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NEWS

METRO

MONDAY, January 4, 1999 ★★

ANCHORAGE DAILY NEWS

SECTION B

Panel to view flexible salmon rules

By TOM KIZZIA
Daily News reporter

Some bedrock principles of Cook Inlet salmon management will be up for reconsideration when the state Board of Fisheries travels to Soldotna next month for a major two-week meeting.

With popular Kenai River kings, for example, serious doubts about the way the state has counted fish with sonar have given rise to proposals for new ways of managing the sportfishery. State fishery biologists say the new proposals should mean more flexibility and a season less prone to interruptions.

With the Inlet's biggest salmon run, the Kenai River reds, biologists say the board will debate whether to drop its longstanding rule against "overescapement" — that is, allowing so many reds to spawn that the next generation of fingerlings may not have enough food.

Dropping that rule could mean greater cycles in the river's salmon production and reduced commercial harvests. But it could also mean more fish available to sportfishermen in big years, and give the state more flexibility to build up some of the Inlet's smaller secondary runs.

Because the sport-, commercial and

personal-use fisheries are vital to the economies of Southcentral Alaska — and to filling the freezers of residents here — the Cook Inlet meetings always attract intense attention from fishing groups.

That may be truer than ever, state Department of Fish and Game biologists say, when some of the underlying principles of past meetings are re-examined this time by the seven-member appointed board.

The Fish Board is scheduled to meet Feb. 16-28 in Soldotna.

For Kenai kings, fisheries managers have long counted the numbers of king salmon en-

tering the Kenai River with underwater sonar, watching to make sure there will be enough spawning for future runs. Sportfishing on the river has been cut back or eliminated when the sonar count fell short of precise targets.

But new studies show the state's sonar ticker has been faulty, sometimes registering red salmon as kings. That has forced biologists to begin using other methods to help calculate run strengths, such as test nets in the river and close monitoring of commercial and sport

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Anchorage Daily News

FISH BOARD: Principles of salmon management face scrutiny

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catches, said Kevin Delaney, director of the state's sportfish division.

Biologists are now drawing up plans for managing Kenai kings that puts less emphasis on reaching a specific sonar target, Delaney said. The result of using broader target ranges should be a more stable sportfishery, with fewer emergency cutbacks and closures, Delaney said. The June king fishery, for example, has been restricted in five of the past 10 years, upsetting summer plans and drawing complaints from anglers and guides.

An even more fundamental principle in Cook Inlet has been managing to hit the ideal maximum number of spawning reds in the Kenai River, the region's biggest producer — even when that means less-than-

ideal spawning numbers in some of the Inlet's smaller streams.

This idea of trying to achieve "maximum sustained yield" on the Kenai has been credited with helping bring back commercial fishing in the Inlet, where runs were depleted in the 1950s and 1960s.

But some sportfishermen say that system tilts all management decisions toward commercial priorities. In recent years, some biologists have talked of managing the river instead to reach more flexible "optimal" spawning numbers.

An "optimal" system would result in greater variations in Kenai River runs, biologists say. Oversized runs one year might result in undersized runs several years later, where existing management does its best to manage for consistent returns. But commercial fishing could

be restricted without fear of exceeding a maximum in-river number, allowing weak runs in other river systems to be built up, backers of the "optimal" system say. And up-and-down cycles in the Kenai are not expected to hurt the river's long-term health.

"The Kenai River system, in the absence of any fisheries, cycled probably fairly dramatically," said state commercial fisheries biologist Ken Tarbox.

The debate over managing for biological maximum returns vs. optimal returns has been taking place in the wings for several years, alongside the debate over maximizing strong stocks vs. protecting weak stocks.

"I think it's going to be on center stage this time," Delaney said. "I think it's a very important discussion to have."

Biologists already plan to ask the board to increase the number of reds allowed to spawn in the Kenai as a way of improving yield under the existing system, said Tarbox. But the higher spawning goal, set by new computer generated models, won't necessarily mean more fish in the river, he said.

Whether that means the board will want to cut back commercial fishing and allow more reds into the river is an allocation decision up to the board, Tarbox said.

The existing "biological escapement goal" is for between 330,000 and 600,000 reds to pass the sonar counter at river mile 19. The board has therefore set a target of 550,000-800,000 to pass the counter, reasoning that the extra fish will be caught by anglers.

But anglers have not been catch-

ing all those extra reds, Tarbox said. When Fish and Game asks that the biological escapement goal be raised to 450,000-750,000, the board could decide to keep its existing in-river target, he said.

On the other hand, if the board adopts a more flexible "optimal" system it could raise the in-river target, he said, not worrying if the result is an "overescapement" that suppresses future runs by overloading the river system's rearing capacity.

"If your underpinning has always been maximum sustained yield on the Kenai, it constrains what you can do," Tarbox said. "If you take those underpinnings away, a lot of constraints are removed... This meeting is going to be an eye-opener."

Reporter Tom Kizzia can be reached at tkizzia@adn.com.

Chignik Lake shakes burden of Exxon Valdez spill

Editor's note: It has been eight years since the Exxon Valdez ran aground in Prince William Sound, spilling nearly 11 million gallons of Alaska crude oil. Time has since told quite a lot about the spill's long-term effects. To help tell the story, the Exxon Valdez Oil Spill Trustee Council is providing this column focusing on the ongoing recovery within the spill region.

By JODY SEITZ

It was September, the end of the commercial fishing season. Some Chignik Lake residents were hunting, making those final critical forays into the foothills below Mount Veniaminov for meat to hold them all winter.

As it has been for centuries, subsistence is essential to this Alaska Peninsula village. It's one of the most remote places in the state. During the fishing season planes may come through the mountain pass regularly, but in winter, snow, fog and wind can shut down air traffic for days. With welfare cutbacks and low salmon prices, subsistence is even more critical, according to local resident Sam Stepanoff.

"It's pretty hard for big families as they cut down on this welfare stuff," Stepanoff said. "If it

wasn't for subsistence we'd never make it around here — no way."

Mitchell Lind doesn't see survival here as difficult; to him the land is bountiful. "There's not many jobs, so a lot of people subsistence hunt and live off the land. Caribou, moose, bear, ducks, seals, fish, we live off everything here. You have to be pretty lazy not to survive around here."

But both Stepanoff and Lind recalled that for a while after the spill, marine resources seemed threatened. In 1989, commercial fisheries were closed as oily sheens glided more than 500 miles from Bligh Reef, down the Alaska Peninsula, past Chignik, as far as Ivanof Bay.

Locals had been accustomed to a rich palette of shellfish, seal and ducks. The oil spill contaminated the water and put marine resources — salmon, seals, and shellfish — in a risky light. Mitchell Lind says he got back to hunting and fishing within



Restoration and recovery following the Exxon Valdez oil spill

*Alaska
Coastal
Currents*

a year of the spill, but others were more cautious.

"You have to think about the cycle of the fish. A lot of people were concerned about the small fry that were coming out that year," said Lind. "They were worrying if they were going to come back contaminated, because when they come up from the river here they stay in the lake for a year, then go out to the ocean for three or four years, and then they come back in. A lot of them were thinking about that cycle — the fish that were going out that year."

Nearly 10 years have passed, and the community seems to be past the oil spill. The local health aide doesn't see any lingering emotional issues from the oil spill in the community.

"We're at the outer edge of it, so there wasn't so much of an impact here," said Eddie Slaton, "but people were worried about what was going on." Lind, Stepanoff and some village elders say the seals and eiders seem to be coming back. And even though the salmon prices are low, the runs to the Chignik River are large enough to provide for subsistence.

Jody Seitz lives in Cordova and also produces the Alaska Coastal Currents radio program.

Support voiced for bears

Managers urged to protect habitat

By TONY LEWIS
Daily News Peninsula Bureau

SOLDOTNA — Land managers on the Kenai Peninsula need to be more friendly to wildlife and recreation, according to public comment on a plan to govern the use of roughly 5 million acres of state-owned land.

More than 200 people attended a series of open houses designed to gather opinions on a draft of what the Alaska Department of Natural Resources calls the Kenai Area Plan. The state also received 500 letters commenting on the draft.

According to the public's comments, the state isn't doing enough to protect wildlife habitat, especially for Peninsula brown bears.

Biologists believe the bear population here is healthy, but nearing a critical point. The large omnivores have received increased public attention lately as logging and development encroach on their habitat.

To protect the bears, many of the comments suggested:

- Conserving corridors along streams where brown bears feed on salmon in the summer.
- Restricting activities where brown bears may live until more studies can be done.

Please see Page C-3, BEARS



JIM LAVRAKAS : Daily News file photo

State biologists tattoo the ear of a brown bear near Hidden Lake in September 1997. Biologists believe the Kenai Peninsula's bear population is healthy, but approaching a critical point.

BEARS: Public speaks up for protection of Kenai Peninsula's bruins

Continued from Page C-1

- Prohibiting large-scale logging in bear habitat.

In contrast, a few people said there are plenty of bears on the Peninsula and no new land should be set aside for them.

Alison Arians, a land-use planner with the state's Division of Land, emphasized that while public opinion is important, other factors are weighed in making decisions about what goes into the plan.

"This is not a vote," Arians said.

Another area of the plan that caught public attention is the addition of 70,000 acres to the state park system and 10,000 acres to the Kenai River Special Management Area.

Proposed additions to the state parks include a large block of land abutting Captain Cook State Park in Nikiski, Watermelon Trail north of Homer and Cook Inlet bluff property on Coho Loop in

Kasilof, among others.

While most people supported the additional park lands, there was mixed opinion on new Kenai River Special Management Area land. Some approved of adding Quartz Creek, Daves Creek and land around Kenai Lake to the special management area, but many others signed a form letter that objected to the additions.

The Kenai Area Plan also designates land that will be used for community growth. The Kenai Peninsula Borough is waiting to choose 44,000 acres the state sets aside for development.

Borough Planning Director Lisa Parker said the borough will use that land for schools, solid-waste facilities, gravel pits and other community projects. Some of the tracts will also be sold to the public as the Peninsula's population and demand for land grow.

But many of the people who wrote in objected to turning over land to the borough.

"It's kind of frustrating when you know you have an entitlement to the land and now people are saying don't give it to the borough," said Parker.

The next step is for a team of federal, state and borough representatives to review the public comments and amend the plan. That should be completed by March.

The public will then have a chance to comment on the changes before a final plan is prepared. If all goes as scheduled, the document should be adopted in the summer.

A complete list of the public comments is expected to be on the Internet starting today at www.dnr.state.ak.us/land/kenap/intro.htm. A newsletter that summarizes the comments is available through the Alaska Department of Natural Resources' Division of Land.

□ Reporter Tony Lewis can be reached at tlewis@adn.com.

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SUPPORT VOICED FOR BEARS MANAGEMENT
URGED TO PROTECT HABITAT.

1998

Poor fishing overshadows cannery fire

SHANA LOSHBAUGH
Peninsula Clarion

No single event dominated 1998 on the Kenai Peninsula, but the year held hints of big changes as the century winds down.

Peninsula communities have different reasons to remember 1998: promising new ventures in Kenai, Seward and Nikiski; the loss of a business landmark in Homer; a birthday party in Soldotna.

Fish and trees ailing

Major resource industries had a rocky year in 1998.

An infestation of spruce bark beetles reached epidemic proportions, especially on the south peninsula. By summer's end, about half the peninsula's forests — approximately 1.1 million acres — were affected.

A task force, funded by \$500,000 from Congress and representing Native, environmental, tourism, fishing, timber and local government groups, met last spring to plan how to deal with the insects. Its recommendations addressed fire danger, public education, and forest management. Members set aside \$370,000 to carry some of them out, but that money has yet to be spent.

Alaska Sen. Frank Murkowski visited Kenai and chaired a hearing in August to review the findings, and said the next step is to seek federal funds. The response could cost more than \$10 million.

Fish forecasts were as dismal as the forestry situation.

The disappointing summer season saw Kenai River fishing restrictions, Cook Inlet central district closures, poor king salmon runs and the poorest sockeye salmon run in 20 years.

The 1 million sockeye harvested earned the industry roughly \$6 million. In 1997, the sockeye harvest was 2.5 million and its payoff was \$31 million.

Some commercial fishers lost money, and the poor harvest had a spillover effect for some guides, motels and others who rely on fishing to bring in tourist dollars.

The new year is unlikely to remedy the situation, as the commercial sockeye outlook in the central district of Cook Inlet over the next two years is for even worse harvests than that of 1998, said Paul Ruesch, commercial fishery biologist for the Soldotna Fish and Game office.

A year of grand openings

Peninsula residents launched new public facilities that will contribute to the education of future generations.

The Alaska SeaLife Center opened its doors May 2 on the Seward waterfront. The \$56 million facility, built mostly with funding from the Exxon Valdez oil spill settlement, features state-of-the-art displays and research laboratories focusing on marine life. Star attractions include puffins, seals and endangered Steller sea lions. School groups, tourists and scientists hailed the new landmark.

In Kenai, the Pacific Rim Institute of Safety and Management (PRISM) was dedicated June 18. Built and owned by AAI/Engineering Support Inc., it has already graduated its first students. The adjacent Alaska Regional Aircraft Fire Training Center is associated with PRISM and run by the same management team, but owned by the city of Kenai.

Kenai also became home to the Peninsula Job Center. Offices for the state Department of Labor, Division of Public Assistance, Child Support and the Division of Community and Rural Development combined their Kenai and Soldotna operations and moved into newly remodeled space in the old Capps Mall on Nov. 1. The consolidation follows national legislation to deliver services using this "no wrong door" approach by July 1, 2000.

Over in Soldotna, residents got a new water reservoir, part of a massive upgrade of the town's utility infrastructure.

State road crews at Soldotna got a new roof over their heads. In June, the Department of Transportation and Public Facilities moved its graders, plows and pothole fixers out of the old shop downtown and into a new \$3 million, 6,000 square-foot facility south of town.

The old shop, which had housed crews since the 1950s, was demolished in the final phase of a massive three-year cleanup project on its lot. The state spent about \$1.1 million to dig up and burn gas and oil that had dripped into the ground over the decades and threatened the Kenai River.

Biologists want more salmon to escape

KENAI — A higher escapement quota for red salmon on the Kenai River may be recommended to the state Board of Fisheries when it meets early next year in Soldotna. Fish biologists on the Kenai Peninsula believe that raising the spawning goal will help boost red salmon populations in the Kenai and its tributaries. The current escapement range is 330,000 to 600,000 fish. Biologists want those numbers raised to 450,000 to 700,000 fish.

Daily News staff and wire reports

Council boosts P-cod quota but slices blackcod

PACIFIC COD SEASON BEGINS TOMORROW on the Gulf of Alaska, with a slightly higher quota than in 1998. The North Pacific Fishery Management Council, meeting last week in Anchorage, raised the total allowable catch to 67,835 metric tons. That leaves almost 16,600 metric tons for state-waters fisheries that begin later in the year. The Kodiak Daily Mirror reports that domestic cod markets look good, with frozen block supplies in November 33 percent lower than they were a year earlier. New England cod catches will drop because of closures there, and elsewhere around the Atlantic harvests are on the decline.

BLACKCOD FISHERMEN will have a bit less fish to catch in the coming year. The council lowered the total allowable catch to 12,700 metric tons, down from 14,120 this year. Longliners landed only 12,501 tons, however, so if they take their full quota in 1999 it will actually result in a higher catch.

THE KENAI RIVER ESCAPEMENT GOAL might rise if the Department of Fish and Game can convince the Board of Fisheries the additional sockeyes can boost future harvests. The current goal is 330,000 to 600,000; new computer models suggest that should rise to 450,000 to 750,000, said Ken Tarbox, research project leader in Soldotna. In actuality, he said, biologists regularly allow more fish into the river than the goal suggests, averaging some 750,000 in recent years. But if runs cool off because of environmental changes, the higher escapement should be a benefit to fishermen over the long run.

OF GREATER CONCERN TO DRIFT and setnet fishermen in Cook Inlet is what the Board of Fisheries does with the in-river escapement goal for the Kenai, Tarbox said. Sport fishermen normally take about 15 percent of the sockeyes that make it past the counter, which is located just below the bridge in Soldotna. The current in-river goal — the number of fish that actually spawn — is 550,000 to 800,000, but pressure is on to raise the number. The board

meets in Soldotna from Feb. 16-28.

THE KASILOF RIVER STOCKING PROGRAM has been threatened by a lawsuit filed against the U.S. Fish and Wildlife Service. Trustees for Alaska filed the suit on behalf of the Wilderness Society and the Alaska Center for the Environment, which claim the stocking program flies in the face of a ban on all commercial activity within wilderness areas. Tustumena Lake is with the Kenai National Wildlife Refuge. The Department of Fish and Game started the stocking program years ago, planting upwards of 17 million fry in the lake, according to Fish and Game's Ken Tarbox. In the 1980s, however, the department grew concerned about the potential for enhanced stocks overwhelming native stocks, and reduced the stocking program by 60 percent, to about 6 million. Cook Inlet Aquaculture Association took over the program and continues it still, Tarbox said, though its contribution to Cook Inlet commercial fishermen is minor. He estimated the total return at about 60,000, of which perhaps 40,000 are caught, and it's possible that native fish would take up the slack if the enhancement program were halted.

TUTKA HATCHERY has a new manager. George Bowden has been named to run the facility, according to the latest issue of "Smolts," the newsletter of Cook Inlet Aquaculture Association. Bowden replaces Kadeon Waite, who had been the interim manager after long-time manager Dave Waite signed off earlier this year. Bowden has more than 20 years of experience working in fish hatcheries in the Pacific Northwest and Alaska, including Kitoi Bay Hatchery on Kodiak Island.

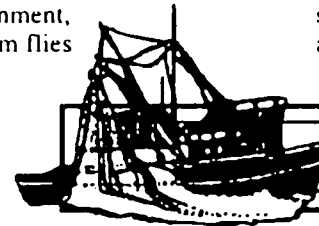
MARINERS WITH AN EYE TOWARD bumping their licenses to the 200-ton level may get to do their training in Seward. Alaska Vocational-Technical Center has just

received a \$2.5 million federal grant to buy a state-of-the-art vessel simulator, according to the Seward Phoenix LOG. In the past mariners working on their licenses needed only to pass a written test and have the proper number of hours of experience. But starting in 2002 the Coast Guard will require candidates to show proficiency on a simulator. To get access to such a simulator now, however, a mariner would have to travel to Seattle, San Francisco or

San Diego. The new machine in Seward will have four wheelhouses — a large ves-

sel, tug boat, fishing boat and charter boat — in which students can take the helm. The computer will generate graphics to simulate various local scenes, such as Resurrection Bay and Prince William Sound. The equipment should be ready for use next fall. Among the instructors will be former Homer fisherman Jim Herbert, who has taught at AVTEC for several years.

QUOTA SHARE PROGRAMS should be available once again to federal fishery managers, a commission of the National Research Council announced last week. As part of the Magnuson-Stevens Act reauthorization two years ago, Congress established a moratorium on new IFQ programs until 2000, and asked the NRC to survey fishermen, fishing communities and the fishing industry about their response to the four IFQ programs already in place — including Alaska halibut and blackcod. The commission found that quota share programs cause fishermen to work more efficiently and reduce stress on the resource by eliminating the race for fish. It concluded that the moratorium should be lifted so fishery management councils can use IFQs to rationalize fisheries under their jurisdiction, but suggested the councils consider charging fees for the initial allocation and open the allocation to other parties, including skippers and crew.



SEAWATCH

Joel Gay

A Look Back At The Exxon Valdez Spill...

10 Year Oil Conference Set

VALDEZ -- The final touches have been applied to an elaborate symposium that will recap the 10 years since the great Exxon Valdez oil spill of 1989.

At 11 million gallons, it remains the largest ever crude oil spill in the nation's history.

Billed as "Partners in Prevention: A Decade of Progress in Prince William Sound," the two-day conference will play itself out on March 21 and 22 with gatherings at the Civic Center and on-water tours in the spill areas of Prince William Sound.

The gathering is expected to draw heavyweights from business and politics, including three keynote speakers:

U.S. Senator Ted Stevens, Gov. Tony Knowles and Alyeska president Bob Malone.

Other speakers include the Valdez mayors in the post-spill era, Coast Guard officers and state bureaucrats.

The participants have been drawn almost exclusively from the white shirt, suit & tie ranks.

Absent from the symposium play list are such notables as Frank Iarossi, the president of Exxon Shipping, Steve McCall the Coast Guard Captain of the Port, Exxon's spill cleanup manager Otto Harrison, Coast Guard Commandant Paul Yost, appointed by President Bush to direct the overall operation,

Dan Lawn, the leading inspector for the state Department of Environmental Conservation, city manager Doug Griffin and others who were on-scene during the spill, during the cleanup, and into the post-spill period.

Also missing are any of the fishing boat skippers, working grunts like the on-shore swabbies, distressed fishermen, scientists, environmentalists, recreationists and others who were present at the spill and its aftermath.

EVOS Conference

A parallel conference is also planned by the Exxon Valdez Oil Spill Trustees Council, the federal/state agency formed in the wake of the spill to spend nearly \$1 billion in Exxon fine money to restore areas impacted by the spill.

The EVOS conference is entitled, "Legacy of an Oil Spill: 10 Years After Exxon Valdez."

The three-day event—March 23-27, will be played out entirely in Anchorage and will be limited to scientists and bureaucrats. ★

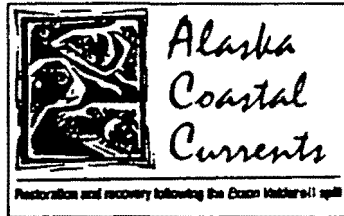
Forest Service Braces For Influx In The Sound

By Jody Seitz

Alaska Coastal Currents

With construction of the road to Whittier, the Glacier Ranger District of the Chugach National Forest is getting ready for increased use of the western Prince William Sound. Karen Murphy and Lowell Suring, wildlife biologists with the U.S. Forest Service, are creating a model of how humans use the sound, based on current boat traffic.

Several species injured by the Exxon Valdez oil spill have not recovered. The Forest Service hopes the model will help them guide human use so that injured species don't face too much



human encroachment. Murphy and Suring's work emphasizes areas used by harbor seals, pigeon guillemots and cutthroat trout.

"Many species respond to human activities in different ways," said Murphy. "In extreme situations populations can be displaced or reduced. So if you're trying to manage wildlife, you want to be able to factor in how they respond to people."

The model also could be

used to plan new cabin sites, change use of camping areas, or to predict the impact of more traffic or new structures, such as lodges and piers, on animals in the sound.

To make the model, Murphy and Suring are combining a variety of data, including Whittier harbor-usage statistics, commercial fishing records, and a 1997 survey of boat owners.

To validate the model, the Forest Service biologists conducted aerial surveys of specific parts of western Prince William Sound twice a month from May through September of 1998. They counted boats and sorted them into categories: commercial fishing,

cabin cruisers, sailboats, inflatables, skiffs, and such. Their actual counts will be compared to the model results.

There weren't many surprises but there were some predictable patterns: usage peaked in July and August, weekend traffic increased markedly over weekdays, and smaller boats had more limited ranges than the larger ones. In recent years, more people have been viewing the sound through the use of kayaks and the number of jet skiers is growing.

Murphy cautions those who see the model, that it is only a representation of reality. "We want it to be close

enough to what goes on in the sound, that it's valid for management purposes, but we'll never be able to capture everything exactly the way it is," Murphy said.

The project isn't intended to increase regulations, she said, but it should provide a tool for making wise management decisions.

Jody Seitz lives in Cordova and also produces the Alaska Coastal Currents radio program. The series is sponsored by the Exxon Valdez Oil Spill Trustee Council to provide information about restoration activities within the spill region. ★

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Higher spawning goal for reds proposed

By DOUG LOSHBAUGH
Peninsula Clarion

State biologists say they likely will recommend increasing the spawning escapement goal for Kenai River sockeye salmon when the state Board of Fisheries meets Feb. 16-28 in Soldotna to discuss upper Cook Inlet finfish proposals.

What they have not agreed upon is a recommendation for in-river escapement, which includes fish for

the spawning grounds, plus an allowance to support the sport fishery above the Kenai River sonar counter.

The size of the allowance for sport fishers is an allocation question that the Board of Fisheries must decide, not department biologists, said James Brady, regional supervisor for the Division of Commercial Fisheries Management and Development in Anchorage.

Ken Tarbox, research project

leader for the Department of Fish and Game in Soldotna, said to help the board understand the implications of different in-river goals, biologists have written a new computer model. For a given spawning escapement goal, the model predicts the average yield of the Kenai run and also its variability — how often there should be small, average and large runs.

Clearly, Tarbox said, if too few sockeyes reach the spawning

grounds, yield falls. But yield also falls if too many sockeyes spawn, he said. Huge broods of fry can deplete food from rearing lakes, decreasing survival of the next year's fry.

He said biologists have strong confidence in the model, which is based on comparisons, back to the 1960s, of numbers of returning adults each year to the sizes of parent runs, and on studies of fry survival in rearing lakes since 1986.

Setting escapement goals is only half the battle, though. During nine of the last 13 years, escapement into the Kenai River has exceeded the goals.

Biologists use the commercial fishery to control escapement. But some years, the sockeye run is more than the commercial fishery can control, Tarbox said. Some years, biologists must restrict commercial sockeye fishing to protect weak

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...Fish

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runs of king or coho salmon. Oil spills and political decisions also have prevented them from using the commercial fishery to limit escapement.

Another factor is the ability of sport fishers to harvest salmon that pass the sonar counter. Tarbox said anglers take a steady 15 to 16 percent of those. The computer model accounts for sport fishing and also for biologists' ability to manage escapement.

Biologists believe increasing the spawning goal from the present 330,000 to 600,000 spawners to a new goal — 450,000 to 750,000 — will increase sockeye production. Fish and Game's biological escapement goal team and its regional staff seem to agree on the higher goal, he said.

The board must decide whether to manage the Kenai run for maximum sustained yield, he said. The Alaska Constitution requires Fish and Game to manage fisheries for sustained yield and back-up paperwork implies that should mean maximum sustained yield, he said. But the department and the Board of Fisheries have agreed the board has the authority to manage for other goals, he said.

Three years ago, Brady said, the board adopted a plan that boosted the in-river goal, which includes the extra allowance for sport fishers, from 450,000 to 700,000 sockeyes in 1995, to 550,000 to 850,000 in 1998 — allocating more sockeyes to the in-river sport fishery.

Its agenda this February includes a proposal from the Alaska Sportfishing Association to boost the minimum in-river escapement goal to 850,000 sockeyes and to

plan commercial fishery closures to put more salmon up the rivers for sport fishers and unspecified other uses.

Meanwhile, the Kenai Peninsula Fishermen's Association, a commercial fishers group, proposes that if spawning escapement exceeds 660,000 sockeyes one year, in the next, Fish and Game should aim for a spawning escapement of 450,000, since consecutive large runs deplete food from rearing lakes.

The computer model predicts that if in-river goals are very large, average production will fall, and the river will cycle more between large and small runs, Tarbox said. That doesn't harm the health of the river, he said. The system has seen such cycles naturally for thousands of years.

"But the yield is impacted, and that's where sport and commercial fishermen get into a debate," he said.

Sport fishers want lots of sock-

eyes in the river, while commercial fishers want to manage for maximum sustained yield, he said.

"All it is, is whether you want to maintain stock for maximum sustained yield or let more fish go up the river for other uses," said Kenai River fishing guide Joe Hanes.

Sockeyes are the base of the food chain, he said. Over the last decade, with escapement often exceeding management goals, the trout population in the upper river has doubled, he said.

Tarbox said the situation is more complex, because factors such as the condition of spawning and wintering areas also limit the trout population. Beginning in 1989, anglers on the upper river were limited to one trout over 20 inches long per season. In 1996, the upper river trout fishery went to catch-and-release only.

Central Peninsula Fish and Game Advisory Committee chairman Dave Martin, a commercial

fisher, said all fisheries should be managed for maximum sustained yield. Fish and Game has done that since statehood, he said, and that is why Alaska has seen such good runs.

Overescapement in the late 1980s and early 1990s caused the recent poor sockeye runs, he said. The escapement goals of the early 1980s produced big runs, and the commercial fishery should not be down now to catches of a million fish a year, he said.

Martin said it ought to be possible to stabilize production for catches of 2 million to 4 million sockeyes a year, and the board should not set escapement goals that reduce catches to the dismal levels of the 1960s and '70s.

The booming sport fishery, the guide industry and the bed-and-breakfasts all grew from maximum-sustained-yield management, he said.

"We'd better sustain that, or we

won't have the fish coming back that all those businesses depend on," he said. "If we manage for less, there won't be enough fish for everybody."

Studies suggest that growth of the sport fishery leads to bank trampling and habitat damage, he said.

Martin said sport fishers are pushing the limits, but it is better to be conservative.

"If you don't have habitat, you don't have anything," he said.

Brady said the board gave notice when it last raised the in-river goal that if increased sport fishing leads to habitat loss, it may reconsider. Since then, managers have closed portions of the riverbank to anglers and built boardwalks on other parts to protect against damage from trampling, he said. Habitat biologists will report to the board in February, he said, but they have found it difficult to adequately assess changes in habitat.

A Look Back At The Summer of '89...

The Spill: How It Was 10 Years Ago

By Pat Lynn
Editor, The Star

VALDEZ--The dawn of this coming Friday marks the beginning of the last year of the 20th century. For Valdez, it also marks the 10th year since the Exxon Valdez oil spill of 1989.

Memorable though it was, the

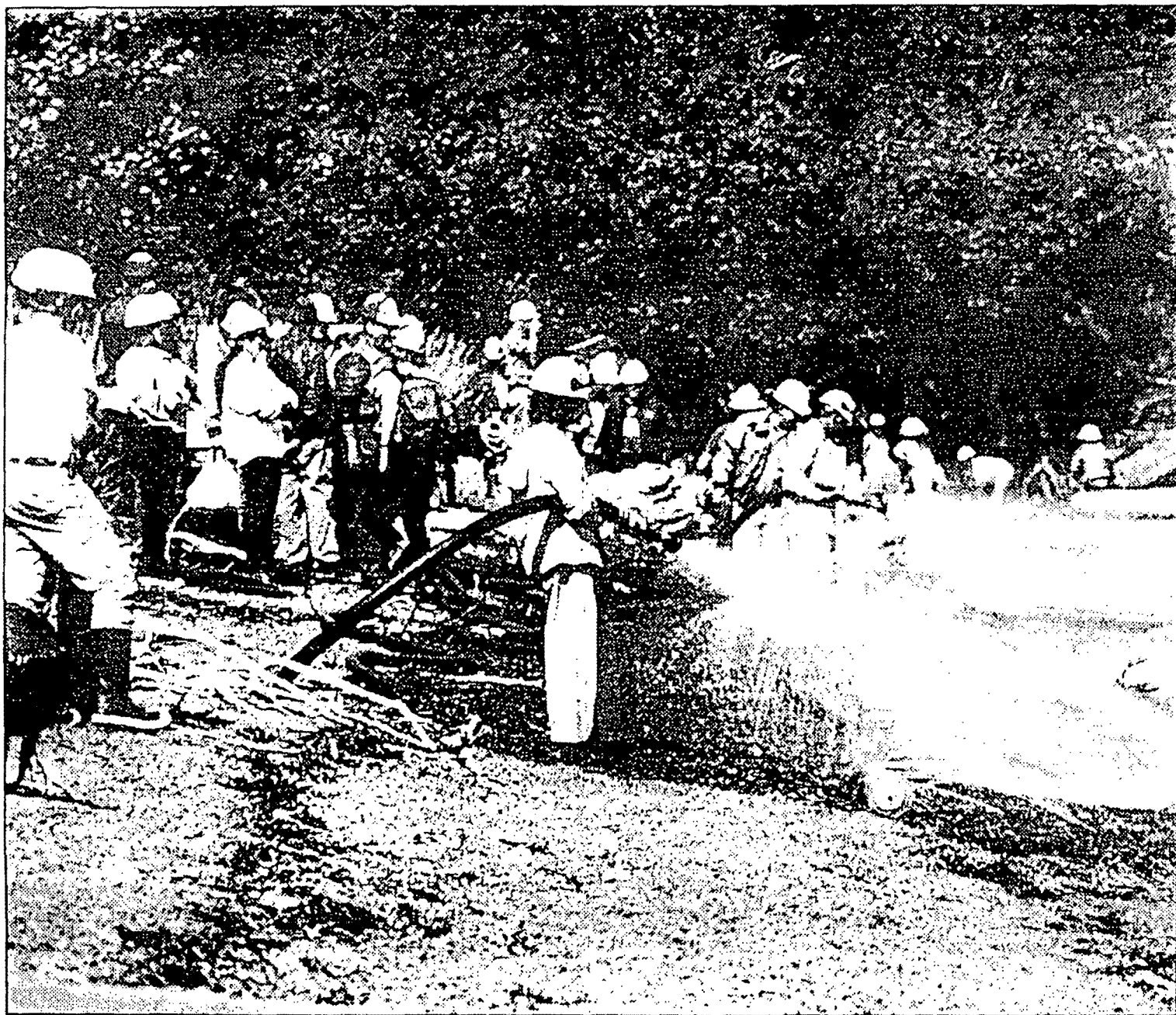
Great Spill is fast fading from memory.

In this transient little town, scores of people depart each year, taking their memories with them. For a 15-year old today, who was only 5 when the event occurred, the spill is "ancient history," something barely remembered.

But for people who were here

then and now, the spill was a cataclysmic event for Valdez. It remains today the largest ever spill in the nation's history. And it propelled Valdez onto the national stage for five anguishing months during the summer of '89. And a tumultuous summer it was.

The spill was a public relations
Continued on page 6



Scores of Workers Wash Down An Oiled Beach In Prince William Sound During Summer of '89

Bob Robb photo

Looking Back At The Great Spill Of '89

Continued from page 1
nightmare and a financial disaster for the Exxon Corp., but an economic boon to Valdez and to Alaska.

News accounts of the spill at first horrified then outraged the nation. Television news pictures of marine birds and mammals flopping about in oil were especially heart-rending.

But the national outrage, oddly enough, was not matched in Valdez. Few angry voices were raised in Valdez after the first few days. Valdezans, for the most part, were caught up in the frenzy of the moment, too busy cashing in on the spill.

In the summer of 1989, Valdez was awash in Exxon money--hundreds of millions of Exxon dollars. And it transformed the town.

In March of 1989, the population of Valdez hovered around 3,000. By June 1, it was around 10,000. Nobody knows for sure, there was no way to take a head count.

Within a fortnight, every hotel room in town was booked solid, the number of B&Bs jumped from a handful to over 60, the old Lamplighter Hotel was opened, RV parks were jammed, people were sleeping on the floor in the college gym (until the otters arrived), tents sprang up in the boondocks, people were sleeping in the backseats of cars, camper shells, under visqueen.

The first Exxon arrivals,

mostly men in business suits from Houston with cell phones glued to their ears, took over the Westmark. They looked stunned as the news media and the townsfolk descended.

Within weeks, hundreds of Exxon people from around the world were on scene, along with their contractors. The suits disappeared as the field experts took over. Exxon quickly occupied the top floor of the Royal Center, along with other offices and buildings in town, and later hammered together what is now the Keystone Hotel in a matter of weeks to serve as its permanent cleanup headquarters.

But the first six weeks was absolute chaos. Events were in the saddle.

Public press conferences at the Civic Center became angrier and noisier until they were cancelled by Exxon as counter productive.

Workers from around the state, and from the Lower 48, descended on Valdez. If you could walk and talk, you were hired at \$16.69 an hour to hit the beaches with Alaskans given first dibs.

Fishing boats were leased at princely sums from fishermen who later unabashedly filed claims that their fishing season had been ruined. Pleasure boats in the Small Boat Harbor also ended up on the Exxon payroll.

The offshore flotilla numbered more than 1,000 vessel--

the Exxon Navy--as it was called. There was also an Exxon Air Force of more than 50 aircraft, including a pair of rare twin Otters on floats, one of which later crashed at Half Moon Bay.

At one point, the Valdez airport was the busiest in the state with hundreds of take-off and landings daily. One air carrier, Anchorage-based Ketchum Air Service, was active during the spill and found a permanent home here later. It was one of several new businesses that sprang up as a result of the spill.

Then there was the Exxon Army, thousands of workers on the payroll of Exxon and its contractors, including Veco, the prime contractor on the spill cleanup.

The army of men and women worked 10 and 12-hour days, seven days a week, at \$16.69 an hour and time and a half. Great wages for working grunts.

For anyone who could call himself Dr. This or Professor That, the money was even better.

In addition to the companies that flocked to Valdez along with the workers, academics and scientists, environmentalists and bureaucrats cashed in on the spill and made money.

Bureaucratic jobs were spawned at new agencies that sprang up. Among them, the Regional Citizens Advisory Council, the Exxon Valdez Oil Spill Trustee Council, the Joint

Pipeline Office, not to mention the creation of the Alyeska SERVS unit which generated permanent high-wage jobs with splendid benefit packages.

Some of the bureaucrats wallowing in the largesse of the spill--high paid spill-related jobs--continue to unabashedly describe the spill as "shocking" and "a tragedy."

Environmental scientists were quick to rush to the spill site and offer up their talent--for a fee, of course. Many hired on to conduct long range studies--the longer the range, the longer the payday. Ten years later, some are still under contract.

And there were some losers along the way. Frank Irarossi, the president of Exxon Shipping and the man in charge of the Exxon Valdez, lost his job. It happened on his watch. Steve McCall, the Captain of the Port at the time, was drummed out of the Coast Guard. It happened on his watch too. And the notorious Capt. Joe Hazelwood has been a landlubber ever since that fateful early morning of March 24, 1989.

But in pure economic terms, spill helped pull the state out of a deep economic depression that gripped Alaska beginning in 1985, though that does not salve the wounds of ardent environmentalists.

The spill cleanup centered on the northern and western reaches of the Sound. Work

Continued on page 16

A Summer To Remember...

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crews took to the beaches with hot water washes. Selected beaches were treated with a French fertilizer, Inipol, designed to stimulate hydrocarbon eating microbes on beaches.

One man introduced a product called "Diamataceous Earth" which he swore would soak up oil at ten times of the weight of the product. Exxon tried it all.

At one point in the spill, a group of scientists quietly approached Exxon suggesting that all work be brought to a halt. The high-pressure hot water washes, they said, was doing more damage than the spilled oil. The high-pressure washes were denuding the beaches of all natural life and was therefore counter productive, they reasoned.

Exxon was horrified at the prospect of halting the work in mid-summer, considering the bashing it was taking in the Lower 48 news media. The company's commitment to spending billions on cleanup, though perhaps misguided, they reasoned, was a public proof that the company cared.

It was that kind of a summer.

Valdez was the hub of the action. Few families were untouched by the spill. Many cleaned up financially, though today few people are willing to admit publicly that they cashed in. It was an embarrassment of riches for many.

One business, KVAK radio, a financially frail enterprise, was rescued by spill money. The

operator filed hundreds of spill reports to ABC radio that summer and was paid handsomely.

The old Valdez Pioneer, forerunner of The Star, was made possible by spill money and by a failing Valdez Vanguard which was a far cry from the robust Vanguard of today.

And there were rags-to-riches stories. Frank Adkins, a subsistence fisherman and owner of the Lucky Dove. Frank jumped in early and managed to get four vessels onto the Exxon payroll, including a landing craft. He made almost \$750,000 on the spill. But three years later, he was broke.

And not everyone cashed in. The otter rescue center, housed in the gymnasium at the college, was sad sight as oiled otters were "rescued" and rushed in for treatment where they were fed geoduck clams, Alaska king crab and scallops. Most died but the staff didn't despair. Grunts were paid \$150 a day, seven days a week, plus meals. The technicians and managers got \$300 a day, the veterinarians got \$600 a day.

The local staff of the state Department of Environmental Conservation staff ballooned from a handful to a couple of hundred.

And for those stationed in Valdez, the meals were gorgeous. Served at the Eagles lodge, the meals were catered by the upscale Marx Brothers restaurant of Anchorage.

By contrast, the Bird Rescue Center at college dorms, was manned strictly by volunteers. Many of those birds survived after much TLC and television crews and print journalists flocked to the release of the birds. It made for good television.

Theft was widespread during the summer of '89. There were so many of Helly Hansen rain suits

bought by Exxon that they became something of a working man's fashion statement for years thereafter.

One man furtively entered the office of the former KVAK building with a super duper fire extinguisher in his arms. "Mind if I leave this here for a short time?" he asked. The man never returned. Ten years later, the fire extinguisher remains in the exact spot where he left it.

Entire computer systems disappeared from Exxon offices. There was no paper trail to track. Fake boats wound up in the Exxon paperwork and two men, one an Exxon executive, were later convicted of theft.

By the end of summer, local nerves were frayed from the hectic pace. The money was good but sleep was better. And the prevailing joke was: "Happiness is a Texan heading south with an Oakie under each arm."

As August faded into September, the pace slowed and Exxon, with the concurrence of the Coast Guard and the Department of Environmental Conservation, began declaring beaches "cleaned."

By Sept. 15, the summer cleanup was declared over. The new Valdez headquarters, now the Keystone Hotel, occupied for just three weeks, was abandoned and the spill headquarters moved to Anchorage.

Some of the heavy hitters, Otto Harrison of Exxon, Paul Yost the banty rooster commandant of the Coast Guard, pulled up stakes and went home to lick their wounds as did many in Valdez.

For Valdez residents of the time, the summer of '89 was the best of times, the worst of times, certainly the most memorial experience that many will ever live through. ★

Forest Service prepares for more people in sound

Editor's note: It has been eight years since the Exxon Valdez ran aground in Prince William Sound, spilling nearly 11 million gallons of Alaska crude oil. Time has since told quite a lot about the spill's long-term effects. To help tell the story, the Exxon Valdez Oil Spill Trustee Council is providing this column focusing on the ongoing recovery within the spill region.

By JODY SEITZ

With construction of the road to Whittier, the Glacier Ranger District of the Chugach National Forest is getting ready for increased use of the western Prince William Sound.

Karen Murphy and Lowell Suring, wildlife biologists with the U.S. Forest Service, are creating a model of how humans use the sound, based on current boat traffic.

Several species injured by the Exxon Valdez oil spill have not recovered. The Forest Service hopes the model will help it guide human use so that injured species don't face too much human encroachment. Murphy and Suring's work emphasizes areas used by harbor seals, pigeon guillemots and cutthroat trout.

"Many species respond to human activities in different ways," said Murphy. "In extreme situations populations can be displaced or reduced. So if you're trying to manage wildlife, you want to be able to factor in how they respond to people."

The model also could be used to plan new cabin sites, change use of camping areas or predict the impact of more traffic or new structures, such as lodges and piers, on animals in the sound.

To make the model, Murphy and Suring are combining a variety of data, including Whittier harbor-usage statistics, commercial fishing records and a 1997 survey of boat owners.

To validate the model, the Forest Service biologists conducted aerial surveys of specific parts of western Prince William Sound twice a month from



*Alaska
Coastal
Currents*

Restoration and recovery following the Exxon Valdez oil spill

May through September of 1998. They counted boats and sorted them into categories: commercial fishing, cabin cruisers, sailboats, inflatables, skiffs and such. Their actual counts will be compared to the model results.

There weren't many surprises but there were some predictable patterns: usage peaked in July and August, weekend traffic increased markedly over weekdays, and smaller boats had more limited ranges than the larger ones. In recent years, more people have been viewing the sound through the use of kayaks and the number of jet skiers is growing.

Murphy cautions those who see the model that it is only a representation of reality. "We want it to be close enough to what goes on in the sound that it's valid for management purposes, but we'll never be able to capture everything exactly the way it is," Murphy said.

The project isn't intended to increase regulations, she said, but it should provide a tool for making wise management decisions.

Jody Seitz lives in Cordova and also produces the Alaska Coastal Currents radio program.

RCAC has been effective in protecting Prince William Sound

Editor's note, the following is in response to a letter by former RCAC member Keith Gordao that appeared in the Dec. 9 Vanguard.

By Stan Stephens

In regards to your letter of resignation from RCAC, I want you to know that I understand your frustration. In the past we have had discussions along these lines. I want you to know that being on RCAC is not very easy. I guess I never have considered it boring, but many meetings have been difficult to deal with. At the meeting in May, particularly, I was criticized by many for not handling the meeting correctly. Whether I was right or wrong in how I proceeded to run the meeting, I was not trying to favor either "my side" or the "other side."

Other than last May, our meet-

ings have tried to stay focused on the business at hand. The meetings are often long and sometimes involve drawn-out opinions. This is a citizens' group, not a corporate board, and does not always function as smoothly as one might wish. I would like to list some of the projects we have completed and some of these we are still working on. I hope all of these will in some way help most of the citizens, wildlife, marine life, and the rest of the delicate ecosystem in the Sound, as well as other areas damaged by the Exxon Valdez spill.

Let's start with the Vapor Recovery System at the Valdez Marine Terminal. When we first started on this project, Alyeska said that they would never install it, but they did. The workers at Alyeska and the citizens of Valdez have all recognized an improved quality of life. This has been a win-win situa-

tion for everyone.

Also dealing with terminal operations, the staff along with the Alaska Department of Environmental Conservation has continued a water quality monitoring program, which is part of our oversight obligation at the terminal.

In the area of response planning, we have worked as advisors to both the shippers and the State on the tanker contingency plans. Though we received a lot of criticism from the oil shippers due to our input, we believe we have made a difference. We have also worked diligently to watch and suggest studies to better understand and possibly make changes in the federal dispersant requirements. In order to help quick response to a major spill, we have tried to get better air transportation into Valdez.

In the area of marine operations and prevention, we have helped to accomplish a great deal, as I think you must know. We helped sponsor and instigate the first fire training

Commentary

symposium. We pushed hard for better escort vessels based on two valuable studies: the Tanker Towing Study and the Risk Assessment Study. These studies took countless hours of dedicated time by your fellow council members and staff. Because of the escort changes made in the Sound, we are now less likely to have an accident similar to the Exxon Valdez.

Along with this, we now have new weather restrictions for both wave height and wind. The Sound has more weather buoys than any similar body of water in the world. All of these things help to make this one of the finest escort systems in the world. This all happened due, in considerable part, to the hard work of RCAC.

What about the human factor issues which we started to work on right after the spill? In this area we helped push for many changes. We are essentially working on tanker assessment issues and are trying hard to keep the double hull issue from being changed or removed

from the Oil Pollution Act of 1990. Most of our tankers are now 20 years old or older. It is time to build new tankers with double hulls in order to protect our waters. We keep a database on every one of the TAPS tankers because we are concerned about now and the future. In this same area, we have also been studying ice detection and avoidance because the two most major tanker accidents occurred as a result of ice.

In other areas, we have been doing long-term environmental monitoring to help us with the past and give us a record for the future. We are also starting to work with the Prince William Sound Science Center in these areas. Along with this we have also been monitoring weather and sea current data. We have also been working on the Community Impact Plans, both social and technical.

We have an ongoing drill-monitoring program for oil spill response operations. We are working with the Prince William Sound Community College and the state to try to get a spill response simula-

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RCAC...

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tor. We are working on the Port of Valdez Environmental Monitoring Programs. An example is the Aquatic Nuisance Species Study, where we are working with the shippers, the state, the Smithsonian, and other parts of the scientific community. We are also part of the Ballast Water Treatment Facility Working Group Influent Monitoring Program, which is working hard to make the Port of Valdez a better marine environment.

I could go on and on; there are many other ongoing projects I have not mentioned. Keith, the point is that we are a group of volunteers and staff who have dedicated a good part of our lives over the past 10 years to trying to make sure complacency never sets in again. We might not be what you call "professional," but most of the time we try to be. This year the oil industry, the Coast Guard, Alyeska and others have complained about how we do business because they do not want any citizens' groups like us to develop elsewhere in their working territories.

Some of the criticisms are justified, but I will defend the accomplishments of this organization to anyone, anywhere as long as I have the strength to do so.

Keith, I have always considered you a friend. Please do not write RCAC off, for in spite of all your concerns, we have helped make the oiled areas safer and a more protected place than it was in the past.

Stan Stephens of Valdez is president of the Prince William Sound Regional Citizens' Advisory Council.

Owner, city differ on pace of Spit land deal

by Hal Spence

Staff Writer

A measure of prudence and a shortage of information have delayed the decision by the Homer City Council about a proposed purchase of 90 acres of Spit land from a Homer construction company, Herndon & Thompson Inc.

That apparently is beginning to strain the patience of company owner Larry Herndon, who said this week the city has had plenty of time to decide if it can purchase the acreage, or tell the company it can't and let Herndon & Thompson make other plans.

In a letter this week to Homer City Manager Val Koeberlein, Herndon said the company needs some kind of demonstration of commitment to the purchase soon or it will move toward some other disposition of the property. Herndon can't wait while the city drags its feet.

"Our resources are finite," Herndon said. "We have to move forward and do something with this property now, not next

spring or summer."

The council, however, isn't ready to plunk down between \$5 million and \$6 million without a lot more information and,

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... City says it has to go slow; FROM PAGE ONE

seller says its too slow

perhaps, a feeling of consensus among city residents that the acquisition of the acreage and barge basin is a good idea. The council last month asked for more information from Herndon and the city is considering getting a second appraisal on the land. The council may be weeks or even months away from a firm "yes" or "no," Koeberlein said.

"We are moving very slowly. Nothing is on a fast track," he said last week.

Indeed, several weeks ago following a public hearing on the issue the council said it would not rush to a purchase decision. A measure of that caution may have been evidenced last week when the council delayed action on a resolution that merely would have stated the city's intention to use the land for marine industrial purposes if it did make the purchase.

That was meant to assure some circles that the land was not going to be made into wildlife habitat, Mayor Jack Cushing said.

On Nov. 24, the city sent Herndon 13 questions about the property and its potential for making money.

They included whether the company would sell parcels separately, donate some land on the west side of Spit Road for a conservation easement, consider an offer contingent on getting Exxon Valdez oil spill money to finance the buy and whether Herndon would make records available so the city could verify expenses and revenues generated by the property.

In a response letter Dec. 10, Herndon said the company would sell parcels "at the right price," and would grant the conservation easement if the city bought both large parcels on the east side of Spit Road. The company will not enter a purchase agreement that was contingent on EVOS, state of federal funding, he said. As for the records, those would be made available to city officials, but not to the public. Nor were the details of the company books to be discussed publicly, Herndon said, although he noted that bottom-line figures could be used in public discussions.

The city also wanted to see as-built

drawings and engineering records for the barge basin, docking and ramp facilities. Herndon said those would be provided with the purchase of the property.

Other issues including assurances the land is free of contaminants, whether the company would contract to operate the property for one to three years after purchase, and whether the company has any development plans that might enhance the property's ability to generate income were also on the city's list of questions.

Herndon said an environmental assessment could be made a term of purchase and income could be generated by construction of a boat haul-out facility, a boardwalk and camping area,

"An occasional reminder that you are thinking of us just doesn't cut it."

- Larry Herndon

the company said. Herndon said, however, that the company is not interested in operating the property for the city under contract.

The council is very concerned about maintenance and wants an estimate of the annual costs. They also have asked Herndon if the company would provide an engineering assessment of the condition of the basin. Herndon said the company wasn't going to spend money to provide an assessment when the conclusion is obvious.

"We have erosion on the sides of the basin," Herndon said.

As for maintenance costs, Herndon said those are hard to figure because the company has only a short history with the basin. Normal silting could be masked by the rate of bank erosion, he said.

Herndon estimated it might cost \$900,000 to armor rock the eroding areas on the basin and associated dredging before armoring might cost another \$300,000.

In his Dec. 10 response to the city's questions, Herndon said the company was concerned whether the city was negotiating in good faith.

"We sent a letter requesting commitment on Oct. 19, the council discussed this on Oct. 26," Herndon said. "It was not until

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OWNER, CITY DIFFER ON PACE OF SPIT LAND DEAL

Nov. 25 that we met with you (Koeberlein) and the mayor."

Herndon said he realized the purchase was a large commitment and should not be entered without appropriate consideration. But he decried delays by the city in making a commitment and suggested the city's interest was only casual.

"If I were a car salesperson, I wouldn't waste my time with the city. I would classify them as just 'lookers' from the level of response I have seen," Herndon said. There appeared to be more interest on the council's part, he said, than on that of the administration.

Herndon said the price was reasonable considering what the city has paid in the past for the harbor expansion and the Fishing Hole.

"The city certainly moved on these other properties much more timely," he said.

Their "five million dollar investment" is operating "slightly below breaking even," Herndon said. The barge basin built two years ago has seen some traffic and the land has been used for log storage over the past couple of years. Now Herndon wants to sell the asset as the company moves into other business ventures. Among other things, the construction company is getting into the paving business.

The company has three options, he said: sell to the city, sell to someone else, or develop it themselves.

"The bottom line is we cannot keep this property on hold waiting for the city to respond," he said. "An occasional reminder that you are thinking of us just doesn't cut it."

Herndon said there were only two questions the city needs answers to and they are not HTI's to answer. "Does the city need the property?" and "Can the city afford the property?"

That was how things stood on Dec. 10.

On Dec. 11, Koeberlein wrote back to Herndon reiterating that the council needed answers in order to justify an expenditure of such magnitude. He told Herndon the council might hire another appraiser for a second opinion - the first was done by Derry and Associates of Homer, a firm

Herndon said Koeberlein had OK'd when he was still finance director. Herndon said a second opinion really wasn't a problem, but that it should have happened months ago.

Koeberlein told Herndon that if the company was offering the property on a "take it or leave it" basis, then the city needed to know that up front "so that we do not waste your time or ours with some misconception of the outcome."

Herndon wrote back on Dec. 14 telling Koeberlein the company's position was not "take it or leave it," but that they were trying to encourage a quick decision. He took umbrage at Koeberlein's tone in the city's Dec. 11 letter.

"We had hoped that our last letter would prompt the city to come to us in a timely fashion with a reasonable proposal," Herndon said. "Instead you are telling us let's 'do not waste our time and yours.' In addition to being insulted, we interpret that to mean 'negotiations' are over."

Contacted late last week, Herndon said the door to negotiations is not closed, but that the next move was up to the city. He questioned the city's tactics.

"We're just getting a run-around," he said. "If we are going to do something, let's get down to it."

"We are moving very slowly. Nothing is on a fast track."

- Val Koeberlein

Koeberlein said the city isn't a private corporation with the luxury of making rapid decisions. It is a public entity spending public tax dollars and as such the city will be a "prudent buyer." The city

doesn't have the money to buy it outright. Purchase may depend on grants or bonds, and that can't happen without at least a general consensus from taxpayers, he said.

A public hearing early last month was indicative. Of the 10 who testified, seven said it was a poor use of limited city funds and warned against moving forward on the deal without a lot more information.

Some council members have questioned the wisdom of the acquisition, while others have expressed interest. None say they have made up their minds. Mayor Jack Cushing has said he favors the purchase if it can be accomplished at a fair price.

The council will take up the issue again in January.

Alaska Coastal Currents

By Jody Seitz



Study documents long term damage from oil

When Evelyn Brown began studying juvenile herring at the University of Alaska Fairbanks she was hoping to develop another tool to help fish managers predict herring returns in Prince William Sound.

Three field seasons later, she not only has helped develop a deeper understanding of herring, but also about other species of fish important to seabirds.

Prior to Exxon Valdez oil spill studies, scientists knew close to nothing about tiny forage fishes, such as sand lance, capelin, hooligan (eulachon), or juvenile herring. This made it impossible to understand how the oil spill impacted their populations or affected the seabirds that preyed on them. In addition to the spill, there also were natural factors affecting their populations. Some seabird populations that depend on these fish for food have declined over the last 20 years, possibly due to a major ecosystem shift that changed their food supplies.

To find out how successful birds are at foraging for food, researchers have been mapping the distribution and abundance of these fishes using hydroacoustics and an underwater video camera. They found schools of forage fish, but saw few birds feeding on them.

Brown took a more aerial approach. The underwater surveys were too deep, she said. "It's pretty simple," Brown said. "Basically I'm flying in an airplane so I'm seeing what birds see and they seem to be visual predators. Seeing subsurface and seeing other birds feeding is a really important cue to them."

Brown conducts daily surveys of the sound over the course of the summer using an airplane with a GPS (Global Positioning System) coded video camera mounted inside. Between the acoustic surveys and the aerial surveys, researchers have found out a lot

more about forage fishes.

"There are places in the sound where these fish occur year after year after year," Brown said. "If you look for them you can see shelves where there's good ocean circulation and eddy formation. And hooligan seem to be feeding on these shelves." Accurately identifying a school from the air can be tricky.

Brown developed her aerial survey with advice from spotter pilots and techniques learned from her days as a fisheries biologist at the Alaska Department of Fish & Game. Over the past three summers she's worked with catcher boats to verify the schools she was seeing from the air.

She says the surveys can be accurate for age-one herring, but that it can be difficult to tell the subtle difference between schools of age-zero herring and age-zero sand lance. With capelin, hooligan, and age-one herring there's very little error — less than 10 percent, she said.

Brown has documented basic information for these forage fish species, especially for sand lance, which are difficult to assess other than by aerial survey. "We knew sand lance were abundant and played an important role in the ecosystem but we really didn't have any idea of how widely distributed they are or what kind of population shifts take place."

These studies represent the first data on these four species in the northern Gulf of Alaska. Though researchers have seen increases in all these species since 1995, it's still too early to say if this represents a trend in the Gulf of Alaska.

Jody Seitz lives in Cordova and also produces the Alaska Coastal Currents radio program. The series is sponsored by the Exxon Valdez Oil Spill Trustee Council to provide information about restoration activities within the spill region.

'99 Kamishak herring fishery canceled

Staff report

The Alaska Department of Fish and Game has canceled the 1999 Kamishak Bay sac-ro herring fishery to allow declining stocks to recover.

Biologists now estimate the Kamishak stock at 6,000 to 13,000 tons, with no indication of a big increase to the spawning population during 1998. Regulations require a biomass of at least 8,000 tons before commercial harvest is allowed.

"It is in the best interest of the resource and the commercial fishery to protect the remaining spawning population until it rebuilds to a harvestable level," the department said in a printed release.

The Kamishak fishery has depended for most of the last seven years on a large cohort of fish spawned during 1988. But the 1988 cohort is dying off, and no subse-

quent year class has materialized in sufficient strength to take its place.

Though 1993 produced a relatively strong year class, it appears that the 1993 group is only a quarter or a third as strong as the 1988 year class. Research vessels targeting other species last summer encountered large numbers of age 1 herring, biologists said, but it is impossible to predict how long it will take the Kamishak stock to rebuild.

Fish and Game relies on analysis of the age structure of the herring population, estimates of survival and recruitment, and aerial surveys to deduce herring abundance and predict population trends. But harsh weather and water conditions make Kamishak difficult to survey.

It has been six years since Fish and Game has obtained a good survey of the area, and biologists now

believe their 1997 and 1998 biomass estimates overestimated the actual spawning biomass.

"Poor commercial catches, well short of expected harvest guidelines, were made in both these years, despite district-wide openings," the department said. "While factors such as storms and price disputes may also have (contributed) to poor catches, declining herring biomass appears to be the primary cause."

With no commercial fishery in 1999, Fish and Game's ability to collect information on the age structure of the herring population will be greatly reduced. Biologists hope to charter commercial vessels to conduct test fishing, but funding is limited.

They may seek volunteer assistance from commercial fishers. Fish and Game plans aerial surveys as weather allows.

Further pollock limits sought

The Associated Press

KODIAK — Alaska's January pollock fisheries are likely to proceed as scheduled, but federal biologists and environmental lawyers say they will try to modify or close subsequent openings because of continued worries about endangered Steller sea lions.

Last week the North Pacific Fishery Management Council approved sweeping limits on the pollock fisheries in an attempt to shape an industry-backed compromise and avoid more onerous re-

strictions proposed by the National Marine Fisheries Service.

But NMFS biologist Tim Ragen and environmental activists say the catch limits and other changes don't go far enough.

"We were unable to accept all the North Pacific Fishery Management Council's recommendations, particularly those addressing the summer and fall pollock fisheries in the Bering Sea," said Ragen, a marine mammal biologist with NMFS's protected resource division in Juneau.

Earlier this month the council decided to exclude eight sites from the fisheries service's proposed list of no-trawl zones.

"We can accept that for this year but will impose 10-mile pollock trawling bans around those sites next year unless the council or the public can come up with the equivalent of sea lion protected areas," Ragen told the Kodiak Daily Mirror.

In the Bering Sea, Ragen said,

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POLLOCK: Scientists, lawyers seek further fishing limits

Continued from Page F-1

his concerns about the summer and fall fisheries center around fishing districts, not dates or quotas.

"We want to disperse the catch to mirror the distribution of the stocks," he said. "Under the present circumstances, that will not be the case."

While federal biologists focus on the particulars of the fishery, environmental lawyers are trying to shut it down.

Greenpeace, the Sierra Club and the American Oceans Campaign have sued the federal government, accusing regulators of not doing enough to protect the Steller sea lions.

"The plaintiffs have concerns about the level of pollock fishing," said attorney Peter Van Tuyn with Trustees for Alaska, an Anchorage environmental law firm.

Van Tuyn was one of three environmental lawyers present Friday in the Seattle

courtroom of U.S. District Judge Thomas Zilley, who is hearing the case.

The environmental groups are hoping to convince Zilley to halt further fishing until their concerns are addressed.

The present fishery management plan calls for a Bering Sea A1 season beginning Jan. 20, an A2 season beginning Feb. 20, a B season starting Aug. 1, and a C season starting Sept. 15.

If unchanged by NMFS or

Zilley, the new system in the Gulf of Alaska will see openings on Jan. 20, June 1, Sept. 1 and Oct. 1.

Friday's hearing was a status hearing. Zilley set the next hearing for Feb. 22, after fishing begins in the gulf and the Bering Sea.

"Unless we can convince the judge to schedule a hearing before Jan. 20, where we might bring up trying to get an injunction against an opening, the fishery will proceed," Van Tuyn said.

Uncertainty swirls around upcoming pollock season

By MARK BUCKLEY
Mirror Writer

Although Alaska's January pollock fisheries are likely to proceed as scheduled, federal biologists and environmental lawyers are planning to modify — or even shut down — subsequent openings because of continued fears of harm to endangered Steller sea lions.

"We were unable to accept all the North Pacific Fishery Management Council's recommendations, particularly those addressing the summer and fall pollock fisheries in the Bering Sea," said Tim Ragen, marine mammal biologist with the National Marine Fisheries Service's protected resource division, in Juneau.

"In the Gulf, the council also opted to exclude eight sites from our proposed list of no-trawl zones. We can accept that for this year, but will impose 10-mile pollock trawling bans around those sites next year, unless the council or the public can come up with the equivalent of sea lion protected areas.

"We are also unable to accept the council's opting out of imposing a pollock no-

trawl zone around Cape Sarichef, at the end of Unimak Island," he added. "We will be imposing one there starting in January."

Last week the North Pacific Fishery Management Council imposed sweeping changes in Alaska's pollock fisheries in an attempt to craft an industry-backed compromise to more onerous fishing restrictions proposed by NMFS. However, Ragen and environmental activists say the actions did not go far enough.

Turning to the Bering Sea, Ragen said his concerns over the summer and fall fisheries centered around fishing districts, not dates or quotas.

"We want to disperse the catch to mirror the distribution of the stocks," he said. "Under the present circumstances, that will not be the case. We plan to go back to the council at its February and April meetings to address the issues."

As federal biologists keep industry on the hot seat by taking a step-by-step approach to management, lawyers representing environmental groups are trying to shut the fishery

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Pollock

Continued from Page 1
down.

"The plaintiffs have concerns about the level of pollock fishing," said attorney Peter Van Tuyn, litigation director with the Anchorage-based conservation group, Trustees for Alaska.

Van Tuyn was one of three environmental lawyers present in the Seattle courtroom of federal judge Thomas Zilley last Friday. Zilley was presiding at a hearing concerning the lawsuit filed by Greenpeace, the Sierra Club and the American Oceans Campaign. That suit accuses NMFS of violating federal law and not taking required actions to protect

Steller sea lions.

The environmental groups are apparently hoping to convince the judge to halt further fishing until their concerns are addressed.

The present fishery management plan calls for a Bering Sea A1 season beginning Jan. 20, an A2 season beginning Feb. 20, a B season starting Aug. 1, and a C season starting Sept. 15, with no fishing between Nov. 1 and Jan. 19.

If unaltered by NMFS or Judge Zilley, the new system in the Gulf of Alaska will see openings on Jan. 20, June 1, Sept. 1 and Oct. 1.

"Last Friday we had a status hearing; that's where the

judge sets the schedule for subsequent court dates," Van Tuyn continued. "At that type of hearing you can't ask for things like injunctions. Instead, we asked Judge Zilley to schedule hearings before the Jan. 20 opening of the pollock fishery. However, the judge scheduled the next hearing for Feb. 22-23, and the earliest he could schedule a hearing would be Feb. 15, which would be after the fisheries open. So unless we can convince the judge to schedule a hearing before Jan. 20, where we might bring up trying to get an injunction against an opening, the fishery will proceed."

Alaskans can and should play important role in oil spill response

By John S. Devens
Special to the Journal



A major lesson of the Exxon Valdez tragedy is in danger of being ignored:

Citizen involvement is critical in responding to a major oil spill.

For months now, we at the Prince William Sound Regional Citizens' Advisory Council have urged industry and government to guarantee us a nonvoting advisory seat on the Unified Command, which is formed after an oil spill to manage the response. The executive director would normally fill that seat on the council's behalf.

But the members of the Unified Command — one person each from the U.S. Coast Guard, the Alaska Department of Environmental Conservation, and the oil industry — appear to be concerned that citizens may not understand their deliberations, and that we might engage in disruptive debates during high-stress decision-making sessions.

The Coast Guard, whose decision it is to make, has so far turned us down.

To answer the citizens' need to provide and receive information at the Unified Command level, it has been suggested we use a member of the oil industry as a liaison or that we catch members of the Unified Command during breaks.

We don't consider either approach workable. We feel direct citizen input to the Unified Command is critical for its deliberations and believe a protocol can be developed for appropriate input by citizens.

We feel strongly that citizens have a right to know how decisions are made, and a right to respond to decisions affecting their lives. The people, as Alaska's open meetings law says, "do not

VIEWPOINT



Devens

give their public servants the right to decide what is good for the people to know and what is not good for them to know."

Our reasons for wanting a seat go back to 1989, when the Exxon Valdez poured 11 million gallons of North Slope crude into Prince

William Sound. Mayors and other community officials found it difficult to get into the information and decision-making loop.

This engendered mistrust by citizens, because they didn't know how the decisions were being made that so deeply affected their lives and livelihoods.

It also deprived Exxon Corp. and government agencies of information they could have used to combat the spill. With better citizen input, perhaps more oil could have been contained, less-

ening the damage to shorelines, fisheries, wildlife, countless careers and Exxon's bottom line.

With our network of member organizations and communities stretching from Prince William Sound to Kodiak to Lower Cook Inlet, we are ideally equipped to serve as the citizen voice on oil-spill issues. That is why we were formed after the Exxon Valdez spill.

In the event of a spill, we would activate our own Emergency Response Plan and could instantly become a regionwide high-speed link between affected citizens and response managers.

But at present, our role is so unclear under the state-federal oil spill response plan for Prince William Sound that it has become an ongoing subject of dispute between us and the Unified Command during drills and exercise.

The plan calls on us to serve as an information conduit, but is vague about how. It provides only that the council is "a resource for the Unified Command and participates in the regional MAC

(Multi-Agency Coordinating Committee) when it is established and functioning for a spill response."

The plan fails to explain the council's exact role in a MAC and fails to provide for a council role if, as has been the case so far in drills and incidents, no MAC is established.

We want the plan modified to specify that the council is the MAC for spills in Prince William Sound and the Gulf of Alaska, and to guarantee us direct access to the Unified Command.

Only then will the citizens of our region be safe from the consequences of one of the oldest laws of human experience: Those who ignore history are doomed to repeat it.

John Devens is executive director of the Prince William Sound Regional Citizens' Advisory Council, an independent non-profit corporation whose mission is to promote environmentally safe operation of the Valdez Marine Terminal and associated tankers.

Research focuses on crude's long-term toxicity

Editor's note: It has been eight years since the Exxon Valdez ran aground in Prince William Sound, spilling nearly 11 million gallons of Alaska crude oil. Time has since told quite a lot about the spill's long-term effects. To help tell the story, the Exxon Valdez Oil Spill Trustee Council is providing this column focusing on the ongoing recovery within the spill region.

By JODY SEITZ

Many miles from Prince William Sound, a clean environment is home to an experiment on long-term toxicity of North Slope crude.

One doesn't usually plan to get in and out of Little Port Walter in one day. It took us three days to finally arrive at the tiny bay, on the end of Baranof Island, about an hour and a half by floatplane from Juneau.

The battle over Admiralty Island into the 35-knot headwind down Chatham Strait was worth it. Ron Heintz, of the National Marine Fisheries Service Auke Bay Lab, gave me a tour of the research facility, the oldest in the state, and the experiment that has a lot of people thinking about the effects of chronic oil pollution.

In 1993, after four successive years in which more salmon eggs died in oiled than in unoiled streams, scientists began to wonder if old weathered oil, which everyone thought would be harmless, could still be causing damage.

Previous studies had focused on the light

aromatic compounds, which are quite toxic, but evaporate quickly. NMFS scientists exposed herring and

salmon eggs to weathered oil, simulating condition of some beaches in Prince William Sound.

Little Port Walter was chosen for pink salmon experiments for several reasons: returning salmon only had to dodge one commercial fishery before returning home; all the infrastructure was already there; and it was located in a very clean environment, eliminating the possibility of other toxins ruining the study.

Incubators set up in a wet lab contained gravel that had been sprayed with North Slope crude that had weathered from one month to one year. Water percolated down several two-foot columns of eight-inch-diameter pipe containing gravel that had been sprayed with weathered oil and into another set of pipes that held clean gravel seeded with the eggs.

Heintz proudly showed me the saltwater system designed for this study. "It simulates the incoming tide and then, of course, when the saltwater switches off and you switch back to freshwater it simulates the outgoing tide. This



Alaska
Coastal
Currents

Restoration and recovery following the Exxon Valdez oil spill

happens twice a day just like it does in real life," said Heintz. "It works really well."

In the experiments, eggs experienced lower growth, altered development, and lower survival at levels as low as one part per billion.

The current experiment is designed to test the idea that when salmon are exposed to crude oil as eggs they produce poor quality eggs and sperm which then experience higher mortality.

They'll raise the salmon that were exposed to the weathered oil as eggs, tag them with tiny coded wires, release them, and wait for them to return to Little Port Walter. Then they will see how well their eggs survive.

"If the eggs taken from the exposed fish don't survive well, then we will have shown that all the effects identified in the field can be repeated in the lab," said Heintz.

Heintz is confident the oiling process acts much like they have shown it to work in the lab.

As he explained, streams are the lowest point on the beach. As rainwater or tidewater washes through oiled sediments along the sides of streams, it carries with it hydrocarbons released by the existing reservoirs of weathered oil, and then flows where we all know water flows — downhill — through the lowest point on the beach.

Jody Seitz lives in Cordova and also produces the Alaska Coastal Currents radio program.

FishNet

Mark Buckley

Pollock and sablefish catches will be down, cod will be up, and catches of many others groundfish species should remain about the same in 1999 across the Gulf of Alaska.

At its Anchorage meeting that ended earlier this week, the North Pacific Fishery Management Council set quotas for a score of groundfish species in the Gulf and Bering Sea.

While the council kept the Bering Sea/Aleutian Islands' total allowable catch at 2 million metric tons, it cut the Gulf's bottom line from roughly 330,000 metric tons to about 310,000.

The Bering Sea fleets did not escape without a cut, however. Although the council allowed an Aleutian Islands pollock quota totaling 25,000 metric tons, the regulatory body also banned pollock fishing in the area over concerns for endangered Steller sea lions.

All species combined, groundfish in 1997, the year for which most recent figures are available, represented about 40 percent of the value of all fish landed in Kodiak. The total was about \$34 million. The breakdown was as follows:

Black cod	\$ 9.9 million
Bottom fish	\$ 3.3 million
Pacific cod	\$13.8 million
Pollock	\$ 7.4 million

The biggest cut the Gulf fleet saw was in its pollock quota. The allowable catch dropped 18 percent Gulfwide from about 125,000 metric tons in 1998 to 101,000 tons next year. Most of that drop — about 20,000 tons — will be felt in the areas around Kodiak.

Many question how much of the pollock quota the fleet will be able to catch once the new sea lion restricted zones go into effect when the fishery starts Jan. 20.

Fishermen will go easier on the black cod, also called sablefish, next year. The Gulfwide quota for the IFQ fishery dropped 10 percent: from 14,120 to 12,700 metric tons. In 1998 about 1,400 metric tons of black cod crossed Kodiak's docks in 219 deliveries. In the hierarchy of black cod ports, Kodiak came in third, capturing 11 percent of the total. Seward was the top sablefish port at 25 percent, and Sitka, at 15 percent, came in second.

1999 should be a good year for Kodiak's cod fishermen. The Gulfwide quota is up slightly from 66,000 metric tons this year to about 68,000. The cod market is looking good, too.

Demand for Pacific cod is rising as consumers on the both shores of the Atlantic — who have a long history of eating cod — are buying more cod from Alaska. In 1998 prices many Kodiak fishermen were paid for cod just about doubled: from about 20 cents per pound to about 40 cents.

The waters around Kodiak will open to pot, jig and longline fishing on Jan. 1. Trawl nets will hit the water beginning Jan. 20.

Kodiak-based foundation to fund sea lion research

As the future of Alaska's commercial fishing and seafood industries hangs in the balance due to possible closures to protect endangered Steller sea lions, a Kodiak group is taking action.

The Alaskan Oceans Seas Fisheries Research Foundation, which is based in Kodiak, is now \$65,000 richer, thanks to a grant from the Bering Sea mothership company, Ocean Phoenix.

Last week, Ocean Phoenix chief Dave Galloway presented the check to the foundation to fund the Alaska Marine Mammal Institute's research on Steller sea lions.

"There is no research group in North America currently studying the marine mammal-fishery interactions," said Dan Ogg, the foundation's executive director. "Nowhere, either in government or in universities, is there an infrastructure to undertake such research.

"The Phoenix gift will provide funds to the Alaska Marine Mammal Institute, allowing it to address questions concerning marine mammals using an ecosystem analysis. The approach must be multi-disciplinary, combining the talents of marine mammalogists, physiologists, ecologists, fisheries specialists, and oceanographers," Ogg added.

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FishNet

Continued from Page 6 NMFS sea lion stance puzzles fishermen

Today in a Seattle courtroom, federal judge Thomas Zilley will hear presentations from the both National Marine Fisheries Service and the coalition of environmental groups who are suing them.

The issue is the environmental groups' claim that NMFS has failed to protect endangered Steller sea lions by researching whether the animals' recovery is being hindered by commercial fishing.

Earlier this week the North Pacific Fishery Management Council enacted sweeping changes affecting Alaska's pollock fisheries. In what was essentially a preemptive strike by industry, the council hoped to head off a NMFS threat to act unilaterally and restrict the fishery even more severely than the council's plan.

On the other side of the coin are the environmental groups. They believe the burdensome restrictions NMFS proposed did not go far enough, and they are even more unhappy with the council's compromise.

Steve Pennoyer, the NMFS Alaska Region director, said he could not guarantee his agency would approve the council's plan. Agency brass in Washington, D.C. might override all or part of it as they attempt to deal with the lawsuit issue.

As of yesterday, NMFS had yet to reveal whether they would override any part of the council's pollock plan. That caused great consternation among industry groups, who would like to know where the regulatory agency stands.

"We entered the lawsuit on NMFS's side, but now we don't know what to do," said Steve Hughes, technical director of the Bering Sea trawl group, United Catcher Boats. "NMFS said they'd release their position, but they haven't done so yet. It could turn out NMFS will come into the court on the environmentalists' side, and we'll end up turning around and suing NMFS.

"It's all very much up in the air, and we'll know more after we

get out of the court on Friday," Hughes said Thursday afternoon.

Meanwhile, Judge Zilley will review the status of NMFS's actions to protect the sea lions. Whether he will be swayed by environmentalists' expected arguments that more restrictions on fishing need to be in place remains to be seen.

Kodiak retains AP seats

The three Kodiak representatives on the North Pacific Fishery Management Council's advisory panel were re-appointed earlier this week.

Jeff Stephan, manager of the United Fishermen's Marketing Association, Tim Blott, plant manager at Cook Inlet Processing, and Al Burch, executive director of the Alaska Draggers Association, will hold their seats for one more year.

State buys wetlands on Kenai River

SOLDOTNA (AP) — The state has completed its purchase of a 27-acre parcel along the Kenai River where a fishing guide once wanted to build a road and home.

Gov. Tony Knowles announced the wetlands purchase Thursday from Soldotna resident Pat Carter.

The Conservation Fund, a national land trust, helped with the \$280,000 acquisition, with money provided by the Exxon Valdez Oil Spill Trustee Council.

Knowles says protection of those habitat areas will help maintain salmon populations that support commercial, sport and subsistence fisheries on the Kenai River.

The property is about 2 1/2 miles northwest of

Soldotna. It contains about 21 acres of high-value wetlands.

Wetlands filter sediments and pollutants, provide groundwater recharge to the Kenai River, moderate surface erosion and flooding, and provide important habitat for fish and wildlife resources.

Carter, who had wanted to build a road across the wetlands to reach a building site by the river, has said the real problem was neighbors who didn't want to look at any new development. He insisted his road wouldn't hurt the wetlands.

Disputes over permits held up the project for more than a year. Carter finally agreed to sell the land to the state.

4—KODIAK DAILY MIRROR, Friday, December 18, 1998

Letter to the editor



Sea lion issue complex

To the editor,

I am writing this letter in response to the recent closures and restrictions on the trawl fisheries here and in the Bering Sea. I cannot write as an expert in pinniped biology, or an ocean ecologist. I am reporting only my observations as an observer with ADF&G and as a trawlerman of 15+ years both here and out West.

Back several years ago, when it was only stupid (not illegal), I had occasion to feed, and watch other people feeding sea lions. Working with the state as an observer, it was part of my job to get prohibited species (salmon, crab, halibut etc.) back over the side after measuring, weighing, etc. and making viability estimates. If sea lions were following the boat — they often are —

they ate pollock. They ate almost anything except rockfish. But they had favorites!

I have talked to quite a few scientists about pollock and there is consistent agreement that pollock are not high in oil content -- a low calorie diet.

Kodiak bears don't get to be 1000+ pounds from dieting!

I'm afraid these closures are not based on good science, or a detailed study of sea lion feeding habits and requirements. They are rather a knee jerk reaction to complaints from groups that are well-intentioned but poorly informed.

I hope all who are applauding these trawl closures now can still clap when the salmon, herring, and halibut fisheries are taking place 20 miles offshore!

—Steve Pint

EVOS money buys river property

By DOUG LOSHBAUGH
Peninsula Clarion

The state has paid \$280,000 to buy prime wetlands along the Kenai River from Soldotna fishing guide Paul Carter. The Conservation Fund, a national land trust, helped the state to acquire the property.

"Protection of these riparian habitat areas will maintain the salmon populations that support our commercial, sport and subsis-

tence fisheries," said Gov. Tony Knowles in a press release Thursday. "We are pleased to be able to acquire this important habitat, and I want to thank the Conservation Fund for their assistance in protecting Alaska's natural resources."

The 27-acre purchase includes 21 acres of high-value wetlands, which provide habitat for moose, bears, small mammals and birds. Overhanging vegetation provides cover for young salmon and trout.

King and pink salmon spawn nearby. The area just downstream is heavily fished each summer.

"I'm pleased the administration continues to make protection of Kenai River habitat a priority," said Kenai Peninsula Borough Mayor Mike Navarre. "Protecting this parcel shows foresight and addresses the public concern over potential impacts from proposed development."

Funds for the purchase came
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...River

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from a criminal restitution payment following the Exxon Valdez oil spill. Using that and other settlement funds stemming from the spill, the state has acquired or made possible the acquisition of 4,800 acres of habitat in the Kenai River watershed at a cost of more than \$13 million.

Carter had originally proposed to reach his property by building nearly a mile of road, extending Cheechako News Drive near Soldotna, and cross-

ing about a half-mile of wetlands. The route followed a platted right of way. Carter said he had planned to build his dream house on the land.

The state Department of Fish and Game recommended against finding the project consistent with the state and borough coastal management plans. But the borough planning commission and other state departments recommended finding the proposal consistent, subject to certain mitigation measures.

The U.S. Army Corps of Engineers issued a provisional permit to build the road, and the state Division of Governmental Coordination, which

coordinates agency reviews, found the project consistent with coastal plans, subject to borough and agency stipulations.

Then several citizens appealed to the Coastal Policy Council, which remanded the project for additional DGC review. Meanwhile, in a separate appeal process, the state's top habitat biologist said Fish and Game was prepared to elevate DGC's finding to a higher state panel. Carter stopped the review and agreed to try to negotiate a sale.

After signing a contract last month, he said he felt he had been forced to sell the land. He said the coastal consis-

ten- cy fight had left him with ulcers and an empty bank account.

He said last month that he has no problem with controlling development along the river. But if agencies want to control development, they could come up with an overall plan.

Janet Kowalski, director of the state's Habitat Division, said she agrees that protecting the river project by project is no way to go. It would be better to protect the river on a watershed basis. But Fish and Game has statutory authority only to permit projects one at a time. It tries to cooperate with the Kenai borough to do more, she said.

Managers recommend halibut quota increase

By MARK BUCKLEY
Mirror Writer

The catch in the area around Kodiak could dip slightly, but the coastwide 1999 Pacific halibut quota might increase if biological recommendations rule the day.

"The 1999 staff recommendations are a 1.6 percent increase in coastwide halibut quota, to 73.04 million pounds," said Bruce Leaman, director of the International Pacific Halibut Commission. "That is up from the 1998 catch limit of 71.8 million pounds."

The 1999 quota recommendations for areas 3A and 3B, the districts of most importance to the Kodiak fleet, are 24.7 million pounds for 3A and 13.4 million pounds for 3B.

This year's catch limits for both 3A and 3B were 26 million and 11 million pounds respectively.

Area 3A encompasses the Southcentral Alaska coast from Glacier Bay to the south end of Kodiak. Area 3B stretches from the south end of Kodiak to Cape

Lutke, on Unimak Island.

Leaman noted halibut abundance is rising and falling slightly in the various districts.

"The stock assessment results show higher biomass to the western portion of the stock range and lower biomass in much of the southern portion," Leaman said.

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Halibut

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Leaman said the IPHC staff is recommending smaller quotas for areas 2A, 2B, and 3A. Areas 2A and 2B cover the coasts of the three western U.S. states plus British Columbia.

"Area 2C, Southeast Alaska, shows a small increase while areas 3B and 4 show larger increases," he said.

The staff is recommending the combined quota for Area 4, which encompasses the Bering Sea and Aleutians districts, to jump from 10.5 million pounds this year to 12.4 million in 1999.

This year saw Kodiak lose its title as "Halibut Capital of the World" to Homer. In 1998 Kodiak saw 793 halibut deliveries for a total of just under 9 million pounds. That tally came in behind Homer, which had 946 deliveries

for a total of 10.4 million pounds.

Although prices during the season varied from less than \$1 per pound in some markets to a peak that reached almost \$3 per pound in Homer, industry observers use \$1.35 as an average Alaska price. Alaska prices in 1997 averaged \$2.25 per pound. At the \$1.35 figure, the 1998 fishery generated \$12.5 million to fishermen delivering in Kodiak and nearly \$73 million statewide.

Price, coupled with poor weather as the season drew to an end, were factors that apparently kept some fishermen from harvesting all their quota.

After the 1998 Alaska and British Columbia halibut fisheries closed on Nov. 15, the halibut commission reported the total Alaska catch was about 54 million pounds; which came in about 7 percent, or 4 million pounds, un-

der the catch limit.

British Columbia's commercial catch of 12.8 million pounds was 200,000 pounds—about 2 percent—under its catch limit.

Although the 1999 quota proposals are important, they are not set in stone, Leaman noted.

"Our recommendations, along with public and industry views on them, will be considered by IPHC commissioners and their advisors at the IPHC annual meeting from Jan. 25-28 in Prince Rupert, BC.," he said. "The commissioners will decide."

Persons with Internet access can read the IPHC's full proposal by visiting the following address: www.iphc.washington.edu/PAGES/Publications/AnnualMeeting/1999/CatchProposals

SeaLife Center gets tax reprieve

By Colleen Kelly
LOG Staff

The City Council wrestled Monday night with the idea of instituting a 5 percent penalty (or about \$1,800) to the Alaska SeaLife Center request to delay an estimated \$63,000 payment in lieu of taxes.

In the end, Mayor Bob Satin's amendment failed 4-3 and the council went on to vote unanimously in favor of the delayed payment.

City Manager Scott Janke and local businessman Dave Crane, both members of the SeaLife Center board of directors, had

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SeaLife...

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pleaded for a show of support from the council.

"It's important that the city show some community support for this project," Janke said. He described council approval of the resolution as "an arrow in the quiver of the board of directors of the SeaLife Center" as they sought other sources of funding.

Janke's comparison appears to be accurate because within hours of the council's decision, the Exxon Valdez Oil Spill Trustees Council voted to pay an additional \$385,300 in bench fees for the seven research projects it's funded for fiscal 1999.

By Tuesday afternoon, U.S. Sen. Ted Stevens was announc-

ing that \$351,000 in federal funding for Steller sea lion research would soon be on its way to the facility.

When the SeaLife Center board of directors met Tuesday afternoon, Janke said they were appreciative of the council action.

"I was glad to see the city approve delaying payment to provide a little bit of breathing space for the short-term," Janke said.

The city manager said both the board of directors and the board of governors of the \$56 million facility are "doing the things necessary to improve the financial situation." He said the current financial difficulties are similar to those encountered by other first-year businesses.

In recent weeks, the board of directors broke down into three

or four subcommittees so they could play a more active role in operational decisions, Janke said. One of its actions is "a very high-paced search on getting a new executive director," the city manager said.

Kim Sundberg's contract as executive director expires in a year and the board of directors is stepping up the pace to find a replacement "with a better business background, not just a science background," Janke said.

As a director, Janke said he didn't become aware of the severity of the facility's problems until the board went to Fox Island for a retreat in October. "During that retreat it became apparent that there was a problem and we decided to forget this retreat and start dealing with the problems.

"Since then, the board of

directors has been meeting regularly to write a new business plan," he said.

According to terms of the lease operating agreement the SeaLife Center has with the city, a copy of the business plan is to be filed with the city at least 60 days prior to the start of the calendar year, or Nov. 1.

Janke said it was impossible to meet that requirement. "It couldn't be (because) it was under a crisis situation," he said. "The plan is just now being written."

The city manager said the board of directors recently appointed businessmen Dale Lindsey of Seward and Dave Gottstein of Anchorage to fill two empty director seats in an effort to tap into their business acumen.

"They are two respected individuals with a lot of energy and

experience," he said.

Lindsey and Gottstein are already serving on the SeaLife Center's board of governors, but that group "doesn't take part in the decision-making," Janke said.

Because the directors were stepping up their fund-raising efforts, Janke said Jack Scoby, president of the board of directors, decided to step down a month and a half early to make way for Sharon Anderson, the new president.

"The board basically decided to take over management operations for a while," he said. "By spring we'll be in pretty good shape."

Janke said the reorganization of the board of directors and the writing of a new business plan will go a long way to improving things.

4 Pennies from heaven

By Colleen Kelly
LOG Staff

The Alaska SeaLife Center got an \$800,000 shot in the arm this week as efforts to beef up funding bore fruit. A member of the SeaLife Center board of directors anticipates the cash infusions will be sufficient to get the facility through its current difficulties.

City Manager Scott Janke who sits on the center's board of directors said the added monies should "buy us about 2 1/2 months of time, and by then the visitor numbers will be up."

He added, "It's not over, but we're in a lot better shape."

Just this week the SeaLife Center learned it will get a financial boost from the following:

- \$63,000 — By virtue of the

City Council's decision to delay until June 30 the nonprofit corporation's payment in lieu of taxes for the past six months, the facility will be able to use the estimated \$63,000 to meet other funding needs. As a nonprofit corporation the facility doesn't collect sales taxes, but as part of its lease operating agreement with the city, the SeaLife Center has agreed to a PILT representing 3 percent of gross retail and ticket sales.

- \$385,300 — The Exxon Valdez Oil Spill Trustee Council at its Tuesday meeting agreed to pay the full price for bench fees for fiscal '99 for seven research projects

See Plus, Page 19

at the facility after hearing a request from SeaLife Center executive director Kim Sundberg and Leif Selkregg. EVOS trustees had previously agreed to pay \$166,633, but will now increase that figure to \$551,936, according to Joe Hunt, communications coordinator for EVOS.

The Trustee Council negotiated an agreement that allows it to get a reduction in bench fees when the SeaLife Center makes a profit from its visitor gate receipts. The idea is that a portion of the gate receipts will fund the research fees. Because the profit margin from the gate isn't there, it's not possible for the SeaLife Center to offer the fee reduction in the

upcoming year, explained Claudia Slater, the Alaska Department of Fish and Game's project manager for the SeaLife Center.

- \$351,000 — U.S. Sen. Ted Stevens' office announced Tuesday that more than a third of the Steller sea lion research funding approved for the fiscal year ending in September would finally be awarded this week. Announcement of the \$1 million grant administered by the National Fish and Wildlife Foundation came in May, but only \$38,000 in funding has been released so far. An aide in Stevens' Washington, D.C., office couldn't say when the remaining \$611,000 allocated for fiscal '98 would be forthcoming.

Another \$750,000 for the study has been approved for fiscal 1999, bringing the total funding available for the project to \$1.75 million.

"This grant came at a good time for the SeaLife Center," Stevens said in a press release. "The additional research dollars will not only help with the pressing concerns in Alaska waters, but will also help the SeaLife Center."

Point of View

People need access to oil spill decision-making

by John S. Devens

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But the members of the Unified Command — one person each from the U.S. Coast Guard, the Alaska Department of Environmental Conservation and the oil industry — appear to be concerned that citizens may not understand their deliberations, and that we might engage in disruptive debates during high-stress decision-making sessions. The Coast Guard, whose decision it is to make, has so far turned us down.

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meetings law says, "do not give their public servants the right to decide what is good for the people to know and what is not good for them to know."

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This engendered mistrust by citizens, because they didn't know how the decisions were being made that so deeply affected their lives and livelihoods.

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The plan calls on us to serve as an information conduit, but is vague about how. It provides only that the council is "a resource for the Unified Command and participates in the regional Multi-Agency Coordinating (MAC) Committee when it is established and functioning for a spill response."

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John Devens is executive director of the Prince William Sound Regional Citizens' Advisory Council.

The Council is an independent nonprofit corporation whose mission is to promote environmentally safe operation of the Valdez Marine Terminal and associated tankers. Its work is guided by the Oil Pollution Act of 1990 and its contract with Alyeska Pipeline Service Co. The council's 18 member organizations are communities in the region affected by the 1989 Exxon Valdez oil spill, as well as aquaculture, commercial fishing, environmental, native, recreation, and tourism groups.

Perryville residents seek to restore dwindling coho run

By Jody Seltz

For The Times

The evening sun paints Coal Cape rosy against the cobalt blue of the North Pacific ocean. Lately the sphinx-like escarpment has watched over declining returns of salmon to the Kametolook River at its base.

Residents of the tiny village of Perryville takes a close interest in the pink and coho salmon that return to the river each year — it's their winter supply of dry fish. Elders say the river used to hold enough coho salmon for the village to take what it needed each fall for subsistence. They say as many as 3,000 cohos used to spawn in the tributaries and main branch of the braided river. A couple of years ago only 186 cohos were counted upstream.

The village is trying to change that, using incubation boxes to hold the coho eggs over winter. The project is financed through the Exxon Valdez settlement funds to help restore subsistence resources within the spill region.

One cool clear fall morning Jerry Yagie and I rode the winding four-wheeler trail up the river plain toward the snow-covered flanks of Mt. Veniaminov, through alders and across streams to the spring-fed brook that now holds the incubation boxes.

It takes about an hour to reach the brook

Coastal currents

where the boxes are. We trace the paths of multiple sow and cub combinations along the gravelly plain. Jerry stops to point out the tracks where a trio of wolves gathered. We see coho, sockeye, chum, and pink salmon spawning or traveling upstream all the way.

The river bed is wide and laden with silt from glaciers high in the mountains. One single flood can completely change the flow of a stream here. It's no wonder fish spawning patterns also change.

In trying to increase the run size, the village has posted "no fishing" signs for the upper half of the river. That, along with the commercial fishery closures in the Perryville area after Aug. 20, when the coho run begins, is already helping the river's cohos recover, according to Jim McCullough of the Alaska Department of Fish and Game. In 1997, the coho run was four times that of 1996.

The pond is crystal clear, fed by numerous springs at the base of a long hill covered with alder and berry bushes. The pond has been dammed and a pipe inserted in it to increase the flow over the tote-like plastic boxes downstream.

The project began in 1997. Villagers worked closely with Jim McCullough and

Lisa Scarbrough of the Alaska Department of Fish and Game. They came out to check the stream and monitored the stream temperature for a year. They also set up an aquarium in the school for students to participate in incubating coho salmon from eggs to fry stage, and then release them in the Kametolook River.

Yagie is one of two residents who traveled to Kodiak last fall for training in the method of incubating coho salmon. "They took us out to Saltry Cove for a week. We did some egg takes on some red salmon. That's how we learned to do that."

Last year they incubated a few more salmon but were using gillnets and had a hard time rounding up ripe females. "We took eggs from five fish, and probably about a couple thousand (fry) survived. We put them in a three lakes and one creek... Maybe in a few years if we go ice fishing or sportfishing we'll tell if they (the fry in the lakes) survived," said Yagie.

This fall they'll round up 120 cohos in a holding pen in the river and take eggs from the 60 females when they're ripe. The fish incubated in 1998 should return in 2001 and 2002.

The goal is to have an in-river run strength of 3,000 coho. "We believe that would be an adequate number for subsistence as well as

escapement needs," said McCullough. "Hopefully, we haven't lost the genetic material to have the run spread out over time."

Jody Seltz lives in Cordova and also produces the Alaska Coastal Currents radio program.

THE CORDOVA TIMES
DECEMBER 17, 1998

Killer whales develop a taste for sea otters

By Ned Rozell

Sea otters are getting harder to find along the western part of the Aleutian chain. Their population has dropped from about 53,000 animals in the early 1990s to only 6,000 today. Some biologists think the missing otters of western Alaska have disappeared to an unlikely place — the bellies of killer whales. Researchers say the actions of people may have caused this unusual switch in the diet of killer whales.

Jim Estes, a wildlife research biologist who works for the U.S. Geological Survey at the University of California, has watched sea otters in Alaska since the 1970s. On his 1990s cruises to the Aleutians, he and other biologists noticed a 25-percent decline in sea otters each year. At first, Estes didn't consider killer whales as a reason for the sea otter decline. Killer whales mostly eat seal lions, seals, and other marine mammals that spend most of their time far offshore, away from sea otters.

When he was on a cruise from Attu to Dutch Harbor in the early 1990s, Estes and his colleagues saw killer whales where they hadn't before, observations that later became a clue to the disappearance of the sea otters. "We were seeing killer whales near the beach all the time," Estes said during a phone interview from his office in Santa Cruz, Calif. "All of us commented on how peculiar that was."

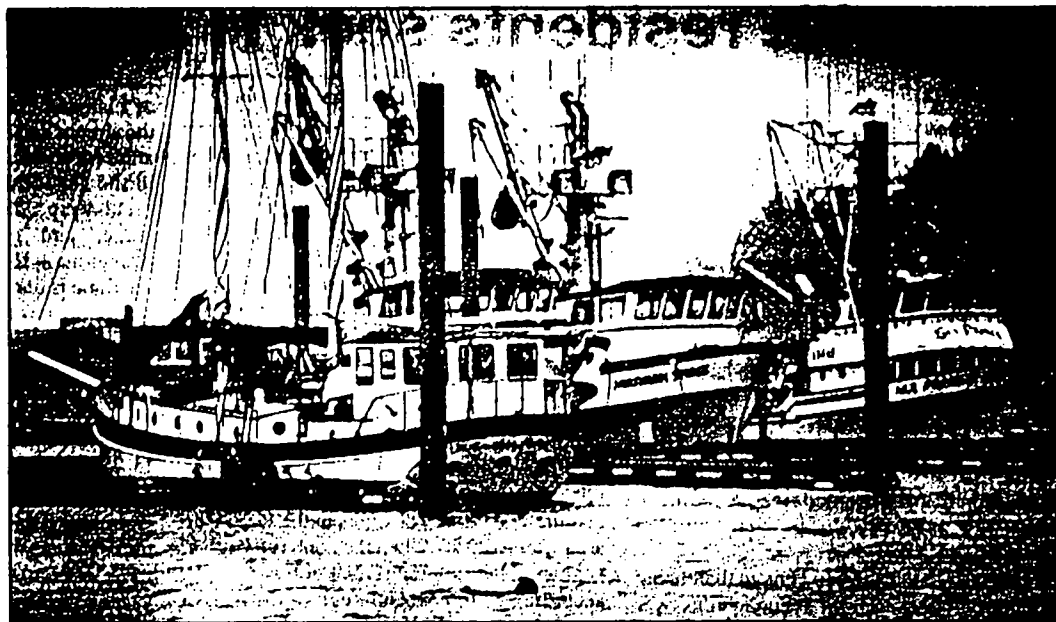
The whale sightings in shallow waters frequented by sea otters coincided with a nose-dive in the population of harbor seals and Steller sea lions, but Estes said he was skeptical

Science beat

about the killer whale-sea otter connection. One reason for his doubt was that in several decades of going to sea and observing otters, he had never actually seen a killer whale eat a sea otter.

No one had published a scientific paper on killer whale predation on sea otters until Brian Hatfield, also of the U.S.G.S. in California, gathered anecdotes for a paper published in the October 1998 Marine Mammal Science. Researchers doing wildlife surveys following the Exxon Valdez oil spill and biologists studying otters in the Aleutians witnessed killer whales attacking sea otters. One method the whales used was to breach near floating otters and land on top of them, presumably eating the stunned otters underwater because the animals never returned to the surface. Hatfield concluded that the lack of reports of killer whales eating sea otters may be due to the fact that killer whales have only recently shifted their diets to include sea otters, possibly because of the decline of Steller sea lions and harbor seals.

Estes said he wasn't convinced killer whales were eating sea otters until he and Tim Tinker, also from Santa Cruz, did a study in which they compared two populations of sea otters at Adak Island. The number of sea otters in Clam Lagoon remained stable from 1993 to 1997, while sea otters in nearby Kuluk Bay disappeared at a rate five times greater. Clam Lagoon is an area uniquely protected from killer



Jennifer L. Strange/Times photo

Not much more than sea otters could be found venturing out in the worst of last weekend's wet and windy snowstorm.

whales by a narrow channel only three or four feet deep, while Kuluk Bay is open coastline that offers otters no protection from killer whales. One killer whale with a taste for sea otters could eat more than 1,800 sea otters a year, Estes said.

Why the killer whales changed their diet is still a matter of speculation, but people may be the culprits. In a recent Anchorage Daily News article, director Andy Rosenberg of the National Marine Fisheries Service said a link may exist between overfishing of pollock and the decline of the Steller sea lion, a killer whale prey species that has declined more than 70 percent since the 1960s. Estes said the cause of the killer whales' change in menu may also be a natural warming of the ocean or some other change in

ocean ecology.

This column is provided as a public service by the Geophysical Institute, University of Alaska

Fairbanks, in cooperation with the UAF research community. Ned Rozell is a science writer at the Institute.

THE CORDOVA TIMES
DECEMBER 17, 1998

Citizens must be heard during oil spill response

By Dr. John Devens

A major lesson of the Exxon Valdez tragedy is in danger of being ignored: Citizen involvement is critical in responding to a major oil spill.

For months now, we at the Prince William Sound Regional Citizens' Advisory Council have urged industry and government to guarantee us a non-voting advisory seat on the Unified Command, which is formed after an oil spill to manage the response. The executive director would normally fill that seat on the council's behalf.

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and the oil industry — appear to be concerned that citizens may not understand their deliberations, and that we might engage in disruptive debates during high-stress decision-making sessions. The Coast Guard, whose decision it is to make, has so far turned us down.

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direct citizen input to the Unified Command is critical for its deliberations and a protocol can be developed for appropriate input by citizens.

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Our reasons for wanting a seat go

Commentary

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Why spill anniversary will be in Anchorage

A Nov. 18 letter to the editor asked an important question: Why is a symposium on the 10th anniversary of the oil spill being held in Anchorage?

As organizers of the event, this is the very first question we faced. Where should the symposium be held? Our first choice, as was the letter writer's, was to hold the event within the spill region, preferably in Prince William Sound. But we soon realized that an event of this magnitude — up to 1,500 people, media from around the world, posters and exhibits, and a keynote luncheon — has tremendous logistics requirements and costs associated with each of them.

For many practical reasons, it became clear that Anchorage was the only site that could hold such a large symposium. Valdez, however, will host a sister event timed to coincide with the 10-year symposium in Anchorage. The Prince William Sound Community College, Alyeska Pipeline Service Company, and PWS Regional Citizens' Advisory Council are working jointly on a symposium in Valdez to focus on spill prevention and response (Dec. 2 Vanguard story). It is being planned so that people and media outlets interested in attending 10th anniversary events will be able to spend a few days in Valdez before returning for the symposium in Anchorage. We are publicizing the Valdez event in promotional materials to help make it a

success.

We are also in contact with dozens of newspaper, magazine, television and radio reporters concerning their plans to cover the 10th anniversary of the spill. Each and every one of them is encouraged to spend time in Prince William Sound — in the villages, on the beaches, in Valdez and Cordova — to talk with the people most affected by the spill. Most of them have done exactly that. As the letter writer pointed out, that's where they will learn the true impacts of the spill

and witness for themselves the ongoing recovery.

Molly McCammon,
Executive Director
Exxon Valdez Oil Spill
Trustee Council
Anchorage

SeaLife suffers cash crunch

ANCHORAGE (AP) — The Seward City Council has agreed to help the Alaska SeaLife Center with a cash crunch.

The council Monday night voted to allow the center to delay payment of \$63,000 owed to the city until June.

"We are asking for a delay to help us out through the winter months," said Darryl Schaefermeyer, the center's managing director.

The center leases the building from the city and, under conditions of the lease, pays the city 3 percent of gate receipts and retail store sales in lieu of taxes. The payments are due quarterly. The center paid \$38,000 in June and owes \$63,000 for July to September.

Schaefermeyer said that the center is operating within its budget, but is still learning how to juggle its seasonal cash flow. In addition, the center saw 45,000 fewer visitors than expected.

When the center opened in May, market forecasters suggested it would see 235,000 visitors by the end of the year. Instead, only

190,000 visitors have come through its doors.

"We had no history to work with," Schaefermeyer said. But the 190,000-visitor count isn't disappointing. "Most people in this kind of business say doing 80 percent of the forecast is good."

The center also is saddled with a \$17.5 million construction loan that has monthly payments of \$150,000.

Seward City Manager Scott Janke said he is not worried.

"I don't see any problems with what's happening," Janke said. "It's like most businesses in the start-up phase."

The \$56 million center on the edge of downtown Seward opened in May as a science research facility and tourist attraction. Construction costs were covered by municipal bonds, private contributions and money Exxon paid to settle claims from the 1989 Exxon Valdez oil spill.

The facility was developed to be self-sustaining with researchers bringing in funding through grants and visitors paying a \$12.50 admission fee.

Citizen involvement should play important role in spill response

By JOHN S. DEVENS

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10-year oil spill event to look back on lessons learned

Editor's note: It has been eight years since the Exxon Valdez ran aground in Prince William Sound, spilling nearly 11 million gallons of Alaska crude oil. Time has since told quite a lot about the spill's long-term effects. To help tell the story, the Exxon Valdez Oil Spill Trustee Council is providing this column focusing on the ongoing recovery within the spill region.

By JOE HUNT

There is no celebrating this anniversary. Believe it or not, it has been almost 10 years since the Exxon Valdez shocked Alaska, spoiling one of the world's most impressive marine environments with the nation's largest oil spill. For Alaskans and for many around the world, it was a tragedy that cannot be forgotten.

As we gather to look back on the last 10 years and to remember the tragedy, it will not be a memorial or a commemoration. It will be a learning event. It will be a time to report to the nation about the long-term consequences of a major oil spill, efforts under way to restore the environment and precautions undertaken to prevent something of Exxon-Valdez magnitude from ever happening again.

"Legacy of an Oil Spill: 10 Years After Exxon Valdez" is a four-day scientific symposium preceded by a one-day public-oriented event. The entire event will be held March 23-27 at the William Egan Convention and Civic Center in Anchorage.

The first day will be dedicated to providing a gen-

eral overview of the spill and the decade that followed. "We want to focus on the lessons we have learned in the last 10 years," said Molly McCam-

mon, executive director of the Exxon Valdez Oil Spill Trustee Council, which is sponsoring the event. "The idea is to provide answers for the key questions that we all have about this spill."

Have the fish, birds and mammals injured by the spill been able to recover? Are the people of the spill region recovering from the 1989 trauma? Is there oil still on the beaches? How is the \$1 billion from the Exxon civil and criminal settlements being used? Can a major spill happen again? If so, can it be cleaned up?

The first-day public event will include a keynote luncheon speech by Dr. Jane Lubchenko, professor of marine biology and zoology at the University of Oregon. Dr. Lubchenko sits on the board of directors of the National Science Foundation and is past president of the American Association for the Advancement of Science and the Ecological Society of America. She plans to put the Exxon Valdez restoration efforts in context with the "State of the World's Oceans."



Restoration and recovery following the Exxon Valdez oil spill

Alaska
Coastal
Currents

Although the first day of the symposium is free to the public, tickets for the luncheon will cost \$15 and must be purchased by March 1.

Gov. Tony Knowles, who oversees the three state trustees on the council, has been invited to make opening comments, along with the three federal trustees: Interior Secretary Bruce Babbitt; Secretary of Agriculture Dan Glickman; and Secretary of Commerce Richard Daly.

The morning program will focus on the status of injured resources and the trustee council's two major restoration efforts: the habitat protection program and the research, monitoring and general restoration program. The afternoon will focus on the human dimensions of the spill, spill prevention and response, and the future of restoration.

The four-day symposium is also open to the public. Technical sessions will be held covering many of the scientific projects funded by the trustee council. Topics will range from oceanography to subsistence to spill prevention. Registration is \$70 before March 1 and \$100 after that date. More information can be obtained by calling the Exxon Valdez Restoration Office toll free at 800-478-7745 (within Alaska) or by e-mail at restoration@oilspill.state.ak.us, or through the web site at www.oilspill.state.ak.us.

Joe Hunt reported on the Exxon Valdez oil spill for The Anchorage Times. He currently serves as communications coordinator for the Exxon Valdez Oil Spill Trustee Council, which sponsors this series.

Killer whales may be causing Aleutian sea otter decline

This column is provided as a public service by the Geophysical Institute, University of Alaska Fairbanks, in cooperation with the UAF research community. Ned Rozell is a science writer at the Institute.

Sea otters are getting harder to find along the western part of the Aleutian chain. Their population has dropped from about 53,000 animals in the early 1990s to only 6,000 today. Some biologists think the missing otters of western Alaska have disappeared to an unlikely place — the bellies of killer whales.

Researchers say the actions of people may have caused this unusual switch in the diet of killer whales.

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Alaska science forum

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whales as a reason for the sea otter decline.

Killer whales mostly eat seal lions, seals, and other marine mammals that spend most of their time far offshore, away from sea otters. When he was on a cruise from Attu to Dutch Harbor in the early 1990s, Estes and his colleagues saw killer whales where they hadn't before, observations that later became a clue to the disappearance of the sea otters.

"We were seeing killer whales near the beach all the time," Estes said during a phone interview from his office in Santa Cruz, California. "All of us commented on how peculiar that was." The whale sightings in shallow waters frequented by sea otters coincided with a nosedive in the population of harbor seals and

Steller sea lions, but Estes said he was skeptical about the killer whale-sea otter connection.

One reason for his doubt was that in several decades of going to sea and observing otters, he had never actually seen a killer whale eat a sea otter. No one had published a scientific paper on killer whale predation on sea otters until Brian Hatfield, also of the U.S.G.S. in California, gathered anecdotes for a paper published in the October 1998 Marine Mammal Science.

Researchers doing wildlife surveys following the Exxon Valdez oil spill and biologists studying otters in the Aleutians witnessed killer whales attacking sea otters. One method the whales used was to breach near floating otters and land on top of them, presumably

eating the stunned otters underwater because the animals never returned to the surface.

Hatfield concluded that the lack of reports of killer whales eating sea otters may be due to the fact that killer whales have only recently shifted their diets to include sea otters, possibly because of the decline of Steller sea lions and harbor seals.

Estes said he wasn't convinced killer whales were eating sea otters until he and Tim Tinker, also from Santa Cruz, did a study in which they compared two populations of sea otters at Adak Island.

The number of sea otters in Clam Lagoon remained stable from 1993 to 1997, while sea otters in nearby Kuluk Bay disappeared at a rate five times greater. Clam Lagoon is an area uniquely protected from killer whales by a narrow channel only three or four feet deep, while Kuluk Bay is open coastline that offers otters no protection from killer whales.

One killer whale with a taste for sea otters could eat more than 1,800 sea otters a year, Estes said. Why the killer whales changed their diet is still a matter of speculation, but people may be the culprits.

In a recent Anchorage Daily News article, director Andy Rosenberg of the National Marine Fisheries Service said a link may exist between overfishing of pollock and the decline of the Steller sea lion, a killer whale prey species that has declined more than 70 percent since the 1960s.

Estes said the cause of the killer whales' change in menu may also be a natural warming of the ocean or some other change in ocean ecology.

Sea lion plan worries pollock fishermen

By BEN SPIESS
Daily News reporter

As Greenpeace spokesman Ken Stump listed the no-fishing zones, catch restrictions and season changes he wants implemented into Alaska's multimillion-dollar pollock fishery to protect Steller sea lions, a panel member offered some advice: Cool your comments if you want to work with the fishing industry.

Stump paused. The room at the Anchorage Hilton was crowded with fishermen and processors, many of whom reacted to Stump with grins of disbelief and shrugs of indifference.

Stump replied. "All we've gotten from this process is delay and denial. It is time to act."

Like it or not, the fishing industry is finding it has to listen to Greenpeace.

Spurred by a lawsuit from Greenpeace and other environmental groups, the National Marine Fisheries Service issued an opinion last week that commercial fishing in Alaska is harming the recovery of the endangered sea lion. Now NMFS also wants changes in how the Alaska fleet fishes for pollock, including no-fishing zones near sea lion haulouts, reducing fishing in critical habitat and

breaking the annual Bering Sea pollock season into four short seasons to ease fishing pressure.

The Steller sea lion issue is a classic Alaska battle, with big money, a natural resource and the environment at stake.

Fishermen are saying that changes proposed to protect the sea lion will cost the \$650 million-a-year

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SEA LIONS: Plan raises doubt

Continued from Page A-1

fishery jobs and money and will make an already dangerous business deadly. Conservationists believe changing the fishery now will head off disaster later.

As everyone in the halls of the Anchorage Hilton this week is conceding, the problem is that no one knows for sure what has caused the Steller decline or if curbing fishing will aid recovery.

Faced with a decision but without all the facts, the North Pacific Fishery Management Council has a fundamental question before it: In the face of scientific uncertainty, should it try to protect the environment or the industry? NMFS has the final say, but it wants the council's input on any changes to the fishery. The council could vote today.

As the council and its committees meet this week, fishermen and industry leaders are responding to the NMFS finding against fishing with passion to match Greenpeace, hurling doubt on the decision.

"NMFS proposals may impose economic hardship ... without saving the Steller sea lion. We can't afford to make that mistake," said Simeon Swetsof, mayor of St. Paul in the Pribilof Islands.

"If this committee has got the cojones, they'll send the message that this decision stinks," said Richard Marks, a marine scientist representing a handful of Western Alaska coastal villages.

"What are cojones?" a panel member asked as the room erupted in laughter.

It was a rare burst of mirth in otherwise intense meetings.

The industry has stripped the NMFS finding bare and peered into every orifice, cited studies that offer different explanations for sea lion decline — including climate shift, subsistence hunting, killer whale predation — and questioned the quality of scientists who did the work.

Council member Dennis Austin apologized Thursday to NMFS biologist Tim Ragen about his line of questioning.

"I'm sorry if this has come across as character assassination," he said.

Ragen reiterated that he and NMFS stand by the finding.

Ragen said the agency's case against commercial fishing is circumstantial at best. He concedes many factors are con-



BOB HALLINEN / Daily News file photo

Sea lions gather at a rookery on Chirikof Island in the Gulf of Alaska.

tributing to the sea lion's decline. Of particular concern is a climate shift that has reduced the number of other prey fish for sea lions.

But the bulk of evidence points to fishing as hindering recovery, he said.

Since the late 1960s, the Steller sea lion population has fallen 70 percent. Sea lion numbers fell even more dramatically in Western Alaska, the same waters where fishermen annually pull 2.5 billion pounds of fish from the ocean in the nation's biggest fishery.

Sea lions feed mainly on pollock. Sea lions appear to be undernourished. Biologists believe that the heavy fishing pressure is depleting pollock available for Stellers near their haulouts.

"Think of a sea lion as like a fishing boat: You can only go to sea so many times and come back without fish before you are out business," Ragen said.

To curb fishing impact, NMFS wants to spread out fishing by breaking pollock fishing from two to four seasons a year. NMFS also seeks to cut the amount of the catch from critical sea lion habitat from 70 percent to 50 percent. Further, the agency proposes pushing the fishing nets farther from rookeries and haulouts.

While environmentalists doubt these protections go far enough, fishermen are predicting disaster.

"It's going to run me straight out of business," said Bob Desautel, skipper of the F/V Dona Liliana, a trawler out of

Dutch Harbor.

Desautel said he will have to sail farther to grounds that contain fewer fish. Familiar with the gales of the Bering Sea, he predicts more capsized boats and dead fishermen if new no-trawl zones and catch limits push fishermen out to sea.

Paul MacGregor, director of the At-sea Processors Association, said the industry would be willing to work with the NMFS recommendations but wants input in the process. "Give us the opportunity to help solve this," he said.

Some scientists also are doubting the NMFS decision linking fishing and sea lions.

"You've got so many potential causes — killer whales eating sea lions, subsistence hunting, a climate shift. Where is the science?" said Vidar Weststad, a biologist who retired last year from NMFS after 20 years of managing pollock catches.

Kate Wynne, a biologist at the University of Alaska Fairbanks, who has worked with endangered whales in New England, counseled caution.

"Approach this in increments, continue research. It's frustrating, but it takes time," she said. "We need to make sure this is not just a knee-jerk reaction to a lawsuit."

Reporter Ben Spiess can be reached at bspiess@adn.com.

Scientists at odds over origin of oil seeping into PWS

The Associated Press

ANCHORAGE — A new study runs counter to claims by Exxon that oil seeping from the ground is a natural part of the Prince William Sound environment.

The study suggests that signs of oil pollution in sea otters and ducks is because of the 1989 Exxon Valdez tanker spill.

"It puts Exxon back on the hook," said Bob Spies, chief scientist for the Exxon Valdez Oil Spill Trustee Council, the group that funded the study.

A scientific study funded by Exxon in 1996 reported that some hydrocarbons discovered on the sea floor come from natural oil seeps in the Gulf of Alaska. That study suggested that Prince William Sound has a natural ability to process oil and that a slight contamination in marine species might be normal there.

But the new work, by federal scientists in Juneau, finds that coal from large deposits on the Bering River is the source of the hydrocarbons.

Because coal hydrocarbons are not easily absorbed into the food chain, the data suggests that any contamination found today must come from the 1989 spill, the scientists said.

The debate resurrects questions over the pollution caused by the 11 million-gallon Exxon Valdez spill, the biggest environmental disaster in Alaska's financially lucrative history of oil production.

The new work also comes as

scientists wrestle over what is causing persistent stress among marine animals.

Sea otters and two species of ducks in western Prince William Sound have been found with an enzyme produced only when exposed to oil.

"By ruling out natural oil, it gives greater weight that these problems are linked to the Valdez spill rather than any other source," said Stan Senner, science coordinator with the spill trustee council.

Exxon referred questions from the Anchorage Daily News to authors of the 1996 study it funded.

David Page, a chemistry professor at Bowdoin College in Maine, and Paul Boehm, a geochemist in Cambridge, Mass., stand by their finding that thousands of tons of oil sweep into the Sound each year.

"Trying to find a signal of the spill today is like trying to tune in PBS from Mars," Page said.

Too many potential oil sources — fishing boats, recreation, oil seeps and old spills — cloud the picture. Stress among marine animals could as easily be blamed on the warm summers of El Nino as on the spill, Page said.

But Jeff Short, author of the new study, said the amount of oil leaking into the ocean near Prince William Sound is negligible.

"Maybe one or two quarts a day. You could scrape more oil off a Wal-Mart parking lot than comes out of those seeps," said Short, an NOAA scientist in Juneau.

Scientists tracking ecosystem changes, effects on PWS seabird populations

By Jody Seitz

For The Times

The Exxon Valdez oil spill struck in late March 1989 as harlequin ducks were still wintering in Prince William Sound and just as seabirds and waterfowl began migrating through the area. An estimated 250,000 birds were killed by the floating oil.

Nine years later, people are just starting to talk about seeing more seabirds in Prince William Sound. The reason for the slow recovery of their numbers is still under investigation. While some scientists search for an explanation in the ecosystem, others look for contamination. But their conclusions ultimately hinge on baseline data gathered long before the oil spill.

For most species in Prince William Sound, there is little information on their populations before 1989. For seabirds, though, the story is a little different.

Counts of the birds go back to 1972, when the late Pete Isleib, a fisherman and ornithologist, traversed the Sound, counting and marking the distribution of every species. In 1984, David Irons of the U.S. Fish and Wildlife Service made another count.

Between those years, dramatic changes took place. Populations of fish-eating seabirds such as mergansers, pigeon guillemots, common murres and cormorants apparently all declined by as much as half. Scientists found that the birds' diets had changed to different, less fatty fish. The change in the birds' prey corresponded with a late 1970s shift in the dominant species of fish in the Gulf of Alaska.

Irons is one of many scientists who think changes in the Gulf of Alaska and Bering Sea decreased the abundance of several fish species, which affected the birds' food supply and spurred the decline in several seabird populations long before the oil spill.

"(The shift) may have affected the forage fish available for the fish-eating birds, because the fish-eating birds have declined, not the invertebrate-eating birds," Irons said.

For the first three years after the oil spill, counts of the birds were done every year. There have been winter and summer counts in several years since 1993.

Ecosystem changes aside, researchers continue to see differences in seabird populations between the oiled and non-oiled areas of Prince William Sound. "The populations in the oiled area continue to be low-

Coastal currents

"Some species are showing no signs of recovery and, in fact, the differences between populations in the oiled and unoled areas are becoming greater."

David Irons, U. S. Fish and Wildlife Service

er than before the oil spill," Irons said. "Some species are showing no signs of recovery and, in fact, the differences between populations in the oiled and unoled areas are becoming greater."

Both invertebrate-eating and fish-eating species are fewer in number and their populations grow more slowly in the oiled part of the Sound. For example, populations of Barrow's Goldeneye are increasing, but less rapidly in the oiled areas than the unoled areas. And harlequin ducks, which feed on snails, limpets, and other invertebrates such as mussels, have a much higher winter mortality rate in the oiled area than the unoled area. In fact, researchers believe the winter mortality rate for harlequins in the oiled areas of the Sound is too high for the ducks to maintain their populations in those areas.

Data on exposure of seabirds in the sound to crude oil or PCBs may provide some answers. Since 1996, scientists tested harlequin ducks, Barrow's Goldeneye, and pigeon guillemots for elevated levels of a liver enzyme called cytochrome P450, which lasts in their blood up to two weeks following exposure to PCBs or to crude oil.

"They've looked at birds in unoled and oiled areas and they've found that birds in the oiled areas have higher levels of P450 than in the unoled area," Irons said.

Irons said he was surprised to see these results so long after the spill. It's too early to draw conclusions, but Irons said he is concerned that 7-8 years after the spill, birds may still be encountering oil. If they are encountering oil in significant concentrations, it may affect their survival rates, he said.

Jody Seitz lives in Cordova and also produces the Alaska Coastal Currents radio program.

Alaska Coastal Currents

By Joe Hunt



CORDOVA TIMES
DECEMBER 10, 1998

Exxon oil spill nears 10-year anniversary

There is no celebrating this anniversary. Believe it or not, it has been almost 10 years since the Exxon Valdez shocked Alaska, spoiling one of the world's most impressive marine environments with the nation's largest oil spill. For Alaskans and for many around the world, it was a tragedy that cannot be forgotten.

As we gather to look back on the last 10 years and to remember the tragedy, it will not be a memorial or a commemoration. It will be a learning event. It will be time to report to the nation about the long-term consequences of a major oil spill, efforts underway to restore the environment, and precautions undertaken to prevent something of Exxon-Valdez magnitude from ever happening again.

Legacy of an Oil Spill: 10 Years After Exxon Valdez is a four-day scientific symposium preceded by a one-day public-oriented event. The entire event will be held March 23-27 at the William Egan Convention and Civic Center in Anchorage.

The first day will be dedicated to providing a general overview of the spill and the tragedy that followed. "We want to focus on the lessons we have learned in the last 10 years," said Molly McCammon, executive director of the Exxon Valdez Oil Spill Trustee Council, which is sponsoring the event. "The idea is to provide answers for the key questions that we all have about this spill."

Have the fish, birds, and mammals injured by the spill been able to recover? Are the people of the spill region recovering from the 1989 trauma? Is there oil still on the beaches? How is the \$1 billion from the Exxon civil and criminal settlements being used? Can a major spill happen again? If so, can it be cleaned up?

The first-day public event will include a keynote luncheon speech by Dr. Jane Lubchenko,

professor of marine biology and zoology at the University of Oregon. Dr. Lubchenko sits on the board of directors of the National Science Foundation and is past president of the American Association for the Advancement of Science and the Ecological Society of America. She plans to put the Exxon Valdez restoration efforts in context with the "State of the World's Oceans."

Although the first day of the symposium is free to the public, tickets for the luncheon will cost \$15 and must be purchased by March 1.

Governor Tony Knowles, who oversees the three state trustees on the council, has been invited to make opening comments, along with the three federal trustees: Interior Secretary Bruce Babbitt; Secretary of Agriculture Dan Glickman; and Secretary of Commerce Richard Daly.

The morning program will focus on the status of injured resources and the Trustee Council's two major restoration efforts: the Habitat Protection program and the Research, Monitoring and General Restoration program. The afternoon will focus on the human dimensions of the spill, spill prevention and response, and the future of restoration.

The four-day symposium is also open to the public. Technical sessions will be held covering many of the scientific projects funded by the Trustee Council. Topics will range from oceanography to subsistence to spill prevention. Registration is \$70 before March 1 and \$100 after that date. More information can be obtained by calling the Exxon Valdez Restoration Office toll free at 800-478-7745 (within Alaska); or by e-mail at restoration@oilspill.state.ak.us, or through the web site at www.oilspill.state.ak.us.

Joe Hunt reported on the Exxon Valdez oil spill for The Anchorage Times.

Fisheries managers seek increased sea lion protection

By Randolph E. Schmid

The Associated Press

WASHINGTON — Worried by the continued decline of northern sea lions in the waters off Alaska, federal fisheries managers are pressing for changes in the region's fishing practices.

"There is mounting evidence that fishing for pollock, at various times of the year, and in some critical habitat areas, may reduce the availability of an important food resource" for the sea lions, said Rollie Schmitt, director of National Oceanic and Atmospheric Administration Fisheries, the federal agency charged with protecting endangered marine species and implementing fishing regulations.

The National Marine Fisheries Service said Dec. 4 it has drafted a framework to adjust pollock fishing, which it will recommend to the North Pacific Fishery Management Council this week.

"Working closely with the council we can achieve the correct and delicate balance between wildlife conservation and commerce," said Terry Garcia, assistant secretary of commerce for oceans and atmosphere. The northern, or Steller, sea lion is the largest kind of sea lion.

Garcia said the goal is to recover the sea lions over time while still protecting the Alaska communities that rely on fishing for jobs. The Alaska pollock fish-

ery is worth an estimated \$670 million annually.

NOAA Fisheries' most recent Steller sea lion stock assessment finds the population has declined from 110,000 in 1978 to fewer than 40,000 today. Steller sea lions were listed as threatened in 1990, and those found in the Bering Sea, Aleutian Islands and Gulf of Alaska were reclassified as endangered in 1997.

At the same time, the average amount of pollock harvested annually from waters of critical habitat where sea lions feed and breed has increased from 672 million pounds in 1986 to 1.79 billion pounds in this decade.

Pollock are not overfished, the federal officials said. The problem is the increasing proportion taken from areas critical to the sea lions.

Already some steps have been taken, including establishing no-trawl zones in sea lion areas. But federal officials said more needs to be done.

Their proposals include:

- Continue the annual Nov. 1-Jan. 19 pollock trawling ban in the Bering Sea and extend it to the Gulf of Alaska.
- More evenly distribute the pollock harvest into at least four seasons throughout the year, and over a wider area.
- Increase protection areas to include important locations where the sea lions rest, feed and breed.

SeaLife Center asks city for some slack on \$63,000 debt

By Colleen Kelly
LOG Staff

As Alaska SeaLife Center officials wrestle with cash-flow problems at the facility, they are asking the City of Seward to postpone until June an estimated \$63,000 payment in lieu of taxes.

The City Council will consider a resolution to that effect when it meets Monday in regular session.

Sharon Anderson, president of the SeaLife Center's board of directors, wrote a letter to City Manager Scott Janke Dec. 3 spelling out the dilemma facing the center and its proposed actions to resolve its problems. At that time she asked if the city would consider delaying the center's payment in lieu of taxes for the period July 1 through Dec. 1, until June 30 of next year.

She indicated the facility would keep on track for payments due for the upcoming quarters ending March 30 and June 30.

According to Darryl Schaefermeyer, general manager of the center, the facility's biggest financial obligation comes from its debt load on its \$17.5 million construction bonds.

"That means a payment of \$150,000 each and every month, which is a significant portion of our cash requirement. That's obviously impacting our budget,"

Debt ...

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he said.

One of the solutions the board of directors is looking at, the general manager said, is different strategies for paying off the 20-year note.

He said the SeaLife Center employs just over 50 full-time equivalent positions, which is down from a high of 77 full-time equivalent positions earlier this year, Schaefermeyer said most of

the staff reductions came as a result of seasonal layoffs.

The SeaLife Center is already late in paying the approximately \$52,000 due Oct. 30 for sales in the quarter ending Sept. 30.

Schaefermeyer estimated an additional \$11,000 will be owing once the SeaLife Center tallies up its retail and ticket sales for the quarter ending Dec. 30. "It'll be closely \$63,000 or so for the two quarters," he said.

Because the payment is not sales tax, it doesn't fall under the sales tax code's penalty provision for late payment, according to

Rick Gifford, city finance director. "There's nothing in the (lease operating) agreement that covers penalties," he said.

Gifford said the city budgeted \$111,000 in anticipated PILT monies from the SeaLife Center for the fiscal year ending June 30, 1999, and so far hasn't received a payment to cover sales in fiscal 1999. "It definitely doesn't help our budget any," he said.

The SeaLife Center's payment of \$38,014 in August to cover sales in the quarter ending June 30 was part of the fiscal 1998 budget, Gifford said.

PWS Regional Citizens Advisory Council has changed; I quit

By Keith Gordaoff

Unfortunately I will be unable to attend the (Dec. 3-4) Prince William Sound Regional Citizens' Advisory Council meeting. However, for some months I have been concerned with the direction being taken by the council, and this letter sets out my thoughts on

the future of the organization. Being aware of many of the discussions concerning re-certification, it is apparent that I am not the only person who is questioning the value and make-up of the existing Council.

The Exxon Valdez accident occurred in the garden of the Chugach people, Prince William

Sound. It affected our culture and way of life in a way incomprehensible to those of you who live in the major cities of Alaska. In the aftermath of the Exxon Valdez spill, I spent a considerable amount of time taking politicians and oil company officials to visit the devastated areas and to meet with the Chugach people living in the affected villages. The Chugach people worked closely with all parties to ensure that sufficient safeguards were established to reduce the risk of a future catastrophe.

It is over nine years since the concept of a PWS Citizens' Advisory Council was first discussed. In late July 1989, BP proposed to the other trans-Alaska pipeline owners that the new spill plan should provide for the establishment of an advisory panel similar to the one at Sullom Voe, in the Shetland Islands.

A number of people were invit-

ed to participate in discussions on the formation of such an advisory council, including the mayors of spill affected cities and boroughs, representatives from native organizations and villages, and citizens representing the environmental movement. However, although the concept of third-party review was readily accepted, the Sullom Voe model was not acceptable to some members of the discussion group. They did not want deliberations to be private, nor did they wish for the Council to be constituted from the ranks of academia. They envisioned a group of citizens from each of the affected areas, who would hire experts as to advise them as necessary. A compromise was reached, which led to the establishment of the PWS Regional Citizens Advisory Council. Sen. Murkowski later incorporated this compromise into OPA 90.

Commentary

Because the membership of the new organization reflected the population most affected by the spill, the Chugach people believed it was a body where the concerns of the Native population of PWS could be expressed and where they would be reassured that their way of life would be protected.

However, within a year or so of its existence, the composition of RCAC began to change. The mayors and other political appointees found that attending the meetings took up too much of their time, so they looked to local volunteers to represent each community. The very generous budget allowed RCAC to develop a large administrative organization that is based in Anchorage, not in Prince William Sound. Many in the administrative organization appear to believe the length of the meetings measured their success.

This in turn has meant those RCAC members who had jobs or

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RCAC ...

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those who just could not stomach the incessant boredom of long meetings attended fewer and fewer meetings. I am an example. The location of meetings and their length has also affected the attendance of the representatives from the remote villages, because they cannot afford to spend time away from their communities. The result is that attendance at the meetings and Board control of the administrators has waned.

The next action that affected the balance of power was the establishment of numerous sub-committees. RCAC gave membership to anyone who volunteered. The RCAC members who had been affected by the spill were no longer in control of the appointing people in these subcommittees. The sub-

Today there is little or no representation from the Native population of Prince William Sound.

committees were therefore not filled with people who represented the concerns of the inhabitants of the area.

The overall result is an organization with an excessive budget, which has slowly and very subtly changed the original direction and strategic goals of RCAC. Power has shifted from the elected representatives and appointees of the citizens affected by the spill to the administrators. Today there is little or no representation from the Native population of Prince William Sound. Further, many people in positions of power within RCAC have little or no right to be neither on the Council nor on the sub-committees, if the original concepts of membership were still applied.

In my view, a minority has hijacked the process and their views, whether right or wrong technically, prevail. Many decisions are made not on economic or technical grounds, but on emotional ones. Much of this extra cost is borne by the State of Alaska. Therefore the foibles of a few are having a significant economic impact of the many. Eventually this will affect long-term oil development in the state.

The solution is threefold. The immediate priority is for control of the Board of Directors to be returned to people who truly represent those who were affected by the spill. This means a critical examination of the eligibility of all Council members. Once this is accomplished, the Board must

regain control of the entrenched administration. Directors must control the agenda of meetings and meetings must be scheduled to facilitate maximum attendance of Directors. If committees are needed they must operate under the control of the Board and not as independent bodies. Finally, the whole RCAC organization must be moved to Valdez, which is at the heart of all matters under discussion. Until RCAC can again say it represents the citizens of Prince William Sound, and not just a small group of special interests, I too question whether or not we deserve to be re-certified.

I have asked Chugach Alaska

Corp. to allow me to step aside as their representative on RCAC. The company has asked its Vice President, Mike Williams, to assume responsibility for RCAC matters. As many of you know, Mike has first-hand knowledge of Prince William Sound and of oil spill response, and we believe will be a great asset in guiding the future direction of the Council. Once seated, please direct all future communication to him.

Gordaoff is president & CEO of Chugach Development Corp., a subsidiary of Chugach Alaska Corp. in Anchorage. The letter was written to the Prince William Sound Citizens' Advisory Council on Dec. 1.

THE VALDEZ VANGUARD
DECEMBER 9, 1998
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PWS REGIONAL CITIZENS ADVISORY COUNCIL
HAS CHANGED; I QUIT

Citizens' voice critical for oil spill decisions

A major lesson of the Exxon Valdez tragedy is in danger of being ignored: Citizen involvement is critical in responding to a major oil spill.

For months now, we at the Prince William Sound Regional Citizens' Advisory Council have urged industry and government to guarantee us a non-voting advisory seat on the Unified Command, which is formed after an oil spill to manage the response. The executive director would normally fill that seat on the council's behalf.

But the members of the Unified Command — one person each from the U.S. Coast Guard, the Alaska Department of Environmental Conservation, and the oil industry — appear to be concerned that citizens may not understand their deliberations, and that we might engage in disruptive debates during high-stress decision-making sessions. The Coast Guard, whose decision it is to make, has so far turned us down.

To answer the citizens' need to provide and receive information at the Unified Command level, it has been suggested we use a member of the oil industry as a liaison or that we catch members of the Unified Command during breaks.

We don't consider either approach workable. We feel direct citizen input to the Unified Command is critical for its deliberations and a protocol can be developed for appropriate input by citizens.

We feel strongly that citizens have a right to know how decisions are made, and a right to respond to decisions affecting their lives. The people, as Alaska's open meetings law says, "do not give their public servants the right to decide what is good for the people to know and what is not good for them to know."

Our reasons for wanting a seat go back to 1989, when the Exxon Valdez poured 11 million gallons of North Slope crude into Prince William Sound. Mayors and other community officials found it difficult to get into the information and decision-making loop.

This engendered mistrust by citizens, because they didn't know how the decisions were being made that so deeply affected their lives and livelihoods.

It also deprived Exxon Corp. and government agencies of information they could have used to combat the spill. With better citizen input, perhaps more oil could have been contained, less-

ening the damage to shorelines, fisheries, countless careers and Exxon's bottom line.

With our network of member organizations and communities stretching from Prince William Sound to Kodiak to Lower Cook Inlet, we are ideally equipped to serve as the citizen voice on oil-spill issues. That is why we were formed after the Exxon Valdez spill.

In the event of a spill, we would activate our own Emergency Response Plan and could instantly become a region-wide high-speed link between affected citizens and response managers.

But at present, our role is so unclear under the state-federal oil spill response plan for Prince William Sound that it has become an ongoing subject of dispute between us and the Unified Command during drills and exercises.

The plan calls on us to serve as an information conduit, but it is vague about how. It provides only that the council is "a resource for the Unified Command and participates in the regional MAC (Multi-Agency Coordinating Committee) when it is established and functioning for a spill response."

That plan fails to explain the council's exact role in a MAC and fails to provide for a council role — as has been the case so far in drills and incidents — no MAC is established.

We want the plan modified to specify that the council is the MAC for spills in Prince William Sound and the Gulf of Alaska, and to guarantee us direct access to the Unified Command.

Only then will the citizens of our region be safe from the consequences of one of the oldest laws of human experience: Those who ignore history are doomed to repeat it.

The Regional Citizens' Advisory Council of Prince William Sound is an independent non-profit corporation whose mission is to promote environmentally safe operation of the Valdez Marine Terminal and associated tankers. Its work is guided by the Oil Pollution Act of 1990 and its contract with Alyeska Pipeline Service Company. The council's 18 member organizations are communities in the region affected by the 1989 Exxon Valdez oil spill, as well as aquaculture, commercial fishing, environmental, Native, recreation, and tourism groups.

Council faces sea lion protection

By MARK BUCKLEY
Mirror Writer

As it meets today in Anchorage, the North Pacific Fishery Management Council will face both a crisis in the pollock fishery and an industry attempting to deal with it.

Last Friday the National Marine Fisheries Service declared Alaska's pollock fisheries in the Gulf and Bering Sea were jeopardizing the continued existence of endangered Steller sea lions. The federal agency issued a 120-page document suggesting that closing vast areas to trawling, many of which are the most productive fishing grounds, might help turn the Stellers' decline around. NMFS also suggested splitting the fishery into four openings per year instead of the current two in the Bering and three in the Gulf.

NMFS went on to urge the North Pacific Council to adopt the proposed changes at its De-

cember meeting. The new regime is to be implemented in January. The proposed changes could have a profound effect on the fishery, which in Kodiak netted fishermen \$8.3 million in 1997. That represents roughly nine percent of the ex-vessel value of all species landed here last year.

Since Monday, members of the pollock industry have been meeting in an attempt to provide their own proposal to the council.

"All sectors of the pollock fishery: the offshore fleet of factory trawlers, the shorebased boats out of Dutch harbor, the Bering Sea motherships, the fishermen and processors from the Gulf, have been meeting," said Jay Stinson, president of the Alaska Draggars Association.

"NMFS's suggested alternatives are not cast in stone. They have a couple of paragraphs in their document laying down the guidelines of where they want to

go due to impact on the sea lions. Exactly how we get there is yet to be determined."

Stinson said the level of cooperation between what can often be a contentious group is unprecedented.

"I've never seen all segments of the industry sit in a room and work together," he said. "The level of cooperation has been great."

So far the group has spent much of its time re-drawing charts of the proposed zones that NMFS would close to trawling.

"It's a fluid thing," Stinson said Tuesday evening. "The charts showing the closed areas change frequently. NMFS left us room to modify them a bit. I feel it's necessary for the fleet to operate safely and still balance the effect of what NMFS wants."

The North Pacific Council is scheduled to meet through Monday.

Exxon Says Don't Be Too Hasty...

Study Says Oil Lingers From Exxon Valdez '89 Spill

ANCHORAGE (AP) - A new study runs counter to claims by Exxon that oil seeping from the ground is a natural part of the Prince William Sound environment.

The study suggests that

signs of oil pollution in sea otters and ducks is because of the 1989 Exxon Valdez tanker spill.

"It puts Exxon back on the hook," said Bob Spies, chief scientist for the Exxon Valdez Oil Spill Trustee

Council, the group that funded the study.

A scientific study funded by Exxon in 1996 reported that some hydrocarbons discovered on the sea floor come from natural oil seeps in the Gulf of Alaska. That study suggested that Prince William Sound has a natural ability to process oil and that a slight contamination in marine species might be normal there.

But the new work, by federal scientists in Juneau, finds that coal from large deposits on the Bering River is the source of the hydrocarbons.

Because coal hydrocarbons are not easily absorbed into the food chain, the data suggests that any contamination found today must come from the 1989 spill, the scientists said.

The debate resurrects questions over the pollution caused by the 11 million-gallon Exxon Valdez spill,

the biggest environmental disaster in Alaska's financially lucrative history of oil production.

The new work also comes as scientists wrestle over what is causing persistent stress among marine animals.

Sea otters and two species of ducks in western Prince William Sound have been found with an enzyme produced only when exposed to oil.

"By ruling out natural oil, it gives greater weight that these problems are linked to the Valdez spill rather than any other source," said Stan Senner, science coordinator with the spill trustee council.

Exxon referred questions from the Anchorage Daily News to authors of the 1996 study it funded.

David Page, a chemistry professor at Bowdoin College in Maine, and Paul Boehm, a geochemist in Cambridge, Mass., stand by

their finding that thousands of tons of oil sweep into the Sound each year.

"Trying to find a signal of the spill today is like trying to tune in PBS from Mars," Page said.

Too many potential oil sources--fishing boats, recreation, oil seeps and old spills--cloud the picture. Stress among marine animals could as easily be blamed on the warm summers of El Nino as on the spill, Page said.

But Jeff Short, author of the new study, said the amount of oil leaking into the ocean near Prince William Sound is negligible.

"Maybe one or two quarts a day. You could scrape more oil off a Wal-Mart parking lot than comes out of those seeps," said Short, a NOAA scientist in Juneau. ★

Praise, criticism for use of spill settlement funds

THE OIL SPILL TRUSTEE COUNCIL DECIDED (recently) ... to use another \$70 million to buy up more private land in Alaska and to convert that land to federal and state parks. The money comes from funds remaining from the settlement of damages from the 1989 Exxon Valdez oil spill.

The action was criticized by Sen. Frank Murkowski, who has no say in the council's actions. Gov. Tony Knowles lauded the decision by the council, three of whose members he appoints — and who serve with three others selected by the president.

The trustees agreed to buy 41,750 acres of timbered land on Afognak Island. Knowles endorsed the purchase: "Protection of these rich habitat areas benefit all Alaskans by helping maintain strong fish and wildlife populations while at the same time supporting recreational uses and traditional subsistence activities."

Murkowski had a different view. He faulted the trustees for exceeding the appraised value of the acreage involved, noting much of the timber already has been harvested. The senator said the council previously purchased more than 450,000 acres in the area, and has spent almost half of the billion-dollar settlement on land acquisitions. "Once the settlement money is gone, it is gone, but any problems generated by the spill might live on."

Murkowski prefers to see settlement money invested in scientific research. "All the money possible should be set aside to sustain important fisheries and for ecosystem research to help generations still to come."

Gov. Knowles believes acquisition of the Afognak land is more critical for Alaska's future. "The area is vitally important for the reproduction of harbor seals, salmon, sea otters, harlequin ducks and sea birds. It is locally valued for its archaeological and rich cultural resources. And it has incredible potential for hunting, fishing, kayaking and other recreational uses."

The governor described land purchases made with the settlement money as "Alaska's other permanent fund."

Both Knowles and Murkowski recently were reelected to their jobs by wide margins. This would indicate public support for their policies and decisions in office. And, more often than not, Murkowski and his two counterparts in the Alaska congressional delegation — Sen. Ted Stevens and Rep. Don Young — align with the governor on issues affecting the state.

On this one, though, Murkowski and Knowles are 180 degrees apart. And since the governor and the Clinton administration control the votes on the council, land acquisition probably will continue to be a high priority.

Unless, of course, Murkowski can persuade the public to speak out in favor of investing in scientific research and education.

— *Voice of The (Anchorage) Times*
Dec. 4

Inlet take estimated at 2 million sockeyes

By DOUG LOSHBAUGH
Peninsula Clarion

Upper Cook Inlet sockeye fishers are in for two more meager years, says the latest state fishing forecast. But the upper inlet run should bounce back with the 2001 fishery, biologists said.

The Alaska Department of Fish and Game predicts a total upper inlet run of 3.5 million sockeyes during the summer of 1999. Biologists will manage fishing for a spawning escapement of 1.5 million, said Jeff Fox, assistant area management biologist in Soldotna. That leaves 2 million for commercial fishers.

A catch of 2 million sockeyes would be a slight improvement from this year. In 1998, commercial fishers landed roughly 1.2 million sockeyes and a little more than 800,000 salmon of other species. They collected roughly \$9.5 million from processors, Fox said.

But the forecast catch is still below the average for the last few years. Upper inlet fishers landed a near-record 9.1 million sockeyes in 1992. From 1993 to 1997, they took roughly 3 million to 4.8 million sockeyes per year. By numbers, the record catch was 9.5 million in 1987. By value, the record was \$122 million in 1988.

Fish and Game said the forecast 1999 run would be the fifth lowest in the last 20 years, and half the average for the last 10 years.

The 1999 forecast includes a total run of 1.7 million sockeyes to the Kenai River, of which 300,000 to 600,000 would go for spawning escapement. It includes a total run of 660,000 sockeyes to the Kasilof River, of which 150,000 to 250,000 would go for escapement.

The forecast includes a total run of 450,000 to the Susitna River, of

See SALMON, back page

...Salmon

Continued from page A-1

which 200,000 would go for escapement. The forecast Susitna run is low, Fox said. Last year fishers landed 500,000 to 600,000 Susitna sockeyes, he said.

There is considerable uncertainty in the 1999 forecast, though, due to uncertainty in the estimated Kenai River return.

Generally, 5-year-old sockeyes make up the bulk of the sockeye run, Fox said. Biologists predict the number of returning Kenai River 5-year-olds by two methods — one based on returns of their 4-year-old siblings this year and the other based on the number of fall fry in rearing lakes during the 1994 brood year.

Judging from the number of fall fry, biologists expect just 900,000 Kenai River 5-year-olds to return next year. But based on the number of 4-year-olds that returned this year, expectations exceed 2 million fish.

Because survival of sockeye salmon at sea has fallen short of expectations for several years, biologists based the 1999 forecast on the smaller estimate, derived from numbers of fall fry in 1994. The projected Kenai River run of

1.7 million includes not just the 5-year-olds, but also sockeyes of other ages.

Biologists have counted fry in rearing lakes to predict the Kenai run farther into the future. They expect 2000 to be another poor fishing year, Fox said, but will get a better idea from the number of 4-year-olds that return in 1999.

They expect a significant improvement in the upper inlet fishery in 2001. But there is uncertainty there, too, Fox said. Some oceanographers now say there has been a major shift in ocean conditions, bringing cooler water temperatures and different currents with fish that have new ecological affects on salmon. The prevailing theory is that those changes may hurt ocean survival of salmon, he said, and that could impact the 2001 run.

State biologists meet in March to hear the latest news from experts on ocean climate change and the effects on fish production, he said. Debbie Hart, of the department's offices in Juneau, said the public is welcome to an associated workshop at the Alyeska Prince Hotel in Girdwood, March 10-12. Advance registration is required. To register, call her at 465-6153.

Fish and Game predicts lower Cook Inlet fishers will land 390,700 sockeyes and 3.4 million pink salmon in 1999. Lee Hammar-

strom, assistant area biologist in Homer, said the 1998 lower inlet catch included 284,000 sockeyes, of which Cook Inlet Aqua-culture Association took 80,600 to pay the costs of hatcheries and stocking. The 1998 catch included nearly 1.5 million pinks, of which CIAA took 794,000 to pay the costs of hatcheries and stocking. Processors paid \$2 million for the lower inlet catch, including \$1.2 million for sockeye salmon.

For Bristol Bay, Fish and Game predicts a 1999 run of 26.2 million sockeye salmon. That includes a spawning escapement of 11.1 million sockeyes, a south Alaska Peninsula catch of 1.3 million sockeyes, and an inshore Bristol Bay catch of 13.8 million sockeyes.

The total 1998 Bristol Bay run was 18.4 million sockeyes, 39 percent below the forecast run of 30.2 million. The commercial catch of 10 million sockeyes was the lowest in Bristol Bay since 1978.

The Bristol Bay catch of all salmon species totaled 30.7 million fish, worth \$64.9 million to commercial fishers — the fleet's third-lowest paycheck in the last 20 years. Fish and Game biologists do not know why Bristol Bay runs have been so poor for the last two years, or whether that trend will continue.

Letter to the editor



Council needs guidance

To the editor,

The coastal communities of Southcentral Alaska could be experiencing drastic or even devastating changes in the near future. Of course I am referring to the issues before the North Pacific Fishery Council this week. As of the writing of this letter I have not received the revised proposal of the National Marine Fisheries Service; however, based on the articles in last Friday's Mirror, there seems to be little change to their proposal in November.

The National Marine Fisheries Service, reacting to a lawsuit by several environmental organizations, is proposing huge reductions in the available fishing areas for pollock. Basically, their plan calls for closing everything within ten miles of shore. (Areas where sea lions are or have been anytime in the past.) This is where most of the pollock is caught. (I'm sorry that more information is not available at this time. The full proposal is

available on the National Marine Fisheries Service web site if you are able to translate it. I could not.)

The drastic reduction in pollock available to Kodiak and other coastal markets goes far beyond the pollock fishermen to affecting every man, woman and child in the region.

I know that not everyone agrees with my opinion or assessment of this matter, and I don't expect you to. I am not trying to change your mind with this letter, but asking you to pray. If you love Kodiak and its people, please pray for the council members and speakers to have God's wisdom this week as they decide our future.

The general council convenes on Wednesday. Therefore, I would like to encourage every church in Kodiak to open its doors at 7 a.m. Wednesday for people to gather in support of our representatives in Anchorage.

Thank you,

—Allan Hokanson

What others say



Knowles, Murkowski at odds over spending of Exxon oil spill money

VOICE OF THE
(ANCHORAGE) TIMES

The Oil Spill Trustee Council decided last week to use another \$70 million to buy up more private land in Alaska and to convert that land to federal and state parks. The money comes from funds remaining from the settlement of damages from the 1989 Exxon Valdez oil spill.

The action was criticized by Sen. Frank Murkowski, who has no say in the council's actions. Gov. Tony Knowles lauded the decision by the council, three of whose members he appoints — and who serve with three others selected by the president.

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settlement money invested in scientific research. "All the money possible should be set aside to sustain important fisheries and for ecosystem research to help generations still to come."

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Unless, of course, Murkowski can persuade the public to speak out in favor of investing in scientific research and education.

Port Graham helps fisheries with salmon fry production

Editor's note: It has been eight years since the Exxon Valdez ran aground in Prince William Sound, spilling nearly 11 million gallons of Alaska crude oil. Time has since told quite a lot about the spill's long-term effects. To help tell the story, the Exxon Valdez Oil Spill Trustee Council is providing this column focusing on the ongoing recovery within the spill region.

By JODY SEITZ

PORT GRAHAM — Here, if the weather's bad in August and residents can't go fishing, look out! Many residents of this Cook Inlet village really love to catch those coho salmon. The salmon are a staple of the subsistence diet of area villages.

There's also a wild run of pink salmon to the Port Graham River and a sockeye salmon run to the neighboring village of Nanwalek. Residents got more than a little concerned a few years back, as they watched these salmon runs decline after the Exxon Valdez oil spill.

Residents built the Port Graham hatchery in 1991 to boost the run of pinks to Port Graham and the return of sockeyes to Nanwalek. To help supplement reduced subsistence harvests after the spill, the Exxon Valdez Oil Spill Trustee Council had agreed to underwrite hatchery production of pink salmon, beginning in 1996.

Hatchery workers successfully reared pink salmon brood stock and incubated sockeye eggs. By 1997,

the pink salmon runs were large enough to support a commercial fishery on the pinks returning to the hatchery. Red salmon returned to Nanwalek in numbers elders there had not seen since childhood.

Chief Elenore McMullen, another avid sport fisher, is always keeping an eye on the local coho run. Three years ago she noticed that the escapement appeared to drop by almost two-thirds. As the Nanwalek sockeye runs declined, there seemed to be more pressure on the coho run.

"I don't know what caused it," she said. "I suspected that with Nanwalek's red salmon fishery dwindling our people were relying more and more on the coho."

McMullen secured funding from the oil spill criminal settlement funds administered by the Alaska Department of Community and Regional Affairs to try raising coho salmon as well. When they got a three-year grant, McMullen says, the funders were skeptical.

"They didn't think we'd be successful because coho, like red salmon, are susceptible to viruses," she said. "So that's why we raised them in separate build-



Restoration and recovery following the Exxon Valdez oil spill

ings. We didn't want to introduce virus to the red salmon fry or the pink salmon."

They must have done something right — they have released the number of fry they had planned to release for three years in a row.

In the face of all this success, a fire destroyed the cannery and hatchery last year, representing a \$3 million loss and a huge setback to the village. Although the coho eggs were saved, 10 million to 15 million pink and sockeye salmon eggs were lost.

Yet, Chief McMullen says they're not giving up. "We decided that we don't want to just drop everything," she said. Even if the price of salmon isn't that great, fisheries are real important to us. It always has been and still is, even if we've lost our cannery and our hatchery."

Work is well under way to raise an estimated \$1.5 million to replace the hatchery and cannery. Presently, with \$139,000 from oil spill settlement funds, the village has created a temporary facility out of the coho incubation building and is going ahead with production of pink salmon and sockeye salmon eggs.

This means they had to forego raising coho eggs this year. There's just not enough room. However, the coho fry they released the last three years should return to the Port Graham River for years to come.

Jody Seitz lives in Cordova and also produces the Alaska Coastal Currents radio program.

Alaska Coastal Currents

By Jody Seitz



KODIAK DAILY MIRROR
DECEMBER 4, 1998

Kittiwake's life not easy

When Evelyn Brown began studying juvenile herring at the University of Alaska Fairbanks she was hoping to develop another tool to help fish managers predict herring returns in Prince William Sound.

Three field seasons later, she not only has helped develop a deeper understanding of herring, but also about other species of fish important to seabirds.

Prior to Exxon Valdez oil spill studies, scientists knew close to nothing about tiny forage fishes, such as sand lance, capelin, hooligan (eulachon), or juvenile herring. This made it impossible to understand how the oil spill impacted their populations or affected the seabirds that preyed on them. In addition to the spill, there also were natural factors affecting their populations. Some seabird populations that depend on these fish for food have declined over the last 20 years, possibly due to a major ecosystem shift that changed their food supplies.

To find out how successful birds are at foraging for food, researchers have been mapping the distribution and abundance of these fishes using hydroacoustics and an underwater video camera. They found schools of forage fish, but saw few birds feeding on them.

Brown took a more aerial approach. The underwater surveys were too deep, she said. "It's pretty simple," Brown said. "Basically I'm flying in an airplane so I'm seeing what birds see and they seem to be visual predators. Seeing subsurface and seeing other birds feeding is a really important cue to them."

Brown conducts daily surveys of the sound over the course of the summer using an airplane with a GPS (Global Positioning System) coded video camera mounted inside. Between the acoustic surveys and the aerial surveys, researchers have found

out a lot more about forage fishes.

"There are places in the sound where these fish occur year after year after year," Brown said. "If you look for them you can see shelves where there's good ocean circulation and eddy formation. And hooligan seem to be feeding on these shelves." Accurately identifying a school from the air can be tricky.

Brown developed her aerial survey with advice from spotter pilots and techniques learned from her days as a fisheries biologist at the Alaska Department of Fish and Game. Over the past three summers she's worked with catcher boats to verify the schools she was seeing from the air.

She says the surveys can be accurate for age-one herring, but that it can be difficult to tell the subtle difference between schools of age-zero herring and age-zero sand lance. With capelin, hooligan, and age-one herring there's very little error — less than 10 percent, she said.

Brown has documented basic information for these forage fish species, especially for sand lance, which are difficult to assess other than by aerial survey. "We knew sand lance were abundant and played an important role in the ecosystem but we really didn't have any idea of how widely distributed they are or what kind of population shifts take place."

These studies represent the first data on these four species in the northern Gulf of Alaska. Though researchers have seen increases in all these species since 1995, it's still too early to say if this represents a trend in the Gulf of Alaska.

Jody Seitz lives in Cordova and also produces the Alaska Coastal Currents radio program. The series is sponsored by the Exxon Valdez Oil Spill Trustee Council to provide information about restoration activities within the spill region.

State forecasts more red salmon in Cook Inlet next year

SOLDOTNA (AP) — The commercial catch of red salmon in Cook Inlet could reach 2 million fish next summer. That's more than this year's catch, but far below the take of recent years, state biologists say.

"The 10-year average leading up to this is 4.6 million, so 2 million is pretty shabby by comparison," said Paul Ruesch, the upper Inlet's area management biologist for commercial fisheries.

Commercial fishermen netted 1.2 million sockeye last summer in a season that stalled before it really got going. Commercial nets were ordered out of the water just as the typical mid-July core of red salmon fishing was gearing up. That came because so few reds were returning to the Kenai River.

State biologists also cut sportfishing bag limits on the Kenai River from six fish to three and created a dusk-to-dawn angling curfew for riverbank anglers.

Enough red salmon eventually made it upriver to spawn. Restrictions were eased and commercial fishermen were allowed back in early August to catch what was left of the Cook Inlet red run.

While the Kenai River is not the only fish-producing stream in Cook Inlet, it produces almost as many salmon as the other rivers combined.

Fish and Game is projecting that roughly 3.5 million red salmon will swim up Cook Inlet next summer.

If the forecast pans out, then the Inlet's commercial fleet will be allowed to net 2 million of those fish and the rest will move up the Kenai River and the Inlet's other salmon streams to spawn. Some will be caught by anglers.

The state Department of Fish and Game bases its estimates on three observations. But it looks primarily at the number of juvenile

salmon that swim out to sea from the Kenai River each year. A red salmon has an average five-year life cycle, although some of the fish return in four- or six years.

A weak batch of young fish observed in 1993 indicated last summer's run would be bad, and it turned out worse than forecast, biologists said. The river produced a low number of juvenile fish again in 1994, meaning the coming season should be weak, too.

"This should be the bottom as far as we can tell," said Ruesch, who is retiring next spring after 18 years of managing the upper Inlet red salmon fishery. "We should see some rebound begin-

ning with the year 2000."

Other factors used in the forecast include the number of 4-year-old reds that spawned last summer, a year ahead of their broth-

ers and sisters.

Biologists also track the percentage of reds that typically survive the high seas, Ruesch told the Anchorage Daily News.

New center increases researchers' scope

By SUE JEFFREY
Mirror Writer

Dr. Brad Stevens thinks the trade-off is well worth it — smaller office space for improved laboratories.

Stevens and fellow National Marine Fisheries Service biologists are in the midst of organizing files and office furniture moved from their old digs tucked away on the Coast Guard base to their new home at the Kodiak Fisheries Research Center on Near Island.

Stevens enjoys the closer connection to the community and the Fish Tech Center next door, he said, and will make do with the 130 square feet of office space the GSA (Government Services Administration) allotted him. Especially because his office is steps away from a full video analysis lab across the hall and circulating seawater laboratories downstairs.

"We have research opportunities now that we have never had here before," he said, "and it's not spilling out of my head."

The new building houses office space for 12 National Marine Fisheries Service biologists, the NMFS observer program and the National Parks Service. The facility sits in the midst of the Gulf of Alaska's rich marine resources. But the circulating seawater labs in which to study the indigenous species elevate the center to a new level of research.

"With the new facility's 2,500-square-foot circulating seawater lab and three cold rooms, we can bring the outside environment inside," explains Dr. Bob Otto, NMFS director in Kodiak. "We can transport species from boat to tote to circulating seawater tanks with minimal stress."

Stevens will be a principal lab user and said he is already immersing himself in circulating seawater system technology. He spent a year in Japan recently rearing and studying king crab in similar

laboratories and discovered which equipment worked best.

"I just ordered 66 tanks ranging from 2 gallons in size to 12 feet in diameter, tanks big enough for king crab and a good size pollock.

"We'll be able to hold 20,000 gallons (of circulating seawater) with all the tanks filled."

Adjacent to the saltwater labs are necropsy laboratories where Kate Wynne, local marine mammal biologist, and transient researchers from the NMFS Marine Mammal Labs in Seattle, will dissect sea lions, harbor porpoises and other marine mammals.

Wynne noted the ease with which scientists will be able to move large animals into the lab via loading ramp and double doors large enough to accommodate a forklift.

"We can do a full necropsy here," she said. "Analyze stomach contents of a sea lion, for instance, to try to find out why they are decreasing, a very simple question but a very hard answer."

She plans to involve the high school in projects at the center and said the well-ventilated 20 x 25-foot necropsy lab can easily accommodate 20 students.

"As soon as I get a stainless steel table, (Kodiak High School) Alice Levan's physics class will come here and study the hydrodynamics of a harbor porpoise — they have less drag than a torpedo. We already have a harbor porpoise in the freezer."

Stevens also plans to hold classes at the center. Each spring he teaches students about the flora and fauna found in the intertidal zones in his class, "Exploring Tidepools," through Kodiak College. This year his students will view films and slides in the research center's large multi-media conference room.

"And then we'll go downstairs to the labs and observe intertidal species in saltwater tanks," Stevens said. "It beats carrying buckets-full of saltwater into college classrooms."

The video analysis lab will make it easy for Stevens and fellow researchers to create film presentations from a library of easily accessed video images.

"The lab will be a real time saver," Stevens said. Rather than looking through hundreds of hours of tapes, trying to recall which year a particular image was recorded, the images will be labeled, filed, stored digitally and found with the click of a mouse.

Pointing to one of the lab's computer monitors, he said, "Here's a king crab on a sea star. At two years of age, they often climb on sea stars. The bumpy reddish texture is a perfect camouflage for the crab's color and texture. We knew about the symbiotic relationship but never documented it."

Already universities, museums, aquariums and Japanese television companies are requesting images, which can be e-mailed from the video lab to those with the capability to receive them. Images can also be made into posters and framed prints, he said.

Prompted to compare his video digital work to others in research, Stevens said, "Storing and editing digital sequences from video is commonly done in TV but we're on the leading edge (in marine science) capturing digital sequences."

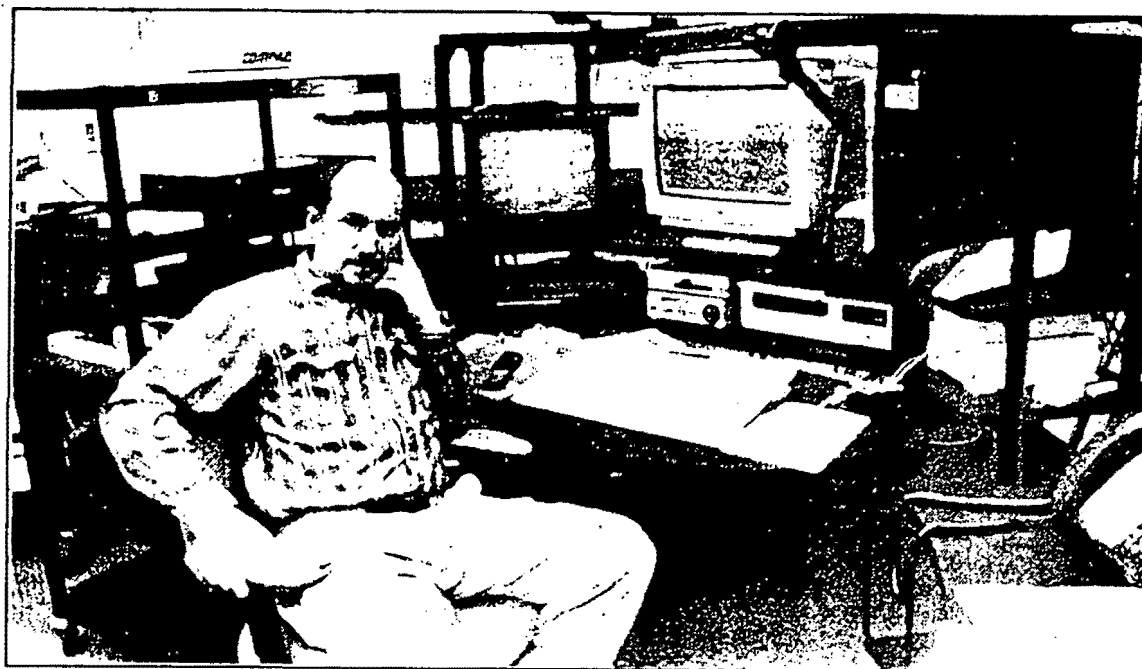
Besides studying crab and marine mammals, researchers will study pollock, cod, halibut and other groundfish at Kodiak's fisheries research center. NMFS plans to add a team of four groundfish biologists to the dozen NMFS shellfish biologists already on staff. Stevens also hopes "people from different disciplines, a geologist, an oceanographer," will become research center residents.

A multi-disciplined staff would help marine researchers more fully understand the inter-connectedness between marine species, he said, as well as the effect geologic formations have on the marine ecosystem.

NMFS director Otto says the center is already headed in that direction.

"Our co-location with Fish and Game creates a critical mass, which is always healthy and allows fish, bird and mammal people doing joint thinking and joint projects."

"We will soon be conducting cooperative work from all over the world," Otto said. "We are taking a giant step forward."



Sue Jeffrey photo
Dr. Brad Stevens, crab biologist for National Marine Fisheries Service, creates and catalogs digital images from marine research videos at the Kodiak Fisheries Research Center's video analysis lab, making them available to museums, universities and aquariums across the country.

NMFS moves to protect sea lions

KODIAK DAILY MIRROR
Friday, December 4, 1998,

By MARK BUCKLEY
Mirror Writer

Saying commercial fishing is placing endangered Steller sea lions in jeopardy, the National Marine Fisheries Service, (NMFS) this morning asked the North Pacific Fishery Management Council to curtail pollock trawling in the Gulf and Bering Sea.

The federal agency is suggesting the council change fishing seasons and dramatically increase the number of no-trawl zones along the Alaska coast from Prince William Sound to Attu.

The deliberative body will meet next week in Anchorage to set fishing seasons and quotas for 1999. NMFS wants changes in place before the pollock fishery opens in January.

"We're suggesting the council look at providing four fishing seasons per year instead of the current three in the Gulf and two in the Bering Sea," said Tim Ra-

gen, Steller sea lion recovery coordinator with the NMFS protected resources management division in Juneau. "We're also suggesting the council increase the number of pollock trawl exclusion zones from the current number of approximately 30 to about 120."

"Of those 120, perhaps 80 would be year-round no-trawl zones and the remainder would be seasonal, depending on when the sea lions are found there," he added.

Currently, the pollock season in the Gulf of Alaska is divided into three openings: Jan. 20, April 1 and Sept. 1. In the Bering Sea pollock fishing opens April 15 and again on Sept. 1.

"We're suggesting the council look at Gulf openings on Jan. 20, March 1, June 1 and Sept. 15," Ragen said. "In the Bering Sea we're suggesting openings on Jan. 20, March 1, Aug. 15 and

See POLLOCK, Page 3

Pollock fishing closures proposed

Continued from Page 1
Sept. 15."

A chart released by NMFS headquarters in Silver Spring, Maryland shows the areas the agency is suggesting the council close to trawling. They are asking the council to create 20-mile no-trawl zones around sea lion critical habitats in the Bering Sea and 10-mile no-trawl zones along the arc from Prince William Sound to Attu. The chart shows closed waters stretching from Resurrection Bay, near Seward, down the east side of the Kenai Peninsula, across to the Barren Islands and then down both sides of Kodiak Island.

NMFS is suggesting almost the entire Shelikof Strait be declared no-trawl zone.

The chart does not indicate whether the no-trawl zones would be permanent or seasonal.

Currently, there are four, 10-mile no-trawl zones in place

around Kodiak: one in the Barren Islands, one on Marmot Island, one at Chirikof Island and one in the Semidis.

NMFS said the closures are necessary to protect the sea lions, whose western population has declined by 80-90 percent since the 1960s.

"There is mounting evidence that fishing for pollock at various times of the year and in some critical habitat areas may reduce the availability of an important food resource for Steller sea lions," NMFS director Rollie Schmitt said in a press release.

"While we are not saying that

fishing, by itself, caused the decline of Steller sea lions, our responsibility under the Endangered Species Act is to ensure that current fishing practices do not jeopardize the depleted sea lion population."

Ragen said that although it was now up to the council to take some action, NMFS would be the final arbiter of whether that action went far enough.

"Any action the council takes will probably be reviewed by NMFS headquarters in Silver Spring," he said. "If the council does not take appropriate action, we'll have a problem."

Exxon Valdez Oil Spill Trustee Council

645 G Street, Suite 401, Anchorage, AK 99501-3451 907/278-8012 fax:907/276-7178



AGENDA EXXON VALDEZ OIL SPILL JOINT TRUSTEE COUNCIL-PUBLIC ADVISORY GROUP MEETING

January 21, 1999 @ 7 p.m. (Public Hearing)

January 22, 1999 @ 8:30 a.m. (Joint Meeting)

645 G STREET, ANCHORAGE

DRAFT

Trustee Council Members:

1/14/99 10:19 am

BRUCE BOTELHO/CRAIG TILLERY

Attorney General/Trustee
State of Alaska/Representative

MICHELE BROWN

Commissioner
Alaska Department of Environmental
Conservation

ROBERT T. ANDERSON

Acting Special Assistant to the Secretary
for Alaska
U.S. Department of the Interior

DAVE GIBBONS

Trustee Representative
U.S. Department of Agriculture
Forest Service

STEVE PENNOYER

Director, Alaska Region
National Marine Fisheries Service

FRANK RUE

Commissioner
Alaska Department of Fish & Game

Teleconferenced throughout the spill area
State Chair

January 21, 1999

1. 7 p.m. Call to Order (1st floor conference room)
Joint Trustee Council-Public Advisory Group Public Hearing
 - Restoration Reserve Options
 - Proposed Update to Injured Resources List
 - Archaeological Restoration

January 22, 1999 Trustee Council and Public Advisory Group (1st floor)

1. 8:30 a.m. Call to Order
 - Reconvene Public Hearing as Needed
2. 10 a.m. Approval of Agenda
 - Approval of December 15 and December 30, 1998 meeting notes

Federal Trustees

U.S. Department of the Interior
U.S. Department of Agriculture
National Oceanic and Atmospheric Administration

State Trustees

Alaska Department of Fish and Game
Alaska Department of Environmental Conservation
Alaska Department of Law

3. Executive Director's Report
4. 10:15 Briefing on Proposed Update to Injured Resources List - Dr. Spies & Mr. Senner
- FY2000 Work Plan Invitation - Ms. McCammon, Dr. Spies & Mr. Senner
5. 11 a.m. - 1 p.m. Discussion on Restoration Reserve Options

END OF JOINT SESSION

PUBLIC ADVISORY GROUP RECONVENE ON 4TH FLOOR

- Elect Chair & Vice Chair
- Adjourn either before or after lunch break at Chair's discretion

TRUSTEE COUNCIL

1 p.m. Executive Session with Lunch to Discuss Habitat Negotiations & Archaeology RFP

2:30 Archaeological Restoration*

Small Parcels - KAP 126*
- KAP 134*
- PWS-1056 Blondeau*

* indicates tentative action items

Adjourn - 4 p.m.

Exxon Valdez Oil Spill Trustee Council

645 G Street, Suite 401, Anchorage, AK 99501-3451 907/278-8012 fax:907/276-7178



MEMORANDUM

TO: Public Advisory Group members

FROM: Eric F. Myers *[Signature]*
Director of Operations

DATE: January 15, 1999

SUBJ: January 21-22, 1999 Meeting Materials

In addition to the agenda, please find enclosed several items to help facilitate discussion on the Restoration Reserve.

- Draft PAG "Summary of Areas of Agreement" regarding the Restoration Reserve. This working draft document was developed by the PAG at its June 1-2, 1998 meeting to generally describe common areas of agreement among the PAG members participating in that meeting.
- Discussion Draft: Elements of A Long-range Restoration Program. A background and discussion paper is enclosed that describes the history of the Restoration Reserve and the public involvement process undertaken to obtain comment on how the reserve should be used and managed in the future. The discussion paper is provided to highlight key issues or questions that have been identified through the public process to this point. Drawing on a wide range of comment received by the Restoration Office, staff prepared the draft to outline several possible elements that might be included in a long-term restoration program. These include habitat protection, restoration research/monitoring and general/community-based projects. This document is a discussion draft only. It is not an Executive Director's recommendation, but rather has been developed for use by the Trustees and the PAG to facilitate the decision-making process.
- Gulf Ecosystem Monitoring (GEM) program. This outline of a long-term scientific research/monitoring program concept summarizes many of the ideas that have been discussed during presentations to the Trustee Council.
- Management applications from restoration projects. This is a listing of various management applications that have been derived from Trustee Council sponsored projects to illustrate how the results of restoration projects have been used by resource managers.

- Subsistence and Community Restoration projects. Two memos are included that identify projects that have been funded as well as other ideas that have been proposed.

A summary analysis of public comment received to date on the Restoration Reserve will be provided at the meeting on January 22.

enclosures

**The Exxon Valdez Oil Spill Civil Settlement
RESTORATION RESERVE**

**DISCUSSION DRAFT:
ELEMENTS OF A LONG-TERM RESTORATION PROGRAM**

Background

In November 1994, following an extensive public involvement process that included preparation of a full Environmental Impact Statement, the Exxon Valdez Oil Spill Trustee Council ("Trustee Council") officially adopted the *Restoration Plan* to guide a comprehensive and balanced program to restore injured resources and services.

The *Restoration Plan* defined the restoration Mission and provided specific Policies to guide decisions by the Trustee Council. The *Restoration Plan* identified five categories of restoration activities:

- General Restoration;
- Habitat Protection and Acquisition;
- Research and Monitoring;
- Public Information, Science Management and Administration; and
- Restoration Reserve.

The *Restoration Plan* recognized that complete recovery from the oil spill would not occur for decades and that only through long-term observation and, as needed, restoration actions, could injured resources and services be restored: "To understand the effect of these [oil spill] injuries on the ecosystem and to take appropriate restoration actions on an ecosystem basis will require actions well into the future."¹

In response to this identified long-term need, the Trustee Council established the Restoration Reserve to hold funds to be used for restoration after the last annual payment is received from the Exxon Corporation:

Annual payments by Exxon Corporation to the Restoration Fund end September 2001. To prepare for that time, and to ensure restoration activities which need to be accomplished after that time have a source of funding, the Trustee Council will place a portion of the annual payments into the Restoration Reserve.²

The *Restoration Plan* stated an intent to place \$12 million per year into the Restoration Reserve but also indicated that the exact amount would be determined annually by the Trustee Council after considering restoration funding needs in a given year.

¹ *Restoration Plan*, Chapter 3, p. 27.

² *Restoration Plan*, Chapter 3, p. 27.

The Trustee Council intends these funds to be available for restoration in the years following the last payment into the trust fund by Exxon in the year 2001. However, because restoration needs through the year 2001 are not yet known, the Trustees must have flexibility to use the reserve to fund restoration projects that are clearly needed and cannot be funded by other means. Therefore, while the Council expects the principal and interest from the reserve to be available following Exxon's last payment, the Trustee Council may, following a finding of need, use the principal or interest retained within the fund before that time.³

Additionally, the *Restoration Plan* states that funds from the Restoration Reserve could potentially benefit any resource or service injured by the oil spill and that all expenditures must be consistent with the requirements of the Court settlement.

As part of the FY 99 Work Plan the Trustee Council authorized the sixth in a series of \$12 million deposits into the reserve, bringing the total in the account to \$72 million plus interest. It is anticipated that annual deposits of \$12 million in each of the next 3 years will provide a total reserve of \$108 million plus interest. Funds in the Restoration Reserve are presently invested in government securities consistent with the requirements of the settlement. These investment instruments are currently earning approximately 5% per year. It is estimated that the total value of the reserve funds, including accrued earnings, will be approximately \$140 million in the year 2001.

The Restoration Plan: A Comprehensive and Balanced Approach

Over the time since the *Restoration Plan* was adopted in 1994, the Trustee Council has focused restoration efforts in three primary areas:

- implementation of *habitat protection and acquisition* efforts;
- *research and monitoring* specific to individual species as well as broader ecosystem based investigations to provide new knowledge and tools for improved resource management; and
- a variety of other *general restoration* projects including numerous community-based restoration efforts.

A review of efforts to date indicate that there have been many accomplishments even while much remains to be done to fully realize the goal of restoration.

Habitat Protection - In 1994, the Trustee Council adopted formal resolutions that specifically identified an ambitious series of large parcel habitat protection acquisitions throughout the spill area. Since that time, agreements have been successfully negotiated with nearly all of the major spill area landowners as initially contemplated in 1994. Habitat purchase agreements have been completed or signed with ten major landowners to protect lands throughout the spill region (Kachemak Bay, Akhiok-Kaguyak, Chenega, English Bay, Koniag, Old Harbor, Orca Narrows, Seal Bay/Tonki Cape, Shuyak Island, Tatitlek, AJV, Eyak). Efforts are on going to secure permanent protection for the Karluk and Sturgeon rivers (Koniag – Phase II). Only one Large Parcel habitat protection effort was halted after the landowner (Port Graham) halted negotiations.

³ *Restoration Plan*, Chapter 3, p. 27.

Assuming successful conclusion of present efforts under the Large Parcel program, approximately 636,000 acres of land in the spill area will have been protected. This will provide enhanced protection to approximately 1,320 miles of coastline and 287 anadromous fish streams. In addition, under the Small Parcel program it is expected that more than \$20 million will be invested to protect approximately fifty individual small parcels totaling more than 8,000 acres. Together, efforts under the two programs along with the associated support costs represent a commitment approaching \$400 million or substantially more than half of the settlement funds under the control of the Trustee Council.⁴

Scientific Research and Monitoring - Significant progress has also been made in the area of scientific research to understand the status of oil spill injuries and help guide resource management decisions. Including projects approved as part of the FY 99 work plan, more than \$100 million has been authorized by the Trustee Council to support a wide variety of restoration research and monitoring efforts.

The most recent FY 99 work plan continues themes initiated in earlier years: monitoring the recovery status of species injured by the oil spill, research into factors that may be limiting recovery of injured resources, and research that provides new tools to resource managers to better manage and protect resources. The unique cold water laboratory research capacity provided by the Alaska SeaLife Center is now fully operational, providing the ability to undertake research projects that could not previously be considered. Additionally, the three major ecosystem investigations – the Sound Ecosystem Assessment (SEA), Nearshore Vertebrate Predator (NVP) project and the Apex Predator Experiment (APEX) – are now nearing conclusion, with each one providing significant new insight into the fundamental oceanographic and biological processes that influence recovery and productivity in the northern Gulf of Alaska.

The Trustee Council's commitment to a scientific program recognizes that while protection of upland habitat is critical, it is not alone sufficient to ensure the long-term recovery of injured marine resources. For example, the Trustee Council has protected the forested nesting habitat of marbled murrelets, but recovery of this species is not assured unless its forage fish prey base is also understood and protected. It is also essential to prevent the depletion and degradation of marine environments due to human activities and to understand the interaction of these activities with natural changes.

Even while the Trustee Council's restoration research and monitoring program has greatly advanced overall understanding of recovery in the oil spill region, many critical questions remain. The *Update on Injured Resources and Services* in September 1996 resulted in only one resource (bald eagles) being identified as fully recovered while three additional resources were newly recognized as injured and added to the list (red faced cormorants, pelagic cormorants, and double crested cormorants).⁵ While there are signs that a number of injured resources are now recovering, the status of others remains

⁴ Funds under the control of the Trustee Council include Exxon payments net of the \$213.1 million for reimbursement of costs to the federal and State governments and deductions due Exxon for additional cleanup as provided for by the Consent Decree.

⁵ Two other resources (Kittlitz murrelet, common loon) were previously added to the injured resources list in August 1995.

uncertain. A draft update on the status on the recovery of injured resources was published in January 1999 and is undergoing public review and comment.

General Restoration - The Trustee Council has authorized numerous general restoration projects, many of which have been the result of community-based initiatives. Examples of such projects include a wide variety of subsistence restoration efforts such as salmon releases and instream habitat enhancements to improve local subsistence fisheries, subsistence food safety testing, clam mariculture, community-based harbor seal biosampling, experimental shoreline oil removal, documentaries of subsistence harbor seal and herring harvest practices, and elders-youth conferences. Other general restoration projects include enhancement of wild stocks important to commercial fisheries, reduction of marine pollution through improved waste disposal practices, and human use modeling to improve management of marine recreation impacts.

In responding to community-based restoration projects presented to the Trustee Council, the state Trustees have coordinated closely with the Alaska Department of Community and Regional Affairs (DCRA) in the administration of \$5 million in grant funding from the state criminal settlement for subsistence restoration projects for unincorporated communities in the spill area authorized by the Alaska Legislature (SB 183).

Planning for the Future: Public Involvement and Comment

The Trustee Council has undertaken a broad based public involvement effort to solicit comment on how the Restoration Reserve should be used and managed in the future. This has included efforts to generate public comment through the *Restoration Update* newsletter, development of a Restoration Reserve "options paper" describing key issues involved in making choices about the Restoration Reserve, holding community meetings throughout the spill impact area and in Anchorage, Fairbanks and Juneau, and extensive review of this issue by the Public Advisory Group (PAG).

Public Information - A formal effort to solicit public comment on the Restoration Reserve was initiated through publication of an article in the *Restoration Update* (August-September 1997) newsletter. The article highlighted key questions concerning the Restoration Reserve such as future use of the reserve funds, whether the current Trustee Council governance structure should be continued or changed, and what kind of public involvement processes should be used in the future. During 1997, the Restoration Office prepared a working draft "options paper" that further examined these key issues. This "options paper" was provided to both the Trustee Council and the PAG as a means of facilitating further discussion on the Restoration Reserve.

In early 1998, a special edition of the *Restoration Update* (March-April 1998) newsletter was devoted to generating public comment on the Restoration Reserve. This newsletter included a short history of the restoration program, provided an update on the status of injury and recovery and information concerning four basic questions along with brief descriptions of various types of restoration program possibilities. The newsletter, which described these questions as "building blocks" for future restoration, included a pre-addressed form for people to comment. (Table 1.) The *Restoration Update* newsletter

Table 1. The Restoration Reserve
Building Blocks for Restoration in the 21st Century

- Use -- How should the Restoration Reserve funds be used?
Research & Monitoring
Large Parcel Habitat Protection
Small Parcel Habitat Protection
Community-Based Restoration Projects
Public Education, Outreach and Stewardship
Additional Proposals
- Governance -- How should key funding and policy decisions be made?
Present Trustee Council
New Board or Boards
Existing Board
- Public Advice -- How should future public input and comment be obtained?
Current Public Advisory Group (PAG)
PAG with Different Size and Makeup
Public Outreach, but No PAG
- Term -- How long should the program last?
Fixed Term
Perpetual Endowment

Source: *Restoration Update* (March-April 1998)

was distributed to the entire Trustee Council mailing list of approximately 3,100 and to all local governments as well as tribal entities throughout the spill area.

The August-October 1998 edition of the *Restoration Update* provided additional notice that public comment was still being accepted on the Restoration Reserve and the January-February edition of the *Restoration Update* announced a public hearing, jointly hosted by the Trustee Council and the PAG to be held January 21-22, 1999. A deadline for public comment on the Restoration reserve was set for February 12, 1999.

Community Meetings - During the spring of 1998, the Restoration Office held meetings in 22 communities throughout the spill impact area as well as Anchorage, Fairbanks and Juneau.⁶ At each meeting a brief 12-minute orientation video provided a consistent overview of the restoration program and the Restoration Reserve planning process. A representative of the Restoration Office provided meeting participants with a copy of the special edition of the *Restoration Update* newsletter, responded to questions and took notes of comments made by meeting participants. Those in attendance were also encouraged to submit written comments. Two hundred forty-nine people attended the community meetings and summaries of each meeting were prepared for the Trustee Council and the PAG.

⁶ A listing of the community meeting schedule is provided on the back page of the special edition *Restoration Update* (March-April 1998) newsletter. The meetings scheduled for Chignik, Perryville and Old Harbor had to be canceled due to bad weather.

Public Advisory Group - In March 1997, the Trustee Council initiated efforts to seek input from the PAG regarding the Restoration Reserve. Assistant Attorney General Craig Tillery met with the PAG and asked members to consider this issue. Since that time, the PAG has discussed the Restoration Reserve at many of its meetings and has devoted a substantial amount of time to this effort.

At its meeting on July 17, 1997, the PAG reviewed the Restoration Reserve "options paper" and also discussed long-term restoration research needs with Dr. Robert Spies, the Trustee Council's independent Chief Scientist, who outlined the possibility of using reserve funds to establish a long-term interdisciplinary monitoring and research program to track and predict ecological change and provide data for conservation and management. The PAG discussed the Restoration Reserve at its meeting on November 4-5, 1997 and then again at its June 1-2, 1998 meeting when it developed a working draft document entitled "Summary of Areas of Agreement re: Restoration Reserve".

Individual PAG members have articulated a diverse range of opinions on how to use and manage the Restoration Reserve. In the draft "Summary of Areas of Agreement" the PAG identified several broad categories of restoration activities as appropriate means to achieve the overarching goal of restoration and stewardship. These include:

- scientific research
- education/information
- community projects, and
- land acquisition.

The PAG's draft "Summary of Areas of Agreement" does not expressly address the questions of future governance or term.

The PAG continued its discussions at its July 28, 1998 meeting when they were joined by Trustee Council member Deborah Williams, Special Assistant to the Secretary of Interior for Alaska, who outlined potential future habitat protection possibilities.

Summary of Public Comment

As of early January 1999, the Restoration Office had received more than 2,100 public comments on the future use of the Restoration Reserve. Comments were in the form of completed surveys from the special edition *Restoration Update* newsletter, personal letters, form letters, e-mail messages, telephone messages, and testimony at public meetings.

The Trustee Council solicited public comment on four basic issues: use, governance, public advice, and term. (See above, Table 1.) Comments received by the Trustee Council reflect a broad spectrum of opinion. All responses addressed the issue of use and most responses reflected support for seeing the Restoration Reserve support a combination of uses rather than a single use.

A significant number of comments appear to be the direct result of outreach efforts by organizations or individuals advocating a particular outcome. A significant portion of all responses appears to have resulted from efforts by the Sierra Club, the Alaska Center

for the Environment and the Alaska Rainforest Campaign. These responses varied slightly in content and form and generally urge the use of at least 75 percent of the Restoration Reserve for habitat protection. Another outreach effort on the part of a UAA faculty member has generated numerous comments in support of using the Restoration Reserve to endow research centers and chairs at the University of Alaska. Yet another effort on the part of the Chugach Regional Resources Commission appears to have resulted in comments from hundreds of residents within the spill area expressing support for a set-aside of Restoration Reserve funds for tribes.

(Note: An updated analysis of the public comment on the Restoration Reserve will be presented at the joint Trustee Council – PAG meeting on January 22, 1999.)

DISCUSSION DRAFT: FUTURE USES OF THE RESTORATION RESERVE

The *Restoration Plan* adopted by the Trustee Council in 1994 reflects a comprehensive and balanced approach to the restoration of injuries from the oil spill that provides flexibility to address restoration needs over time through an adaptive management process. The establishment of the Restoration Reserve was itself a part of the adaptive management approach, in order to support long term restoration activities beyond the last settlement payment in September 2001.

On the basis of past restoration program experience, and with consideration of the broad range of public comment concerning future use of the Restoration Reserve, it is evident that:

1. a continuing long-term commitment to a comprehensive and balanced approach to restoration is necessary and appropriate;
2. major elements of a continuing restoration program should continue to include:
 - scientific research/monitoring,
 - habitat protection, and
 - general restoration/community-based projects.
3. changes in the governance structure and decision-making processes could help further reduce program administration costs.

Elements of a Long-Term Restoration Program

By October 2002, it is projected that the Restoration Reserve will contain approximately \$140 million inclusive of accrued interest.⁷

Without reaching the question of precisely how funding should be allocated among the respective uses, the basic elements of a possible long-term restoration program are outlined below together with the identification of key issues or questions associated with implementation of each element.

⁷ Total earnings on Restoration Reserve funds could be substantially improved if congressional legislation is enacted to permit investment of the reserve principal outside of the Court Registry Investment System.

Fisheries and Marine Research, Improved Management and Conservation Fund

The mission of the Trustee Council is to restore the environment injured by the oil spill to a "healthy, productive world-renowned ecosystem while taking into account the importance of the quality of life and the need for viable opportunities to establish and sustain a reasonable standard of living."⁸ The success of this mission rests on not only understanding how the northern Gulf of Alaska ecosystem was impacted by the oil spill, but also how it functions and changes in relation to natural systems and to human influences.

Since it was first established in 1989, the Trustee Council's science program has evolved substantially from a series of mostly individual species-oriented natural resource damage assessment studies to a more broad, integrated suite of multi-year, ecosystem-based investigations. The *Restoration Plan* expressly recognizes that monitoring and research activities require more than the study of individual species and that long-term research is needed to understand the physical and biological interactions that affect a resource or service and may constrain its recovery.⁹

The current Trustee Council program has four essential interrelated components:

- monitoring the recovery of injured populations;
- identification of factors limiting or influencing productivity and populations;
- developing new management tools and techniques; and
- synthesis of results and modeling the state of the ecosystem.

The program has systematically approached the issues controlling recovery and productivity through investigations along several different fronts. These include a broad array of projects, including studies of physiology, disease, productivity, diet, trophic relationships and oceanographic influences. Through the three major ecosystem projects (SEA, NVP, APEX), understanding of the living marine resources of the northern Gulf of Alaska has been greatly accelerated. These efforts have been coupled with projects that have developed pioneering management techniques to help managers better protect recovering resources (e.g., genetic stock identification for in-season sockeye management, disease research on herring, pink salmon otolith marking).

As of the most recent update on the status of injured resources and services in September 1996, only one resource (bald eagle) was fully recovered. While there are indications that several injured resources are now making progress toward recovery, the outlook for many injured resources and services remains uncertain. Recovery for injured resources is extremely complex as ecosystems are always fluctuating due to both natural (e.g., oceanographic) as well as human-induced (e.g., pollution) changes. Accordingly, the lingering effects of the *Exxon Valdez* oil spill, while acting in combination with other factors, continues to influence the health of living systems. For example, the oil spill mortality of 300 harbor seals exacerbated the decline of these marine mammals which were already in decline prior to that time. Another example of spill-related impacts possibly joining with natural variability involves the collapse of the

⁸ *Restoration Plan*, Chapter 2, p. 11.

⁹ *Restoration Plan*, Chapter 2, p. 12.

PWS herring fishery in 1993, partly due to a viral epidemic which, in turn, may be linked to the stress of oil exposure.

The implications and extent of long-term changes in trophic relationships resulting from the oil spill in the nearshore environment being investigated under the NVP project are only now beginning to be understood. The physiology, diet and productivity work under the APEX project is resolving some questions, even as it is leading to others. The SEA program has brought forward new insight into the oceanographic and biological dynamics of Prince William Sound, but key questions about predator-prey relationships as they relate to injured species remain unresolved. At the same time, all of these investigations are generating new information that is helping to describe, for the first time, essential marine habitats such as bays and coves that provide foraging areas for seabirds, overwintering refuge for juvenile herring and nursery areas for pink salmon.

Many important questions and concerns remain. On-going declines of marine mammal populations, seabird die-offs, continuing depression of herring stocks, the decline of some major salmon runs even while others appear to flourish, and changing ocean temperatures with potentially severe implications for injured resources and services are just a few examples of the need for a sustained, long-term commitment to fisheries and marine ecosystem research/monitoring.

Proposal for discussion - The Trustee Council would establish a Fisheries and Marine Research, Improved Management and Conservation Fund to support a long-term interdisciplinary program to improve the understanding and management of living marine resources of the Northern Gulf of Alaska.

- The fund would be managed as a long-term funding source, inflation-proofed with only the net earnings spent on an annual basis. Funds would be invested through the State of Alaska and an exemption from the Executive Budget Act would be sought to allow state agencies to receive and expend funds without the additional requirement of an annual appropriation.
- The fund would be used to facilitate integrated, cooperative research in the northern Gulf of Alaska as part of a larger collaborative effort in the northern Pacific coordinated with the North Pacific Research Board (NPRB).
- Building on the restoration research program to date, the fund could be used to:
 - ... develop information needed for long-term restoration, enhancement, management and conservation of injured resources and the marine ecosystem upon which they depend;
 - ... track key changes in the Northern Gulf of Alaska to distinguish natural variability from human influences;
 - ... support programs that promote the long-term sustainable use, conservation and stewardship of fisheries and other living resources of the Northern Gulf of Alaska ecosystem;
 - ... develop new management tools and information; and
 - ... support the identification of essential marine habitats.

- The core of the program would be an integrated monitoring project that would take the "pulse" of the northern Gulf of Alaska ecosystem measuring such key parameters as long-term ocean temperature trends, the timing and strength of the spring plankton blooms, the strength and direction of the Alaska Coastal Current, distribution and population trends of forage fish species and the survival/productivity of apex predators.
- The long-term monitoring would be supplemented with shorter term strategic research initiatives targeting specific resources (e.g., harbor seals) and/or management and conservation problems (e.g., genetic discrimination of fish stocks).
- Specific funding decisions would be made by a new board, including federal and state agencies responsible for fish and wildlife resources, key stakeholders, and representatives of the scientific community.
- Program management would be limited to a small professional staff to manage the administration, interagency coordination and scientific planning/peer review process. Opportunities for public comment on the science work plan would be provided although no formal public advisory body would exist.
- A portion of the fund could be used to endow a research chair based at each of the three principal regional marine research institutions within the spill area (Alaska SeaLife Center, Near Island Research Facility, PWSSC) that provide key support for marine research efforts.
- Program implementation would promote the integration of traditional knowledge and local involvement in project development and implementation.
- The fund could also be used to support public information and education efforts, and possibly a small program of undergraduate and graduate scholarships and internship programs (e.g., Youth Area Watch) in marine sciences that would be coordinated with long-term research efforts.

Implementation Issues:

1. What, if any, changes in statute or the settlement would be necessary?
2. How would decisions be made on individual projects?
3. What kind of board would be created? What kind of participation by federal or state resource agencies?
4. What level of public involvement in decisions is appropriate?
5. What kind of cooperation should there be with other research efforts?
6. How would research priorities be set?
7. How would funds be invested?

Habitat Protection

The *Restoration Plan* (1994) recognizes that habitat "protection and acquisition is one of the principal tools of restoration [and] important in ensuring continued recovery in the

spill area."¹⁰ The Trustee Council, the PAG and general public comment generally reflect support for a continuing habitat protection program although there is a range of opinion regarding the appropriate scope of such an effort in the future.

Habitat protection provides a public resource endowment in perpetuity, which helps to sustain the world-renowned ecosystems of the northern Gulf of Alaska while also benefiting the people who use and enjoy them. This strategy for restoration involves the protection of large parcels of important habitat for injured resources and services and small parcels in key locations. Habitat protection may involve fee simple acquisition from willing sellers, conservation easements or a combination of both. Habitat protection through the Trustee Council process usually has the associated benefit of improving overall land management by consolidating mission and management of the lands and may reduce agency operational costs.

Several large blocks of privately held habitat exist that are potentially important to restoration. Examples include: private holdings in Lake Clark National Park; lands surrounding Afognak Lake; additional acquisitions from Afognak Joint Venture; large private holdings along the Kenai River; the Karluk Reservation adjacent to the Kodiak National Wildlife Refuge; and lands owned by five native corporations on the Pacific side of the Alaska Peninsula within the Alaska Peninsula NWR and Aniakchak National Monument and Preserve. In addition to these potential future opportunities, adequate funds may not currently be available to successfully complete ongoing negotiations with Koniag Inc. for permanent protection of the Karluk and Sturgeon Rivers unless additional Restoration Reserve funds are made available.

A substantial number of public comments have been received by the Trustee Council urging that the spill area boundaries be expanded to the east of Prince William Sound to encompass the entire Copper River/Bering River delta in order to allow purchase of habitat potentially threatened by development. This area is outside of the designated spill area and was not impacted by oiling from the spill. While the landowner (KADCO) of a portion of the subsurface estate in the vicinity of Carbon Mountain has indicated a willingness to sell those holdings, the surface estate owner (Chugach Alaska Corporation) has repeatedly indicated firm opposition to having its lands considered for acquisition. As the primary government land management agency for this area, the U.S. Forest Service informally examined the KADCO proposal but was not able to identify a significant linkage between the restoration of injured resources in the spill area and the purchase of KADCO's subsurface holdings.¹¹

The Restoration Office continues to receive a small but steady stream of small parcel nominations even though there has been no active advertising of the Small Parcel program for three years and an informal "moratorium" has been in place for sometime. Comments by the Public Advisory Group have been supportive of continuing a small parcel program to protect strategic parcels with important resource or service values. As

¹⁰ *Restoration Plan*, Chapter 2, p. 22.

¹¹ The *Restoration Plan* includes a policy regarding the location of restoration actions: "Restoration activities will occur primarily within the spill area. Limited restoration activities outside the spill area, but within Alaska, may be considered under the following conditions: when the most effective restoration actions for an injured population are in a part of its range outside the spill area; or when the information acquired from research and monitoring activities outside the spill area will be significant for restoration or understanding injuries within the spill area." (*Restoration Plan*, p. 14, emphasis added.)

with the Large Parcel program, future opportunities are also subject to uncertainty but some level of small parcel nominations can be reliably anticipated.

Proposal for discussion - To provide for future habitat protection needs the Trustee Council would authorize the creation of a Habitat Protection Trust Fund to be administered by a private non-profit organization.¹²

- The Habitat Protection Trust Fund would be used to acquire and protect parcels of land within the spill area that have significant value for the protection or enhancement of injured resources or services.
- The fund would be sufficiently large to generate annual earnings that could support an on-going small parcel program and potential large parcel protection.
- Small parcel protection would be on the basis of fair market value appraisals.
- Large parcel protection would follow the established precedent of previous transactions.
- Priorities for acquisition would be selected following public comment by an advisory group of state and federal resource management agencies and public members.
- Proposed acquisitions would be publicly noticed with an opportunity afforded for public comment.

Implementation Issues:

1. What, if any, changes in statute or the settlement would be necessary?
2. Would problems arise from having this program administered by a private vs. public entity? Are there legal impediments?
3. What if any direct participation by federal or state agencies?
4. Should lands be acquired for ownership by the state and federal government only or include possible ownership by local governments and/or land trusts?
5. What level of public involvement in decisions is appropriate?
6. How would funds be managed and invested?
7. How could financial accountability for the trust funds be assured?
8. What if any limitations on administrative costs?
9. Should funds be used for the purchase of conservation easements?
10. Would conservation easements on fee simple acquisitions be conveyed to the governments or other parties?
11. How would subsequent land management costs be addressed?
12. How would decisions be made on individual parcels?

General and Community-Based Restoration

¹² A proposal to establish a \$20 million small parcel endowment was submitted to the Trustee Council for consideration by the Conservation Fund as part of the public comment process on the Restoration Reserve. Established and nationally recognized land trust organizations with substantial experience in Alaska include the Conservation Fund, the Nature Conservancy and the Trust for Public Lands. Each of these three organizations has participated in various ways with the development and implementation of the Trustee Council habitat protection program.

The Trustee Council has been approached with numerous proposals for general and community-based restoration efforts intended to restore injuries sustained by communities impacted by the oil spill. To date, the Trustee Council has authorized a total of approximately \$32 million for general and community-based restoration projects.

Several projects have been designed to improve the ability of resource managers to control human activities (e.g., coded wire tagging, otolith marking, recreational use modeling). Some projects have involved direct manipulation of the environment as means of restoring, enhancing or replacing resources and the human services supported by those resources. For example, in-stream habitat improvements have been undertaken to bolster wild salmon stocks that support commercial fisheries (e.g., Port Dick). Salmon release projects have been used to increase the local availability of salmon for subsistence harvest (e.g., Chenega chinook release). Still other projects have been designed to reduce sources of potentially harmful marine pollution (e.g., PWSWMP, KWMP, CIWMP).

Comment from residents within the spill area demonstrates strong interest in using the Restoration Reserve to support additional general and community-based restoration projects. Proposals from spill area communities include a wide range of activities, efforts and facilities to help restore, replace and enhance the services that were injured by the spill (subsistence, commercial fishing, recreation/tourism). Examples include additional shoreline cleanup work, small facilities for the processing of subsistence foods, clam bed seeding, skiff docks to facilitate subsistence activities, additional salmon releases to increase local harvest opportunities, programs and facilities to implement comprehensive pollution and solid waste management, small-scale hatchery construction, community multi-purpose facilities and cultural centers, youth education programs, and enhanced fisheries marketing assistance. While many general and community-based restoration proposals have been funded by the Trustee Council or through use of state criminal settlement restitution funds (SB 183), numerous additional proposals remain.

Proposal for discussion - The Trustee Council would make a one-time disbursement to the Alaska Department of Community & Regional Affairs (DCRA) and create a fund for general and community-based restoration projects. The grant would be managed and invested by the State of Alaska on a declining balance basis. A small percentage of the funds would be used to offset the costs of administering a grant program.

Proposals would be submitted to DCRA by local and regional governments and other community-based organizations for the purposes of restoring, replacing or enhancing human services injured by the oil spill (subsistence, commercial fishing and recreation/tourism).

Implementation Issues:

1. What, if any, changes in statute or the settlement would be necessary?
2. How would decisions be made on individual project or program proposals?
3. What kind of decision-making body or process? What kind of participation by federal or state resource agencies?
4. What level of public involvement in decisions is appropriate?

5. How would project priorities be set? What criteria would be used to evaluate projects?

**The Gulf Ecosystem Monitoring (GEM) Program:
A Permanent Fund for the Management and Conservation
of the Northern Gulf of Alaska Marine Ecosystem.**

Mission: To efficiently sustain a healthy and productive marine ecosystem in the northern Gulf of Alaska, while maintaining the quality of life and economic opportunities for residents and visitors.

Concept: Using funds now set aside in the *Exxon Valdez* oil spill (EVOS) Restoration Reserve, establish a perpetual, inflation-proofed endowment, from which the earnings would support long-term ecological monitoring and research in the EVOS area and adjacent northern Gulf of Alaska. This interdisciplinary program would improve understanding, conservation, and management of the living marine resources of the northern Gulf of Alaska. The GEM Program would aim to:

- track lingering oil spill injury (e.g., oil exposure in sea otters) and apply what is learned to injury assessment and response to future oil spills (e.g., NRDA/contingency planning);
- identify and understand annual and long-term changes in the marine ecosystem, distinguishing natural variability from human influences (e.g., wide swings in salmon, marine mammal, and seabird populations);
- develop new fish and wildlife management tools (e.g., genetic stock identification in commercially important fish species);
- provide integrated and synthesized information on the status, trends and health of fisheries and other marine resources, including water quality and contaminants in fish and wildlife consumed by people (e.g., produce annual "state of the gulf" report, with periodic updates as new information becomes available);
- support the identification and protection of important marine habitats (e.g., assist with siting of marine industrial and mariculture facilities; establish protected reserves);
- foster efficiency through interagency coordination and scientific leadership and the leveraging of GEM funds to guide uses of funds from other sources (e.g., the NOAA/NSF GLOBEC program on climate change and the oceans); and
- involve stakeholders in guiding and carrying out the program.

Program Elements: Building on the current EVOS restoration science program and, without duplication, the on-going programs of government agencies, academic institutions, and other entities, the core program would have four main aspects:

- long-term (decadal scale) monitoring of productivity and health of the marine ecosystem, including oceanic influences, the composition, size, and distributions of fish and wildlife populations, and contaminants in organisms and the environment;
- shorter-term (3-5 years) research directed to understanding and resolving specific problems, including the development of new tools and techniques needed to advance fish and wildlife conservation and management;
- ongoing participation and education of residents, young people and future professionals through traditional knowledge projects, scholarships, student research and University of Alaska endowed chairs in coastal communities and at such institutions as the Near Island Research Facility, Alaska SeaLife Center, and the Prince William Sound Science Center; and
- ongoing interagency coordination through workshops and other means and the integration and synthesis of data from multiple sources to constantly update understanding of the status, trends, and health of the marine ecosystem.

Governance and Administration: The GEM Program would be governed by a new board with representatives of state and federal natural resource agencies, stakeholders, and the scientific community, and it would be administered by an executive director and small professional staff with the aid of a panel of scientific peer reviewers. Public education and participation would be encouraged through an annual work plan, "state of the gulf" reports, community and school presentations, and a web site. Minimum annual cost would be \$5-6 million dollars, inclusive of all aspects of the program.

Examples of Practical Applications of EVOS Research, Monitoring and General Restoration Projects

[December 10, 1998 draft]

Changes in Regulations

☛ Studies on the effects of hydrocarbon exposure on early life stages of pink salmon and herring have initiated reevaluation of water quality standards and influenced permit decisions (e.g., project numbers /076, /191, 194).

☛ Information on the status and life history of cutthroat trout supported harvest restrictions in sport fishing in Prince William Sound (e.g., F/S 5, /145).

☛ Studies on harlequin duck ecology and populations supported harvest restrictions in sport hunting in Prince William Sound (e.g., BS 11, /427).

☛ Evidence on changes in Gulf of Alaska ecosystem and the importance of forage fish to seabirds and marine mammals supported a decision to strictly limit bycatch of forage fishes and prohibit start up of new commercial fisheries on forage fish species (/163).

Ability to Manage Fish and Wildlife

☛ Otolith marking of pink salmon at Prince William Sound hatcheries improves in-season fishery management, helping to conserve wild stocks and enhance commercial fishing by allowing fuller and more timely harvests of hatchery fish (e.g., /188).

☛ Information on genetic stock structure of pink salmon supports decisions by fisheries managers who must issue hatchery and supplementation permits and avoid compromising the genetic diversity of wild stocks (e.g., /196, /191).

☛ Spawn deposition surveys and hydroacoustic and aerial surveys have supplemented and improved traditional techniques for assessing herring stocks in Prince William Sound (e.g., /166, /320).

☛ Information on disease transmission related to herring "pound" fisheries in Prince William Sound initiated reevaluation of and change in management of this type of commercial fishery (/162).

☛ Techniques for genetic stock identification and hydroacoustic assessments of sockeye salmon in Cook Inlet improved in-season management of this valuable and contentious fishery (/255, /505).

☛ Knowledge of biological mechanisms underlying

the phenomenon of overescapement and population cycling in glacial lakes aids fisheries managers in predicting and managing sockeye runs (/258, /048).

☛ Information on many different fish and wildlife species (e.g., cutthroat trout, black oystercatcher) is improving resource assessments and planning for revisions to the Chugach Forest Plan (e.g., /289).

☛ Hydroacoustic work on pollock in Prince William Sound helped confirm presence of a large spawning aggregation of pollock, helping to create an opportunity for commercial harvest and enhancing available management information (/320).

☛ Involvement of the Alaska Native Harbor Seal Commission and subsistence hunters in harbor seal research is contributing to development of a comanagement agreement between the ANHSC and the National Marine Fisheries Service (/244).

☛ Genetic analyses and tracking of movements of harbor seals in the Gulf of Alaska is helping wildlife managers define appropriate scale of management units (/064, /341).

Important Terrestrial and Marine Habitats

☛ Studies on ecology, movements, and distribution of herring, harbor seals, sea otters, pink salmon, and seabirds provide managers and stakeholders new information on location and seasonal use of sensitive marine habitats (e.g., /025, /064, /320, /163).

☛ Information on harlequin duck and marbled murrelet nesting habitats aided evaluation of EVOS habitat protection opportunities (e.g., R71, R15-2).

☛ Stream assessments on Afognak Island aided evaluation and negotiation of the Afognak habitat protection package (R47).

Improve Habitats and Enhance Populations

☛ Projects on the outer Kenai Peninsula, Afognak Island, and in Prince William Sound are rebuilding fish runs by creating, providing access to, or improving spawning and rearing habitats for pink, chum, and silver salmon and cutthroat trout. The results replace and enhance opportunities for commercial fishing and recreation (sport fishing) (e.g., /139A1, 139A2, /043B).

☞ Fertilization and stocking of lakes to supplement Prince William Sound sockeye salmon runs is replacing and enhancing opportunities for subsistence and commercial fishing (e.g., /254, /259, /256).

☞ Appropriate access to and restoration of eroding stream banks on the Kenai River helps restore sockeye salmon and enhances opportunities for recreation (sport fishing) (/180).

☞ Supplementation of local salmon runs (e.g., pink salmon) and seeding of shellfish (e.g., littleneck clams) on community beaches are replacing and enhancing subsistence opportunities in Prince William Sound and on the Kenai Peninsula, (e.g., /127, /131, /225, /247).

☞ Removal of foxes introduced to seabird nesting islands will increase populations of pigeon guillemots and black oystercatchers on two of the Shumagin Islands (/041).

☞ Data on boat traffic and increasing human uses in western Prince William Sound is aiding development of a revised Chugach Forest Plan (/339).

☞ Information on the growth and survival of juvenile pink salmon is improving hatchery release strategies in Prince William Sound (/320).

☞ Construction of waste disposal facilities in Prince William Sound reduces marine pollution, such as boat engine oil (/115).

Oil Spill Prevention, Response, and Assessment

☞ Publication of revised maps showing sensitive areas and seasons for Prince William Sound fish and wildlife populations will aid contingency planning (/368).

☞ Several intertidal and nearshore studies provide improved sampling designs and approaches for application in future oil-spill injury assessments (e.g., /CH1A, /025, 086C).

☞ Shoreline assessments and intertidal studies contribute to evaluations of the efficacy of cleanup techniques and helped to refine approaches to future spills (e.g., /266B, NOAA HAZMAT studies).

☞ Experimental treatment of oiled mussel beds provides an on-going test of a cleanup/restoration technique for a sensitive nearshore resource (/090).

☞ Baseline data on hydrocarbon concentrations and exposure will be invaluable in future injury assessments (/290).

☞ Development of analytical techniques to identify the "fingerprint" of North Slope crude oil in samples contaminated by hydrocarbons from multiple sources enhances ability to track sources and pathways of exposure (/290).

☞ Simplified and uniform recording techniques for evaluating conditions and changes at archaeological sites improves rapid assessment of damages and protection and restoration priorities (/006, /007).

Research and Monitoring Techniques

☞ Otolith marking of pink salmon at Prince William Sound hatcheries provides a tool for evaluating the distribution and ecology of pink salmon at sea and the extent and effects of straying by returning hatchery fish on wild populations (e.g., /188).

☞ New gene detection methods) are being applied in fisheries research laboratories beyond the EVOS program (e.g., /196, /190).

☞ Continuation of a 25+ year data set on oceanographic conditions in the Gulf of Alaska off Seward aids interpretation of effects of El Niño events, climate change, and anthropogenic perturbations (/340).

☞ Improved aerial survey protocol and other techniques are being applied to sea otter research and monitoring projects beyond the EVOS program (e.g., MM6, /025, /043).

☞ Development of a technique for monitoring marbled murrelet productivity based on adult-juvenile ratios on the water provides practical means of monitoring breeding success for this dispersed, cryptic, forest-nesting seabird (/031).

☞ Long-term dataset on marine bird populations in Prince William Sound provides a statistically powerful tool for evaluating population changes (/159).

☞ The results of Trustee Council-sponsored studies have appeared in more than 225 peer-reviewed scientific publications. These publications add credibility and value to the EVOS legacy.

Exxon Valdez Oil Spill Trustee Council

645 G Street, Suite 401, Anchorage, AK 99501-3451 907/278-8012 fax: 907/276-7178



Memo

To: Trustee Council
From: Hugh Short, Community Involvement Coordinator *HS*
Through: Molly McCammon, Executive Director *MM*
Date: November 16, 1998
Re: Subsistence Projects

I have compiled a list of projects funded by the Trustee Council through the civil settlement and those funded by the state's criminal settlement of \$5 million for subsistence restoration in the spill area communities that are unincorporated, administered by the Department of Community and Regional Affairs. These projects fall into four main categories: 1) enhancement and replacement of subsistence resources; 2) subsistence education and revitalization; 3) public outreach and cooperative scientific efforts, and; 4) marine pollution management for greater abundance of subsistence resources.

In addition, I have included a list of known subsistence projects that may take place in the next few years. These projects have or are expected to submit detailed proposals subject to Trustee Council scrutiny, but are likely to be funded to a certain degree.

This information is provided to assist Trustee Council members in reviewing what specifically has been done, is currently happening, and is expected to happen with regard to subsistence projects. Additionally, when discussing a \$20 million endowment for subsistence projects, these projects are similar to those envisioned by spill area residents for use under the endowment.

Enhancement and Replacement of Subsistence Resources

Civil Settlement Projects

1. Tatitlek Coho Salmon Release, /127 – This ongoing project will create a coho salmon release to Boulder Bay, near the village of Tatitlek. This is the last year of Trustee Council funding.
2. Clam Restoration Project, /131 – This ongoing project will restore littleneck clams to the beaches of Port Graham, Nanwalek, Eyak, and Tatitlek. The Qutekcak Shellfish Hatchery in Seward will produce 800,000 littleneck clams and cockles annually. This is the last year of Trustee Council funding.

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Subsistence Community Projects Summary – November 16, 1998

3. Eastern Prince William Sound Wildstock Salmon Habitat, /220 – FY98 was the closeout year on this project. This project assisted wild salmon stocks in eastern PWS to increase their numbers for use by subsistence users in Eyak and Tatitlek.
4. Port Graham Pink Salmon Subsistence Project, /225 – This project enhances the local run of pink salmon for use by Port Graham subsistence users. The project is slated to receive Trustee Council funding through FY00.
5. Solf Lake Salmon Stocking, /256B – This project is establishing self-sustaining runs of sockeye salmon in Solf Lake. This project will benefit subsistence users of Chenega Bay.
6. Chenega Chinook Salmon Release Program, /272 – Chinook salmon were released into Crab Bay, adjacent to Chenega Bay. This project closed out in FY97.
7. Assessment, Protection, and Enhancement of Salmon Streams in the Lower Cook Inlet, /263 – This project is constructing enhancement projects on Lower Cook Inlet streams near the village of Port Graham, eventually creating increased salmon runs for subsistence users in Port Graham.
8. Kametlook River Enhancement, /247 – Initially funded by the criminal settlement funds, this project has placed incubator boxes in the river in an effort to rebuild the coho salmon run for use by Perryville subsistence users. Annual funding has shifted to the civil settlement, which the Trustee Council administers.

State Criminal Settlement Projects

1. The Tatitlek Mariculture Operations and Capital Outlay projects - These two projects assist in producing oysters as a replacement subsistence resource for residents of Tatitlek. The Operations portion is currently an ongoing project.
2. Nanwalek Sockeye Enhancement – The purpose of this project is to increase the sockeye salmon run to the English Bay River for use as a local subsistence resource for Nanwalek residents. This is an ongoing project.
3. Chenega Bay Mariculture Project – Much like the Tatitlek Mariculture Project, this project provides oysters to Chenega Bay residents as a replacement subsistence resource. This is an ongoing project.
4. Port Graham Coho Restoration – The purpose of this project is to increase the coho salmon run to the Port Graham River for use as a subsistence resource by Port Graham residents. This is an ongoing project.

Subsistence Education and Revitalization

Civil Settlement Projects

1. Youth Area Watch, /210 – This project involves youth through the local schools in communities of Tatitlek, Chenega Bay, Cordova, Valdez, Seward, Seldovia, Port

Subsistence Community Projects Summary – November 16, 1998

Graham, and Nanwalek in scientific research and restoration projects. Fieldwork and classwork are the main components of the curriculum. This is an ongoing project.

2. Elder/Youth Conference on Subsistence, 98286 – This project funded a three-day conference on subsistence in Cordova organized by the Native Village of Eyak Traditional Council. Discussion centered on the status of important subsistence resources, melding traditional knowledge and western scientific knowledge, and communicating future goals in research and community-based projects. FY98 was the only year of Trustee Council funding.
3. Elders/Youth Conference, 95138 – This project funded a two-day conference in Anchorage to discuss restoration with spill-affected residents. The Alaska Department of Fish and Game used consultants to implement the conference. FY95 was the only year of funding.
4. Documentary on Subsistence Harbor Seal Hunting in PWS, 96214 – This project made a documentary on subsistence hunting of harbor seals in PWS. This video documented all facets of harbor seal hunting. This project was funded for only FY96.
5. Herring Nearshore Video, 98274 – This project produced a 28 minute video on the subsistence use of herring, herring spawn, and nearshore ecosystem resources in Prince William Sound. This project was funded only for FY98.
6. Subsistence Restoration Project, 93017 – This project held community meetings throughout the oil spill region to determine which areas and resources were of particular concern to residents regarding subsistence use. Samples of subsistence foods were collected from harvest areas. This was funded for one year.
7. Food Safety Testing, 94279 – This project collected subsistence foods throughout the spill region and tested them for ongoing safety issues as a result of the oil spill. This project was funded in FY93 as project 93017. Continued funding followed through FY95. Additionally, funding was made available for a food safety hotline in FY95 through FY98 under /052.

State Criminal Settlement Projects

1. Prince William Sound Regional Spirit Camp – This project funded two years of subsistence camps in the Prince William Sound for youth in Sound communities. Chugach Alaska Corporation has assumed funding for this project and is continuing to hold Spirit Camps.
2. Port Graham Floating Skiff Dock – This project will construct a floating skiff dock in Port Graham for use by local subsistence harvesters in an effort to allow them quicker access to traditionally used subsistence areas during periods of cooperative weather. This project is in the planning phase currently.
3. Perryville Subsistence Education and Training Center – This project provided funds for Perryville to construct a subsistence and cultural education center. Also included is a language lab and supplies needed for the center. This project is complete.

4. Tatitlek Fish and Game Processing Facility – This project constructed a fish and game processing facility for use by subsistence users. This project allowed local subsistence users to process foods more efficiently, as well as use methods that allow for the longer storage of foods. This project is in the final construction phase.
5. Kodiak Island Spirit Camp – This project funded two years of subsistence camps on Kodiak Island for youth in Kodiak Island communities. Kodiak Area Native Association has assumed funding for the Spirit Camps.
6. Chignik Lake, Chignik Lagoon, Perryville, and Ivanoff Bay Subsistence Fish and Game Processing Buildings/Cultural Education Center/Subsistence Cultural Education Programs – This project funded buildings in each of the above named communities to be used as multipurpose subsistence buildings. Additionally, the project funded the development of subsistence education programs. All facilities have been complete except for Chignik Lagoon.
7. Chenega Bay Subsistence Harvest Support – Subsistence resources near the village of Chenega Bay were severely depleted due to the oil spill. As a result, this project subsidized longer-range harvest trips to access traditionally used subsistence resources. This project is complete.

Public Outreach and Cooperative Science

Civil Settlement Projects

1. Community Involvement Project, /052A – This project maintains a network of liaisons in ten spill affected communities in Lower Cook Inlet, Prince William Sound, Kodiak Island, and the Alaska Peninsula. Communication regarding the status of restoration and recovery, the Council's scientific program, habitat program, and community-based projects is the main objective of the project. Additionally, six student interns in Kodiak Island communities are involved in the program. This is an on-going project.
2. Traditional Ecological Knowledge, /052B – This project supplies a Traditional Knowledge Specialist who works with EVOS scientists and Native communities to enhance the western scientific research with traditional knowledge. This is an on-going project.
3. Community Harbor Seal Biosampling, /245 – This project works with the Alaska Native Harbor Seal Commission to provide biosamples of harbor seals that have been caught by Native subsistence hunters to various research projects. This project is in the final year of Trustee Council funding.
4. Surf Scoter Life History and Ecology, /273 – This project involves using traditional knowledge with EVOS research to study the life history of surf scoters, which are a subsistence resource to residents of Prince William Sound. This project's last year is FY01.

Subsistence Community Projects Summary – November 16, 1998

5. **Herring Traditional Ecological Knowledge, /320T** – This project involves interviewing traditional herring harvesters, including subsistence and commercial users, and documenting historical data regarding abundance and geographic location. FY99 is the closeout year for this project.
6. **Survey of Octopuses in Intertidal Habitats, /009** – This project assessed the condition and population of octopuses and chiton in the oil spill area. It particularly looked at the nearshore habitats that are important to octopus and the turnover rates of octopus in those habitats. FY97 was the final year of funding.

Civil Settlement Projects on the Deferred List for December 1998 Consideration

1. **Spot Shrimp Population, 99401** – This project would be a cooperative population assessment of spot shrimp between the Valdez Native Tribe and the National Marine Fisheries Service.
2. **Community Based Harbor Seal Research, 99444** – This project will combine the expertise of Alaska Native hunters and university researchers to monitor population parameters of harbor seals in the oil spill area.
3. **Port Graham Hatchery Reconstruction, 99405** – This project proposed by the Port Graham Village Council would fund the partial reconstruction costs of the Port Graham Hatchery that was destroyed by fire on January 13, 1998.

Marine Pollution Management

Civil Settlement Projects

1. **Sound Waste Management Plan, 97115** – This project implemented a waste management plan throughout the Prince William Sound communities. It provided for Environmental Operation Stations in each community and a used oil management plan. This project was completed in FY98.
2. **Kodiak Waste Management Plan, 99304** – This project is implementing a Kodiak Island-wide waste management plan. Environmental equipment, land fill improvements, and community education will take place in all communities. This project is in the implementation phase.
3. **Lower Cook Inlet Waste Management Plan, 99514** – This project is contracting an environmental engineer to assess pollutants seeping into Port Graham Bay and Kachemak Bay from the communities of Port Graham, Nanwalek, and Seldovia. This is a one-year project.

Possible Subsistence Projects to be Funded in the Next Three Years

1. Archaeological Repository and Local Display Facilities in Chugach Region – This project would fund a central archaeological repository in one of the eight Chugach region communities, as well as local display facilities in the remaining seven communities. Additionally, traveling displays would be developed and the network of archaeological facilities would operate perpetually. A Request For Proposals was sent out through the Alaska Department of Natural Resources in June 1998, with two proposals eventually submitted in August 1998. An Addendum to the RFP was sent out in September 1998 requesting more information regarding financial commitments from proposers and their co-sponsors, as well as long term funding plans. The Trustee Council is expected to discuss this issue at the November 30, 1998 meeting. The total cost of this project is projected to be \$2.8 million.
2. Lower Cook Inlet Waste Management Plan, 99514 – In an effort to address pollutants reaching the Port Graham Bay and Kachemak Bay, the Trustee Council has funded an environmental assessment of the lower Cook Inlet communities of Port Graham, Nanwalek, and Seldovia. The expected recommendations of this assessment will likely include the construction of facilities and purchase of equipment to protect marine animals in the waters near these communities. The Sound Waste Management Plan, which took place in Prince William Sound communities, addressed many of the same concerns as those currently being addressed in the lower Cook Inlet assessment. Additionally, the Kodiak Island communities are implementing the recommendations of their environmental assessment that took place in FY98, known as the Kodiak Waste Management Plan.
3. Paralytic Shellfish Poisoning – PSP continues to be the major concern expressed by subsistence users in the Kodiak Island communities. The Trustee Council, for various legal and policy concerns, rejected a proposal several years ago to develop and field test a new test for PSP. Since that time the Alaska Science and Technology Foundation has become seriously involved in PSP research. Very preliminary discussions have been held with ASTF, the Alaska Department of Environmental Conservation, and the University of Alaska over what possible role the Trustee Council might have in this overall effort. Nothing definitive has yet been prepared.

The above projects are those currently being discussed as possibilities for funding in the next three years.

If you have any questions regarding any of these projects, please do not hesitate to contact me. Thank you.

Exxon Valdez Oil Spill Trustee Council

645 G Street, Suite 401, Anchorage, AK 99501-3451 907/278-8012 fax: 907/276-7178



Memo

To: Trustee Council
From: Hugh Short, Community Involvement Coordinator *HS*
Through: Molly McCammon *MM*
Date: 10/21/98
Re: Restoration Reserve "Community Fund" Meeting

On October 13, 1998, I assisted in chairing a meeting with Patty Brown-Schwalenberg, Executive Director of Chugach Regional Resources Commission, to discuss the proposed \$20 million "community fund" vis-à-vis an appropriation from the Restoration Reserve as proposed by Chugach Region villages. In attendance at this meeting were representatives from Ivanoff Bay, Perryville, Chignik Bay, Seldovia, Seward, Chenega Bay, Tatitlek, Kodiak, Ouzinkie, and Eyak. At this meeting, those present endorsed the following items:

1. The formation of a \$20 million endowment for communities in the oil spill region. This endowment would be perpetual and administered through representatives of communities throughout the spill region and state and federal government representatives. After inflation proofing and administration costs, grants would be awarded through a competitive RFP process on an annual basis.
2. Projects considered for this funding would include subsistence and cultural-based preservation, subsistence enhancements, and stewardship of natural resources. Many projects previously funded by the Trustee Council, numerous projects not considered permissible for funding by the Trustee Council, and the projects funded through the state's Criminal Settlement and administered by the Department of Community and Regional Affairs were mentioned as the types of projects that communities would pursue.
3. Communities would want to ensure that they could also get projects funded through other Restoration Reserve programs when applicable. Examples of this would include the continuation of the Community Involvement Project, Traditional Ecological Knowledge Project, community/agency cooperative science projects, and the Youth Area Watch.
4. The preferred method of administering the endowment would include the formation of a new foundation made up of tribal, state, and federal representation. A small administrative staff would assist the foundation board in reviewing and granting projects. Regional representation is necessary.
5. A broader interpretation of subsistence projects eligible for funding under this endowment would need to be set in place. Currently, many projects of excellent technical merit simply do not meet the requirements of the current Consent Decree as interpreted by the United States Department of Justice. For this endowment to operate properly and meet the set objectives, new guidelines

would have to be implemented which would broaden subsistence restoration to include a more holistic view of subsistence as part of cultural preservation.

6. Finally, communities who are currently not eligible under the DCRA Criminal Settlement fund need to be included in the \$20 million community endowment. This would include tribal councils in Valdez, Cordova, Seward, Seldovia, Ouzinkie, Old Harbor, Akhiok, Larsen Bay, Port Lions, Kodiak, and Chignik Bay.

If you have any questions regarding outcomes of this meeting, please do not hesitate to contact me. Thank you.

Exxon Valdez Oil Spill Trustee Council

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MEMORANDUM

TO: Exxon Valdez Oil Spill Trustee Council

THROUGH: Molly McCammon
Executive Director

FROM: Sandra Schubert
Project Coordinator

RE: Community Projects

DATE: November 19, 1998

You asked me to compile a list of restoration projects, other than subsistence projects, that have been proposed by spill-area communities. The list includes projects funded by the Trustee Council as well as projects proposed but not funded. Attached to this memo is a summary listing of other EVOS-related settlement funds received by communities.

Already Funded

Kenai River Restoration (96-99180, \$1,870,700)

Is funding a number of streambank and related restoration projects along the Kenai River.

Valdez Duck Flats (97230, \$67,800)

Is developing a concept plan for protection of habitat on the Valdez Duck Flats. Goal is to ensure that future use of the flats will promote recovery of injured resources given increased public usage.

Homer Mariner Park (99314, \$99,500)

Is producing a feasibility study and environmental review for restoration of an intertidal area damaged by spill response efforts.

Alaska SeaLife Center (\$26,224,000)

Trustee Council contributed \$25.5 million to construction of this marine research facility in Seward and funded an additional \$724,000 in 1997 to purchase equipment and other durable goods at the center.

To Be Considered at 12/15/98 Meeting

East Amatuli Island Video Link (99434, \$75,200)

Proposed by Pratt Museum (Homer), would place remotely operated video cameras in the Barren Islands seabird colonies as both a research and educational tool.

Requested But Not Funded

Additional Kenai River restoration (total \$1,200,000)

Three proposals for additional work on the Kenai River were submitted as part of the FY 99 Work Plan. Two proposals were submitted by the City of Kenai (South Spruce Street Beach Parking/99387 and Kenai River Mouth South Side Access and Parking/99388); one was submitted by the City of Soldotna (Swiftwater Park Recreational Access and Habitat Restoration/99495); there is potential for additional restoration work along the river as well. Not funded because of Trustee Council's already substantial investment in sockeye research and management, habitat acquisition, and habitat restoration along the Kenai River.

Cordova Multi-Purpose Facility (probably \$3-5 million; total project cost is \$8,500,000)

Although a formal proposal has not been submitted to the Trustee Council, we received a letter describing the facility as including meeting facilities, space for performing arts events and museum exhibits, a marine research library, enhancement of existing office space for PWSSC and OSRI, an oil spill response emergency communications center, etc. The facility is viewed by the City of Cordova as a way to generate economic development.

CDFU Salmon Marketing Program (99443, \$1,200,000)

Marketing program would be designed to enhance the value and market share of commercially harvested salmon. Not funded because project does not demonstrate a relationship to the restoration objectives adopted by the Trustee Council; according to Department of Justice, is legally impermissible under the terms of the settlement agreement; aims to restore the market for Alaska salmon rather than restoring the salmon resource as the Restoration Plan requires; and the issues raised by the proposal are being addressed under the private plaintiffs' claims against Exxon.

Permanent Location for Darkened Waters Exhibit (97183, cost unknown)

Would fund acquisition and placement of Darkened Waters: Profile of an Oil Spill in a permanent Alaskan exhibition site. City of Valdez has expressed interest.

Other Possibilities

Implement Valdez Duck Flats concept plan (see above)

Implement of Homer Mariner Park restoration (see above)

OTHER EVOS-RELATED SETTLEMENT FUNDS RECEIVED BY COMMUNITIES

State's criminal settlement

Cordova:	PWSAC-Main Bay Hatchery	\$2.0 million
	Shepard Point Road (1997)	\$1.4 million
	Fish net pens (1998)	\$0.03 million
Whittier:	Whittier Road	\$15.0 million
Kenai:	Kenai River restoration	\$3.0 million
	Kenai R. Visitor Center (1997&98)	\$1.85 million
Seward:	Alaska SeaLife Center	\$12.5 million
	Shellfish hatchery	\$3.3 million
	Hatchery equipment (1997)	\$0.25 million
Homer:	Kachemak Bay Park	\$7.5 million
Kodiak:	Fishery Industrial Tech. Center	\$3.0 million

In addition to these community-specific projects, 44 recreation projects -- including access improvements, campsites, hiking trails, boardwalks, public use cabins, picnic shelters, interpretive displays, viewing platforms, docks, fish tables, facilities for disabled fishers, and restrooms -- have been funded through DNR. In summary:

Prince William Sound	13 projects	\$2,470,000
Kenai Peninsula	22 projects	\$3,888,900
Kodiak	9 projects	\$1,298,000

Alyeska Pipeline settlement

Cordova:	Shepard Point Road	\$7.2 million
Valdez:	Emergency Operations Center	\$0.2 million
Tatitlek & Chenega:	Docks	\$14.5 million
Homer:	Kachemak Bay Park	\$7.5 million

Much is unknown about the following because the terms of the settlements have not been made public. However, various sources have provided the following information:

Private claims brought in state court

Kodiak Island Borough	\$1.2 million
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Private claims brought in federal court

\$5 billion punitive damage award is under appeal; municipalities are among the plaintiffs

TAPLF (Trans-Alaska Pipeline Liability Fund)

Municipalities were among the claimants paid; amounts unknown.

Out-of-court settlements with Exxon

Cordova, Seward, Old Harbor, Ouzinkie, Larsen Bay, Port Lions, and Kodiak Island Borough settled portions of their claims out of court for a collective \$955,000



Chugach Regional Resources Commission

Chenega Bay

Eyak

Nanwalek

Port Graham

Qutekcak
Native Tribe

Tatitlek

Valdez Native
Tribe

Testimony to the Exxon Valdez Oil Spill Trustee Council

January 21, 1999

Thank you for the opportunity to provide this written testimony. This testimony is being submitted by Patty Brown-Schwalenberg, Executive Director, in behalf of the Board of Directors who represent the member villages of the Chugach Regional Resources Commission (Tatitlek, Port Graham, Chenega Bay, Nanwalek, Cordova (Eyak), Seward (Qutekcak), and Valdez.

Early in 1998, the EVOS Trustee Council instituted a public comment process, soliciting suggestions and input on the Restoration Reserve fund. As you know, the CRRC staff worked with the board of directors and their member village councils to compile a position paper on the Restoration Reserve. Basically, this position paper supported monitoring of the natural resources on a continuous long term basis. In conjunction with research and monitoring, it was recommended that a long term management plan be developed as a guide for taking care of the resources injured by the oil spill. Furthermore, the position paper supported Tribes in the oil spill affected region playing a key role in these activities for these programs to be effective. Working government-to-government with state and federal management agencies on an equal basis, the land and resources acquired under the habitat acquisition program as well as those currently held by the Tribes and Native corporations will be protected, preserved, and managed in a manner that is beneficial to all users.

Finally, and a key element of the position paper, was the concept of establishing a \$20 million Tribal Community Fund for the tribes in the oil spill affected area. The tribes believe that community based restoration projects and some level of technical training and assistance at the local community level through a Community Fund for tribes would enhance the restoration effort.

It has recently been suggested that the needs of the communities and the integration of Traditional Ecological Knowledge can be addressed by the scientific community if the entire Restoration Reserve funds were dedicated to that effort. The CRRC Board and tribes firmly believe that involving the communities through an avenue such as this will not address their needs. It will only be more of the same bureaucratic rhetoric that they have been faced with for the past ten years. In order to meaningfully involve the communities in the restoration process, a separate Tribal Community Fund must be established. Further justification for the establishment of such a fund is detailed below.

The Tribal Community Fund:

The existence of a set-aside for Tribes in the form of a Tribal Community Fund would alleviate the difficulty of tribes competing for funds with highly educated staffs from universities, state and federal management agencies, and private scientific organizations, as is the current situation. Lowering the level of competition for funds through the Tribal Community Fund would also encourage increased participation from the local Native communities and provide an avenue for their quality projects to be funded.

Another benefit of the Tribal Community Fund is that it could provide long term base funding for tribal traditional natural resource management programs. The tribes underwent a period of shock after the oil spill, and 8-10 years later are just starting to recover and take proactive steps to assist in the restoration effort. Meaningful involvement by the tribes under a co-management regime would facilitate the healing process. The Tribal Community Fund could provide the finances for such involvement through the perpetual funding of tribal traditional natural resource management programs in each of the communities. Many of the tribes operate under P.L. 93-638 contracts or compacts either individually or through their regional nonprofit corporation. This funding mechanism, exercised by the Bureau of Indian Affairs, turns the responsibility of fund allocations over to the tribes. The tribes are then responsible for allocating their BIA funds into whatever programs best address their tribal community needs. Unfortunately, this requires a certain amount of prioritization. When tribal natural resource programs are competing for funds with necessary social

programs such as employment and training, education, health, Indian child welfare, and elder nutrition, as an example, the natural resource programs quite frequently are placed near the bottom of the list, and as a result, the injured resources and services from the oil spill suffer as well. This is difficult particularly in Alaska, where the BIA budget for fish, wildlife and parks is minimal compared to the rest of the country. Whereas Alaska tribes and Native corporations hold title to millions of acres of land, their share of the BIA budget is a mere \$2-3 million. To put this in perspective, the entire national BIA budget for tribal natural resource programs is approximately \$45 million. In addition, other funding sources, such as private philanthropic foundations or state and federal funding programs do not fund long term operation of natural resource management programs. The Tribal Community Fund appears to be the best solution to this funding dilemma. An added benefit is that this base funding could be used as matching funds when pursuing other funding opportunities, thereby doubling or even tripling the tribal natural resource management program budget in some instances. Once firmly established, these tribal natural resource programs would serve an integral role in protecting the resources injured by the oil spill.

Currently there are five tribal traditional natural resource management programs in the area affected by the oil spill. Although they are only in their infancy stages, there is much support for their development. Tribes are eager to become more integrally involved in the management of the resources upon which they depend, especially those injured by the oil spill. They also realize, however, that they lack the technical training necessary to carry out many of the biological research projects they are interested in pursuing with respect to the restoration effort. Instituting a technical training and education program for tribal stewardship and natural resource management would provide the tribes with the tools of western science to aid in the restoration process. Partnered with the traditional ecological knowledge currently held by the tribes, the western scientific knowledge would provide the tribes with the credibility required to gain respect by the state and federal management agency personnel. This, in turn, would allow the tribes to take their rightful place at the management table and provide them with a feeling that they are contributing in a meaningful way to the restoration of the injured resources in their traditional use areas.

Finally, the establishment of such a fund would provide the communities with the means to fund projects which currently are ineligible for funding under EVOS Trustee Council regulations, such as projects aimed at cultural preservation, cultural revitalization, and healing the people who have been

devastated by the oil spill. The Alutiiq people in the oil spill impacted area depend upon the fish, birds, shellfish, marine mammals, and other resources injured by the oil spill for their livelihood and culture. The Exxon Valdez oil spill reduced or eliminated many of these important resources, threatening the traditional Alutiiq way of life. Unfortunately, because of limitations stated in the agreement between the Exxon Corporation and the state and federal governments, settlement expenditures can only be used to restore, replace, enhance, or acquire natural resources directly affected by the oil spill, excluding the spiritual and physical affects to the tribal people. Ironically, the human element of the oil spill cannot be addressed with EVOS funds. The establishment of a Tribal Community Fund would provide an avenue to finally move toward healthy communities taking an active role in the restoration of their natural resources. This, of course, would be subject to new interpretation of "subsistence" by possibly the Department of Interior.

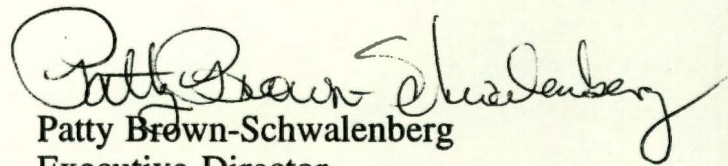
In order to provide for funds into perpetuity, this \$20 million would have to be set up as an endowment. Given this scenario and the allowance for administration and inflation proofing, a fund of \$20 million could generate an annual budget of between \$1 and \$1.5 million. Of this amount, \$20,000 would be provided to each tribe as base funding for their tribal traditional natural resource management programs. The remaining \$600,000 to \$1.1 million would be available for scientific research, monitoring, or culturally based projects.

The establishment of a Tribal Community Fund, set up as an endowment, would not only provide into perpetuity the opportunity for oil spill affected communities to protect and preserve their natural resources, but would also provide the opportunity to protect the cultural and traditional diversity of the Alutiiq people through the funding of culturally- and tribally-based scientific programs that are ineligible for funding under the current EVOS funding guidelines. Further, the tribes are entitled to develop their technical management capabilities and capacity to manage the natural resources upon which they depend, and to conduct culturally based projects based upon the damage that was done to their traditional use areas and traditional lifestyles.

The prevalence of helplessness, distrust and disenfranchisement within the tribal communities as a result of the *Exxon Valdez* Oil Spill could be easily addressed with the establishment of the Tribal Community Fund, thus playing a major role in contributing to the restoration of the resources injured by the oil spill as well as the mental health and well being of the Native people affected by the oil spill.

Historically, Alaska Native Tribes have been excluded from the decision making process when it comes to resolving important issues that concern them directly. This is one opportunity where the Trustee Council can address the issues and concerns of the Native people in a respectful manner and at the same time, benefit all those concerned with the restoration process. Simply treating the tribes as just another user group will not solve the problems created by the oil spill. Establishing a Tribal Community Fund specifically for the tribal communities which provides for an equal voice by the tribal communities will. The Board of Directors of the Chugach Regional Resources Commission strongly urges your careful consideration of this concept. Please feel free to contact our office if you have any questions or wish to work together towards a solution that is mutually beneficial. Thank you once again for the opportunity to express our thoughts.

Respectfully submitted,


Patty Brown-Schwalenberg
Executive Director

Exxon Valdez Oil Spill Trustee Council Public Advisory Group**Summary Of Areas Of Agreement re. Restoration Reserve**

Outlined below is a record of conclusions reached by the PAG at their meeting June 1-2, 1998 regarding the structure of the planned \$150,000,000 Restoration Reserve. We use this as a starting point open to further refinement. This summary was supported by all PAG members participating, except as noted below. The PAG also has ideas regarding specific implementation policies (e.g., specific information and education programs). These more detailed topics will be discussed and recorded at the July PAG meeting.

Overriding Goal

1. stewardship - long term, sustainable health of spill area ecosystems
2. restoration - restoration, replacement, enhancement of injured resources and services

(Mission statement: your speech here..."sustain the health of this achingly beautiful, vital piece of the planet; seize the unique opportunity to make spill area one of the few places in north America where people are figuring out a way to live in and actively use a rich, complex coastal ecosystem without incrementally erasing it's life and wonder..." "...a legacy of knowledge and concern passed on to the next generation..."")

Means to Goal**A. Science/Research**

Objectives: Develop an integrated research and monitoring program that provides ecological information to help solve current and long-term resource management issues. "Basic" and "applied" research are tightly linked - basic research provides the foundation for applied research that addresses management needs.

- Basic Research - continue to fund research and monitoring to better understand regional ecosystems (how they work, how they are changing, what sustains and what undermines their health)
- Applied Research/Dissemination - guide research process so agencies, land owners and the public can make better decisions, on use and sustainable management of spill area land and marine resources. Design and present research results to provide information relevant to issues affecting health of spill-area ecosystems; e.g., decisions regarding infrastructure, fish and game management, land use planning.

Specifics: research process, specific research topics, etc. - discuss at next meeting.

B. Education/Information

Objective: Improve public understanding of research process, findings and significance. Work to enhance public understanding, to increase public curiosity and concern about spill area ecosystems - how they work, impacts of the spill, solved and unsolved eco-mysteries, and the importance and role of science in decision-making. Carry out a broad range of education, outreach programs to support this objective, working to leverage restoration funds through partnerships with established organizations such as schools and museums.

Specifics: Discuss details at next meeting: in general build from established successes - in particular - presentations by researchers, community involvement, school/kids programs, programs like public radio spots that tell stories to broad audience in lay terms. Make education and information an established category for restoration and funding.

C. Community Projects

Objectives: Do a better job in making local residents and communities partners in the mission and activities of the restoration process. Give residents a more active role in research, monitoring, education and interpretation and stewardship. Create incentives for researchers to find ways to take advantage of local knowledge, local resources. Give spill area residents the tools needed - through training and education - to take on a progressively larger share of continuing research, education and management. Examples of projects that already or in the future could meet these objectives include:

- establish science coordinators in school systems, to work as a liaison between researchers and schools (both for children, adults)
- provide scholarships to spill area residents so they're better equipped to do research, linked to summer work programs
- develop system of facilities, programs in the spill area to share ongoing-research results
- hire locals, local equipment for long term monitoring
- support site-specific restoration projects (e.g., restoring damaged habitats, developing alternative methods of earning a living while maintaining health of ecosystems)

Issues: Should the restoration process be a jobs/economic development program? *Possible answer:* Not directly - bottom line is high quality science. However, preference should be given to well-designed research projects that best involve spill area residents and resources.

D. Land Acquisition

Summary: Use a portion of the Reserve funds to establish a habitat protection program to support future acquisition of land and interests in land. The objective should be protection of buffer terrestrial lands immediately adjacent to aquatic environments. There should be no arbitrary limit on parcel size, but the focus should be on smaller parcels - the jewels - strategically located along streams, tidelands, or isolated within larger parcels previously acquired with EVOS funds.

Option for Structure/Governance: Endow a non-profit trust whose mission is ongoing land acquisition. Establish a new entity or work with an established trust. Acquire lands through fee-simple purchase, conservation easements, gifts, etc. Work actively to expand the trust's resources; e.g., using grants, gifts, partnerships.

Funding level: PAG views on the funding are mixed, however, the large majority of PAG members recommend devoting less than a third of the reserve to this purpose. One criteria for reaching this decision is finding a level of spending that does not jeopardize the three objectives listed above (science, information, community projects). Specific recommendations are outlined below:

Rupert Andrews	10-15%	Chip Dennerlein	50%	Stacy Studebaker	50%
Torie Baker		Eleanor Huffines	30%	Charles Totemoff	10%
Chris Beck	15%	Jim King	10-15%	Howard Valley	
Pamela Brodie	75%	Chuck Meacham	10%	Nancy Yeaton	
Sherri Buretta	5%	Mary McBurney	20%	Senator Leman	10%
Dave Cobb	20%	Brenda Schwantes	0%	Rep Hodgins	

E. Governance: Discussion begun, need more time to explore issues and reach recommendations. Take up at next meeting with a subcommittee.

F. Timeframe:

Exxon Valdez Oil Spill Trustee Council

645 G Street, Suite 401, Anchorage, AK 99501-3451 907/278-8012 fax:907/276-7178



MEMORANDUM

To: Trustee Council Members

From: Molly McCammon *MM*
Executive Director

Subject: Work Plan Funding Target for FY 00

Date: January 15, 1999

At the Trustee Council meeting last December 15, there was some discussion about the funding target for the FY 00 Work Plan. Previously the FY 00 target had been \$10.0 million, but, at that time, I mentioned the possibility of an \$8.0 million target. The FY 99 Work Plan is authorized at \$11,545,900 (including the increased bench fees at the Alaska SeaLife Center), well under the original \$12.0 million target. Attached is a table with actual work plan costs in FY 92-97, authorized amounts in FY 98 and 99, previously identified targets for FY 00-02, and proposed targets for FY 00-02.

The main reason for adopting an FY 00 target of \$8.0 million is that it would increase flexibility in the amount of funds available for subsequent work plans during a transition to some kind of a post-FY 02 long-term program. The main concern with such a target is how it would affect our ability to respond to needs related to injured resources and to undertake projects that assist the transition to a long-term program.

In FY 00, there are 32 projects that we expect to continue at an estimated cost of \$3.7 million; an additional 17 projects potentially may continue at a cost of \$2.7 million. If all of these projects continue, the total cost will be about \$6.5 million, with outyear costs of about \$3.0 million in FY 01 and \$2.0 million in FY 02 (all figures inclusive of ASLC bench fees). In general, these projects in FY 00 and beyond would close-out and publish the results of the three ecosystem projects (SEA, APEX, and NVP), conclude current efforts on pink salmon, herring, harbor seals, and several seabird species, conclude a series of small-scale subsistence restoration and supplementation projects, and continue involvement of communities and youth in the restoration process.

Given these likely commitments, a target of \$8.0 million would result in about \$1.5 million being available for new projects in FY 00. The FY 00 *Invitation* is now being prepared. At present, I anticipate that new projects will be invited in three areas:

Additional Work on Specific Injured Resources: These projects could involve new or extended work on sea otters, harbor seals, harlequin ducks, and several other resources. An important variable here is whether there would be a Prince William Sound shoreline survey to look at the extent of residual oil. Such work can be expensive (on the order of \$300,000). A shoreline survey does not necessarily have to be done in FY 00, but it probably is something that must be done somewhere in FY 00-02. The Alaska Department of Environmental Conservation is currently analyzing the most advantageous timing for this work, since it most likely will be the final shoreline survey.

Transition to Long-term Program: These projects could involve detailed planning for a long-term research and monitoring program, including a National Research Council review of a science plan, planning for how to meet data management needs, and planning for a contaminants-monitoring component. Some field projects also may be appropriate to ensure that important data are not lost in the transition between the current and long-term programs, or to plug important data gaps. Potential projects include, for example, redeploying an existing oceanographic buoy in Hinchinbrook Entrance and supplementary mid-water trawl surveys for forage fish in Cook Inlet and other locations.

Technology Transfer to Managers: Relating information gained from the restoration program to natural resource managers and stakeholders is an ongoing need. Projects in this category could include workshops on special topics, such as salmon and oil toxicity or traditional knowledge, and the synthesis of lessons learned in the course of the EVOS damage assessment and restoration programs.

I believe that appropriate work in all three categories can be accomplished with the availability of about \$1.5 million for new projects. Adopting a more flexible target of \$8-9 million would be more than adequate to meet the needs now envisioned.

attachment (1)

ANNUAL WORK PLAN

(numbers in millions)

Actual Expenditures

FY 92	\$11.7
FY 93	\$7.4 *
FY 94	\$14.2
FY 95	\$17.0
FY 96	\$18.0
FY 97	\$15.8

Authorized Amounts

FY 98	\$14.1
FY 99	\$11.5

Previous Targets

Proposed Targets

FY 00	\$10.0	\$8.0 - 9.0
FY 01	\$8.0	\$16.0 for FY 01 &
FY 02	\$6.0	FY 02

* 1993 Work Plan was funded for only 7 months during transition to federal fiscal year

DRAFT

EXXON VALDEZ OIL SPILL RESTORATION PLAN

Update on Injured Resources and Services

January 1999



EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

645 G Street, Suite 401, Anchorage, AK 99501

907-278-8012 800-478-7745 (in Alaska) 800-283-7745 (outside Alaskas)

Exxon Valdez Oil Spill Trustee Council

645 G Street, Suite 401, Anchorage, AK 99501-3451 907/278-8012 fax: 907/276-7178



January 1999

Dear Reader:

The Trustee Council adopted the *Exxon Valdez Oil Spill Restoration Plan* in November 1994 with the intent that the plan would be updated as needed to incorporate new scientific information.

The enclosed draft proposes changes to two parts of the Restoration Plan: the List of Injured Resources and Services in Chapter 4 and the summaries of Injury and Recovery and the Recovery Updates in Chapter 5. These parts of the Restoration Plan were revised most recently in September 1996, and the Council now is considering additional changes based on the results of studies and resource assessments since then. The Trustee Council intends to act on these changes in advance of the 10-year observance of the oil spill, March 23, 1999, and now invites public comment on this document.

The Council's List of Injured Resources and Services and the summaries of Injury and Recovery and Recovery Objectives are to be based on the best possible information, including from scientific studies sponsored by the Council and others and from traditional and local knowledge. If you have comments on the proposed changes — and especially if you have additional information that should be considered before any changes are made final — **please submit written comments to: Exxon Valdez Oil Spill Trustee Council, Attention: Recovery Updates, 645 G Street, Suite 401, Anchorage, Alaska 99501** (e-mail: restoration@oilspill.state.ak.us). To be most helpful, comments should be received by **February 5, 1999**. **In addition testimony will be accepted at a public hearing at the Restoration Office in Anchorage on January 21, 1999, from 7:00-8:30 pm and again on January 22, starting at 8:30 am.**

Here is additional background information that should help you understand what is proposed:

List of Injured Resources and Services

Chapter 4 of the *Restoration Plan* indicates that the List of Injured Resources and Services (p. 32, Table 2) will be reviewed as new information is obtained. The proposed revisions include changes to the recovery status of some resources (for example, moving sockeye salmon from the "recovering" category to the "recovered" category). No additions to the list are proposed at this time.

Chapter 5: Goals, Objectives, and Strategies

Chapter 5 of the *Restoration Plan* (pp. 33-56) discusses general goals and strategies for restoring injured resources and services and also provides specific information on the status, recovery objectives, and restoration strategies for individual resources and services. In the attached document, the Council now proposes updated information on the status of injured resources but not on the status of lost or reduced services (a review of the status of services is on a slightly different schedule, as noted below). In a few cases, small changes are proposed to recovery objectives and these are indicated as "proposed recovery objectives."

The Council recognizes that ecosystems are dynamic and would have varied or changed even in the absence of the oil spill. Most recovery objectives, however, make reference to prespill numbers or conditions. The *Restoration Plan* states:

In general, resources and services will have recovered when they return to conditions that would have existed had the spill not occurred. Because it is difficult to predict conditions that would have existed in the absence of the spill, recovery is often defined as a return to prespill conditions...

Thus, the Council continues to use prespill numbers or conditions as the most useful benchmark in evaluating the status of recovery.

No changes in restoration strategies are proposed here. Readers are referred to annual work plans and invitations to submit proposals (the *Invitation to Submit Restoration Proposals for Federal Fiscal Year 2000 should be available in February 1999*) for the most current information on the restoration strategies chosen by the Council to achieve its recovery objectives.

Lost or Reduced Services

The September 1996 version of the summaries for lost or reduced services, including commercial fishing, recreation and tourism, and subsistence, is reprinted at the end of this document. The Restoration Office and Trustee agencies are in the process of evaluating these services and will propose status changes and updated summaries. These proposed changes should be available early in February and will be mailed to recipients of this document. The Trustee Council invites comments or new information on the status of lost or reduced services. **Written comments on lost or reduced services are due February 26, 1999, with an opportunity for public testimony at a Trustee Council meeting tentatively scheduled for March 1.**

Thank you for your interest in restoration following the *Exxon Valdez* oil spill.

Sincerely,


Molly McCammon
Executive Director

Resources and Services Injured by the Spill

Note: This table is modified from page 32 in Chapter 4 of the Restoration Plan. The status of resources in bold type is proposed to be changed.

RECOVERED

Bald eagle
Pink salmon*
River otter

RECOVERING

Archaeological resources**

Black Oystercatcher
Clams

Common murre
Intertidal communities

Marbled murrelets

Mussels

Pacific herring

Sea otter***

Sediments

Sockeye salmon

Subtidal communities

HUMAN SERVICES

Status of lost or reduced services has not been evaluated or revised here.

Recreation & tourism

Commercial fishing

Passive uses

Subsistence

NOT RECOVERED

Common loon
Cormorants (3 spp.)
Harbor seal
Harlequin duck
Killer whale (AB pod)
Pigeon guillemot

RECOVERY UNKNOWN

Cutthroat trout
Designated Wilderness Areas
Dolly Varden
Kittlitz's murrelet
Rockfish

*There is still concern about localized impacts on intertidal spawners in streams where there are small pockets of residual oil.

**Archaeological resources are not renewable in the same way that biological resources are, but there has been significant progress toward the recovery objective.

***Except in oiled bays on Knight Island.



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ARCHAEOLOGICAL RESOURCES

Injury and Recovery

The oil-spill area is believed to contain more than 3,000 sites of archaeological and historical significance. Twenty-four archaeological sites on public lands are known to have been adversely affected by cleanup activities or looting and vandalism linked to the oil spill. Additional sites on both public and private lands were probably injured, but damage assessment studies were limited to public land and not designed to identify all such sites.

Documented injuries include theft of surface artifacts, masking of subtle clues used to identify and classify sites, violation of ancient burial sites, and destruction of evidence in layered sediments. In addition, vegetation was disturbed, which exposed sites to accelerated erosion. The effect of oil on soil chemistry and organic remains may reduce or eliminate the utility of radiocarbon dating in some sites.

Assessments of 14 sites in 1993 suggested that most of the archaeological vandalism that can be linked to the spill occurred early in 1989, before adequate constraints were put into place over the activities of oil spill clean-up personnel. Most vandalism took the form of "prospecting" for high yield sites. Once these problems were recognized, protective measures were implemented and successfully limited additional injury. In 1993, only two of the 14 sites visited showed signs

of continued vandalism. In 1996, there was evidence of vandalism at five sites, but only at one site in 1997. Natural erosion is the major agent of degradation at the sites, and the erosion draws the attention of looters to the exposed artifacts. Nine years after the oil spill it is difficult to attribute the recent cases of vandalism to discovery of these sites at the time of the oil spill.

Oil was visible in the intertidal zones of two of the 14 sites monitored in 1993, and hydrocarbon analysis has shown that the oil at one of the sites was from the *Exxon Valdez* spill. Hydrocarbon concentrations at the second site were not sufficient to permit identification of the source or sources of the oil. The presence of oil in sediment samples taken from four sites in 1995 did not appear to have been the result of re-oiling by *Exxon Valdez* oil.

In 1993, the Trustee Council provided part of the construction costs for the Alutiiq Archaeological Repository in Kodiak. This facility now houses Kodiak-area artifacts that were collected during the time of spill response. Artifacts recovered from injured sites in lower Cook Inlet and Prince William Sound currently are stored at the University of Alaska Fairbanks or elsewhere. The Trustee Council continues to consider appropriate options for storing or displaying these artifacts.

Two sites in Prince William Sound were so badly damaged by oiling and erosion that

they were partly documented, excavated, and stabilized by professional archaeologists in 1994-1997. It appears that the two sites were intermittently occupied for periods of 2,000 and 3,000 years. Most of the cultural deposits are prehistoric in nature.

Starting in 1996, the Trustee Council funded a project to involve local residents in monitoring and protecting vulnerable sites in the Kenai, Homer, Seldovia, Kodiak, and Chignik areas. This project was based on the premise that successful long-term stewardship depends on community support and involvement. A report on this project is due in 1999. Based on the apparently low rate of spill-related vandalism and progress in the preservation of artifacts and scientific data on archaeological sites and artifacts, archaeological resources are considered to be recovering.

Recovery Objective

Archaeological resources are nonrenewable; they cannot recover in the same sense as biological resources. Archaeological resources will be considered to have recovered when spill-related injury ends, looting and vandalism are at or below prespill levels, and the artifacts and scientific data remaining in vandalized sites are preserved (e.g., through excavation, site stabilization, or other forms of documentation).

BALD EAGLES

Injury and Recovery

The bald eagle is an abundant resident of marine and riverine shoreline throughout the oil-spill area. Following the oil spill, a total of 151 eagle carcasses was recovered from the spill area. Prince William Sound provides year-round and seasonal habitat for about 6,000 bald eagles, and within the sound it is estimated that about 250 bald eagles died as a result of the spill. There were no estimates of mortality outside the sound, but there were deaths throughout the spill area.

In addition to direct mortalities, productivity was reduced in oiled areas of Prince William Sound in 1989. Productivity was back to normal in 1990 and 1991, and an aerial survey of adults in 1995 indicated that the population had returned to or exceeded its prespill level in the sound.

In September 1996, the Trustee Council classified the bald eagle as fully recovered from the effects of the oil spill. No additional work has been carried out specifically to assess the status of the bald eagle.

However, the bald eagle has benefited enormously from the habitat protection program, including the acquisition of more than 1,200 miles of marine shoreline and 280 anadromous fish streams.

Recovery Objective

Bald eagles will have recovered when their population and productivity have returned to prespill levels.

BLACK OYSTERCATCHERS

Injury and Recovery

Black oystercatchers spend their entire lives in or near intertidal habitats and are highly vulnerable to oil pollution. It is estimated that 1,500-2,000 oystercatchers breed in south-central Alaska. Only nine carcasses of adult oystercatchers were recovered following the spill, but the actual number of mortalities may have been considerably higher.

In addition to direct mortalities, breeding activities were disrupted by the oil and cleanup activities. When comparing 1989, the year of the spill, with 1991, significantly fewer pairs occupied and maintained nests on oiled Green Island, while during the same two years the number of pairs and nests remained similar on unoiled Montague Island. Nest success of pairs on Green Island was significantly lower in 1989 than in 1991, but Green Island nest success in 1989 was not lower than on Montague Island. In 1989, chicks disappeared from nests at a significantly greater rate on Green Island than from nests on Montague Island. Disturbance associated with cleanup operations also reduced productivity on Green Island in 1990. In general, the overt effects of the spill and cleanup had dissipated by 1991, and in that year productivity on Green Island exceeded that on Montague Island.

From 1991-1993, the Trustee Council sponsored a study to determine if there were any persistent effects of the spill on breeding success and feeding ecology of black oystercatchers on Knight Island. Adult oystercatch-

ers foraged in oiled mussel beds, but also obtained invertebrate prey at unoiled sites. As late as 1993, there was direct evidence of hydrocarbon exposure from fecal samples of chicks raised on persistently oiled shorelines, but areas of contamination were patchily distributed and relatively few adults and young were exposed. In 1989, chicks raised on oiled shorelines gained weight more slowly than chicks reared on unoiled shores, but the slower weight gain was not manifested in reduced fledging success. Pair surveys from 1991-1993 indicated that the population inhabiting Knight Island was not increasing. Hydrocarbon exposure has not been tested since 1993.

Productivity and survival of black oystercatchers in Prince William Sound were not monitored from 1993 through 1997. Boat-based surveys of marine birds in the sound did not indicate recovery in numbers of oystercatchers in oiled areas through 1998, but these surveys were not specifically designed to monitor oystercatchers.

In 1998 the Trustee Council sponsored a field study to reassess the status of this species in Prince William Sound. Only preliminary results of this study are available, but these data indicate that oystercatchers have fully reoccupied and are nesting at oiled sites in the sound. The breeding phenology of nesting birds was relatively synchronous in oiled and unoiled areas, and no oil-related differences in clutch size, egg volume, or chick growth rates were detected. A high

rate of nest failures on Green Island probably can be attributed to predation, not lingering effects of oil. Given general agreement between these new results and those of the earlier work, which indicated that the effects of the spill had largely dissipated by 1991, recovery of black oystercatchers clearly is underway.

Black oystercatchers nest on rocky beaches and have benefited enormously from the habitat protection program, including the acquisition of more than 1,200 miles of marine shoreline. In addition, introduced foxes were eliminated from two of the Shumagin Islands (Simeonof and Chernabura) in the southwestern part of the spill area. Black oystercatchers were present in low densities on both islands, and in higher densities on nearby fox-free islands. Although the nesting birds have not been surveyed since 1995, when the last of the foxes was removed, the elimination of the introduced predators should increase populations of nesting oystercatchers.

Recovery Objective

Black oystercatchers will have recovered when the population returns to prespill levels and reproduction is within normal bounds. An increasing population trend and comparable hatching success and growth rates of chicks in oiled and unoiled areas, after taking into account geographic differences, will indicate that recovery is underway.

COMMON LOONS

Injury and Recovery

Carcasses of 395 loons of four species were recovered following the spill, including at least 216 common loons. Current population sizes in the spill area are not known for any of these species. In general, however, loons are long-lived, slow-reproducing, and have small populations. Common loons in the spill area may number only a few thousand, including only hundreds in

Prince William Sound. Common loons injured by the spill probably included a mixture of resident and migrant birds.

Boat-based surveys of marine birds in Prince William Sound indicated that the oil spill had a negative effect on numbers of loons (all species combined) in the oiled parts of the sound. Based on the surveys carried out through 1998, there is no indication of recovery. No additional infor-

mation on the status of common loons is available.

Recovery Objective

Proposed Revision: Common loons will have recovered when their population returns to prespill levels in the oil-spill area. An increasing population trend in Prince William Sound will indicate that recovery is underway.

CLAMS

Injury and Recovery

The magnitude of immediate impacts on clam populations varied with the species of clam, degree of oiling, and location. Data from the lower intertidal zone on sheltered beaches suggested that littleneck clams and, to a lesser extent, butter clams were killed and suffered slower growth rates as a result of the oil spill and cleanup activities.

Since the original damage assessment work on clams in 1989 and 1990, the trustee council has not sponsored additional studies focused specifically on clam injury and recovery. Some additional insights are available from projects that included work in intertidal and subtidal habitats: recovery of littleneck and butter clams was incomplete

through 1996 on oiled, treated mixed-sedimentary shores where fine sediments had been washed downslope during pressured water treatments. Another project found that shallow subtidal eelgrass communities had generally recovered by 1995, but three species of infaunal bivalve mollusks were more abundant at unoiled reference sites than at oiled sites. Finally, results from the Trustee Council's nearshore vertebrate predator project are preliminary, but it appears that there are healthy populations of subtidal clams at heavily oiled Herring Bay on Knight Island and that recovery of vertebrate predators, such as the sea otter, is not limited due to food supplies. Based on these limited data, clams are recovering, but are

not yet fully recovered from the effects of the oil spill.

In communities on the Kenai Peninsula, Kodiak Island, the Alaska Peninsula and in Prince William Sound there are lingering concerns about the effects of the oil spill on clams. The Trustee Council sponsored a project to help restore subsistence uses of clams (see subsistence).

Recovery objective

Clams will have recovered when populations and productivity have returned to levels that would have prevailed in the absence of the oil spill, based on comparisons of oiled and unoiled sites.

COMMON MURRES

Injury and Recovery

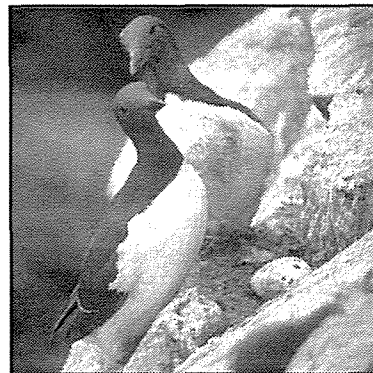
About 30,000 carcasses of oiled birds were picked up in the first four months following the oil spill, and 74 percent of them were common and thick-billed murres (mostly common murres). Many more murres probably died than actually were recovered. Based on surveys of index breeding colonies at such locations as the Barren Islands, Chiswell Islands, Triplet Islands, Puale Bay, and Ugiashak Island, the spill-area population may have declined by about 40 percent following the spill. In addition to direct losses of murres, there is evidence that the timing of reproduction was disrupted and productivity reduced. Interpretation of the effects of the spill, however, is complicated by incomplete prespill data and by indications that populations at some colonies were in decline before the oil spill.

Postspill monitoring at the breeding colonies in the Barren Islands indicated that reproductive success was again within normal bounds by 1993, and it has stayed within these bounds each breeding season since then. During the period 1993-1997, the murres nested progressively earlier by 2-5 days each year, suggesting that the age and

experience of nesting birds was increasing, as might be expected after a mass mortality event. By 1997, numbers of murres at the Barren Islands had increased, probably because 3- and 4-year old nonbreeding subadult birds that were hatched there in 1993 and 1994 were returning to their natal nesting colony. This information suggests that recovery is well underway, although the strong 1998 El Niño event apparently disrupted timing and synchrony of nesting at the Barren and Chiswell islands and may, to some extent, have affected reproductive success. The Barren Islands colonies will be surveyed again in 1999.

Although Prince William Sound does not have a large summer population of murres, boat-based surveys of marine birds before and after the oil spill indicated a negative effect on numbers in the sound. Surveys carried out through 1998 have not shown any increase in murres since the spill.

The Alaska Predator Ecosystem Experiment (APEX project), funded by the Trustee Council, is investigating the linkage between murre populations and changes in the abundance of forage fish, such as Pacific herring, sand lance, and capelin. Historical trawl data



Common Murres

analyzed as part of this project supported a decision by the North Pacific Fishery Management Council to limit bycatch of forage fish in commercial fisheries and to preclude the startup of fisheries targeting forage fish (not including herring).

Recovery Objective

Common murres will have recovered when populations at index colonies have returned to prespill levels and when productivity is sustained within normal bounds. Increasing population trends at index colonies will be a further indication that recovery is underway.

CORMORANTS

Injury and Recovery

Cormorants are large fish-eating birds that spend much of their time on the water or perched on rocks near the water. Three species typically are found within the oil-spill area.

Carcasses of 838 cormorants were recovered following the oil spill, including 418 pelagic, 161 red-faced, 38 double-crested, and 221 unidentified cormorants. Many more cormorants probably died as a result of the spill, but their carcasses were not found.

No regional population estimates are available for any of the cormorant species found in the oil-spill area. In 1996, the U.S. Fish and Wildlife Service Alaska Seabird

Colony Catalog, however, listed counts of 7,161 pelagic cormorants, 8,967 red-faced cormorants, and 1,558 double-crested cormorants in the oil-spill area. These are direct counts at colonies, not overall population estimates, but they suggest that population sizes are small. In this context, it appears that injury to all three cormorant species was significant.

Counts on the outer Kenai Peninsula coast suggested that the direct mortality of cormorants due to oil resulted in fewer birds in this area in 1989 compared to 1986. In addition, there were statistically-significant declines in the estimated numbers of cormorants (all three species combined) in the

oiled portion of Prince William Sound based on pre- and postspill boat surveys in July 1972-73 compared to 1989-91. More recent surveys (through 1998) have not shown an increasing population trend since the oil spill, and for that reason these species are considered to be "not recovered."

Recovery Objective

Pelagic, red-faced, and double-crested cormorants will have recovered when their populations return to prespill levels in the oil-spill area. An increasing population trend in Prince William Sound will indicate that recovery is underway.

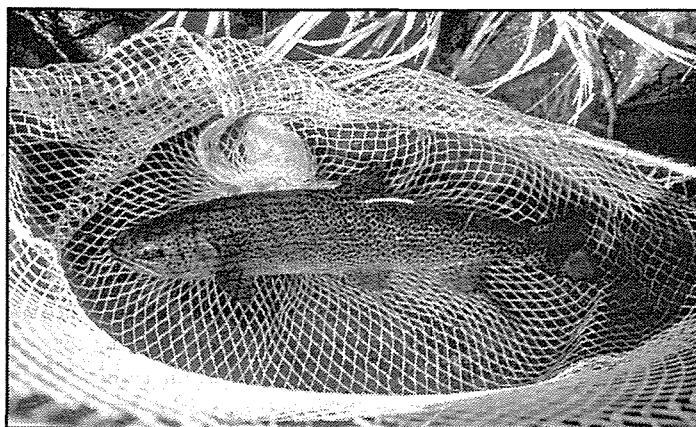
CUTTHROAT TROUT

Injury and Recovery

Prince William Sound is at the northwest-ern limit of the range of cutthroat trout. Local cutthroat trout populations are believed to be small, and the fish have small home ranges and are geographically isolated. Cutthroat trout, therefore, are highly vulnerable to exploitation, habitat alteration, or pollution.

Following the oil spill, cutthroat trout in a small number of oiled index streams in Prince William Sound grew more slowly than in unoiled streams. The apparent difference in growth rates persisted through 1991. It was hypothesized that the slower rate of growth in oiled streams was the result of reduced food supplies or exposure to oil, and there was concern that reduced growth rates would result in reduced survival.

Preliminary data from a Trustee Council-sponsored study of resident and anadromous forms of cutthroat trout in Prince William Sound suggest that there is significant genetic variation among trout from different locations across the sound. These data are consistent with the idea that cutthroat populations are small and isolated. This work is being completed in FY 1999 and should make possible insights into such issues as growth rates with respect to geo-



Cutthroat Trout

graphic variation. Pending this additional work, the recovery status of the cutthroat trout remains unknown.

Cutthroat trout have benefited from several other projects sponsored by the Trustee Council. In 1991-93, in response to the early evidence of injury to cutthroat trout, sport harvests were temporarily restricted in Prince William Sound. In 1994, out of concern about the long-term conservation status of this species, the Alaska Board of Fisheries permanently closed sport harvests during the April 15-June 15 spawning season in the sound.

The Trustee Council sponsored inventories of streams in and around Prince William Sound to identify cutthroat trout habitat and the presence or absence of this species. Information from these inventories has been added to the Alaska Department of Fish and Game's Anadromous Waters Catalog, and this step brings to

bear additional legal protection under state law in regard to actions affecting these streams. Additional habitat for cutthroat trout has been protected from among the more than 280 anadromous fish streams that have been acquired through the Trustee Council's habitat protection program.

Recovery Objective

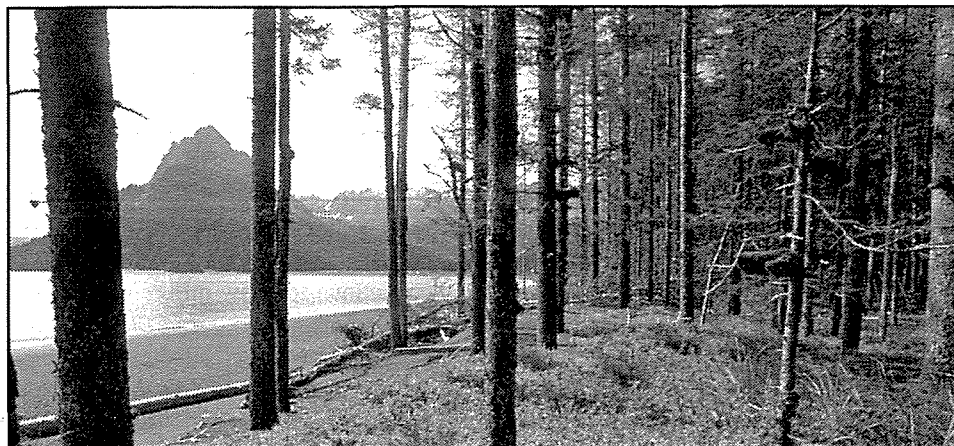
Cutthroat trout will have recovered when growth rates within oiled areas are similar to those for unoiled areas, after taking into account geographic differences.

DESIGNATED WILDERNESS AREAS

Injury and Recovery

The oil spill delivered oil in varying quantities to the waters and tide lands adjoining eight areas designated as wilderness areas and wilderness study areas by Congress or the Alaska State Legislature. Oil also was deposited above the mean high-tide line at these locations. During the intense clean-up seasons of 1989 and 1990, thousands of workers and hundreds of pieces of equipment were at work in the spill zone. This activity was an unprecedented imposition of people, noise, and activity on the area's undeveloped and normally sparsely occupied landscape. Although activity levels on these wilderness shores have probably returned to normal, at some locations there is still residual oil.

Among the affected areas were designated wilderness in the Katmai National Park, a wilderness study area in the Kenai Fjords National Park, and Kachemak Bay Wilderness State Park. Six moderately to



Kenai Fjords National Park

heavily oiled sites on these two coasts were last surveyed in 1994, at which time some oil mousse persisted in a remarkably unweathered state on boulder-armored beaches at five sites. These sites will be visited again in 1999. Pending completion of these visits, the recovery status of des-

ignated wilderness remains unknown.

Recovery Objective

Designated wilderness areas will have recovered when oil is no longer encountered in them and the public perceives them to be recovered from the spill.

DOLLY VARDEN

Injury and Recovery

Dolly Varden are widely distributed in the spill area. In spring, anadromous forms of Dolly Varden migrate to the sea from the lakes and rivers where they spend the winter. Summers are spent feeding in nearshore marine waters. Thus, some Dolly Varden in Prince William Sound and perhaps at other locations were exposed to *Exxon Valdez* oil in 1989 and possibly beyond. In fact, concentrations of hydrocarbons in the bile of Dolly Varden were some of the highest of any fish sampled in 1989. By 1990, these concentrations had dropped substantially.

Like the cutthroat trout, there is evidence from 1989-90 that Dolly Varden in a small number of oiled index streams in Prince William Sound grew more slowly than in unoiled streams. It was hypothesized that the slower rate of growth in oiled streams was the result of reduced food supplies or exposure to oil, and there was concern that reduced growth rates would result

in reduced survival. However, these growth differences did not persist into the 1990-91 winter. No growth data have been gathered since 1991.

In a 1991 restoration study sponsored by the Trustee Council, some tagged Dolly Varden moved considerable distances among streams within Prince William Sound, suggesting that mixing of overwintering stocks takes place during the summers in saltwater. This hypothesis is supported by preliminary data from another Trustee Council-sponsored study, which indicates that Dolly Varden from different locations across the sound are genetically similar. The final report on this genetics study is due in 1999, but if this preliminary conclusion is born out, it would suggest that the Dolly Varden population in the sound should have little difficulty in recovering from any initial growth-related effects. Pending completion of the genetics work and absent additional growth data, however, it is prudent to

continue classifying the Dolly Varden as "recovery unknown."

The Trustee Council sponsored inventories of streams in and around Prince William Sound to identify Dolly Varden habitat and the presence or absence of this species. Information from these inventories has been added to the Alaska Department of Fish and Game's Anadromous Waters Catalog, and this step brings to bear additional legal protection under state law in regard to actions affecting these streams. Additional habitat for Dolly Varden has been protected from among the more than 280 anadromous fish streams that have been acquired through the Trustee Council's habitat protection program.

Recovery Objective

Dolly Varden will have recovered when growth rates within oiled streams are comparable to those in unoiled streams, after taking into account geographic differences.

HARLEQUIN DUCKS

Injury and Recovery

Harlequin ducks feed in intertidal and shallow subtidal habitats where most of the spilled oil was initially stranded. More than 200 harlequin ducks were found dead in 1989, mostly in Prince William Sound. Many more than that number probably died throughout the spill area. Because the spill occurred in early spring before wintering harlequins migrated from the sound to inland breeding sites, the initial effects of the spill were likely extended beyond the immediate spill zone. The geographic extent of these extended impacts is not known.

The current overwintering population of harlequin ducks in Prince William Sound is on the order of 18,000 ducks, while the summer population is about half that number. Fall boat surveys designed specifically to monitor molting-wintering harlequin ducks indicate a significant declining trend in the western sound. Other boat surveys designed to monitor an entire suite of marine birds in the sound have shown mixed results: an increasing trend in March but no increase in July through 1996. All three surveys, however, are consistent in that they show different or lower trends for harlequin ducks in oiled parts of the sound compared to unoiled parts.

Prespill data on harlequin populations and reproductive success are limited and difficult to interpret, but previously there was concern about poor reproductive success in the western versus eastern parts of Prince William Sound. This concern was based on observations of 7-15 broods in the eastern sound and few-to-no reports of broods in the western sound when comparable numbers of streams were surveyed. Subsequent research does not indicate any differences in the age- and sex-structure of harlequin populations in the eastern and western parts of the sound, but it is clear that the breeding habitat in the western sound is very limited compared to what is available in the eastern sound. Some harlequins remain in the sound to nest, mostly on the eastern side, but it is now suspected that most harlequins of breed-

ing age and condition probably leave the sound altogether to nest in interior drainages. Thus, conclusions of reproductive failure based on lack of broods in the oiled area do not now seem warranted.

Biopsies from samples of harlequin ducks collected early in 1998 and from Barrow's goldeneye in the 1996-1997 winter continue to show differences in an enzyme indicative of exposure to hydrocarbons between birds from oiled versus unoiled parts of the sound. These differences are consistent with the possibility of continued exposure to hydrocarbons in the oiled western sound. The biological effect of this possible exposure has not been established, but three years of data (1995/96-97/98 winters) on overwintering survival of adult female harlequins indicate significantly lower survival rates in oiled versus unoiled parts of the sound. This result cannot be attributed unequivocally to oil exposure, but there is reason for concern about possible oil exposure and reduced survival for harlequin ducks in the western sound. This information, coupled with indication of a possible on-going decline in numbers of molting harlequin ducks in the western sound, suggest that the harlequin duck has not recovered from the effects of the oil spill.

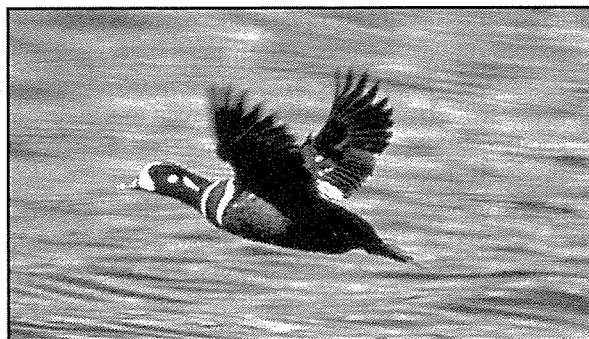
Recent Trustee Council-sponsored studies give insight into prospects for recovery of harlequin ducks. Although some harlequin ducks make major seasonal movements, they exhibit high site fidelity to summer breeding sites and to molting and wintering sites during nonbreeding seasons. Strong site fidelity may limit population recovery by immigration, but a genetic analysis of harlequin ducks indicates that the spill-area population is homogeneous (i.e., very similar). Taken together, these data are consistent with a low rate of dispersal, perhaps at the subadult stage, or a rapid expansion of the population in recent geological time. To the extent that there is

subadult dispersal from adjacent expanding populations, such dispersal would enhance recovery. It is likely, however, that recovery will largely depend on recruitment and survival from within injured populations. This recovery may be compromised if exposure to lingering hydrocarbons reduces fitness and survival of harlequin ducks.

The Trustee Council has made a major investment in harlequin ducks, studying the possibility of on-going oil-related effects, gaining knowledge that will benefit long-term management and conservation, and protecting nesting and overwintering habitats. Harlequin ducks nest along anadromous fish streams, typically under forest cover and at higher elevations. Some of the more than 280 anadromous fish streams protected with the support of the Trustee Council provide nesting habitat for harlequin ducks. Molting and overwintering habitats are protected along the more than 1,200 miles of marine shorelines acquired through the habitat protection program. As a result, the terrestrial portion of the habitat base for harlequin ducks in the spill area is now significantly more secure.

Recovery Objective

Proposed Revision: Harlequin ducks will have recovered when breeding- and nonbreeding-season densities return to prespill levels. An increasing population and decreasing indications of exposure to hydrocarbons in oiled parts of Prince William Sound will indicate that recovery is underway.



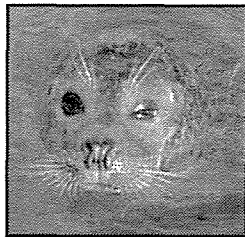
Harlequin Duck

HARBOR SEALS

Injury and Recovery

Harbor seal numbers were declining in the Gulf of Alaska, including in Prince William Sound, before the oil spill. *Exxon Valdez* oil affected harbor seal habitats, including key haul-out areas and adjacent waters, in Prince William Sound and as far away as Tugidak Island, near Kodiak. Estimated mortality as a direct result of the oil spill was about 300 seals in oiled parts of Prince William Sound. Based on aerial surveys conducted at trend-count haulout sites in central Prince William Sound before (1988) and after (1989) the oil spill, seals in oiled areas declined by 43 percent, compared to 11 percent in unoiled areas.

In a declining population deaths exceed births, and harbor seals in both oiled and unoiled parts of Prince William Sound have continued to decline since the spill. For the period 1989-1997, the average estimated annual rate of decline was about 5 percent, and for that reason harbor seals continue to be considered "not recovered." Environmental changes in the late 1970s may have reduced the amount or quality of prey resources, including such forage fishes as Pacific herring and capelin, available to harbor seals in the northern Gulf of Alaska ecosystem. These



Harbor Seal

Recent studies, however, indicate that the seals in the sound, especially pups and yearlings, are in very good condition and do not show evidence of nutritional stress. On-going sources of mortality include killer whale predation, subsistence hunting, and commercial fishery interactions (e.g., drowning in nets). Satellite tagging studies sponsored by the Trustee Council indicate that harbor seals in the sound are largely resident throughout the year, suggesting that recovery must come largely through recruitment and survival within injured populations.

Harbor seals have been a major focus of research sponsored by the Trustee Council since the oil spill. This research includes documentation of population trends in the field, improved statistical techniques for the analysis of aerial survey data, and exploration of possible sources of mortality and lack

changes may have been responsible for or contributed to the initial prespill harbor seal decline, and the ecosystem may now support fewer seals than it did prior to the late 1970s.

of recovery in the population, including health and diet. One study quantified normal blood chemistry values for several hundred seals; this database serves as a valuable tool for evaluating the health status of other seals. Starting in 1998, several projects exploring blood chemistry and other health parameters in relation to diet are being carried out at the Alaska SeaLife Center.

Harbor seals have long been a key subsistence resource in the oil-spill area. Subsistence hunting is affected by the declining seal population, and fewer opportunities to hunt seals have changed the diets of subsistence users who traditionally relied on these marine mammals. With partial support from the Trustee Council, the Alaska Native Harbor Seal Commission is working to involve Native hunters in research on and management of harbor seals. Alaska Native subsistence hunters have been helpful by providing seal researchers with measurements and hard-to-obtain tissue samples from harvested seals.

Recovery Objective

Harbor seals will have recovered from the effects of the oil spill when their population is stable or increasing.

INTERTIDAL COMMUNITIES

Injury and Recovery

Portions of 1,300 miles of coastline were oiled by the spill in Prince William Sound, on the Kenai and Alaska peninsulas, and in the Kodiak Archipelago. Both the oil and intensive clean-up activities had significant impacts on the flora and fauna of the intertidal zone, the area of beach between low and high tides. Intertidal communities are intrinsically important and are resources for subsistence users, sea and river otters, and a variety of birds, including black oystercatchers, harlequin ducks, and pigeon guillemots.

Initial impacts to intertidal organisms occurred at all tidal levels and in all types of

habitats throughout the oil-spill area. Many species of algae and invertebrates were less abundant at oiled sites than at unoiled reference sites. Some, more opportunistic species, including a small species of barnacle, oligochaete worms, and filamentous brown algae, colonized shores affected by the oil spill and clean-up activities. The abundance and reproductive potential of the common seaweed, *Fucus gardneri* (known as rockweed or popweed), also was reduced following the spill.

In the lower and middle intertidal zones on oiled rocky shores, algal coverage and invertebrate abundances had returned by 1991 to coverages and abun-

dances similar to those observed in unoiled areas. However, large fluctuations in the algal coverage took place through 1997 in the oiled areas. This pattern is consistent with continued instability due to the original spill impact and the subsequent cleanup.

On the sheltered, bedrock shores that are common in Prince William Sound, full recovery of *Fucus* is crucial for the recovery of intertidal communities at these sites, since many invertebrate organisms depend on the cover provided by this seaweed. *Fucus* has not yet fully recovered in the upper intertidal zone on shores subjected to direct sunlight, but in many locations, recovery of

intertidal communities has been substantial. In other habitat types, such as estuaries and cobble beaches, many species did not show signs of recovery when they were last surveyed in 1991. In studies of the effects of cleanup activities on beaches, invertebrate molluscs and annelid worms on oiled and washed beaches were still much less abundant than on comparable unoiled beaches through 1997.

Beyond describing the effects of the oil spill and cleanup operations, the Trustee Council's restoration program has benefited intertidal communities in several respects.

Although most tidelands in the spill area are already in state ownership, Trustee Council funds enabled the protection of sedge and mudflat habitats on the Homer Spit and enhanced protection of and access to rocky intertidal habitats at Kachemak Bay and at Lowell Point near Seward. Research and monitoring sponsored by the Trustee Council have greatly expanded knowledge of the distribution and ecology of north Pacific intertidal organisms, such as sea stars, and have provided models for statistically powerful sampling designs that can be incorporated into future injury assessments.

Recovery Objective

Intertidal communities will have recovered when community composition on oiled shorelines is similar to that which would have prevailed in the absence of the spill. Indications of recovery are the reestablishment of important species, such as *Fucus* at sheltered rocky sites, the convergence in community composition and organism abundance on oiled and unoiled shorelines, and the provision of adequate, uncontaminated food supplies for top predators in intertidal and nearshore habitats.

KITTLITZ'S MURRELETS

Injury and Recovery

The Kittlitz's murrelet is found only in Alaska and portions of the Russian Far East. A large fraction of the world population, which may number only a few tens of thousands, breeds in Prince William Sound. The Kenai Peninsula coast and Kachemak Bay are also important concentration areas for this species. Very little is known about Kittlitz's murrelets, but they are known to associate closely with tidewater glaciers and nest on scree slopes and similar sites on the ground.

Seventy-two Kittlitz's murrelets were positively identified among the bird carcasses recovered after the oil spill. Nearly 450 more *Brachyramphus* murrelets were not identified to the species level, and it is reasonable to assume that some of these were Kittlitz's. In addition, many more murrelets probably were killed by the oil than were actually recovered.

One published estimate places direct mortality of Kittlitz's murrelets from the oil spill as high as 1,000-2,000 individuals, which would represent a substantial fraction of the world population.

Because so little is known about this species, the Trustee Council funded an exploratory study on the ecology and distribution of the Kittlitz's murrelet in Prince William Sound starting in 1996. Final results from this project are not yet available, but preliminary data confirm this species' affinity for tidewater glaciers in the four bays studied in the northern and northwestern parts of the sound. It also appears that reproductive output in 1996 and 1997 was extremely low or absent, and some Kittlitz's murrelets were apparently paired with marbled murrelets. There appear to be about 1,200-1,400 Kittlitz's murrelets during summer in the four

bays studied in northern and northwestern sound. Other, more extensive marine bird boat surveys suggest a sound-wide summer population of at least 3,400 murrelets. These estimates are consistent with what is believed to be a small Alaskan and world population.

The population data, indications of low reproductive success, and affinity to tidewater glaciers (of which the lower elevation glaciers are receding rapidly) are reasons for concern about the long-term conservation of Kittlitz's murrelets. Specifically with reference to the effects of the oil spill, however, the original extent of the injury and its recovery status are still unknown and may never be resolved.

Recovery Objective

No recovery objective can be identified for Kittlitz's murrelet at this time.

KILLER WHALES

Injury and Recovery

More than 100 killer whales in six "resident" pods regularly use Prince William Sound as part of their ranges. Other whales in "transient" groups are observed in the sound less frequently. There has been particular concern in the sound about the resident AB pod, which numbered 36 animals

prior to the spill. Fourteen whales disappeared from this pod in 1989 and 1990, during which time no young were recruited into the population. During the period 1992-94, four calves were added to the pod, but five additional adults were lost and presumed dead. During the most recent period, 1996-98, five calves were recruited and only two

adults were lost—a net gain of three individuals since 1992. Thus, it is possible that recovery is now underway. If the calves born since 1992 survive and if additional calves are added to the pod over the next two or more years, the requirements for recovery will have been satisfied.

The original link between the AB pod

losses and the oil spill was circumstantial. The rate of disappearance and likely mortality of killer whales in this well-studied pod in Prince William Sound following the spill far exceeded rates observed for other pods in British Columbia and Puget Sound over the last 20 years. In addition to the effects of the oil spill, there had been concern about the possible shooting of killer whales due to conflicts with long-line fisheries prior to the oil spill. There are no recent indications of such conflicts.

Overall numbers within the major resident killer whale pods in Prince William Sound are at or exceed prespill levels, even though the AB pod may or may not regain its former size. There is concern, however, that a decline in resightings of individuals within the AT1 group of transient killer whales has accelerated following the oil spill. Since 1990 and 1991, 10 individuals have been missing from the AT group and are now almost certainly dead. During that same period there has been no recruitment of calves into this group of transients. Transient killer whales

largely prey on marine mammals, and there has been a 60 percent decline in the harbor seal population in the sound over the last two decades. Changes in the availability of such an important prey species could influence killer whale distribution and reproduction.

Trustee Council-sponsored research on contaminants in killer whales in Prince William Sound indicates that some whales are carrying high concentrations of PCBs, DDT, and DDT metabolites in their blubber. The presence of such contaminants is not related to the oil spill. Contaminants are significantly higher in the mammal-eating transients than in the fish-eating residents, consistent with the fact that contaminants bioaccumulate—that is they are more concentrated at higher trophic levels. Concentrations are highest in first-born calves, indicating that contaminants are passed on by nursing females. The high concentrations of contaminants found in the transient whales, including those in the AT1 group, are comparable to those found to cause reproductive problems in other marine mam-

mals, but there is no unequivocal evidence of a link between contaminants and poor reproduction in the AT1 group.

Other work sponsored by the Trustee Council includes a detailed genetic analysis that has shown definitively that resident and transient killer whales in Prince William Sound are genetically distinct. The Trustee Council also has sponsored development of acoustic techniques for identifying and monitoring killer whales. Data on sightings and movements of killer whales indicate that the area around Knight Island and passages to Knight Island are among the most heavily used parts of Prince William Sound by both resident and transient killer whales. Use of the outer Kenai coast, including Resurrection Bay, appears to be increasing.

Recovery Objective

Killer whales in the AB pod will have recovered when the number of individuals in the pod is stable or increasing relative to the trends of other major resident pods in Prince William Sound.



Killer Whale

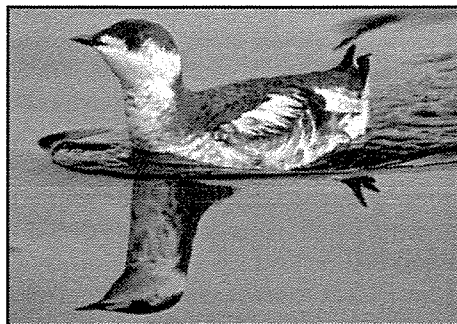
MARBLED MURRELETS

Injury and Recovery

The northern Gulf of Alaska, including Prince William Sound, is a key area of concentration in the distribution of marbled murrelets. The marbled murrelet is federally listed as a threatened species in Washington, Oregon, and California; it also is listed as threatened in British Columbia.

The marbled murrelet population in Prince William Sound had declined before the oil spill. The causes of the prespill decline are not known for certain, but environmental changes in the late 1970s probably reduced the availability or quality of prey resources. There is, nonetheless, clear evidence that oil caused injury to the marbled murrelet population in the sound. Carcasses of nearly 1,100 *Brachyramphus* murrelets were found after the spill, and about 90 percent of the murrelets that could be identified to the species level were marbled murrelets. Many more murrelets probably were killed by the oil than were found, perhaps as much as 7 percent of the spill area population.

The marbled murrelet population in Prince William Sound is assessed through standard marine bird boat surveys. Based on the boat surveys carried out through 1998, there has been no statistically significant



Marbled Murrelet

increase in the sound's marbled murrelet population since the spill. There also is no evidence of a further decline.

The Trustee Council's recovery objective requires a stable or increasing population for marbled murrelets. Based on the information above, it appears that this species is at least recovering from the effects of the oil spill.

Marbled murrelets have been a major focus of the Trustee Council's restoration program, including both habitat protection and research and monitoring activities. Marbled murrelets are known to nest in large, mossy trees within stands of old-growth forest. Following the oil spill, Trustee Council researchers identified specific habitat types and areas within the spill

zone that are especially valuable to nest murrelets. Much of the 600,000 acres of habitat protected with Trustee Council funds is forested, including significant habitat that is suitable for and used by nesting murrelets (for example, on Afognak Island).

In the area of research and monitoring, the Trustee Council's Alaska Predator Ecosystem Experiment (APEX) project is investigating the relationship between marbled murrelet declines and the availability and abundance of forage fish, such as Pacific herring, sand lance, and capelin. It appears that there is a direct correlation between the availability of forage fish and production of young murrelets, based on the presence of juvenile murrelets on the water in Prince William Sound. Historical trawl data analyzed as part of this project supported a decision by the North Pacific Fishery Management Council to limit bycatch of forage fish in commercial fisheries and to preclude the startup of fisheries targeting forage fish (not including herring).

Recovery Objective

Proposed Revision: Marbled murrelets will have recovered when their populations are stable or increasing. Sustained productivity within normal bounds will be an indication that recovery is underway.

MUSSELS

Injury and Recovery

Mussels are an important prey species in the nearshore ecosystem throughout the spill area and are locally important for subsistence. Beds of mussels provide physical stability and habitat for other organisms in the intertidal zone and were purposely left alone during *Exxon Valdez* cleanup operations.

In 1991, high concentrations of relatively unweathered oil were found in the mussels and in underlying byssal mats and sediments in certain dense mussel beds. The biological significance of mussel beds that are still oiled is not known precisely, but they

are potential pathways of oil contamination for local populations of harlequin ducks, black oystercatchers, river otters, and sea otters, all of which feed to some extent on mussels and other prey in and around mussel beds and which were injured by the oil spill. The Trustee Council's Nearshore Vertebrate Predator project has evidence of possible hydrocarbon exposure in sea otters, river otters, harlequin ducks, and Barrow's goldeneyes in oiled parts of Prince William Sound through 1996 or 1997, but the pathway of such exposure has not been established.

About 30 mussel beds in Prince Will-

iam Sound still contained *Exxon Valdez* oil residue when last sampled in 1995. Twelve of these beds had been cleaned on an experimental basis in 1994. In 1995, oil hydrocarbon concentrations in mussels at half the treated beds were lower than would have been expected if the beds had not been cleaned. In 1996, however, limited sampling indicated that several of the cleaned beds had been recontaminated from surrounding or underlying oil residue.

Mussel beds along the outer Kenai Peninsula coast, the Alaska Peninsula, and Kodiak Archipelago were surveyed for the presence of oil in 1992, 1993, and 1995. In

1995, hydrocarbon concentrations in mussels and sediments at these Gulf of Alaska sites were generally lower than for sites in Prince William Sound, but at some sites substantial concentrations persist.

While several sites in Prince William Sound still contained high concentrations of oil in 1995, over half the sites surveyed demonstrated significant natural declines that suggest background concentrations should

be reached in the next few years. Oil contamination in mussels, however, will likely persist for many years at certain sites that are well protected from wave action or where oil penetrated deeply into underlying sediments.

In 1999, a series of oiled mussel beds will be inspected and monitored to track the recovery of this resource. Comparison of mussel beds cleaned in 1994 to beds that

were not cleaned should provide valuable information for planning responses to future oil spills.

Recovery Objective

Mussels will have recovered when concentrations of oil in the mussels and in the sediments below mussel beds reach background levels, do not contaminate their predators, and do not affect subsistence uses.

PACIFIC HERRING

Injury and Recovery

Pacific herring spawned in intertidal and subtidal habitats in Prince William Sound shortly after the oil spill. A significant portion of these spawning habitats as well as herring staging areas in the sound were contaminated by oil. Field studies conducted in 1989 and 1990 documented increased rates of egg mortality and larval deformities in oiled versus unoled areas. Subsequent laboratory studies confirm that these effects can be caused by exposure to *Exxon Valdez* oil, but the significance of these injuries at a population level is not known.

The 1988 prespill year-class of Pacific herring was very strong in Prince William Sound, and, as a result, the estimated peak biomass of spawning adults in 1992 was at a record level. Despite the record spawning biomass in 1992, the population exhibited a density-dependent reduction in size, and in 1993 there was an unprecedented crash of the adult herring population. A viral disease and fungus were the probable immediate agents of mortality, but such other factors as competition for food may have reduced herring fitness and survival. Laboratory investigations since the population crash have shown that exposure to very low concentrations of *Exxon Valdez* oil can compromise the immune systems of adult herring and lead to expression of the viral disease. The extent to which the exposure to oil contributed to the 1993 disease outbreak is uncertain.

Numbers of spawning herring in Prince

William Sound remained depressed through the 1995 season. In 1997 and 1998 there were limited commercial harvests for herring in the sound, but the population has yet to recruit a highly successful year-class, which is fundamental to recovery of this species. Thus, while it is clear that the Pacific herring is in the process of recovering, a full recovery has not been achieved.

Because the Pacific herring is extremely important ecologically and commercially and for subsistence users, the Trustee Council has made a major investment in restoration projects that benefit herring. In the area of habitat protection, Trustee Council funds have acquired more than 1,200 miles of upland shorelines, some of which will help protect water quality in areas used by spawning herring. Research sponsored by the Trustee Council also has identified bays that are important as herring nursery and overwintering areas, and this information will be useful to natural resource managers for decisions about siting facilities or planning responses to future oil spills.

The Trustee Council's Sound Ecosystem Assessment has resulted in new understanding of the importance of body condition in determining overwintering survival of herring and in the influences of the Gulf of Alaska in herring productivity within Prince William Sound. Techniques for improving stock and spawning biomass assessments through spawn deposition surveys and hydroacoustic and aerial surveys also have been supported by the Trustee Council. Ongoing research on herring disease in rela-

tion to commercial fishing practices, such as the enclosed "pound" fisheries, have direct implications for management of the herring fishery. Improvements in knowledge about the biology and ecology of herring and in assessment and management tools will enhance conservation and management of this species over the long term.

Recovery Objective

Pacific herring will have recovered when the next highly successful year class is recruited into the fishery and when other indicators of population health are sustained within normal bounds in Prince William Sound.



Pacific Herring

PIGEON GUILLEMOTS

Injury and Recovery

Although pigeon guillemots are widely distributed in the north Pacific region, nowhere do they occur in large concentrations. Because guillemots feed in shallow, nearshore waters, the guillemots and the fish on which they prey are vulnerable to oil pollution.

Like the marbled murrelet, there is evidence that the pigeon guillemot population in Prince William Sound declined before the oil spill. The causes of the prespill decline are not known for certain, but environmental changes in the late 1970s probably reduced the availability or quality of prey resources. There is, nonetheless, clear evidence that oil caused injury to the guillemot population in the sound. An estimated 10-15 percent of the spill-area population died immediately following the spill. Boat-based surveys of marine birds before (1984-85) and after the oil spill indicated that the guillemot population declined throughout the oiled portion of the sound. These same surveys indicate that numbers of guillemots remain depressed along oiled shorelines in the sound through

1998, and for this reason the pigeon guillemot is still considered to have not recovered from the effects of the oil spill.

The Trustee Council's Alaska Predator Ecosystem Experiment (APEX) project is investigating the possible link between pigeon guillemot declines and the availability of high-quality forage fish, such as Pacific herring and sand lance. This work has revealed a strong connection between the availability of certain prey fishes, especially sand lance, and guillemot chick growth rates, fledging weights, and nesting population size. Historical trawl data analyzed as part of this project supported a decision by the North Pacific Fishery Management Council to limit bycatch of forage fish in commercial fisheries and to preclude the startup of fisheries targeting forage fish (not including herring).

The Nearshore Vertebrate Predator (NVP) project, also sponsored by the Trustee Council, addresses the possibility that exposure to oil is limiting the guillemot's recovery. Preliminary biochemical data do not indicate that guillemot chicks are being ex-

posed to hydrocarbons.

Pigeon guillemots nest in rock crevices and under tree roots at the tops of rocky cliffs and steep slopes. They have benefited greatly from the habitat protection program, including the acquisition of more than 1,200 miles of marine shoreline. In addition, introduced foxes were eliminated from two of the Shumagin Islands (Simeonof and Chernabura) in the southwestern part of the spill area. Pigeon guillemots were present in low densities on both islands, but in higher densities on nearby fox-free islands. Although the nesting birds have not been surveyed since the foxes were removed in 1995, the elimination of this introduced predator should result in a large increase in the population of nesting guillemots.

Recovery Objective

Pigeon guillemots will have recovered when their population is stable or increasing. Sustained productivity within normal bounds will be an indication that recovery is underway.

PINK SALMON

Injury and Recovery

Certain features of the life history of pink salmon made this species highly vulnerable to damage from the oil spill. As much as 75 percent of wild pink salmon in Prince William Sound spawn in the intertidal portions of streams, where embryos deposited in the gravel could be chronically exposed to hydrocarbon contamination in the water column or leaching from oil deposits on adjacent beaches. When juvenile pink salmon migrate to saltwater they spend several weeks foraging for food in nearshore habitats. Thus, juvenile salmon entering seawater from both wild and hatchery sources could have been exposed to oil as they swam through oiled waters and fed along oiled beaches. Trustee Council-sponsored studies have documented two primary types of injury due to the exposure of these early life stages: First, growth rates in both

wild and hatchery-reared juvenile pink salmon from oiled parts of the sound were reduced. Second, there was increased egg mortality in oiled versus unoled streams.

In the years preceding the spill, returns of wild pink salmon in Prince William Sound varied from a maximum of 23.5 million fish in 1984 to a minimum of 2.1 million in 1988. Since the spill, returns of wild pinks have varied from a high of about 12.7 million fish in 1990 to a low of about 1.9 million in 1992. The decade preceding the oil spill was a time of very high productivity for pink salmon in the sound, and, given the tremendous natural variation in adult returns, it is impractical to measure directly the extent to which wild salmon returns since 1989 were influenced by the oil spill. Based on intensive studies, including mathematical models, carried out following the spill, wild adult pink salmon returns to the sound's Southwest

District in 1991 and 1992 were most likely reduced by a total of 11 percent.

Reduced juvenile growth rates in Prince William Sound occurred only in the 1989 season, but higher egg mortality persisted in oiled compared to unoled streams through 1993. No statistically significant differences in egg mortalities in oiled and unoled streams were detected in 1994 through 1996, but in 1997 there was again a difference. It is not clear whether the 1997 difference was due to the effects of lingering weathered oil, perhaps newly exposed by storm-related disturbance of adjacent beaches, or due to other factors.

Patches of weathered oil still persist in or near intertidal spawning habitats in a few of the streams used by pink salmon in southwestern Prince William Sound. It is possible that patches of oil may be exposed as winter storms shift stream beds back and forth and result in local

episodes of increased pink salmon egg mortality. The duration, scale, and number of any such events now would be very limited in comparison to the situation that existed in the southwestern sound in 1989-1993. Moreover, the biological impact of exposure to any such lingering oil should not limit pink salmon populations, assuming there are no drastic negative changes in the quality of freshwater habitats and ocean rearing conditions. Thus, with the exception of a few streams with patches of lingering oil in the southwestern sound, there is no longer any basis to suspect that the oil spill is affecting pink salmon populations in the sound. Overall, pink salmon have recovered from the effects of the *Exxon Valdez* oil spill.

The Trustee Council has made a major investment in studying the effects of the oil spill on pink salmon and in improving conservation and management of wild stocks in Prince William Sound. Studies on the effects of oil on pink salmon have led to new insights about how oil can affect salmon, especially in regard to the toxicity of even very small concentrations of weathered oil on early life stages. This information will be useful in evaluating water quality standards for oil in water and in contingency planning for future oil spills.

The Trustee Council has sponsored several projects directed at improved management

of pink salmon. One of the most beneficial projects sponsored by the Trustee Council was development and implementation of a thermal mass marking project in Prince William Sound. This project, which is now being sustained by the Alaska Department of Fish and Game and the Prince William Sound Aquaculture Association, puts a unique mark on the otoliths (ear bone) of hatchery-reared fry released in the sound. Technicians can readily identify these fish when they are caught as returning adults. This information is used for in-season adjustments of harvests (times and areas) to better protect wild stocks and to more fully utilize hatchery stocks when doing so does not jeopardize wild stocks of pink salmon. Another project sponsored by the Trustee Council characterized the genetic stock structure of pink salmon in the sound. The results of this project will improve confidence that management actions are adequately protecting the genetic diversity of small wild stocks.

Throughout Alaska there is increasing recognition of the importance of changes in marine ecosystems on the growth and survival of salmon. The Trustee Council has funded the Sound Ecosystem Assessment (SEA) project to explore oceanographic and ecological factors that influence production of pink salmon and Pacific herring in Prince William Sound.

These factors include such things as the timing of spring plankton blooms and changes in circulation patterns that link the sound to the Gulf of Alaska. These natural factors are likely to have the greatest influence on year-to-year returns in both wild and hatchery stocks of pink salmon. A final report from the SEA Project is due at the end of FY 1999.

Pink salmon have been major beneficiaries of the Trustee Council's habitat protection program. The more than 600,000 acres of land protected through the Trustee Council program include 280 streams with spawning and rearing habitat for salmon. Wild populations of pink salmon have been enhanced by creating or providing access to additional spawning habitat, such as the Port Dick spawning channel on the outer Kenai coast. This project is expected to result in production of additional pink salmon available for commercial harvest each year.

Recovery Objective

Pink salmon will have recovered when population indicators, such as growth and survival, are within normal bounds and there are no statistically significant differences in egg mortalities in oiled and unoled streams for two years each of odd- and even-year runs in Prince William Sound.

RIVER OTTERS

Injury and Recovery

River otters have a low population density in Prince William Sound. Twelve river otter carcasses were found following the spill, but the actual total mortality is not known. Studies conducted during 1989-91 identified several differences between river otters in oiled and unoled areas in Prince William Sound, including biochemical alterations, reduced diversity in prey species, reduced body size (length-weight), and increased home-range size. Because there were few prespill data, it is not certain that these differences are the result of the oil spill. Although some of the differences (e.g., in blood values) persisted through 1996, there were few differences documented in 1997 and 1998. Thus, there are no indications of possible lin-

gering injury from the oil spill, and the Trustee Council's recovery objective has been met.

The Trustee Council's habitat protection program and research and monitoring projects have benefited spill-area river otters. More than 1,200 miles of marine shoreline and more than 280 streams used by anadromous fish streams have been protected; much of this area provides high-value habitat for river otters.

Through the Nearshore Vertebrate Predator project and other studies, much information has been gathered that will improve long-term conservation and management of river otters. These breakthroughs include development of a new method for live-trapping otters, which will improve the ability of wildlife managers to estimate

population sizes for this elusive species, and new insights in the recycling of aquatic nutrients into forest ecosystems at otter latrine sites, which has important implications from a conservation standpoint. In addition, work in progress at the Alaska SeaLife Center on the blood chemistry of river otters in relation to small doses of oil will aid interpretation of biochemical tests for exposure from oil and other contaminants.

Recovery Objective

The river otter will have recovered when biochemical indices of hydrocarbon exposure or other stresses and indices of habitat use are similar between oiled and unoled areas of Prince William Sound, after taking into account any geographic differences.

ROCKFISH

Injury and Recovery

Very little is known about rockfish populations (of several species) in the northern Gulf of Alaska. A small number of dead adult rockfish was recovered following the oil spill, and autopsies of five specimens indicated that oil ingestion was the cause of death. Analysis of other rockfish showed exposure to hydrocarbons and probable sublethal effects. In addition, closures to salmon

fisheries apparently had the effect of increasing fishing pressures on rockfish, which, in turn, may have adversely affected local rockfish populations. However, the original extent of injury and the current recovery status of this species are unknown.

Because little is known about rockfish abundance and species composition in the spill area and because rockfish are harvested commercially, even basic information about these species could provide a basis for im-

proved management or, at least, the identification of priorities for more targeted research. Accordingly, starting in FY 1998, the Trustee Council sponsored a multi-year study of genetic stock structure in black, dusky, and yelloweye rockfish throughout the spill area and the adjacent Gulf of Alaska. No results from this work are currently available.

Recovery Objective

No recovery objective can be identified.

SEA OTTERS

Injury and Recovery

By the late 1800s, sea otters had been eliminated from most of their historical range in Alaska due to excessive harvesting by Russian and American fur traders. Surveys of sea otters in the 1970s and 1980s, however, indicated a healthy and expanding population in most of Alaska, including Prince William Sound. Today the only harvests of sea otters are for subsistence purposes.

About 1,000 sea otter carcasses were recovered following the spill, and additional animals probably died but were not recovered. In 1990 and 1991, higher-than-expected proportions of prime-age adult sea otters were found dead in western Prince William Sound, and there was evidence of higher mortality of recently weaned juveniles in oiled areas. By 1992-93, overwintering mortality rates for juveniles had decreased, but were still higher in oiled than in unoiled parts of the sound.

Based on both aerial and boat surveys conducted in western Prince William Sound, there is statistically significant evidence of a population increase following the oil spill (1993-98). Observations by local residents bear out this general increase. However, within the most heavily oiled bays in the western sound, such as those on northern Knight Island, the aerial surveys indicate that recovery may not be complete.



Sea Otter

The Trustee Council's Nearshore Vertebrate Predator project, which was started in 1995, is addressing the lack of recovery in sea otters in the heavily oiled bays of western Prince William Sound. The lack of recovery may reflect the extended time required for population growth for a long-lived mammal with a low reproductive rate, but it also could reflect the effects of continuing exposure to hydrocarbons or a combination of both factors. Through 1997, researchers have continued to find biochemical evidence of oil exposure in sea otters on northern Knight Island. Biochemical samples from 1998 are now being analyzed. An additional hypothesis is that food supplies are limiting recovery, but preliminary evidence does not fully support this idea.

It is clear that sea otter recovery is underway for much of the spill-area, with the exception of populations at the most heavily

oiled bays in western Prince William Sound. Researchers sponsored by the Trustee Council continue to explore hypotheses for lack of recovery at these sites.

Sea otters have benefited from many aspects of the Trustee Council's program. Sea otters are found along many miles of the more than 1,200 miles of marine shoreline that has been protected through the habitat protection program. Results of search and monitoring projects have been valuable. For example, an aerial survey protocol is now being used more widely to monitor sea otter populations, and an improved and validated technique for aging sea otters using their teeth will aid biologists and veterinarians wherever sea otters are found. Another example is new information on age-specific reproductive rates, which is crucial for understanding the effects of subsistence harvests on sea otters. These new techniques and insights will aid sea otter conservation and management over the long term.

Recovery Objective

Sea otters will have recovered when the population in oiled areas returns to its prespill abundance and distribution. An increasing population trend and normal reproduction and age structure in western Prince William Sound will indicate that recovery is underway.

SEDIMENTS

Injury and Recovery

Exxon Valdez oil penetrated deeply into cobble and boulder beaches that are common on shorelines throughout the spill area, especially in sheltered habitats. Cleaning and natural degradation removed much of the oil from the intertidal zone, but visually identifiable surface and subsurface oil persists at many locations.

The last comprehensive survey of shorelines in Prince William Sound, conducted in 1993, included 45 areas of shoreline known to have had the most significant oiling. The average location with surface oil residue, asphalt, or mousse was 160 m² in size. Based on that survey, it was estimated that heavy subsurface oil had decreased by 65 percent since 1991 and that surface oil had decreased by 50 percent over the same time period.

The shorelines of the outer Kenai and Alaska Peninsula coasts get more wave action than most shorelines within Prince William Sound. These Gulf of Alaska sites tended to be contaminated with oil in the form of mousse, which can persist for long periods in a largely unweathered state. Five of six index beaches on the gulf coast have a heavy boulder "armor," and were last visited in 1993 and 1994. At this time, surface and subsurface oil mousse persisted in a remarkably unweathered state in the armored beaches.

In 1995, a shoreline survey team vis-

ited 30 sites in the Kodiak Archipelago that had measurable or reported oiling in 1990 and 1991. The survey team found no oil or only trace amounts at these sites. The oiling in the Kodiak area is not persisting as it is at sites in Prince William Sound due to the higher energy unarmored beaches in the Kodiak area, the state of the oil when it came ashore, and the smaller concentrations of initial oiling relative to the sound.

Following the oil spill, chemical analyses of oil in subtidal sediments were conducted at a small number of index sites in Prince William Sound. At these sites, oil in subtidal sediments was mostly confined to the uppermost 20 meters water depths (below mean low tide), although elevated levels of hydrocarbon-degrading bacteria (associated with elevated hydrocarbons) were detected at depths of 40 and 100 meters in 1990 in Prince William Sound. By 1993, however, there was little evidence of *Exxon Valdez* oil and related elevated microbial activity at most index sites in Prince William Sound, except at those associated with sheltered beaches that were heavily oiled in 1989. These index sites—at Herring, Northwest, and Sleepy bays—are among the few sites at which substantial subtidal oiling is still known to occur.

Based on the information above, sediments are considered to be recovering. However, the presence of surface and subsurface oil continues to compromise wilderness and

recreational values, expose and potentially harm living organisms, and offend visitors and residents, especially those who engage in subsistence activities along still-oiled shorelines. Concern on the part of Chenega Bay residents has been particularly strong. In 1997, with support from the Trustee Council, a project was carried out to use a chemical surfactant and other means to remove additional crude oil from 10,000 m² of beach on LaTouche and Evans islands in southwestern Prince William Sound. This effort was a partly successful, but a final evaluation of the results is not yet available.

Recovery Objective

Sediments will have recovered when there are no longer residues of *Exxon Valdez* oil on shorelines (both tidal and subtidal) in the oil-spill area. Declining oil residues and diminishing toxicity are indications that recovery is underway.



Oily sediment in 1997

SOCKEYE SALMON

Injury and Recovery

Commercial salmon fishing was closed in Prince William Sound and in portions of Cook Inlet and near Kodiak in 1989 to avoid any possibility of contaminated salmon being sent to market. As a result, there were higher-than-desirable numbers (i.e., "overescapement") of spawning sockeye salmon entering the Kenai River and also Red and Akalura lakes on Kodiak Island. Research carried out following the spill demonstrated that initially these high escapements produced an overabundance of

juvenile sockeye that then overgrazed the zoo-plankton, thus altering planktonic food webs in the nursery lakes. The result was lost sockeye production as shown by reduced growth rates during the freshwater part of the sockeye life history and declines in the returns of adults per spawning sockeye. Although sockeye freshwater growth tended to return to normal within two or three years following the overescapement, there are indications that these systems are less stable for several years after an initial overescapement event.

The negative effects of the 1989 overescapement on sockeye productivity, as measured by return per spawner, in the Kenai River watershed were readily apparent for returns from the brood years 1989-1992. Returns from the 1993-1995 brood years are not complete because some of these fish are still at sea, but returns to date show promise that management efforts have been successful in restoring the returns per spawner to normal levels. The sockeye salmon of the Kenai River watershed are recovering from the effects of the 1989 overescapement.

Production of zooplankton in both Red and Akalura lakes on Kodiak Island has rebounded from the effects of the overescapement at the time of the oil spill. By 1997, Red Lake had responded favorably in terms of smolt and adult production and was at or near prespill production of adult sockeye. At Akalura Lake, however, adult escapements continued to fall below minimum goals through 1997, but the impact of overescapement on return per spawner for Akalura sockeye is not clear. Fortunately, starting in 1993, the production of smolts per adult increased sharply and the smolt sizes and age composition suggested that rearing conditions have improved. Current projections now suggest a significant escapement of adults into Akalura Lake in the 1999 season. The sockeye populations of both Red and Akalura lakes are recovering from the effects of the 1989 overescapement.

There also was concern about overescapement effects in lakes on Afognak

Island and on the Alaska Peninsula. However, analysis of sockeye freshwater growth rates of juveniles from Chignik Lake on the Alaska Peninsula did not identify any impacts associated with a 1989 overescapement event.

The Trustee Council has made a major investment in the restoration and management of sockeye salmon, especially in the Kenai River system. Research sponsored by the Trustee Council has documented not only the effects of overescapement events (as described above), but also the mechanism by which the effects are manifested in glacial-lake systems. This work is helping fisheries managers better monitor and predict annual changes in sockeye fisheries. With support from the Trustee Council, genetic stock identification and hydroacoustic stock assessment techniques were developed and are being employed to improve in-season management of the Cook Inlet sockeye fisheries.

Sockeye salmon have benefited greatly

from the Trustee Council's habitat protection program throughout the spill area. These acquisitions include streambanks along the lakeside, and watershed habitats along the Kenai and Moose rivers on the Kenai Peninsula, the Eshamy-Jackpot Bay area of Prince William Sound, the Red and Fraser lakes area on Kodiak Island, and Laura and Pauls lakes on Afognak Island. In addition to habitat acquisition, the Trustee Council sponsored a project to stabilize and restore degraded streambanks on public lands along the Kenai and Russian rivers. This project will restore spawning and rearing habitat important for salmon and enhance recreational fishing, which was a service injured by the oil spill.

Recovery Objective

Proposed Revision: Sockeye salmon in the Kenai River system and Red and Akalura lakes will have recovered when adult returns-per-spawner and other indicators of productivity are within normal bounds.

SUBTIDAL COMMUNITIES

Injury and Recovery

Shallow subtidal habitats of Prince William Sound, from the lower intertidal zone to depths of about 20 meters, typically have dense stands of kelp or eelgrass and contain numerous polychaete worms, snails, clams, sea urchins, and other invertebrate life. These subtidal communities provide shelter and food for an array of nearshore fishes, birds, and marine mammals.

Oil that was transported down to subtidal habitats, as well as subsequent cleanup activities, apparently caused changes in the abundance and species composition of plant and animal populations below lower tides. Different habitats, emphasizing eelgrass beds and adjacent areas of soft sediment, were compared at oiled and unoled sites from 1990-1995. It is difficult to draw firm conclusions from this study, because it is hard to distinguish between natural site differences (e.g., percent sand and mud) and those differences

actually resulting from the oil spill or cleanup.

Concentrations of hydrocarbons in subtidal sediments were significantly higher at oiled sites than at unoled reference sites. These concentrations dropped sharply by 1991, but evidence of oil contamination due to *Exxon Valdez* oil persisted at some locations through 1995.

Biologically, negative effects of the oil were most evident for oil-sensitive species of amphipods, which were consistently less abundant at oiled than at unoled sites. Reduced numbers of eelgrass shoots and flowers may have been due to increased turbidity associated with cleanup activities (e.g., boat traffic). Two species of sea stars and helmet crabs also were less abundant at oiled sites. Some invertebrates living in the sediment, including species in eight families of polychaete worms, two families of snails, and one family of mussels, were greater in numbers at oiled sites. These species are

known to be stress-tolerant and probably benefited from the organic enrichment associated with oil. Some of the species that showed increased numbers also may have benefited from reduced competition or predation due to the effects of the spill.

By 1995, there was apparent recovery of most constituents of the eelgrass community. Some amphipod and clam species continued to be less abundant at oiled sites, and there continued to be indications of enhanced numbers of stress-tolerant polychaetes and mussels. These sites have not been revisited since 1995.

Recovery Objective

Subtidal communities will have recovered when community composition in oiled areas, especially in association with eelgrass beds, is similar to that in unoled areas. Indications of recovery are the return of oil-sensitive species, such as amphipods, and the reduction of opportunistic species at oiled sites.

Human Services

Lost or Reduced Services

The following summaries for lost or reduced services, including commercial fishing, recreation and tourism, and subsistence, are reprinted from the September 1996 *Update on Injured Resources and Services*. The Restoration Office and Trustee agencies are in the process of evaluating the status of these services but are doing so on a schedule that is slightly different from the review of injured resources. Proposed changes in status and updated summaries should be available early in February and will be mailed to recipients of this document. The Trustee Council invites comments or new information on the status of lost or reduced services. **Written comments on lost or reduced services are due February 26, 1999, with an opportunity for public testimony at a Trustee Council meeting tentatively scheduled for March 1.**

COMMERCIAL FISHING

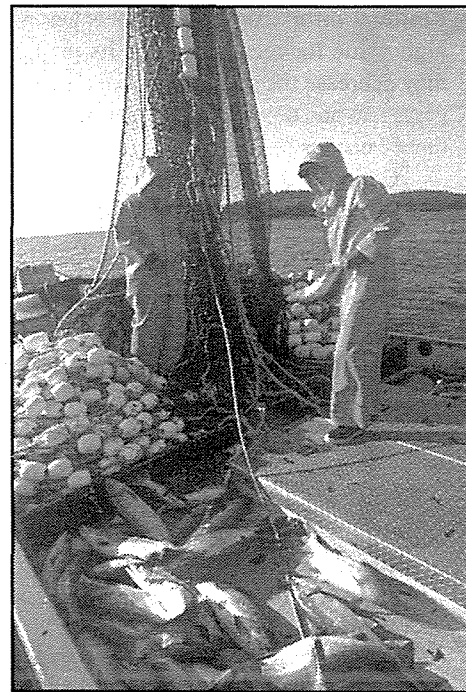
Injury and Recovery

Commercial fishing is a service that was reduced through injury to commercial fish species (see individual resources) and also through fishing closures. In 1989, closures affected fisheries in Prince William Sound, lower Cook Inlet, upper Cook Inlet, the outer Kenai coast, Kodiak, and Chignik. Most of these fisheries opened again in 1990. Since then, there have been no spill-related district-wide closures, except for the Prince William Sound herring fishery, which was closed in 1993 and has remained closed since then due to the collapse of the herring population and poor fishery recruitment since 1989. These closures, including the on-going closure of the herring fishery in Prince William Sound, harmed the livelihoods of persons who fish for a living and the communities in which they live. To the extent that the oil spill continues to be a factor that reduces opportunities to catch fish, there is on-going injury to commercial fishing as a service.

On this basis, the Trustee Council continues to make major investments in projects to understand and restore commercially important fish species that were injured by the oil spill. These projects include: supplementation work, such as fertilizing Coghill Lake to enhance its sockeye salmon run and construction of a barrier bypass at Little Waterfall Creek; development of tools that have almost immediate benefit for fisheries management, such as otolith mass marking of pink salmon in Prince William Sound and in-season genetic stock identification for sockeye salmon in Cook Inlet; and research such as the SEA Project and genetic mapping which will enhance the ability to predict and manage fisheries over the long-term.

Recovery Objective

Commercial fishing will have recovered when the commercially important fish species have recovered and opportunities to catch these species are not lost or reduced because of the effects of the oil spill.



Seining in Prince William Sound

PASSIVE USE



Afognak Island

Injury and Recovery

Passive use of resources includes the appreciation of the aesthetic and intrinsic values of undisturbed areas, the value derived from simply knowing that a resource exists, and other nonuse values. Injuries to passive uses are tied to public perceptions of injured resources. Contingent valuation studies conducted by the State of Alaska for the *Exxon Valdez* oil spill litigation measured substantial losses of passive use values resulting from the oil spill.

Recovery Objective

Passive uses will have recovered when people perceive that aesthetic and intrinsic values associated with the spill area are no longer diminished by the oil spill.

RECREATION AND TOURISM

Injury and Recovery

The spill disrupted use of the spill area for recreation and tourism. Resources important for wildlife viewing and which still are injured by the spill include killer whale, sea otter, harbor seal, and various seabirds. Residual oil exists on some beaches with high value for recreation, and its presence may decrease the quality of recreational experiences and discourage recreational use of these beaches.

Closures of sport hunting and fishing also affected use of the spill area for recreation and tourism. Sport fishing resources include salmon, rockfish, Dolly Varden, and cutthroat trout. Since 1992, the Alaska Board of Fisheries has imposed special restrictions on sport fishing in parts of Prince William Sound to protect cutthroat trout populations. Harlequin ducks are hunted in the spill area. The Alaska Board of Game restricted sport harvest of harlequin ducks in Prince William Sound in 1991, and those restrictions remain in place.

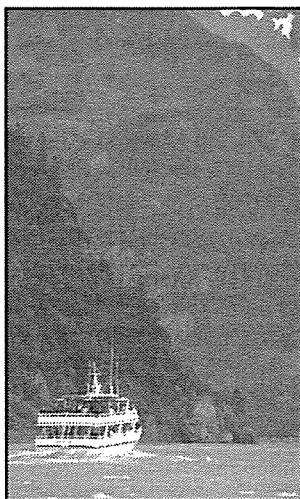
Recreation was also affected by changes in human use in response to the spill. For example, displacement of use from oiled areas to unoled areas increased management problems and facility use in unoled areas.

Some facilities, such as the Green Island cabin and the Fleming Spit camp area, were injured by clean-up workers.

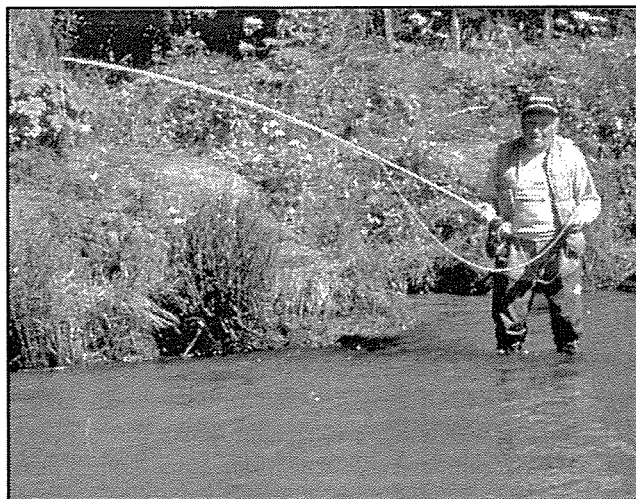
In the years since the oil spill, there has been a general, marked increase in visitation to the spill area. However, there are still locations within the oil-spill area which are avoided by recreational users because of the presence of residual oil.

Recovery Objective

Recreation and tourism will have recovered, in large part, when the fish and wildlife resources on which they depend have recovered, recreation use of oiled beaches is no longer impaired, and facilities management capabilities can accommodate changes in human use.



Wildlife tours in Kenai Fjords National Park



Recreation includes sport fishing, sport hunting, camping, boating, hiking and other active outdoor pursuits.

SUBSISTENCE

Injury and Recovery

Fifteen predominantly Alaskan Native communities (numbering about 2,200 people) in the oil-spill area rely heavily on harvests of subsistence resources, such as fish, shellfish, seals, deer, ducks, and geese. Many families in other communities, both in and beyond the oil-spill area, also rely on the subsistence resources of the spill area.

Subsistence harvests of fish and wildlife in most of these villages declined substantially following the oil spill. The reasons for the declines include reduced availability of fish and wildlife to harvest, concern about possible health effects of eating contaminated or injured fish and wildlife, and disruption of lifestyles due to clean-up and other activities.

Subsistence foods were tested for evidence of hydrocarbon contamination from 1989-94. No or very low concentrations of petroleum hydrocarbons were found in most subsistence foods. The U.S. Food and Drug Administration determined that eat- foods with such low levels of hydrocarbons posed no significant additional risk to human health. Because shellfish can continue to accumulate hydrocarbons, however, the Oil Spill Health Task Force advised subsistence users not to eat shellfish from beaches where oil can be seen or smelled on the surface or subsurface. Residual oil exists on some beaches near subsistence communities. In general, subsistence users remain concerned and uncertain about the safety of fish and other wildlife resources.

The estimated size of the subsistence harvest in pounds per person now appears to have returned to prespill levels in some communities, according to subsistence users through household interviews conducted by the Alaska Department of Fish and Game. These interviews also indicated that the total subsistence harvest began to rebound first in the communities of the Alaska Peninsula, Kodiak Island, and the lower Kenai Peninsula, but that the harvest has

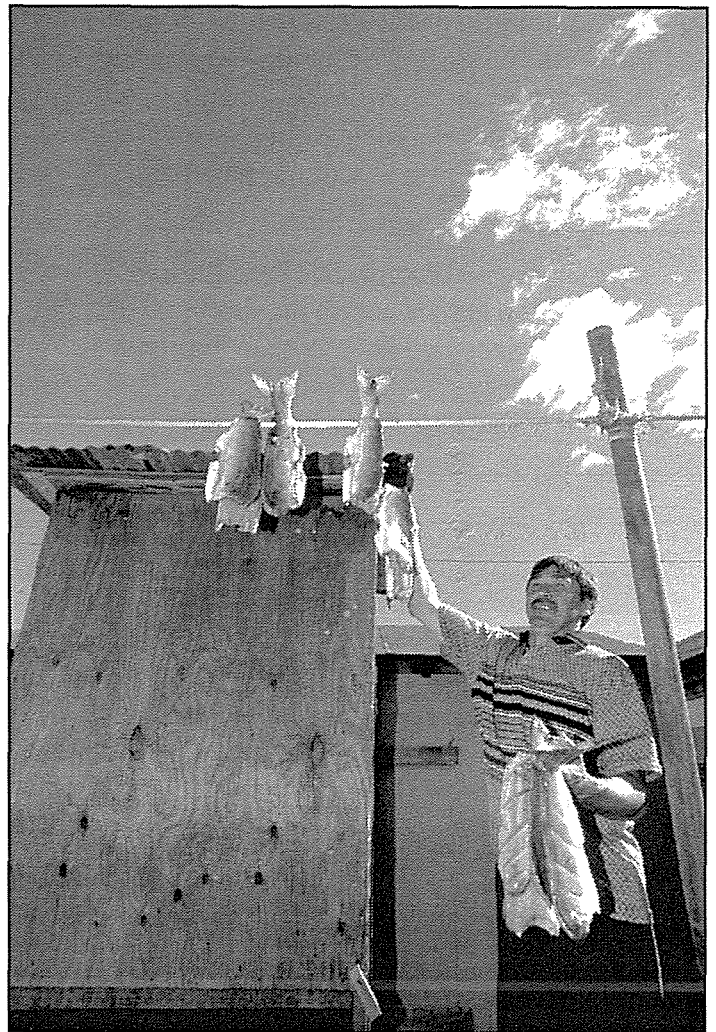
lagged behind a year or more in the Prince William Sound villages. The interviews also showed that the relative contributions of certain important subsistence resources remains unusually low. The scarcity of seals, for example, has caused people in Chenega Bay to harvest fewer seals and more salmon than has been customary. Herring have been very scarce throughout Prince William Sound since 1993. Different types of resources have varied cultural and nutritional importance, and the changes in diet composition remain a serious concern to subsistence users. Subsistence users also report that they have to travel farther and expend more time and effort to harvest the same amount as they did before the spill, especially in Prince William Sound.

Subsistence users also point out that the value of subsistence cannot be measured in pounds alone. This conventional measure does not include the cultural value of traditional and customary use of natural resources. Subsistence users say that maintaining their subsistence culture depends on uninterrupted use of fish and wildlife resources. The more time users spend away from subsistence activities, the less likely that they will return to these practices. Continuing injury to natural resources used for subsistence may affect ways of life of entire communities. There is particular concern that

the oil spill disrupted opportunities for young people to learn subsistence culture, and that this knowledge may be lost to them in the future.

Recovery Objective

Subsistence will have recovered when injured resources used for subsistence are healthy and productive and exist at prespill levels. In addition, there is recognition that people must be confident that the resources are safe to eat and that the cultural values provided by gathering, preparing, and sharing food need to be reintegrated into community life.



Drying salmon in Old Harbor

Public Hearing

January 21, 1998, 7:00-8:30 p.m.

(to be continued 8:30 a.m. January 22 if needed)

**Anchorage Restoration Office
and at area Legislative Information Offices**

The Trustee Council and Public Advisory Group will jointly host a public hearing to accept public testimony on 1) changes to the Injured Resources list and 2) potential uses of the Restoration Reserve. The two groups will meet January 22 to discuss the two topics.

The joint session between the Trustee Council and its 17-member advisory group will focus primarily on the Restoration Reserve. This \$140 million savings account was set aside to finance restoration activities beyond the year 2001 when the last installment from Exxon is received. The Trustee Council will not take action on the up-

dated Injured Resources List or on the Restoration Reserve at the January 22 meeting.

Legislative Information offices in Valdez, Cordova, Seward, Kenai/Soldotna, Homer, Kodiak, Juneau, and Fairbanks will be open 7-8:30 p.m. January 21 for residents of those communities. Residents in remote areas can join via teleconference. Arrangements can be made by contacting Rebecca at 907-278-8012; 800-478-7745 (within Alaska); 800-283-7745 (outside Alaska); or via e-mail: restoration@oilspill.state.ak.us. The public hearing will be continued at 8:30 a.m. January 22 if needed.

DRAFT UPDATE DEADLINE

Written comments on the draft update will be accepted no later than February 5.

RESTORATION RESERVE DEADLINE

Written comments on the Restoration Reserve will be accepted no later than February 12.

Exxon Valdez Oil Spill Trustee Council



Restoration Office
645 G Street, Room 401
Anchorage, AK 99501-3451

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Legacy of an Oil Spill: 10 Years After *Exxon Valdez*

March 23-27, 1999

(Proposed Agenda)

Report to the Nation

Tuesday, March 23, 1999

- 8:45 am Welcome and Introduction
Craig Tillery, Trustee Representative, Alaska Department of Law
- 9:00 am State and Federal Perspectives on the Legacy of the Exxon Valdez Oil Spill
* *Honorable Tony Knowles, Governor, State of Alaska*
* *Honorable Dan Glickman, Secretary, U.S. Department of Agriculture*
- 10:00 am What is the Status of Fish and Wildlife Injured by the Oil Spill?
Steve Pennoyer, Trustee and Alaska Director, National Marine Fisheries Service
- 11:00 am Habitat Protection Following the Exxon Valdez: A Lasting Treasure
* *Honorable Bruce Babbitt, Secretary, U.S. Department of the Interior*
- Research and Monitoring: Restoration Through Knowledge and Management
Dr. Robert Spies, Chief Scientist, Exxon Valdez Oil Spill Restoration Program
- Noon (Lunch) Keynote Address by Dr. Jane Lubchenco: "The State of the World's Oceans"
Dr. Jane Lubchenco is a professor of marine biology and zoology at the University of Oregon. She sits on the board of directors of the National Science Foundation and is past president of the American Association for the Advancement of Science and the Ecological Society of America.
- 1:30 pm Human Dimensions of the Oil Spill
Introduction: Frank Rue, Trustee and Commissioner, Alaska Department of Fish and Game
Alaska Native Perspective: Gary Kompkoff, President, Tatitlek IRA Council
Community Perspective: Jerome Selby, former Mayor, Kodiak Island Borough
- 3:15 pm Oil Spill Response and Prevention: Can it Happen Again?
Introduction: Michele Brown, Trustee and Commissioner, Department of Environmental Conservation
Prevention: Robert Malone, President, Alyeska Pipeline Service Company
Response: Kurt Fredriksson, Director, Division of Spill Prevention and Response, ADEC
Cleanup: Alan Mearns, Senior Scientist, National Oceanic and Atmospheric Administration
Citizen Oversight: Stan Stephens, Chairman, PWS Regional Citizens' Advisory Council
- 4:30 pm Planning for the Future: Restoration in the 21st Century
* *Honorable William Daley, Secretary, U.S. Department of Commerce*
- 7:30 - 7:00 pm Trustee Council Reception

The Report To The Nation will be followed by a three-day scientific symposium covering lessons from the Exxon Valdez oil spill.

* *Speaker invited or to be invited.*

Exxon Valdez Oil Spill Trustee Council

645 G Street, Suite 401, Anchorage, AK 99501-3451 907/278-8012 fax: 907/276-7178



MEMORANDUM

TO: Trustee Council

THROUGH: Molly McCammon
Executive Director

FROM: Traci Cramer
Administrative Officer

DATE: December 22, 1998

RE: Financial Report as of November 30, 1998

Attached is the Statement of Revenue, Disbursements and Fees, and accompanying notes for the *Exxon Valdez* Joint Trust Fund for the period ending November 30, 1998.

The following is a summary of the information incorporated in the notes and contained on the statement.

Liquidity Account Balance	\$47,833,317	
Plus: Current Year Adjustments (Note 5)	5,906,723	
Plus: Other Adjustments (Note 6)	<u>4,381,623</u>	
Uncommitted Fund Balance		\$58,121,663
Plus: Future Exxon Payments (Note 1)	\$140,000,000	
Less: Remaining Reimbursements (Note 3)	-7,500,000	
Less: Remaining Commitments (Note 7)	<u>-59,331,568</u>	
Total Estimated Funds Available		\$131,290,095
Restoration Reserve (Note 8)		\$79,663,491

If you have any questions regarding the information provided please do not hesitate to give me a call at 586-7238.

Attachments

cc: Agency Liaisons
Bob Baldauf

NOTES TO THE STATEMENT OF REVENUE, DISBURSEMENTS AND FEES
FOR THE EXXON VALDEZ JOINT TRUST FUND
As of November 30, 1998

1. Contributions - Pursuant to the agreement Exxon is to pay a total of \$900,000,000.

Received to Date	\$690,000,000
Current Year	\$70,000,000
Future Payments	\$140,000,000

2. Interest Income - In accordance with the MOA, the funds are deposited in the United States District Court, Court Registry Investment System (CRIS). All deposits with CRIS are maintained in United States government treasury securities with maturities of 100 days or less. Total earned since the last report is \$203,467.

3. Reimbursement of Past Costs - Under the terms of the agreement, the United States and the State are reimbursed for expenses associated with the spill. The remaining reimbursements represent that amount due the State of Alaska.

4. Fees - CRIS charges a fee of 10% for cash management services. Total paid since the last report is \$17,212.

5. Current Year Adjustments - Includes the current year payment (less reimbursements), outstanding deposits to the Restoration Reserve (see note 8) and proceeds of the 1998 securities (see note 8), plus the following land payment.

<u>Seller</u>	<u>Amount</u>	<u>Due</u>
Afognak Joint Venture	\$22,381,964	October 1999
Shuyak	\$4,000,000	October 1999

6. Other Adjustments - Under terms of the Agreement, both interest earned on previous disbursements and prior years unobligated funding or lapse are deducted from future court requests. Unreported interest and lapse is summarized below.

	<u>Interest</u>	<u>Lapse</u>
United States	\$255,579	\$1,965,541
State of Alaska	\$1,360,674	\$799,829

7. Remaining Commitments - Includes the following land payments.

<u>Seller</u>	<u>Amount</u>	<u>Due</u>
Afognak Joint Venture	\$23,025,834	October 2000
Shuyak	\$8,000,000	October 2000 through 2001
Shuyak	\$11,805,734	October 2002
Koniag, Incorporated	\$16,500,000	September 2002

8. Restoration Reserve - The amount reported includes funds previously transferred, plus accrued interest less fees - \$54,797,180. Although the 1998 and 1999 payments have not been formally transferred from the Liquidity Account to the Restoration Reserve, pursuant to Trustee Council action the payments have been included in the balance along with accrued interest at a rate of 5%. This includes the \$12,000,000 transfer approved for Fiscal Year 1998, plus \$725,000 in interest accrued since September 15, 1997, and the \$12,000,000 transfer approved for Fiscal Year 1999, plus \$125,000 in interest accrued since September 15, 1998. The proceeds from the securities that matured on November 15, 1998 have also been included. This includes \$9,095,002, plus \$18,292 in interest, less \$1,981 in fees.

STATEMENT OF REVENUE, DISBURSEMENT, AND FEES
EXXON VALDEZ OIL SPILL JOINT TRUST FUND
As of November 30, 1998

	1996	1997	1998	To Date 1999	Cumulative Total
REVENUE:					
Contributions: (Note 1)					
Contributions from Exxon Corporation	70,000,000	70,000,000	70,000,000	0	690,000,000
Less: Credit to Exxon Corporation for Deposit of Maturing Securities				9,095,002	(39,913,688)
Total Contributions	70,000,000	70,000,000	70,000,000	9,095,002	659,181,314
Interest Income: (Note 2)					
Exxon Corporation escrow account					831,233
Joint Trust Fund Account	3,963,073	2,971,070	2,673,585	447,778	21,472,172
Total Interest	3,963,073	2,971,070	2,673,585	447,778	22,303,405
Total Revenue	73,963,073	72,971,070	72,673,585	9,542,779	681,484,719
DISBURSEMENTS:					
Reimbursement of Past Costs: (Note 3)					
State of Alaska	3,291,446	5,000,000	3,750,000	0	95,309,288
United States	0	0	0	0	69,812,045
Total Reimbursements	3,291,446	5,000,000	3,750,000	0	165,121,333
Disbursements from Liquidity Account:					
State of Alaska	43,340,950	17,846,130	15,686,600	29,520,000	217,997,928
United States	31,047,824	60,101,802	39,468,461	(300)	200,072,483
Transfer to the Restoration Reserve	35,996,231	12,449,552			48,445,783
Total Disbursements	110,385,004	90,397,484	55,155,061	29,519,700	466,516,194
FEES:					
U.S. Court Fees (Note 4)	396,307	254,221	199,946	35,544	2,013,875
Total Disbursements and Fees	114,072,758	95,651,705	59,105,007	29,555,244	633,651,402
Increase (decrease) in Liquidity Account	(40,109,685)	(22,680,635)	13,568,578	(20,012,465)	47,833,317
Liquidity Account Balance, beginning balance	117,067,523	76,957,839	54,277,204	67,845,782	
Liquidity Account Balance, end of period	76,957,839	54,277,204	67,845,782	47,833,317	
Current Year Adjustments: (Note 5)					5,906,723
Other Adjustments: (Note 6)					4,381,623
Uncommitted Liquidity Account Balance					58,121,663
Future Exxon Payments (Note 1)					140,000,000
Remaining Reimbursements (Note 3)					(7,500,000)
Remaining Commitments: (Note 7)					(59,331,568)
Total Estimated Funds Available					131,290,095
Restoration Reserve					79,663,491

Statement 1

Statement of *Exxon Valdez* Settlement Funds
As of November 30, 1998

Beginning Balance of Settlement 900,000,000

Receipts:

Interest Earned on Exxon Escrow Account 337,111
Net Interest Earned on Joint Trust Fund (Note 1) 19,458,296
Interest Earned on United States and State of Alaska Accounts 6,964,164

Total Interest 26,759,571

Disbursements:

Reimbursements to United States and State of Alaska 165,121,333
Exxon clean up cost deduction 39,913,688
Joint Trust Fund deposits 494,891,214

Total Disbursements 699,926,235

Funds Available:

Exxon Future Payments 140,000,000
Current Year Payment 70,000,000
Balance in Liquidity Account 47,833,317
Future acquisition payments (Note 2) (85,713,532)
Alaska Sealife Center 0
Remaining Reimbursements (11,250,000)
Other (Note 3) 4,381,623

Total Estimated Funds Available 165,251,408

Restoration Reserve 79,663,491

Note 1: Gross interest earned less District Court registry fees.

Note 2: Includes both current year and future year payments

Note 3: Adjustment for unreported interest earned and lapse

Footnote:

Included in the Total Estimated Funds Available is \$24,000,000 for the outstanding payments to the Restoration Reserve for Fiscal Years 1998 and 1999 (plus \$850,000 of accrued interest) and \$9,095,002 from the proceeds of the 1998 securities (plus \$18,292 in interest, less \$1,981 in fees).

Statement 2

Cash Flow Statement Exxon Valdez Liquidity Account As of November 30, 1998

Receipts:

Exxon payments

December 1991	36,837,111	
December 1992	56,586,312	
September 1993	68,382,835	
September 1994	58,728,400	
September 1995	67,303,000	
September 1996	66,708,554	
September 1997	65,000,000	
September 1998	66,250,000	
Nov-98	9,095,002	

Total Deposits	494,891,214	494,891,214
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Interest Earned	21,472,172	
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Total Interest	21,472,172	21,472,172
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Total Receipts		516,363,386
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Disbursements:

Court Requests

Fiscal Year 1992	12,879,700	
Fiscal Year 1993	27,634,994	
Fiscal Year 1994	50,554,653	
Fiscal Year 1995	89,989,597	
Fiscal Year 1996	74,388,774	
Fiscal Year 1997	77,947,932	
Fiscal Year 1998	55,155,061	
Fiscal Year 1999	29,519,700	

Total Requests	418,070,411	418,070,411
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District Court Fees	2,013,875	2,013,875
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Transfer to the Restoration Reserve		48,445,783
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Total Disbursements		468,530,069
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Balance in Joint Trust Fund		47,833,317
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Footnote:

A total of \$48,445,783 has been disbursed from the Liquidity Account to the Restoration Reserve. Of the total, \$48,445,663 was used to purchase laddered securities. The remaining \$130 represents costs paid to the Federal Reserve Bank.

Exxon Valdez Restoration Reserve								
Unallocated Deposits/Unallocated Proceeds								
As of November 30, 1998								
	Principal	Interest	Total					
Fiscal Year 1998 Deposit	12,000,000	725,000	12,725,000					
November 15, 1998 Par Value	9,095,002	16,311	9,111,313					
Fiscal Year 1999 Deposit	12,000,000	125,000	12,125,000					
Total	33,095,002	866,311	33,961,313					
Interest Calculation for Par Value								
				Reserve	Liquidity		Reserve	Liquidity
Period	Reserve	Liquidity	Interest	Interest	Interest	Fees	Fees	Fees
11/19/98 - 11/26/98	9,095,002	38,700,856	40,418	9,499	30,919	4,273	1,004	3,269
11/27/98 - 12/02/98	9,103,496	38,779,821	37,460	8,794	28,666	4,161	977	3,184
Total				18,292	59,586		1,981	6,453

**Schedule of Payments from Exxon
As of November 30, 1998**

Disbursements:	September 93	September 94	September 95	September 96	September 97	September 98	September 99	Total
Reimbursements:								
United States								
FFY92	0							24,726,280
FFY93	11,617,165							36,117,165
FFY94	0	6,271,600						6,271,600
FFY95	0		2,697,000					2,697,000
Total United States	11,617,165	6,271,600	2,697,000	0	0	0	0	69,812,045
State of Alaska								
General Fund:								
FFY92	0							25,313,756
FFY93	0							16,685,133
FFY94	14,762,703							14,762,703
FFY95	0	0						0
Mitigation Account:								
FFY92	0							3,954,086
FFY93	0							12,314,867
FFY94	5,237,297	5,000,000						10,237,297
FFY95 (Prevention Account)	0		0					0
FFY96 (Prevention Account)				3,291,446				3,291,446
FFY97 (Prevention Account)					5,000,000			5,000,000
FFY98 (Prevention Account)						3,750,000		3,750,000
Total State of Alaska	20,000,000	5,000,000	0	3,291,446	5,000,000	3,750,000	0	95,309,288
Total Reimbursements	31,617,165	11,271,600	2,697,000	3,291,446	5,000,000	3,750,000	0	165,121,333

Deposits to Joint Trust Fund

FFY92	0							36,837,111
FFY93	68,382,835							124,969,147
FFY94	0							0
FFY95	0	58,728,400	67,303,000					126,031,400
FFY96				66,708,554				66,708,554
FFY97					65,000,000			65,000,000
FFY98						66,250,000		66,250,000

Total Deposits to Joint Trust Fund	68,382,835	58,728,400	67,303,000	66,708,554	65,000,000	66,250,000	0	485,796,212
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Exxon clean up cost deduction	0	0	0	0	0	0	0	39,913,688
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Total Payments	100,000,000	70,000,000	70,000,000	70,000,000	70,000,000	70,000,000	0	690,831,233
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Remaining Exxon payments to be made:

September 1994	
September 1995	
September 1996	
September 1997	
September 1998	
September 1999	70,000,000
September 2000	70,000,000
September 2001	70,000,000
	<u>210,000,000</u>

The December 1991 payment includes interest accrued on the escrow account. The actual disbursements without interest was \$24.5 million to the United States, \$29 million to the State of Alaska and \$36.5 million to the Joint Trust Fund. The total interest earned on the escrow account was \$831,233 which was disbursed proportionately. This included \$226,280 to the United States, \$267,842 to the State of Alaska and \$337,111 to the Joint Trust Fund.

The September 1994 reimbursement to the United States included an over-payment of \$80,700 to NOAA. This over-payment is a direct result of final costs for damage assessment activities being lower than what was previously estimated. The funds were returned to the Joint Account by reducing the amount transferred to the United States in Court Request number 15.

Schedule of Disbursements
Exxon Valdez Liquidity Account
As of November 30, 1998

	United States	State of Alaska	Court Request Total	Court Fees	Disbursements Total
Total Fiscal Year 1992	6,320,500	6,559,200	12,879,700	23,000	12,902,700
Total Fiscal Year 1993	9,105,881	18,529,113	27,634,994	154,000	27,788,994
Total Fiscal Year 1994	6,008,387	44,546,266	50,554,653	364,000	50,918,653
Court Request 8	3,576,179	7,088,077	10,664,256		
Court Request 9		3,111,204	3,111,204		
Court Request 10	322,618	9,234,909	12,461,091		
Court Request 11	1,450,000		1,450,000		
Court Request 12	17,200,000		17,200,000		
Court Request 13	1,480,251	171,763	1,652,014		
Court Request 14	15,250,000		15,250,000		
Court Request 15	5,837,316	9,863,716	15,701,032		
Court Request 16		12,500,000	12,500,000		
Total Fiscal Year 1995	48,019,928	41,969,669	89,989,597	586,857	90,576,454
Court Request 17		3,294,667	3,294,667		
Court Request 18	8,000,000		8,000,000		
Court Request 19	3,222,224	1,968,898	5,191,122		
Restoration Reserve Transfer			35,996,231		
Court Request 20		8,000,000	8,000,000		
Court Request 21	1,007,000	5,520,500	6,527,500		
Court Request 22	18,818,600	24,556,885	43,375,485		
Total Fiscal Year 1996	31,047,824	43,340,950	110,385,004	396,307	110,781,312
Court Request 23	2,613,500	0	2,613,500		
Court Request 24	176,500	3,075,625	3,252,125		
Court Request 25	785,859	442,833	1,228,692		
Court Request 26	24,154,000	530,000	24,684,000		
Court Request 27	324,700	1,470,900	1,795,600		
Restoration Reserve Transfer			12,449,552		
Court Request 28	0	2,627,000	2,627,000		
Court Request 29	5,919,169	5,699,772	11,618,941		
Court Request 30	26,128,074	4,000,000	30,128,074		
Total Fiscal Year 1997	60,101,802	17,846,130	90,397,484	254,221	90,651,705
Court Request 31	445,200	643,800	1,089,000		
Court Request 32	464,300	996,100	1,460,400		
Court Request 33	14,150,000		14,150,000		
Court Request 34	4,000,000		4,000,000		
Court Request 35	20,408,961	14,046,700	34,455,661		
Court Request 35 Correction					
Total Fiscal Year 1998	39,468,461	15,686,600	55,155,061	199,946	55,355,007
Court Request 35 Correctio	-300		-300		
Court Request 36		29,520,000	29,520,000		
Court Request 37			0		
Court Request 38			0		
Court Request 39			0		
Total Fiscal Year 1999	-300	29,520,000	29,519,700	35,544	29,555,244
Total	200,072,483	217,997,928	466,516,194	2,013,875	468,530,069

Exxon Valdez Liquidity Account
Interest Earned/District Court Registry Fees
As of November 30, 1998

	FFY 1993	FFY 1994	FFY 1995	FFY 1996	FFY 1997	FFY 1998	FFY 1999	Total
Earnings Deposits	31,124	33,476	55,809					138,092
Earnings Allocated:								
1991								28,704
1992	553,697							1,080,309
1993	639,180	1,461,736						2,100,915
1994		1,876,788	1,402,938					3,279,726
1995			3,661,063	1,202,209				4,863,272
1996				2,364,556	810,894			3,175,451
1997					1,905,955	653,461		2,559,416
1998						1,820,177	412,233	2,232,411
Total	1,192,876	3,338,524	5,064,001	3,566,766	2,716,849	2,473,639	412,233	19,320,204
Total Earnings	1,224,000	3,372,000	5,119,809	3,566,766	2,716,849	2,473,639	412,233	19,458,296
Registry Fees:								
91								3,189
1992	100,223							120,034
1993	53,777	179,658						233,435
1994		184,342	180,072					364,414
1995			406,785	133,579				540,364
1996				262,729	90,099			352,828
1997					164,121	52,983		217,105
1998						146,962	35,544	182,507
Total	154,000	364,000	586,857	396,307	254,221	199,946	35,544	2,013,875
Gross Earnings	1,378,000	3,736,000	5,706,667	3,963,073	2,971,070	2,673,585	447,778	21,472,172

Schedule of Interest Earned on United States and State of Alaska Accounts			
As of November 30, 1998			
	State of Alaska	United States	
	EVOSS Account	NRDA& R	Total
January 1995	89,341		89,341
February 1995	100,714		100,714
March 1995	104,570	17,033	121,603
April 1995	95,432		95,432
May 1995	92,595		92,595
June 1995	80,613	50,042	130,655
July 1995	76,424		76,424
August 1995	68,771		68,771
September 1995	59,945	44,826	104,771
October 1995	133,486		133,486
November 1995	154,119		154,119
December 1995	143,917	39,567	183,484
January 1996	134,300		134,300
February 1996	122,348		122,348
March 1996	132,469	64,381	196,850
April 1996	126,550		126,550
May 1996	136,732		136,732
June 1996	145,501	73,267	218,768
July 1996	128,195		128,195
August 1996	106,079		106,079
September 1996	110,890	29,042	139,933
October 1996	181,598		181,598
November 1996	162,806		162,806
December 1996	153,991	71,093	225,084
January 1997	147,934		147,934
February 1997	125,137		125,137
March 1997	131,457	24,374	155,831
April 1997	122,111		122,111
May 1997	114,954		114,954
June 1997	99,811	368,523	468,334
July 1997	221,906		221,906
August 1997	36,898		36,898
September 1997	159,695	38,289	197,984
October 1997	119,195		119,195
November 1997	49,120		49,120
December 1997	92,204	130,183	222,387
January 1998	120,038		120,038
February 1998	29,888		29,888
March 1998	59,202	76,715	135,917
April 1998	55,222		55,222
May 1998	59,406		59,406
June 1998	50,136	74,613	124,749
July 1998	39,376		39,376
August 1998	78,201		78,201
September 1998	158,865	(44,921)	113,944
October 1998	61,103		61,103
November 1998	(25,686)		(25,686)
Total	5,717,720	1,246,444	6,964,164
NOTE: The \$117,178 NRDA&R interest figure is cumulative.			
Interest was earned for the period July 1992 through December 1994, but the specific amounts have been hidden to allow the spreadsheet to print on one page.			

Schedule of Interest Adjustments to the Court Requests													
As of November 30, 1998													
	October	November	December	January	February	March	April	May	June	July	August	Total	Unallocated
United States													
FFY92												2	Baldauf 12/6/96
FFY93			39,871						3,648			43,519	
FFY94			51,231						22,427			73,658	
FFY95	34,621		37,618			3,849					63,226	139,314	
FFY96				48,676				37,100		26,600	109,666	222,042	
FFY97			29,041								463,989	493,030	
FFY98										19,000	300	19,300	
FFY99												0	
Total United States												990,865	255,579
State of Alaska													
FFY92												0	
FFY93			80,775						35,012			115,787	
FFY94			64,944						239,090			304,034	
FFY95	52,823	117,838	44,291			320,837					449,634	985,423	
FFY96				262,202				300		289,400	934,433	1,486,335	
FFY97				398,567		275,700					782,501	1,456,768	
FFY98										8,700		8,700	
FFY99												0	
Total State of Alaska												4,357,047	1,360,674
Total Adjustment												5,347,912	1,616,252
Footnote: The unallocated interest is tied to the INT Acct. sheet.													

**Schedule of Lapse Adjustments to the Court Requests
As of November 30, 1998**

	December 1993	June 1994	August 1995	August 1996	August 1997	Total
Disbursements:						
Court Requests						
United States						
FFY92						0
FFY93						0
FFY94		3,106,555				3,106,555
FFY95			220,858			220,858
FFY96				1,165,334		1,165,334
FFY97					1,102,442	1,102,442
FFY98						0
FFY99						0
Total United States	0	3,106,555	220,858	1,165,334	1,102,442	5,595,189
State of Alaska						
FFY92						0
FFY93						0
FFY94	3,661,600					3,661,600
FFY95			2,376,950			2,376,950
FFY96				2,500,448		2,500,448
FFY97					3,549,927	3,549,927
FFY98						0
FFY99						0
Total State of Alaska	3,661,600	0	2,376,950	2,500,448	3,549,927	12,088,925
Total Adjustment	3,661,600	3,106,555	2,597,808	3,665,782	4,652,369	17,684,114

	Schedule of Work Plan Authorizations			and Other Authorizations					
	FFY 92	FFY 93	FFY 94	FFY 95	FFY 96	FFY 97	FFY 98	FFY 99	Total
Work Plan Authorizations									
United States:									
June 15, 1992	6,320,500	0	0						
January 25, 1993	0	3,113,900	0						
January 25, 1993	0	6,035,500	0						
November 10, 1993	0	0	0						
November 30, 1993	0	0	2,567,300						
June 1994			4,536,800						
June 1994			84,500						
July 1994			1,500,000						
Carry Forward Authorization				463,500					
August 1994				2,110,800					
November 1994				2,514,200					
December 1994				749,600					
March 1995				1,484,100					
August 1995				(36,700)	6,238,800				
December 1995					3,270,900				
January 1996					150,000				
April 1996					478,000				
May 1996				21,900	15,200				
June 1996					23,000				
August 1996						7,923,700			
December 1996						310,900			
February 1997						0			
May 1997						0			
August 1997						85,000	7,263,600		
December 1997							445,200		
June 1998							(39,200)		
August 1998								5,397,700	
Total	6,320,500	9,149,400	8,688,600	7,307,400	10,175,900	8,319,600	7,669,600	5,397,700	63,028,700

	Schedule of Work Plan Authorizations and Other Authorizations								Total
	FFY 92	FFY 93	FFY 94	FFY 95	FFY 96	FFY 97	FFY 98	FFY 99	
Work Plan Authorizations									
State of Alaska									
June 15, 1992	6,559,200	0	0						
January 25, 1993	0	3,574,000	0						
January 25, 1993	0	7,570,900	0						
November 30, 1993	0	0	4,454,400						
June 1994			12,391,700						
June 1994			215,800						
July 1994			0						
Carry Forward Authorization				576,300					
August 1994				7,140,900					
November 1994				9,098,700					
December 1994				180,500					
March 1995				492,600					
August 1995				36,700	12,653,600				
December 1995					2,231,100				
April 1996					500,000				
May 1996					300				
June 1996					0				
August 1996						11,606,300			
December 1996						310,400			
February 1997						275,700			
May 1997						0			
August 1997						(85,000)	9,393,200		
December 1997							643,800		
June 1998							66,900		
August 1998								8,131,400	
Total	6,559,200	11,144,900	17,061,900	17,525,700	15,385,000	12,107,400	10,103,900	8,131,400	98,019,400

	Schedule of Work Plan Authorizations and Other Authorizations								
	FFY 92	FFY 93	FFY 94	FFY 95	FFY 96	FFY 97	FFY 98	FFY 99	Total
Other Authorizations									
United States:									
Orca Narrows (6/94)			2,000,000	1,450,000					3,450,000
Eyak Limited Conservation Easement				200,000					200,000
Kodiak National Wildlife Refuge (3/95, 9/95 AKI)				21,000,000	7,500,000	7,500,000			36,000,000
Kodiak National Wildlife Refuge (3/95, 9/95 Old Harbor)				11,250,000					11,250,000
Koniag					12,500,000	4,500,000			17,000,000
Small Parcels					379,000	3,740,200	4,464,300		8,583,500
Chenega Land Acquisition						24,000,000			24,000,000
Chenega-Area Oiling Reduction					3,600	157,400	182,000		343,000
Tatitlek							14,150,000		14,150,000
English Bay						14,128,074			14,128,074
Total			2,000,000	33,900,000	20,382,600	54,025,674	18,796,300	0	129,104,574
State of Alaska:									
Kachemak Bay State Park (1/95)		7,500,000							7,500,000
Alutiiq Repository (11/93)		1,500,000							1,500,000
Seal Bay (11/93, 11/94, 11/95, 11/96)			29,950,000	3,229,042	3,294,667	3,075,625			39,549,334
Shuyak (3/96, 10/96 - 10/02)					8,000,000	2,194,266	4,000,000		14,194,266
Afognak Joint Ventures (10/98)								28,000,000	28,000,000
Small Parcels					5,020,500	3,738,000	996,100	770,000	10,524,600
Alaska SeaLife Center				12,500,000	12,456,000				24,956,000
Chenega-Area Oiling Reduction					0	1,732,000			1,732,000
Alaska SeaLife Center Fish Pass						545,600			545,600
Alaska SeaLife Center Equipment						724,000			724,000
Sound Waste Management Plan						1,167,900		1,857,100	3,025,000
Total		9,000,000	29,950,000	15,729,042	28,771,167	13,177,391	4,996,100	30,627,100	132,250,800
Total Other Authorizations	0	9,000,000	31,950,000	49,629,042	49,153,767	67,203,065	23,792,400	30,627,100	261,355,374
Total Work Plan Authorizations	12,879,700	20,294,300	25,750,500	24,833,100	25,560,900	20,427,000	17,773,500	13,529,100	161,048,100
Restoration Reserve					35,996,231	12,449,552	0	0	48,445,783
Total Authorized	12,879,700	29,294,300	57,700,500	74,462,142	110,710,897	100,079,617	41,565,900	44,156,200	470,849,257

Footnotes:

Work Plan Authorization and Land/Capital Acquisitions only. Will not balance to the Schedule of Disbursements from the Joint Trust Fund or the court requests due to deductions for interest and lapse.

This schedule does tie to the quarterly reports with the exception of 93' and 92'. In FY93 the Work Plan represented the transition to the Federal Fiscal Year from the Oil Year or a seven month period. This schedule presents authorization on the Federal Fiscal Year and as such FFY92 and FFY93 does not balance.

Schedule of Work Plan Authorizations and Other Authorizations

	FFY 92	FFY 93	FFY 94	FFY 95	FFY 96	FFY 97	FFY 98	FFY 99	Total
This schedule presents authorization on the Federal Fiscal Year and as such FFY92 and FFY93 does not balance.									

Exxon Valdez Oil Spill Trustee Council Public Advisory Group**Summary Of Areas Of Agreement re. Restoration Reserve**

Outlined below is a record of conclusions reached by the PAG at their meeting June 1-2, 1998 regarding the structure of the planned \$150,000,000 Restoration Reserve. We use this as a starting point open to further refinement. This summary was supported by all PAG members participating, except as noted below. The PAG also has ideas regarding specific implementation policies (e.g., specific information and education programs). These more detailed topics will be discussed and recorded at the July PAG meeting.

Overriding Goal

1. stewardship - long term, sustainable health of spill area ecosystems
2. restoration - restoration, replacement, enhancement of injured resources and services

(Mission statement: your speech here..."sustain the health of this achingly beautiful, vital piece of the planet; seize the unique opportunity to make spill area one of the few places in north America where people are figuring out a way to live in and actively use a rich, complex coastal ecosystem without incrementally erasing it's life and wonder..." "...a legacy of knowledge and concern passed on to the next generation...")

Means to Goal**A. Science/Research**

Objectives: Develop an integrated research and monitoring program that provides ecological information to help solve current and long-term resource management issues. "Basic" and "applied" research are tightly linked - basic research provides the foundation for applied research that addresses management needs.

- Basic Research - continue to fund research and monitoring to better understand regional ecosystems (how they work, how they are changing, what sustains and what undermines their health)
- Applied Research/Dissemination - guide research process so agencies, land owners and the public can make better decisions, on use and sustainable management of spill area land and marine resources. Design and present research results to provide information relevant to issues affecting health of spill-area ecosystems; e.g., decisions regarding infrastructure, fish and game management, land use planning.

Specifics: research process, specific research topics, etc. - discuss at next meeting.

B. Education/Information

Objective: Improve public understanding of research process, findings and significance. Work to enhance public understanding, to increase public curiosity and concern about spill area ecosystems - how they work, impacts of the spill, solved and unsolved eco-mysteries, and the importance and role of science in decision-making. Carry out a broad range of education, outreach programs to support this objective, working to leverage restoration funds through partnerships with established organizations such as schools and museums.

Specifics: Discuss details at next meeting: in general build from established successes - in particular - presentations by researchers, community involvement, school/kids programs, programs like public radio spots that tell stories to broad audience in lay terms. Make education and information an established category for restoration and funding.

C. Community Projects

Objectives: Do a better job in making local residents and communities partners in the mission and activities of the restoration process. Give residents a more active role in research, monitoring, education and interpretation and stewardship. Create incentives for researchers to find ways to take advantage of local knowledge, local resources. Give spill area residents the tools needed - through training and education - to take on a progressively larger share of continuing research, education and management. Examples of projects that already or in the future could meet these objectives include:

- establish science coordinators in school systems, to work as a liaison between researchers and schools (both for children, adults)
- provide scholarships to spill area residents so they're better equipped to do research, linked to summer work programs
- develop system of facilities, programs in the spill area to share ongoing-research results
- hire locals, local equipment for long term monitoring
- support site-specific restoration projects (e.g., restoring damaged habitats, developing alternative methods of earning a living while maintaining health of ecosystems)

Issues: Should the restoration process be a jobs/economic development program? *Possible answer:* Not directly - bottom line is high quality science. However, preference should be given to well-designed research projects that best involve spill area residents and resources.

D. Land Acquisition

Summary: Use a portion of the Reserve funds to establish a habitat protection program to support future acquisition of land and interests in land. The objective should be protection of buffer terrestrial lands immediately adjacent to aquatic environments. There should be no arbitrary limit on parcel size, but the focus should be on smaller parcels - the jewels - strategically located along streams, tidelands, or isolated within larger parcels previously acquired with EVOS funds.

Option for Structure/Governance: Endow a non-profit trust whose mission is ongoing land acquisition. Establish a new entity or work with an established trust. Acquire lands through fee-simple purchase, conservation easements, gifts, etc. Work actively to expand the trust's resources; e.g., using grants, gifts, partnerships.

Funding level: PAG views on the funding are mixed, however, the large majority of PAG members recommend devoting less than a third of the reserve to this purpose. One criteria for reaching this decision is finding a level of spending that does not jeopardize the three objectives listed above (science, information, community projects). Specific recommendations are outlined below:

Rupert Andrews	10-15%	Chip Dennerlein	50%	Stacy Studebaker	50%
Torie Baker		Eleanor Huffines	30%	Charles Totemoff	10%
Chris Beck	15%	Jim King	10-15%	Howard Valley	
Pamela Brodie	75%	Chuck Meacham	10%	Nancy Yeaton	
Sherri Buretta	5%	Mary McBurney	20%	Senator Leman	10%
Dave Cobb	20%	Brenda Schwantes	0%	Rep Hodgins	

E. Governance: Discussion begun, need more time to explore issues and reach recommendations. Take up at next meeting with a subcommittee.

F. Timeframe:

2075 dpr

Rebecca Williams

From: AJ Paul [ffajp@aurora.uaf.edu]
Sent: Wednesday, November 25, 1998 3:18 PM
To: rebeccaw@oilspill.state.ak.us
Subject: Reserve

November 25, 1998

TO: rebeccaw@oilspill.state.ak.us
EVOS Trustee Council
Restoration Office
645 G Street, Suite 401
Anchorage, AK 99501

FROM: **A. J. Paul**
University of Alaska
Institute of Marine Science
Professor of Marine Science
SUBJECT: EVOS endowment for UA

During the next meeting on Monday, November 30, I would like the trustees to consider the possibility of creating a University endowment from the \$140 million Exxon Valdez Oil Spill (EVOS) Reserve. The University is only local institution that can provide the whole suite of social, economic and scientific services needed to make sure that the reserve serves the needs of the many diverse groups impacted by the oil spill.

End of message

**TESTIMONY TO THE
EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL**

**by Gary P. Kompkoff, Chief and President
Tatitlek IRA Council**

Thank you for the opportunity to provide this written testimony to you today. The substance of my comments will focus on the Restoration Reserve, and specifically, the \$20 Million Community Fund.

In the early years after the oil spill, the communities stood by and watched as state, federal, and private scientists and researchers conducted studies in the oil spill affected area, who oftentimes did not let the communities know what they were studying or why. In recent years, we have taken a greater role in the restoration process through various projects such as the Community Involvement and TEK projects, the Clam Restoration Project, and several salmon enhancement projects. Although I feel there is much room for improvement in facilitating the involvement in the research, we have come a long way since 1989.

The support of the Trustee Council in establishing the \$20 Million Community Fund would mean much to the people of Tatitlek. I realize you cannot address the human element of the oil spill, which has long been on the agenda of the communities. Establishing the Community Fund would facilitate the involvement of the people directly affected by the oil spill through scientific research determined and conducted BY the local residents, natural resource stewardship and management conducted BY the local residents, and would foster a cooperative working relationship between federal and state management agencies so that other projects could be conducted jointly by the tribes, state, and federal agencies. This type of direct involvement in the restoration process, would in effect, address the human element of the spill. It would bring a sense of dignity to the community members by contributing to the restoration effort, thus reducing the sense of helplessness that currently exists. For this reason, I urge you to seriously consider supporting the \$20 Million Community Fund concept proposed by the Chugach Regional Resources Commission and supported by the local residents throughout the oil spill affected area.

I would also like to express my support for the Clam Restoration Project, the Traditional Ecological Knowledge Project, and the Port Graham Hatchery Reconstruction Project, which are all on deferred status. Your careful consideration of these proposals is also much appreciated.

In closing, I would like to include in my testimony the speech written by Walter R. Meganack, Sr., just a few months after the oil spill. What he says in this speech should bring home to all of us the devastation brought upon the local people by the *Exxon Valdez* Oil Spill and that we must not forget that the Native people of Prince William Sound, Lower Cook Inlet, Kodiak, and the Alaska Peninsula, who depend upon the natural resources for their livelihood, will be here long after the money is gone and the researchers have gone home.

Respectfully submitted,

Gary P. Kompkoff, Chief
Tatitlek IRA Council

The Time When the Water Died
by Walter R. Meganack, Sr. - Port Graham

The Native story is different from the white man's story of oil devastation. It is different because our lives are different, what we value is different; how we see the water and the land, the plants and the animals, is different. What white men do for sport and recreation and money, we do for life; for the life of our ancient culture. Our lives are rooted in the seasons of God's creation. Since time immemorial, the lives of the Native people harmonize with the rhythm and the cycles of nature. We are a part of nature. We don't need a calendar or a clock to tell us what time it is. When the days get longer, we get ready. Boots and boats and nets and gear are prepared for the fishing time, the winter beaches are not lonely anymore, because our children and our grownups visit the shellfish, the snails, the chitons. When the first salmon is caught, our whole villages are excited. It is an annual ritual of mouth watering and delight. When our bellies are filled with the fresh new life, then we put up the food for the winter. We dry and smoke and can. Hundreds of fish to feed a family.

Much has happened to our people in recent centuries. We have toilets now, and schools. We have clocks and calendars in our homes. Some of us go to an office in the morning. The children go to school in the morning. But sometimes the office is empty and locked. Sometimes the child is absent from school, because there are more important things to do. Like walking the beaches. Collecting the chitons. Watching for the fish.

The land and the water are our sources of life. The water is sacred. The water is like a baptismal font, and its abundance is the Holy Communion of our lives. Of all the things that we have lost since non-Natives came to our land, we have never lost our connection with the water. The water is our source so life. So long as the water is alive, Chugach Natives are alive.

It was early in the springtime. No fish yet. No snails yet. But the signs were with us. The green was starting. Some birds were flying and singing, the excitement of the season has just begun, and then we heard the news. Oil in the water. Lots of oil. Killing lots of water. It is too shocking to understand. Never in the

millennium of our tradition have we thought it possible for the water to die. But it is true.

We walk our beaches, but the snails and the barnacles and the chitons are falling off the rocks. Dead. Dead water. We caught our first fish, the tradition delight of all - but it got sent to the state to be tested for oil. No first fish this year. We walk our beaches, but instead of gathering life, we gather death. Dead birds. Dead otters. Dead seaweed.

Before we have a chance to hold each other and share our tears, our sorrow, our loss, we suffer yet another devastation. We are invaded by the oil company. Offering jobs, high pay. Lots of money. We are in shock. We need to clean the oil, get it out of our water, bring death back to life. We are intoxicated with desperation. We don't have a choice but to take the jobs, we take the orders, we take the disruption. We start fighting. We lost trust for each other. We lost control of our daily life. Everybody is pushing everyone. We Native people aren't used to being bossed around. We don't like it. But now our own people are pointing fingers at us. Everyone wants to be boss; we are not working like a team. We lose control of our village.

Our people get sick. Elders and children in the village. Everybody is touchy. Everybody is ready to jump you and blame you. People are angry. And afraid.. Afraid and confused. Our elders feel helpless. They cannot work on cleanup. They cannot do all the activities of gathering food and preparing for winter. And most of all, they cannot teach the young ones the Native way. How will the children learn the values and the ways if the water is dead?

The oil companies lied about preventing a spill. Now they lie about the cleanup. Our people know what happens on the beaches. Spend all day cleaning one huge rock, and the tide comes in and covers it with oil again. Spend a week wiping and spraying the surface, but pick up a rock and there's four inches of oil underneath. Our people know the water and the beaches. But they get told what to do by ignorant people who should be asking, not telling.

We fight a rich and powerful giant, the oil industry, while at the same time, we take orders and paycheck from it. We are torn in half. Will it end? After five years, maybe we will see some springtime water life again. But will the water and the beaches see us? What will happen to our lives in the next five years? What will happen this fall, when the cleanup stops and the money stops? We have lived through much devastation. Our villages were almost destroyed by chicken pox and tuberculosis. We fight the battles of alcohol and drugs and abuse. And we survive.

But what we see now is death. Death -- no of each other, but of the source of life, the water. We will need much help, much listening in order to live through the long barren season of dead water, a longer winter than before.

I am an elder. I am Chief. I will not lose hope. And I will help my people. We have never lived through this kind of death. But we have lived through lots of other kinds of death. We will learn from the past, we will learn from each other, and we will live. The water is dead. But we are alive. And where there is life, there is hope. Thank you for listening to the Native story. God bless you.

-- Walter Meganack, Sr.

319520
✓
Rebecca Williams

From: afarb [afarb@UAA.ALASKA.EDU]
Sent: Monday, November 30, 1998 3:03 PM
To: rebeccaw@oilspill.state.ak.us
Subject: Endowment for UAA

Creating an endowment for UAA would be nice way of ensuring that the funds will have long-term benefits for all Alaska. Please support it.

Thanks. Allan R. Barnes

3213 dep ✓



UNIVERSITY OF ALASKA MUSEUM
907 Yukon Drive

25 November 1998

EVOS Trustee Council
Restoration Office
645 G Street, Suite 401
Anchorage, AK 99501

Dear Trustee Council Members,

The University of Alaska Museum supports the establishment of endowed positions within the University of Alaska system. These positions will ensure a long-term research and monitoring effort in Prince William Sound and the North Pacific by training the new generation of scientists necessary to effectively tackle issues related to human impact on marine environments. We have attached a description of a position that would provide this training as well as develop a significant archive for a variety of other investigators. We appreciate your consideration of this endowment.

Sincerely,

A handwritten signature in cursive script, appearing to read "Aldona Jonaitis".

Aldona Jonaitis
Director

Endowed Chair, Curator of Aquatics
and Associate Professor, University of Alaska Museum (UAM)

The Aquatics Collection at the University of Alaska Museum (UAM) is one of the most important systematics collections in the state. Because it has the potential to include baseline samples from Prince William Sound, the Bering Sea, the Chukchi Sea, and the Gulf of Alaska, this archive could represent an incomparable resource unique to Alaska. It has been used by scientists and students from throughout the Pacific Rim and beyond, but because it has not had an active curator, the collection has not been developed to its full potential. The collection specializes in North Pacific marine fauna and thus it should play a major role in research and funding initiatives generated from concerns over:

- changes in Bering Sea and North Pacific productivity;
- effects of climate change on marine systems;
- introduction of non-indigenous species through release of ballast water; and
- the effects of oil spills.

Specimens from this collection (many of which were accumulated in research related to the Exxon Valdez oil spill) will play a role in these issues, because they are an essential chronologic and geographic baseline for all of these important areas. The scientific relevance of this collection is undebatable. The research and funding opportunities are immense and will translate into a sustained and diverse effort to understand the marine ecosystems of Alaska. The UAM Aquatics Collection can and should play a significant role in the development of Alaska as a leader in arctic biology. A large number of graduate and undergraduate students (at UAF and elsewhere) could be trained using specimens as the basis for their research projects or courses, as is currently occurring in other UAM collections with active curators. The Aquatics Collection has the potential to have much greater impact throughout the state for the numerous state and federal biologists and resource managers.

Natural History Collections, Environmental Change, and International Collaborations

The tremendous value of natural history collections (the historic record) is increasingly being recognized by the scientific community as we attempt to gauge the impacts of environmental change. We cannot rigorously assess change (whether due to pollution, climate, or other factors) without a carefully documented record of past environments. This record must be developed and preserved for Alaska's oceans. Rapid technological advancements, such those seen in the fields of DNA analyses and stable isotope chemistry, have increased the value of this environmental record (i.e., museum collections) tremendously. The UAM Aquatics Collection can be fully developed and integrated into the University only by an active faculty curator.

The Exxon Valdez Oil Spill resulted in a monumental reconnaissance of Prince William Sound and surrounding regions between 1989 and 1995. Those collections, acquired at a cost of \$17 million dollars, need to be curated and integrated into the Aquatics Collection to be available for future investigators. With more than 50 intertidal and subtidal sites systematically surveyed, this is an incomparable collection deserving an active program focused on its preservation and investigation. In addition to the Exxon material, an endowed position has tremendous potential to enhance the study of related materials that have been developed over a long period from adjacent marine environments. Given that fisheries constitute the second largest industry in Alaska, and

that the state has more coastline than the combined lower 48 United States, the UAM Aquatics Collection Curator can clearly play an enormous role in education, research, and management. It is expected that this position will be jointly shared with the School of Fisheries and Ocean Sciences at UAF. The position also fits directly into major initiatives at UAF related to the effects of climate change.

This collection is positioned to enhance international collaborations and monitoring efforts. The UA Museum, the Institute of Marine Sciences, and other university departments that this collection impacts have well-established ties with several institutes in Russia. The Aquatics Curator position would significantly enhance our efforts to document biotic diversity and monitor changes in the region of the Bering Land Bridge. Curators Cook (mammals) and Murray (plants) maintain active exchange programs with Russian scientific institutes (numerous personnel exchanges in the past four years). A marine curator would strengthen Alaska's ability to secure federal and international funds for joint Russian/US collaborative projects.

Education and Development of Marine Biologists

In addition to serving as a central resource for state, national, and international research efforts, the UAM collections enhance undergraduate and graduate education. Numerous classes use materials from these collections, and several could not be offered without them. The emphasis on increasing PhD's at UAF can be enhanced through collections resources. For example, specimens from the mammal department currently form the basis for 11 dissertations and theses on this campus and more than 20 theses at other institutions.

Student mentoring: Collections-based research attracts some of UAF's best and brightest. Mammalogy has had four undergraduate honors theses completed based on the collection, including the only Native student in UAF's honors program and the 1994 Joel Wiegert Award recipient. That student won a full 4 year scholarship to the Mayo Clinic Medical School and will graduate this spring. A number of other undergraduate research opportunities have been provided, including 12 sponsored by NSF since 1991.

UC Berkeley provides a current example of how other leading educational and research institutions view the future potential of their collections resources. In 1996, that campus opened the renovated Life Sciences Building at a cost of \$97 million. The UC Berkeley Natural History collections and associated research labs occupy nearly 3/4 of that building. UC Berkeley is a premier institution (leading doctoral grantor in the US) that has weathered severe cuts this decade, yet this large investment is a clear statement of Berkeley's vision for the future impact of these natural history collections. The UAM is in the midst of a successful capital campaign (\$9.6 million raised) aimed at doubling the amount of collection and research space available for curators by 2002. An endowed curator position would ensure the success of our marine program.

Summary

To ensure continued development, care, and a vigorous research program, the aquatic collections must have a curator. To support that individual's salary and benefits as well as the department's operating expenses, we request an endowment of \$1.5 million. The collections are a veritable gold mine for research projects, but only if an active curator develops the resource, provides access for other investigators, and engages an active core of graduate students in research. These faculty positions offer unique opportunities for the university's education, research, and public service missions.

3216 dep ✓

Rebecca Williams

From: Linda McCarriston [aflijm@UAA.ALASKA.EDU]
Sent: Monday, November 30, 1998 4:48 PM
To: rebeccaw@oilspill.state.ak.us
Subject: EVOS

Please place a portion of the EVOS Reserve in a University Endowment Fund for the future of the State of Alaska. Our most important human resource is higher education, and the benefits of developing our university will pay real dividends for years to come.

Thank you.

Rebecca Williams

From: David R. Klein [ffdrk@aurora.alaska.edu]
Sent: Wednesday, November 25, 1998 3:20 PM
To: rebeccaw@oilspill.state.ak.us
Subject: EVOS endowment for UA

EVOS Trustee Council,

As a recently retired professor in the Department of Biology and Wildlife and Institute of Arctic Biology at the University of Alaska Fairbanks, I have considerable satisfaction in knowing that graduates of our program, as well as our faculty, have played major roles in the comprehensive research into the effects of the Exxon Valdez oil spill on the Prince William Sound ecosystem. This research has been made possible as a result of the EVOS Fund and the efforts of the EVOS trustee Council. I am proud that the quality of our program has been such that our graduates and faculty have been available and qualified to carry out the research needed to assess the consequences of the spill.

Now, with State revenues from oil declining markedly and the University being cut back in its State support, it seems most appropriate that a University endowment should be made from the EVOS Reserve Fund to assure that the quality of our science programs be maintained or enhanced. The state of Alaska can only benefit from the continued production of graduates from the University in the sciences who are capable of addressing the consequences to the environmental of future oil spills or other impacts on the environment. It seems only appropriate that money derived from Alaska's oil should be used in a way to benefit through education the youth of Alaska.

Sincerely,

David R. Klein
Professor Emeritus

1 3502
Gil Kruschwitz
13034 Bates Circle
Anchorage, Alaska 99515
(907) 345-0871
gil@micronet.net

November 25, 1998

Exxon Valdez Oil Spill Trustee Council
645 "G" Street
Anchorage, Alaska 99501

Dear Council Member:

I started boating in Prince William Sound in 1974 and have seen the amounts of solid and liquid waste increase with increasing use of the Sound. Increasing intensity of use of those portions of the sound proximate to developments such as Whittier, Valdez, Chenega, and Falls Bay cause the accumulation of even "minor spills" to become significant upon the commercial, recreational and ecological elements of the Sound. This increase is likely to accelerate with completion of the "Road to Whittier", expansion of Whittier Harbor and other planned developments in the Sound.

In addition to my observations, I have spoken with several people with the Coast Guard in Anchorage, Valdez and Juneau; Alaska Department of Natural Resources; Several people with DEC; and the Harbormaster's offices in Whittier and Valdez. I have also reviewed the Prince William Sound Waste Management Plan and have learned the following:

At least one person at DEC thinks that discharges - especially oil - from boats is a huge problem and will likely become worse with more use of the sound. She said that there needs to be more public awareness and reporting, and that reporting that is coming in now is often too late to do any good, but with reports of spill and names of boats in the area the state could follow up with a notice to boaters that a spill was seen in their proximity.

The EXXON Valdez Trustees Council funded a Sound Waste Management Plan through PWS Economic Development Council. Also, the EVTC also funded collection facilities in Chenega, Cordova, Valdez and Whittier. The Waste Management Plan report noted that chronic pollution from community sources is believed to have significant adverse effects on the marine environment; refined petroleum products are very toxic to fish and wildlife, and the cumulative effects of chronic marine pollution can substantially increase the stress on fish and wildlife resources. With regard to the mortality of seabirds, chronic marine pollution is believed to be at least as important as large-scale spills.

The people I spoke with all indicated that pollution from oil products and other products including sewage is still a problem and should be addressed further. Valdez Harbor has continued to expand collection and enforcement efforts but reports that even with their expanded efforts and improved facilities, use of proper disposal facilities is not as high as it should be.

It is clear that the issues of cost, convenience and enforcement must be dealt with.

I think a system should be developed or an existing system be enhanced to:

1. encourage proper disposal of pollutants and
2. permit prompt discovery, notification, remediation and discouragement of "minor spills" in PWS.

This would help restore the resources injured by the 1989 Exxon Valdez Spill by protecting them from further stress (liberal paraphrase from your PWS waste management report) and would consist of the following elements:

- EDUCATION
- REDUCED COST AND GREATER CONVENIENCE
- ENFORCEMENT
- PREVENTION

EDUCATION

Education is critical to all aspects of this system. Compliance will be higher if people are more informed of the need to keep pollutants out of the environment, of regulations concerning disposal of pollutants, and of the opportunities for properly disposing of various pollutants. This will result in decreased pollution at lower cost.

1. Therefor, we should inform and encourage people to use these facilities and to avoid even "minor" dumps and spills.

Most people know it is illegal to discharge any amount of oil or oil product (other than from specific exemptions such as normally running outboards) into Prince William Sound.

Very few of the people I spoke with know it is illegal for boats to discharge raw sewage into the Sound - though one person at DEC did say that boaters are asked to do so as far from shore as possible to avoid contaminating shellfish beds. There also seems to be some difference of opinion as to what constitutes treated sewage and specifically whether chemicals poured into a boat's holding tank satisfy this requirement.

Greater public awareness could be achieved by making proper disposal a condition of use of the Sound by incorporating requirements for the provision of proper facilities and requirements for proper disposal of pollutants in all State licenses, leases, permits, and resource planning policies. Installation of signs at entrance points to the Sound, at the docks and other publicity programs such as inserts in bills, notices, and licenses associated with activities in the Sound should be expanded.

REDUCED COST AND GREATER CONVENIENCE

Both of these items can be addressed by the provision of local disposal sites available to boat operators at no or low cost.

Installation and maintenance of adequate pollutant disposal facilities at major activity areas such as in the communities of Whittier, Chenega, Valdez, and Cordova, which do have some facilities in place, and conveniently located in harbor oriented facilities in those places as well as in activity centers such as fish hatcheries, Falls Bay, and any other locations which may be developed in the future as sources of marine activity.

There are on-shore oil-product disposal facilities (including those which you funded) in Whittier, Chenega, Cordova, Tatitlek and Valdez. I understand that some of these may be able to take oil directly from a floating boat. However, most existing facilities are apparently not able to handle gasoline, paint thinners, anti-freeze, emulsified oil or solids effectively.

To what extent are they being used? Can they be made more effective by locating facilities at fuel docks and on boats capable of off-loading the boats while they are docked?

Sewage pump-out facilities are provided in Valdez and Whittier (I don't know about Cordova or Chenega) - though a person I spoke with at the Coast Guard said their cutter has had to leave the harbor and the Sound to dump its holding tanks and the pump facility in the Whittier Small Boat Harbor, the pump-out is on "B" float, which seems to be full all summer. It is especially critical for sewage disposal facilities to be convenient.

I suggest that the EVOS Trustees consider funding additional collection facilities in more convenient locations and/or on mobile units to permit boats to be pumped without the need to leave their dock.

ENFORCEMENT

The facilities constructed and operated as a result of your Prince William Sound Waste Management Plan sought to "reduce the flow of used oil into PWS from vessels, boats, vehicles and other community-based sources due to lack of sufficient management and equipment". The people I spoke with at DEC, the Coast Guard, and others all pointed out that the lack of enforcement resources lessens the utility of even very effective facilities. will be enhanced by:

1. Surveillance: People throughout PWS who are watchful for spills, who know that such spills are destructive and improper, who know that resources are available to remediate minor spills, who know that persons responsible for spills should be reported, and who know what information and materials are necessary to properly report and document a minor spill.

These objectives would be achieved by the education component of publicity, including signs at entry points to the sound concerning regulations on spills or dumping of various pollutants, and pointing out that spills are dangerous, that they should be reported, that there is an effective system to report them, and what information should be provided in a report.

This will provide increasing motivation for people to comply with disposal regulations even when they are in areas outside the immediate view of enforcement authorities.

2. Notification: A method for these people to alert appropriate officials and / or organizations to evaluate the spill, remediate the spill if appropriate, and document or investigate the cause of the spill. The method of communication should be readily available to as many people as possible from as much of the area within PWS as possible. It should also be reliable and on-duty 24 hours per day, every day. And it should be secure to the extent that people reporting a spill will be protected from identification and retaliation by anyone trying to prevent reporting of a spill.

These objectives would be achieved by:

Phone numbers, staffed 24 hours per day by persons able to contact the appropriate authorities or agencies (DEC has its 24 hour number forwarded to Troopers when DEC offices are closed).

Increased cell phone access from throughout PWS to enable contact from currently blocked areas.

The people answering the phone should be familiar with (or able to properly refer callers to people familiar with) discharge limitations for all materials.

3. Intervention: Response individuals or teams capable of: a. evaluating the size and nature of the reported spill, its location, and conditions to determine the type of remediation response necessary and the means to implement it; and b. Documenting or investigating the cause of the spill by recording necessary information from the person reporting the spill or by examining the site and potential responsible parties.

These objectives would be achieved by:

Spill response agreements between DEC and local communities and organizations.

Designated and trained (hazardous materials, etc.) individuals who are either located at points throughout the Sound (such as the people responsible for overseeing the pollutant disposal facilities) or who are frequently traveling through portions of the sound (Tour boat crews, charter operators, fishermen, hatchery personnel, Coast Guard Auxiliary, etc.)

PREVENTION

The state should adopt planning policies and resource licensing procedures to:

Require adequate disposal facilities, management and enforcement as conditions for any land transfers, leases, or permits for uses which will attract or increase marine activity in the sound.

Require use (perhaps including proof of use) of proper disposal facilities by anyone using state resources in Prince William Sound, including the waters of Prince William Sound.

I hope such a system of education, reduced cost - increased convenience, enforcement, and prevention will help protect Prince William Sound from increased degradation.

Thank you for your consideration.

Sincerely,



Gil Kruschwitz

Date: 12 Nov. 1998

3504 ✓
RECEIVED

NOV 17 1998

To: Mr. Craig Tillery
% Exxon Valdez Oil Spill Council

Department of Law
Office of Attorney General
3rd Judicial District
Anchorage, Alaska

From: David C. Johnson

P.O. Box 678

Kasilof, Alaska 99610-0678

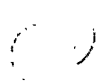
Re: Future use of the "Restoration Reserve"
fund.

As a resident of the Exxon Valdez oil spill zone, I would like to express my preference regarding the use of the "Restoration Reserve" fund. I would like to see 70-80 percent of the reserve used to permanently protect fish and wildlife habitat in the spill zone.

If protecting habitat requires large acquisitions of land within the spill zone, I hope funds would be available to accomplish this. I believe habitat protection is the very best use of funds to ensure recovery of spill-damaged areas.

Thank you,
David C. Johnson

2000



Mr. Craig Tillery
% Exxon Valdez Oil Spill Council
Restoration Office
645 G Street, Suite 401
Anchorage, Alaska 99501-3451

H H

3503 / 14 November 1978

To the Exxon Valdez O.I. Spill Council,

I would strongly urge you to please continue using the fund primarily for land acquisition as opposed to basic research. The best way it would seem to keep the Prince William Sound and the Gulf of Alaska from undergoing greater changes would be to protect as much land as possible from further development. It would be especially important to bring the Kodiak Island land acquisitions to immediate fruition -

Truly
yours truly
Thomas H. Solenberg MD

Thomas H. Solenberg MD
1520 Baranof Street
Kodiak, Alaska
99615

RECEIVED

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL

Dear Mr. Tilley:

I would like to show my support for the use of oil spill funds to protect habitat, especially in the Karluk and Termination Point areas.

I believe habitat protection should be the primary use of these funds.

Peter Wilder
PO Box 833
Kodiak AK 99615

RECEIVED

NOV 18 1998

Department of Law
Office of Attorney General
3rd Judicial District
Anchorage, Alaska

Let's Wilder
PO Box 833
Kodiak AK 99615

Forwarded To:
1031 W. 4th St
Suite 200
Anchorage AK 99501

Mr. Craig Tillery
c/o Exxon Valdez Oil Spill Council
Restoration Office
645 G Street, Suite 401
Anchorage AK 99501-3431
~~99501-3431~~



508 ✓

Rebecca Williams

From: Karleen Grummett [grummett@ptialaska.net]

Sent: Friday, November 27, 1998 9:49 AM

To: rebeccaw@oilspill.state.ak.us

Subject: EVOS

Dear Legislators,

As lifelong Alaskans, graduates of the University of Alaska, and with two children who also graduated from the University of Alaska, we ask you to create a University endowment from the \$140 million Exxon Valdez Oil Spill (EVOS) Reserve to sustain our university and to build programs in these days of falling oil reserves and ailing budgets, so that our University will not only attract students, but retain future generations of Alaskans within our state and make our system one which can be respected by institutions throughout the nation.

Sincerely,

Karleen and Roger Grummett

11/30/98

3509 ✓

Rebecca Williams

From: Ray Zagorski [ifrz@UAA.ALASKA.EDU]
Sent: Wednesday, November 25, 1998 11:30 PM
To: rebeccaw@oilspill.state.ak.us
Subject: UA Endowment (EVOS)

TO: EVOS Trustee Council

The creation of this potential endowment is a wonderful investment in the future of all Alaskans.

Raymond F. Zagorski
P.O. Box 3474
Soldotna, AK 99669

Rebecca Williams

From: Steve Colt [afsgc@UAA.ALASKA.EDU]
Sent: Wednesday, November 25, 1998 4:26 PM
To: rebeccaw@oilspill.state.ak.us
Subject: EVOS Endowment for UA Research

Dear Trustees,

I urge you to support the creation of a substantial endowment to support University of Alaska research related to resources and services injured by the Exxon Valdez Spill.

I can assure you that this endowment resource will be a great asset to UA students and faculty and will significantly enhance our efforts to recruit academically talented students from out-of-state. These students benefit the University and the Alaska economy.

The existing UA Natural Resources Fund is a good example of how even a small endowment can stimulate innovative proposals and useful research. A research endowment of the type you are considering would have a far greater impact for decades to come.

Thank you for considering my views.

Steve Colt
Assistant Professor of Economics
Director, UAA Environmental Studies Program
University of Alaska Anchorage
3211 Providence Dr
Anchorage AK 99508
907-786-1753
ayenvi@uaa.alaska.edu

-----Original Message-----

From: Sara Jackinsky [mailto:nemaj6@xyz.net]
Sent: Saturday, November 28, 1998 12:11 PM
To: restoration@oilspill.state.ak.us
Subject:

Thank you for the postcard soliciting my views on the habitat preservation goals of the Exxon Valdez Oil Spill Council. As a commercial fisherman I view habitat preservation as the single best long term tool to preserve the health of fish stocks.

Thus I strongly support the course the council has taken and urge you to resist political pressure put on you to change your program.

Ken Jones

Rebecca Williams

From: Larry Spellens [afls@UAA.ALASKA.EDU]
Sent: Wednesday, November 25, 1998 2:52 PM
To: rebeccaw@oilspill.state.ak.us
Subject: UAA endowment

With Governor Knowles and UAA President Hamilton, I support a University of Alaska research endowment to study ways to keep Alaska as naturally balanced as possible.

L. Spellens
English faculty, adjunct

3515✓

Rebecca Williams

From: Chien-Lu Ping [pfclp@uaa.alaska.edu]
Sent: Wednesday, November 25, 1998 3:30 PM
To: rebeccaw@oilspill.state.ak.us
Subject: EVOS Reserve

Below is the result of your feedback form. It was submitted by
Chien-Lu Ping (pfclp@uaa.alaska.edu) on Wednesday, November 25, 1998 at
15:30:19

Opinion: Dear EVOS Trustee Council: I support EVOS funding for establishing
research endowments and research chairs at the University of Alaska!

REMOTE_HOST: 137.229.130.12

Rebecca Williams

From: irfanahmed@excite.com
Sent: Wednesday, November 25, 1998 2:31 PM
To: rebeccaw@oilspill.state.ak.us
Cc: afgcb@UAA.ALASKA.EDU
Subject: EVOS Endowment for the University of Alaska

Dear EVOS Trustees,

I am writing to request that your council seriously and favorably consider an endowment for the University of Alaska.

Like few other institutions, a University contributes in perpetuity to the economic and social upliftment of the state. Therefore it is well deserving of endowments that seek to serve Alaskans on a permanent basis.

Thank you.

Sincerely,
Irfan Ahmed.

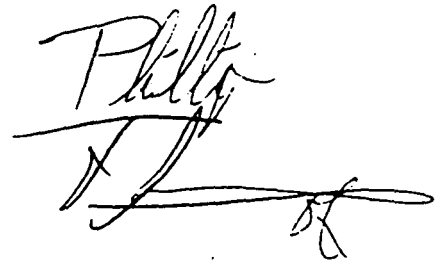
Irfan Ahmed, Ph.D.
2931 Carriage Dr.
Anchorage, AK 99507.

Get your free, private e-mail at <http://mail.excite.com/>

3517 ✓

Nov. 14, 1998

I wish you guys would use the ~~same~~
Exxon money toward helping ~~some~~
research on Kodiak.

A handwritten signature in cursive script, appearing to read "Phillip Thomas", with a long horizontal flourish extending to the right.

Phillip Thomas
41C Albatross Ave.

KODIAK, AK 99615

RECEIVED

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL

3518v

Nov. 14, 93

Mr. Craig Tiller,
c/o Exxon Valdez Oil Spill Council
Restoration Office
645 G. Street, Suite 901
Anchorage, AK 99501

In my 52 years I've spent almost 15 of them living in various parts of the U.S. (8 in Alaska) and many overseas. Local ownership of land and resources is critical to culture, diversity, and conservation. As a Kodiak resident with both a local and global perspective, I urge you to seek ownership of local lands so that they remain ~~a~~ natural and a support of a magnificent and critical larger ecosystem - Alaska and the Pacific Northwest.

Sincerely,

J. J. Smith
1714 Bush #A

Kodiak, AK 99613

RECEIVED

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL

Mr. Craig Tiller/
645 G. Street Suite 411
Anchorage, AK 99501

3519

Nov. 14, 1995
1411 MISSION RD.
KODIAK AK, 99615

Gentlemen:

Restoration of habitat will have a
much longer lasting effect than research I believe
I urge you to allocate 75% of the funds
toward that end.

Thank you

James R. Sandin

James R. Sandin

P.S. Please give Termination Point, Kodiak Island
prime consideration.

RECEIVED

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL

Box 1223

Kodiak AK, 99615

11-12-98

To: Mr. Craig Tillery:

I'm a resident of the spill
zone and think it would
be wise to protect the
Termination Point area.

Thank you

Lila Schwartz

P.O. Box 1911

Rodick, AR. 99615

RECEIVED

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL

3521 ✓

14 Nov 98

Dear Sir or Ma'am,

In my opinion money would be better spent on habitat preservation, from the Restoration Reserve. We have damaged our animal friends homes it is time to protect and rebuild.

Thank you.

Lavina C. Dickinson

LAVINA C. DICKINSON

KODIAK ISLAND RESIDENT

RECEIVED

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL

Dickinson
801-A LAKE LOUISE DR
KODIAK, AK 99615

35221

RECEIVED

10/17/88

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL

Mr. Craig Tillery -

As a resident of the Exxon Valdez
Oil Spill zone, I support the EVOS trustee
Council's habitat protection program.

Protecting habitat is the single best
way to ensure the longterm health of
the fish and wildlife resources which

Spill area communities depend upon for
our economy, subsistence needs, recreation,
and cultural heritage.

Thank you

Yusuf
Jovan

Dean

P.O. Box 1398

Kodiak AK 99615

As a resident of the spill zone, I would like to see the money from the Restoration Reserve used to buy land to protect wildlife habitat.

Jim Evans

P.O. Box 2188

Kodiak AK 99615

RECEIVED

NOV 27 1993

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL

Rebecca Williams**From:** Becky Patterson [afbhp@UAA.ALASKA.EDU]**Sent:** Monday, November 30, 1998 9:14 AM**To:** rebeccaw@oilspill.state.ak.us**Subject:** endowed chair

Dear Oil Spill Foundation members:

Please consider an endowed chair for the University of Alaska with part of the oil spill foundation. This is a benefit which would repay itself many times over since this person would be able to do research and would also be in contact with hundreds of Alaskan students. I strongly support this endowed chair and hope you will consider it as an option.

Professor Becky Patterson

English Department, UAA

907-786-4360

EXXON VALDEZ OIL SPILL COUNCIL

352:

RECEIVED

TO WHOM IT MAY CONCERN

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL

I'M NEARING MY 40TH YEAR AS AN ALASKAN AND I AM VERY CONCERNED ABOUT THE DECLINE OF MIGRATORY BIRDS IN THE AREA OF ALASKA I LIVE. ~~FE~~

HERE IN SOUTH CENTRAL WE HAVE HAD AN OPPORTUNITY TO REPLACE DWINDLING WILD HABITAT OR I SHOULD SAY PROTECT DWINDLING WILD HABITAT WITH THE USE OF MONEYS OBTAINED FROM THE EXXON DISASTER IN PRINCE WILLIAM SOUND.

THE PENALTIES LEVIED AGAINST EXXON FOR THEIR NEGLIGENCE, WERE SUPPOSED TO BE USED TO PROTECT HABITAT ENDANGERED BY THE "BIG OIL SPILL", BUT IN MY AREA THEY HAVE GONE TO FUND RECREATIONAL FACILITIES FOR MORE PEOPLE. I.E. SEWARD SEA LIFE CENTER, HOMERS CITY PARK, BOARD WALKS FOR FISHERMEN ETC.

I WOULD LIKE TO SEE ALL THE MONEY AWARDED THE STATE TO BE SPENT ON PURCHASING OR CREATING LAWS TO PROTECT CRITICAL WILD HABITAT, SPECIFICALLY THE COPPER RIVER DELTA AND BERING RIVER UPLANDS.

THE DECLINE OF WILD SPECIES IN MY LIFETIME HAS BEEN SHOCKING. EVERYBODY NODS THEIR HEADS; GLOBAL WARMING, OZONE HOLE, NEEDS FOR CHANGE, FACTORY TRAWLERS AND ALWAYS MORE, MORE, MORE.

PLEASE SPEND THE REMAINING EXXON SETTLEMENT
MONEY ON MORE FOR THE WILD RESIDENTS
OF OUR STATE. ONE DAY ALL THE POLITICAL
B.S. ABOUT PROTECTING OUR CHILDRENS FUTURE
MAY COME TRUE, BUT ~~IF~~ IF THERE IS NO
LIVING WORLD THAT WE HAVE PROTECTED HOW
IS THERE TO BE A FUTURE.

SINCERLY

RECEIVED

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL

CRAIG PHILLIPS

BOX 1131

HOMER AK 99603



3526 ✓

REPRESENTATIVE ERIC CROFT

October 15, 1998

RECEIVED

Ms. Molly McCammon, E. D.
Exxon Valdez Oil Spill Trustees Council
645 G Street, Suite 401
Anchorage, AK 99501

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL

Dear Molly,

It was a pleasure speaking to you following the Legislative Budget and Audit Committee meeting earlier this month. I'm glad you viewed the committee's rejection of the Afognak purchase as a victory, and plan to proceed with executive approval despite the committee's disapproval.

I'm also interested in another proposal proffered to the Trustees Council: establishing endowed research centers and chairs at the University of Alaska with EVOS Restoration Reserve Funds.

Such endowment would greatly assist the council in accomplishing its mission to "effectively restore the environment injured by the spill to a healthy, productive ecosystem, while taking into account the importance of quality of life and need for viable opportunities to establish and sustain a reasonable standard of living." Every dollar would provide a return investment for our students, researchers, business and industry, impacted communities and our environment.

Please tell me what consideration the council has given to this proposal, and how inclined they are to support it. Thanks for all you efforts.

Sincerely,

Representative Eric Croft

3527

KODIAK ISLAND MEDICAL ASSOCIATES

1818 EAST REZANOF DRIVE • KODIAK, ALASKA 99615 • (907) 486-6065 or 486-3177

MARK WITHROW, M.D. • General Practice
CAROL JUERGENS, M.D. • Internal Medicine
STEVE BURNSIDE, M.D. • Internal Medicine



PAUL ZIMMER, M.D. • Family Practice
RAE JEAN BLASCHKA, A.N.P.

November 24, 1998

Exxon Valdez Oil Spill Trustee Council
Restoration Office
645 G Street
Anchorage, Alaska 99501

Dear Fellow Alaskans:

Thank you for the important work you are doing. I would like to give my endorsement for your strong consideration for acquisition of two parcels near the population of Kodiak. Both Termination Point and Long Island are used by many people in Kodiak. Many more people will use these local parcels than the larger parcels already secured on northern Afognak and Chuiak.

The work you are doing in many ways is establishing a permanent fund for the people of Alaska. These two parcels are very close to the population of Kodiak and were affected by the oil spill.

Sincerely,

MARK

Mark Withrow, M.D.

MW:mkw

RECEIVED

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL

3529 ✓

Alaska State Legislature



REPRESENTATIVE
GENE THERRIAULT

Mailing Address:
119 N. Cushman, Suite 101
Fairbanks, Alaska 99701
(907) 488-0857
Fax: (907) 488-4271

While in session
State Capitol
Juneau, Alaska
99801-1182
(907) 465-4797
Fax: (907) 465-3884
House District 33

House Of Representatives

December 7, 1998

RECEIVED

DEC 11 1998

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL

EVOS Trustee Council
Restoration Office
645 G Street, Suite 401
Anchorage, AK 99501

Dear Trustee:

I would like to add my name to the long list of those who are supporting an endowment for the University of Alaska from Exxon Valdez Oil Spill Restoration Reserve funds.

The creation of an endowment is an ideal way to combine the goals of the Trustee Council with the existing infrastructure and research capabilities offered by the University. An endowment would both ensure that research into vital spill technology will continue, and help the University to attract talented faculty and students.

Research conducted through the endowment would serve the dual purpose of carrying out the stated goals of the Trustee Council, and helping to ensure adequate measures are in place to respond to future spills of the magnitude of the Exxon Valdez. I would also like to state my concurrence with the Fairbanks Chamber of Commerce that concentrating a major center for the advancement of sciences at the University of Alaska is in the best interests of all Alaskans.

Thank you for your favorable consideration of this matter.

Sincerely,

A handwritten signature in cursive script, appearing to read "Gene Therriault".

Gene Therriault
Representative

3530 ✓

Cherri Womac

From: Jeff [jeff_lawrence@oilspill.state.ak.us]
Sent: Monday, December 14, 1998 9:46 AM
To: Cherri Womac
Subject: FW: policy

-----Original Message-----

From: MICHAEL YOURKOWSKI [mailto:myalaska@xyz.net]
Sent: Monday, December 14, 1998 8:29 AM
To: restoration@oilspill.state.ak.us
Subject: policy

Please reserve 75% of available funds for Habitat protection, and manage for maximum flexibility. It is very important to expand impact zone to include the Copper River Delta as prime habitat is facing adverse development pressures. Please put me on your email list for any updates you may have. Thank you.

3557-3568 ✓

PETITION TO THE EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL SUPPORT FOR THE ESTABLISHMENT OF A \$20 MILLION COMMUNITY FUND

We, the undersigned members of the Native communities affected by the Exxon Valdez Oil Spill of 1989, desiring meaningful involvement in the restoration of the natural resources upon which we depend, feel that a \$20 Million Community Fund should be established as part of the plans for the Restoration Reserve. This Community Fund, set up as an endowment, would provide into perpetuity the opportunity for oil spill affected communities to protect and preserve our natural resources, working directly with state and federal agencies, through a spill area wide tribal natural resource management program. This endowment would also provide the opportunity to protect our cultural and traditional diversity through the funding of culturally- and tribally-based scientific programs that are ineligible for funding under the current EVOS funding guidelines. Further, we the undersigned, understand that we are entitled to develop our capabilities and capacity to manage our resources and conduct culturally based projects based upon the damage that was done to our traditional use areas and traditional lifestyles. Therefore, we petition the Exxon Valdez Oil Spill Trustee Council to set aside a \$20 Million Community Fund as an Endowment in the Restoration Reserve Plan.

	<u>Name</u>	<u>Tribe/Community - Address/Phone</u>
3536 ✓ 1.	<u>Agnes Kalnashoff</u>	<u>Ivanof Bay Ak.</u>
3553 ✓ 2.	<u>Elizabeth Kalnashoff</u>	<u>PO Box 418 Ivanof Bay Ak 99695/669 2204</u>
3552 ✓ 3.	<u>Chester Kalnashoff</u>	
3557 ✓ 4.	<u>Antoinette Kalnashoff Jr.</u>	<u>Box K1B Ivanof Bay AK 99695/66 220</u>
3558 ✓ 5.	<u>Baron A. Kalnashoff</u>	<u>Box K1B Ivanof Bay Ak 99695/669 2209</u>
3559 ✓ 6.	<u>Demetrius Shugor</u>	<u>Box K1B Ivanof Bay Ak 99695 669-2269</u>
3560 ✓ 7.	<u>Elaine Shugor</u>	<u>Box K1B Ivanof Bay 99695 669-2269</u>
3532 ✓ 8.	<u>John Kalnashoff</u>	<u>Box K1B IVANOF BAY AK 99695-0050</u>
3554 ✓ 9.	<u>Joshua Kalnashoff</u>	<u>Box K1B Ivanof Bay AK 99695</u>

3561-10. Brandon Gundersen
 3562-11. Orri Kalmakoff
 3563-12. Orri Kalmakoff Jr.
 3564-13. Alfred Gundersen
 3537-14. Cecil T. Kalmakoff
 3556-15. Allen Kalmakoff
 3565-16. Artemie Kalmakoff Sr
 3566-17. Olga N. Kalmakoff
 3567-18. Thelma V. Kalmakoff
 3568-19. Shelah M. Kalmakoff
 3531-20. Joseph Kalmakoff Jr
 21. _____
 22. _____
 23. _____
 24. _____
 25. _____
 26. _____
 27. _____
 28. _____
 29. _____
 30. _____
 31. _____
 32. _____
 33. _____
 34. _____
 35. _____

Ivanof Bay
P.O. Box KIB Ivanof Bay
P.O. Box KIB Ivanof Bay, AK 99695-0050
P.O. Box KIB, Ivanof Bay
P.O. Box KIB IVANOF BAY, AK 99695-0050
P.O. Box KIB IVANOF BAY AK 99695-0050
P.O. Box KIB Ivanof Bay ak 99695
P.O. Box KIB Ivanof Bay ak 99695
P.O. Box KIB Ivanof Bay ak 99695
P.O. Box KIB Ivanof Bay ak 99695
P.O. Box KIB Ivanof Bay ak 99695

Ivanof Bay Village Council
Resolution #98-22

WHEREAS, the Ivanof Bay Village Council is the federally recognized tribe and as such, is the tribal governing body of the Native of Ivanof Bay; and,

WHEREAS, the Ivanof Bay Village Council desires an increased role in the protection and preservation of our natural resources that were damaged by the *Exxon Valdez* Oil Spill of 1989; and,

WHEREAS, the *Exxon Valdez* Oil Spill Trustee Council has established a reserve fund that is projected to total \$140 million by 2002; and,

WHEREAS, the *Exxon Valdez* Oil Spill Trustee Council has the opportunity to provide a perpetual endowment for communities in the oil spill region to implement restoration projects as they see fit; and

WHEREAS, the Ivanof Bay Village Council believes that we are entitled to develop our capabilities and capacity based on the damage from the oil spill to our traditional areas and lifestyles; now therefore, be it

RESOLVED, that the Ivanof Bay Village Council hereby requests the *Exxon Valdez* Oil Spill Trustee Council to set aside a \$20 million Community Fund as an Endowment in the Restoration Reserve Plan; and be it further

RESOLVED, that we believe that this \$20 million endowment needs to be established to provide into perpetuity the opportunity to establish long-term natural resource programs to protect and preserve our natural resources, to provide opportunities for community members to pursue meaningful careers and employment opportunities in natural resources, and to protect our cultural and traditional diversity; and,

BE IT FURTHER RESOLVED, that this endowment be administered by a new non-profit foundation made up of Tribal, state, and federal representation throughout the oil spill region.

CERTIFICATION: I, the undersigned Secretary of the Ivanof Bay Village Council, hereby certify that the Council is composed of 5 members, of whom 3 were present at a meeting held on November 24, 1998, that the foregoing resolution was adopted by the affirmative vote of 2 members, 0 against, 0 abstaining, and that the foregoing resolution has not been rescinded or amended in any way.

ATTEST:

Lori Kulmakoff
Lori Kulmakoff, Tribal Council Secretary

11-27-98
Date

Chignik Lake Village Council
P.O. Box 33
Chignik Lake, Alaska 99548

Resolution 98-17

- WHEREAS, the Chignik Lake Village IRA Council is the federally recognized tribe and as such, is the tribal governing body of the Native Village of Chignik Lake, and
- WHEREAS, the Chignik Lake Village IRA Council desires an increased role in the protection and perservation of our natural resources that were damaged by the Exxon Valdez Oil Spill of 1989, and
- WHEREAS, the Exxon Valdez Oil Spill Trustee Council has established a reserve fund that is projected to total \$140 million by 2002, and
- WHEREAS, the Exxon Valdez Oil Spill Trustee Council has the opportunity to provide a perpetual endowment for communities in the oil spill region to implement restoration projects as they see fit; and
- WHEREAS, the Chignik Lake Village IRA Council believes that we are Entitled to develop our capabilities and capacity based on the damage from the oil spill to our traditional areas and lifestyles; now therefore, be it
- RESOLVED, that the Chignik Lake Village IRA Council hereby requests the Exxon Valdez Oil Spill Trustee Council to set aside a \$20 Million Community Fund as an endowment in the Restoration Reserve Plan; and be it further
- RESOLVED, that we believe that this \$20 million endowment needs to be established to provide into perpetuity the opportunity to establish long-term natural resouce programs to protect and perseve our natural resources, to provide opportunities for community members to pursue meaningful careers and employment opportunities in natural resources, and to protect our cultural and traditional diversity; and be it further
- RESOLVED, that this endowment be administered by a new non-profit foundation made up of tribal, state, and federal representation throughout the oil spill region.

CERTIFICATION

I, the undersigned, as Vice President of the Chignik Lake IRA Council, hereby certify that the Council is composed of 5 members, of whom, 3 were present at a meeting held on November 27, 1998, that the foregoing resolution was adopetd by the affirmative vote of 3 members, 0 against, 0 abstaining, and that the foregoing resolution has not been rescinded or amended in any way.

ATTEST:

James O'Domin 11-27-98
James O'Domin, Vice President Date

3630-3654

**PETITION TO THE
EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL
SUPPORT FOR THE ESTABLISHMENT OF A
\$20 MILLION COMMUNITY FUND**

We, the undersigned members of the Native communities affected by the Exxon Valdez Oil Spill of 1989, desiring meaningful involvement in the restoration of the natural resources upon which we depend, feel that a \$20 Million Community Fund should be established as part of the plans for the Restoration Reserve. This Community Fund, set up as an endowment, would provide into perpetuity the opportunity for oil spill affected communities to protect and preserve our natural resources, working directly with state and federal agencies, through a spill area wide tribal natural resource management program. This endowment would also provide the opportunity to protect our cultural and traditional diversity through the funding of culturally- and tribally-based scientific programs that are ineligible for funding under the current EVOS funding guidelines. Further, we the undersigned, understand that we are entitled to develop our capabilities and capacity to manage our resources and conduct culturally based projects based upon the damage that was done to our traditional use areas and traditional lifestyles. Therefore, we petition the Exxon Valdez Oil Spill Trustee Council to set aside a \$20 Million Community Fund as an Endowment in the Restoration Reserve Plan.

	<u>Name</u>	<u>Tribe/Community - Address/Phone</u>
✓ 2670	1. <u>Thomas A Aleck</u>	Chignik River Eld member (907) 845-423
✓ 3630	2. <u>Nick P. Aleck</u>	Chignik Lake Traditional Council Member
✓ 3631	3. <u>Wain Brooksby</u>	Chignik Lake AK 99548 (907) 845-223
✓ 3632	4. <u>Mary Bishop</u>	Chignik Lake, Alaska 99548 (907) 845-224
✓ 3551	5. <u>Edith K. Bishop</u>	Chignik Lake Alaska 99548 907 845-224
✓ 3633	6. <u>Elizabeth Lil</u>	Chignik Lake AK 99548
✓ 3634	7. <u>Ted Shagin sr.</u>	Chignik Lake AK 99548
✓ 3635	8. <u>Dora Shagin</u>	Chignik Lake AK 99548
✓ 3636	9. <u>Julie Shagin</u>	Chignik Lake AK 99548

3655-3682

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000, from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy of funding for spill-affected communities by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

Signature

Printed Name

 ✓ 3644 Randy Gorn
Randy Gorn

Address

Phone/Email

P.O. Box 15, Chugach Alaska 99548
907-845-2226

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000 from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy for funding for spill-affected communities, by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

 3645 Willard K. Lind Jr

Signature

Printed Name

P.O. Box 3
907-845-2234

Address

Phone/Email

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000 from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy of funding for spill-affected communities by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

 ✓ 3646 James Odomin

Signature

Printed Name

P.O. Box 26
907-845-2205

Address

Phone/Email

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000, from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy of funding for spill-affected communities by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

Signature

Printed Name

Address

Phone/Email

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000 from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy for funding for spill-affected communities, by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

Signature

Printed Name

Address

Phone/Email

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000 from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy of funding for spill-affected communities by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

Signature

Printed Name

Address

Phone/Email

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Sincerely yours,

Signature

Printed Name

Address

Phone/Email

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Sincerely yours,

Signature

Printed Name

Address

Phone/Email

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000 from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy of funding for spill-affected communities by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

Signature

Printed Name

Address

Phone/Email

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000, from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy of funding for spill-affected communities by the Exxon Valdez Oil Spill Trustees Council.
Sincerely yours,

Signature

Printed Name

Alvin Boskoffsky
Address

Alvin Boskoffsky
Phone/Email

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000 from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy of funding for spill-affected communities, by the Exxon Valdez Oil Spill Trustees Council.
Sincerely yours,

Mary Boskoffsky
Signature

Mary Boskoffsky
Printed Name

Address

Phone/Email

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000 from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy of funding for spill-affected communities by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

Elliot R. Lund
Signature

Elliot R. Lund
Printed Name

P.O. Box 45071, Chicago, IL 60640
Address

407 343-2246
Phone/Email

97548

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000, from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy of funding for spill-affected communities by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

Signature

Printed Name

✓ 3637 Eddie C. Slaton

Eddie C. Slaton

Address

Phone/Email

(907) 845-2208

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000 from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy for funding for spill-affected communities, by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

✓ 3632 Julie Shangin

Signature

Julie Shangin

Printed Name

Address

Phone/Email

(907) 845-2208

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000 from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy of funding for spill-affected communities by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

✓ 3638 Doris Lind

Signature

Doris Lind

Printed Name

Address

Phone/Email

(907) 845-2258

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000, from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy of funding for spill-affected communities by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

Della M. Kalmakoff
Signature

Della M. Kalmakoff
Printed Name

✓ 3648
101 Lakeview Lane
Address 99548

(907) 845-2250
Phone/Email

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000 from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy of funding for spill-affected communities, by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

✓ 3642
Nina Garner
Signature

Nina Garner
Printed Name

Box KCQ-15
Address

907 845 2226
Phone/Email

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000 from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy of funding for spill-affected communities by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

✓ 3641
John S Constantine
Signature

John Constantine
Printed Name

Chignik Lake, AK
Address

(907) 845-2323
Phone/Email

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000, from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy of funding for spill-affected communities by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

Signature

Printed Name

✓ 3651 Patti Lind

Patti Lind

Address PO BOX 48007 Chignik Lake AK 99548 Phone/Email (907) 845-2213

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000 from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy of funding for spill-affected communities, by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

Signature

Printed Name

✓ 3654 Annette Takak

Annette Takak

Address Box 13 Chignik Lake AK 99548 Phone/Email 845-2321

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000 from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy of funding for spill-affected communities by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

Signature

Printed Name

✓ 3655 Richard E. Takak

Richard E. TAKAK

Address PO Box 13 Chignik Lake Phone/Email (907) 845-2321

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000, from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy of funding for spill-affected communities by the Exxon Valdez Oil Spill Trustees Council.
Sincerely yours,

Signature

Printed Name

Address

Phone/Email

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000 from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy for funding for spill-affected communities, by the Exxon Valdez Oil Spill Trustees Council.
Sincerely yours,

Signature

Printed Name

Address

Phone/Email

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000 from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy of funding for spill-affected communities by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

Signature

Printed Name

Address

Phone/Email

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000, from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy of funding for spill-affected communities by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

Signature

Printed Name

✓ 3650
 Christine Martin
 Address P.O. Box 8
 Chignik Lake, AK 99548
 Phone/Email (907) 845-2335
 Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000 from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy for funding for spill-affected communities, by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

✓ 649
 Sam Martin
 Signature
 Address P.O. Box 8
 Chignik Lake, AK 99548
 Printed Name SAM MARTIN
 Phone/Email (907) 845-2335

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000 from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy of funding for spill-affected communities by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

✓ 2676
 Amy O'Donnell
 Signature
 Address P.O. Box 48011 Chignik Lake AK 99548
 Printed Name Inez O'Donnell
 Phone/Email (907) 845-2230

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000, from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy of funding for spill-affected communities by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

Signature

Printed Name

✓ 3655 Marhe Spanoff Marlene Spanoff

Address

Phone/Email

Box 7 749-2295

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000 from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy for funding for spill-affected communities, by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

✓ 656 Walter Stepanoff Walter Stepanoff

Signature

Printed Name

Box 7 749-2234

Address

Phone/Email

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000 from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy of funding for spill-affected communities by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

✓ 3657 Debbie Daugherty Debbie Daugherty

Signature

Printed Name

Box 17 Chignik Bay, AK 749-2235

Address

Phone/Email

99564

Dear Trustee Council Member,

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000, from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy of funding for spill-affected communities by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

Signature

Printed Name

Rick Skowberg

Rick SKOWBERG

Address

Phone/Email

P.O. Box 11 Chignik AK 99564 907-249-2262

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000 from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy for funding for spill-affected communities, by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

Lana W Anderson

Lana W Anderson

Signature

Printed Name

P.O. Box 41 Chignik Bay, AK

907-749-2550

Address

Phone/Email

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000 from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy of funding for spill-affected communities by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

Signature

Printed Name

Address

Phone/Email

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Sincerely yours,

Signature

Printed Name

Address

Phone/Email

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Sincerely yours,

Signature

Printed Name

Address

Phone/Email

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Sincerely yours,

Signature

Printed Name

Address

Phone/Email

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Sincerely yours,

Signature

Printed Name

Melanie Skonberg

Melanie Skonberg

Address

Phone/Email

P.O. Box 5 Chignik, AK 99824

(907) 749-2433

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000 from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy for funding for spill-affected communities, by the Exxon Valdez Oil Spill Trustees Council.
Sincerely yours,

Josh Tidwell

Josh Tidwell

Signature

Printed Name

P.O. Box 5 Chignik, AK 99824

(907) 749-2433

Address

Phone/Email

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000 from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy of funding for spill-affected communities by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

Jessica Skonberg

Jessica Skonberg

Signature

Printed Name

P.O. Box 112 Chignik, AK 99824

(907) 749-2275

Address

Phone/Email

gawdenut@aol.ca

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000, from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy of funding for spill-affected communities by the Exxon Valdez Oil Spill Trustees Council.
Sincerely yours,

Signature

Printed Name

Address

Phone/Email

Dear Trustee Council Member

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Sincerely yours,

Signature

Printed Name

Address

Phone/Email

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Sincerely yours,

Signature

Printed Name

Address

Phone/Email

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Sincerely yours,

Signature

Printed Name

Bill S. Anderson

Bill S. Anderson

Address

Phone/Email

P.O. Box 112 Chignik AK 99529

907-749-2429

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000 from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy for funding for spill-affected communities, by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

Darren L. Skonberg

Darren L. Skonberg

Signature

Printed Name

P.O. Box 112 Chignik, AK 99564

907-749-2275

Address

Phone/Email

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000 from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy of funding for spill-affected communities by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

Arthur Skonberg

Arthur Skonberg

Signature

Printed Name

P.O. Box 112 Chignik, AK

907-749 2212

Address

Phone/Email

Dear Trustee Council Member.

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000, from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy of funding for spill-affected communities by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

Signature

Printed Name

Sonya Oysen

Sonya Oysen

P.O. Box 33 Chignik Ak

(907) 749-2415

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000 from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy for funding for spill-affected communities, by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

Nancy Skonberg

Nancy Skonberg

Signature

Printed Name

Box 112

907-749-2262

Address

Phone/Email

Chignik Alaska

99524

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000 from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy of funding for spill-affected communities by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

JoAnn Skonberg

JoAnn Skonberg

Signature

Printed Name

P.O. Box 11 Chignik

907-749-2262

Address

Phone/Email

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000, from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy of funding for spill-affected communities by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

Signature

Printed Name

✓ 3673 Theresa M. Carey

Theresa M. Carey

Address

Phone/Email

P.O. Box 78, Chignik, AK 99564

(907) 749-2465

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000 from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy for funding for spill-affected communities, by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

✓ 3674 Roy B. Carey

Roy B. Carey

Signature

Printed Name

PO Box 78 Chignik Bay AK 99564

(907) 749 2465

Address

Phone/Email

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000 from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy of funding for spill-affected communities by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

✓ 3675 Gustav A. Skonberg

Gustav A. Skonberg

Signature

Printed Name

P.O. Box 52 Chignik AK

907-749-2522

Address

Phone/Email

Dear Trustee Council Member.

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000, from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy of funding for spill-affected communities by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

Signature

Printed Name

✓ 3676 Richard P. Johnson

Richard P. Johnson

Address

Phone/Email

P.O. Box 43

749-2237

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000 from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy of funding for spill-affected communities, by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

3677 Katherine Johnson

Katherine Johnson

Signature

Printed Name

P.O. Box 43

749-2237

Address

Phone/Email

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000 from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy of funding for spill-affected communities by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

✓ 3678 Phyllis Nunn

PHYLLIS NUNN

Signature

Printed Name

P.O. Box 77 Chignik

749-2449

Address

Phone/Email

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000, from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy of funding for spill-affected communities by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

Signature

Printed Name

✓ 3543 Minnie Skonberg Minnie Skonberg
Address Box 5 Chignik, AK 99864 Phone/Email (907) 749-2433

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000 from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy for funding for spill-affected communities, by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

✓ 3542 Roy H. Skonberg Roy H. Skonberg
Signature Box 5 Chignik, AK 99864 Printed Name (907) 749-2433
Address Phone/Email

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000 from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy of funding for spill-affected communities by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

✓ 3679 George Tinker GEORGE TINKER
Signature PO Box 48 CHIGNIK AK 99864 Printed Name Contact - 907-246-4280
Address Phone/Email

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000, from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy of funding for spill-affected communities by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

Margaret Roberts
Signature

Margaret Roberts
Printed Name

✓ 3680 P.O. Box 3208 Kodiak, AK
Address

(907) 486-4449
Phone/Email

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000 from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy for funding for spill-affected communities, by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

✓ 3681 *Carolyn Mae Kelly*
Signature

Carolyn Mae Kelly
Printed Name

P.O. Box 8518 Kodiak, AK
Address

(907) 486-4449
Phone/Email

Dear Trustee Council Member

We urge you to to fund the Oil Spill "Community Fund" in the amount of \$20,000,000 from the Restoration Reserve. The earnings from this fund would provide for Community Projects far past our lifetimes. This would be a splendid legacy of funding for spill-affected communities by the Exxon Valdez Oil Spill Trustees Council.

Sincerely yours,

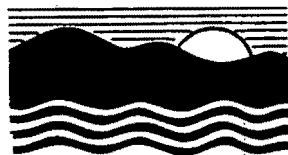
✓ 3682 *Amanda Lee Carlough*
Signature

Amanda Lee Carlough
Printed Name

P.O. Box 8518
Address

(907) 486-3151
Phone/Email

3854 ✓



University of Maryland
CENTER FOR ENVIRONMENTAL SCIENCE
CHESAPEAKE BIOLOGICAL LABORATORY

POST OFFICE BOX 38
SOLOMONS, MD 20688-0038
(410) 326-4281
FAX (410) 326-7302
<http://www.umces.edu>

December 15, 1998

Exxon Valdez Oil Spill Trustee Council
Restoration Office
645 G Street, Suite 401
Anchorage, AK 99501-3451

RECEIVED

DEC 21 1998

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL

Dear EVOS Trustee Council Members:

I would like to take this opportunity to comment on the future of the Exxon Valdez Oil Spill Trustee Council Restoration Reserve, its use, and governance. I currently chair the Scientific Steering Committee of the US GLOBEC (GLOBAL Ocean ECosystem Dynamics) Program, co-sponsored by the National Science Foundation and the National Oceanic and Atmospheric Administration with an annual budget of approximately \$9.0M. The principal objective of this research program is to understand the effects of global climate change on marine populations.

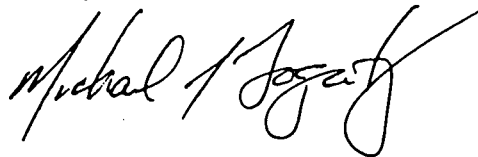
In the Northeast Pacific, US GLOBEC coordinates closely with other organizations including the Climate Change and Carrying Capacity Program of the North Pacific Marine Science Organization, the Pacific Northwest Coastal Ecosystem Response Study, GLOBEC Canada, and the EVOS Trustee Council research program. The US GLOBEC Northeast Pacific program now has underway a cooperative project with the Exxon Valdez Oil Spill Trustee Council [(98340): Toward Long-Term Oceanographic Monitoring of the Gulf of Alaska Ecosystem]. US GLOBEC has chosen to focus on the Coastal Gulf of Alaska in the vicinity of Prince William Sound as one of its regional research locations. The choice of this study site reflects the important concentration of research sponsored by the EVOS Trustee Council, the University of Alaska, and the National Marine Fisheries Service in this region. Our strategy is to capitalize on existing research efforts and to add to this body of knowledge by undertaking complementary research. We feel that this leveraging of resources will significantly enhance the cost-effectiveness and return on investment for all partners in this research effort. US GLOBEC is prepared to make a substantial commitment of resources in this region in the coming decade and it is my hope that a supportive partnership with the trustee council can continue. The geographical scale and complexity of the issues in the Northeast Pacific makes close coordination and cooperation essential.

Research sponsored by the Exxon Valdez Oil Spill Trustee Council has significantly advanced our understanding of important components of Northeast Pacific marine ecosystems. It is my belief that effective stewardship of our living marine resources must be firmly grounded in understanding natural variation in ocean climate, the effect of human activities, and the interplay

between natural variability and anthropogenic effects. Research conducted under the auspices of the EVOS Trustee Council to date has served to advance this level of understanding in very important ways. I strongly believe that the best use of the Restoration Reserve would be to continue to support a science program with three components: (1) long-term oceanic, resource, and eco-toxicological monitoring, (2) scientific investigations of key ecological processes, and (3) strong administrative support promoting education, public outreach, and coordination/cooperation with other research efforts in the northeast Pacific.

The current Exxon Valdez Oil Spill Trustee Council is unique and has led to unprecedented cooperation among agencies with diverse missions. I respectfully recommend that the Exxon Valdez Oil Spill Trustee Council continue to manage the Restoration Reserve program. I look forward to the development of a long-range science strategy by the EVOS Trustee Council in accord with the objectives described above. The scientific understanding gained will yield direct and continuing benefits as we direct human activities toward a sustainable future. The monitoring, research, and communication objectives above must be viewed as an investment in wise stewardship with important dividends for all. If I can help in any way to ensure that the partnership between US GLOBEC and the trustee council can continue along the productive path we have followed to date, please let me know.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael J. Fogarty". The signature is fluid and cursive, with a large, sweeping flourish at the end.

Michael J. Fogarty, Chair
US GLOBEC Scientific Steering Committee

3855 ✓

As a resident of the Exxon Valdez Oil spill zone, I support the EVOS Trustee Council's habitat protection program. I want the money to go to protecting Kodiak's environment. I especially want money sent to protect Termination point.

Will Nelson

1522 Kouskov, Kodiak AK.

RECEIVED

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL

RECEIVED 38561

Dear Mr. Tillery

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL

11/21/98

I have been employed in the commercial fishing industry for the past six years and view habitat protection as essential to a healthy environment.

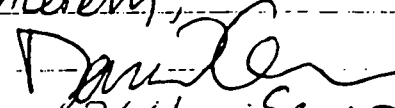
I urge you to allocate funds for the purchase of titles and conservation easements.

Many of my friends and neighbors rely on commercial and subsistence fishing to survive. In your powerful position, you have the ability to enhance our lives.

Please use this historic possibility to achieve great conservation goals. Thank you.

Also, please strongly consider including the Copper River Delta and Bering River Uplands in the definition of spill impacted zones. The timber development in these areas is excessive and needs to be reigned in.

Sincerely,


David Cain, P.O. Box 2661, Seward, AK 99661

RECEIVED

NOV 24 1998

U.S. DEPARTMENT OF
COMMERCE
BUREAU OF OCEANIC
AND COASTAL MANAGEMENT
ANCHORAGE, ALASKA

Nov. 14, 1998

To Mr. Craig Tillery,

As a Kodiak resident and an Alaskan fisher with family I would like to share my feelings. Afognak Island needs to be protected! The land has been stripped before my eyes over the last two decades and in order to protect the habitat we need to act now as save this precious Island. Please allocate monies for this as I don't think the land can take much more.

Thank-you

Theresa Peterson

F/V Patricia Sue
Box 347

RECEIVED

11/14/98

F 1 1998

Department of Law
 Office of Attorney General
 1000 North D Street
 Anchorage, Alaska

Dear Mr. Tillery,

I am a resident of Kodiak.

I would like to see at least 75% of the "Restoration Reserve" fund used for habitat ~~restor~~ protection. I have advocated for habitat protection since the settlement came into existence. I firmly believe it is the most effective way to help injured species of the oil spill recover.

Thank you for considering my view.

Sincerely,

Mary Forbes
 Mary Forbes

Forbes
 418 Mill Bay Rd
 Kodiak AK 99615

RECEIVED

3859 ✓

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL

As a resident of the Exxon Valdez Oil Spill zone, I support the
Exxon Trustee ~~and~~ Council's habitat protection program. I would
like to see Termination Point be helped!

Molly McFarland

Molly McFarland
P.O. Box 2342
Kodiak, AK 99615

RECEIVED

3860 ✓

EXXON VALDEZ OIL SPILL
RESTORATION COUNCIL

11/7/98

To: Craig Tillers

C/o Exxon Valdez Spill Council
Restoration Office

645 G Street, Suite 401

Anchorage, AK 99501-3451

My wife and I are retired from the
lower 48 to Soldotna where we are property
owners and wildlife lovers. Altho we fish, we
hunt only with a camera. So we are very
interested in, not only preserving wildlife habitats,
but also preserving the State's scenic beauty. It
would seem that diminishing wildlife habitats
and, in some areas, scenery are due ^{entirely?} mostly to
the encroachment by humans.

We believe that until you are able
to develop political champions (eg, Pres Teddy Roosevelt,
for maintenance of Alaska wildlife habitats AND
scenery in the Alaska legislature, you are

fighting a long cause. Rep. Masek, just
this year got a law passed allowing more
motorized vehicles in Alaska's backcountry. Many
politicians don't give a care about Alaska's
wildlife, only the almighty dollar!

Our wetlands ^(both coastal and inland) continue to disappear for
land development and exploration. We must
educate Alaskans that the State's resources
(like the oceans) ARE NOT INFINITE!!

Conservation of wildlife (food chain) habitats
are critical for fish, small and big game,
including bears.

To protect habitat, you must address the
politics of the current situation, not just
buying land. The State and Federal governments
must allocate valuable habitats as untouchable
for land development. If this doesn't happen, the
end result should be obvious — very little, if
any, wildlife outside zoos and very scarred "scenic
views." We would be happy to help you if man-
power is needed.

Sincerely
Richard O Hahn

3861 ✓

RECEIVED

DEC 09 1998

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL

Dear Mr. Craig Tillery:

On behalf of the Alaska Rainforest Campaign, I would like to remind you of the voices of those residents of the spill area. Living in Homer, the rich ecosystem diversity is a part of my choice in deciding to reside here. As development encroaches and threatens this diversity so does the need for permanent reserves for habitat protection. The Exxon Valdez oil spill impact zone needs to be free of timber and coal development in order to fully recover from devastation. We need to extend the 'Impact Zone' to include the Copper River Delta and Bering River Uplands due to the internationally significant refuge for migratory birds and a critical part of the ecosystem affected by the spill.

Reserve funds need to be treated and managed so large and small parcels ~~may~~ ^{could} be purchased for an establishment of reserves for habitat protection.

Please help any ecosystem that lies victim to the Exxon Valdez oil spill to recover and most importantly protect it from further damage.

Thank you,

Monica Romano
PO Box 2692
Homer, AK 99603Monica
Romano

3862 ✓

RECEIVED

DEC 09 1998

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL

JANETTE CADIEUX

P.O. Box 4175

SOLDOTNA, AK

99669

Dear Mr. Tillery,

I support the EVOS Trustee
Council's habitat protection program.

I believe habitat protection grows
ever more important as development
progresses & population increases.

Alaskan habitats are often so
very unique. The "Port Graham"
purchase within KFNP is very
important to me, as is protecting
the Kenai R. Watershed.
Thank-you, *Janette*
Cadieux

3863 ✓

I support open space protection in all forms. Without
existing habitat, where will the research take place? What will it study?

-Jennifer C. Peterson Fritz Creek, AK

Jennifer Peterson
P.O. Box 15413
Fritz Creek, AK
99603

RECEIVED

DEC 19 1998

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL

3864 ✓

I have grown up in this beautiful state and all the time see more of it being developed and or ruined by greed and ^{people} simply not caring. I do, as well as many, many other residents. More needs to be done to protect Alaska's habitat. It's breathtakingly beautiful, and I want my children and grandchildren to enjoy it too. Please help save this special place, for everyone.

Kim Butler
P.O. Box 1223
Homer, AK.
99603

Sincerely,

Wilma L. Butler

RECEIVED

DEC 16 1998

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL

A Resident of Alaska and proud of its wildlife I urge the Trustee Council to concentrate on its habitat. So that future generations of wildlife and humans can enjoy it.

- Concerned Resident

Dan Wehr

2692 Spruce Cape Rd. Apt. #1
Kodiak, AK 99615

RECEIVED

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL

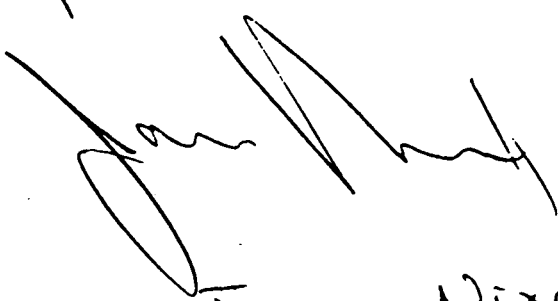
RECEIVED

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL

3866 ✓
RECEIVED

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL

Being a sport fisherman
-the money from Exxon should
be spent on the habitat
I've lived in Kodiak for
33 years the fishing is going
down hill fast save what we
have left


James Nixon
PO Box 8924
Kodiak, AK 99615

386T ✓
RECEIVED 1-14-98

Mr. Craig Tillery -

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL

As a resident of the Exxon Valdez Oil
Spill Zone, I support the EVOS Trustee Council's
habitat protection program. Also please protect
Termination Point, Kodiak.

We as a fishing family on Kodiak
believe that the money should go to habitat
protection not research.

Elizabeth K. Still

Box 3102

KODIAK, AK

99615

RECEIVED

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL

Dear Mr Tilley -

As a resident of the Exxon Valdez Oil
Spill area, I feel it is imperative
that these funds be used for
habitat protection.

The money should be managed
for maximum flexibility so the
Trustees can make an
especially large habitat acquisition
if the opportunity arises.

Sincerely

Barbara Mayfield

1416 Selig St

Kodiak AK 99615

907-481-1609

RECEIVED

NOV 23 1998

Department of Law
Office of Attorney General
3rd Judicial District
Anchorage, Alaska

Dear members of the Trustee Council,

I am a long time Alaska resident, residing in all parts of Alaska from Sotka to Barrow. For the last five years I've resided in the city of Kodiak.

I wish to express my support for additional habitat acquisition. The affected areas, including Kodiak Island, are best protected and restored by preserving the areas for future generations to enjoy.

Especially significant is the fact that interests groups ranging from the NRA to the Sierra Club have all come out in support of the land acquisition option. The Council should give this fact particular weight.

The legacy the Council provides and will be remembered by will most likely come in the form of the lands set aside for all future generations to enjoy. I urge the Council to designate the remaining funds for land purchases.

Sincerely,

Allan R. Thielin

P.O. Box 329

Kodiak, AK 99615

As a resident of the Exxon Valdez
oil spill zone, I support the EVOS Trustee
Council's habitat protection program.

The money should go towards the habitat.

Danielle Bell
419 Erskine Ave.
Kodiak, AK
99615

RECEIVED

NOV 25 1998

Department of Law
Office of Attorney General
3rd Judicial District
Anchorage, Alaska

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL

As a Resident
of the Exxon Valdez oil
spill zone, I support the
EVOS Trustee
Council's habitat
protection ~~protect~~
program.

Stacey Bushell.
2686. Sawmill Circle
Kodiak, Alaska
99615

3872 ✓

Hans H. Tschersich, MD
1423 Baran of Street
Kodish, AK 99615

Kodish 11/14/98

To the EVOS Trustees

Re.: Further Habitat Protection/Acquisition of Land

I support further small parcel acquisitions and habitat protection with the remaining funds in the Settlement. Research is another necessary goal.

Hans H. Tschersich, MD

RECEIVED
Dec. 8-1998
~~DEC 22 1998~~

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL

As a resident of the
Exxon Valdez Oil Spill
Zone, I support the
EVOs Trustee Council's
habitat protection
program.

RECEIVED

DEC 09

VALDEZ
TRUSTEE COUNCIL

Nicole Kodiak 486-2045,
Kenney.

thank you!

Nicole Kenney
8656
Kodiak Alaska

10.14 '98

RECEIVED

DEC 08 1998

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL

To Whom It Concerns,

Research is great, however, if we do not
protect our habitats what is the use?

Please protect this valuable resource
and gift we have - if we don't,
who will?

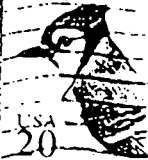
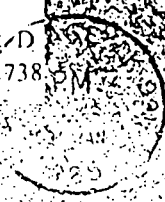
Cindy Thomas

41 C Albatross Ave.

Kodiak AK 99615



Miss Katy Coelho
7322 Huntsmen Cir. Apt. D
Anchorage, AK 99518-2738

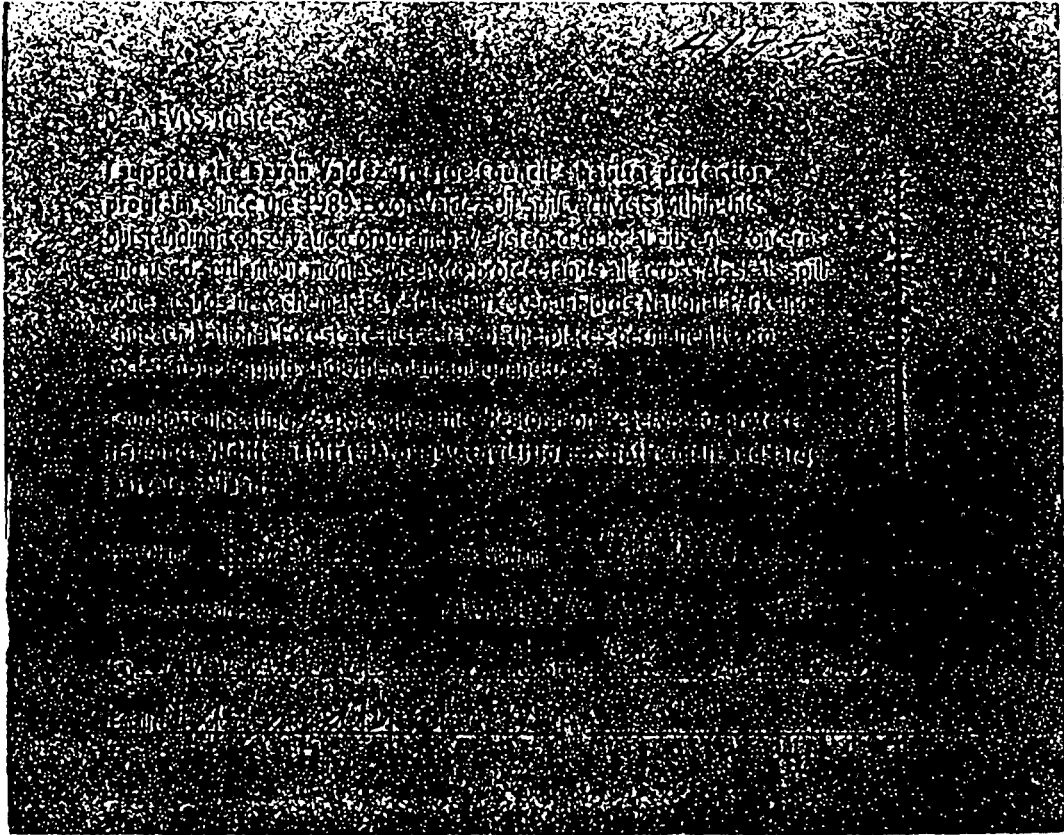


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JAN 11 1995

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL

Exxon Valdez Oil Spill Trustee Council
Restoration Office
645 G Street, Suite 401
Anchorage, AK 99501-3451



4196✓

Veronica Christman

From: Tami Yockey [tami_yockey@oilspill.state.ak.us]
Sent: Tuesday, January 12, 1999 1:20 PM
To: Veronica Christman
Subject: FW: Please Protect More Habitat

-----Original Message-----

From: Peter Branson [mailto:peterbranson@hotmail.com]
Sent: Tuesday, January 12, 1999 10:32 AM
To: restoration@oilspill.state.ak.us
Subject: Please Protect More Habitat

Dear Craig, I would like to encourage you and the council to use at least 85% of the reserve for habitat protection, large (more than 1,000 acres) and small parcels. Money should be managed for maximum flexibility, so the trustees can make large habitat acquisitions if the opportunity arises. The spill impact zone should include the Copper River Delta and Bering river uplands. These critical habitat areas need to be protected from development threats.

I grew up in Kodiak and visit often as my family still lives there, so I was thrilled when spill money was used to protect habitat there. I think habitat acquisition and protection is the best and highest use for this money. We owe it (and a lot more) to Alaska for all the damage we've done.

thank you,
Peter Branson

Get Your Private, Free Email at <http://www.hotmail.com>

4197 ✓

Veronica Christman

From: Tami Yockey [tami_yockey@oilspill.state.ak.us]
Sent: Tuesday, January 12, 1999 7:59 AM
To: Veronica Christman
Subject: FW: Exxon Valdez Oil Spill

-----Original Message-----

From: Stephen Donnelly [mailto:Steve.Donnelly@segllc.com]
Sent: Tuesday, January 12, 1999 5:55 AM
To: 'restoration@oilspill.state.ak.us'
Subject: Exxon Valdez Oil Spill

Dear Sir:

I would like to urge you to take the following actions concerning the Exxon Valdez Oil Spill reserve.

Use at least 75 percent of the reserve for habitat protection, through both large (over 1,000 acres) and small parcel programs. Reserve funds for habitat should not be treated as a permanent endowment. Instead, the money should be managed for maximum flexibility, so the Trustees can make an especially large habitat acquisition if the opportunity arises. Expand the definition of the spill impact zone to include the Copper River Delta and Bering River Uplands. This area now faces timber and coal development that jeopardizes the Delta, an internationally significant refuge for migratory birds and a critical part of the ecosystem affected by the spill.

Preventing further harm to habitat is the single most important and lasting way of promoting recovery in the areas affected by the oil spill. Thank you.

Sincerely,

Stephen Donnelly
6 Pinebrook Drive
Easthampton, MA 01027

4178 ✓
Cherri Womac

From: Jeff [jeff_lawrence@oilspill.state.ak.us]
Sent: Tuesday, January 05, 1999 8:04 AM
To: Cherri Womac
Subject: FW: APPROPRIATION OF FUNDS

-----Original Message-----

From: ANN CONGER [mailto:ann_conger@hp.com]
Sent: Monday, January 04, 1999 4:45 PM
To: restoration@oilspill.state.ak.us
Subject: APPROPRIATION OF FUNDS

Using Exxon funds for preservation of habitat for all creatures seems very important. Acquiring land that is watershed for the affected delta will help preserve wetlands for migratory birds from all over the world.

The Copper River Delta and Bering River Uplands are at risk to timber and coal development. Further damage to the habitat must be prevented. Permanent protection of land is the only way to guarantee the safety of our wildlife resources for future generations. As a member of National Audubon Society and World Wildlife, I support taking responsibility for stewardship of our planet.

Ann Conger
2002 Coffee Lane
Sebastopol, CA 95472

3507 ✓
As a resident of the Exxon Valdez Oil Spill zone, I support the EVOS Trustee Council's habitat protection program. Since the 1989 spill, the Trustee Council has wisely used settlement funds to permanently protect fragile habitat within the spill zone. Areas the Trustees have protected from clearcutting and other damaging activities include Kachemak Bay State Park, Kenai Fjords National Park, Afognak Island, Shuyak Island, and many sites in Prince William Sound.

I urge the Trustee Council to continue these efforts by allocating 75% of the restoration reserve to protect habitat. The habitat money should be invested flexibly, so the Council may buy title or conservation easements on both small and large parcels of land.

Protecting habitat is the single best way to ensure the long-term health of the fish and wildlife resources which spill area communities depend upon for our economy, subsistence needs, recreation and cultural heritage.

Signature

Please PRINT Clearly:

First Name

Doug

Last Name

Grant

E-mail

Street Address

P.O. Box 590

City

Seward

State

AK

Zip

99664

Home Phone (907)

224

7015



Check here if you are forwarding additional written comments

The Restoration Office received 323 identical to this one.

TIM MAD AS HELL + NOT GOING TO TAKE ANY MORE DAMN IT.

DEE J. BARKER
TERRY J. BARKER
P.O. BOX 3183
HOMER, AK 99603

ANCHOR

USA
20

Craig Tillery
Exxon Valdez Oil Spill Council
Restoration Office
645 G Street, Suite 401
Anchorage, AK 99501-3451

restoration@oilspill.state.ak.us

As a resident of the Exxon Valdez Oil Spill zone, I support the EVOS Trustee Council's habitat protection program. Since the 1989 spill, the Trustee Council has wisely used settlement funds to permanently protect fragile habitat within the spill zone. Areas the Trustees have protected from clearcutting and other damaging activities include Chukchuk Bay State Park, Kenai Fjords National Park, Afognak Island, Shuyak Island, and many sites in Prince William Sound.

I urge the Trustee Council to continue these efforts by allocating 75% of the restoration reserve to protect habitat. The habitat money should be invested flexibly, so the council may buy title or conservation easements on both small and large parcels of land.

Protecting habitat is the single best way to ensure the long-term health of the fish and wildlife resources which spill area communities depend upon for our economy, subsistence needs, recreation and cultural heritage.

Signature

Dee Barker

Please PRINT Clearly:

First Name

DEE

Last Name

BARKER

Email

dbark@xyz.net

Street Address

PO BOX 3183

City

HOMER

State

AK

Zip

99603

Home Phone ()

☐ Check here if you are forwarding additional written comments

STOP LOCKING UP STATE LAND!

11-27-98 61010 2612-11

Parcel ID: KAP 126 and 134
Carl Christiansen and Sophia Ignatin

Rank: N/A

Agency Sponsor: USFWS

Location: Three Saints Bay, Kodiak Island

Parcel ID: KAP 126 KAP 134

Landowner: Carl Christiansen Sophia Ignatin

Address: P.O. Box 65 P.O. Box 57
Old Harbor, Alaska 99643 Old Harbor, Alaska 99643

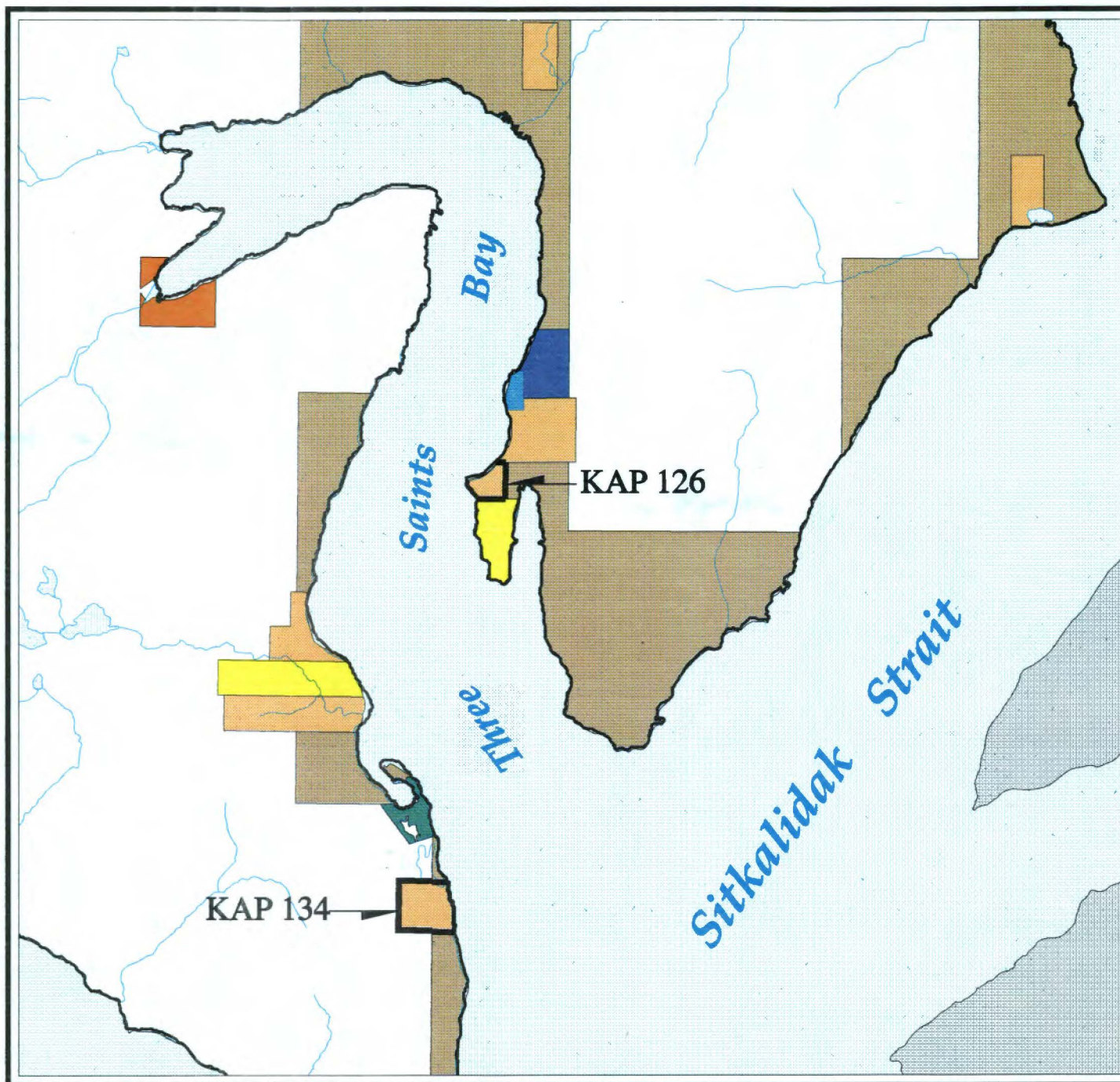
Appraised Value: \$72,000 \$72,300

Acreage: 39.98 acres 79.95 acres

Parcels KAP 126 and 134 are located in Three Saints Bay, about 8-10 miles southwest of Old Harbor. This area is recognized as one of the most scenic bays on the Kodiak Archipelago, with steep mountains rising directly from the saltwater to create a dramatic backdrop. The bay has tremendous historical significance. The site of the first Russian settlement in Alaska, founded by Gregorij Shelikov in 1784, is located within the entrance to the bay. This abandoned village site is immediately north of KAP 134. Both parcels possess high wilderness values and are in their natural condition without permanent improvements or human habitation. The area where KAP 134 is located was included within the Kodiak National Wildlife Refuge's proposed Ayakulik/Uyak wilderness unit. The surrounding lands were previously acquired by the USFWS from the Old Harbor Native Corporation through funding provided by the Exxon Valdez Oil Spill Trustee Council. The Inga parcel would also be acquired for inclusion in the Kodiak National Wildlife Refuge.

The shallow bay immediately east of KAP 126 supports winter feeding concentrations of common murre. The coastal section of this property and the flat peninsula to the south is a favorite site for subsistence hunting of Sitka black-tailed deer. In fact, all accessible shorelines and the near shore waters of Three Saints Bay are used for subsistence purposes, primarily by residents of Old Harbor. Residents harvest seals, herring, salmon, shellfish, Sitka black-tailed deer, and berries on or adjacent to the parcels. Near shore marine waters adjacent to this property are particularly important for feeding marbled murrelets, and also used by pigeon guillemots, harlequin ducks, and other sea ducks. Archaeological sites are likely present on all accessible beaches although the area has not been fully explored.

The land surrounding Three Saints Bay was formerly owned by the Old Harbor Native Corporation, and was purchased in fee as part of the 1995 Kodiak large parcel acquisitions. In addition, several other small parcels in Three Saints Bay have been purchased using EVOS restoration funds, EVOS restitution funds, and Congressionally appropriated funds. The generally steep topography of the area leaves few sites where cabins and lodges could be built. These Native allotment parcels are two of the most developable sites. Acquisition of these properties would greatly enhance the wilderness, recreational and subsistence restoration benefits of the Old Harbor large parcel acquisitions.



Habitat Protection

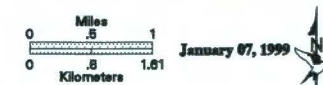
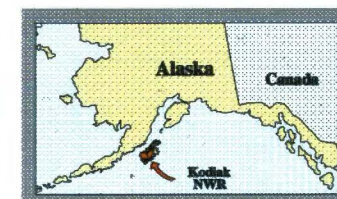
Small Parcels

Kodiak Island, Alaska

Parcels : KAP 126
and 134

- Former Old Harbor Lands
- Purchased with EVOS Restoration Funds
- Purchased with other Funds
- Native Corporation Selection
- Conveyed Native Allotment
- Native Allotment Selection
- Privately Owned Small Parcels
- Outside of Kodiak NWR

- Land status represents USFWS interpretation of BLM records.
- Projected in UTM zone 5.



January 07, 1999

1/14/99 1:04 pm
draft

**RESOLUTION OF THE
EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL
REGARDING CERTAIN KODIAK ISLAND SMALL PARCELS**

We, the undersigned, duly authorized members of the *Exxon Valdez* Oil Spill Trustee Council ("Trustee Council"), after extensive review and after consideration of the views of the public, find as follows:

1. a. In its motion of June 8, 1998, the Council agreed to authorize funding of up to \$264,000 for the purchase of three Native allotments in the Three Saints Bay area of Kodiak Island, within the Kodiak National Wildlife Refuge, Parcels KAP 95 (Heirs of Fidusia Inga), KAP 126 (Carl Christiansen) and KAP 134 (Sophia Ignatin). This motion designated these as parcels meriting special consideration by virtue of their location within the boundaries of a large parcel acquisition of land purchased from Old Harbor Native Corporation primarily with Council funding. Subsequently, on September 29, 1998, the Council by resolution authorized the purchase of KAP 95 for the approved appraised value of \$84,000.

b. In furtherance of the motion set forth in Paragraph 1. a., and subject to funding by the Council, the owners of the remaining two Native allotments, KAP 126 and 134, have agreed to sell their allotments located in Three Saints Bay. These parcels are collectively hereinafter referred to as the two parcels.

c. Appraisals for parcel KAP 126 (\$72,000) and KAP 134 (\$72,300) totaling \$144,300 have been approved by the State and federal review appraisers.

d. As set forth in Attachment A, if acquired, these small parcels have attributes which will restore, replace, enhance and rehabilitate injured natural resources and the services provided by those

natural resources, including providing habitat for bird species for which significant injury resulting from the spill has been documented and providing key marine access for subsistence and recreational uses on the surrounding public lands.

2. Existing laws and regulations, including but not limited to the Alaska Forest Practices Act, the Anadromous Fish Protection Act, the Clean Water Act, the Alaska Coastal Management Act, the Bald Eagle Protection Act and the Marine Mammals Protection Act, are intended, under normal circumstances, to protect resources from serious adverse affects from logging and other development activities. However, restoration, replacement and enhancement of resources injured by the *Exxon Valdez* oil spill present a unique situation. Without passing on the adequacy or inadequacy of existing law and regulation to protect natural resources and services, biologists, scientists and other resource specialists agree that, in their best professional judgment, protection of habitat in the spill affected area to levels above and beyond that provided by existing law and regulation will have a beneficial effect on the recovery of injured resources and lost or diminished services provided by these resources;

3. There has been widespread public support for the protection of small parcels; and

4. The purchase of small parcels is an appropriate means to restore a portion of the injured resources and services in the oil spill area.

THEREFORE, we resolve to provide funds for FWS to offer to purchase and, if the offer is accepted, to purchase all the seller's rights and interests in the two parcels; and to provide funds necessary for closing costs recommended by the Executive Director of the Trustee Council ("Executive Director") and approved by the Trustee Council and pursuant to the following conditions:

- (a) the amount of funds (hereinafter referred to as the "Purchase Price") to be provided by the Trustee Council to the United States shall be the final approved appraised value of the respective parcels, totaling \$144,300;
- (b) authorization for funding for the foregoing acquisitions shall terminate if the respective purchase agreement is not executed by December 15, 1999;
- (c) disbursement of these funds by the District Court;
- (d) a satisfactory title search is completed by the acquiring government and the Seller is willing and able to convey fee simple title by warranty deed;
- (e) no timber harvesting, road development or any alteration of the land will be initiated on the land without the express agreement of the acquiring government prior to purchase;
- (f) a satisfactory hazardous materials survey is completed;
- (g) compliance with the National Environmental Policy Act; and
- (h) a conservation easement satisfactory to the U.S. Departments of Justice and the Interior and the Alaska Department of Law shall be conveyed by the seller to the non-acquiring government.

It is the intent of the Trustee Council that any facilities or other development on the foregoing small parcels after acquisition shall be of limited impact and in keeping with the goals of restoration and that there shall be no commercial timber harvest nor any other commercial use of the small parcels excepting such limited commercial use as may be consistent with applicable state or federal law and the goals of restoration to prefill conditions of any natural resource injured, lost, or destroyed as a result of the EVOS and the services provided by that resource or replacement or substitution for the injured, lost or destroyed resources and affected services as described in the

Memorandum of Agreement and Consent Decree between the United States and the State of Alaska entered August 28, 1991 ("MOA") and the Restoration Plan as approved by the Trustee Council ("Restoration Plan").

By unanimous consent and upon execution of the purchase agreement and written notice from FWS and the Executive Director that the terms and conditions set forth herein and in the purchase agreements have been satisfied, we request the Alaska Department of Law and the Assistant Attorney General of the Environment and Natural Resources Division of the U.S. Department of Justice to petition the District Court for withdrawal of the Purchase Price and any such additional costs related to closing as are recommended by the Executive Director and approved by the Trustee Council for KAP 126 and 134 from the District Court Registry account established as a result of the Governments' settlement to be paid at the time of closing. These amounts represent the only amounts due under this resolution to the Sellers by the United States from the joint funds in the District Court Registry and no additional amounts or interest are herein authorized to be paid to the Sellers from such joint funds.

Approved at the January 22, 1999 Trustee Council meeting and dated as of the date the last signature below is affixed.

DAVE GIBBONS
Trustee Representative
Alaska Region
U. S. Forest Service

BRUCE M. BOTELHO
Attorney General
State of Alaska

ROBERT T. ANDERSON
Acting Special Assistant to the
Secretary for Alaska
U.S. Department of the Interior

STEVEN PENNOYER
Director, Alaska Region
National Marine Fisheries Service

FRANK RUE
Commissioner
Alaska Department of
Fish and Game

MICHELE BROWN
Commissioner
Alaska Department of
Environmental Conservation

January , 1999

PWS 1056: Blondeau Parcel

Acreage: 100 Rank: PMSC
Sponsor: ADNR Appraised Value: \$unknown
Owner: Robert Wayne Blondeau
Location: Within Valdez city limits, at the mouth of Mineral Creek.

*desig as parcel
meriting spec.
consideration
more cheap
of g/mated*

Parcel Description. The parcel lies at the mouth of Mineral Creek, a stream that runs into Port Valdez. Mineral Creek is an anadromous stream containing wild, spawning populations of sockeye and pink salmon. Bald eagles nest on the parcel. The eagles probably feed on the spawned-out salmon. The parcel abuts wetlands owned by the City of Valdez. The site is used for bird watching and sport fishing by local residents

Restoration Benefits. Public ownership of this parcel will protect habitat for pink salmon, sockeye, and recreation/tourism by preventing the loss of wetlands to development. Acquisition of this parcel would establish beach access for the public. Currently, only the harbor and Allison Point provide public waterfront access. Recreation amenities afforded by this parcel include: bird and wildlife viewing, beachcombing, hiking, ADA access to the flats, fishing, kayak, canoe and small boat launching, picnicking and wild food gathering.

Key habitats and other attributes of this parcel include the following:

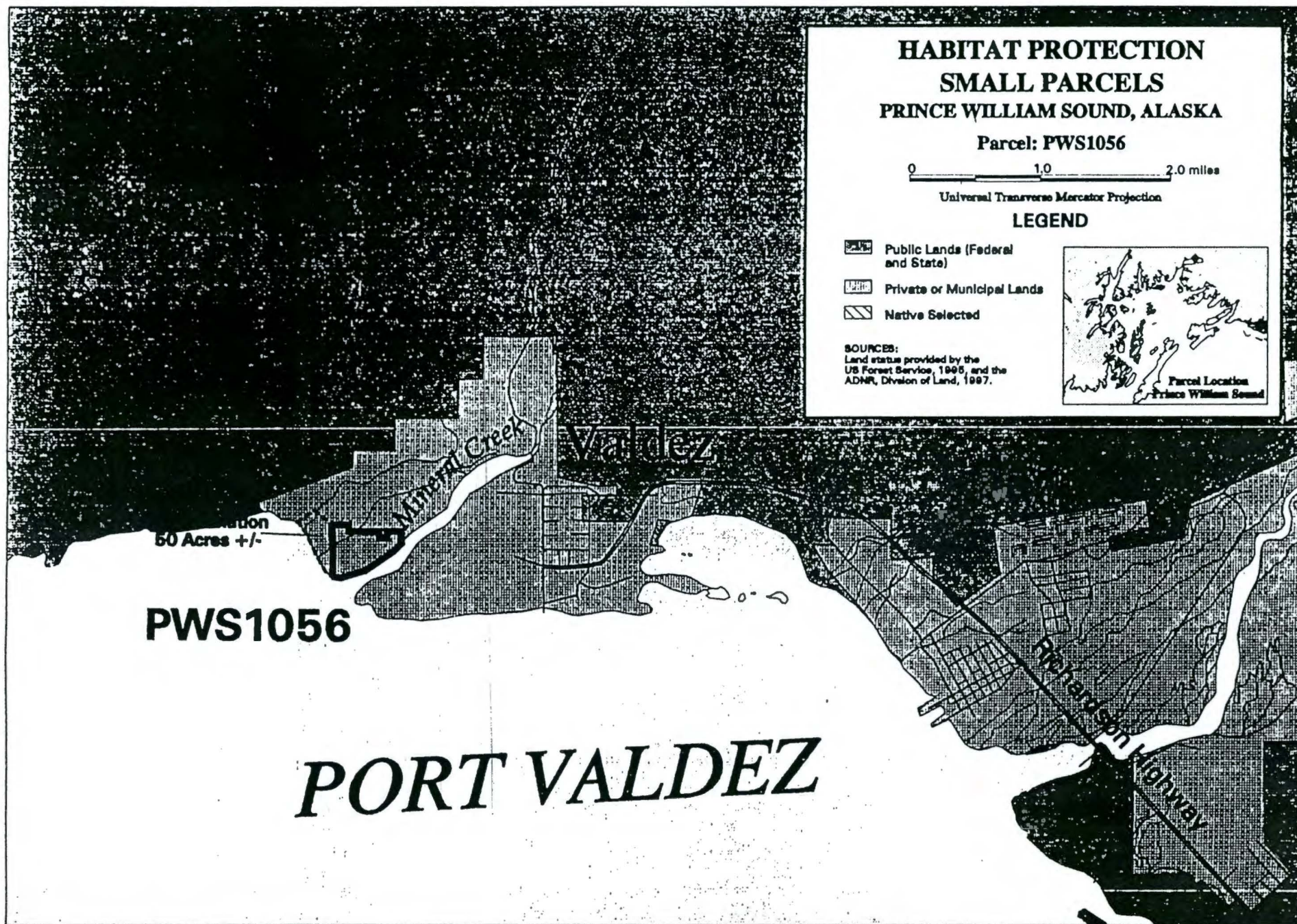
- Pink salmon and sockeye spawn in the river adjacent to the property.
- Recreation/Tourism. Recreation use of this parcel will provide much needed beach access for the residents of Valdez. In addition, acquisition of this parcel will enhance the Shoup Bay trailhead currently slated for construction with Restitution funds.
- Acquisition of this parcel will protect approximately 3,200 feet of creek frontage and the addition of the city owned parcel to this acquisition protects an additional 2,650 feet of shoreline on Port Valdez.

This parcel was ranked at the top of the low category (18) and scored the same as a number of other small parcels which have been identified as Parcels Meriting Special Consideration. The State feels that the parcel provides comparable benefits for injured resources and services.

In addition, the attached resolution by the City of Valdez demonstrates a commitment on the part of the City to support Trustee Council restoration actions and augments the benefits of this acquisition by an additional 50 acres with 2,650 feet of shoreline.

Appraised Value. The State would like to proceed with an appraisal.

Proposed Management. State Parks would manage the parcel to maintain public access to the beach by possibly improving the road into the property and the parking area near the beach. The Shoup Bay trail head may be relocated to the improved parking area on this parcel.



Pratt Museum

Alaskan Society of Natural History, Inc.

3779 Bartlett Street, Homer, Alaska 99603



RECEIVED

JAN 11 1999

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL

Molly McCammon, Executive Director
Exxon Valdez Trustee Council
645 G Street, Suite 401
Anchorage, Alaska 99501-3451

Re: Project 99434/East Amatuli Island Remote Video Link

Dear Molly:

We were very pleased to learn that the Council made the decision to fund our project. Everyone involved is excited about the prospects and eager to get to work. Carol Harding and I met with Daniel Zatz and Rich Kleinleder today to discuss some of the technical issues. We will all meet with Dave Roseneau and Arthur Kettle next week to start planning for the research and education elements. You should know that we are all most appreciative of your efforts in helping move the project forward. On behalf of the Pratt Museum staff, many thanks.

Sincerely,

A handwritten signature in cursive script that reads "Mike".

Mike O'Meara, Director
Kachemak Bay Discovery

(907) 235-8635

Fax: 235-2764

E-Mail: pratt@alaska.net



Accredited by the
American Association
of Museums

**ALASKA RESOURCES LIBRARY AND INFORMATION SERVICES
(ARLIS)**

3150 C Street
Anchorage, Alaska 99501

December 22, 1998

Molly McCammon, Executive Director
Exxon Valdez Oil Spill Trustee Council
645 G Street, Suite 122
Anchorage, AK 99501

Molly
Dear Ms. McCammon:

On behalf of the Alaska Resources Library and Information Services (ARLIS), I want to thank you for your participation in the library. With your support, the idea that the combined effort and resources of many can result in improved service and education has proven to be true.

An indication of ARLIS use and growing popularity with students, consultants, agency employees and other citizens can be seen in the following Fiscal Year 1998 data.

Interlibrary loans:	5,179
ARLIS circulated books:	7,461
ARLIS users:	14,475

4th Quarter vs. 1st Quarter

Questions/Responses	+269%
Books Loaned	+190%
Visitors	+392%
Interlibrary Loans	+135%

The ARLIS catalog is shared with Municipal Libraries and is accessible over the Internet. Many of the researchers that use the library are in remote parts of Alaska. Citizens and agency field offices throughout Alaska are better connected to the vast body of knowledge usually accessible only in large cities with academic institutions. For University of Alaska Anchorage and Alaska Pacific University students, ARLIS offers vastly increased access to scientific literature and the chance to research Alaska issues using agency management documents. Thirteen percent of the books circulated were loaned to students and faculty.

As you can see it has been a very successful first year. This would not have been possible without your agency's contribution. I ask for your continued support of this successful venture.

Sincerely



Tom Allen
Chair, Founders Board

RECEIVED

DEC 28 1998

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL



REPRESENTATIVE ERIC CROFT

October 15, 1998

RECEIVED
OCT 19 1998

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL

Ms. Molly McCammon, E. D.
Exxon Valdez Oil Spill Trustees Council
645 G Street, Suite 401
Anchorage, AK 99501

Dear Molly,

It was a pleasure speaking to you following the Legislative Budget and Audit Committee meeting earlier this month. I'm glad you viewed the committee's rejection of the Afognak purchase as a victory, and plan to proceed with executive approval despite the committee's disapproval.

I'm also interested in another proposal proffered to the Trustees Council: establishing endowed research centers and chairs at the University of Alaska with EVOS Restoration Reserve Funds.

Such endowment would greatly assist the council in accomplishing its mission to "effectively restore the environment injured by the spill to a healthy, productive ecosystem, while taking into account the importance of quality of life and need for viable opportunities to establish and sustain a reasonable standard of living." Every dollar would provide a return investment for our students, researchers, business and industry, impacted communities and our environment.

Please tell me what consideration the council has given to this proposal, and how inclined they are to support it. Thanks for all your efforts.

Sincerely,

Representative Eric Croft

