spawning above the falls.

Scientific research funded by the Trustee Council is changing the way scientists view the north gulf waters and providing valuable tools to take the guess work out of management decisions. Altogether, the research programs are providing more information on fish, seabirds and marine mammals than ever thought possible during these times of diminishing budgets, Rue said.

The Council's program of habitat protection also scores on all fronts. One strategy for helping injured or stressed species recover is to leave them alone and keep their habitat undisturbed by development. So far, the Council has done that by purchasing protection of 420,000 acres and has offers pending to protect another 100,000 acres.

In most cases, the land acquisitions have an equally profound impact on the people of the spill region. It opens previously private land for use by the public, protects salmon streams, and maintains subsistence uses.

Alaska Marine Parks are being developed throughout Prince William Sound. The state is adding trails, cabins, docks, and other improvements through the Exxon criminal settlement funds.
Photo by Bud Rice.



Recreation

Sea kayakers, boaters, hunters, sport fishing enthusiasts, hikers, campers, wildlife viewers and just about anyone who enjoys the outdoors will find new recreational opportunities due to the Trustee Council's habitat protection programs.

Public ownership means public access. As more than half a million acres of private land are turned over for public use, the obvious result is better recreational and tourism opportunities.

Kayakers are discovering the beauty of Eshamy Bay and other bays in western Prince William Sound. Hikers, campers and backpackers are enjoying the trails within once-private portions of Kachemak Bay State Park. Afognak Island State Park was established and Shuyak Island State Park recently tripled in size, increasing recreational opportunities.

An Alaska Marine Park System is emerging in Prince William Sound offering new facilities for boaters. The Department of Natural Resources is using funds from the state's criminal settlement to build hiking trails, public use cabins, docks, camp sites, informational signs, and boat launches at several locations throughout Prince William Sound, the Kenai Peninsula and the Kodiak Archipelago.

Much of the Council's small parcel program is focused on the Kenai River. Altogether, the Council has either protected or reached agreements to acquire more than 2,500 acres on the river, including several miles of riverbank, vital for the successful rearing of sockeye and king salmon. The Kenai River is the economic engine for both the sport fishing and commercial fishing industries on the Kenai Peninsula and protecting the habitat is strongly supported by both industries.

Private inholdings within Kodiak National Wildlife Refuge are typically found in areas where birds, bears and fish congregate. The Council has purchased several parcels along estuaries, bays and salmon streams, providing key access for fishing and hunting as well as good anchorages for boating.

Near Homer, a rare 220-acre parcel along the bluff, known as the Tulin homestead, has been acquired mainly for recreation. Alaska State Parks will eventually take over management for the site, but it has not yet determined how the site will be used. The Kachemak Bay State Park Advisory Board has recommended that the land be managed for passive use, such as walking, sightseeing and beach access, said Chris Degernes, regional superintendent for the Kenai Peninsula.

Commercial Fisheries

The Council's habitat programs have acquired hundreds of miles of anadromous waterways providing basic protection for spawning and rearing sockeye, pink, coho and king salmon. In addition, many research projects are geared toward improving the health of commercial fish species and providing the tools for better fisheries management.

In Cook Inlet, state fisheries biologists are using genetic coding to determine exactly to which systems sockeye salmon are returning. Fisheries managers have long sought a way to determine where the salmon moving through Cook Inlet are going, so that they can better protect individual rivers and creeks. "Genetic identification takes some of the mystery out of it," said Science Coordinator Stan Senner. "It allows better in-season decisions concerning fisheries management and helps secure the future health of salmon populations."

A similar genetic coding project is helping identify the home creeks for wild pink salmon in Prince William Sound. Hatchery raised pinks in the Sound are now being identified through a new process, otolith mass marking, also developed with Trustee Council funding.

Mass marking has eliminated the labor-intensive process of tagging tiny salmon fry. Researchers have learned that changes in water temperature will cause distinctive patterns to develop on the earbone (or otolith) of salmon, much like the rings of a tree. This lets fisheries managers accurately identify to which hatcheries adult pink salmon were returning.

On Kodiak Island, a fish bypass was renovated at Little Waterfall Creek to open additional spawning habitat for pink and coho salmon. During its first year after renovation, 44 percent of the returning pink salmon passed through the bypass, twice the percentage that reached the upper river before the renovation.

A project at Port Dick Creek on the Kenai Peninsula also opened more habitat for spawning. That creek was excavated to restore spawning habitat lost due to uplift from the 1964 earthquake. During its first year 572 pinks and 300 chum salmon entered the newly opened tributaries and spawned, generating a projected contribution of more than 11,600 adults.

The collapse of the herring population in Prince William Sound brought an end to the lucrative fishery for four years. Council-funded research identified a viral disease and fungus as the probable reasons for the crash. Further studies are attempting to identify possible triggers that cause the latent virus to spread.

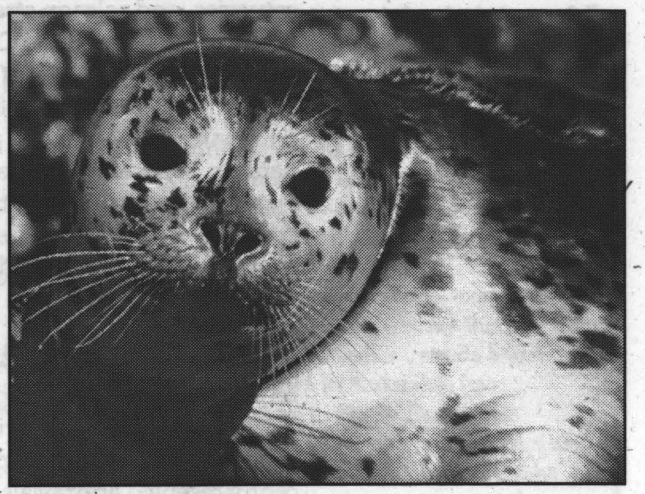
Other herring research has identified for the first time where juvenile herring spend their first winter. Continuing studies are trying to determine what factors affect the survival rate of young herring.

Subsistence

The Council has funded numerous projects that provide direct relief to communities that are short of subsistence resources. During FY '97 the Council provided funds for 15 subsistence projects, in addition to the research involving subsistence resources such as herring, salmon and harbor seals.

Hatchery-produced king salmon are starting to return to Chenega Bay and similar enhancements will bring coho to Tatitlek and Perryville, sockeye to Solf Lake in Prince William Sound, and pink salmon to Port Graham, all due to the efforts of the Trustee Council.

To assist scientists in their efforts to learn why the harbor seal is continuing its decline, the Alaska Native Harbor Seal Commission is training subsistence hunters in the proper procedures for taking and storing tissue samples. This provides a wealth of information about harbor seal locations, diet, and overall health.



Stopping the population decline in harbor seals not only adds to a healthy ecosystem, but also provides wildlife viewing for tourism, maintains subsistence hunting and keeps commercial fishing from facing restrictions to protect the marine mammal.
Photo by Kathy Frost.

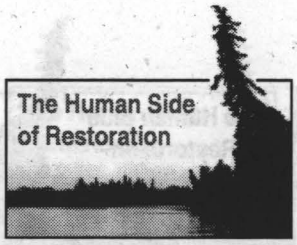
"It allows us to be part of collecting the data that eventually goes to the managers who make decisions," said Monica Reidel, director of the commission. "The Native people need to have a lot of input in those decisions because they directly affect us."

Native Alaskans and scientists are also encouraged to work together in understanding the intricate relationships within the marine ecosystem. The Trustee Council is funding and promoting Traditional Ecological Knowledge as a vital tool for viewing the ecosystem.

"Historically, the Native world view incorporates nature and culture through subsistence," said Chief Scientist Bob Spies. "Traditional western science tends to isolate and study nature with a more mechanistic approach. Working together we can put all the pieces together for a better picture of our marine environment."

A special effort by the Trustee Council is underway to listen to the concerns of subsis-

See The Human Side, Page 6



Continued from Page 5

tence users and closely involve them in the restoration process. Through its Community Involvement Project, the Council funds a coordinator to serve as a liaison between the spill-area community, the Trustee Council, the Restoration Office staff and the scientists conducting restoration projects.

The project is administered through a contract with Chugach Regional Resources Commission.

Dark cloud, silver lining

It's been said many times that if the oil spill is a dark cloud that hangs over Alaska, the Exxon settlements have produced a silver lining. The funds are benefiting both the natural resources and the people of the spill region, making possible vital habitat protection, more recreational access to lands, better fishing success, improved subsistence harvests, and a world of scientific knowledge once thought unachievable due to funding constraints.

Council makes offer for top Afognak habitat

The Trustee Council voted to offer $70 million to protect prime old growth forest, estuaries, and salmon streams on Afognak Island. The Council authorized an offer to purchase 47,350 acres from Afognak Joint Venture, a partnership of several Native corporations with interests on Afognak Island. The offer includes some of the most highly valued habitat in the oil spill region.

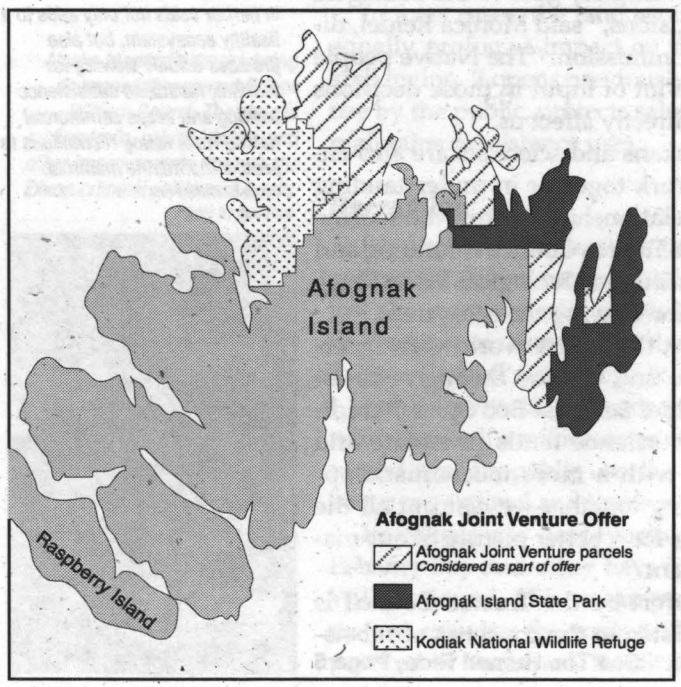
The Council's action was a renewal of an offer made in November 1994, but with a modified scope to reflect recently received appraisals. The Council set aside $70 million for the Afognak Joint Venture lands two years ago, but appraisals came in higher than expected.

The Council's proposal seeks the outright purchase and protection of 20,000 acres, including the popular Laura and Paul's lakes in the northern part of Afognak Island. In addition, the state and federal governments would work with the landowners to develop a limited timber harvest plan on the remaining 27,000 acres. The state would take title to that land after the agreed-upon harvest took place.

"We originally hoped to be able to protect more habitat," said Craig Tillery, the Trustee Council representative for the Department of Law. "The timber values came out higher than anticipated and much higher than any previous transaction we have been involved in. But, by balancing the purchase with limited harvests, I think we can achieve very significant protection with the funds available."

Lands included in the offer are adjacent to Afognak State Park and the Kodiak National Wildlife Refuge and are across the strait from Shuyak Island State Park. Numerous species injured by the oil spill use the area for nesting, feeding, molting and wintering. Tidal, subtidal and upland areas are important for pink salmon, black oystercatchers, harbor seals, harlequin ducks, bald eagles, marbled murrelets, pigeon guillemots, sea otters, and river otters.

"The goal of the combined land purchase and limited timber harvest would be to maintain the highest values for fish and wildlife," said Trustee Frank Rue, commissioner of the Department of Fish and Game. "We look forward to working cooperatively with AJV to protect this valuable land."



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Newspaper column to tell recovery story 'one small piece at a time'

It has been eight years since the *Exxon Valdez* spoiled the wild coastline of Prince William Sound. Every news report at the time concluded by saying questions about the spill's long term impact were unanswerable — only time would tell.

Time has since told quite a tale.

To help tell that story, the Trustee Council is introducing a public service newspaper column focusing on the ongoing recovery within the oil spill region. The idea of this column is to explain, over time, the many aspects of recovery and restoration and how it impacts the people who live, work and play in the oil spill region.

The column is the second in a series of information efforts under the title Alaska Coastal Currents. Jody Seitz, of Cordova, has been producing the Alaska Coastal Currents radio program for the last year. Each week, she releases a two-minute feature detailing the results of scientific studies and highlighting the people involved in restoration activities. She has created 65 episodes which air several times a week on public and commercial radio stations in Alaska.

To complement the radio program, Seitz will author a weekly column based on the radio series for use in Alaska newspapers.

"I want to tell people about the many scientific discoveries and address the continuing concerns of people affected by the spill," Seitz said. "A huge research effort is underway, and it can help us all understand not only the effects of the spill but our environment, a lot better."

Students help scientists collect mussels in the Sound

By Jody Seitz
Alaska Coastal Currents

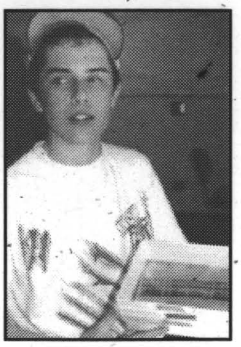
Restoration and recovery following the *Exxon Valdez* oil spill

To collect mussels for oil spill research, Jeff Short and Patricia Harris must fly from Jueanu to Cordova twice a month from March through July.

In Cordova they charter a small plane and fly to 30 musselbeds from Cape Puget to the head of Wells Passage. At each station, they land, collect 20 mussels, bag them, hop back in the plane and head to the next station. It takes about a half hour at each site - that means two days in a small plane, if the weather is good.

To collect mussels, all 16-year-old Even Evanson has to do is walk out his front door at Kenny Cove on Hinchinbrook Island. From there it's about half a mile to a mussel bed on the Gulf of Alaska coastline.

Short and Harris are research chemists with the National Marine Fisheries Service at Auke Bay. They believe that mussels hold an important clue that will eventually help fisheries managers predict salmon returns in Prince William Sound.



Even Evanson

The mussels can help measure the overall productivity in the Sound by telling researchers how much plankton was produced and how successful salmon fry were feeding on the plankton. The more salmon fry fatten up on plankton, the more likely they will survive to adulthood and the greater the salmon return to the sound.

To measure this productivity from year to year, Short and Harris determine the pristane levels found in the mussels they collect each spring.

Pristane is a naturally occurring hydrocarbon. It is produced by tiny shrimp-like plankton called *Neocalanus* copepods and passed on to salmon fry who feed on them. Salmon fry pass on the pristane to the mussels through defecation.

Even Evanson got involved in this research three years ago when Harris called him to ask for help. At the time he was 13 and in home school. "I said yes," says Evanson, "because in the beginning it was only a once-a-month commitment." The commitment grew to once every two weeks, but Short says that Evanson has been completely reliable.

He samples the mussels exactly as Short and Harris do, freezes them, and at the end of the season, sends a freezer tub of samples to Auke Bay Lab.

According to Short, Evanson is providing critical data. His samples are the only ones from the Gulf of Alaska and allows scientists to compare the gulf with mussels found inside the sound. "He's really saved us," said Short. "He samples exactly the same schedule we do. It's important to be conscientious and he's been just great."

Pristane research also takes advantage of other students participating in the Youth Area Watch in what is truly a symbiotic relationship. Youth Area Watch was organized by the Chugach School District to put students in the field with scientists working on oil spill research.

Short and Harris train the students to collect samples for the Auke Bay project. The school district helps with logistics and funding for the students.

Evanson and other students have made a big difference in the logistical nightmare of mussel collection. When the mussel bed is in your backyard, the weather poses a little less of a problem for data collection.

Shuyak Island State Park quadruples size

Remains open to hunting and fishing

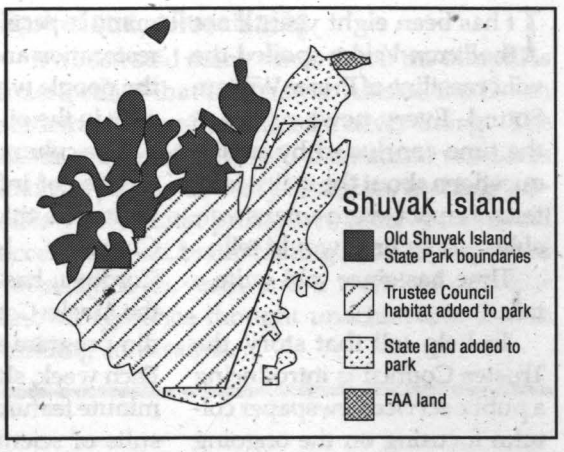
Shuyak Island State Park expanded to encompass almost all of the island when Gov. Tony Knowles signed a bill that added about 37,000 acres to the park.

The park nearly quadrupled in size, mostly due to 26,900 acres acquired in 1995 through the Trustee Council's large parcel program. The Council provided the funds for the state to purchase the land from the Kodiak Island Borough for $42 million. An additional 10,000 acres already belonged to the state.

"This action means the state will be able to manage the entire island for the benefit of wildlife, waterfowl, and Alaskans as they use and enjoy the park's outstanding natural resources with the confidence that this use will be protected forever," Knowles said.

The Alaska Legislature created Shuyak Island State Park in 1984 to protect the island's scenic resources as well as enhance hunting, fishing, trapping, and other recreational activities. The park land will continue to be open to hunting, fishing and trapping.

The island contains important habitat for several species which were seriously injured by the oil spill, including seabirds, bald eagles, harbor seals, sea otters, river otters, salmon, and herring. There also are numerous historical and archeological sites.



Sen. Jerry Mackie, D-Craig, and Rep. Al Austerman, R-Kodiak, sponsored the bill expanding the park. Virtually all of the island, except for a few inholdings, will now be designated as state park land.

"I'm confident by expanding this state park, the natural attractions of Shuyak Island, so important to the residents of Kodiak, and enjoyed by other Alaskans and visitors, will remain forever protected," Knowles said as he signed the bill into law.

The FY98 Draft Work Plan to be available June 9

Written comments are due July 15, 1997.

A **public meeting** on the draft work plan will be held July 15 at 7 p.m. in the Restoration Office conference room, 645 G Street, Suite 401, Anchorage.

Get your copy by calling: 907-278-8012 or 800-478-7745 (toll free)

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EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

August-September 1997

RESTORATION UPDATE

Volume 4 Number 3

Power Creek Ridge. Photo by Nancy Bird.

"WHAT WE ARE ACCOMPLISHING HERE IS HISTORIC."

NANCY BARNES
PRESIDENT, EYAK CORPORATION

Persistence pays off

After four years of effort, Eyak Corp. and Trustee Council agree to protect habitat near Cordova

More than 75,000 acres of valuable habitat in eastern Prince William Sound will be protected under a package agreement endorsed by the *Exxon Valdez* Oil Spill Trustee Council and the Eyak Corporation Board of Directors.

The Trustee Council agreed July 2 to spend $45 million over a 5-year period to protect the habitat through a combination of fee simple purchase, conservation easements and timber easements.

If approved through a shareholder vote, the package will protect habitat in the wooded shoreline areas of Nelson Bay, Eyak Lake and Hawkins Island, much of it visible from the City of Cordova. Port Gravina, Windy Bay and Sheep Bay, which are considered among the most valuable parcels in Prince William Sound for recovery of injured species, are also included in the package deal.

"This moment has been a long time coming," said Nancy Barnes, president of Eyak Corporation. "We are so pleased that through the diligence and good faith of the Trustee Council and our Corporation, we have reached this milestone."

The Trustees and Eyak Corporation officials were unanimous in their collective sigh of relief at the conclusion of the negotiations. They thanked each

See Eyak, Page 2

Eyak Corporation

Continued from Page 1

other and the negotiators for their "patience and persistence" in coming to an amicable agreement.

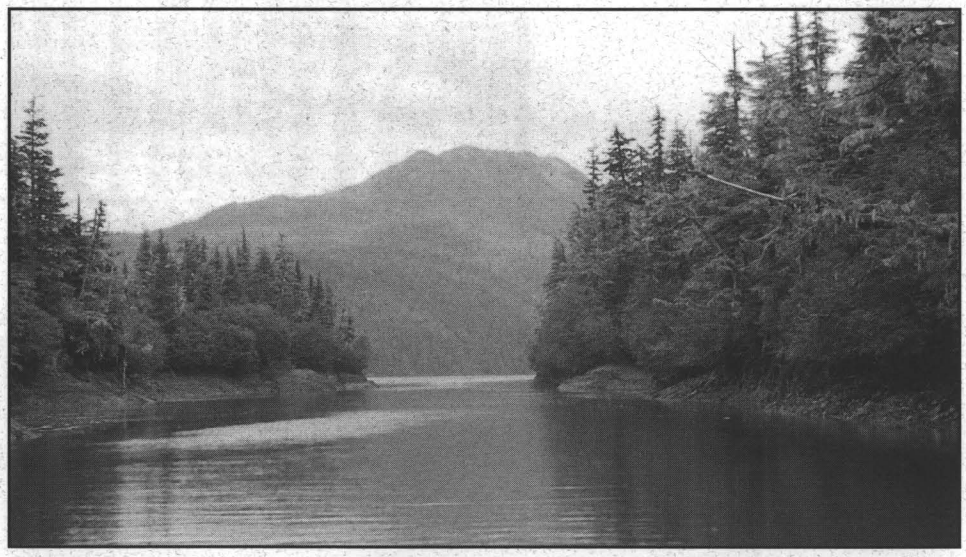
It took more than four years. At times, they all agreed, it looked like it might never happen.

"I had my doubts whether this day would come and now that it has I'm relieved that it's here," said John Johnson, chairman of Eyak Corporation.

The habitat protected includes approximately 80 anadromous fish streams, numerous lakes and lagoons, approximately 50 miles of freshwater shoreline and 150 miles of saltwater shoreline.

The package contains: 5,357 acres surface fee lands; 6,667 acres conservation easements; and 13,401 acres timber easements; for a total of 75,425 acres.

"This agreement has been a long time in the making and represents the cooperative efforts of everyone involved," said Regional Forester Phil Janik, of the U.S. Forest Service. "The effort has paid off with everyone coming out ahead. It not only protects the injured species, but also protects the shareholders of Eyak Corporation and the people of Cordova, all of whom were also severely impacted by the spill."



Looking out from "Hole in the Wall" to Simpson Bay. Photo by Nancy Bird.

The Trustee Council received several hundred letters, cards, faxes and e-mail messages, dating back to 1993, in support of a habitat protection agreement with Eyak.

Numerous bird species injured by the spill use the Eyak lands for nesting, feeding, molting and wintering. The area is important to pink salmon, sockeye salmon, cutthroat trout, Dolly Varden, Pacific herring, bald eagles, black oystercatchers, harbor seals, harlequin ducks, river otters and sea otters. The entire region is popular for recreational purposes and subsistence food gathering.

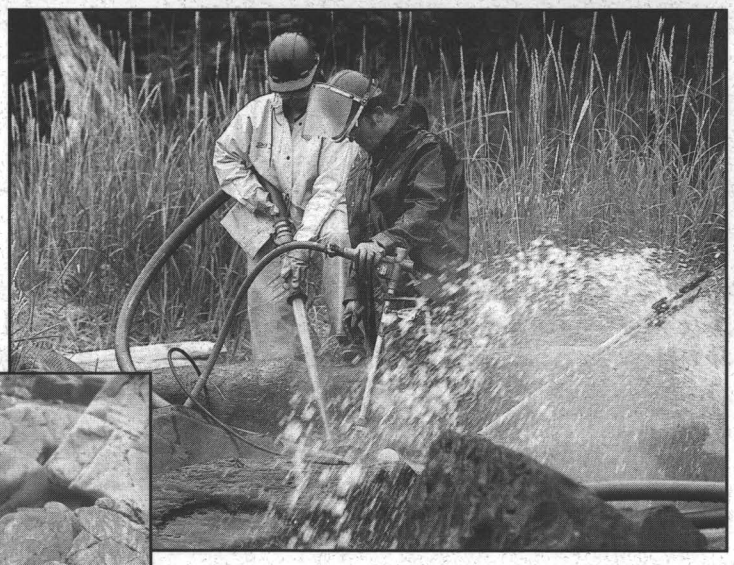
Most of the land would be administered as part of the Chugach National Forest. One smaller tract would be managed by the Alaska Division of Parks and Outdoor Recreation as part of the existing Canoe Passage State Marine Park.

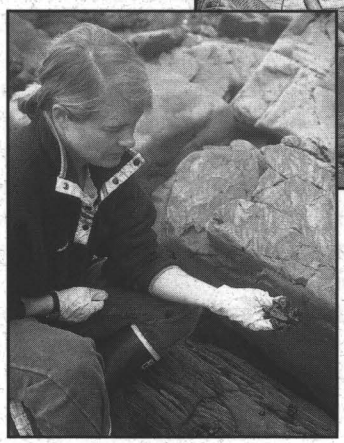
"What we are accomplishing here is historic," Barnes said. "In addition to providing substantial benefits to the public, if approved by our shareholders, this agreement will go a long way toward helping our village corporation achieve some of the underlying goals and promises of the Alaska Native Claims Settlement Act, including to protect and commemorate our rich and diverse cultural heritage and to provide a lasting legacy from these lands of sustainable economic and educational opportunity for our children and for generations to come."

Eyak Corporation's land entitlement is approximately 150,000 acres. Under the agreement, the corporation would retain approximately 100,000 acres with some of that land having conservation easements. It would also keep strategically located small parcels for future development and for their shareholder land use program.

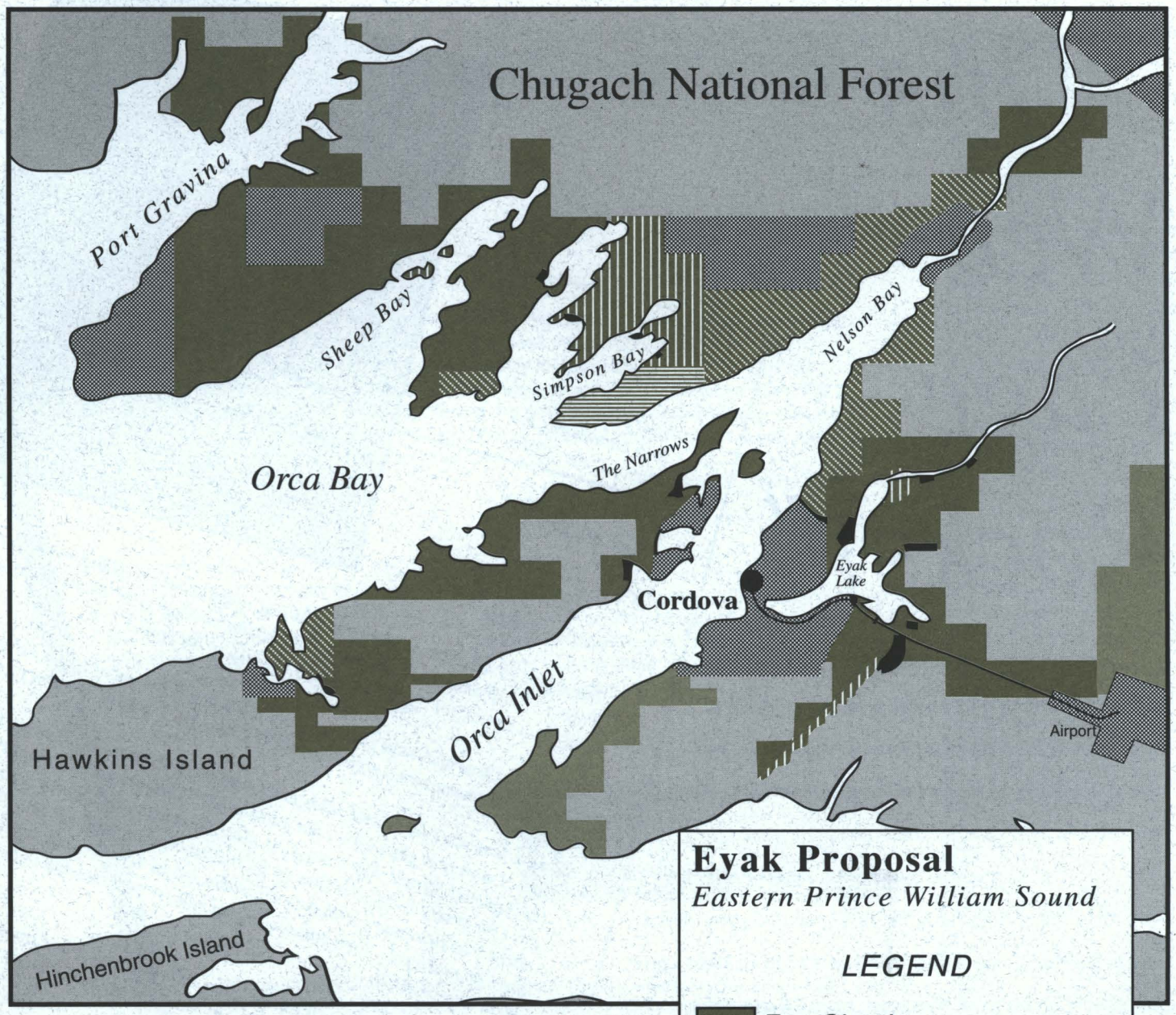
Cleanup crew tackles Chenega beaches

Photos by Roy Corral





Eight years after the spill, a crew of mostly Chenega Bay residents returned to local beaches in June to clean oil entrenched under rocks and sand. The $2.1 million cleanup focused on beaches popular for subsistence and recreation. At left, the DEC's Dianne Munson samples Exxon Valdez oil dug from a crevice between two rocks. Above, cleanup workers inject pressurized air along with a chemical agent known as PES 51 to loosen the oil. The oil and PES 51 were washed to the water's edge where both were picked up by absorbant booms and towels.



"THE EFFORT HAS PAID OFF WITH EVERYONE COMING OUT AHEAD. IT NOT ONLY PROTECTS THE INJURED SPECIES, BUT ALSO PROTECTS THE SHAREHOLDERS OF EYAK CORPORATION AND THE PEOPLE OF CORDOVA, ALL OF WHOM WERE ALSO SEVERELY IMPACTED BY THE SPILL."

PHIL JANIK
ALASKA REGIONAL FORESTER

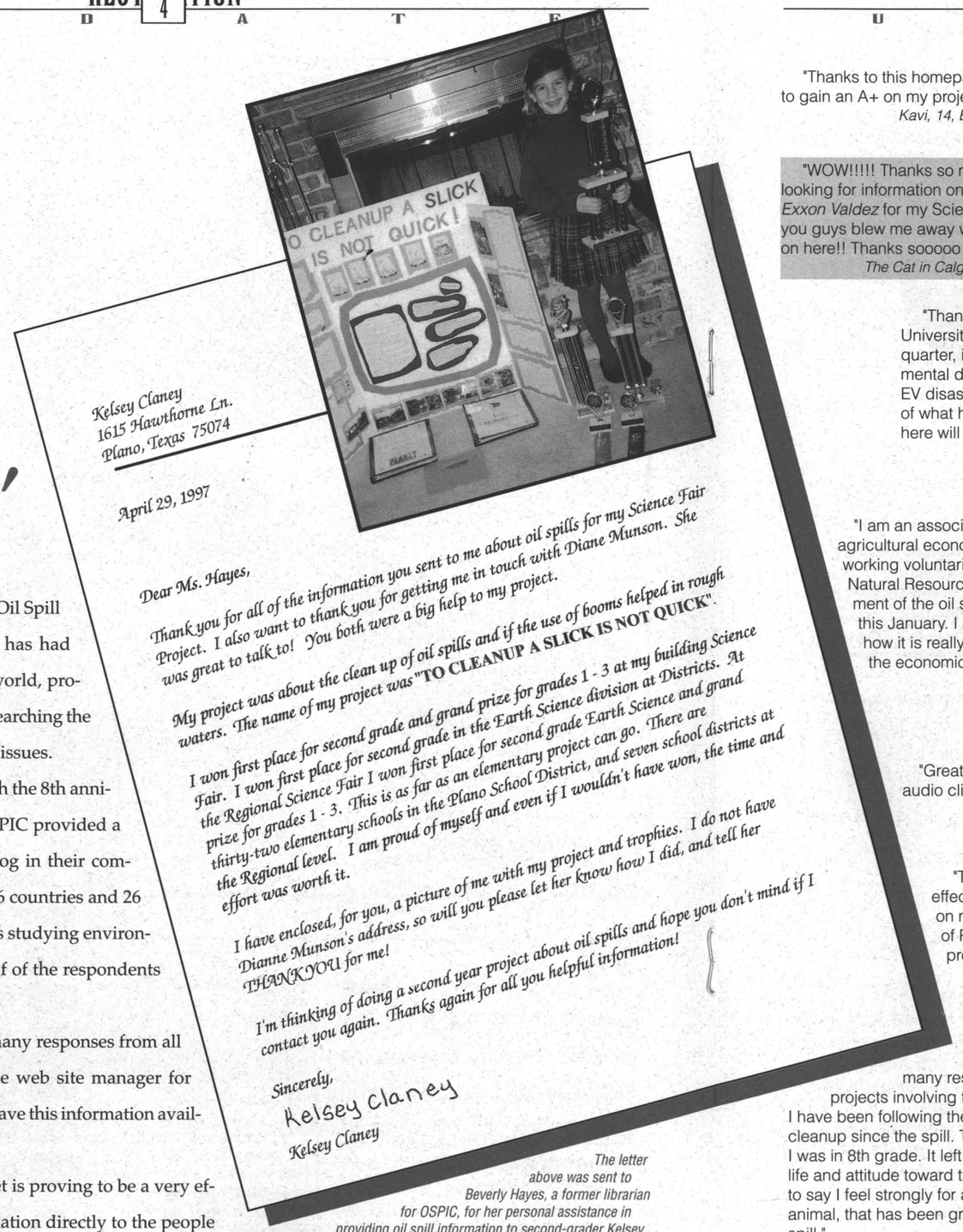
"This Web Page Rocks!"

Since it went online in May 1996, the Oil Spill Public Information Center's web page has had more than 54,000 hits from around the world, providing a valuable resource for anyone researching the *Exxon Valdez* spill and oil transportation issues.

During a 60-day period beginning with the 8th anniversary of the spill (March 24, 1997), OSPIC provided a means for the users of the web site to log in their comments. It resulted in 93 messages from 16 countries and 26 states, mostly from students and teachers studying environmental and safety issues. More than half of the respondents were under the age of 20.

"It's been very rewarding to see the many responses from all over the world," said Jeff Lawrence, the web site manager for OSPIC. "People are very appreciative to have this information available to them."

Lawrence pointed out that the Internet is proving to be a very effective method of getting oil spill information directly to the people who really want it. On the following page is a sampling of comments.



Kelsey Claney
1615 Hawthorne Ln.
Plano, Texas 75074

April 29, 1997

Dear Ms. Hayes,

Thank you for all of the information you sent to me about oil spills for my Science Fair Project. I also want to thank you for getting me in touch with Diane Munson. She was great to talk to! You both were a big help to my project.

My project was about the clean up of oil spills and if the use of booms helped in rough waters. The name of my project was "**TO CLEANUP A SLICK IS NOT QUICK**".

I won first place for second grade and grand prize for grades 1 - 3 at my building Science Fair. I won first place for second grade in the Earth Science division at Districts. At the Regional Science Fair I won first place for second grade Earth Science and grand prize for grades 1 - 3. This is as far as an elementary project can go. There are thirty-two elementary schools in the Plano School District, and seven school districts at the Regional level. I am proud of myself and even if I wouldn't have won, the time and effort was worth it.

I have enclosed, for you, a picture of me with my project and trophies. I do not have Dianne Munson's address, so will you please let her know how I did, and tell her THANKYOU for me!

I'm thinking of doing a second year project about oil spills and hope you don't mind if I contact you again. Thanks again for all you helpful information!

Sincerely,

Kelsey Claney

Kelsey Claney

The letter above was sent to Beverly Hayes, a former librarian for OSPIC, for her personal assistance in providing oil spill information to second-grader Kelsey Claney of Texas. Claney provided a photo showing all her ribbons and trophies won as a result of her science fair exhibit on oil spills.

"Thanks to this homepage i was able to gain an A+ on my project."
Kavi, 14, Bangkok, Thailand

"WOW!!!!! Thanks so much !!!!! I was looking for information on the topic of the *Exxon Valdez* for my Science Fair project and you guys blew me away with everything that's on here!! Thanks sooooo much!!"
The Cat in Calgary, 13, Calgary, Alberta,

"Thank you for the information. I am an instructor and doctoral student at the University of Toledo and am teaching a class in Environmental Health this quarter, in which my students are presently learning about major US environmental disasters. Many of my students were only 10 or 11 years old when the EV disaster occurred and know few of the details or environmental implications of what happened in Prince William Sound. The information you have provided here will aid in their understanding; thank you."
Kerry, 36, Toledo, Ohio

"I am an associate majoring in agricultural economics. Now I am working voluntarily as a member of the Natural Resource Damage Assessment of the oil spill by Russian tanker this January. I am now researching how it is really possible to estimate the economic value of nature."
Hiroshi, 41, JAPAN

"Great Site!!! I really like the audio clip, check it out!!!"
Joe, Toledo, Ohio

"I have completed many research papers and projects involving the *Exxon Valdez* oil spill. I have been following the cleanup and progress of cleanup since the spill. The spill took place when I was in 8th grade. It left quite an impact on my life and attitude toward tankers. This is just a note to say I feel strongly for all the life, human and animal, that has been greatly effected by the spill."
Jennifer, 21, Big Rapids, Michigan

"Wow. . . I am so glad that people are not trying to keep this spill quiet. Instead you opted to turn it into a learning experience. What I found here impressed me. Thank you."
Kris, 17, Martinez, California

"THIS PAGE ROCKS. IT WAS A GREAT HELP."
Steve, 13, Auckland, New Zealand

"ok page, but you could do better. i'm doing a term paper on the spill, it's taking a lot of work so i came here! by the way, valdez looks great; i took a fjord tour the other day, and i saw a bunch of sea otters. bye."
Jessi, 13, Valdez, Alaska

"I am doing a research paper on the Valdez spill and I find it interesting how the media portrayed the incident compared to what really happened."
Heather, 19, Green Pond, New Jersey

"The world needs sites like this to develop a knowledge base and insight into the effects of pollution and solutions. I believe that pollution has had negative effects on my health and also on friends families. We may need to develop a new science of Pollution Medicine. I am very grateful to you for your groundbreaking efforts to provide urgently needed insight. Thank you."
Ralph, 42, Milwaukee, Wisconsin

" '. . . where there is life THERE IS HOPE", don't ever forget this. . . ' Congratulations OSPIC."
Jose, 20, Monterrey, Mexico

Visit the OSPIC Web Site at
http://www.net/~ospic
Visit the new Restoration Office Web Site at
http://www.oilspill.state.ak.us

New web site, CD Rom offer wealth of restoration data

The Restoration Office recently introduced a new web site which offers more information about restoration, habitat protection, and research projects.

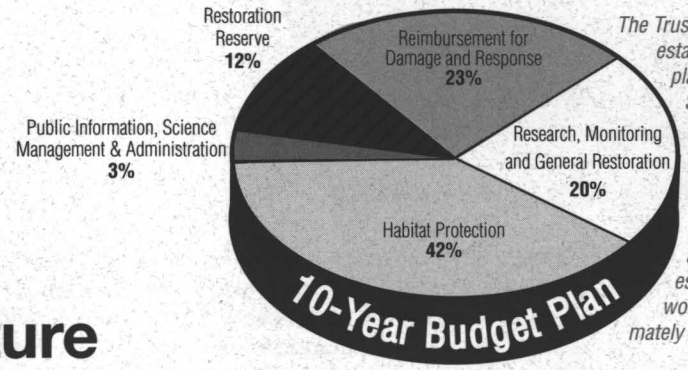
Do you need to know more about the recovery of orcas? Click on Injured Resources and Services. Click on List of Injured Species and then click Killer Whales. You will find a complete description of injury and recovery. Click on Query Database and you get a complete list of killer whale projects dating back to 1989. Click on a given project and you can read the abstract of that report. It then provides information on how the full report can be obtained.

The Oil Spill Research and Restoration CD Rom is also available. It uses a Geographic Information System (GIS) to provide data from the spill cleanup, damage assessment and restoration efforts. It also provides a full project bibliography and the Hydrocarbon Database.

To obtain the CD, contact the Restoration Office or locate the request form on the new web site: http://www.oilspill.state.ak.us.

The Restoration Reserve

It's time to start planning for the future



The Trustee Council established a budget plan through September 30, 2002. The Restoration Reserve has been set aside for possible use at that time. It is estimated it will be worth approximately $150 million.

Four years ago, the Trustee Council was faced with a historic choice: Which path should it take to best help the ecosystem recover from the *Exxon Valdez* oil spill?

After an inclusive public process, the Council adopted a course combining habitat protection, restoration projects, and research and monitoring. But it added a fourth element to provide flexibility for long term planning — the restoration reserve.

The restoration reserve is the Trustee Council's savings account. It was established to give the Council the option of continuing some sort of restoration program after the final payment is received from Exxon in the year 2001.

The long-term budget plan calls for the Trustee Council to set aside $12 million each year to create a $108 million reserve. With interest, it's projected that fund will grow to approximately $150 million by the year 2002.

Again, the Council is facing a historic choice: How should it use the reserve account? During the next year, the Council will be seeking public input on this important issue. The Council will be facing many tough questions.

- Should a permanent endowment be set up with annual dividends used to finance restoration projects? Or should the fund be budgeted for expenditure over a 10- or 20-year period?
- Should funds be used to acquire and protect more habitat? Should it be used for research and monitoring? Should it be used for community-based restoration projects? Or should it be some combination of the three?
- How should the fund be governed? Should a new trustee structure be developed?
- Should spending be limited to the designated spill region?

The Budget -- Making the Transition

During the next several years, the Council plans to gradually scale down the size of the annual work plan. The current work plan is budgeted at $16 million. Next year's target is $14 million and by fiscal year 2002, the Council plans to provide approximately $6 million for the work plan budget. At that point, funding for research, monitoring and restoration projects will either end or it will be supported by the restoration reserve. But at what level?

With an inflation-adjusted endowment, the fund could generate approximately $3 million to $6 million a year. But if the fund was set up to expire over a 20-year period, $12 million to $14 million could be available annually. A 10-year fund could produce $20 million to $22 million annually.

The Council -- Considering a New Structure

One of the biggest administrative and legal considerations concerns the structure of the governing body. Should the Trustee Council continue to oversee and allocate the funds? Should the 17-member Public Advisory Group continue to exist? To what extent should scientific peer review be continued?

Answers to those questions will also determine the funding needed for administrative costs. Each of those groups comes with a pricetag for meetings, transportation, per diem, and such. To bring administration costs down, some sort of restructuring will be needed.

Public Discussion -- What Do You Think?

The Trustees have expressed an interest in maintaining a federal/state process as a vital component of any future restoration program. At a forum held in Seward May 29, the Council opened the debate about its own future and the possible uses of the reserve.

"I think the idea of a multi-agency group with a process to involve the public has worked," said Trustee Frank Rue, commissioner of the Alaska Department of Fish and Game. "There has been some criticism of it, but I still think you don't get parochial agency views as much as you would if one agency or one entity were managing it. You get much broader perspective."

Assistant Attorney General Craig Tillery, representing Attorney General Bruce Botelho on the Trustee Council, agreed with Rue but added that a new structure might be needed. "I've given this a fair amount of thought over the last couple of years," he said. "My own view is the Council needs to go out of business about the year 2001 and it needs to be replaced, perhaps by something with very many of the same agencies, but with a public component."

During a recent visit to Seward, the Council invited local residents to give their opinions about the restoration reserve. Seward resident Chuck Adams told the Council he thought a permanent endowment would be the best way to help injured species recover. "A lot of these sea creatures, they spend their entire lives at sea and there's no way to protect them other than through research," he said. "I really think research needs to be the future of this (fund)."

> *My own view is the Council needs to go out of business about the year 2001 and it needs to be replaced, perhaps by something with very many of the same agencies, but with a public component.*
>
> Trustee Designate Craig Tillery
> Assistant Attorney General

Reserve funds could also be used for habitat protection, either through acquisition of strategically located smaller parcels or by protecting larger tracts of 1,000 acres or more. Though most of the habitat protection goals have been met, it's clear that there is not enough money available to protect all of the parcels currently under consideration, according to Executive Director Molly McCammon.

"The Trustee Council will be facing some very tough choices with the restoration reserve because it's likely some very important parcels — each with its own public support and community support — will not be funded under the current budget," she said.

The Trustee Council plans to seek public comment from throughout the spill region in the same way it did four years ago in establishing the current restoration program. Public meetings will be held in spill area communities during the first half of 1998 and a final decision is expected by the end of the year.

For planning purposes, the decision must be made well in advance of the last payment from Exxon in 2001, McCammon said. Any changes to the structure of the Trustee Council and its funding would likely require changes in law that could take years to complete, she said.

What are your ideas for the future of restoration?

The Trustee Council is seeking your input about the future of the Council and the possible uses of the Restoration Reserve. Your opinions and ideas will be used to assist staff in developing a spectrum of options for consideration by the Trustee Council.

To submit initial ideas and comments to the Council, please consider the following questions:

- Should a permanent endowment be set up with annual dividends used to finance restoration projects? Or should the fund be budgeted for expenditure over a 10- or 20-year period?
- Should funds be used to protect more habitat? Should it be used for research and/or community restoration projects? What other options should be considered?
- How should the fund be governed? Should a new trustee structure be developed? Should the 17-member Public Advisory Group continue to exist? To what extent should scientific peer review be continued?
- Should spending be limited to the spill region?

The Public Advisory Group will use your comments in considering the issue at its November meeting. The Council is then scheduled in December to decide on the list of options to take to the public for formal comment.

Members of the Public Advisory Group discussed ideas for the Restoration Reserve during their July meeting. From left to right are Nancy Yeaton of Nanwalek, Howard Valley of Kodiak, Chuck Totemoff of Chenega Bay, Stacy Studebaker of Kodiak, Charles Meacham of Juneau and Mary McBurney of Anchorage.

A final list of options will be published by January 1, 1998 and distributed throughout the spill region. The public will have until May to submit comments on the various options. Public workshops will be held in spill-area communities in February and March to ensure residents are informed about the options and have a chance to state their opinions.

Please submit any written comments by October 1 or let us know if you want to be part of the reserve planning process. Send comments to the Restoration Office at 645 G Street, Anchorage, AK 99508 or fax to 907-276-7178 or sent via e-mail to: kerih@oilspill.state.ak.us.

Trustees approve $13.1 million work plan for fiscal year 1998

The Trustee Council approved its work plan for fiscal year 1998, providing $13.1 million for research, monitoring and general restoration projects for the Kodiak Island, Kenai Peninsula and Prince William Sound regions.

The FY98 Work Plan is the document that sets the Trustee Council budget and identifies restoration projects, scientific studies and administrative duties for the fiscal year beginning October 1. Altogether, approximately 100 research, monitoring and restoration projects were funded for next fiscal year. The Council approved the plan during its August 6 meeting.

In Prince William Sound, the work plan will fund $683,000 for herring research in Prince William Sound and $2.3 million for the Sound Ecosystem Assessment (SEA) project, which seeks to understand the dynamics influencing pink salmon and herring productivity in the sound. The majority of research projects funded by the Council will take place in the sound, some of them through the Prince William Sound Science Center in Cordova.

The work plan also provides funding for the release of coho salmon in Boulder Bay to create a subsistence fishery for Tatitlek residents, the stocking of sockeye salmon in Solf Lake on Knight Island, and $150,000 to the Chugach School District to maintain a program which gets students involved in restoration research projects.

Kenai Peninsula projects include $491,000 for Kenai River habitat improvements, evaluation of sockeye enhancement potential at Delight and Desire lakes on the southern coast of the Kenai Peninsula, and enhancement of the pink salmon return to Port Graham, evaluation of habitat improvements to Port Dick Creek to restore use by native salmon stocks.

Several research projects funded under the work plan are to be operated for the first time from the Alaska SeaLife Center in Seward. The SeaLife Center will provide facilities, equipment and support staff for five research projects studying pink salmon, rockfish, pigeon guillemots, harbor seals and river otters.

In the southern part of the spill area, the Council is funding enhancement of the coho run in the Kametolook River near Perryville on the Alaska Peninsula, training of village-based technicians to take biosamples from harbor seals for use by researchers, local stewardship of archaeological resources on Kodiak and Shuyak islands, and the final phase of improvements to the Little Waterfall Creek barrier bypass.

The Council approved an additional $12 million to go into a restoration reserve account and $2.8 million for administration, science management and public information.

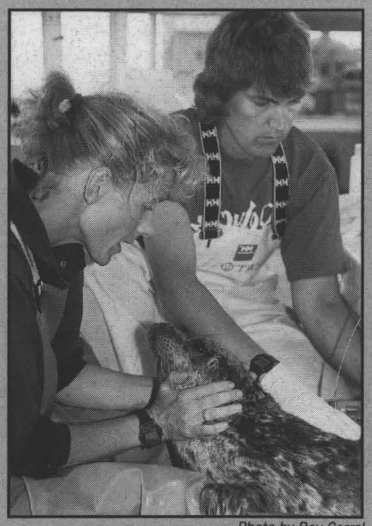


Photo by Roy Corral

Talking to the animals

Dr. Sara Iverson talks to a seal pup to keep it distracted as Kathy Frost, marine biologist for the Alaska Department of Fish and Game, prepares to take measurements and blood samples. The pups are intrigued by Iverson's soothing voice, but the method does not work on adults.

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