Exxon Valdez Oil Spill Restoration Plan

Update on Injured Resources and Services
September 1996

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[Note to Readers: This document updates information on Injury and Recovery status and Recovery Objectives in Chapter 5 (pp. 33-56) and the List of Injured Resources and Services (p. 32) in the *Restoration Plan*.]

Exxon Valdez Oil Spill Trustee Council

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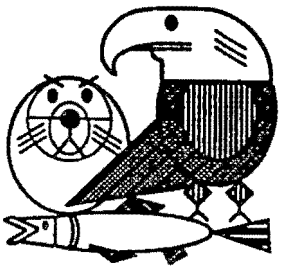

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Dear Reader:

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 documents update 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 Objectives in Chapter 5.

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 approved revisions include changes to the recovery status of some resources (for example, moving Bald Eagles from the "recovering" category to "recovered") and additions to the list itself. In August 1995, the Council added Kittlitz's murrelets and common loons to the injured species list. In addition, the Council has now added three species of cormorants (red-faced, pelagic, and double-crested).

Chapter 5: Goals, Objectives & 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 provides updated information on the status of injured resources and services, as well as revisions to the Recovery Objectives for injured resources and services. Readers are referred to annual work plans and invitations to submit proposals (e.g., *Invitation to Submit Proposals for Federal Fiscal Year 1997*) for the most current information on the restoration strategies chosen by the Council to achieve its recovery objectives.

Thank you for your interest in restoration following the *Exxon Valdez* oil spill.

Sincerely,

Molly McCammon
Executive Director

enclosure

RESOURCES

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 has been disturbed, which has 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 suggest 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 that successfully limited additional injury. In 1993, only two of the 14 sites visited showed signs of continued vandalism, but it is difficult to prove that this recent vandalism was related to the 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 levels at the second site were not sufficient to permit identification of the source or sources of the oil.

Monitoring of archaeological sites in 1994 and 1995 found no evidence of new damage from vandalism. The presence of oil is being determined in sediment samples taken from four sites in 1995.

None of the archaeological artifacts collected during the spill response, damage assessment, or restoration programs is stored within the spill area. These artifacts are stored in the University of Alaska Museum in Fairbanks and in the Federal Building in Juneau. Native communities in the spill area have expressed a strong interest in having them returned to the spill area for storage and display.

The Alutiiq Archaeological Repository in Kodiak, whose construction costs were partly funded by the Trustee Council, is the only physically appropriate artifact storage facility in the spill area. In 1995 the Trustee Council approved funds for development of a comprehensive community plan for restoring archaeological resources in Prince William Sound and lower Cook Inlet, including strategies for storing and displaying artifacts at appropriate facilities within the spill area.

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 coast lines throughout the oil-spill area. Following the spill a total of 151 eagle carcasses was recovered from the oil-spill area. Prince William Sound provides year-round and seasonal habitat for about 5,000 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 oil-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 has returned to or exceeded its prespill level in Prince William Sound.

Recovery Objective

Bald eagles will have recovered when their population and productivity have returned to prespill levels. Based on the results of studies in Prince William Sound, this objective has been met.

BLACK OYSTERCATCHERS

Injury and Recovery

Black oystercatchers spend their entire lives in or near intertidal habitats and are highly vulnerable to oil pollution. Currently, 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 clean-up activities. In comparison with black oystercatchers on the largely unoiled Montague Island, oystercatchers at heavily oiled Green Island had reduced hatching success in 1989 and their chicks gained weight more slowly during 1991-93. Interpretation of these data on reproductive performance, however, are confounded by lack of prespill data. Productivity and survival of black oystercatchers in Prince William Sound have not been monitored since 1993, and the recovery status of this species is not known.

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.

CLAMS

Injury and Recovery

The magnitude of impacts on clam populations varies with the species of clam, degree of oiling, and location. However, data from the lower intertidal zone on sheltered beaches suggest that little-neck clams and, to a lesser extent, butter clams were killed and suffered slower growth rates as a result of the oil spill and clean-up activities. In communities on the Kenai Peninsula, Kodiak, and the Alaska Peninsula and in Prince William Sound concern about the effects of the oil spill on clams and subsistence uses of clams remains high (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 prespill data or comparisons of oiled and unoiled sites.

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 are not known for any of these species, but, in general, loons are long-lived, slow-reproducing, and have small populations. Common loons in the oil-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, and their recovery status is not known.

Recovery Objective

No realistic recovery objective can be identified without more information on injury to and the recovery status of common loons.

COMMON MURRES

Injury and Recovery

About 30,000 carcasses of oiled birds were picked up 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 colonies at such locations as Resurrection Bay, the Chiswell, Barren, and Triplet islands, and Puale Bay, 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 of productivity at the colonies in the Barren Islands indicates that reproductive timing and success were again within normal bounds by 1993. Numbers of adult murres were last surveyed at those same colonies in 1994. At that time, the local population had not returned to prespill levels.

The Alaska Predator Ecosystem Experiment (APEX project), funded by the Trustee Council, is investigating the linkages among murre populations and changes in the abundance of forage fish, such as Pacific herring, sand lance, and capelin.

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. The U.S. Fish and Wildlife Service Alaska Seabird Colony Catalog, however, currently lists 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 may have been 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 Prince William Sound based on pre- and postspill July boat surveys (1972-73 v 1989-91), and there were fewer cormorants in oiled than in unoiled parts of the Sound. More recent surveys (1993-94) did not show an increasing population trend since the oil spill. With support from the Trustee Council, these boat surveys will be repeated in 1996.

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 northwestern limit of the range of cutthroat trout, and few stocks are known to exist within the Sound. Local cutthroat trout populations rarely number more than 1,000 each, 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 grew more slowly than in unoiled streams, possibly as a result of reduced food supplies or exposure to oil, and there is concern that reduced growth rates may have led to reduced survival. The difference in growth rates persisted through 1991. No studies have been conducted since then, and the recovery status of this species is not known.

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 adjoining the seven areas designated as wilderness areas and wilderness study areas by Congress. 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.

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

Like the cutthroat trout, there is evidence that Dolly Varden grew more slowly in oiled streams than in unoiled streams, and there is concern that reduced growth rates may have led to reduced survival. However, no data have been gathered since 1991. The recovery status of this species is not known.

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.

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 surveys conducted before (1988) and after (1989) the oil spill, seals in oiled areas had 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 1989-1994, the average estimated annual rate of decline was about 6 percent. Changes in the amount or quality of food may have been an initial cause of this long-term decline. Although there is no evidence that such factors as predation by killer whales, subsistence hunting, and interactions with commerical fisheries caused the decline in the harbor seal population, these are among the on-going sources of mortality.

Harbor seals have long been a key subsistence resource in the oil-spill area. Subsistence hunting is affected by the declining seal population, and lack of opportunities to hunt seals has changed the diets of subsistence users who traditionally had relied heavily on these marine mammals.

Recovery Objective

Harbor seals will have recovered from the effects of the oil spill when their population is stable or increasing.

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. Since the oil spill occurred in early spring, before wintering harlequins had left the oil-spill area, the impacts of the oil spill may have extended beyond the immediate spill area. The geographic extent of these impacts is not known.

Bile samples from harlequin ducks (combined with samples from Barrow's and common goldeneye) collected in eastern and western Prince William Sound and in the western Kodiak Archipelago in 1989-90 had higher concentrations of hydrocarbon metabolites than a small number of samples from harlequins and goldeneye collected at Juneau. Prespill data on harlequin populations and productivity are poor and complicated by possible geographic

differences in habitat quality. However, the summer population in Prince William Sound is small, only a few thousand birds. There continues to be concern about poor reproduction and a possible decline in numbers of molting birds in western versus eastern parts of the Sound.

Recovery Objective

Harlequin ducks will have recovered when breeding and postbreeding season densities and production of young return to prespill levels. A normal population age- and sex-structure and reproductive success, taking into account geographic differences, will indicate that recovery is underway.

INTERTIDAL COMMUNITIES

Injury and Recovery

Portions of 1,500 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 resources are important to subsistence users, sea and river otters, and to a variety of birds, including black oystercatchers, harlequin ducks, surf scoters, and pigeon guillemots.

Impacts to intertidal organisms occurred at all tidal levels in all types of habitats throughout the oil-spill area. Many species of algae and invertebrates were less abundant at oiled sites compared to unoiled reference sites. Other opportunistic species, including a small species of barnacle, oligochaete worms, and filamentous brown algae, colonized shores where dominant species were removed by the oil spill and clean-up activities. The abundance and reproductive potential of the common seaweed, *Fucus gardneri* (known as rockweed or popweed), was also reduced following the spill.

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 made substantial progress. 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.

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 on oiled and unoiled shorelines, and the provision of adequate, uncontaminated food supplies for top predators in intertidal and nearshore habitats.

KILLER WHALES

Injury and Recovery

More than 80 killer whales in six "resident" pods regularly use Prince William Sound within their ranges. Other whales in "transient" groups are observed in the Sound less frequently. There has been particular concern in Prince William 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. Although four calves were added to the AB pod during 1992-94, surveys in 1994 and 1995 indicate the loss of five more adult whales. The link between these losses and the oil spill is only circumstantial, but the likely mortality of killer whales in the AB pod in Prince William Sound following the spill far exceeds 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 has been concern about the possible shooting of killer whales, perhaps due to conflicts with long-line fisheries.

The AB pod may never regain its former size, but overall numbers within the major resident killer whale pods in Prince William Sound are at or exceed prespill levels. There is concern, however, that a decline in resightings of individuals within the AT group of transient killer whales has accelerated following the oil spill.

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.

KITTLITZ'S MURRELETS

Injury and Recovery

The Kittlitz's murrelet is found only in Alaska and portions of the Russian Far East, and 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. However, they 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 at 1,000-2,000 individuals, which would represent a substantial fraction of the world population.

Because of the highly patchy distribution of Kittlitz's murrelet, the difficulty of identifying them in the field, and the fact that so little is known about this species, the recovery status of the Kittlitz's murrelet is not known. The Trustee Council has funded an exploratory study on the ecology and distribution of this murrelet starting in 1996.

Recovery Objective

No recovery objective can be identified for Kittlitz's murrelet at this time.

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 is also 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 unknown, but may be related to changing food supplies. It is not known whether the murrelet population was still declining at the time of the oil spill, but the spill caused additional losses of murrelets. 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, and it is estimated that as much as 7 percent of the marbled murrelet population in the oil-spill area was killed by the spill.

Population estimates for murrelets are highly variable. Postspill boat surveys do not yet indicate any statistically significant increase in numbers of marbled murrelets in Prince William Sound, nor is there evidence of any further decline.

Recovery Objective

Marbled murrelets will have recovered when its population is stable or increasing. Stable or increasing productivity will be an indication that recovery is underway.

MUSSELS

Injury and Recovery

Mussels are an important prey species in the nearshore ecosystem throughout the oil-spill area, and beds of mussels provide physical stability and habitat for other organisms in the intertidal zone. For these reasons, mussel beds were purposely left alone during *Exxon Valdez* clean-up operations.

In 1991, high concentrations of relatively unweathered oil were found in the mussels and underlying byssal mats and sediments in certain dense mussel beds. The biological significance of oiled mussel beds is not known, but they are potential pathways of oil contamination for local populations of harlequin ducks, black oystercatchers, river otters, and juvenile sea otters, all of which feed to some extent on mussels and show some signs of continuing injury.

About 30 mussel beds in Prince William Sound are known still to have oil residue, and 12 of them were cleaned on an experimental basis in 1994. By August 1995, these beds showed a 98 percent reduction in oil in the replacement sediments, compared to what had been there before. 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. Hydrocarbon concentrations in mussels and sediments at these Gulf of Alaska sites is generally lower than for sites in the Sound, but at some sites substantial concentrations persist.

Subsistence users continue to be concerned about contamination from oiled mussel beds. The Nearshore Vertebrate Predator project is focusing on mussels as a key prey species and component of the nearshore ecosystem.

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 unoiled 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. In 1993, however, there was an unprecedented crash of the adult herring population. A viral disease and fungus were the probable agents of mortality, and the connection between the oil spill and the disease outbreak is under investigation. Numbers of spawning herring in Prince William Sound remained depressed through the 1995 season. Preliminary results from the Sound Ecosystem Assessment (SEA) Project indicate the possible significance of walleye pollock as both competitors with and predators on herring, which may indicate that there is a connection between the lack of recruitment of strong year classes of herring and the presence of large numbers of pollock in Prince William Sound.

Pacific herring are extremely important ecologically and commercially and for subsistence users. Reduced herring populations could have significant implications for both their predators and their prey, and the closure of the herring fishery from 1993 through 1996 has had serious economic impact on people and communities in Prince William Sound.

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.

PIGEON GUILLEMOTS

Injury and Recovery

Although the pigeon guillemot is widely distributed in the north Pacific region, nowhere does it occur in large numbers or 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 had declined before the spill. The causes of the prespill decline are unknown. It is estimated that 10-15 percent of the spill-area population may have died following the spill. Guillemot nesting on the Naked Islands was well-studied in 1978-81. Postspill surveys using the same methods indicated a decline of about 40 percent in guillemots in the Naked Islands. Based on boat surveys, the overall guillemot population in the Sound declined as well.

Numbers of guillemots recorded on boat surveys are highly variable, and there is not yet any statistically significant evidence of a postspill population increase. The factors responsible for the guillemot's prespill decline may negate or mask recovery from the effects of the oil spill.

The Alaska Predator Ecosystem Experiment (APEX) project is investigating the possible link between pigeon guillemot declines to the availability and abundance of forage fish, such as Pacific herring, sand lance, and capelin. The Nearshore Vertebrate Predator (NVP) project also addresses the possibility that exposure to oil continues to limit the guillemot's recovery. Both projects are supported by the Trustee Council.

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

About 75 percent of wild pink salmon in Prince William Sound spawn in the intertidal portions of streams and were highly vulnerable to the effects of the oil spill. Hatchery salmon and wild salmon from both intertidal and upstream spawning habitats swam through oiled waters and ingested oil particles and oiled prey as they foraged in the Sound and emigrated to the sea. As a result, three types of early life-stage injuries were identified: First, growth rates in juvenile pink salmon from oiled parts of Prince William Sound were reduced. Second, there was increased egg mortality in oiled versus unoiled streams. A possible third effect, genetic damage, is under investigation.

In the years preceding the spill, returns of wild pink salmon in Prince William Sound varied from a maximum of 21.0 million fish in 1984 to a minimum of 1.8 million in 1988. Since the spill, returns of wild pinks have varied from a high of about 14.4 million fish in 1990 to a low of about 2.2 million in 1992. There is a particular concern about the Sound's southwest management district, where returns of both hatchery and wild stocks have been generally weak since the oil spill. Because of the tremendous natural variation in adult returns, however, it is difficult to

attribute poor returns in a given year to injuries caused by *Exxon Valdez* oil. For pink salmon, mortalities of eggs and juveniles remain the best indicators of injury and recovery.

Evidence of reduced juvenile growth rates was limited to the 1989 season, but increased egg mortality persisted in oiled compared to unoiled streams through 1993. The 1994 and 1995 seasons were the first since 1989 in which there were no statistically significant differences in egg mortalities in oiled and unoiled streams. These data indicate that recovery from oil-spill effects is underway.

The Sound Ecosystem Assessment (SEA) Project is exploring oceanographic and ecological factors that influence production of pink salmon and Pacific herring. These natural factors are likely to have the greatest influence over year-to-year returns in both wild and hatchery stocks of pink salmon.

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 unoiled 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 and an unknown population size in Prince William Sound, and, therefore, it is hard to assess oil-spill effects. Twelve river otter carcasses were found following the spill, but the actual mortality is not known. Studies conducted during 1989-91 identified several differences between river otters in oiled and unoiled areas in Prince William Sound, including biochemical evidence of exposure to hydrocarbons or other sources of stress, reduced diversity in prey species, reduced body size (length-weight), and increased territory size. Since there were no prespill data and sample sizes were small, it is not clear that these differences are the result of the oil spill.

The Nearshore Vertebrate Predator project, now underway, will shed new light on the status of the river otter. In 1995 the Alaska Board of Game used its emergency authority to restrict trapping of river otters in western Prince William Sound to ensure that the results of this study are not compromised by the removal of animals from study areas on Jackpot and Knight islands.

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 unoiled areas of Prince William Sound, after taking into account any geographic differences.

ROCKFISH

Injury and Recovery

Very little is known about rockfish populations 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 increased fishing pressures on rockfish, which may have adversely affected the rockfish population. However, the original extent of injury and the current recovery status of this species are unknown.

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 fur harvesting by Russian and American fleets. Surveys of sea otters in the 1970s and 1980s, however, indicated a healthy and expanding population, including in Prince William Sound, prior to the oil spill. Sea otters are today an important subsistence resource for their furs.

About 1,000 sea otter carcasses were recovered following the spill, although 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 boat surveys conducted in Prince William Sound, there is not yet statistically significant evidence of an overall population increase following the oil spill (1990-94). This lack of a significant positive trend, however, may result from low statistical power in the survey, which will be repeated in 1996.

Based on observations by local residents, it is evident that the sea otter is abundant in much of Prince William Sound. There is no evidence that recovery has occurred, however, in heavily oiled parts of western Prince William Sound, such as around northern Knight Island. The Nearshore Vertebrate Predator project, which was started in 1995, should help clarify the recovery status of the sea otter in the western Sound.

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. 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. Surveys also have indicated that remaining shoreline oil in the Sound is relatively stable and, by this time, is likely to decrease only slowly. Oil also persists under armored rock settings on the Kenai and Alaska peninsulas, and this oil has undergone little chemical change since 1989.

In 1995, a shoreline survey team visited 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 settings 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 reached its greatest concentrations at water depths of 20 meters 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 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 subtidal oiling is still known to occur.

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.

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, Red and Akalura lakes on Kodiak Island, and other lakes on Afognak Island and the Alaska Peninsula. Initially these high escapements may have produced an overabundance of juvenile sockeye that overgrazed the zooplankton, thus altering planktonic food webs in the nursery lakes. Although the exact mechanism is unclear, the result was lost sockeye production as shown by declines in the returns of adults per spawning sockeye.

The effects of the 1989 overescapement of sockeye salmon have persisted in the Kenai River system through 1995. Although the overall escapement goal for that system was met in 1995, there is concern that the initial overescapement will continue to affect post-spill year-classes.

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. There continues to be some problem in the rate of production of sockeye fry in Red and Akalura lakes. This problem may or may not be linked to the overescapement, and possible additional factors include low egg-to-fry survival, competition from other freshwater fishes, and the interception of adults in the mixed-stock fishery harvest offshore.

Recovery Objective

Sockeye salmon in the Kenai River system and Red and Akalura lakes will have recovered when adult returns-per-spawner are within normal bounds.

SUBTIDAL COMMUNITIES

Injury and Recovery

Oil that was transported down to subtidal habitats apparently caused changes in the abundance and species composition of plant and animal populations below lower tides. Different habitats, including eelgrass beds, kelp beds, and adjacent nearshore waters (depths less than 20 meters), were compared at oiled and unoiled sites. Biologically, the greatest differences were detected at oiled sites with sandy sea bottoms in the vicinity of eelgrass beds, at which there were reduced abundances of eelgrass shoots and flowers and helmet crabs. The abundance and diversity of worms, clams, snails, and oil-sensitive amphipods (sand fleas) also were reduced. Organisms living in sediment at depths of 3-20 meters were especially affected. Some opportunistic (i.e., stress-tolerant) invertebrates within the substrate, mussels and worms on the eelgrass, and juvenile cod, were greater in numbers at oiled sites.

By 1993, oil concentrations in sediments had dropped considerably, so that there was little difference between oiled and unoiled sites. The eelgrass habitat, the only habitat examined in 1993, revealed fewer differences in abundances of plants and animals. As was true in 1990, however, some opportunistic species still were more abundant at oiled sites. These included the opportunistic worms and snails, mussels and worms on the eelgrass, and juvenile cod.

Preliminary results from eelgrass habitats visited in 1995 revealed that natural recovery had occurred. No difference was detected in abundance of eelgrass shoots and flowers, mussels on eelgrass, amphipods, helmet crabs, and dominant sea stars between oiled and unoiled sites. The abundance of small green sea urchins, however, was more than 10 times greater at oiled sites. The possibility that urchins increased due to a reduction in numbers of sea otters, which prey on urchins, is being examined in the Nearshore Vertebrate Predator Project. Analyses of the recent oil concentrations in sediments and organisms that live within the substrate are not yet complete.

Recovery Objective

Subtidal communities will have recovered when community composition in oiled areas, especially in association with eelgrass beds, is similar to that in unoiled areas. Indications of recovery are the return of oil-sensitive species, such as amphipods, and the reduction of opportunistic species at oiled sites.

SERVICES

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.

Passive Use

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 unoiled areas increased management problems and facility use in unoiled 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 and management capabilities can accommodate changes in human use.

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 eating 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.

[*Note: This table is modified from p. 32 of the* Restoration Plan.]

Table 2. Resources and Services Injured by the Spill

INJURED RESOURCES				LOST or REDUCED SERVICES
Recovered Bald eagle	Recovering Archaeological resources* Common murres Intertidal communities** Mussels Pink salmon Sediments Sockeye salmon Subtidal communities	Not Recovered Cormorants (3 species) Harbor seal Harlequin duck Killer whale (AB pod) Marbled murrelet Pacific herring Pigeon guillemot Sea otter (in oiled west. PWS)	Recovery Unknown Black oystercatcher Clams Common loon Cutthroat trout Designated Wilderness areas Dolly Varden Kittlitz's murrelet River otter Rockfish	Commercial fishing Passive uses Recreation and Tourism including sport fishing, sport hunting, and other recreation uses Subsistence

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*Archaeological resources are not renewable in the same way that biological resources are, but there has been significant progress toward the recovery objective.

**Status of intertidal communities based largely on monitoring in sheltered rocky habitats in Prince William Sound; status of other intertidal habitats is less certain or unknown, though some recovery can be anticipated.

Amending the List of Injured Resources and Services. The list of injured resources and services will be reviewed as new information is obtained through research, monitoring, and other studies sponsored by the Trustee Council. In addition, information may be submitted to add to or otherwise change this list. This information can include research results, assessment of population trends, ethnographic and historical data, and supportive rationale. Information that has been through an appropriate scientific review process is preferable. If data have not been peer reviewed, they should be presented in a format that permits and facilitates peer review. Information to change the list will be reviewed through the Trustee Council's scientific review process.

Appendix E

Draft Options - Use of the Restoration Reserve

DRAFT OPTIONS

USE OF THE RESTORATION RESERVE FUND

Background

Following the settlement between the United States and State of Alaska and Exxon in the fall of 1991, the governments began development of a plan to guide restoration of the resources and services injured by the 1989 oil spill. There had never been a restoration effort of this magnitude attempted before. In addition, the full extent of the injury from the spill was still not known. The Trustees were reluctant to initiate a full-scale restoration program in the absence of an overall coordinated restoration plan. To assist the planning effort, a major public outreach effort was held in 1992 and 1993, starting with the publication of a newspaper supplement and public meetings in all communities in the spill region.

A draft restoration plan was published in November 1993 to guide restoration decisions until a final plan could be completed. The draft plan was distributed for public review, public meetings were held, and a Final Environmental Impact Statement prepared, leading to approval of the final *Restoration Plan* in November 1994.

The final *Restoration Plan* provides for establishment of a Restoration Reserve in order to ensure that restoration activities would have a source of funding following the final payment from Exxon Corporation in September 2001. This component of the plan was developed on the assumption that complete recovery from the *Exxon Valdez* oil spill will not occur for many years, based on the long life cycles of salmon and herring and the slow recovery of a number of resources, such as harbor seals and herring. The *Restoration Plan* states:

> Only through long-term observation and, if necessary, restoration actions, can these resources be restored. Moreover, to understand the effect of these injuries on the ecosystem and to take appropriate restoration actions on an ecosystem basis will require actions well into the future.

The *Restoration Plan* also anticipated some form of long-term endowment to support restoration needs. According to the *Restoration Plan*:

> It is anticipated that $12 million will be allocated to the Reserve each year, subject to the Trustee Council's annual restoration funding process. 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 all restoration needs through the year 2001 are not yet known, the Trustees must have the 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 . . . If at least $12 million is placed into the reserve each year through 2001, $108 million or more plus interest would be available for funding restoration after Exxon payments end. Funds from the Restoration Reserve could potentially benefit any resource or service injured by the oil spill. All expenditures from the Restoration Reserve must be consistent with the requirements of the Court Settlement.

Since adopting the *Restoration Plan*, the Trustee Council has authorized five deposits of $12 million each into the Restoration Reserve.

It is now time to review again the basic assumptions for which the Restoration Reserve was established, and then decide what is appropriate for future uses of these funds.

DRAFT OPTIONS

This paper presents a number of options for the use and management of the Restoration Reserve. The Trustee Council is seeking public input on these options to assist it in making a decision on future uses of the reserve funds.

ASSUMPTIONS

The following assumptions can be made about the principal in the Restoration Reserve in 2002, the rate of return, and the long-term inflation rate:

Principal:	$150 million
Nominal rate of return:	7.5%
Long-term inflation rate:	3.5%
Inflation-adjusted rate of return:	4.0%
Endowment:	
Available to spend each year ($150 million endowment):	$6 million
Available to spend each year ($100 million endowment):	$4 million
Available to spend each year ($ 50 million endowment):	$2 million
Fixed term:	
Available to spend each year ($150 million over 10 years):	$22 million
Available to spend each year ($ 50 million over 10 years):	$ 7 million

The best estimate of the size of the principal in the Restoration Reserve in 2002 is $140 million to $150 million. For planning purposes, the higher figure is used. Assumptions about the nominal rate of return (7.5%) and the long-term inflation rate (3.5%) are conservative. These assumptions produce an inflation-adjusted rate of return of 4.0%, which is also the target set by the Alaska Permanent Fund Board of Directors in 1996. If the high growth and low inflation of recent years continue beyond the year 2002, the actual returns of the Reserve Fund could be considerably higher.

It is possible that the Trustee Council will try to accommodate more than one use for the reserve funds. Please consider that as you provide your comments. For example, the Trustee Council could decide to use a majority of the reserve funds to create a perpetual endowment for research in the northern Gulf of Alaska, to be governed by a new board with public input, but no formal advisory board. The other funds could be used by the current Trustee Council for community-

based restoration projects and habitat protection efforts in the spill area over the next ten years.

This is only an example. But please consider possibilities of this kind as you provide your comments.

COSTS

Under any scenario there will be costs associated with the governance, management and administration of the reserve funds. These costs will vary depending on the option(s) chosen. All scenarios would require at minimum a small core professional staff to manage and administer the funds at the direction of a governing body. Basic staff functions include management and investment of funds; program implementation including review/evaluation of proposals and project tracking; disbursement and accounting of funds; and some level of public information and involvement. If there is a significant scientific program, technical expertise would be required for review of proposals and reports. If use of the reserve funds includes a habitat protection component, funds for appraisals, surveys, title searches and hazardous materials certifications might be required. The current Public Advisory Group is a $125,000 expense. Other outreach costs could include funds for newsletters, publications, workshops and conferences.

These costs all could vary greatly. A conservatively run program could range in the $750,000 a year range, similar to the Alaska Science and Technology Foundation. However, additional oversight, review, outreach and coordination functions could easily double these costs. Please keep these considerations in mind as you provide your comments, especially in relation to the governance, administration and public advice options.

"Building Blocks" for the Draft Options

The Trustee Council is evaluating six main issues in considering draft options: use, location, term, governance, administration and public advice.

Use:	Ecosystem research and monitoring Large parcel habitat protection Small parcel habitat protection Endowed university chairs Community-based general restoration projects Public education, outreach and stewardship
Location:	Limited to the spill area Northern Gulf of Alaska (a slightly enlarged version of the spill area)
Term:	Perpetual (inflation-adjusted endowment) Fixed (e.g., 10, 15 or 20 years)
Governance:	Trustee Council in its present form New board or boards Existing board or boards
Administration:	Smaller version of the current Restoration Office Another existing government agency New or existing non-governmental organization
Public Advice:	Public Advisory Group in its present form Public Advisory Group with different size and makeup Public outreach but no Public Advisory Group

Possible options addressing each of these issues are outlined below.

❶ Use

Ecosystem Research and Monitoring

Research and monitoring carried out by the restoration program to date has greatly increased knowledge of the marine ecosystem and improved management of injured natural resources, emphasizing Prince William Sound. A fund or foundation could be created to extend support for ecosystem-scale work throughout the spill area and the adjacent northern Gulf of Alaska. This program would take the "pulse" of the ecosystem, identifying changes in the environment and how such changes affect species and resources of ecological and commercial importance. The fund could either be a perpetual, inflation-adjusted endowment or have a declining balance with a fixed term (e.g., 20 years). The program would complement work carried out in existing agency and academic programs, providing information on long-term trends for the benefit of those with an interest and stake in the use and conservation of the spill-area ecosystem.

Large Parcel Habitat Protection

Since 1992, the Trustee Council has worked with willing landowners in the spill area to acquire nearly 650,000 acres of prime habitat important for fish and wildlife resources such as salmon and herring, cutthroat trout, marbled murrelets, and river otters and for services such as subsistence, commercial fishing, sport fishing, hunting, and other recreational uses. The program currently being implemented includes all private landowners who have agreed to participate, with only a few exceptions. Lesnoi Corporation has offered to sell its Cape Chiniak lands (2,700-18,000 acres), and Chugach Alaska, which owns surface and subsurface estates in the spill area, has expressed an interest in land exchanges but not in the outright sale of any of their lands. Additional lands on Afognak Island may be available for sale, but are beyond the scope of any agreement currently under negotiation. Other large private landowners within the spill area, including Cook Inlet Region, Incorporated, Port Graham Corporation, and the Chignik corporations have not indicated an interest in participating in the large parcel program.

Small Parcel Habitat Protection

The Trustee Council's Small Parcel Habitat Protection Program has been very popular, with acquisitions to date totaling nearly 7,000 acres. These parcels tend to be within or close to communities in the spill area. It is likely that additional protection opportunities will become available over time. One possibility is to give a set amount of funds to a private organization (e.g., The Nature Conservancy, the Conservation Fund, or the Trust for Public Lands) to manage as an endowment and to use the interest for small parcel acquisitions that meet restoration criteria and are of public interest.

Endowed University Chairs

The possibility of using the reserve funds to endow university chairs (faculty positions) has been strongly advocated by some people. To endow a chair, the Trustee Council would give the University of Alaska about $2 million to put into the University of Alaska Foundation. Interest from those funds would pay for the salary and benefits of a faculty member. For an additional sum, support for a graduate student also could be included. The incumbent of the endowed chair could occupy the position for a fixed term (e.g., five years). The physical location of the chair could also vary, depending upon the type and location of research and teaching to be supported. Endowed chairs could help attract qualified research personnel that are presently not available in Alaska in fields relevant to ecosystem research or other aspects of the long-term restoration program.

Community-Based Restoration Projects

Most of these activities respond directly to a local or small-scale restoration need and may involve enhancement of the environment or management of human uses. They also could involve facilities. Examples include projects such as recreation and tourism improvements, archaeological restoration, cultural preservation, marine pollution reduction, and enhancement of subsistence opportunities. Most of this type of work would likely be proposed by spill-area communities.

Public Education, Outreach and Stewardship

Funds could be used for a variety of purposes including, but not limited to: translating research results into formats the public and resource managers can understand and easily use; providing information on land and resource management techniques; creating partnerships between public and private landowners including stewardship efforts, co-management, and other forms of enhanced management, especially on those lands acquired for habitat protection; and extending investments in research through scholarships and internships at high school and college levels.

Other

Please consider other options that may be consistent with the Trustee Council's responsibility to restore, replace, rehabilitate or enhance the resources and services injured by the 1989 oil spill.

❷ Location

Spill Area

The spill area is the identified on the map in the *Restoration Plan* (p. v) and identified by the Trustee Council as the geographic region directly affected by the 1989 oil spill.

Northern Gulf of Alaska

This region is essentially the spill area, but slightly enlarged to encompass additional marine waters that are part of and directly influence the spill-area ecosystem.

Other

Are other geographic boundaries appropriate? If so, please describe what they are and why you feel they are appropriate.

❸ Term

Fixed

The principal and interest of the Restoration Reserve, or a portion of it, could be spent over a fixed period of time. This would result in a declining balance account, whereby a large program could occur with a set end point (for example, a 10-year, 15-year, or 20-year term). If the entire $150 million in the Restoration Reserve were to be spent over a 10 year period, about $22 million could be spent each year.

Perpetual endowment

This type of an account would be similar to the Alaska Permanent Fund, which provides for permanent, inflation-adjusted investment of funds. If managed as a perpetual endowment, the Restoration Reserve could generate about $6 million to spend in the first year.

Other

Please consider other options if appropriate.

❹ Governance

Present Trustee Council

The current Trustee Council, consisting of three state and three federal trustees and requiring unanimous consent, could continue to make decisions.

New Board or Boards

A new board could be the primary decision-making body. Members could include representatives of all or some combination of the following: state and federal resource management agencies, the University of Alaska, and stakeholders, including Native organizations, fishing groups and scientists. Questions to consider include whether potential recipients of the funds also should make the funding decisions or should the board be made up completely of those who would not directly receive the funds? Should the existing Trustee Council have to concur with the new board's decisions? Or should the existing Trustee Council be disbanded? Should there be separate boards to oversee the different uses of the reserve funds?

Existing Board

For some proposed uses, there may be an existing board that either under its current structure or with minor modifications could take over management of a proposed restoration activity.

Other

Please consider other alternatives if appropriate.

❺ Administration

Restoration Office

The current Restoration Office could continue to exist, but at a smaller size. It could continue to be housed within the Alaska Department of Fish and Game for administrative purposes and the staff would report to an executive director, who reports to all six trustees.

Another existing agency

Support activities could be provided by staff from another appropriate state or federal agency.

New or existing entity

All administrative functions could be taken over by a new or existing entity, such as a public/private authority, a nonprofit organization, or a private foundation. Questions to consider include how, and to what level, would public accountability be ensured?

Other

Please consider other alternatives if appropriate.

⑥ Public Advice

Current Public Advisory Group

The existing Public Advisory Group (PAG) has 17 members representing 12 interest groups, and five public-at-large and two ex officio members from the State Legislature. The PAG currently meets four times a year, and one field trip within the spill area.

Public Advisory Group with different size and makeup

The PAG concept and function could be retained but with different membership to either reduce costs or increase participation of other interests, and would probably meet less frequently.

Public outreach: no Public Advisory Group

All meetings would be public. Public input could be welcomed and responded to, but without an official advisory group. Existing advisory entities would be used to increase public input.

Other

Please consider other alternatives if appropriate.

Appendix F

Special Edition - *Restoration Update* (March-April 1998)

Special Edition

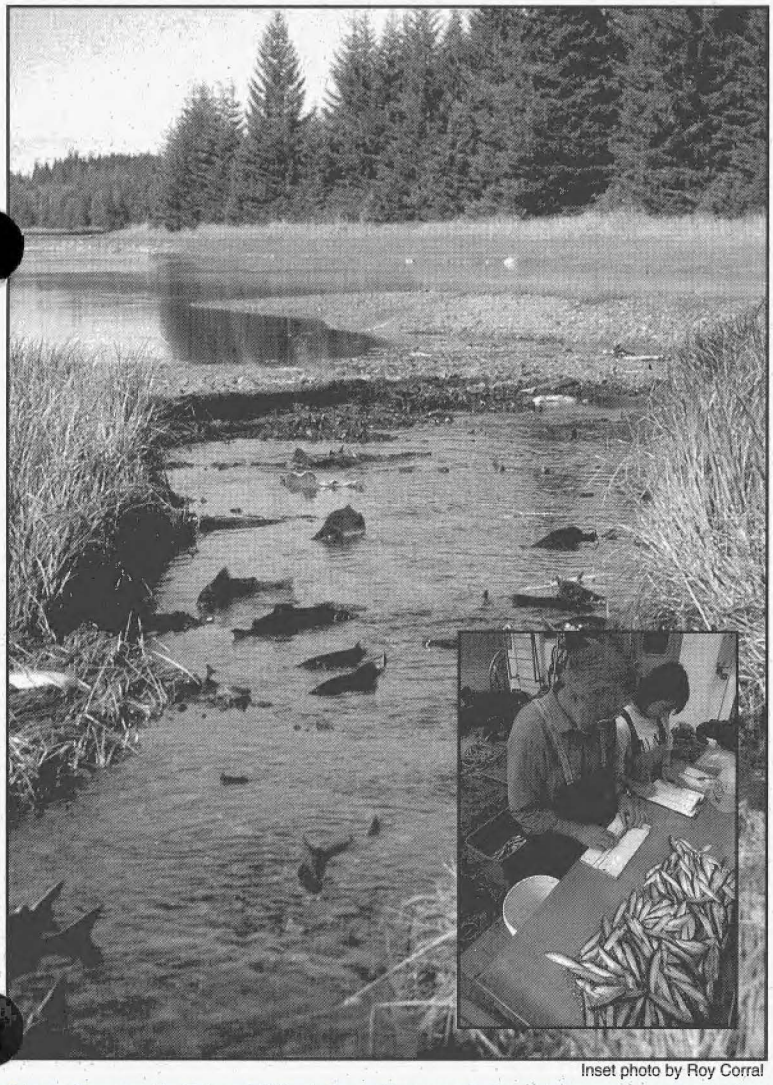
EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

RESTORATION UPDATE

March-April 1998
Volume 5 Number 2

THE RESTORATION RESERVE

Building Blocks for Restoration in the 21st Century



Kevin Hartwell

Inset photo by Roy Corral

Canoe Passage in Prince William Sound is one of 280 salmon streams protected through the Council's habitat programs. Research and monitoring (inset) complement protection with added knowledge of the ecosystem and improved fisheries management.

Trustee Council seeks public input on use of restoration fund

The Restoration Reserve is a savings account, set aside as part of the long-term restoration plan established by the Trustee Council in 1994.

That plan calls for the Trustee Council to place up to $12 million into a reserve account each year for nine successive years. The idea is to have a fund set aside to finance a long-term restoration program that extends beyond the last payment from Exxon.

INSIDE

By the time the Restoration Reserve is needed in the year 2002, it is expected to be worth approximately $140 million. Last fall, the Trustee Council sought preliminary input from the Public Advisory Group, community leaders and the general public on how this fund should be used. This resulted in a set of potential elements for creating a long-term restoration program. These elements are described in this publication as "building blocks" ready to be stacked. How you stack them depends on your priorities.

All comments received through this special newsletter and during a series of public meetings to be held throughout the spill region will be compiled and presented to the Trustee Council. The public comment period will end April 30, 1998. The Council is expected to decide on the future use of the Restoration Reserve by fall.

The *Restoration Plan*

The Trustee Council's *Restoration Plan* was adopted in 1994 after an extensive public process that included 21 public meetings throughout the spill region and thousands of citizen comments. It has four main components:

Research and Monitoring

Surveys and other monitoring of fish and wildlife in the spill region provide basic information to determine population trends, productivity, health and long-term effects of oil. This information is needed to guide the Trustees in restoration decisions and to gauge the status of recovery.

New research increases our knowledge about the biological needs of individual species and how each contributes to the Gulf of Alaska ecosystem. Research also provides new tools for better management of fish and wildlife populations to assist in the restoration effort.

General Restoration

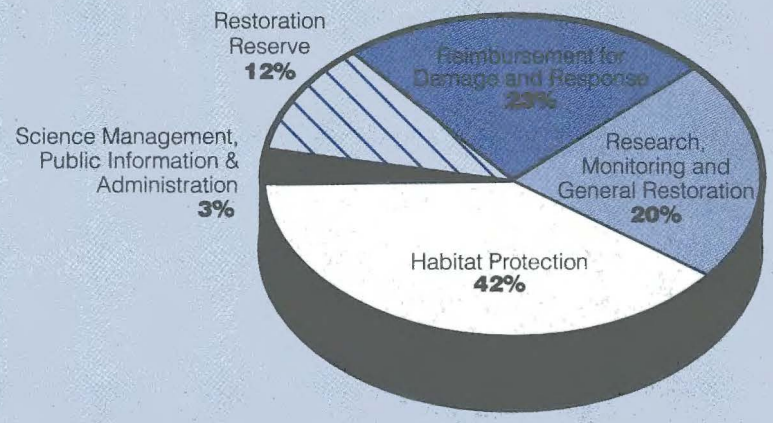
This is the category used for restoration projects other than scientific research or habitat protection. It includes projects to protect archaeological resources, improve subsistence resources, enhance salmon streams, reduce marine pollution, eradicate foxes on seabird colony islands, and develop new management tools for fish and wildlife managers.

Habitat Protection

Protection of habitat helps prevent additional injury to species from intrusive land uses or other loss of habitat. The Trustee Council accomplishes this by acquiring fee simple title or conservation easements on land important to the recovery of fish, wildlife and plant species and related services injured by the oil spill.

Science Management, Public Information & Administration

The 10-year budget plan includes the cost of public meetings for the Trustee Council and the Public Advisory Group, newsletters and other means of disseminating information to the public, management of the work plan and habitat programs, scientific oversight of research, monitoring and restoration projects, agency coordination, and overall administration of the restoration program.



Past Uses and Estimated Future Uses of Civil Settlement (in millions $)

Reimbursements for Damage Assessment and Response	**213.1**
Governments (includes litigation and cleanup)	173.2 (a)
Exxon (for cleanup after 1/1/92)	39.9
Research, Monitoring and General Restoration	**180.0**
Actual expenditures:	
• *FY 1992 Work Plan*	11.7
• *FY 1993 Work Plan*	7.4 (b)
• *FY 1994 Work Plan*	14.2
• *FY 1995 Work Plan*	17.0
• *FY 1996 Work Plan*	18.0
• *FY 1997 Work Plan* (authorized)	16.2
• *FY 1998 Work Plan* (authorized)	14.1
FY 1999 - FY 2002 Work Plans (estimate)	50.4
Alutiiq Museum	1.5
Alaska SeaLife Center	26.2
Reduction of Marine Pollution	3.3
Habitat Protection	**392.3**
Large Parcel and Small Parcel habitat protection programs (past expenditures, outstanding offers, estimated future commitments and parcel evaluation costs)	
Restoration Reserve	**108.0**
• FY 1994 — FY 1998	60.0
• FY 1999 — FY 2002 (anticipated)	48.0
Science Management, Public Information & Administration	**30.9**
Actual expenditures:	
• *FY 1992*	4.3
• *FY 1993*	2.7 (b)
• *FY 1994*	4.1
• *FY 1995*	3.2
• *FY 1996*	3.0
• *FY 1997*	2.9
• *FY 1998* (authorized)	2.8
FY 1999 - FY 2002 (estimate)	7.9
TOTAL	**924.1**
Exxon Payments	900.0
Interest on Court Registry Investment System (minus fees)	18.1
Interest on federal and state acounts	6.0

(a) Reimbursement to governments reduced by $2.7 million included in the FY 1992 Work Plan.
(b) 1993 Work Plan was funded for only 7 months during transition to the federal fiscal year.

as of 12/31/97

Are fish, seabirds and marine mammals recovering from the effects of the oil spill?

A partial listing of species injured by the Exxon Valdez oil spill and a summary of their recovery status is provided below. While numerous species were injured, the Restoration Plan focuses attention on those species that experienced a population-level impact or continuing sublethal impact.

Bald Eagles

The oil spill area provides year-round and seasonal habitat for many thousands of bald eagles. Although hundreds died during the spill, the population rebounded and the bald eagle was removed from the injured resources list in 1996.

Black Oystercatchers

Black oystercatchers spend their entire lives in the intertidal habitats and are highly vulnerable to oil pollution. After the spill, oystercatchers had reduced hatching success and rates of growth. Recovery status is not known and further studies are underway.

Common Murres

The population of common murres was reduced by as much as 40% following the spill. Reproduction was also disrupted, though changes in availability of prey species may complicate interpretation of spill effects. Regardless of the cause, common murres now appear to be recovering.

Harbor Seals

Harbor seals in the Gulf of Alaska have declined by 80% over the last 20 years and they continue to decline at 6% per year in Prince William Sound. About 300 seals died as a result of the spill. Harbor seals are not recovering. Changes in their food supply and predation may be significant factors in their long-term decline.

Harlequin Ducks

Harlequin ducks feed in intertidal habitats where most of the spilled oil was stranded. The spill affected both wintering and summering populations. There continues to be concern about poor reproduction and survival in oiled areas, although the overall population in Prince William Sound appears to be increasing.

Intertidal Communities

Portions of 1,500 miles of coastline were oiled. The spilled oil and subsequent clean-up harmed flora and fauna in the area between low and high tides. Clean-up crews returned to five Chenega area beaches in 1997 to remove additional entrenched oil. Overall, intertidal communities appear to be recovering.

Killer Whales

The AB pod had 36 members prior to the spill and 14 of them disappeared in 1989 and 1990. Since then, the AB pod has not recovered although other resident pods have increased in number. In recent years, killer whales have spent more time in the Kenai Fjords area and less time in Prince William Sound.

Marbled Murrelets

The marbled murrelet is listed as threatened in the Pacific Northwest. Its population in Alaska had declined before the oil spill, possibly due to changing food supplies, and dropped an estimated 7 percent due to the spill. There is no evidence of recovery. Marbled murrelets are reclusive and nest deep within old growth forests.

Pacific Herring

In 1993, when herring hatched during the spill were supposed to return and spawn, the herring population collapsed. The commercial herring fishery in Prince William Sound was closed for four years. A viral disease and fungus were identified as possible causes of the crash. Research has revealed a wealth of new information about the life cycle of herring, but much remains unknown. Recovery appears underway.

Pigeon Guillemots

Because guillemots feed in shallow, nearshore waters, they are vulnerable to oil pollution. The pigeon guillemot population likely began declining before the spill and its lack of recovery from the oil spill may be linked to the availability of forage fish, especially sand lance.

Pink Salmon

About 75 percent of pink salmon in Prince William Sound spawn in the intertidal portions of streams and there was increased egg mortality in oiled streams. Juvenile salmon also swam through oiled waters. Egg mortalities have returned to normal levels from 1994 through 1996, and this species is on its way to recovery.

River Otters

Some of the spill's initial impacts on river otters, including reduced body size, seem to be disappearing. There still are recent indications of exposure to hydrocarbons or other sources of stress, and research is now underway to help interpret these data.

Sea Otters

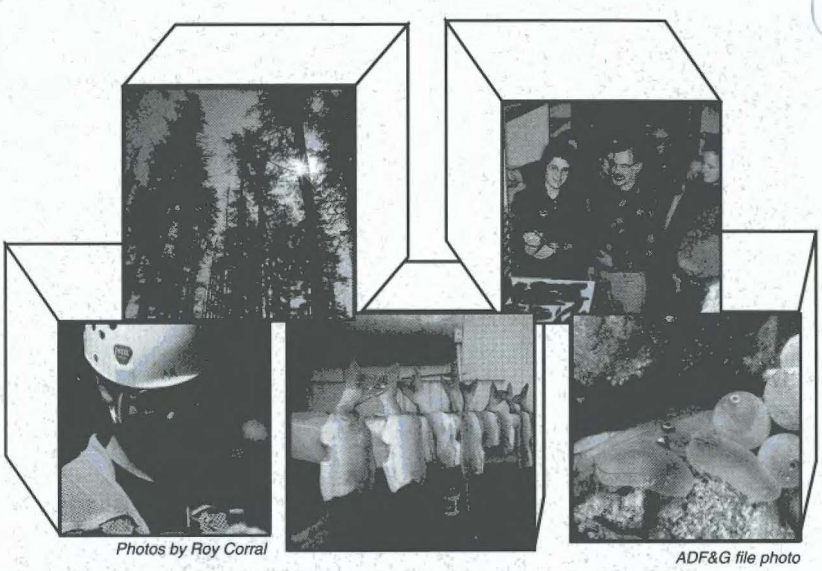
Sea otters, which became the symbol of oil's destruction during the early days of the spill, are doing well, but their numbers in the hard-hit portions of western Prince William Sound remain low. For this reason, the sea otter continues to be listed as not recovering.

Sockeye Salmon

Commercial sockeye fishing was closed in the Cook Inlet and Kodiak regions in 1989, allowing too many sockeye to enter some rivers. High escapements may have produced too many juvenile sockeye, altering the food webs in the nursery lakes. The return of adults per spawning sockeye has improved to normal levels in recent years.

Building Blocks

for restoration in the 21st Century



Photos by Roy Corral

ADF&G file photo

There are four basic building blocks to consider in establishing a plan for restoration beyond the year 2002. The building blocks include:

USE -- *How should the money be allocated?*
- Research & Monitoring
- Large Parcel Habitat Protection
- Small Parcel Habitat Protection
- Community-Based Restoration Projects
- Public Education, Outreach, 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 public input and public comment be obtained?*
- Current Public Advisory Group (PAG)
- PAG with Different Size and Makeup
- Public Outreach, but No PAG

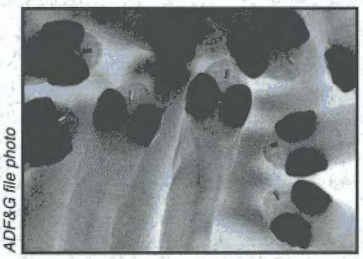
TERM -- *How long should the program last?*
- Fixed Term
- Perpetual Endowment

USE

Based on a set of economic assumptions, it is projected that the Restoration Reserve could be valued at approximately $140 million in the year 2002. The Trustee Council has identified several potential uses for this fund. The entire reserve could be dedicated t one use or divided among several or all of the uses.

Most projects using settlement funds would continue to be restricted to the spill area. However, some long-term research and monitoring projects could take place in adjacent parts of the northern Gulf of Alaska if they provide needed data on the spill-affected ecosystem.

Research and Monitoring



ADF&G file photo

Research and monitoring carried out by the restoration program to date have greatly increased knowledge of the marine ecosystem and improved management of injured natural resources, especially in Prince William Sound where the greatest injuries occurred. Current information indicates that additional research and monitoring programs will be needed after the final payment from Exxon in 2001.

A program of ecosystem-scale work throughout the spill area and, possibly, the adjacent northern Gulf of Alaska could be funded over a longer period of time. This program could take the "pulse" of the ecosystem, identifying changes in the environment and how such changes affect species and resources of ecological and commercial importance.

The program could complement work carried out in existing agency and academic programs, providing information on long-term trends for the benefit of those with an interest and stake in the use and conservation of the spill-area ecosystem.

Large Parcel Habitat Protection

Photo by Daniel Zatz

Since 1992, the Trustee Council has worked with willing landowners in the spill area to protect nearly 650,000 acres of habitat important for fish and wildlife resources such as salmon and herring, cutthroat trout, marbled murrelets, and river otters. This program also benefits subsistence users, commercial fishing families, sport fishing enthusiasts, hunters, boaters and other recreational users.

Considerable progress has been made on the habitat acquisition goals identified in the 1994 Restoration Plan, with completed agreements and agreements in concept already reached on all but specific parcels on northern Afognak Island and permanent protection of the Karluk and Sturgeon rivers on Kodiak Island. Additional lands may be available, but are beyond the scope of current funding targets.

Small Parcel Habitat Protection

Photo by John Hyde

The Trustee Council's Small Parcel Program has been popular, with acquisitions to date totaling nearly 7,000 acres. These parcels tend to be within or close to communities in the spill area and target strategically valuable habitat such as coves, lagoons and rivers. Small parcels are often used to provide additional public access or developed by the acquiring government to restore recreational uses.

The Restoration Office continues to receive unsolicited small parcel nominations and additional protection opportunities will become available over time. Suggestions have been made to grant a set amount of funding to a private nonprofit organization (e.g., The Nature Conservancy, the Conservation Fund, or the Trust for Public Lands) to manage as an endowment and to use the interest for small parcel acquisitions that meet restoration criteria and are of public interest. As an example, a $25 million fund could make available about $1 million a year for additional small parcels. Such grants of the settlement funds raise legal issues and may require an implementing federal or state statute.

Economic Assumptions

Economic assumptions for the purposes of this planning effort are as follows:

Principal:	$140 million
Nominal rate of return:	7.5%
Long-term inflation rate:	3.5%
Inflation-adjusted rate of return:	4.0%

Endowment		Permanent	10-Year	20-Year
$140 million	*provides an estimated return of:*	$5.6 million/yr	$20 million/yr	$14 million/yr
$100 million		$4 million/yr	$15 million/yr	$10 million/yr
$ 50 million		$2 million/yr	$ 7 million/yr	$ 5 million/yr

What is an endowment?

An endowment is an invested fund from which interest income can be used for a specific purpose. The endowment can be permanent or it can be set to expire over time. If it is permanent, it also can be inflation-proofed, meaning that some of the interest income can be added back to the principal. The Alaska Permanent Fund is an example of an inflation-proofed endowment.

The best estimate of the size of the principal in the Reserve Fund in 2002 is approximately $140 million. Assumptions about the nominal rate of return (7.5%) and the long-term inflation rate (3.5%) are conservative. These assumptions produce an inflation-adjusted rate of return of 4.0%, which is the same as the target set by the Alaska Permanent Fund Board of Directors in 1996. If the high growth and low inflation of recent years continue beyond the year 2002, the actual returns of the Restoration Reserve Fund could be considerably higher than those cited. These investment assumptions may require a change in federal law which would allow the Trustee Council to invest settlement funds outside the U.S. Treasury. Under current law a $140 million permanent endowment would generate a nominal rate of return of 5%. The inflation-adjusted rate would be 1.5%, providing approximately $2.1 million in annual income.

Community-Based Restoration Projects

These activities are referred to in the 1994 Restoration Plan as "General Restoration" and often respond directly to a local or regional restoration need in the spill region. They usually provide a direct benefit to one or more human services: subsistence, commercial fishing, or recreation/tourism. Past projects in this category have included archaeological restoration, improved fisheries management tools, enhancement of salmon streams, marine pollution reduction, enhancement of subsistence opportunities, and additional oil removal on beaches. While these projects may provide economic benefits to a community, they are evaluated primarily on the basis of their benefits for restoration of the injured natural resources and related services, and the recovery or preservation of archaeological and cultural resources.

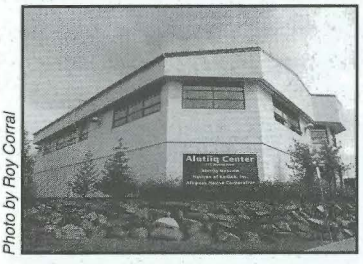


Photo by Roy Corral

Public Education, Outreach and Stewardship

Funds could be used for a variety of purposes including, but not limited to: translating research results into formats the public and resource managers can understand and easily use; providing information on land and resource management techniques; creating partnerships between public and private landowners including stewardship efforts, co-management, and other forms of management, especially on those lands acquired for habitat protection. These efforts must be related to restoration goals.

Additional Proposals

Other ideas for use of the reserve funds have been suggested which currently may not be considered legally permissible uses of the spill fund under the civil settlement. These ideas may require changes in law or approval by the federal court before they can be implemented.

These include endowing chairs or faculty positions in specified fields of study relating to the resources injured by the oil spill at the University of Alaska at a cost of about $2 million each. These funds would be given to the University of Alaska Foundation to invest. The interest would pay for the salary of a faculty member and possible support for a graduate student.

In addition, it has been suggested that restoration funds be used for spill response and prevention projects. Those who suggest this believe that better spill response and prevention will eliminate or reduce injuries to the marine environment from future oil spills and will take advantage of the knowledge gained through the *Exxon Valdez* restoration program. This may require changes to federal law and the Exxon Consent Decree.

Do you have other ideas? All options should be consistent with the governments' responsibility to restore, replace, rehabilitate or enhance the natural resources and related services injured by the 1989 oil spill.

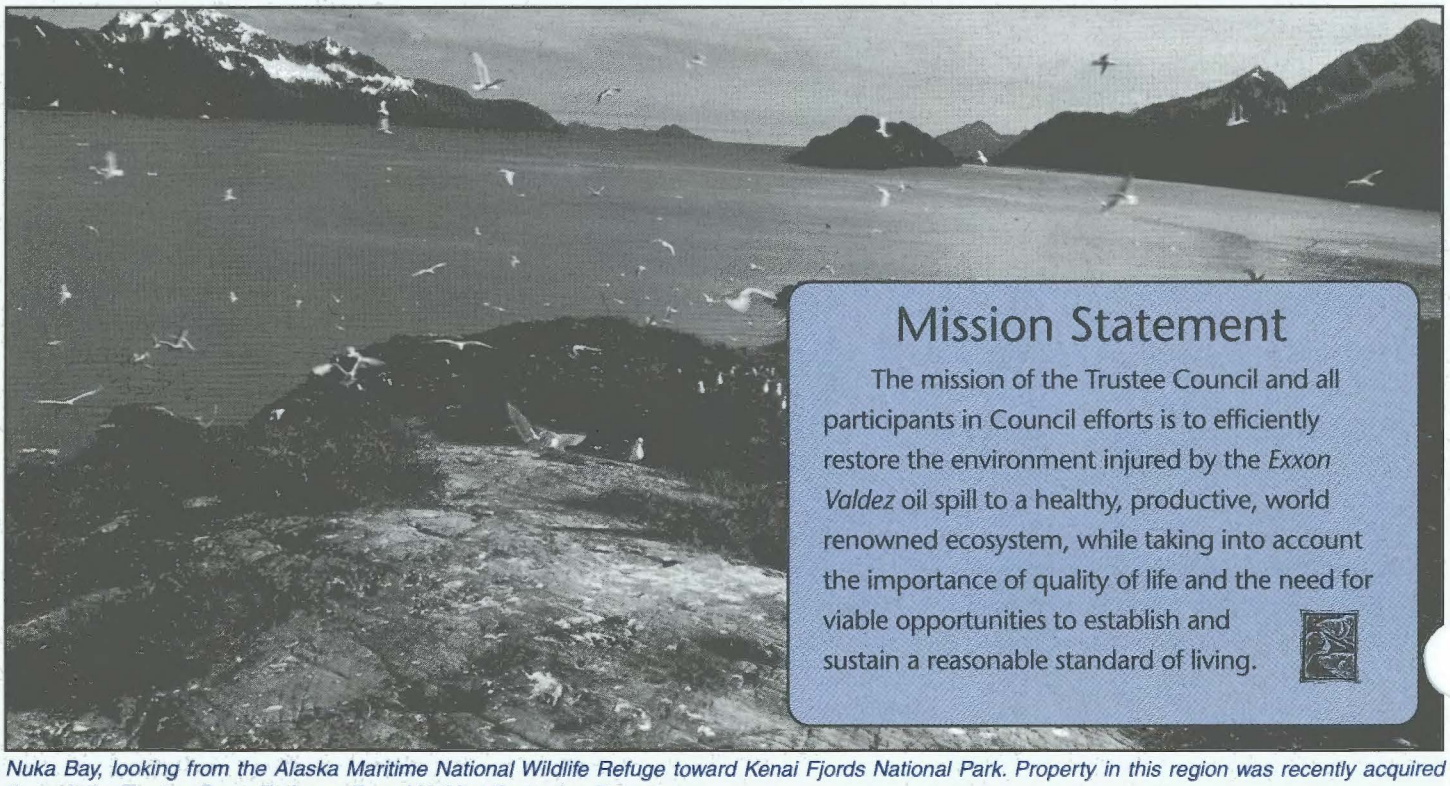


Photo by Bud Rice

Nuka Bay, looking from the Alaska Maritime National Wildlife Refuge toward Kenai Fjords National Park. Property in this region was recently acquired through the Trustee Council's Large Parcel Habitat Protection Program.

Mission Statement

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

GOVERNANCE

Governance describes a structure for making spending and policy decisions.

Photo by Joe Hunt

Present Trustee Council

Under existing law and court orders, the current Trustee Council, consisting of three state and three federal trustees operating by unanimous consent, will continue to make policy and funding decisions.

New Board or Boards

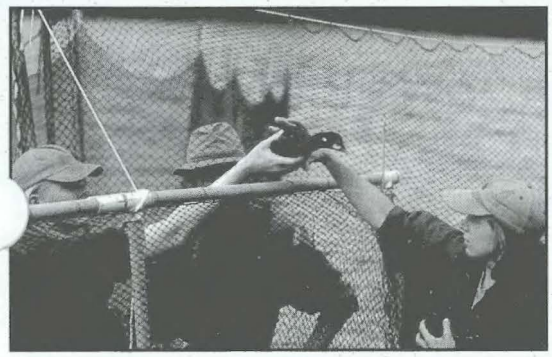
It has been suggested that at some time in the future a new board or oversight structure could be established to administer or guide the spending of the remaining settlement funds or a separate Restoration Reserve. Such a new board would require changes in law and the applicable court decrees. Members could include representatives of all or some of: current trustee agencies, other state and federal resource management agencies, the University of Alaska, and stakeholders, including local communities, Native organizations, fishing groups and scientists. Any changes in governance would need to be justified. Other issues to consider include whether potential recipients of the funds also should make the funding decisions or whether the board should be made up completely of those who would not directly receive the funds? Should there be separate boards to oversee the different uses of the reserve funds?

Existing Board

For some proposed uses, there may be an existing board that either under its current structure or with minor modifications could take over management of a proposed restoration activity. Again, any change such as this would need to be justified.

Other

Please suggest other alternatives if appropriate.



Harlequin duck research in Prince William Sound.

Photo by Kevin Hartwell

PUBLIC ADVICE

Public input and public outreach are vital components of the restoration process. Should these be continued and at what levels?

Current Public Advisory Group

Photo by Joe Hunt

The existing Public Advisory Group (PAG) has 17 members representing 12 interest groups, five public-at-large members and two *ex officio* members from the State Legislature. The PAG currently has four public meetings a year and costs about $124,000 a year.

PAG with Different Size and Makeup

The PAG concept and function could be retained but with different membership to either reduce costs or increase participation of other interests. It probably would meet less frequently.

Public Outreach: No Public Advisory Group

All meetings would be public. Public input would be welcomed and responded to, but without a formal advisory group. Existing advisory entities could be used to increase public input. This will require an amendment to the consent decree.

Other

Please suggest other alternatives if appropriate.

TERM

Term describes the period of time over which the Reserve funds would be expended.

Fixed Term

The principal and interest of the Restoration Reserve, or a portion of it, could be spent over a fixed period of time. This would result in a declining balance account, whereby a large program could occur with a set endpoint (for example, a 10-year, 15-year, or 20-year term). If the entire $140 million in the Restoration Reserve were to be spent over a 10-year period, about $20 million could be spent each year. Over 20 years, about $14 million could be spent each year.

Perpetual Endowment

This type of an account would be similar to the Alaska Permanent Fund, which provides for permanent, inflation-adjusted investment of funds. If managed as a perpetual endowment, the Restoration Reserve could generate as much as $5.6 million to spend in the first year.

Other

Please suggest other options if appropriate.

Highlights

Research & Monitoring

Research sponsored by the Trustee Council has provided new insights into how the northern Gulf of Alaska ecosystem works and how people can more wisely use, manage, and conserve its rich living resources. Here is a sampling of accomplishments achieved with restoration funds:

Photo by Kathy Frost

Harbor Seal

Sea Change. Documented a late-1970s shift from a Gulf of Alaska ecosystem dominated by crab, shrimp, and forage fish to one dominated by bottom fish. The change was probably due to an increase in water temperature, which has had lasting consequences for the fishing industry.

Harbor Seals. The ecosystem change described above and reduction in the availability of forage fish may account for the harbor seal's long-term decline and failure to recover from the oil spill. This is a major concern for subsistence hunters.

Coastal Currents. Discovered patterns of ocean circulation and plankton blooms in Prince William Sound through the Sound Ecosystem Assessment (SEA) project. This information should enable better predictions of salmon and herring returns and assist in responding to future oil spills.

ADF&G file photo

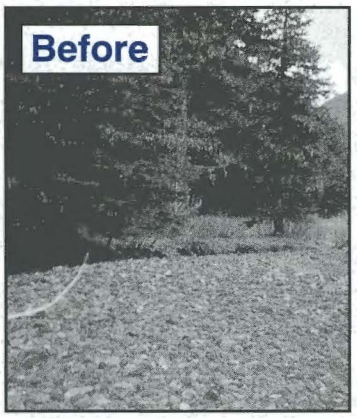
Otolith's distinctive marking

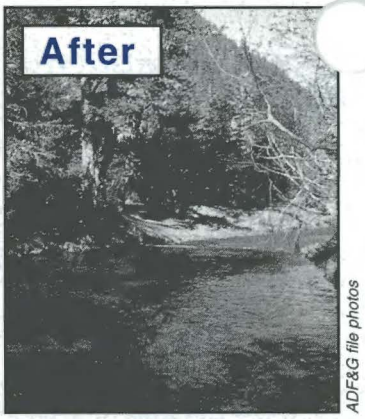
Herring Habitats. Identified habitats that are essential to different age classes of herring by conducting aerial surveys and interviews with long-time fishers and pilots. The areas where herring consistently aggregate are sensitive and may warrant special care in the future.

Otolith Marking. Provided equipment so that hatchery pink salmon fry bear unique otolith (earbone) marks; hatchery and wild stocks can then be separated when they return as adults. This technology has improved in-season fisheries management for the benefit of commercial fishers and conservation of wild stocks.

Sockeye Genetics. Developed rapid technique for using genetic material to identify the origins of Kenai River and other Cook Inlet sockeye salmon stocks, thus improving fisheries management and preventing overfishing of individual stocks.

Alaska SeaLife Center. Contributed major funding for research side of this new facility in Seward. Researchers will have a unique opportunity to study marine mammal, bird, and fish health, physiology and genetics in a controlled, cold-water environment.





ADF&G file photos

Port Dick Creek before and after dredging to increase spawning habitat.

Highlights

Community-Based Restoration

ADF&G file photo

Pink salmon eggs

Restoration efforts are often initiated by communities or groups. These non-research projects benefit the ecosystem or related human services: subsistence, commercial fishing and recreation/tourism. They are considered "General Restoration" in the 1994 Restoration Plan.

Archaeology. To promote preservation of this non-renewable resource, established the Alutiiq Museum in Kodiak; plans underway for repository and display facilities for communities in Prince William Sound and lower Kenai Peninsula.

Commercial Fisheries. Enhanced salmon production through improved spawning habitat, renovation of fish bypass, fertilization of lakes.

Subsistence. Improved salmon runs specifically targeted for subsistence harvest; funded cultural/educational projects; experimenting with clam seeding to restore subsistence clamming for some communities.

Beach Cleanup. Returned to Chenega-area beaches in 1997 to remove oil entrenched among the rocks.

Marine Pollution. Established programs to reduce marine pollution throughout the spill region.

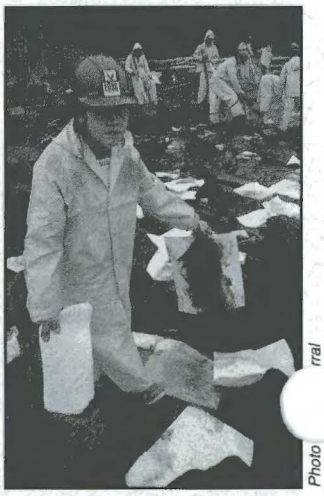


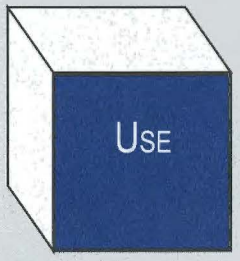
Photo courtesy of Exxon Valdez Oil Spill Trustee Council

Crews returned in 1997 to clean oil off Chenega-area beaches.

Exxon Valdez Oil Spill Trustee Council

RESTORATION RESERVE

Building Blocks for Restoration in the 21st Century



Key Questions: *Which use or combination of uses should be considered? Research & Monitoring? Large Parcel Habitat Protection? Small Parcel Habitat Protection? Community-Based Restoration Projects? Public Education, Outreach and Stewardship? Additional Proposals?*

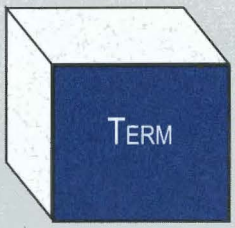
COMMENTS:

Key Questions: *Should the current Trustee Council be continued? Should a new decision-making body be created? If so, what should it look like? Why do you think this change should occur?*

COMMENTS:

Key Questions: *Should the current 17-member Public Advisory Group (PAG) continue to exist? Should the PAG be modified? Should public outreach be continued without a PAG?*

COMMENTS:



COMMENTS:

Key Questions: *How should Reserve funds be managed and invested? Permanently? 10-year term? 20-year term?*

INSTRUCTIONS

1) Clip this page;
2) fold along the center line;
3) tape it shut;
4) attach a stamp;
5) drop in the mail.

You can send your comments via fax: 907-276-7178; or via e-mail: kerih@oilspill.state.ak.us; or call us at: 907-278-8012
Toll free in Alaska: 800-478-7745
Outside Alaska: 800-283-7745

OPTIONAL

Name _____

Address _____

City _____ State _____

Would you like to receive the Trustee Council newsletter? ☐ YES

Exxon Valdez Oil Spill Trustee Council
Restoration Office
645 G Street, Suite 401
Anchorage, AK 99501-3451

Exxon Valdez Oil Spill Trustee Council
Restoration Office
645 G Street, Suite 401
Anchorage, AK 99501-3451

Photo by Robert Angell

Spawning and rearing habitat is protected while public access for recreation is increased.

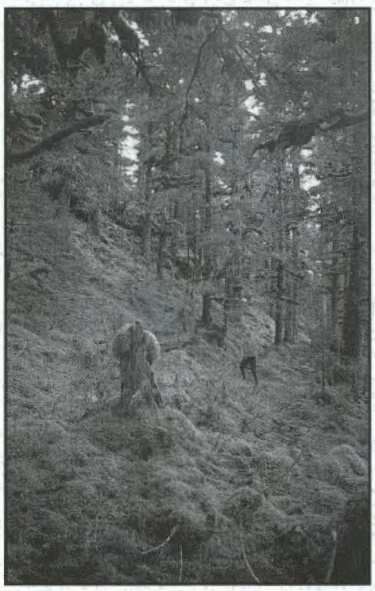


Photo by Daniel Zatz

Old-growth forests provide needed habitat for marbled murrelets.

Highlights

Habitat Protection

Prince William Sound
Acquired or have agreements to protect 204,000 acres, including more than 120 salmon streams or intertidal spawning areas.

Lower Kenai Peninsula
Protected 56,000 acres, including some of the most scenic coastline and most valuable habitat within Kenai Fjords National Park, Kachemak Bay State Park, and the Alaska Maritime National Wildlife Refuge.

Kodiak/Afognak/Shuyak Islands
Protected 233,000 acres, including 76 anadromous streams and rivers. All of the Kodiak Island parcels are within the Kodiak National Wildlife Refuge. Afognak Island State Park was created and Shuyak Island State Park tripled in size due to these acquisitions.

Small Parcels
Acquired 7,300 acres, either for recreational use or to protect strategically valuable habitat along river banks, estuaries and other key areas. Several miles of Kenai River bank have been protected in this way.

Indicates lands protected or with agreements in concept for protection or currently under negotiation.

Public Meetings

Community	Place	Date	Time
Chenega Bay	Community Center	March 18	7:00 p.m.
Tatitlek	Community Hall	March 19	10:30 a.m.
Nanwalek	IRA Village Office	March 23	2:00 p.m.
Seward	AVTECH	March 23	7:00 p.m.
Port Graham	Community Center	March 24	1:00 p.m.
Kenai/Soldotna	Kenai Borough Chambers	March 24	7:00 p.m.
Kodiak	Kodiak Borough Chambers	March 28	7:00 p.m.
Ouzinkie	*(to be determined)*	March 30	1:00 p.m.
Port Lions	*(to be determined)*	March 31	1:00 p.m.
Larsen Bay	*(to be determined)*	March 31	7:00 p.m.
Old Harbor	City Offices	April 1	2:00 p.m.
Karluk	*(to be determined)*	*March 29-April 2**	
Akhiok	*(to be determined)*	*March 29-April 2**	
Chignik Lake	*(to be determined)*	April 6	2:00 p.m.
Chignik Bay	*(to be determined)*	April 7	3:00 p.m.
Chignik Lagoon	*(to be determined)*	April 7	10:00 a.m.
Cordova	Mt. Eccles Elementary	April 7	7:00 p.m.
Perryville	*(to be determined)*	April 8	10:00 a.m.
Homer	City Council Chambers	April 8	7:00 p.m.
Anchorage	Restoration Office	April 9	7:00 p.m.
Seldovia	Community Center	April 9	7:00 p.m.
Whittier	Begich Towers Kittiwake Rm.	April 10	5:00 p.m.
Fairbanks	Wood Center Conf. Rm. , UAF	April 13	7:00 p.m.
Valdez	City Council Chambers	April 14	7:00 p.m.
Juneau	Centennial Hall	April 20	7:00 p.m.

What do you think?

Trustee Council staff will be holding public meetings throughout the spill region to discuss possible uses for the Restoration Reserve. Plan to attend the meeting in your community and tell us what you think.

Deadline for written comments on the Restoration Reserve is April 30, 1998

** indicates tentative meeting dates*

Restoration Office
645 G Street, Ste. 401
Anchorage, AK 99501-3451

Bulk Rate
U.S. Postage
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Anchorage, AK

Appendix G

Public Advisory Group
Summary of Areas of Agreement re: Restoration Reserve
(Discussion Draft dated June 2, 1998)

Discussion Draft June 2, 1998 **DRAFT**

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:

Huntington Consulting

To: Patty Brown-Schwalenberg, Chugach Regional Resources Commission
From: Henry P. Huntington, TEK Specialist
Date: September 10, 1998
Subject: Trip Report: Chenega Bay, September 8-9, 1998

On September 8, 1998, I traveled to Chenega Bay with Dan Rosenberg and Rita Miraglia of ADF&G for a TEK Information Workshop scheduled for September 9 and 10. The purpose of the workshop was to bring four EVOS-funded researchers together with local residents to discuss their research and findings, and to identify contributions that might be made by using TEK or by collaborative work in the future. In addition to Dan, whose work looks at harlequin ducks and scoters, three PIs from the Nearshore Vertebrate Predators (NVP) project took part. They were Gail Blundell (river otters), Jim Bodkin (sea otters), and Tom Dean (clams and sea urchins).

Dan, Rita, and I arrived in mid-afternoon, and met with Gail Evanoff and John Christensen of the Chenega IRA Council. Pete Kompkoff, Community Facilitator, was out of the village at the time. We discussed our plans with Gail and John, and in the evening John kindly invited us over for dinner.

In the morning on September 9, the three NVP researchers arrived. The workshop started at 11. In addition to the visitors, five Chenega IRA Council members took part: Gail Evanoff, John Christensen, Larry Evanoff, Cheryl Eleshansky, and Richard Kompkoff. Steve Ward attended the first part of the session. Gail Blundell and Dan Rosenberg described their work and findings, and their plans for further investigations. There was some discussion about recovery status and behavior of the species.

After those presentations, we took an extended lunch break, because a freight plane landed and needed to be unloaded. Pete Kompkoff arrived on the plane, and took part in the afternoon session of the workshop. In the afternoon, Jim Bodkin and Tom Dean described their work, and the underlying questions of the NVP project as a whole. This led to a good discussion about the recovery status of the different species, about the possibilities of oil remaining in the area and continuing to contaminate the animals, and about the need to eliminate alternative hypotheses before concluding that Exxon Valdez oil continues to affect the region.

At 4:30, the airplane arrived to take us back to Anchorage. For a variety of reasons, from weather (which indeed turned bad on the 10th, canceling flights) to the initial plan to conclude the workshop prior to the arrival of the freight plane, we had decided at the end of the morning session to leave that afternoon and not stay till the 10th. Unfortunately, we had not known that the revised plan would cut off discussions during the workshop, and so in retrospect it might have been preferable to stay the night or at least later into the evening. Doing so would also have given some time for informal conversations and getting to know one another better.

Nonetheless, the workshop as a whole went well. The turnout was strong and those participating asked questions and said afterward that they had enjoyed the meeting and found it very informative. I spoke with Gail Evanoff this morning, and she reiterated her appreciation for the workshop, saying that it was very informative and that they appreciate the "hard science" being done to explain why things have happened after the spill. She said their main interest is in planning for the future, to make sure this doesn't happen again. It is a difficult topic emotionally because the inability to take away the spill is so frustrating. Gail pointed in particular to a comment by Pete Kompkoff that few sea otters are taken because few hunters are active, which in turn is a result of fewer animals and opportunities. Protecting their way of life is important, and they appreciate being able to work with

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others, through Trustee Council and events like this as well as through other organizations such as the Alaska Sea Otter Commission, the Alaska Native Harbor Seal Commission, the Oil Spill Recovery Institute, the Prince William Sound Science Center, the Regional Citizens Advisory Council, and so on. Gail said she would be interested in more Information Workshops in Chenega Bay.

cc: TEK Advisory Group
Gail Blundell
Jim Bodkin
Tom Dean
Dan Rosenberg
Hugh Short
Lisa Thomas

T C packet.

MCBI
MARINE CONSERVATION BIOLOGY Institute

Amy Mathews-Amos, MS, MPA
Program Director

A Nonprofit Tax-exempt Organization

September 15, 1998

Molly McCammon
Executive Director
Exxon Valdez Oil Spill Trustee Council
Restoration Office
645 G. Street, Suite 401
Anchorage, AK 99501-3451

Dear Ms. McCammon:

Marine Conservation Biology Institute (MCBI) in conjunction with six other scientific and conservation organizations, submitted detailed comments to the Trustee Council in April of this year on the use of Restoration Reserve funds. We recommended that funds be used for an on-going, long-term, marine conservation biology research and monitoring program to provide a strong scientific basis for conserving and managing the living marine resources in the Gulf of Alaska, and outlined basic principles that must be followed to ensure that funds are spent on the best science possible.

Recently, in response to an article appearing in the Kodiak Daily Mirror this past August on the use of Restoration Reserve funds, I wrote the attached letter to the editor. I would like to submit this letter to the Trustee Council as well to support our previous comments. Thank you for this additional opportunity for input.

Sincerely,

Amy Mathews-Amos
Program Director

205 N. Edgewood Street • Arlington VA 22201 USA
phone: 1 703 276 1434 • fax: 1 703 276 1528 • amymcbi@erols.com

MCBI
MARINE CONSERVATION BIOLOGY Institute

Amy Mathews-Amos, MS, MPA
Program Director

A Nonprofit Tax-exempt Organization

Kodiak Daily Mirror
1419 Selig
Kodiak, AK 99615

To the editor:

Contrary to Dominick DellaSala's speculation ("Environmental Group Urges Trustee Council to Buy Habitat, August 19) the push for research and monitoring of the marine environment devastated by the Exxon Valdez Oil Spill (EVOS) is not coming from those "pitching badly needed economic stimulus for the region." It is coming from scientific societies and marine conservation groups throughout the country, including the Society for Conservation Biology, the Estuarine Research Federation, the Ornithological Council, the Center for Marine Conservation, American Oceans Campaign, the Committee for the National Institute for the Environment, and my organization, Marine Conservation Biology Institute (MCBI). The President and founder of MCBI, Elliott Norse, is also the author of a seminal book on forest conservation, *Ancient Forests of the Pacific Northwest*; clearly we are not unsympathetic to forest protection. However, like these other conservation and scientific societies, we are concerned that marine ecosystems are often the least understood natural systems and scientists still do not understand, nine years after the spill, why many of the resources damaged by EVOS – not just fish stocks but seabirds, marine mammals, and other important life forms – have not yet recovered. In fact, according to the Trustee Council 1998 Status Report only one resource -- the bald eagle -- is considered fully recovered. Certainly, precluding meaningful research and monitoring by diverting all or most of Restoration Reserve funds to additional habitat purchases will not provide us with needed answers for how to sustainably manage the vulnerable resources most directly affected by the spill: those that depend entirely on a healthy marine environment.

It is important to recognize that while valuable coastal upland habitats have been conserved in perpetuity with purchases and set asides, this is not an option for the offshore marine habitat. Instead, the primary way to conserve the living marine resources in the Gulf of Alaska is to improve the scientific basis for decisionmaking. Only with a well-designed, ongoing, long-term marine conservation biology research and monitoring program can we make informed decisions about managing a unique ecosystem that will continue to change in the future from both natural and human causes. To abandon efforts now to improve our limited understanding of this remarkable place and the recovery of its resources would be to make a conscious decision to turn our backs on the marine waters where the spill actually occurred -- a decision akin to removing the bullet but ignoring the subsequent infection.

MCBI and the organizations mentioned above support research and monitoring focused on conserving and recovering the living marine resources and biological diversity of the Gulf of Alaska, based on a competitive scientific peer review process involving a mix of scientists throughout the United

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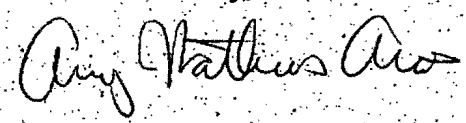
States with appropriate expertise in the various research topics to be considered. We believe research and monitoring should be multi-disciplinary and ecosystem-oriented, designed and implemented to understand the processes and relationships governing marine ecosystem functioning. Research and monitoring should not be narrowly focused on maximizing certain resources for short-term economic gain, but should be broad-based and seek to understand how marine ecosystems function as a basis for management and conservation in the long run. Only if we understand how marine ecosystems work can we begin to understand how EVOS (or future oil spills) affect them and their recovery.

Interestingly, in the same August 19 issue of the *Kodiak Daily Mirror* another story highlighted World Wildlife Fund's concerns about global overfishing. While the story focused on overcapacity of the world's fishing fleet and policy options for addressing this, the global problem of fisheries decline and collapse raises numerous scientific questions for which we currently have no answers. Only increased scientific research can help us understand the short- and long-term impacts of overfishing and other stresses on ecosystems, and what these impacts mean for recovery of fish stocks and marine biological diversity in general. With growing signs of degradation in marine ecosystems worldwide, we cannot continue to focus all of our attention on land.

Sincerely,



Amy Mathews Amos
Program Director, Marine Conservation Biology Institute

United States Department of the Interior

NATIONAL PARK SERVICE
Kenai Fjords National Park
P.O. Box 1727
Seward, Alaska 99664

IN REPLY REFER TO:

September 14, 1998

Molly McCammon, Executive Director
Exxon Valdez Oil Spill Trustee Council
645 G Street, Suite 401
Anchorage, AK 99501-3451

Dear Molly,

Congratulations on the glowing GAO report! Has anyone ever had such a positive review before? I sincerely doubt it. You and your staff have done an incredible job. It is wonderful to see that acknowledged. Sometimes hard work and dedication IS rewarded!

We look forward to working with all of you in the future. Again, our Congratulations!

Sincerely,

Anne

Anne D. Castellina
Superintendent

Chugach Regional Resources Commission

September 4, 1998

Ms. Molly McCammon
Executive Director
Exxon Valdez Oil Spill Trustee Council
645 G Street, Suite 401
Anchorage, AK 99501-3451

RE: Project 99225 / Port Graham Pink Salmon Subsistence

Dear Molly:

This is in response to your August 20, 1998 letter to Ephim Anahonak, Jr. regarding Project 99225 / Port Graham Pink Salmon Subsistence. Please be advised that the temporary pink salmon incubation facility is now in operation. This facility has the capacity to incubate up to 20 million pink salmon eggs. There is also sufficient space and equipment in the facility to conduct the tests for enhancing hatchery pink salmon returns as described in the project proposal.

Approximately 14,000 returning hatchery pink salmon from the 1996 brood have been captured and placed in net pens in preparation for this year's egg take. This number of fish is expected to produce between 10 and 12 million eggs, which is enough to keep the broodstock development program on schedule. The egg take is scheduled to begin on September 8.

On behalf of the Port Graham hatchery program I would like to thank the *Exxon Valdez* Oil Spill Trustee Council for its support of this project. This support has gone a long way toward ensuring that there are sufficient amounts of salmon in the Port Graham area to meet subsistence needs.

Sincerely,

David Daisy
Fisheries Project Development

Cc: Ephim Anahonak, Jr.
Fran Norman
Patty Brown Schwalenberg

LEISNOI
INCORPORATED

September 2, 1998

Alex M. Swiderski
Assistant Attorney General - State of Alaska
1031 West 4th Avenue, Suite 200
Anchorage, AK 99501-1994

Re: EVOS Trustee Council - Termination Point Resolution Offer

Dear Alex:

The Leisnoi Board of Directors has reviewed the Trustee Council's Termination Point Resolution to purchase our Termination Point parcel. The Leisnoi Board did not concur with the findings of the DNR's appraisal and feels the current appraisal does not accurately reflect the current or future value of this parcel.

Leisnoi, Inc. respectfully declines to accept the Trustee Council's Termination Point Resolution to purchase Leisnoi's small parcel KAP 145 consisting of 1,028 acres for $1,865,000.

Leisnoi, Inc. will entertain and encourages any other offers the Trustee Council may wish to submit.

Very truly yours,
LEISNOI INCORPORATED

Edward Ward
President & CEO

cc: Leisnoi Directors

RECEIVED
SEP - 4 1998
Department of Law
Office of Attorney General
3rd Judicial District
Anchorage, Alaska

4300 B Street, Suite 207, Anchorage, AK 99503

TC packet.

Eyak Youth/Elders Conference on Subsistence
August 19-22, 1998
Evaluation Form

In an effort to assess the conference and plan for the next conference, we would like your input on how your thought this conference went. Please answer the following questions with as much detail and honesty as possible. We thank you for putting your valuable time and effort into this conference, as well as demonstrating your commitment to your community. Thank you again and have a safe journey home.

1. What did you like best about this conference?

The Dance groups along with the subsistence panel
The whole thing
Everything about it
Knowing how all our villages are concerned about our sea food so we can protect them
Elders youth panes they were meaningful all the dancers
All the interest of restoring our land to the way it used to be for our children to enjoy
Made to feel so very welcome
Getting together and sharing
This conference was very good
The elders panel: How they shared their knowledge
The Youth and Elders Conference
Aleutiiq dancers and native people get togethers
The Talks, dances Open communication between participants
The subject matter of subsistence and the people who were invited to participate the elders and the youth
I like all the stuff that went on here in Cordova
I enjoy meeting people from all over The youth done really
The conference was great I learned alot of things and I also met a lot of people
I loved the dancing and the knowledge from the elders and youth, everything matters and is important and what we have is work a fight until we keep and get what we want
I liked how from just listening to the elders how much I learned a lot of these things I never really knew much about
Subsistence, dancing, and meeting people
All interesting super
A lot of interesting things that our young kids need to know
The gathering if everyone having fun putting it together the food and people
The youth participating and elders the potlatch
I liked the dancing
Subsistence
Having the opportunity to meet people hear stories, sharing of information of council events and eating traditional foods
I am learning about conference what they talk about and every other thing
Everything I never went anyplace like this nice people
I liked everything

2. What did you not like about the conference?
More Participation
More Participation
Nothing everything went good
It was hard to follow some of the biologists it was hard to understand half of what there were talking about
Not long enough
What all the people had to say about this conference
Some of the technical terms that the biologists were using were a little hard for the elders to understand
That it was not publicized more especially to the whole community of Cordova. And that there were no youth/elders from Eyak on the panels and no Cordova dancers
I couldnt get enough input I wish it longer
Everything went pretty smooth except for those uncomfortable bleechers
Nothing-I liked the entire thing except the chairs, they hurt
The chairs after sitting to long I started to get sore
Everything was covered
Well planned nothing not to like
Everything
The panic frustrations
Liked everything
Everything was ok
I liked everything
Flexibility
What I like about conf. Was so many nice people friendly
Everything
There wasnt really anything I didnt like

3. What are some areas that need to be improved?
Youth and elders get together more often
Subsistence for sure
All of them
some travel
none
more community involvement from the host community
keeping to the schedule Dont have two things at once in the same room
invite the public more
the organization of registration or shuttle rides Chugachmiut and other organizations should have been more involved as well
I need to improve on the language and the traditional way of life
The chairs only
No improvement
Youth were wonderful but if a panel again-should be instructed to plan speech.
More organized and a little more help and time
On start time
Everything seemed to good

None
No improvements
Nothing I seem had to be improved

4. What presentations were most interesting to you?
The open mic and the elder panel along with the youth panel
The animals, birds and fish seafoods
Subsistence
All were good
Elders and youth panels great stories good participation the elders and youth are putting a good effort to make this work and helping each other
Subsistence of course. The youth involvement we need to encourage them more
How each community do their subsistence
Everything
Everything
Youth Panel
Youth Area Watch
Tell the SEA project to make a presentation for non-scientists
Add TEK to all EVOS funded projects
Father Oleksa-the spirituality of subsistence Whiskers-Craig Mischler
All of them
I thought the black ducks presentation was alright and the APEX project
The youth talk and interests
How important subsistence is to native life
Subsistence
All clam restoration
Everything
All
All of them
The panels
Killer whales
All of them especially subsistence
The youth and subsistence rights

5. What topics/speakers would you suggest for the next conference?
Father Michael Oleksa, Keith Gordaoff, Eleanore McMullen
Oil Spill, get our subsistence back
Oil Spill-Subsistence
They all do good
Have elders and scientist on one panel have scientist listen and not speak they need to learn
The same it was very good
Get Father Michael back again
More intervention between elders and youth
Peter Lind-Homer Ak

Earl Polk III Bethel Ak
EVOS should have a bigger presence and act like they care about native ussies
Planning session on what TEK research people want done
Father Oleksa Georgianna Lincoln
Tribal Council Presidents Chugachmiut Program
All of them
Language, keep it alive
Anything
Some more input
All
What ever you can get to attend
Well I liked everyone

Additional comments:
Come back next year
Keep up the good work
Thank you for the super hospitality
None I had a great time cant wait to do it again
This conference was very interesting and I'd like to learn more about YAW
A native are show would be neat next conference should include training sessions for example fish smoking, canning, berry picking, anything subsistence related
This was a great success! We should do it again
It was really cool
Thank you for putting the conference on I had a great time
Thank you Cordova for excellent conference
Keep up the good work
All
When I am in questions I have time hard time spelling words
Could hear good in the front
No comments

8-5-98

Dear E.V.O.S.T.C.,

I am writing you with a sense of urgency concerning the recent roadbuilding activity in the Copper River Delta. I strongly support the inclusion of the entire Bering River region into the E.V.O.S.T.C restoration zone and am deeply disappointed in hearing that one of the Nations national natural treasures is under assault by mult.-national corporations. I am speaking as a Native Alaskan, having been born at Providence Hospital in Anchorage in the spring of 1961. I lived in Alaska until 1969 and have many spiritual ties to its land.

You must do everything in your power to stop the industrial interests from forever changing one of our last wild regions. I have lived now in the Pacific NorthWest for 29 years and have seen so many of our wild roadless areas destroyed by road building and the ensueing onslaught that follows. We can never go back once these wild roadless areas are fragmented by roads. Please write me and let me know of the current status of the situation and also provide me with additional information about the project. Sincerely Concerned,

John Leonard Rancher-

Address to write to:
110 S.E. 47th Ave.
Portland, Oregon 97215-1022

phone (503) 232-7848.

Exxon Valdez Oil Spill Trustee Council

645 G Street, Suite 401, Anchorage, AK 99501-3451 907/278-8012 fax: 907/276-7178

August 11, 1998

John Leonard Rancher
110 S.E. 47th Avenue
Portland, Oregon 97215-1002

Dear Mr. Rancher:

Thank you for your recent letter regarding the Trustee Council's habitat protection program and your interest in protecting habitat values in the eastern Copper River delta region.

Under the terms of the court-approved settlement administered by the Trustee Council, funds must be used for the restoration of resources and services injured by the *Exxon Valdez* oil spill. The Trustee Council undertook an extensive planning process over the course of several years to develop a *Restoration Plan* that was formally approved in 1994. This public process, which involved preparation of a full Environmental Impact Statement (EIS), included a geographic definition of the spill-impact region. A copy of the spill path and a map showing the spill area for restoration purposes is enclosed for your reference. As you are aware, the eastern Copper River delta was not oiled and these lands are outside of the spill area.

Public involvement during development of the *Restoration Plan* generated an enormous volume of public comment. One of the issues posed for public consideration was whether restoration actions should take place in the spill area only or include areas outside the spill region. Roughly two-thirds of all those who commented on this issue favored limiting restoration actions to the spill area. Support for this view was even stronger within the spill area where three-quarters of those who commented indicated that they wanted to see restoration actions limited to the spill region.

In the *Restoration Plan* a formal policy was adopted 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.)

To date, the Trustee Council has not authorized the purchase of any lands outside the spill area. In response to public comment urging consideration of protecting lands in the eastern Copper River Delta, however, the U.S. Forest Service, as an individual agency

and the principal public land manager for the region, has indicated a willingness to further examine this issue.

Again, thank you for providing your comment. Please know that a copy of your letter will be provided to each of the Trustee Council members.

Sincerely,

Molly McCammon
Executive Director

enclosure

cc: Jim Wolfe

RUPE ANDREWS
9416 LONG RUN DRIVE
JUNEAU, ALASKA 99801

August 3, 1998

Ms. Molly McCammon, Executive Director
Exxon Valdez Oil Spill Trustee Council
645 G Street, Suite 4501
Anchorage, AK 99501-3457

Dear Molly:

At the recent meeting of the PAG in Anchorage, (July 28th), the members asked that I convey to the Trustee Staff their very sincere thanks and appreciation for the tremendous support, assistance and just plain old fashioned help in many ways to the PAG members before and during our work sessions. The PAG operates more efficiently because of staff efforts and would like to take this means to say thanks.

Sincerely,

Rupe Andrews, Chair Public Advisory Group

cc: EVOS staff
PAG

Alaska Delegation Pushes Agenda of Development

Representative Don Young, left, and Senators Ted Stevens and Frank H. Murkowski, all of Alaska, support development of natural resources.

By JOHN H. CUSHMAN Jr.

WASHINGTON, Sept. 12 — Rarely has a small delegation from a singular state been as well placed as the three Republicans who represent Alaska in Congress to influence the development of their state's — and the whole nation's — natural resources.

And few Congressional delegations have been as united, focused and tenacious in espousing development as Senators Ted Stevens and Frank H. Murkowski and Representative Don Young — or in the eyes of their detractors, as devious and downright ornery in their disregard of the environment.

In their commitment to drawing upon the state's resources, in their outspoken contempt for national environmental organizations and in their use of powerful committee posts, the three veteran Alaskan lawmakers exemplify both the use of national power for local interest and the ways in which local attitudes can color national policy.

Mr. Murkowski and Mr. Young, both 65, are chairmen of the Senate and House committees that have jurisdiction over matters at the core of the Alaskan economy and environment: timber, fish, minerals, oil and other natural resources, especially those on Federal lands. And Mr. Stevens, 75, is chairman of the Senate Appropriations Committee, giving him special power to influence policy through the Federal budget.

They have left their marks in spending bills that are now before Congress, with dozens of their provisions sprinkled through several bills drafted by Mr. Stevens's committee. They are flexing their muscles during Senate consideration of the bill to finance the Interior Department, after having added several provisions, including a number that directly affect Alaska. Debate on that bill is expected to continue on Monday.

One amendment to the Interior bill would set the amount of logging in Alaska's Tongass National Forest at a level of timber sales far higher than the United States Forest Service has offered this year. Another would prohibit new regulations by the National Park Service gradually eliminating commercial and subsistence fishing in the waters of Glacier Bay National Park, the largest protected marine ecosystem on the Pacific Coast.

"The wonder isn't that there are the amendments you're talking about," Senator Stevens said in an interview shortly after his committee drafted the bill. "The wonder is that there aren't hundreds more."

Senator Max Baucus, Democrat of Montana, has proposed stripping from the bill a number of the Alaska delegation's amendments, along with others that he considers bad for the environment. Mr. Baucus's move could touch off one of the Senate's most contentious environmental fights of the year.

Ordinarily, such policy measures would be enacted by Congress in freestanding bills that would move through Mr. Young's and Mr. Murkowski's committees. But that approach is difficult when the Administration has already threatened to

Young said. "They believe in the communal ownership of all natural resources, including the land. And they believe that every community that lives off the land should also be owned by the government. That is their ultimate goal."

Mr. Young has a reputation for intemperance on the genteel floor of the House. A few weeks ago, he had to apologize to Representative Maurice D. Hinchey, a New York Demo-

Shaping U.S. policy on the environment.

crat, after calling Mr. Hinchey's amendment opposing a road across fragile lands in Alaska "mischievous," "evil," "immoral" and "corrupt."

Mr. Young's denunciation of the amendment, which was defeated, illustrated something else about the delegation: their deep distrust of outsiders' environmental objectives in their state, which consists largely of Federal land.

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Mr. Murkowski said in an interview: "Everything in Alaska becomes a cause for the environmental groups, to raise money and create membership, because it is so far away that people can't see it for themselves. We have sixty-some-odd environmental groups in Anchorage, with offices. Young attorneys come up and do their missionary work, having a new degree in environmental law or something, and they need to have a cause. The cause is membership; the cause is dollars."

To be sure, their foes speak just as bluntly about them.

Kathleen McGinty, the White House's top environmental aide, called the renewed efforts to attach anti-environmental provisions to spending bills "absolute blackmail" and said that the provisions were headed toward a veto.

"It is a persistent sacrificing of the common interest and the public interest for a few special interests," she said of the Alaskans' work. "It is a persistent disrespect of the legislative process. And when you are operating for just a few special interests,

veto spending bills that include what President Clinton calls anti-environmental provisions, thus requiring two-thirds votes in both houses to overturn.

Even if not all their provisions get through, some might. Earlier this year, they got a provision authorizing a new access road in Denali National Park, which the Administration opposed, into a huge highway bill that President Clinton signed.

"I have told my enemies as well as my friends, I'm going to outlive you and outlast you," Mr. Young said. "I will win these wars. Maybe you won't realize what I am doing, but slowly but surely I will win."

Many of their ideas are of particular interest to Alaska, like a provision being pushed by Senator Murkowski that would let the trustees who invest the money from the settlement of the Exxon Valdez oil spill seek higher rates of return, but restrict their purchases of conservation land. Others are of national or even global significance, like Mr. Murkowski's proposal to encourage the Export Import Bank to finance certain development projects abroad, even though they violate the bank's environmental guidelines.

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The three Alaskans have deep roots in the state. Mr. Stevens, who has been in the Senate since 1968, has influenced the Federal relationship with Alaska since before its statehood, serving as an aide to the Interior Secretary in the late 1950's. Mr. Murkowski, first elected in 1980, comes from a banking background and has long held financial interests in Ketchikan, a town that for decades has been at the center of battles over Alaska logging. Mr. Young, who arrived in the House in 1973, is a former boatsman and licensed trapper whose office walls resemble a taxidermist's showroom.

Representative George Miller, a California Democrat who lost his committee chairmanship to Mr. Young when the Republicans took over Congress and who frequently jousts with the Alaskan, says that to fight one member of the delegation is to fight them all.

Late one night in July, debating Mr. Young over logging roads in the Tongass, Mr. Miller acknowledged that his real opponent was Senator Stevens and his amendments in the other chamber.

"I do not like the results, but I have got to admire the talent," said Mr. Miller, who was later chastised by the presiding member of the House for mentioning a Senator by name, a violation of House rules. "He tried to change the forest plans. He tried to go back to the old plans. He tried to increase the cuts. He tried to increase the roads. He tried to bail the industries out of problems. Bang-di-di-bang-di-di-bang — this guy has never slept."

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Senator Stevens, for instance, worked closely with Senator John Kerry of Massachusetts, a liberal Democrat, in crafting a revision of the national fisheries law that enjoyed wide support. And Mr. Young negotiated with the Clinton Administration and conservation groups to come up with a new law governing the operations of wildlife refuges.

But Mr. Murkowski said he was tired of compromise and retreat. "Every time we give, we lose, and we have given so much that the answer is no," he said. "There are no prisoners associated with this discussion."

THE PENINSULA CLARION
PAGE 1 OF 3
SEPTEMBER 13, 1998

Wet, wild & educational

[illegible] of the sea, impact from the land

At low tide in China Poot Bay, beds of mussels with blue-purple shells siphon water from the ooze in the mid-tidal zone to keep moist while they wait for the tide. They share this tidal zone with five varieties of clams that shoot skyward jets of sea water, startling the unsuspecting visitor.

In the low-tidal zone, dozens of sea stars cling to rocks or suck up food from the bottom of crystal clear tidal pools. Jellyfish float along the pool's surface and sea urchins cluster at the bottom on their tiny tube feet.

Homer's Kachemak Bay is teeming with life. And the Center for Alaska Coastal Studies aims to keep it that way.

The center's education program coordinator, Marilyn Sigman, said its mission is to foster responsible interaction with natural surroundings and to generate knowledge of the marine and coastal environmental educational and research programs.

To that end, the center's 14th annual Coastwalk kicks off Friday with a Coastwalk orientation and dessert potluck from 7 to 9 p.m. at the Homer United Methodist Church.

This year's beach walk and cleanup begins on International Beach Clean Up Day on Saturday, and continues through Sept. 27.

Sign-up sheets for the 1998 Coastwalk are available starting today at the coastal center, 4014 Lake Street or by calling (907) 235-6667.

Coastwalk participants complete a four-page checklist for the section of beach they walk and the data from the checklist is added to the center's database of information gathered during past walks, Sigman said.

She said the information is used to detect long-term trends in the variety of animals that live there and to measure human impact.

At Friday's kickoff, Glenn Seaman, with the Alaska Department of Fish and Game, will talk about the bay's forthcoming designation as the Kachemak Bay National Estuarine Research Reserve. The bay will become the first Alaska site to receive such a designation during a ceremony Oct. 3 in Homer.

A striped hermit crab cautiously examines the warm hand that holds it.

Seaman said the mission of the research reserve is to compliment ongoing research and education efforts in the area. He said several other parts of Alaska were considered, but in the end, a grass-roots Homer effort won the designation for the bay.

"It's quite an honor," Sigman said of the bay's selection.

She said the reserve's mission compliments the center's research and education mission and the mission of the annual walk.

The mission of the Coastwalk is to build awareness of the importance of local marine habitats, to gather data to detect long-term trends in biodiversity

See COASTWALK, back page

Story by Heather A. Resz **Photos by M. Scott Moon**

...Coastwalk

Continued from page C-1

and to observe the effects of human impact.

"We do the Coastwalk to let people know what we're all about," Sigman said. "A lot of times the local people aren't familiar with what we do."

The nonprofit coastal center was founded in 1982 after oil leases were sold in the area, she said.

"We didn't know that much about the bay then," Sigman said.

That same year, Homer residents James and Donna Wong sold their unfinished cabin on Peterson Bay to the coastal center and the Peterson Field Station was established. The unfinished cabin was completed through volunteer labor and the balance owed on the property was paid off last year.

Sigman said the field station provides a hands-on environment for teaching adults and children to appreciate and protect the bay's resources.

For the past decade, hundreds of school children from across the state have traveled to the center during April and May to learn more about the natural world. Sigman said about 20 groups of 15 to 30 students each visited the center for one to three nights last year. Among them were students from Ninilchik, Chapman and Soldotna elementary schools.

From Memorial Day to Labor Day, each year the center operates daily tours out of the Peterson Bay Field Station of the pristine tidal zones in China Poot Bay. She said about 1,000 visitors from Alaska and around the world experienced the educational hike last season.

"There are a lot of people on their vacations interested in learning about the natural world," Sigman said.

The coastal center also offers equivalent forest hikes around the Peterson Bay Field Station and at the Carl E. Wynn Nature Center. A portion of Wynn trail is handicapped accessible.

A more intensive six-hour oceanography trip also is offered to schools, Sigman said.

She said the group has plans to expand its educational offerings to include a winter ecology unit. A winter lecture series already is offered.

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>
> —Angela Middleton, naturalist for the Center for Alaska Coastal Studies

Coastal center naturalist Angela Middleton led the daily China Poot Bay tours this summer and is coordinating the Coastwalk.

"This is the perfect job for me," the naturalist said. "I love it."

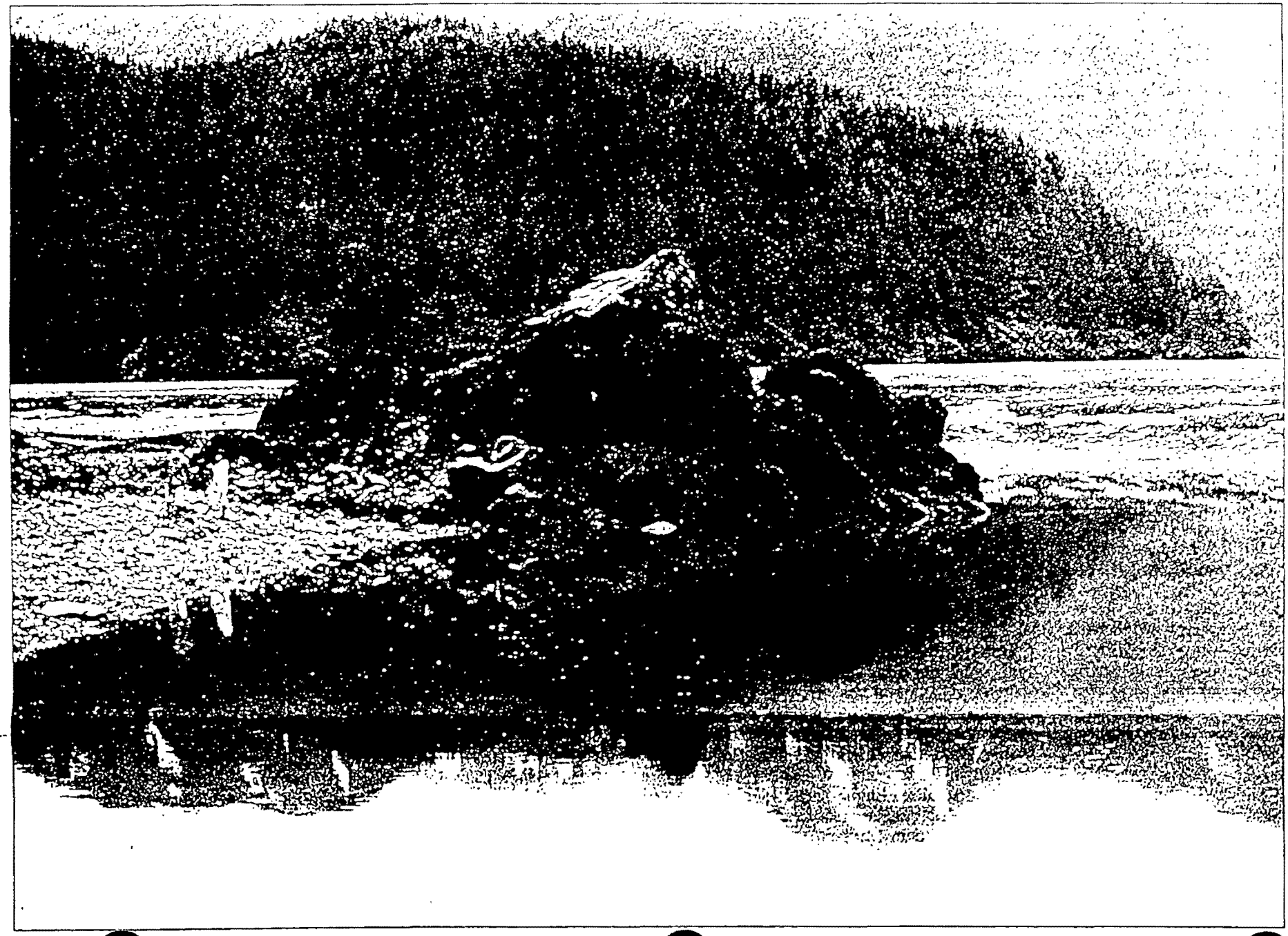
A California native, she came to Alaska last summer on vacation and fell in love. Middleton said she returned this summer after finishing her degree to lead the coastal center tours.

"This is a way to get out with a guide and learn about the environment," Middleton said. "This is one small bay, but it's really, really rich and really, really important."

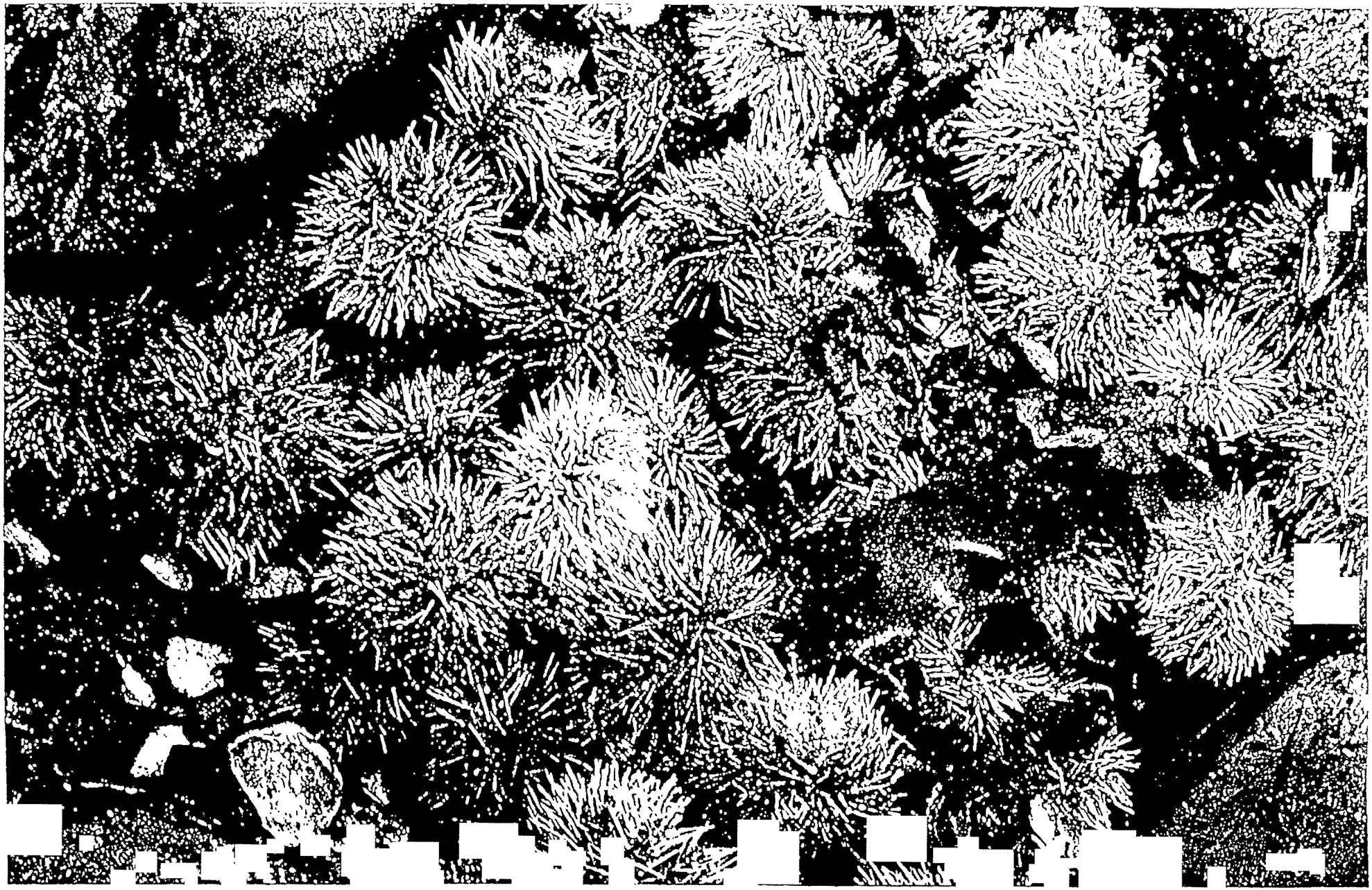
She said because the Homer Spit keeps the sea water and the food in it circulating, the many sea stars, anemones, jellyfish, shrimp, crabs, worms, clams and more that live there have access to a rich food supply.

Middleton is continuing a study began in 1994 to consider whether the 1,000 people who file along the path at low tide each year are negatively impacting the plants and animals that live there.

"It's really important to us not to be causing harm," she said.

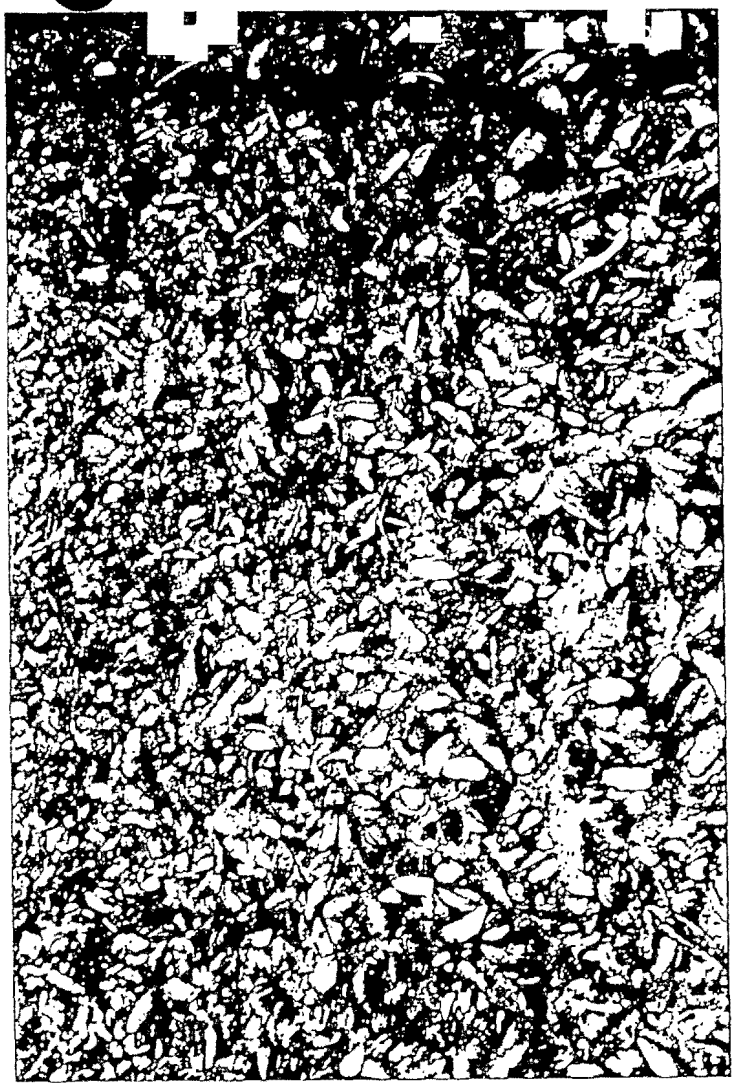


Beachcor[redacted]make their way past Octopus Rock in China Poot Bay, across [redacted]mak Bay from Homer.



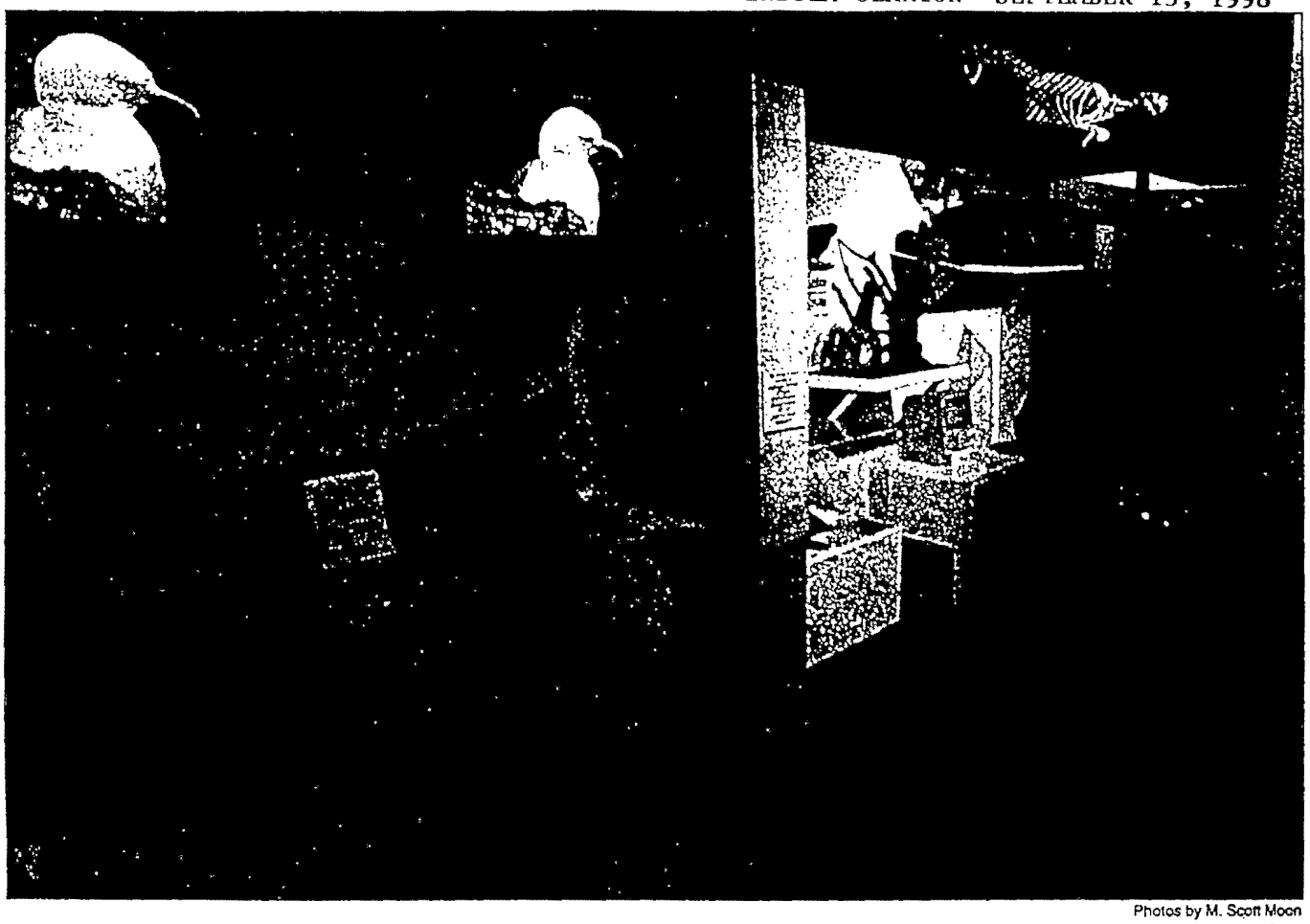
Photos by M. Scott Moon

Sea urchins cover a stretch of beach in China Poot Bay like a pile of alien "tribbles" from a long-lost Star Trek program



Above, sea stars are abundant along the beach in China Pool Bay

At left, blue mussels line many of the beaches along Kachemak Bay. Their presence is a food source for many other creatures.



Photos by M. Scott Moon

Mike O'Meara talks about the Pratt Museum's remotely operated cameras on Gull Island as a bird there scans the horizon in a live view from eight miles away. Below, birds huddle around one of the island's cameras and the antenna used to beam images back to Homer.

Bird watching goes high-tech

Pratt Museum pioneers way to keep eye on Gull Island wildlife from town

By HEATHER A. RESZ
Peninsula Clarion

HOMER — From the deck of a boat off of the southern shore of Kachemak Bay, it is first the sound of 10,000, squawking black-legged kittiwakes, common murres, glaucous-winged gulls, tufted puffins, pelagic cormorants, red-faced cormorants, pigeon guillemots and horned puffins that draws passengers' attention to the small rocky island.

Only as the boat approaches Gull Island does the smell strike.

Meanwhile, in the heart of Homer, visitors at the Pratt Museum watch two color monitors with a full-screen picture of a gull's head.

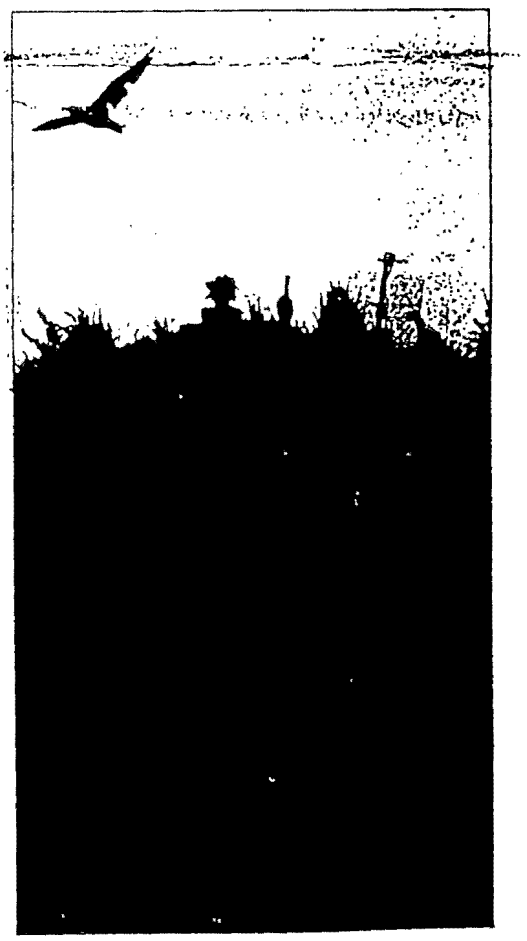
Pratt Museum project director, Mike O'Meara, said visitors who see the screens often ask when the footage was taped.

"As far as we know, no one else has the combination of things we have," O'Meara said of the Gull Island Remote Video System.

For the first time at the Pratt — or probably anywhere — this summer people could observe eight species of seabirds through the discreet, unblinking eyes of four video cameras mounted on Gull Island. Visitors in the museum's Marine Gallery eight miles away use a joystick to change the views.

Thanks to the ingenious efforts of technical contractor Daniel Zatz, O'Meara said the four solar-powered cameras were installed on Gull Island more than a year ahead of schedule. Gull Island is the property of the Seldovia Native Association

See BIRDS, back page



...Birds

Continued from page A-1

and the cameras are there by its permission.

One camera gives a 360-degree look at the top of the island. Another, with a 64-power zoom lens, allows close-up views. A third camera is mounted in the intertidal zone — which is often underwater — providing views of sea life in the bay. The fourth is a tiny, infrared camera underground in a puffin burrow.

Pratt Museum project developer Carol Harding said the video footage she taped this summer when the puffins' egg hatched, is the only time the event has ever been filmed in the wild.

O'Meara and Harding said the new exhibit has been well received by researchers and regular folks alike.

"People really like it — all types — from seabird researchers to grandmas and grandpas with little kids," O'Meara said.

The video system is part of the museum's marine education series titled "Kachemak Bay Discovery." The program is funded by a $175,000 grant from the Howard Hughes Medical Institute.

The marine education program included a day-long visit by the research submersible *Delta* and the second annual Kachemak Bay Marine Science and Education Conference, which took place in April.

O'Meara said when a representative from the Howard Hughes institute visited Homer at the end of May he was so impressed with the Gull Island video system that he encouraged the museum to apply for additional funding.

Harding said additional funding will be needed if the museum is to proceed with plans to expand its video system locations to include cameras in the Barren Islands, underwater in a deep trench in Jaklof Bay and in the McNeil River Bear Sanctuary.

"There are more and more people who want to see wildlife," O'Meara said. "That can be really hard on the animals.

"This technology may be one of the answers to letting people feel close and get to know the wildlife without disturbing it," he said.

The four solar-powered cameras on Gull Island broadcast their images in a straight line to the Pratt Museum eight miles away.

Getting images from the McNeil River area will push the limits of the new technology still farther. Tentative plans call for the cameras to broadcast their images to a tower on Mount Augustine where the signal will be transmitted to the Pratt 60 miles away.

"We're talking about technology that hasn't been tried before," O'Meara said.

The bears themselves add to the challenge. "Bears get into everything," he said.

Another challenge in developing the project is the virgin state of the sanctuary itself. He said any technology added will be positioned as unobtrusively as possible to preserve the area's undisturbed state.

From the safety of the Pratt, visitors will soon be able to focus on a bear feeding at the McNeil River and fill the whole screen with his nostril.

"If we're successful with that project we can only guess what the visitor response will be," O'Meara said. "The word is really out. People are starting to come in specifically to see this."

He said visitors from as far away as Seattle said they visited Homer specifically to experience the new remote camera system.

The technology also offers great possibilities as a research tool. He said researchers on Gull Island are using it to consider the relationship between the birds, their habitat and their predators.

"We're trying to understand the connections — to find out a little bit more about the environment and how it takes care of us," O'Meara said. "All of us that are here are dependent on the resources of the bay."

He said if there is a bright spot to the Exxon Valdez oil spill, perhaps it is the fact that the various groups studying the bay area are now uniting to consider the ecosystem as a whole, rather than merely observing its individual parts.

"They're trying to put together a good image of what the whole puzzle looks like," O'Meara said of the various researchers studying sea life in the bay. "Maybe we can learn enough to manage the resources so we can continue to use them without using them up."

As a complement to the museum's sea life mounts and the images the cameras provide, the museum also offered four programs this summer in which visitors used the remote camera system to question researchers on Gull Island about their work.

"This is a way for us to familiarize people with a place that is very powerful," O'Meara said.

"I think we are onto something really good here."

THE ANCHORAGE DAILY NEWS
SEPTEMBER 15, 1998

Alaska team flexes environmental muscle

By JOHN H. CUSHMAN Jr.
The New York Times

WASHINGTON — Rarely has a small delegation from a single state been as well placed as the three Republicans who represent Alaska in Congress to influence the development of their state's — and the whole nation's — natural resources.

And few congressional delegations have been as united, focused and tenacious in espousing development as Sens. Ted Stevens and Frank Murkowski and Rep. Don Young — or in the eyes of their detractors, as devious and downright ornery in their disregard of the environment.

In their commitment to drawing upon the state's resources, in their outspoken contempt for national environmental organizations and in their use of powerful committee posts, the three veteran Alaska lawmakers exemplify the use of national power for local interest and the ways in which local attitudes can color national policy.

Alaska's congressional delegation, from left, Sen. Ted Stevens, Sen. Frank Murkowski and Rep. Don Young, is small but mighty.

Murkowski and Young, both 65, are chairmen of the Senate and House committees, respectively, that have jurisdiction over matters at the core of the Alaska economy and environment: timber, fish, minerals, oil and other natural resources, especially those on federal lands. And Stevens, 75, is chairman of the Senate Appropriations Committee, giving him special power to influence policy through the federal budget.

They have left their marks in spending bills that are now before Congress, with dozens of their provisions sprinkled through several measures drafted by Stevens' committee. They are flexing their muscles during Senate consideration of the bill to finance the Interior Department, after having added several provisions, including a number that directly affect Alaska. Debate on that bill is expected to continue this week.

One amendment to the Interior bill would set the amount of log-

Please see Back Page, DELEGATION

DELEGATION: Small but mighty team wins some, loses some on environment

Continued from Page A-1

ging in Alaska's Tongass National Forest at a level of timber sales far higher than the U.S. Forest Service has offered this year. Another would prohibit new regulations by the National Park Service, gradually eliminating commercial and subsistence fishing in the waters of Glacier Bay National Park, the largest protected marine ecosystem on the Pacific coast.

"The wonder isn't that there are the amendments you're talking about," Stevens said in an interview shortly after his committee drafted the bill. "The wonder is that there aren't hundreds more."

Sen. Max Baucus, D-Mont., has proposed stripping from the bill a number of the Alaska delegation's amendments, along with others that he considers bad for the environment. Baucus' move could touch off one of the Senate's most contentious environmental fights of the year.

Ordinarily, such policy measures would be enacted by Congress in free-standing bills that would move through Young's and Murkowski's committees. But that approach is difficult when the administration already has threatened to veto spending bills that include what President Clinton calls anti-environmental provisions, thus requiring two-thirds votes in both houses to overturn.

Even if not all of their provisions get through, some might. Earlier this year, they got a provision authorizing a new access road in Denali National Park and Preserve, which the administration opposed, into a huge highway bill that President Clinton signed.

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The Alaskans are not bothered by the howls of protest coming from environmentalists.

"They are communists," Young said. "They believe in the communal ownership of all natural resources, including the land. And they believe that every community that lives off the land should also be owned by the government. That is their ultimate goal."

Young has a reputation for intemperance on the genteel floor of the House. A few weeks ago, he had to apologize to Rep. Maurice Hinchey, D-N.Y., after calling Hinchey's amendment opposing a road across fragile lands in Alaska "mischievous," "evil," "immoral" and "corrupt."

Young's denunciation of the amendment, which was defeated, illustrated something else about the delegation: their deep distrust of outsiders' environmental objectives in their state, which consists largely of federal land.

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"I do not like the results, but I have got to admire the talent," said Miller, who was later chastised by the presiding member of the House for mentioning a senator by name, a violation of House rules. "He tried to change the forest plans. He tried to go back to the old plans. He tried to increase the cuts. He tried to increase the roads. He tried to bail the industries out of problems. Bang-di-di-bang-di-di-bang — this guy has never slept."

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But Murkowski said he was tired of compromise and retreat. "Every time we give, we lose, and we have given so much that the answer is no," he said. "There are no prisoners associated with this discussion."

Soak up oil spills or disperse them? Speak up

By STAN STEPHENS

COMPASS
POINTS OF VIEW FROM OUR COMMUNITY

True cleanup methods — like booming and skimming — that actually corral oil and remove it from the environment should be the chief response to a spill. Only when true cleanup clearly fails should the government even consider allowing industry to pour toxic dispersants into the waters where we fish, hunt, kayak, sail, sightsee, do business and live.

The oil industry, the U.S. Coast Guard, the state of Alaska, local citizens and other groups have made tremendous gains in oil-spill prevention since the Exxon Valdez tragedy nine years ago. Every angle, every possibility, has been examined in an effort to make tanker transportation of North Slope crude oil safer.

What if we have another spill anyway?

Local citizens think our first line of defense must be to remove as much oil from the environment as possible, while we hope and pray that weather conditions help us keep the oil from going ashore or sinking to the ocean floor. Once we lose the battle of cleanup by physical removal, we've lost the war.

The oil industry and the Coast Guard, however, are leaning toward chemical agents as a primary tool for responding to oil spills. The Prince William Sound Regional Citizens' Advisory Council doesn't think this is a good idea.

The chemicals in question — called dispersants — are as toxic as crude itself, sometimes even more so when mixed with oil. The substance contains a suspected carcinogen, is an irritant to human tissue — especially eyes and skin — and may cause blood disorders and respiratory problems.

A recent study in Australia found that dispersed oil was more toxic to some test animals — such as snails and sand fleas — than undispersed crude oil. The products approved for use in the United States would themselves be considered pollutants if dumped in the water *except* during an oil spill.

While dispersants may put spilled oil out of sight — and perhaps out of mind — they don't clean it up. They break it into tiny droplets and leave it suspended, or dispersed, in ocean water. The oil is no longer visible, but it's still very much present, doing unknown amounts and kinds of damage to the plants, animals and people that live in, on and around the sea.

The citizens I represent believe dispersants need more study, meaning independent, peer-reviewed scientific research specific to Alaska species, the Prince William Sound environment and North Slope crude oil.

Even if dispersants survive such scrutiny, they only should be used as a last resort. True cleanup methods — like booming and skimming — that actually corral oil and remove it from the environment should be the chief response to a spill. Only when true cleanup clearly fails should the government even consider allowing industry to pour toxic dispersants into the waters where we fish, hunt, kayak, sail, sightsee, do business and live.

Today, government regulators and the oil industry are moving on two fronts to promote dispersants as a cleanup technology for dealing with oil spills:

• In the script for a major tabletop oil-spill drill Friday, government agencies approved dispersants for use early in the response effort. We believe such approvals — even in an exercise — set a precedent that could lead to premature and unwarranted use of dispersants in a real spill.

• Also, the Coast Guard is considering new rules that would require larger stockpiles of dispersants, which we fear could lead to an increase in their use on oil spills in U.S. waters, including Alaska.

Ordinary Alaskans can still be heard in this debate. Visit our web site at www.alaska.net\~pwsrcac for information on how to become involved. Or mail your opinion to one of the following addresses by Oct. 1:

LCDR John Caplis, USCG VRP SOPEP Program, 2100 Second St. S.W., Washington, D.C. 20593-0001 Or John Devens, executive director, Prince William Sound Regional Citizens Advisory Council, 750 W. Second Ave., Suite 200, Anchorage, 99501.

❑ Stan Stephens runs a tour boat company in Valdez and is president of the Prince William Sound Regional Citizens' Advisory Council, a nonprofit corporation promoting environmentally safe operation of the Valdez oil terminal and the tankers that use it. Its members include communities affected by the Exxon Valdez spill, as well as aquaculture, commercial fishing, environmental, Native, recreation and tourism groups.

THE VALDEZ VANGUARD
SEPTEMBER 16, 1998

QUOTABLE

RUTH GAVE ME THAT LOOK, AS IF SHE KNEW THAT EVERYTHING THAT COMES OUT OF A FISHAHOLIC'S MOUTH IS A LIE.

TONY BICKERT

Time to go slow on oil dispersants

Commentary

By Stan Stephens

The oil industry, the U.S. Coast Guard, the State of Alaska, local citizens and other groups have made tremendous gains in oil spill prevention since the Exxon Valdez tragedy nine years ago. Every angle, every possibility, has been examined in an effort to make tanker transportation of North Slope crude oil safer.

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The oil industry and the Coast Guard, however, are leaning toward chemical agents as a primary tool for responding to oil spills. The Prince William Sound Regional Citizens' Advisory Council doesn't think this is a good idea.

The chemicals in question — called dispersants — are as toxic as crude itself, sometimes even more so when mixed with oil. The substance contains a suspected carcinogen, is an irritant to human tissue — especially eyes and skin — and may cause blood disorders and respiratory problems.

A recent study in Australia found that dispersed oil was more toxic to some test animals — such as snails and sand fleas — than undispersed oil. The products approved for use in the United States would themselves be considered pollutants if dumped in the water except during an oil spill.

While dispersants may put spilled oil out of sight — and perhaps out of mind — they don't clean it up. They break it into tiny droplets and leave it suspended, or dispersed, in ocean water. The oil is no longer visible, but it's still very much present, doing unknown amounts and kinds of damage to the plants, animals and people that live in, on and around the sea.

The citizens I represent believe dispersants need more study, meaning independent, peer-reviewed scientific research specific to Alaska species, the Prince William Sound environment, and North Slope crude oil.

Even if dispersants survive such scrutiny, they should only be used as a last resort. True cleanup methods — like booming and skimming — that actually corral oil and remove it from the environment should be the chief response to a spill. Only when true cleanup clearly fails should the government even consider allowing industry to pour toxic dispersants into the waters where we fish, hunt, kayak, sail, sightsee, do business and live.

Today, government regulators and the oil industry are moving on two fronts to promote dispersants as a cleanup technology for dealing with oil spills:

In the script for a major tabletop oil spill drill later this month, government agencies approved dispersants for use early in the response effort. We believe such approvals — even in an exercise — set a precedent that could lead to premature and unwarranted use of dispersants in a real spill.

Also, the Coast Guard is considering new rules that would require larger stockpiles of dispersants, which we fear could lead to an increase in their use on oil spills in U.S. waters, including Alaska.

Ordinary Alaskans can still be heard in this debate. Visit our website, www.alaska.net/~pwsrcac, for information on how to become involved. Or mail your opinion to one of the following addresses by Oct. 1:

LCDR John Caplis, USCG VRP SOPEP Program, 2100 Second St., SW., Washington, D.C. 20593-0001. Or John Devens, Executive Director, Prince William Sound Regional Citizens' Advisory Council, 750 W. 2nd Avenue, Suite 220, Anchorage, AK 99501.

Stephens operates a tour boat company in Valdez and is president of the Prince William Sound Regional Citizens' Advisory Council, a non-profit corporation promoting environmentally safe operation of the Valdez Marine Terminal and the tankers that use it.

THE PENINSULA CLARION
SEPTEMBER 14, 1998

CISPRI to build movable sea otter center

By SHANA LOSHBAUGH
Peninsula Clarion

Cook Inlet Spill Prevention and Response Inc. is adding sea otter treatment to its repertoire.

The oil spill response firm based in Nikiski announced last week that it has awarded a construction contract to Peak Oilfield Service Co. to build a portable sea otter cleaning and rehabilitation facility.

The facility will include eight modules made of modified 20-foot shipping containers that can be moved by boat or cargo plane. The modules will include a veterinary clinic, food preparation area and rooms for washing and drying oiled animals. The project also includes floating pens to house cleaned animals during their recovery, said CISPRI General Manager Doug Lentsch.

The Cook Inlet otter center has a capacity of 40 otters in treatment and another 80 in long-term holding pens.

In the event of an oil spill that mobilized a sea otter rescue, animals would pass through an assembly line of treatments before being released.

Preparing such a facility is legally required under oil spill response plans developed using knowledge gained during the 1989 Exxon Valdez oil spill in Prince William Sound. Sea otters are particularly

See CENTER, back page

...Center

Continued from page A-1

vulnerable to oil contamination and thousands are estimated to have died in the 1989 environmental disaster.

CISPRI has a contract with the Wildlife Rapid Response Team, based in Longbranch, Wash., to treat sea otters if a need should arise. Jim Styers, head of the response team, was director of the Seward Otter Rehabilitation Center in 1989.

The Wildlife Rapid Response Team works in partnership with the Marine Wildlife Rescue Team based in Homer, which specializes in bird care.

The specialized facility to be constructed in Nikiski was designed as part of a team effort by CISPRI, the Wildlife Rapid Response Team and the U.S. Navy supervisor of Salvage, a group that specializes in design engineering for marine environments.

CISPRI and Peak expect to complete the facility before the end of the year. Initially it will be stored at Nikiski but CISPRI may move it to Homer later so it will be closer to likely points of deployment, Lentsch said.

Styers has spent a lot of time in the Homer area and has scouted out bays on the south side of Kachemak Bay that would be suitable for floating pens to house captive sea otters in the later stages of rehabilitation, Lentsch said.

Growing numbers of sea otters live in lower Cook Inlet where they could be vulnerable to oil spills.

Nearly exterminated by fur hunters in the 18th and 19th centuries, they have been recovering since they came under legal protection early in the 20th century. Populations along Alaska's south-central coast are expanding, but the animals are still protected by law and considered endangered in California.

During the 1989 oil spill, Exxon spent about $80,000 per animal to rehabilitate several hundred otters. Hastily built facilities at Valdez, Seward and Jakalof Bay near Homer cared for the animals.

Afterwards, the Valdez facility was dismantled, the Seward facility was shipped to Anchorage for possible reuse and the Jakalof pens were converted for aquatic farming.

Lentsch said sources told him the trailers from the old Seward center, now stored at the Bird Treatment Center in Anchorage, have deteriorated too much to be used.

Alyeska has built a new sea otter facility in Valdez. That facility is in storage and designed to be set up in a warehouse at Valdez when needed.

The Alaska SeaLife Center in Seward has some capacity for sea otters. CISPRI is negotiating with center officials about possibly having a nursery for sea otter pups at the Seward location.

By coincidence, the Alaska SeaLife Center is built on the former site of the Seward sea otter center.

THE ANCHORAGE DAILY NEWS
SEPTEMBER 13, 1998

The Anchorage Times

Publisher: BILL J. ALLEN
"Believing in Alaskans, putting Alaska first"
Editors: DENNIS FRADLEY, PAUL JENKINS, WILLIAM J. TOBIN
The Anchorage Times Commentary in this segment of the *Anchorage Daily News* does not represent the views of the *Daily News*. It is written and published under an agreement with former owners of *The Times*, in the interests of preserving a diversity of viewpoints in the community.

Spillover

HATS OFF to the University of Alaska Anchorage faculty member who borrowed a page from the environmentalists' strategy book to mount a campaign for long-term funding for the university. He's targeting the money remaining in the billion-dollar Exxon Valdez oil spill settlement.

Grant C. Baker, an assistant professor in UAA's School of Engineering, quietly has been conducting his one-man grass roots effort over the past year to persuade the Exxon Valdez Oil Spill Trustees Council to create an endowment for the state's university system. He wants the trustees to use the sizable restoration reserve account, estimated to be worth some $140 million, for this purpose.

Sept. 29 is when the trustees — three from the federal government and three from state government — will decide the fund's future. That decision could include such an endowment.

Baker has been drumming up support for the idea, and he's patterned his effort after some of the techniques used successfully by national environmental lobbying groups.

He lined up endorsements from various influential individuals and organizations, including university alumni and faculty, student organizations, political leaders and civic groups. He established an Internet home page (http://www.alaska.net/~baker/evos.htm) that includes an open letter explaining the endowment proposal and how it could be used by the university to fulfill the spill settlement's original purpose.

An endowment, he says, would allow research for restoring and protecting spill-affected areas and wildlife, including fisheries. And it would allow the development and worldwide marketing of educational courses and patents for oil spill cleanup technology. Baker says these activities could "perpetually generate huge incomes and create a more self-sustaining university."

His home page includes sample messages that people can use to send to the trustees in support of an endowment.

Following the 1991 settlement involving Exxon, the federal government and the state, the oil company agreed to pay almost $1 billion over 10 years to restore and protect areas damaged by the 1989 spill. But Alaskans fell asleep at the switch at the same time national environmental organizations mounted an all-out effort to influence how that money would be spent.

As a result, the major portion of settlement funds spent to date has gone to purchase private lands from Native corporations, to pay lawyers' fees and to supplement budgets of government bureaucracies.

Professor Baker believes the spill legacy should include an endowment for the university.

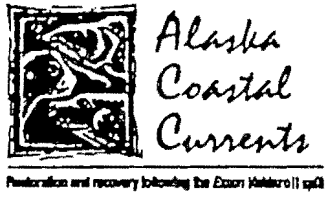
We agree.

THE PENINSULA CLARION
SEPTEMBER 13 1998

Healthiest seal pups in world found in Prince William 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



There may not be many of them, but harbor seals in Prince William Sound are looking fat and healthy, according to Alaska Department of Fish and Game biologist Kathy Frost.

One of the theories for the seal decline is that there isn't enough food of the right species and age for the pups to survive the most difficult year of life — the first year. However, right now year-old seals are about twice as fat as yearlings in Canada or the West Coast of the United States.

"Prince William Sound right now has some of the biggest, fattest, healthiest seal pups in the entire world. We've had biologists coming out with us the last two years who work on harbor seals in eastern Canada, Oregon and California, and they are astounded at how big and fat Prince William Sound seals are," Frost said.

Frost travels to Prince William Sound twice a year to collect data and count harbor seals. In June, researchers catch seal pups to put satellite transmitters on the, and do a variety of measurements. They had been focused on adults, but when several years of work showed no apparent reason for the population decline, they began to concentrate on pups. Between this year and last year they've tagged a total of 20 pups.

They'll also tag pups next year. The transmitters fall off once the seals molt.

In August the seals shed their coats and spend hours hauled out on rocks, soaking up whatever sunshine there is and growing their new pelts. This makes it easier to count them.

Survey flights go from Cordova across the southern end of the sound, up through the islands in the middle, across the northern sound and back to Cordova, about a three-hour circle. On Aug. 25, Frost counted 799 seals.

"I tried awful hard for 800th seal, but I didn't see it," she said.

Telling the difference in seal numbers from east to west is difficult, said Frost, but in general, the eastern side of the sound, including the Port Gravina area, has fewer seals than the southern sound.

"Some parts of the sound just seem to have more seals. The southern part of the sound is big seal country. There are a lot of the things seals like to eat, such as herring and capelin, in that area. And the biggest rocky haulouts are around Channel Island, Port Chalmers and Stockdale Harbor. Port Gravina has some pretty big haulouts, but in total, fewer seals than the southern sound," said Frost.

The satellite tags have shown that most of the pups born in Prince William Sound stay there the first year of their life. Some go into the Gulf of Alaska to feed. The fact that the pups are big and fat when they are weaned shows that the mother also was in good health.

The technique to measure the seals' body fat was developed only recently. There is no information about harbor seal pup condition early in the decline or the years immediately after the oil spill. Eventually Frost hopes to use the information from satellite tags to better understand feeding behavior and seal movements and compare their activities here with those in Southeast Alaska, where their populations are thriving.

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

Alaska Coastal Currents

By Jody Seitz

Tradition aids science

Harbor seal populations in Prince William Sound were already doing poorly before the 1989 oil spill, which killed an estimated 300 seals outright. Ecosystem changes rank number one among theories for the decline. Through the Alaska Native Harbor Seal Commission, hunters have become a critical link in research to determine why the harbor seal population has dropped about 80 percent over the last 20 years.

For years after the spill, harbor seal hunters reported seeing abnormalities in seal tissues and livers, but there was no formal way to collect samples from the seals and have them processed. Research on seals was also stymied by a lengthy permitting process, which non-Native biologists had to pursue in order to collect tissue samples for analysis.

That began to change in 1994, with amendments to the Marine Mammal Protection Act. Congress gave the Secretary of the Interior authority to enter into agreements with Alaska Native organizations for co-management of subsistence uses of marine mammals.

The decline in seals and the potential for more regulated hunting stimulated the Alaska Department of Fish and Game to carry out research on harbor seal use throughout the seal's range in Alaska. Through a series of meetings with hunters and scientists, the ADF&G Subsistence Division led an effort for hunters and biologists to discuss human use of seals, along with current life history, distribution and abundance data. The Alaska Native Harbor Seal Commission arose out of those meetings. Monica Riedel of Cordova, previously a member of the Sea Otter Commission, stepped forward to serve as its first director.

Reidel felt the need for Alaska Natives to be involved in research and management. "We need to be involved, because any decision about harbor seals directly affects us," she said.

Nineteen Alaska Native tribes belong to the statewide commission, which has representatives from the Aleutians, Bristol Bay, Cook Inlet, Chugach Region, Kodiak, and Southeastern Alaska.

Since its inception, Riedel has worked with state biologists to train hunters and young people from Ketchikan to Akutan to collect samples from their subsistence hunts for science. High school students accompany their elders on their hunts, and when a seal is taken, collect the samples and record data about the seal. Seal meat is widely distributed in the traditional way, but now tissues are sent to scientists all over the world.

In June, the commission met in Fairbanks. Hunters were invited to tour the mammology collection at the University of Alaska Museum to see samples they helped create.

Founding member Mitch Simeonoff of Akhiok, was there. "We went to the museum and then to the university where they keep our samples. That was fantastic," he said.

The most interesting part of the Fairbanks trip for Simeonoff was the mammology museum. "I didn't realize they had that many animals," Simeonoff said. "They had skeletons of all the mammals we have - walrus, seals, whales - and some of them were really old."

Harbor seals have also declined around Akhiok. "The people have noticed it," he said.

The commission and the National Marine Fisheries Service signed an umbrella agreement in August of 1997, describing how the co-management agreement process will take place. "It's looking more and more like a partnership," said Riedel.

Steve Zimmerman, NMFS Regional Director, agreed that harbor seal management changes are occurring relatively smoothly. "We have a common goal of doing the best thing for harbor seals and allowing subsistence to continue," he said.

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.

THE KODIAK MIRROR
SEPTEMBER 11, 1998

Letter to the editor

We need marine research

To the editor,

Contrary to Dominick DellaSala's speculation ("Environmental Group Urges Trustee Council to Buy Habitat," August 19) the push for research and monitoring of the marine environment devastated by the Exxon Valdez Oil Spill (EVOS) is not coming from those "pitching badly needed economic stimulus for the region." It is coming from scientific societies and marine conservation groups throughout the country, including the Society for Conservation Biology, the Estuarine Research Federation, the Ornithological Council, the Center for Marine Conservation, American Oceans Campaign, the Committee for the National Institute for the Environment, and my organization, Marine Conservation Biology Institute (MCBI).

The president and founder of MCBI, Elliott Norse, is also author of a seminal book on forest conservation, *Ancient Forests of the Pacific Northwest;* clearly we are not unsympathetic to forest protection. However, like these other conservation and scientific societies, we are concerned that marine ecosystems are often the least understood natural systems and scientists still do not understand, nine years after the spill, why many of the resources damaged by EVOS — not just fish stocks but seabirds, marine mammals, and other important life forms — have not yet recovered.

In fact, according to the Trustee Council 1998 Status Report only one resource — the bald eagle — is considered fully recovered. Certainly, precluding meaningful research and monitoring by diverting all or most of Restoration Reserve funds to additional habitat purchases will not provide us with needed answers for how to sustainably manage the vulnerable resources most directly affected by the spill: those that depend entirely on a healthy marine environment.

It is important to recognize that while valuable coastal upland habitats have been conserved in perpetuity with purchases and set asides, this is not an option for the offshore marine habitat. Instead, the primary way to conserve the living marine resources in the Gulf of Alaska is to improve the scientific basis for decision making.

Only with a well-designed, ongoing, long-term marine conservation biology research and monitoring program can we make informed decisions about managing a unique ecosystem that will continue to change in the future from both natural and human causes. To abandon efforts now to improve our limited understanding of this remarkable place and the recovery of its resources would be to make a conscious decision to turn our backs on the marine waters where the spill actually occurred — a decision akin to removing the bullet but ignoring the subsequent infection.

MCBI and the organizations mentioned above support research and monitoring focused on conserving and recovering the living marine resources and biological diversity of the Gulf of Alaska, based on a competitive scientific peer review process involving a mix of scientists throughout the United States with appropriate expertise in the various research topics to be considered.

We believe research and monitoring should be multi-disciplinary and ecosystem-oriented, designed and implemented to understand the processes and relationship governing marine ecosystem functioning. Research and monitoring should not be narrowly focused on maximizing certain resources for short-term economic gain, but should be broad-based and seek to understand how marine ecosystems function as a basis for management and conservation in the long run. Only if we understand how marine ecosystems work can we begin to understand how EVOS (or future oil spills) affect them and their recovery.

Interestingly, in the same August 19 issue of the *Kodiak Daily Mirror* another story highlighted World Wildlife Fund's concerns about global overfishing. While the story focused on overcapacity of the world's fishing fleet and policy options for addressing this, the global problem of fisheries decline and collapse raises numerous scientific questions for which we currently have no answers. Only increased scientific research can help us understand the short- and long-term impacts of overfishing and other stresses on ecosystems, and what these impacts mean for recovery of fish stocks and marine biological diversity in general. With growing signs of degradation in marine ecosystems worldwide, we cannot continue to focus all of our attention on land.

Sincerely,

—Amy Mathews Amos
Marine Conservation Biology Institute,
Arlington, VA

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OUTDOORS

THE PENINSULA CLARION SEPTEMBER 11, 1998

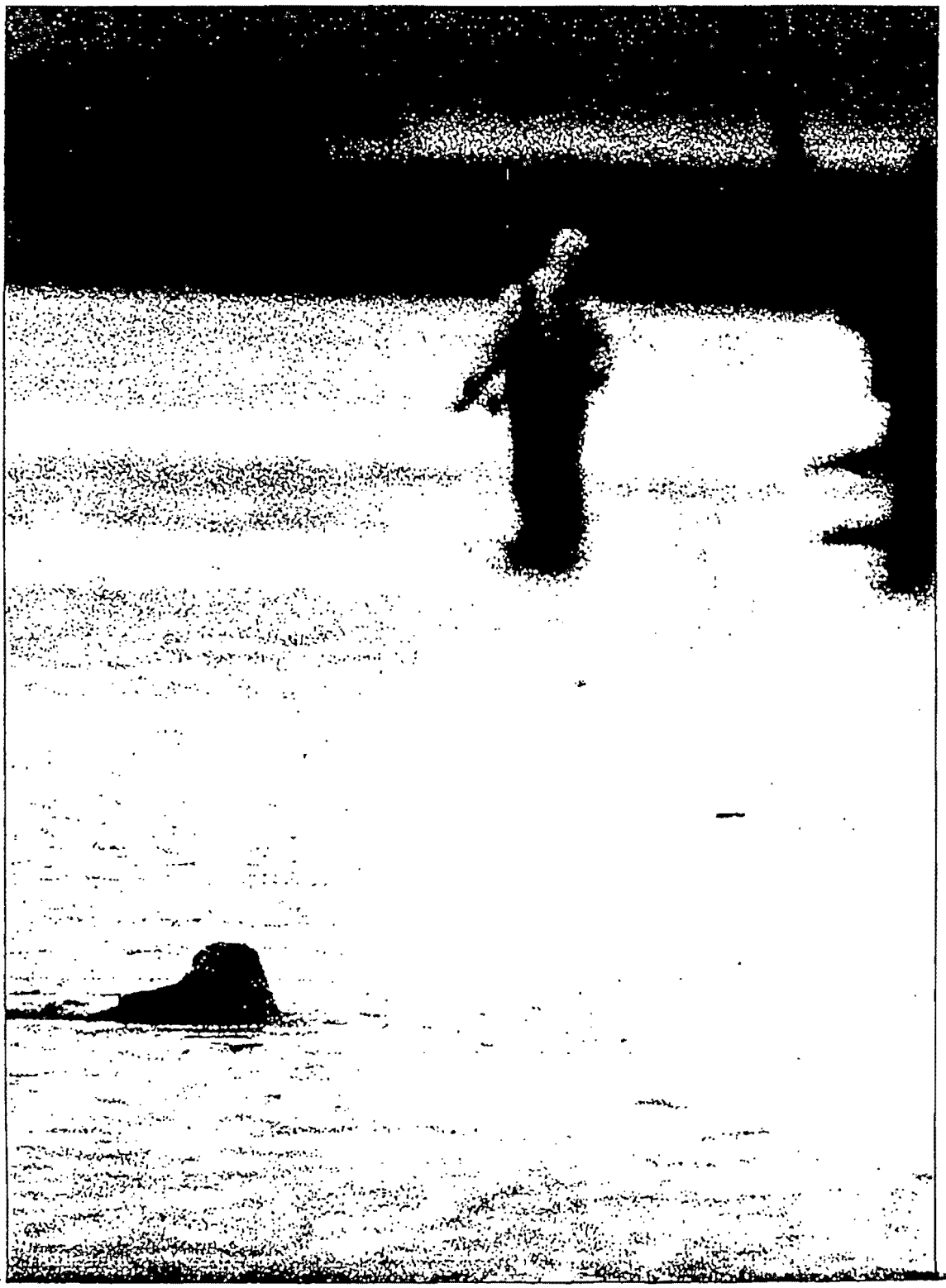


Photo by M. Scott Moon

Seafood dinner

A harbor seal dines on a silver salmon in the fishing hole on the Homer Spit as other fishers try their luck. The Alaska Department of Fish and Game reports fishing has been good, but reminds anglers that snagging is not allowed at the site. They recommend fishing on the incoming or outgoing tides.

THE CORDOVA TIMES
SEPTEMBER 10, 1998

Fate of road rider up to U.S. Senate

By Jennifer L. Strange
The Cordova Times

It's now up to the U.S. Senate, a Congressional conference committee and President Clinton to decide the fate of the Chugach road rider, a piece of legislation passed by the U.S. House of Representatives July 22. The rider mandates that the federal government grant Chugach Alaska Corp. a 250-foot wide, 27-mile long Forest Service easement to CAC land and the right to build other non-public roads in the Bering River and Katalla vicinities.

The Native corporation plans to use the proposed road, most of which will be built over previously undeveloped Copper River Delta area, to harvest 8,000 acres of old growth spruce and hemlock from the 73,000-acre Carbon Mt. tract it owns.

Environmentalists, commercial fishermen and a handful of CAC shareholders have argued that the road and resulting clearcutting will harm salmon spawning streams, bird flyways and natural terrain in the delta and Bering River regions.

Six protesters were arrested in late June for chaining themselves to pieces of CAC bridgework at Clear Creek, about 40 miles east of Cordova. The bridge was the first part of the logging road to be built.

The Clinton Administration has threatened to veto the Interior Appropriations bill if it contains the Chugach Road rider and other environmentally-heated riders. The rider will most likely make its way to

See Rider, page 10

Rider ...

From page 1

President Clinton's desk following passage of the Senate version of the bill and approval of the rider during Congressional conference committee meeting.

If the rider is debated on the Senate floor, supporters say it will meet with serious opposition.

"Murkowski and Stevens will be facing similar problems on the Senate floor to remove the rider from the bill," said Steve Hansen, communications director for the Committee on Resources, chaired by Rep. Don Young. Hansen said the "usual cast of characters" will be urging the Senate to strip the rider off the bill.

"They do whatever the Sierra Club tells them to do and anything dealing with the state of Alaska, the environmental groups get behind," Hansen said, citing environmental actions to deter development in the Tongass, ANWR, King Cove and Chugach National Park areas. "But most of them have never been there and don't know it."

Calling the rider an "economic program" for Alaska, Hansen said it and other development issues are important to the people and communities of the state and that policy makers try to do the most environmentally safe things possible in conjunction with industrial projects.

Environmentalists say the safest thing to do in the Carbon Mt. situation is to leave it alone.

"This is the only forest district in the country to be primarily managed for fish and wildlife and not for multi-uses," David Grimes of the Coastal Coalition said. "With this rider you'd be expecting the federal government to be upholding the highest environmental protection standards, not standards to mainly allow industry and developers to benefit."

Opposition to the road has also focused on the recent Asian market crash. With all of the CAC timber slated to be exported to Asian countries, environmental groups have argued that the road isn't necessary because there's no market for the product.

Even CAC chief executive officer Michael Brown hedged in the face of the teetering Asian market, saying earlier this month that he and CAC are trying to diversify their investments and are no longer interested in being part of the resources market, especially after the corporation declared bankruptcy in 1992 after the bottom dropped out of the timber and seafood markets.

Brown told Alaska Business Monthly that he has no interest in returning the resources market. "You have no control over the end price of the product and you're totally at the mercy of the market," he said.

But CAC lands manager Rick Rogers said the Carbon Mt. project is a smart long-term investment that will pay off after the Asian market recovers and that the corporation hasn't changed its position on the building of the road. CAC plans to have the road built by 2000.

"We are concerned with the Asian market as it is but we're taking a confident view and feel in pretty good shape," Rogers said. "Asian markets and commodity markets experience cyclical problems — that's the nature of the business — but smart money goes long-term."

Cordova District Ranger Cal Baker said that with or without the legislation, the Forest Service plans to grant the easement in December of this year, as was outlined in an earlier memorandum of understanding between the Forest Service and CAC.

Rogers said he's hopeful CAC won't have any problems receiving the Forest Service easement without the legislation but that the corporation would be "more comfortable" with it.

Rogers said CAC is concerned about some "national agendas" that could further challenge the building of the road if the federal legislation was absent.

3,800 visit Center over Labor Day weekend

The SeaLife Scoop

Compiled by Maureen Sims

On Labor Day weekend, 3,800 visitors passed through the Center's doors. More than 176,000 people have visited the facility since the May opening.

More than 1,900 individuals are now Alaska SeaLife Center partners through almost 500 memberships established since May. Over half of these are family memberships, 20 are at the sponsor level and one is a patron membership.

Hundreds participated in the Name the Octopus contest. The winning name for the male octopus is Othello. Four entrants submitted that name and a drawing determined Sharon Hart of Kenai as the winner of the SeaLife Center sweatshirt.

The coming week will be busy with meetings, receptions and classes. Participants will include the Exxon Valdez Oil Spill Trustee Council Public Advisory Group, University of Alaska, AVTEC, Regional Citizens' Advisory Council, Boys and Girls Club, Kenai Peninsula Tourism Marketing Council and the center's first Elderhostel program. Also, Northern Forum will host a reception for more than 150 guests from Canada, China, Finland, Japan, Korea, Norway, Russia and Sweden.

Mark your calendar for Saturday, Sept. 19, the first of a series of programs called SeaLife Saturdays. Offered on the first Saturday of every month, the program features such activities as family fish printing, pinniped picnics and octopus observations.

On the same day the center will host the annual International Ocean Cleanup coordinated by the Center for Marine Conservation. Check in for land cleanup at 9 a.m. Certified divers volunteering for in-water cleanup check in at 11 a.m. Cleanup volunteers who bring in a full bag of trash will receive a free T-shirt and free admission to the center. More information will follow next week.

The SeaLife Seminar Series resumes in October. The seminars offer marine related educational topics and will be held on the second Tuesday of every month.

The SeaLife Center's Marine Science Program on the vessel Northland takes place Oct. 3. The program invites adults and children to learn about marine ecosystems during a five-hour cruise. Participants will learn about seawater and plankton using sampling techniques and the on-board lab. The trip also includes observation of marine mammals and seabirds and information about their adaptations.

All but four of the pigeon guillemot chicks have fledged from the SeaLife Center. Three of the chicks will join the bird habitat and one is taking a little longer to get ready for the big leap.

The common murre is doing well. Because is was imprinted to humans before the center received it, it can not be released. It will be sent to the Oregon Coast Aquarium.

Ili's eye (harbor seal) continues to heal and she is gaining weight. Her release is planned for October to allow her more time to gain weight and make sure the infection is completely cleared up.

National Marine Fisheries Service informed the SeaLife Center that they picked up Yukon's (released rehabilitated harbor seal) frequency on Aug. 27 and 29. We still have not heard anything on Denali (another harbor seal), but we will receive the NMFS complete telemetry report at the end of September.

The SeaLife Center's fall hours are 9 a.m.-7 p.m.

Maureen Sims is director of external affairs at the Alaska SeaLife Center.

Sims returns to SeaLife Center

Maureen Sims started work last month as external affairs coordinator at the Alaska SeaLife Center, where she will oversee the marketing and development departments as well as serve as public relations officer.

According to a press release, Sims will also be the SeaLife Center's lead grant writer, and serves as liaison between the facility and its board of governors.

Sims had earlier served as project manager for Leif Selkregg Associates during the four-year design, permitting and construction of the SeaLife Center. She was responsible for preparation of the environmental impact statement, working with public, local, state and federal agencies and identifying funding requirements.

According to Sims, she has also served as consultant on the New Seattle Aquarium and project coordinator for a $200 million pipeline project in Washington, in addition to analyzing and assessing environmental issues of the Kodiak launch complex for the Alaska Aerospace Development Co

THE VALDEZ VANGUARD
SPETEMBER 9, 1998

Basic science yields practical results for fisheries

Coastal currents

By Jody Seitz

Ever since the 1989 Exxon Valdez oil spill, one of the most extensive marine science programs in the world has been underway in Prince William Sound, lower Cook Inlet and the northern Gulf of Alaska.

The Exxon Valdez Oil Spill Trustee Council has been able to provide many millions of dollars each year to better understand the marine environment in the spill region. About $14 million is being dedicated this fiscal year to research and restoration activities.

Guiding all this is an independent team of scientists from throughout the U.S. who review research projects, including methods, goals and results, and provide overall direction to the Trustee Council's research and monitoring efforts.

The process of having a team of independent scientists who guide the overall research program is unprecedented, according to Dr. Bob Spies, chief scientist for all Trustee Council research efforts. "This is the first time that a group of independent scientists has been able to shape a research program of this size over such a long time period in the United States," Spies said.

Phil Mundy, principal of Fisheries and Aquatic Sciences in Oregon, provides the fisheries expertise on the review panel. He has extensive experience with fisheries management and large fisheries restoration projects in the Pacific Northwest. He currently advises Indian Tribes, the National Marine Fisheries Service and the Northwest Power Planning Council on the expenditure of funds for recovery of endangered salmon runs.

Each reviewer has a particular focus. Mundy's is to make sure fish managers get useful information from the research projects. Fish managers need to understand how natural factors impact fish populations and Mundy's job is to focus the research to help provide the information and tools managers can use.

For example, scientists suspected that disease controlled herring populations for a hundred years, but no one had proof. WIth Council funding, scientists have conducted the research and published the first study ever on control of herring populations by disease organisms.

Research has not only produced new knowledge, it's allowed implementation of known techniques such as otolith marking and genetic markers to identify hatchery and wild salmon stocks. The use of genetic markers to manage the Russian River sport fisheries is one example Mundy gives of research leading the world in identifying salmon.

"We're now able to see Russian River late run sockeye among all the millions of Kenai River sockeye that come back. They can be identified during the season in a very short amount of time so that the managers can adjust the harvest of the Kenai to allow the late run sockeye into the river for the sports fishery," said Mundy.

Another research effort helped answer long-standing questions about the impact of sockeye overescapement on the lake-river systems. For the first time, researchers proved overescapement reduces salmon returns and that managers have to look at more than one year to make sense of salmon escapements.

Weathered oil toxicity studies yielded the most shocking discoveries. Levels of weathered oil as low as the state water quality standard can damage salmon eggs. Oil in the sediments of salmon streams damaged wild pink salmon eggs for five years after the oil spill.

Finally, blood chemistry studies of marine mammals, seabirds and ducks found that nine years after the oil spill they still show signs of contamination, though the health implications of the exposures are not known as this time.

Mundy estimates that our knowledge of marine science, particularly in fisheries, has advanced by more than 50 years during the last six years of intensive research.

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.

THE KODIAK MIRROR
SEPTEMBER 9, 1998

Scientists say belugas not to blame for salmon decline

JUNEAU (AP) — Government scientists reviewing this year's dismal sockeye salmon returns in Bristol Bay say hungry belugas are not to blame.

Some fishermen wondered if belugas had become more numerous in the bay — touching off predator-prey conditions that have drawn down salmon numbers for the past two seasons in a row.

Concern focused on the usually productive Naknek-Kvichak and Nushagak districts in southwest Alaska.

In findings released Tuesday, Juneau-based scientists with the National Marine Fisheries Service said belugas did not play a role since their number has been constant at about 1,500 whales since the 1950s.

"From the information we have, we can't say they're playing a substantial role in the decline," said Brian Fadely, a marine biologist with the service.

Scientists also note that this year's runs were far less than forecast in both the Togiak and Egegik districts, where belugas are not known to congregate for feeding.

More than 12 million sockeye failed to return to Bristol Bay fishing district's as forecast this year.

Researchers say to account for that many fish, the bay would have to have seen more than 50,000 belugas — far more than the area typically supports.

This was the second summer in a row of poor sockeye returns in Bristol Bay but Fadely said it's not the first time feeding whales have been blamed for a salmon declines. "They're visible in the system, feeding on salmon," he said. "It makes sense to consider whether they have a major impact."

Scientists on Tuesday said managers seeking to understand Bristol Bay's changing fisheries should continue focusing on climate and ocean conditions.

The beluga's potential role in denting the bay's sockeye numbers surfaced this season in August when Fred Kraun Sr., a former Naknek resident and fishermen, said he believed beluga numbers in the region had tripled.

Researchers said then they questioned Kraun's observation. Belugas are known to feed on adult salmon as well as smolt heading to sea.

THE PENINSULA CLARION
SEPTEMBER 6, 1998

An ancient tradition helps modern science

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.

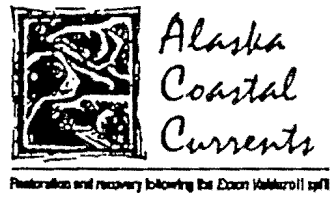
By JODY SEITZ

Harbor seal populations in Prince William Sound were already doing poorly before the 1989 oil spill, which killed an estimated 300 seals outright. Ecosystem changes rank number one among theories for the decline.

Through the Alaska Native Harbor Seal Commission, hunters have become a critical link in research to determine why the harbor seal population has dropped about 80 percent over the last 20 years.

For years after the spill, harbor seal hunters reported seeing abnormalities in seal tissues and livers, but there was no formal way to collect samples from the seals and have them processed. Research on seals was also stymied by a lengthy permitting process, which non-Native biologists had to pursue in order to collect tissue samples for analysis.

That began to change in 1994, with amendments to the Marine Mammal Protection Act. Congress gave the Secretary of the Interior authority to enter into agreements with Alaska Native organizations for co-management of subsistence uses of marine mammals. The decline in seals and the potential for more regulated hunting stimulated the Alaska Department of Fish and Game to carry out research on harbor seal use throughout the seal's range in Alaska.



Through a series of meetings with hunters and scientists, the Department of Fish and Game Subsistence Division led an effort for hunters and biologists to discuss human use of seals, along with current life history, distribution and abundance data.

The Alaska Native Harbor Seal Commission arose out of those meetings. Monica Riedel of Cordova, previously a member of the Sea Otter Commission, stepped forward to serve as its first director.

Reidel felt the need for Alaska Natives to be involved in research and management. "We need to be involved, because any decision about harbor seals directly affects us," she said.

Nineteen Alaska Native tribes belong to the statewide commission, which has representatives from the Aleutians, Bristol Bay, Cook Inlet, Chugach Region, Kodiak and Southeast Alaska.

Since its inception, Riedel has worked with state biologists to train hunters and young people from Ketchikan to Akutan to collect samples from their subsistence hunts for science. High school students accompany their elders on their hunts, and when a seal is taken, collect the samples and record data about the seal. Seal meat is widely distributed in the traditional way, but now tissues are sent to scientists all over the world.

In June, the commission met in Fairbanks. Hunters were invited to tour the mammology collection at the University of Alaska Museum to see samples they helped create.

Founding member Mitch Simeonoff of Akhiok, was there. "We went to the museum and then to the university where they keep our samples. That was fantastic," he said.

The most interesting part of the Fairbanks trip for Simeonoff was the mammology museum. "I didn't realize they had that many animals," Simeonoff said. "They had skeletons of all the mammals we have — walrus, seals, whales — and some of them were really old."

Harbor seals have also declined around Akhiok. "The people have noticed it," he said.

The commission and the National Marine Fisheries Service signed an umbrella agreement in August of 1997, describing how the co-management agreement process will take place. "It's looking more and more like a partnership," said Riedel.

Steve Zimmerman, NMFS regional director, agreed that harbor seal management changes are occurring relatively smoothly.

"We have a common goal of doing the best thing for harbor seals and allowing subsistence to continue," he said.

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

THE JUNEAU EMPIRE
SEPTEMBER 6, 1998

Salmon sharks find Prince William Sound to their taste

By NATALIE PHILLIPS
THE ANCHORAGE DAILY NEWS

ANCHORAGE – When a group of scientists conducting forage fish surveys in Prince William Sound's Galena Bay got an odd reading on their underwater acoustic equipment, they lowered an underwater camera into the sea. What they saw were salmon sharks. Hundreds of them. Maybe 1,000.

Where did they come from?

"I fished in the sound for years and didn't see wiggle one until I was doing research out there in 1995," said Lee Hulbert, research fisheries biologist for the National Oceanic and Atmospheric Administration in Juneau. "They were everywhere."

Luke Boer, who operates Native Sun Charters and Tours in Cordova and has fished the sound for more than 30 years, reports their numbers on the rise in Windy Bay on Hawkins Island and in Main Bay near Port Nellie Juan.

"I know there are thousands and thousands of them in Prince William Sound," Boer said. "You will see big schools of them in the middle of the sound just cruising." One trip earlier this summer, his crew hooked 16 sharks in seven hours.

Jeff Milton is a production manager for the Prince William Sound Aquaculture Corp. While doing aerial salmon surveys, he has noticed the rise, too.

"Over the past five years, the numbers have increased dramatically," he said. "Off Chenega Island, I saw several thousand form within a mile or so from the beach line."

There's no explaining the explosion.

But biologists would like to.

A couple approached the Exxon Valdez Oil Spill Trustee Council this summer asking for nearly $400,000 for two studies to figure out the role the salmon sharks play in the sound's ecosystem. The study requests were turned down because the salmon shark is not one of the species identified as injured after Exxon's 11-million-gallon spill in 1989.

Meanwhile, a number of fisheries managers are mapping a plan to take a closer look, said Doug Vincent-Lang, regional management biologist for the state Department of Fish and Game.

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>
> Luke Boer

"We're in the process of starting a cooperative study between a lot of agencies," he said. Biologists are hoping to tag some, examine the stomach contents of others, and figure out if the stream of warm water brought to Alaska by El Nino is somehow related to the population boom.

At the same time, the state Board of Fisheries has taken conservative action to protect their numbers until more is known. In the spring of 1997, board members voted to prohibit commercial shark fishing. And they set a limit of one shark a day and two a year for sport fishermen.

"They wanted to get out in front of it," Vincent-Lang said. "Shark fisheries everywhere else have sprung up so quickly, the species was exploited before quotas were in place."

Scientists know this much: Thousands of salmon sharks range throughout Alaska waters year 'round eating millions of returning salmon. They grow to from 10 to 12 feet in length and can weigh up to 700 pounds.

Unlike most fish, they have no air bladder for flotation, and therefore can shoot through the water like a missile. They sink like lead when they die, Boer said. So when fishermen cut them out of their nets they disappear to the ocean's depths.

As a top-of-the-food-chain predator, their only known enemy is man. But not many people are lining up to hunt them in the sound, according to Boer.

MURKOWSKI: Senator requests review of council

Continued from Page B-1

Trustee Council paid 56 percent over the federal government's appraisals for much of the 360,000 acres of land and easements it has purchased from Native corporations over the past five years. Auditors explained in detail why the Trustee Council voted to spend over appraised value but didn't cite this as a problem.

However, it is a problem for Sen. Frank Murkowski, who requested the review.

"Some people might interpret that as not a robust clean bill of health," said Chuck Kleeschulte, a Murkowski spokesman. "We think that it is an indication they don't need to buy more land."

Murkowski has sponsored legislation that would allow the Trustee Council to invest outside the court-controlled settlement account, which has relatively high management fees. Attached to that bill is language that would prohibit the Trustee Council from spending any extra interest money earned on more land purchases.

"Murkowski feels it should go for related cleanup work or fisheries-related research," Kleeschulte said. "He believes enough land has been acquired."

In a prepared statement, Murkowski said, "My amendment doesn't prevent the trustees from buying private land with all the original $900 million settlement. But at least all of the extra money earned by this change would have to go for research and monitoring for fishery development projects."

After Exxon's 11-million-gallon spill in Prince William Sound in 1989, the federal and state governments reached out-of-court agreements to settle criminal and civil claims against the oil giant.

Exxon agreed to pay the state and federal governments $900 million to settle civil claims and $125 million to settle criminal charges.

The Trustee Council, made up of three federal officials and three state officials, was appointed to oversee the spending of the civil settlement money, which is being paid in annual installments. Under the settlement agreement, the money is to be spent on reimbursing the governments and Exxon the money they spent cleaning up the spill and for restoration and research projects.

To date, the Trustee Council has received $620 million from Exxon. Of that, $198 million was used to reimburse Exxon and state and federal agencies for their cleanup costs, which was required in the settlement. Another $187 million has been used to purchase coastal land and easement as a way to provide protected habitat for fish and birds and other species injured by the spill. About $90 million has been spent on monitoring and research. Another $48 million has been set aside to create an endowment and so there will be funds left when Exxon makes its final payment in 2001. The council is discussing how the reserve fund will be spent. The rest has paid for administration, management and restoration projects.

■ **BUSINESS:** Bush Alaska low on fuel / B-7 ■ **LETTERS:** Readers write / B-13, 14

METRO

SATURDAY, September 12, 1998 ★★ ANCHORAGE DAILY NEWS SECTION B

GAO lauds Oil Spill Trustee Council

By NATALIE PHILLIPS
Daily News reporter

So far, the Exxon Valdez Oil Spill Trustee Council has spent the $900 million in oil spill settlement money prudently and has done a good job of including the public in spending decisions, according to a 40-page General Accounting Office report released Friday.

The government accountants also suggested that Congress enact legislation to allow the Trustee Council more leeway in how it manages and invests its accounts. Such changes would allow the Trustee Council to earn more interest on its investments.

The only problem government accountants found was that the Trustee Council had funded three studies that appeared "questionable."

Three scientific studies that cost a total of $8.4 million probably shouldn't have been funded. This was an issue in 1993, when the GAO looked at the Trustee Council's spending. Since 1991, several hundred studies have been funded at a cost of $90 million. The three studies were a $900,000 effort, spent studying killer whales; $1.4 million spent on pink salmon research; and roughly $6.1 million spent studying Kenai River red salmon.

The Trustee Council's policy is to not fund research that can't be linked to damage done by the spill or that normally would be funded by a federal or state agency as part of its mission. In the report released Friday, GAO accountants acknowledged that the line is sometimes hard to define.

Molly McCammon, executive director of the Trustee Council, said in a written letter to the GAO that the council debated whether to fund those three projects and concluded that they can be linked to the spill.

Other than that, the accountants found that the agency is better managed today than it was five years ago.

"We're pleased," said Deborah Williams, the top federal Department of Interior official in Alaska and one of six Trustee Council members who decide how the settlement money is spent. "They gave us a very clean bill of health."

The audit also notes that the

Please see Page B-3, MURKOWSKI

The Seward Phoenix Log
September 3, 1998

Summer keeps businesses buzzing

By Jill Ingram
Special to The LOG

From coffeehouses to the Alaska SeaLife Center, Seward businesses are reporting strong summer sales, either up from or on par with last year's.

The season was "extremely busy. I just about couldn't keep up with it," said Dee Marlow, owner of the downtown business Dee's Floral Design.

As she spoke, Marlow cleaned vases and sorted flowers. Much of her help had already left for college, leaving her short-staffed, she said.

Marlow's season doesn't end with Labor Day. She contracts with two cruise lines, and delivers flowers to nearly every cruise ship that docks in Seward. "It's not over till the cruise ships are done," she laughed.

Cruise ship passengers that venture into the harbor area and downtown tend to spend, and their dollars definitely impact some local businesses.

Tourists, including many passengers from the cruise ships, "pour" into Resurrect Art Coffee House Gallery to spend their money on the "uniquely Alaska" jewelry, artwork,

See Summer, Page 19

Summer ...

From Page 1

books and other objects that the gallery offers for sale, said employee Gail Hamlin.

The business stays open year-round, but the summer tourist business "definitely" helps carry the coffee house through the rest of the year, Hamlin said. She remembers having plenty of time at work last winter to spread her books out on the counter and study for a correspondence course that she was taking through the University of Alaska Anchorage.

Some businesses depend so much on cruise ship passenger dollars that the end of the cruising season signals the end of business.

Once in a Blue Moose, a souvenir shop that opened downtown in May, will close on Sept. 19, a week before the last cruise ship of the season is scheduled to dock in Seward, said Jolene Sobiech, store manager.

Business was good for the Blue Moose this summer, Sobiech said. "We had no expectations for the summer," she said. "Overall, we are pleased with the season."

Once in a Blue Moose is one of seven souvenir shops owned by Westco, a business based in Anchorage. The other six stores, including five called Remember Alaska and another called Once in a Blue Moose, are in Anchorage.

The Alaska SeaLife Center, which opened in Seward on May 2, also saw its fair share of visitors from the cruise ships. Some of the cruise lines offered their passengers tickets to the center at a reduced price, said Suanne Bynum, a sales manager in charge of marketing at the center.

A relationship between the center and Seward's marine tour operators also gave the center's summer attendance a boost, Bynum said.

The center negotiated the sale of blocks of tickets to many of the marine tour operators, Bynum said. The tour operators in turn offered their passengers either free or reduced-rate tickets.

"Those types of relationships are crucial to this agency," Bynum said. The center will definitely work with the tour operators again next summer, she said.

As of mid-July, approximately 168,000 people had visited the center since its opening, Bynum said. Approximately 30,000 of those visitors were connected with the marine tour groups, she said.

The SeaLife Center hopes to attract 275,000 in its first year of operation. It will attract winter visitors by offering packages through year-round marine tour operators and area lodges, Bynum said. The center will also have winter visitors from schools and other programs, she said.

For most of the 110 cruise ships docking here, Seward is not a port of call, but rather a point of embarkation or debarkation. That means many of the passengers pass right from the ship onto buses and up to Anchorage, or vice versa, although some lines do allow passengers time to venture into town.

One place the cruise ship passengers aren't necessarily pouring their dollars is into the highly competitive marine tour industry operating out of Seward's small boat harbor.

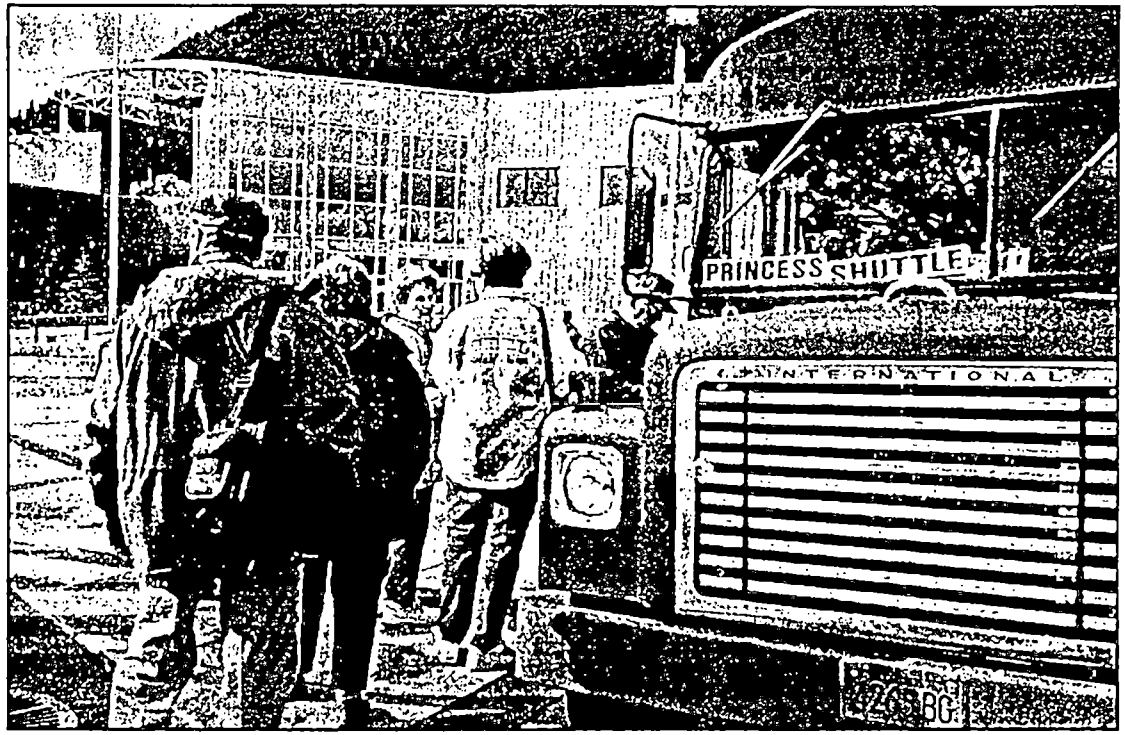
"Most of our customers are visiting friends and relatives," said Tom Tougas, owner of Kenai Fjords Tours. This, despite the fact that Kenai Fjords Tours had exclusive contracts with two cruise lines for the 1998 cruise season.

The marine tour season "definitely started out slow" because of the weather, Tougas said. He called this summer the "wettest, coldest season we've had in more than 10 years."

Still, compared to last summer, "business was definitely up," he said.

Mark Holland, the managing partner of Major Marine Tours, agreed that nasty weather definitely affected the early part of the season. His sales are on par with what they were last year, he said.

His customers have been very receptive to visiting the SeaLife Center at the end of their tours. "I think it's been a good partnership between the two," Holland said.



Jill Ingram/Special to The LOG

Tourists prepare to board a shuttle bus downtown in front of the SeaLife Center. The tourism season begins its inevitable wind-down following the Labor Day holiday.

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, Page B2.

The Washington Post

Inside: Book World, TV Week, The Post Magazine, Comics
Today's Comments on Page A1

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'EAR No. 282

SUNDAY, SEPTEMBER 13, 1998

GAO: Exxon Spill Funds Spent Properly

Reuters

ANCHORAGE—Trustees who manage the money paid by Exxon Corp. to settle government lawsuits over the 1989 Valdez oil spill have acted properly to help the damaged Alaska environment recover from the disaster, a General Accounting Office report says.

Activities of the Exxon Valdez Oil Spill Trustee Council "appear consistent" with legal mandates that settlement money be spent on projects linked to the oil disaster and be limited to the restoration of Alaskan natural resources, said a summary of the report issued Friday.

Those activities include acquisition of threatened habitat along the Prince William Sound and Gulf of Alaska coasts, mostly from Indian, Eskimo or Aleut groups. Other activities are scientific studies, continued shoreline cleanup and educational projects.

The trustee council, made up of three federal and three state representatives, is responsible for administering the $900 million that Exxon promised to pay over 10 years in its 1991 civil settlement with the federal government and the state of Alaska.

For habitat acquisitions, the council has paid negotiated prices that were about 56 percent above government-appraised values for the purchased lands, according to the audit by the congressional watchdog agency.

Prices paid for most of that coastal land were far above government appraisals because there was no commercial use yet attached to those parcels, the report said. The bodies that owned the land were unwilling to accept the low appraised prices, it said.

For other large parcels, government-appraised values were higher because they were pegged to potential logging income, the GAO said.

Sen. Frank H. Murkowski (R-Alaska), who ordered the report, said it confirmed his long-standing criticism that too much of the settlement money was being used to buy coastal land and preserve it from logging or other development.

But Molly McCammon, executive director of the trustee council, called the GAO audit "as clean a bill of health as any billion-dollar program could ever get."

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The Seward Phoenix Log
September 3, 1998

Exxon spill money provides means to dispose of waste oil

The Associated Press

ANCHORAGE — Five small communities in Prince William Sound produce about 45,000 gallons of used and tainted oil a year, and until this summer had no really good way to dispose of it.

But now Tatitlek, Chenega Bay, Whittier, Valdez and Cordova each has a new oil burning treatment plant, thanks to a $1.4 million grant from the Exxon Valdez Oil Spill Trustee Council.

A handful of Kodiak Island and Kachemak Bay communities are next in line.

Trustee Council members voted last week to give Ouzinkie, Port Lyons, Old Harbor, Larson Bay, Karluk, Chiniak and Akhiok on Kodiak Island $1.9 million to install similar plants.

They also approved a $54,000 study that would allow Seldovia, Port Graham and Nanwalek to study setting up the same kind of facilities in their communities.

"The villages don't really have a good answer as to what to do with used oils, some vehicle and some heating oils that get contaminated," said Ron Riemer, an environmental engineer for the Kodiak Island Borough. "Generally, all they had in the past was drums to store it in. It just accumulated."

Money for the projects is coming from the $900 million that Exxon paid to settle the state and federal governments' lawsuits against the oil giant after Exxon spilled 11 million gallons of oil in the Sound in 1989.

The oil burner will help the trustees with their mandate to spend the money on restoring resources in the spill area, said Molly McCammon, the trustee council's executive director.

Stylist discovers hair-filled pillows are perfect oil spill picker-upper

By Ned Rozell
Special to the Journal

In 1989, Phillip McCrory watched a CNN story on the Exxon Valdez oil spill. Seeing the difficulty volunteers were having cleaning oil from the fur of otters, McCrory wondered if perhaps human hair could be used to soak up oil. His curiosity could revolutionize how we attack oil spills.

McCrory is a hairdresser who lives in Madison, Ala. After seeing the oily otters on CNN, he brought a bag of hair home the next day. He stuffed an old pair of his wife's pantyhose with five pounds of hair, then tied the ankles together to make a ring. After he filled his son's plastic pool with water, he dumped in a gallon of used motor oil. He dunked the ring of panty hose.

"In two minutes, the water was crystal clear," he said recently in a telephone interview from his salon.

Chicken feathers, wool and straw are other natural substances used on oil spills, but hair seems to be more effective, said McCrory, who brought his discovery to researchers at NASA's Marshall Space Flight Center in nearby Huntsville, Ala. The scientists did further tests: they filled a 55-gallon drum with 40 gallons of water and 15 gallons of oil. Another drum, which drained at the bottom, was stuffed with nylon bags full of hair. The drum with the oily water was poured into the drum with the hair. When the water flowed out the bottom, only 17 parts per million of oil remained, equal to about two drops of oil.

Hair does not absorb oil. Oil clings to hair in a process known as adsorption, in which the tiny scales on hair snag and hold oil. Maurice Hall, a NASA engineer working with McCrory, said hair adsorbs better than wool or feathers. The researchers are working with McCrory to develop quilted pillows of hair of various sizes. The version now being tested weighs just more than a pound and will adsorb a gallon of oil in two minutes, McCrory said.

The hair within the pillows can collect oil many times if it is properly wrung out, and the hair can eventually be burned as fuel, McCrory said. Hair could eventually replace polypropylene fibers now used to collect oil.

McCrory figures about 1.4 million pounds of hair could have snatched up the 11 million gallons of oil leaked by the Exxon Valdez. Hair supply, he explained, is not a problem. The floors of the 200,000 salons and barber shops across the United States gather about one pound of hair a day each. McCrory collects hair from 12 Alabama salons for the work with Marshall Space Flight Center and hopes to eventually keep mountains of hair out of landfills nationwide.

"Two-hundred thousand pounds of hair a day grows, no matter what El Nino's doing," he said. "It's the same crop, every day."

McCrory received a patent for his idea and wants a company to buy his license and start making hair pillows once final tests at Marshall Space Flight Center are accomplished. If a large corporation isn't interested, he said he will develop the idea himself. He's done it before. McCrory, 52, has three patents, including one for a collapsible Christmas tree that hangs from the ceiling to prevent cats from knocking it over.

"I don't look for these ideas," he said. "They just come up and find me."

Ned Rozell is a science writer at the Geophysical Institute at the University of Alaska Fairbanks.

Journal of Alaska Business
August 27, 1998

Exxon Valdez spill money provides means to dispose of waste oil

The Associated Press

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The oil burner will help the trustees with their mandate to spend the money on restoring resources in the spill area, said Molly McCammon, the trustee council's executive director.

"You have a marine environment that is continuing to see the effects of the oil spill," she told the Anchorage Daily News. "How much is hard to say. We can say that full recovery has not occurred. While that process is under way, we want to make sure there is no additional injury."

When the trustee council decided to fund the oil burner projects, council members were concerned they were paying for something that should be provided by local or state government, McCammon said. But after a close look, council members determined that because oil burners are not required by law, it was unlikely that local government would have the money to fund the projects.

Kara Merrell of the Prince William Sound Economic Development Corp. said a lot of marine pollution can be traced back to such land-based sources as harbors and oily bilge water. So her agency wrote the grant proposal to address waste disposal issues in the Sound.

The Sound Waste Management Plan got $308,000 in 1996 to devise a system to deal with used oil, oily bilge water and household hazardous waste, like paint thinner and pesticides. Once the study was complete, construction was funded at $1.1 million.

Using the grant money, each Sound community got a new building and equipment to handle the used oil and oily bilge water.

Matt Stephal, the engineer who designed the projects for the Sound communities, said it's not clear what happened in these small communities with tainted bilge water before the new buildings were brought in.

Gary Kompkoff, Tatitlek Village Council president, said his village used to try to burn as much used oil as possible. "We didn't have the standard waste oil burner that does it at a high temperature," he said. "We did it the old way, and that created a lot of black smoke and was a nuisance."

The oil that is treated and usable will be used to heat the new oil processing buildings. Cordova, which already was treating oil in a patched-together facility, expects to be able to process enough heat oil at the facility to heat other city-owned buildings, Stephal said.

The communities have taken over the financial responsibility for running the facilities, Stephal said.

State's Kenai Area Plan focus of open house

Staff report

The state Department of Natural Resources will hold an open house Thursday from 5 to 9:30 p.m. at the Borough Building in Soldotna to explain its public review draft of the new Kenai Area Plan. The plan will determine management for the next two decades of more than 5 million acres of state land in the Kenai Peninsula Borough.

The draft plan designates 17,000 acres for settlement. That land, open for sale to private ownership, includes land communities have identified as good places for community growth, and accessible land the state says lacks other high public values. The borough will likely select many of the 17,000 acres to fulfill its municipal land entitlement, the state said. Natural Resources may offer the remainder for purchase, lease or other long-term disposal.

The draft plan designates some land as fish and wildlife habitat. That includes Steller sea lion haul-outs, eelgrass beds and moose and bear travel corridors. To maintain fish habitat, recreation and water quality, the state will retain 400-foot-wide corridors along all of the salmon streams that cross state land. The draft plan also recommends adding land adjacent to the Kenai, Kasilof and Anchor rivers and to Resurrection Bay and Kachemak Bay State Park to the state park system.

It recommends designating 27,000 acres for timber production, including land in the Homer Demonstration Forest and in the Ninilchik, Clam Creek and upper Schilter Creek drainages. It allows salvage and personal-use harvest in areas heavily damaged by beetles.

See PLAN, back page

...Plan

Continued from page A-1

But Natural Resources staff recognized multiple values for timber land. The draft plan also allows its use as habitat and recreation.

The plan includes other land-use designations, such as waterfront development, grazing, agriculture, general use and transportation.

For a copy or a summary brochure, call Natural Resources at 269-8400. For more information, call Bruce Talbot, project manager, at 269-8534.

Other public meetings are slated for Tuesday at the Seldovia City Municipal Building, Sept. 9 at Homer City Hall, Sept. 10 at the Cooper Landing Community Hall, Sept. 16 at Seward High School, and Sept. 17 at the Campbell Creek Science Center in Anchorage.

Peninsula Clarion
September 2, 1998

Kodiak Daily Mirror
September 4, 1998

Pigeon guillemot research moves to SeaLife Center

For years biologists have been trying to assess the impact of ecosystem changes on seabird populations. Biologists know that declines within pigeon guillemot colonies preceded the Exxon Valdez oil spill by several years and seem to coincide with a decrease — beginning in the late 1970s — in the amount of high fat fish species (sandlance, capelin, herring) fed to their chicks.

Dr. Dan Roby, with Oregon State University, has been trying to see if the change in their diets explains the declines in their colonies and their slow recovery from the spill.

It's hard to do in the field. Normally, to avoid predators pigeon guillemots nest in burrows in the cliffs and among rocks of remote headlands. The dedicated biologist more often than not must spend hours in the rain and wind of the North Pacific, hanging in front of a cliff face or perched on a rock, binoculars in hand, just to observe what the adults feed their young.

Factors other than food also affect chick survival: not all parents are good at bringing back food; some nests get flooded out; parents sometimes abandon their chicks, and predators always play a role. Crows, ravens, mink, and peregrine falcons all feast on seabird eggs when they're available.

To eliminate some of these threats to the chicks, Roby proposed raising them in captivity at the Alaska SeaLife Center and feeding them diets which reflected the changes in their prey in Prince William Sound.

Researcher Dr. George Divoky saw an opportunity to use the studies of chicks to create a more accessible colony for research. "I thought that if a colony could be created, the captive-raised birds could return here," he said. "That way, known-age birds would come back and breed at the SeaLife Center, which would be creating a population of birds that could be used for research."

Although the birds nest in remote rocky cliffs, their needs are really simple. Pigeon guillemots nest under docks from Monterey Bay, California, all the way to Dutch Harbor. "All they need," said Divoky, "is a dark place protected from predators."

He should know. Divoky spent 25 years on the North Slope using nest boxes to create the largest colony of black guillemots in Alaska - raising it from 10 breeding pairs in 1972 to 225 breeding pairs in 1989.

Divoky plans to take advantage of the guillemots' affinity for man-made sites. He built next boxes and attached them to platforms on the shores of Resurrection Bay in front of the SeaLife Center. Decoys sit atop the platforms to attract guillemots and speakers continuously play a chorus of guillemot calls. The idea is for guillemots to be drawn in, hear familiar sounds and start investigating the cavities in the nest boxes.

Young birds begin looking for nesting areas at about two years, even though they have another year or two to go before they are ready to breed. "Two year olds are very restless, and begin prospecting for new areas away from their natal colonies," said Divoky. "We could get birds from as far away as Prince William Sound and Bristol Bay."

After they reach fledgling weight, about 35 days after hatching, they'll release three groups of birds, each of which had diets of fish with different fat content."

A couple of years from now Roby and Divoky will watch for this year's chicks to return. One of the most exciting things they could find, according to Divoky, is that the three groups of birds have different survival rates. "If we see the chicks raised on sandlance do well, and the chicks raised on pollock and gunnels do poorly, we have an indication that the fledging weights and fledging success may well be lowered by the shift that has occurred in nearshore fish," Divoky said.

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.

Alaska Coastal Currents

By Jody Seitz

Capturing sea otters all in a day's work

On a calm cloudy day in early August, nine years after the Exxon Valdez oil spill, I caught a ride with local Cordova pilot, Pat Kearney, out to the R/V Kittiwake, anchored just off the northern end of Knight Island. Researchers Jim Bodkin and Brenda Ballachey, of the U.S. Geological Survey, were winding up their final fieldwork for the Nearshore Vertebrate Predator (NVP) project.

The NVP project seeks to find out why some animals which live in the nearshore environment, where most of the crude oil was stranded in 1989, are not recovering. Is it a lack of food or is oil pollution continuing to cause problems for sea otters in the spill area?

Ballachey and Bodkin were there to capture and release 25 sea otters from northern Knight Island. To assess the health of the animals, researchers measure, weigh, and take blood samples. They compare the results of animals from oiled areas with those from unoiled areas to help build a picture of recovery.

Sea otters tested last year had elevated levels of cytochrome P450-1A, a sign of recent exposure (within two weeks) to crude oil or to organo-chlorines such as PCBs. "We're finding that animals in this area around northern Knight Island have higher levels of this enzyme than animals in a non-oiled reference area down around Montague," Ballachey said.

This year, Ballachey and Bodkin tested specifically for evidence of PCB exposure.

No one has yet posed a plausible explanation of why animals in the oiled western sound might show higher levels of PCB exposure than animals elsewhere in PWS. In recommendations to the Exxon Valdez Oil Spill Trustee Council, however, scientific peer reviewers have repeatedly emphasized the importance of settling the question.

Kearney arrived back at the Kittiwake and we loaded up a Boston Whaler with the dive gear and headed to Herring Bay, where he had spied a sleeping otter. This area was one of the hardest hit by the spill. In 1989, workers took out a total of 33 dead sea otters. The most otters Bodkin has counted here in the last four years is 17; the average is seven.

Sea otters are masters of elusion. To capture them, divers sneak up on them while they're sleeping. The divers are propelled through the water (James Bond-like) holding a motorized basket-shaped trap with an open top, called a Wilson trap. They surprise the sleeping sea otters from below as the trap engulfs them.

As the dive crew left in a Zodiac, Brenda and I settled in for a long wait. It was flat calm and quiet. We could hear the trickle of water gently lapping against fucus, an eagle's occasional cry and the slight splash of small fish flipping on the water. We must have sounded like an invasion. Through all our whispers and efforts to move quietly, there was still the occasional clunk and radio call.

The first otter must have heard us coming and successfully evaded the dive team. However, about an hour later a loud shout echoed off the mountainsides. They'd found and captured a large male otter.

The entire sampling effort took about half an hour with the sea otter anesthetized and sleeping. The otter awakened within 30 seconds after being given an antidote for the anesthesia and was immediately dropped back in the water. Seven pairs of eyes watched until he broke the surface, periscoped and laid back, otter fashion, as though nothing had happened.

Bodkin's first-hand impression of the otter populations in the southwestern sound is that they're increasing, but he has no explanation for why they've not returned to northern Knight Island.

Food doesn't appear to be a problem. Scientists with the NVP project say there are plenty of clams and mussels to support a larger population in Herring Bay. The long-term effect of chronic pollution on the animals and their population remains unknown.

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CNN story inspires hairy solution to mopping up oil spills

Science beat

By Ned Rozell

In 1989, Phillip McCrory watched a CNN story on the Exxon Valdez oil spill. Seeing the difficulty volunteers were having cleaning oil from the fur of otters, McCrory wondered whether perhaps human hair could be used to soak up oil. His curiosity could revolutionize how we attack oil spills.

McCrory is a hairdresser who lives in Madison, Ala. After seeing the oily otters on CNN, he brought a bag of hair home the next day. He stuffed an old pair of his wife Sherry's nylons with five pounds of hair and tied the ankles together to make a ring. After he filled his son's plastic pool with water, he dumped in a gallon of used motor oil. He dunked the ring of hairy panty hose.

"In two minutes, the water was crystal clear," he said recently over the phone from his salon.

Chicken feathers, wool, and straw are other natural substances used on oil spills, but hair seems to be more effective, said McCrory, who brought his discovery to researchers at NASA's Marshall Space Flight Center in nearby Huntsville. The scientists did further tests — they filled a 55-gallon drum with 40 gallons of water and 15 gallons of oil. Another drum, which drained at the bottom, was stuffed with nylon bags full of hair. The drum with the oil water was poured into the drum with the hair. When the water flowed out the bottom, only 17 per million parts of oil remained, equal to about two drops of oil.

Hair does not absorb oil. Oil clings to hair in a process known as adsorption, in which the tiny scales on hair snag and hold oil. Maurice Hall, a NASA engineer working with McCrory, said hair adsorbs better than wool or feathers. The researchers are working with McCrory to develop quilted pillows of hair of various sizes. The current version being tested weighs just more than a pound and will adsorb a gallon of oil in two minutes, McCrory said.

The hair within the pillows can collect oil many times if it is properly wrung out, and the hair can eventually be burned as fuel, McCrory said. The hair, a renewable resource, could eventually replace polypropylene fibers now used to collect oil.

McCrory figures about 1.4 million pounds of hair could have snatched up the 11 million gallons of oil leaked by the Exxon Valdez. Hair supply, he explained, is not a problem. About 200,000 salons and barber shops exist in the U.S. and the floors of each gather about one pound of hair a day. He collected hair from 12 Alabama salons for the work with the Marshall Space Flight Center and hopes to eventually keep mountains of hair out of landfills nationwide.

"Two hundred thousand pounds of hair a day grows, no matter what El Nino's doing," he said. "It's the same crop, every day."

McCrory receives a patent for his idea and wants a company to buy his license and start making hair pillows once final tests at Marshall Space Flight Center are accomplished.

If a large corporation isn't interested, he said he will develop the idea himself. He's done it before. McCrory, 52, has three patents, including one for a collapsible Christmas tree that hangs from the ceiling to prevent cats from knocking it over.

"I don't look for these ideas," he said. "They just come up and find me."

Ned Rozell is a science writer at the University of Alaska Fairbanks' Geophysical Institute.

Scientists learn more about how Mother Nature tends her fish stocks

By Jody Seitz

Anyone who remembers the old herring fisheries in Prince William Sound can tell you it takes a long time for herring populations to increase once they're down. Exactly how they recover, no one really knows.

A year after the 1993 herring crash, scientists at the University of Alaska Fairbanks began to take a close look at Prince William Sound to see where and how herring survive the best. First, they discovered that herring spend the first two years of their lives in bays. Then researchers focused on four bays where they often found juvenile herring.

Coastal currents

There they studied their food supply and the ocean currents, temperature, and salinity of the bays. They sampled the plankton and tallied the types and amounts in each bay. Then they studied the condition of the herring and their stomach contents.

According to Robert Foy, UAF fisheries oceanographer, herring feed almost exclusively on zooplankton. And they are choosy. The data showed the plankton the herring ate were not always the ones that were most abundant.

"That suggests it's energetically more favorable for them to be eating this prey rather than just opening their mouth and swimming through the water and picking up anything that's there," said Foy.

High-fat zooplankton such as calanoid copepods are one of the foods they prefer, but they aren't always available. Sometimes the herring have to put up with what's there.

The amount of zooplankton available depends on the season, ocean currents, and the amount of plant plankton produced each year.

Researchers conducted broad surveys of the Sound, but focused on Simpson, Zaikoff, Eaglek, and Whale Bays. "We wanted to be able to compare the different sides of the Sound, and areas that might be a little more sheltered than others. Within each of the bays we had an inner, a middle and an outer site to compare distributions of (zooplankton) within the bays," said Foy.

They found that within each bay different species of zooplankton have their own particular niches, showing up in abundance in certain seasons and places. The data showed that nearly one-third to one-half of the zooplankton in the bays is the same as that outside of the bays. That means half the zooplankton in a bay are unique to that bay and may live there all year.

In summer of 1996, shallow, secluded Simpson Bay produced three to four times more food than Eaglek, Whale or Zaikoff Bays. It also had the most juvenile herring.

"Ultimately what this suggests is that Simpson Bay may be a better rearing area for juvenile herring because it actually has a larger abundance of zooplankton than the other three bays," said Foy. Other bays with stronger circulation might not provide as good habitat, suggests Foy.

Researchers are still analyzing their data from 1995, 1996, and 1997 to see how the food supply changes from year to year.

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The Peninsula Clarion
August 30,1998

Pigeon guillemot research moves to Alaska SeaLife Center

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

For years biologists have been trying to assess the impact of ecosystem changes on seabird populations. Biologists know that declines within pigeon guillemot colonies preceded the Exxon Valdez oil spill by several years and seem to coincide with a decrease — beginning in the late 1970s — in the amount of high fat fish species (sandlance, capelin, herring) fed to their chicks.

Dr. Dan Roby, with Oregon State University, has been trying to see if the change in their diets explains the declines in their colonies and their slow recovery from the spill.

It's hard to do in the field. Normally, to avoid predators pigeon guillemots nest in burrows in the cliffs and among rocks of remote headlands. The dedicated biologist more often than not must spend hours in the rain and wind of the North Pacific, hanging in front of a cliff face or perched on a rock, binoculars in hand, just to observe what the adults feed their young.

Factors other than food also affect chick survival: not all parents are good at bringing back food; some nests get flooded out; parents sometimes abandon their chicks; and predators always play a role. Crows, ravens, mink and peregrine falcons all feast on seabird eggs when they're available.

To eliminate some of these threats to the chicks, Roby proposed raising them in captivity at the Alaska SeaLife Center in Seward and feeding them diets which reflected the changes in their prey in Prince William Sound.

Researcher Dr. George Divoky saw an opportunity to use the studies of chicks to create a more accessible colony for research. "I thought that if a colony could be created, the captive-raised birds could return here," he said. "That way, known-age birds would come back and breed at the SeaLife Center, which would be creating a population of birds that could be used for research."

Although the birds nest in remote rocky cliffs, their needs are really simple. Pigeon guillemots nest under docks from Monterey Bay, Calif., all the way to Dutch Harbor.

"All they need," said Divoky, "is a dark place protected from predators."

He should know. Divoky spent 25 years on the North Slope using nest boxes to create the largest colony of black guillemots in Alaska — raising it from 10 breeding pairs in 1972 to 225 breeding pairs in 1989.

Divoky plans to take advantage of the guillemots' affinity for manmade sites. He built nest boxes and attached them to platforms on the shores of Resurrection Bay in front of the SeaLife Center. Decoys sit atop the platforms to attract guillemots and speakers continuously play a chorus of guillemot calls. The idea is for guillemots to be drawn in, hear familiar sounds and start investigating the cavities in the nest boxes.

Young birds begin looking for nesting areas at about two years, even though they have another year or two to go before they are ready to breed.

"Two year olds are very restless, and begin prospecting for new areas away from their natal colonies," said Divoky. "We could get birds from as far away as Prince William Sound and Bristol Bay."

After they reach fledging weight, about 35 days after hatching, the researchers will release three groups of birds, each of which had diets of fish with different fat content.

A couple of years from now Roby and Divoky will be watching for this year's chicks to return. One of the most exciting things they could find, according to Divoky, is that the three groups of birds have different survival rates.

"If we see the chicks raised on sandlance do well, and the chicks raised on pollock and gunnels do poorly, we have an indication that the fledging weights and fledging success may well be lowered by the shift that has occurred in nearshore fish," Divoky said.

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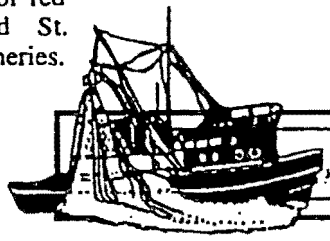
Bering Sea next destination of many Alaska fishermen



SEAWATCH

Joel Gay

CRAB SEASONS BEGIN next month in the Bering Sea and it looks to be a mixed year for fishermen, said Rance Morrison, who manages the effort for the Department of Fish and Game in Unalaska. Starting at noon Sept. 15 are the Pribilof red and blue king crab and St. Matthew's blue king crab fisheries. The combined Pribilof harvest is 1.3 million pounds, which is down 200,000 from last year's catch, Morrison said. St. Matt's is down slightly also, to 4.1 million pounds.

Ten days after both those fisheries close, the Pribilof hair crab fishery opens with a target of 400,000 pounds — half the projected catch of last year. The Bristol Bay red king crab fishery opens Nov. 1, and while the catch level hasn't been set, it should be higher than the 8.9 million-pound harvest last year, Morrison said. Biologists have expected the quota boost after watching a big recruit class crawling toward maturity in recent years. Only a portion will reach the fishery this year, however. "We've got some major recruitment coming soon," Morrison said. "It's just not here yet."

IF RED KING CRAB FISHING appears to be stronger than in years past, tanner crab should balance it out. The bairdi season will remain closed for another year due to low recruitment, while the opilio fishery that opens in January will see a smaller quota than in 1998. Last season fishermen landed more than 230 million pounds, which was slightly more than the quota. This year fishermen will catch 196 million pounds, of which 10 million will go to community development quotas.

GOV. TONY KNOWLES was among the 2,000 people who gave the fishing, oil and timber industries of the Kenai Peninsula a pat on the back last Sunday at Industry Appreciation Day in Kenai. Among those named for their contributions to the fishing industry were Inlet Salmon, Jim Evenson, Drew Sparlin, James Arness and Theo Matthews, according to the Peninsula Clarion.

THE PINK RUN OF '98 is nearing completion and it's falling a little short of statewide expectations, due mostly to lower than expected production in Southeast. As of Monday, Kodiak seiners had broken the 20 million mark, well above the 6.3 million projection, while Prince William Sound fishermen were closer to their target with 22.3 million, according to the Department of Fish and Game. In Southeast, the catch to date is 27.3 million; pre-season projections had fishermen expecting 43 million.

THE STATE IS BUYING CHUMS from fishermen around Kotzebue and giving them away to villagers throughout western Alaska to make up for the meager subsistence seasons on the Kotzebue and Yukon Rivers. Funds for the purchase — some $600,000 — come from the $19 million in disaster aid approved by the state and federal governments, according to the Arctic Sounder. With strong chum catches in Southeast, the price has hovered around 15 cents a pound.

NO ONE KNOWS EXACTLY WHAT happened to those chums, or the AYK kings, or Bristol Bay's reds, but theories abound. Some believe the outmigrating smolt were eaten by hungry whales, others chalk it up to global warming or El Nino, and many blame it on high-seas interception by Asian fleets. One answer may be forthcoming if federal officials follow through on a proposal to take DNA samples of salmon being sold in South Korea and China. If the samples show the fish are of Alaska origin, those countries could face economic sanctions, according to Sen. Ted Stevens.

THE WORLD'S OCEANS are being overharvested at a faster rate than previously thought, according to an international environmental group. At a ceremony last week at the Monterrey Bay Aquarium, the World Wildlife Fund suggested that the global fishing industry is capable of catching 155 percent of the total allowable catch, and wants the worldwide fleet cut by two-thirds, according to the Associated Press. One potential solution, the group said, might be to issue individual, transferrable fishing quotas. It also called for an end to government subsidies of the fishing industry, which range from boatbuilding aid to minimum prices for fish.

Journal of Alaska Business
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Vol. 22, No. 35

Flatfish habitat report released by federal agency

MINING

By the Journal Staff

The Minerals Management Service recently released an outer continental shelf report, "Defining Habitats for Juvenile Groundfishes in Southcentral Alaska with Emphasis on Flatfishes." The report, by Brenda Norcross, Brenda Holladay, Alisa Abookire and Sherri Dressel, identifies juvenile flatfishes' nursery grounds around Kodiak Island and Kachemak Bay.

The report characterizes these areas according to physical and biological parameters and develops indices of relative abundance for the four most abundant flatfish species in Chiniak Bay.

Examinations of habitat parameters, distribution and abundance of juvenile flatfishes were conducted in Chiniak Bay, Kodiak Island, Kachemak Bay and lower Cook Inlet.

The report, OCS Study MMS 97-0046, is available from the Coastal Marine Institute, School of Fisheries and Ocean Sciences, University of Alaska, Fairbanks 99775-7220. Copies are free.

The Valdez Vanguard
August 26, 1998

Coastal currents

Scientists search for new ways to predict fish returns

By Jody Seitz

1993 was a lousy year for both pink salmon and herring populations in Prince WIlliam Sound, and for the commercial fishermen who depend on them. It seemed no coincidence to fishermen and residents of the sound that the disastrous fishing season fell four years after the massive oil spill of 1989. It was the year that most of the herring which were spawned during the spill were supposed to return to spawn for the first time, and the fourth year in a row in which wild pink salmon eggs laid in oiled streams had higher mortality than those laid in unoiled streams.

After fishermen staged a blockade of the Alyeska Marine Terminal and held many earnest discussions with scientists, an ecosystem-based study was created concentrating on Pacific herring and pink salmon. The study, called the Sound Ecosystem Assessment was funded by the Exxon Valdez Oil Spill Trustee Council in 1994. It consists of nearly 20 scientific studies linked together, incorporating everything from ocean currents to plankton and fish production into a model of the ecosystem.

According to Phil Mundy, one of several independent scientific reviewers for the Trustee Council projects, the SEA program is gathering data which are vital for helping salmon runs recover.

"Alaska is unusual in that it has a very good fisheries management program, yet we have not been able to collect adequate baseline data until we had the SEA program and other projects associated with oil spill research," said Mundy.

The spring plankton bloom is the cornerstone of the entire food web. Oceanographers have found fish populations don't just live on the sound's resident stocks of zooplankton, but that a lot of plankton is carried into the sound on currents from the Gulf of Alaska. Resident stocks of pollock and cod also may affect populations of fish they prey on, such as herring and salmon.

Research has shown that a strong plankton bloom not only provides a good food supply for salmon fry and herring, but it also protects them from their predators. Cod and pollock tend to ignore the fish and, instead, target the easy meals of zooplankton.

Environmental conditions are very important for both pink salmon and herring. During the plankton bloom pink salmon smolt burst from the streams with their clocks ticking. They have 400 days to migrate to the open ocean, mature, and return to spawn.

Herring larvae must drift with the ocean currents. Some make it to the safety of bays, where the metamorphose into juvenile herring and spend the next two years. Just as bears fatten up for winter, so do the herring. Just as there are berry patches, so too, there are plankton patches - some better and more productive than others.

"Some of the fish seem to be rearing in areas that at times don't provide the same amount of energy as other areas do and there is quite a range of energetic content as they begin the winter fast," said Ted Cooney, chief scientist for the SEA program.

Aside from ocean conditions and plankton production, other studies have shown that disease is another factor in controlling population size in herring populations.

Ultimately, these scientists want to be able to improve predictions of pink salmon and herring returns based on what the ocean environment did to the pink salmon, and on the summer conditions in the herring nursery areas.

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 crafting safest spill prevention, response plan in world

Commentary

By Michelle Brown

We have made a lot of progress in the past few years working with citizens, fishermen, communities and the oil industry to protect against oil spills in Alaska.

For example, as a result of a risk analysis prompted by the Prince William Sound Regional Citizens' Advisory Committee, the two biggest tractor tugs in the world are under construction and scheduled for deployment in Prince William Sound in early 1999. In the interim, two 5,500-horsepower tractor tugs will be deployed this month. These are state-of-the-art vessels that can keep a disabled tanker out of danger.

Looking toward the future, Arco is also building two new double-hull "Millennium" series tankers with enhanced backup systems for use in the Sound as required under the federal Oil Pollution Act of 1990.

We are working with other companies to make sure they stay on the federally required schedule for retrofitting or building new double hull tankers. Advancements have also been made in training tanker officers, tug officers and marine pilots.

In Cordova, the state is working with local citizens and industry on a plan to ensure appropriate protection of the Cordova Flats, a critical link in a world class waterfowl migratory route and an important salmon fishery. Community spill response programs and training are also now in place for the Sound, lower Cook Inlet and Kodiak.

Up north, the pipeline on BP's North Slope Badami development will include a new acoustic monitoring leak detection system as required by the Alaska Department of Environmental Conservation's Best Available Technology regulations. DEC just spent the past year revamping and consolidating all North Slope spill capability as part of the government/industry North Slope Spill Response Team. Results included revising response manuals and adding new boats and equipment.

Now, an important piece of Alaska's oil spill prevention and response system — the Alyeska contingency plan for the trans-Alaska pipeline — is nearing completion. Alyeska has undergone significant changes in both pipeline operations and location of personnel since the last review of its contingency plan. This necessitated an especially high degree of care and scrutiny during a year of review by state and federal agencies, and several months of public review. The updates TAPS contingency plan will soon join the Prince William Sound and North Slope arsenal to protect against spills along the pipeline corridor.

Alaskans were given one more opportunity for input to the plan through extension of the public comment period to Aug. 24, 1998. The goal is to get the best plan possible — field ready, flexible, and better rather than bigger. We want a plan that emphasizes prevention, because that's the best remedy for spills and is effective during those first hectic hours when a spill happens.

Comments from Alaskans are helping make this happen. The public process over the past year has included open houses, public hearings and wide distribution of government reviews and the multi-volume plan itself. Many comments were received by individuals and organizations, some critical and others favorable, and all are being considered.

Some have criticized the time it is taking to review Alyeska's revised plan, expressed concern for current pipeline safety, said the plan might have insufficient training requirements for spill responders, asked whether the plan requires a sufficient amount of spill response equipment, and raised concerns for adequate protecion strategies for environmentally sensitive and public use areas.

These questions are all being reviewed in detail, but here's a brief update: Most importantly, the pipeline is not in jeopardy while we revise the plan. Alyeska's current spill response system remains in place. A contingency plan is in progess — it should be and is subject to continuous improvements. Many of the improvements submitted in Alyeska's revised contingency plan are already in place.

Regarding training, the plan delineates in detail who shall be trained and what training they will receive. Reviewers did note some deficiencies in the training program and asked Alyeska to address these. The amount of response equipment available under the revised plan is basically unchanged even though four pump stations on the pipeline have been closed. The state did raise concerns about maintaining adequate storage and maintenance of smaller equipment, and is requiring Alyeska to address this in the plan.

As for sensitive areas, Alyeska developed a TAPS environmental atlas designating such areas, mapped them, and spelled out specifics for blocking spilled oil from reaching them. The new plan gives guidance for prioritizing sensitive areas and also contains 10 additional spill scenarios to help plan for potential spills in sensitive areas.

We are now concluding a year of constructive give-and-take with Alyeska on the revised plan. This has often meant requesting more information and discussing methods to improve performance. The extended comment period has offered an opportunity to review the work Alyeska has done in response to the last information request. As conditions for approval, some additional improvements will be made by Alyeska after plan completion.

For further information, please contact Bonnie Friedman at the Joint Pipeline at 271-5070. For access via the Internet, go to: www.state.ak.us/dec/dspar/ipp/alyeskcp.htm.

Brown is the commissioner of the Alaska Department of Environmental Conservation.

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Kodiak Daily Mirror
August 24, 1998

Spill money provides waste oil disposal

ANCHORAGE (AP) — Five small communities in Prince William Sound produce about 45,000 gallons of used and tainted oil a year, and until this summer had no really good way to dispose of it.

But now Tatitlek, Chenega Bay, Whittier, Valdez and Cordova each has a new oil burning treatment plant, thanks to a $1.4 million grant from the Exxon Valdez Oil Spill Trustee Council.

A handful of Kodiak Island and Kachemak Bay communities are next in line.

Trustee Council members voted last week to give Ouzinkie, Port Lions, Old Harbor, Larsen Bay, Karluk, Chiniak, and Akhiok similar plants as part of a $1.9 million plan to improve waste disposal.

They also approved a $54,000 study that would allow Seldovia, Port Graham and Nanwalek to study setting up the same kind of facilities in their communities.

"The villages don't really have a good answer as to what to do with used oils, some vehicle and some heating oils that get contaminated," said Ron Riemer, an environmental engineer for the Kodiak Island Borough. "Generally, all they had in the past was drums to store it in. It just accumulated."

Money for the projects is coming from the $900 million that Exxon paid to settle the state and federal governments' lawsuits against the oil giant after Exxon spilled 11 million gallons of oil in the Sound in 1989.

The oil burner will help the Trustees with their mandate to spend the money on restoring resources, said Molly McCammon, the Trustee Council's executive director.

"You have a marine environment that is continuing to see the effects of the oil spill," she told the Anchorage Daily News. "How much is hard to say. We can say that full recovery has not occurred. While that process is under way, we want to make sure there is no additional injury."

When the Trustee Council decided to fund the oil burner projects, council members were concerned they were paying for something that should be provided by local or state government, McCammon said. But after a close look, council members determined that because oil burners are not required by law, it was unlikely that local government would have the money to fund the projects.

Kara Merrell of the Prince William Sound Economic Development Corp. said a lot of marine pollution can be traced back to such land-based sources as harbors and oily bilge water. So her agency wrote the grant proposal to address waste disposal issues in the Sound.

The Sound Waste Management Plan got $308,000 in 1996 to devise a system to deal with used oil, oily bilge water and household hazardous waste, like paint thinner and pesticides. Once the study was complete, construction was funded at $1.1 million.

Using the grant money, each Sound community got a new building and equipment to handle the used oil and oily bilge water.

Kodiak Daily Mirror
August 24, 1998

The Seward Phoenix
August 27, 1998

Stellers take nap while staff takes samples

The SeaLife Scoop

Compiled by Donna Harris

Earlier this month the three Steller sea lions underwent anesthesia and research procedures for the first time since coming to the Alaska SeaLife Center. It was both a training exercise and a research sampling exercise. Woody was anesthetized the morning of Aug. 11.

Dr. Bruce Heath, professor emeritus of veterinary anesthesiology form Colorado State University, came to assist and instruct Dr. Pam Tuomi and Millie Grey on gas anesthesia on sea lions. Heath and Dr. Calkins of the SeaLife Center developed the procedures for gas anesthesia on sea lions. Dr. Heath is recognized as the foremost expert in the field.

While the Steller sea lions were under anesthesia, researchers took blood samples, ultrasound measurements of the blubber thickness, body size measurements, and mapped and measured their whiskers. A sea lion's whiskers are an identifying characteristic similar to a person's fingerprints.

Most of our sea lion experiments are designed to help us better understand the decline that has put the wild population in Alaska into the endangered species category.

The animal husbandry staff, notably Dennis Christen and Vic Aderholt, worked especially hard to provide this opportunity and participated fully while the animals were anesthetized. Woody, Kiska and Sugarloaf were very cooperative and recovered exceptionally well from the procedures.

Pigeon guillemots

Lisa Thomas with the U.S. Geological Survey Resources Division in Anchorage will be assisting with the pigeon guillemot feeding and fledging this week. Fledging is proceeding well and all birds should be gone by Sept. 2-4.

Exhibits

Aug. 20 — Three more rockfish entered the kelp forest exhibit. The two quillback rockfish (Sebastes maliger) and the new copper rockfish (S. caurinus) swarmed peacefully in quarantine with a few other Sebastes for the last 10 days or so. Upon entering the habitat, the small copper rockfish segregated, making friends with Stan and Molly. The two quillbacks swam into the corner of the habitat, expanding gill arches and making hostile advances. The kelp forest is developing personality — more to follow.

We're seeking volunteers for exhibit interpretation and visitor education. We provide training. Call Jim Frederickson, volunteer coordinator, 224-6343.

More changes

Vic Aderholt has resigned as the director of animal husbandry and will be filling the position of facilities technician. Donna Harris is resigning as the director of marketing effective Sept. 4.

Dr. Pam Tuomi will be the new animal care coordinator. The center's veterinarian will also serve as the lead to coordinate the aquarium, avian and mammal teams. Cliff Menzel is now heading the life support team.

New staffers include Judi Andrijanoff, who fills the new position of development associate, and Maureen Sims in the new position of external affairs coordinator.

Donna Harris is marketing director at the Alaska SeaLife Center.

Peninsula Clarion
August 28-29, 1998

Staying prepared

Photos by M. Scott Moon

Brian Green, right, gives instructions to a fishing vessel as it pulls an oil containment boom away from a barge during an oil spill drill conducted Wednesday by Cook Inlet Spill Prevention Response Inc. Keith Crowder uses a portable leaf blower to inflate the boom, stored on giant reels aboard the barge, while Dustin Bloom waits to cap the hole. Above right, Capt. George Nevils pilots the Heritage Service up Cook Inlet and into the early morning sun.

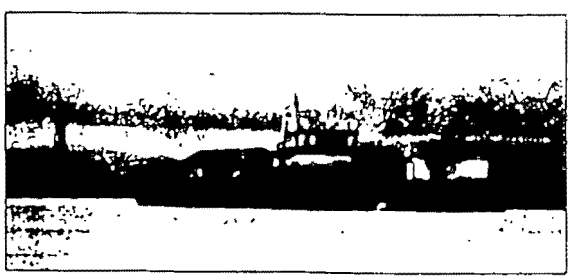
CISPRI drill readies responders for spill

By HEATHER A. RESZ
Peninsula Clarion

On the deck of Barge 141, half a dozen men in orange survival suits work to inflate a 1,000-foot coil of Ro-Boom and float it across the surface of Cook Inlet.

If this had been an actual emergency, the surface of the inlet would have been covered in a layer of petroleum and the boom would have been used to contain and concentrate the spill for collection by a skimmer.

Some 31 people participated in an open-water oil spill training drill conducted by Cook Inlet Spill Prevention and Response Inc. Tuesday and Wednesday. The two-day exercise taught responders the jobs they would do in the event of an open-water spill and mechanical boom recovery.



The Monarch nudges the CISPRI Responder barge along near a platform up Cook Inlet while going through the paces of the response

After the Exxon Valdez ran aground on Bligh Reef in Prince William Sound March 24, 1989, spilling 11 million gallons of petroleum, regulations were passed requiring development of contingency plans and spill recovery organizations.

Contingency plans define the most likely spills and develop response scenarios to be used in the event of their reality.

The spill recovery group, CISPRI, was formed in 1990 to serve as a spill response agency and is funded by member companies Chevron, Marathon, Shell, Keystone, Cook Inlet Pipe Line Company, Ocean Ships, Tesoro, Unocal, Mapco, Phillips, Forcenergy and Anadarko.

CISPRI operations manager Clay Chivers said oil company

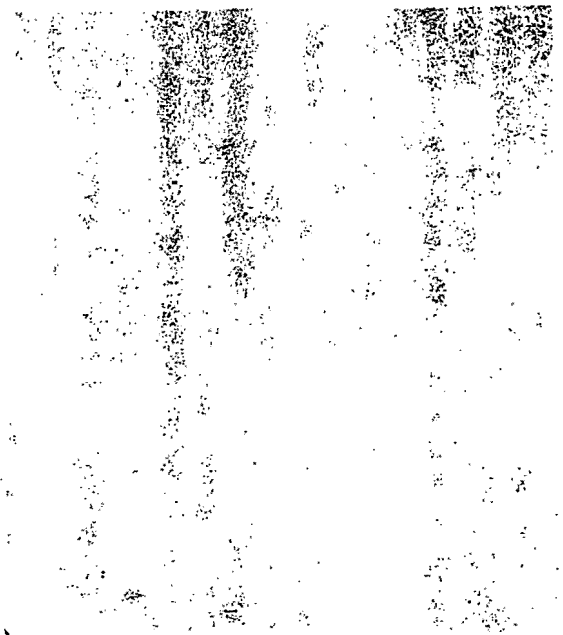
and minor spills dramatically. He said the group has responded to one minor spill this calendar year — a small oil spill off of the King Salmon platform in February.

The group responds to spills by member groups on land or water in the area from the Palmer hay flats to 250 miles into the ocean.

Because of the huge response area, CISPRI has equipment standing ready in Homer, Anchorage and Nikiski.

The Heritage Service and her seven-member crew are continuously on duty — 365 days a year, around the clock.

Two CISPRI barges that store spill response equipment also are anchored offshore at the Nikiski dock from May to October. They are transported to the open water of Seldovia Bay for the winter and are returned when the ice has



...CISPRI

Continued from page A-1

Operations manager for Tidewater Marine Paul Gasser said the Heritage Service and her crew are leased from Tidewater Marine by CISPRI. Tidewater is the largest oil industry boat company in the world, he said.

"Just about anywhere there's offshore oil activity in the world — we've got a boat," he said of Tidewater's 720-boat fleet. "Everything connected with drilling for oil offshore and bringing that oil to shore — we're connected to."

Federal law requires CISPRI and other similar organizations to respond within two hours to a spill and be able to recover it at a rate of no less than 50,000 barrels in 72 hours.

To meet these requirements, Chivers said CISPRI contracts with a variety of people to provide the needed services. Where possible, he said these contractors are included in CISPRI's training sessions.

"Each time we go out we say, 'Send us a few folks,'" Chivers said of the ongoing training the group provides to its member organizations and contractors.

He said the open-water drill this week was designed to teach people the role they would play if they were called to respond to a spill.

Throughout the year, Chivers said CISPRI conducts about 24 training exercises. Training includes on-land spills, inland water spills and open-water spills.

Three main methods exist for cleaning open-water spills. According to the unified plan for the state of Alaska, mechanical containment — using a boom and skimmer to clean the spill — is the preferred method of recovery. Chemicals, called disbursements, that break down the oil and help it to disperse before reaching shore are sometimes used. And in some cases, a special fire boom is used to concentrate and contain the spill before an accelerant is added and set on fire.

Chivers said spills are managed by a "unified command" that requires the federal on-scene coordinator, the state on-scene coordinator and the representative from the company responsible for the spill to agree on a course of action before acting.

He said each spill is evaluated on an individual basis.

"The way we would respond if we spilled oil right in this spot would change from season to season as far as the equipment we would use," Chivers said.

Susan Saupe is the science research coordinator for the Regional Citizens Advisory Council. She said the group, established in 1990, is mandated to assure that oil operations in Cook Inlet aren't impacting the environment.

She said thus far, no impact has been detected.

"In five years of environmental monitoring of the Cook Inlet, we haven't detected any levels above or much above background levels," Saupe said of petroleum pollutants in the inlet.

Her research shows pollutants are more commonly found in boat harbors. Though hundreds of cruise, freight, fishing and cargo vessels navigate the inlet each year, only those connected with the oil industry are required to have spill contingency plans and response organizations.

"There's a lot of concern about that right now," Chivers said.

He said, depending on the budget, CISPRI hopes to conduct a final open-water exercise near Homer this fall.

"The safety record in the Cook Inlet is just phenomenal," Chivers said.

Salmon sharks find Sound to their taste

Scientists at loss to explain jump in numbers

By NATALIE PHILLIPS
Daily News reporter

When a group of scientists conducting forage fish surveys in Prince William Sound's Galena Bay got an odd reading on their underwater acoustic equipment, they lowered an underwater camera into the sea. What they saw were salmon sharks. Hundreds of them. Maybe 1,000.

Where did they come from?

"I fished in the Sound for years and didn't see wiggle one until I was doing research out there in 1995," said Lee Hulbert, research fisheries biologist for the National Oceanic and Atmospheric Administration in Juneau. "They were everywhere."

Luke Boer, who operates Native Sun Charters and Tours in Cordova and has fished the Sound for more than 30 years, reports their numbers on the rise in Windy Bay on Hawkins Island and in Main Bay near Port Nellie Juan.

"I know there are thousands and thousands of them in Prince William Sound," Boer said. "You will see big schools of them in the middle of the Sound just cruising." One trip earlier this summer, his crew hooked 16 sharks in seven hours.

Jeff Milton is a production manager for the Prince William Sound Aquaculture Corp. While doing aerial salmon surveys, he has noticed the rise, too.

"Over the past five years, the numbers have increased dramatically," he said. "Off

Please see Page B-3, SOUND

ERIK HILL / Daily News file photo

A vessel's crew lands a salmon shark off the coast of Seward in early August 1996.

SOUND: Scientists can't yet explain growing number of salmon sharks

Continued from Page B-1

Chenega Island, I saw several thousand form within a mile or so from the beach line."

There's no explaining the explosion.

But biologists would like to.

A couple approached the Exxon Valdez Oil Spill Trustee Council this summer asking for nearly $400,000 for two studies to figure out the role the salmon sharks play in the Sound's ecosystem. The study requests were turned down because the salmon shark is not one of the species identified as injured after Exxon's 11-million-gallon spill in 1989.

Meanwhile, a number of fisheries managers are mapping a plan to take a closer look, said Doug Vincent-Lang, regional management biologist for the state Department of Fish and Game.

"We're in the process of starting a cooperative study between a lot of agencies," he said. Biologists are hoping to tag some, examine the stomach contents of others, and figure out if the stream of warm water brought to Alaska by El Nino is somehow related to the population boom.

"The whole thing is a mystery," Boer said.

At the same time, the state Board of Fisheries has taken conservative action to protect their numbers until more is known. In the spring of 1997, board members voted to prohibit commercial shark fishing. And they set a limit of one shark a day and two a year for sportfishermen.

"They wanted to get out in front of it," Vincent-Lang said. "Shark fisheries everywhere else have sprung up so quickly, the species was exploited before quotas were in place."

Scientists know this much: Thousands of salmon sharks range throughout Alaska waters yearround eating millions of returning salmon. They grow to between 10 to 12 feet in length and can weigh up to 700 pounds.

Unlike most fish, they have no air bladder for flotation, and therefore can shoot through the water like a missile. They sink like lead when they die, Boer said. So when fishermen cut them out of their nets they disappear to the ocean's depths.

As a top-of-the-food-chain predator, their only known enemy is man. But not many people are lining up to hunt them in the Sound, according to Boer.

The sharks appear to feed mostly on salmon, but have been noted to eat herring, pollock, halibut and squid. But Milton, who works with the Sound's hatcheries, has never seen the sharks camped out in front of the hatcheries waiting for the returning fish.

"They certainly follow the fish runs," he said. "They are usually at the wild stream entry points."

Some scientists wonder whether they feed on small marine mammals as well. Milton doesn't think so. He said he has seen them peacefully in the presence of sea otters.

Boer agrees. Their mouths are too small, he contends. "An 8-foot shark has a fully open mouth that is only 8 to 10 inches wide," he said.

"It's excellent meat," said Boer, who prefers to take sportfishermen on catch-and-release hunts only. "It's not like halibut or salmon. It is like swordfish or mako shark."

He added, "A small, 300-pound shark produces 100 pounds of meat. It takes me 1¾ hours to completely process it. That's a lot of meat."

CUTTHROAT COUNTRY

Photos by KEN MARSH / Special to the Daily News

The moment of truth: A cutthroat trout takes the fly.

Searching southcoastal Alaska with a fly rod for a precious speckled trout

By KEN MARSH
Special to the Daily News

My fly rod was up as I stepped haphazardly into the foot of a deep pool resembling a great oval bathtub. Beneath the surface, the pool came to life; scores of panicked silhouettes swirled like leaves in a wind.

Pink salmon.

I'd spooked them; hundreds of hard-nosed, hump-backed bodies slammed helter-skelter into the pool's sides and bottom. Clearly things had changed here.

Nine years ago, Prince William Sound was no place for smoking, much less fishing. Enough North Slope crude oozed among the mussel-encrusted bays to keep a Subaru station wagon lubed for 26 million highway miles. The wilderness was toxic.

A cutthroat trout

Spring's lost innocence was heard in the dying gasps of 5,000 sea otters and 350,000 birds. I saw the mess first-hand and got a bearcat of a headache breathing the petroleum fumes. No birds sang.

Since then, we've learned that the Sound is healing. But I've been away for a while — haunted by what I saw on Culross Island, Applegate, Eshamy Bay. I remember too clearly the way it was before the poisoning.

But finally I've returned — to a tannic brook 40 miles east of Bligh Reef on an island that, thanks to a westerly gale, oil never reached. I'm searching for innocence in the form of the modest speckled trout, a symbol of Prince William Sound as it was before the disaster — unblemished, wild, without scars. The salmon I've found by the thousands are a good sign; life in 6-

Please see Page G-6, TROUT

Anchorage Daily News
Outdoors
August 30, 1998
Page 1 of 7

TROUT: Cutthroats metaphors for state

Continued from Page G-1

pound packages, spawning, dying, proliferating.

The morning is uncharacteristically dry for a region notoriously wet, prone to Gulf Coast squalls blowing rain and fog. A half-mile up from the tidal flats, a stream pours from a tunnel of moss-bearded hemlock and Sitka spruce. The banks are edged in salmonberry tangles.

This, for me, is not home water, and that's the intrigue. I've spent the last 30 years well north of here, beyond a range of coastal mountains, in a region less temperate. So I'm learning as I go — about the land and the fish. There will be none of the rainbow trout or grayling I'm used to finding in Susitna Valley streams. But the pink salmon are familiar. And I'm expecting Dolly Varden, too.

Inside the rain forest, sunlight falls in fractured rays, light projectiles piercing a dusky understory. A whiff of rotting fish makes me aware suddenly of the rifle slung over one shoulder. I round a bend, cautiously, and, sure enough, a pair of mangled salmon — bellies and brains ripped out — sit on a sandbar. Brown bear tracks lead in and out of the salmonberry tangles. For the rest of the day I will talk loudly to myself. The bears will know I'm coming.

The challenge is finding water that isn't swarming with humpbacked dorsals so easily foul-hooked. If they're here, the trout will hold beneath undercut banks or in pools not occupied by snapping salmon jaws. But there are no guarantees trout are here.

Pink salmon thin out as I make my way upstream. Fewer than a dozen hover in a foaming pool. My fly, a hot-pink Woolly Bugger, looks less like fish food than something a woman might pin to her lapel for a cocktail party. I'm told by a man who fishes for these cutthroats in Oregon that this can be an effective pattern. Of course, if I can find the trout, many flies should work. Cutthroat trout, particularly wild Alaska cutthroat trout, can be easy to catch.

When I look at a cutthroat trout, I am reminded of a shy child, freckled, cast out of the mainstream because it is small, less aggressive.

(The name, cutthroat, is derived not from the creature's disposition but its appearance. Cutthroats lack the decisive pink stripes of rainbow trout, wearing them instead in distilled vividness under each side of the jaw.)

Alaska's coastal cutts are particularly susceptible to bullying. When spawning in tiny streams, they try to avoid competition with belligerent silver salmon and steelhead.

Young fish spend three or four years in freshwater, eating gluttonously, putting on weight, gaining strength. By the time they're about 8 inches long, they are ready to enter the sea.

Normally they do so in May, spending anywhere from a few days to three or four months following the coastline, feeding on the ocean's bounty.

They rarely wander more than 40 miles from their home streams. In the fall, sea-going cutthroats reassemble in their natal streams, where they spend the winter.

But not all coastal cutthroat trout are anadromous. In some streams, they're found in both sea-run and resident forms. No one seems to know why one fish spends time in the ocean while another of the same species living in the same stream does not.

So here I am, in Prince William Sound, on a little creek suggested to me by a biologist friend who sampled it in the years following the 1989 oil spill. The place, he'd promised, supports sea-run cutts. He didn't know how many. Timing, he told me, is the key.

The first pool is long and, amazingly, free of salmon. Casting here is easy because the creek is bordered by gravel bars and, amid the deep forest, brush is minimal, screened out by old growth. I plop the pink Woolly Bugger into the head of the pool and am surprised to see a horde of small shadows jump on it. In seconds I'm playing a frisky 8-inch fish.

There's something anticlimactic about finding my quarry on the first try and then having it only barely fulfill expectations.

I'm anticipating black spots and red jaws, but the colors — olive drab back, gun-metal-blue sides, pink polka dots — do not match. It's a Dolly Varden.

Certain items among the gear I use for hunting and fishing exist in an odd sort of limbo: a folding knife I've kept since boyhood, a bag of spare fly lines, a harmonica I sometimes take on wilderness trips. Sometimes, these things will vanish for extended periods — a summer, a year, occasionally longer. But in time, they always turn up, normally when I least expect them.

Cutthroat trout have a similar vagueness. My first encounter with them was years ago in December, when Alaska was dark and frozen.

I'd escaped to Vancouver Island — temperate, spring-like even during winter's shortest days. I was casting for winter steelhead in the Cowichan River when I sensed a sharp pluck, then nothing. I retrieved the fly and cast again, crouching slightly, focusing.

My streamer hung briefly at the end of the drift, a bright contradiction to the off-green current, when a shadow darted in and snatched it. The struggle was desperate but short. The fish came to hand, and I was taken first by the eye: a wet, black stone set in a brass ring, staring without expression, prelude to 14 inches of leopard-spotted, coppery-skinned trout.

In that fertile river, the fish might have been a brown, a rainbow, even a sea-run Dolly Varden. But the trout gasped as I freed the hook, and the gillplates flared, displaying broad orange stripes. It was my first cutthroat — unmistakable, bigger than life. I held the fish in the current, then let go, watching it dissolve into the pool.

Time has a way of eroding certain milestones; some inevitably are lost. I cannot recall catching my very first grayling or Dolly Varden. But for Alaska cutthroats, the memories are fresh, the images crisp.

Late one April, years after those brass-eyed, scarlet-jawed Cowichan River jewels, I planned a steelhead fishing trip to an island stream in Southeast Alaska.

The steelhead, as it turned out, were few. I hooked only two and lost them both, but I wasn't completely disappointed. While casting a No. 6 Rajah, I caught my first Alaska cutthroat trout.

The cutthroat struck with every ounce of power its scant 10 inches could muster, leaping out of the riffles three times before I keelhauled it in on my 8-weight rod. As with its Canadian cousins, the little fish was a lovely incidental, worthy of an admiring glance.

Yet my focus was on the big sea-run rainbows and, in the back of my mind, I thought I might like to one day set aside time for cutthroats alone, so game, so colorful, so innocent. So overlooked.

Farther upstream, I've come to another pool, this one deeper, bordered on the far side by a short rock bluff and fed by a chute of frothing water the color of dark beer. A few pinks hover near the tailout, but the hole under the chute appears salmon-free. My cast, though adequate, is unspectacular — a two-strip, backhand fling.

Prince William Sound marks the northwestern edge of the cutthroat's range. Prior to 1989, most cutt streams here were known to support delicate populations of perhaps 200 trout apiece. Then came the spill.

Today, who knows?

My fly plops into the roiling water beneath the chute and, in a heartbeat, is seized by something that turns and

runs straight downstream, making my reel buzz, causing me to fumble, shocked.

I'm certain right off that the fish is not a salmon (it's big, but not that big). It feels, to my delight, more like a furious rainbow trout. Near the end of the run, the fish — a silvery, flashing thing — skips once, twice, three times, shaking like a wet dog.

At times like this, when I'm exploring, the last thing I want to do is lose a fish before it can be identified. The impetus of this trip, the key to its success or failure, hinges on finding not just any fish, but a predetermined kind. Call it a form of trophy hunting or just simple curiosity; I've asked a question and am dying for an answer.

The fish turns at the end of the pool, scattering the gang of hulking pinks, sending them downstream splashing through a riffle.

I'm gaining line when my fish leaps twice more, then runs to the chute at the pool's head, turns and runs back down. This happens, to various extents, three more times before the fish gives in and is led into the shallows.

This is no snaky, head-shaking Dolly — the intense, fluttering struggle told me that. Just shy of 18 inches long, dime-bright, with sea-lice on its flanks, marking an arrival in freshwater within the last 48 hours. Black flecks dapple the back and sides, and the slashes under the gills, though faint, say it all.

For an instant, I am tempted to reel up and call it a trip, because the day would be no less brilliant if it ended right here, among sweet salmonberries and sunlight shafts filtered through the rain forest; the trackless stream chugging among stones; the sprucy, ginlike air. But I've traveled too far, waited too long.

Every pool after this one, every eddy, holds cutthroat trout. They top at 18 inches and average around 12. Some are like the first, silver-sided, fresh from the sea; others, likely resident fish, show painted flanks the color of fireweed honey, dark, peppered with black spots, a faint purple sheen on the gill plates and shoulders.

They strike without inhibition, and I reach a point where the appeal of catching diminishes. Something inside seems sated, soothed.

Now the afternoon fades gently, like smoke over sunlight, with a dusky softness unique to August evenings in Alaska.

I'm walking downstream, under fluttering bats, realizing that, in their own subtle way, cutthroat trout are metaphors for Prince William Sound and for Alaska in general: beautiful, wild, innocent. Vulnerable.

They are works of an artful creator, fragile, finite, delicate as this isolated corner of the world. They are worth finding and catching and letting go — for fun and for reassurance.

Today I've held the proof in my own hands.

Ken Marsh is a free-lance writer from Wasilla.

IF YOU GO

Adventureas in the s seeking, finding and exploring of Prince William Sound cut-throat streams. Remote waters promise the best fishing, because cutthroats can be easily fished-out along road systems and close to towns.

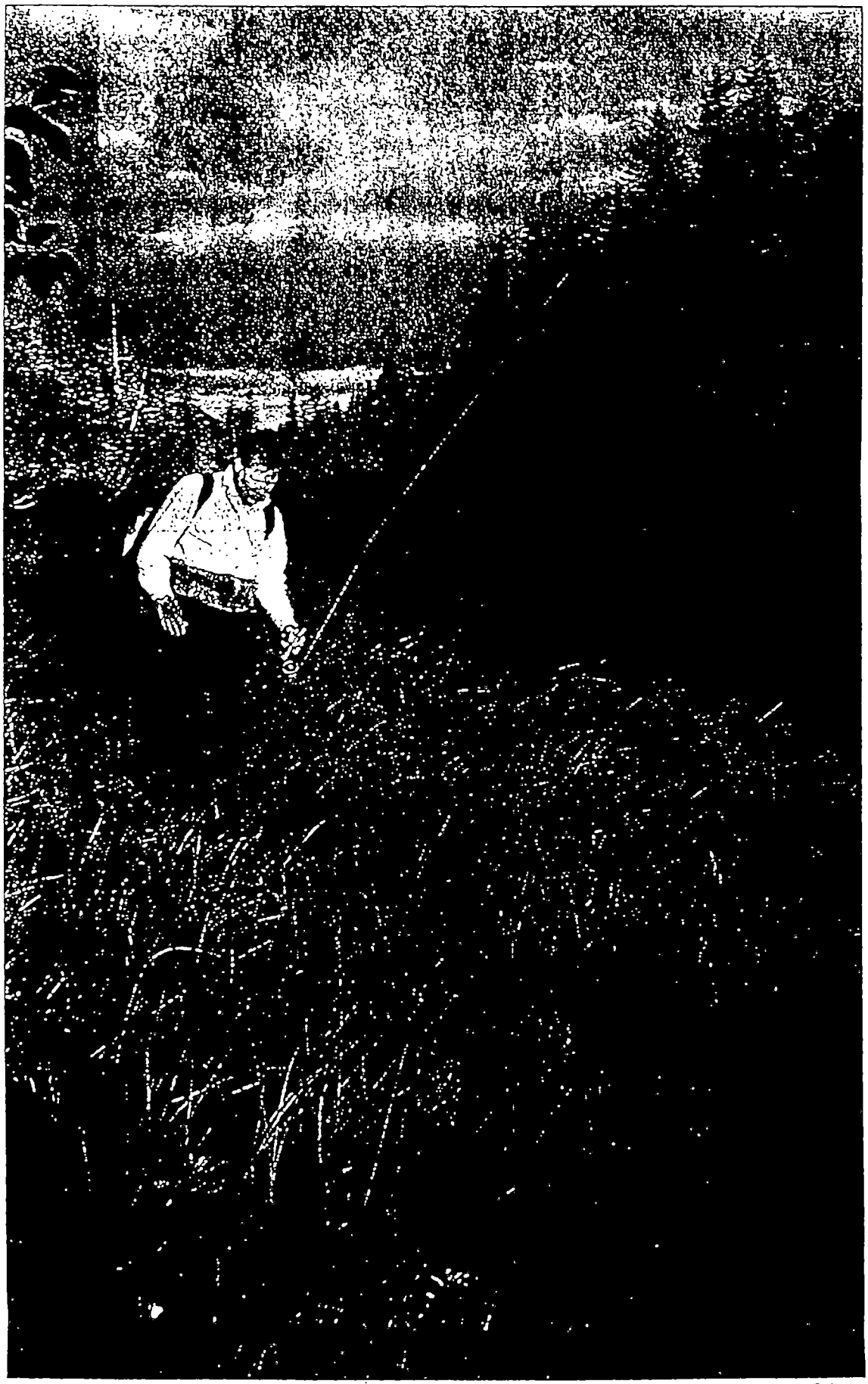
Good places to start in Prince William Sound include Boswell Bay and Boswell Creek on Hinchinbrook Island near Cordova or Rocky Bay on Montague Island. Both can be reached only by boat or plane. Anglers should be prepared for wet weather and brown bear encounters.

In Southeast, where cutthroat trout are more common, likely prospects include Castle River (near Petersburg), Karta River, Prince of Wales Island and Kadake Bay on Kuiu Island. Florence Lake and Hasselborg Lake south of Juneau boast some of the best cut-throat catches in the state. All of these places are located in wilderness areas but feature secluded Forest Service cabins that can be reserved for $25 per day. Cabins have bunks and wood stoves. Some have skiffs.

For more information on area cabins and fishing opportunities, contact: Yvonne Stanley, Ketchikan Ranger District, Misty Fiords National Monument, 3031 Tongass Ave., Ketchikan, Alaska 99901.

Photos by KEN MARSH Special to

Cutthroat trout rarely wander more than 40 miles from their home streams.



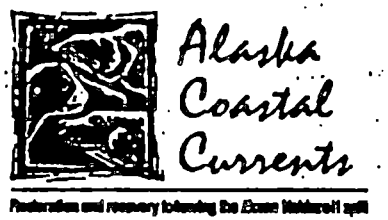
Anchorage resident Antho.y J. Route, a Daily News outdoor columnist, walks near a Prince William Sound estuary in search of cutthroat trout.

The Peninsula Clarion
August 23, 1998

Capturing sea otters all in day's work for researchers

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



On a calm cloudy day in early August, nine years after the Exxon Valdez oil spill, I caught a ride with local Cordova pilot, Pat Kearney, out to the R/V Kittiwake, anchored just off the northern end of Knight Island. Researchers Jim Bodkin and Brenda Ballachey, of the U.S. Geological Survey, were winding up their final fieldwork for the Nearshore Vertebrate Predator (NVP) project.

The NVP project seeks to find out why some animals which live in the nearshore environment, where most of the crude oil was stranded in 1989, are not recovering. Is it a lack of food or is oil pollution continuing to cause problems for sea otters in the spill area?

Ballachey and Bodkin were there to capture and release 25 sea otters from northern Knight Island. To assess the health of the animals, researchers measure, weigh and take blood samples. They compare the results of animals from oiled areas with those from unoiled areas to help build a picture of recovery.

Sea otters tested last year had elevated levels of cytochrome P450-1A, a sign of recent exposure (within two weeks) to crude oil or to organo-chlorines such as PCBs.

"We're finding that animals in this area around northern Knight Island have higher levels of this enzyme than animals in a non-oiled reference area down around Montague," Ballachey said.

This year, Ballachey and Bodkin tested specifically for evidence of PCB exposure.

No one has yet posed a plausible explanation of why animals in the oiled western part of Prince William Sound sound might show higher levels of PCB exposure than animals elsewhere in the sound. In recommendations to the Exxon Valdez Oil Spill Trustee Council, however, scientific peer reviewers have repeatedly emphasized the importance of settling the question.

Kearney arrived back at the Kittiwake and we loaded up a Boston Whaler with the dive gear and headed to Herring Bay, where he had spied a sleeping otter. This area was one of the hardest hit by the spill. In 1989, workers took out a total of 33 dead sea otters. The most otters Bodkin has counted here in the last four years is 17; the average is seven.

Sea otters are masters of elusion. To capture them, divers sneak up on them while they're sleeping. The divers are propelled through the water (James Bond-like) holding a motorized basket-shaped trap with an open top, called a Wilson trap. They surprise the sleeping sea otters from below as the trap engulfs them.

As the dive crew left in a Zodiac, Ballachey and I settled in for a long wait. It was flat calm and quiet. We could hear the trickle of water gently lapping against fucus, an eagle's occasional cry and the slight splash of small fish flipping on the water. We must have sounded like an invasion. Through all our whispers and efforts to move quietly, there was still the occasional clunk and radio call.

The first otter must have heard us coming and successfully evaded the dive team. However, about an hour later a loud shout echoed off the mountainsides. They'd found and captured a large male otter.

The entire sampling effort took about half an hour with the sea otter anesthetized and sleeping. The otter awakened within 30 seconds after being given an antidote for the anesthesia and was immediately dropped back in the water. Seven pairs of eyes watched until he broke the surface, periscoped and laid back, otter fashion, as though nothing had happened. Bodkin's first-hand impression of the otter populations in the southwestern sound is that they're increasing, but he has no explanation for why they've not returned to northern Knight Island.

Food doesn't appear to be a problem. Scientists with the NVP project say there are plenty of clams and mussels to support a larger population in Herring Bay. The long-term effect of chronic pollution on the animals and their population remains unknown.

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

The Seward Phoenix
August 27, 1998.

SeaLife Center to use beluga carcass in ed program

By Roger Kane
LOG Staff

Alaska SeaLife Center Educational Department program coordinator Jim Pfeiffenberger completed one more step in what he calls "a half-baked plan" to dress out a 2-year-old male beluga whale, cleanse the skeleton and reassemble it for display.

The 500-pound whale was recovered April 9 three miles south of Girdwood in Turnagain Arm by the Protected Resources Division of the National Marine Fisheries Service and given to the Alaska SeaLife Center April 10 after a necropsy was performed.

The animal was not visibly injured and tissue samples, organs and glands were sent to the Northwest Fisheries Science Center in Washington for analysis.

Pfeiffenberger said the center also has carcasses of a harbor seal pup, a fur seal pup and a sea otter pup, as well as a partial carcass of a Steller sea lion and partial remains of an unidentified beaked whale.

Long-term plans are to use the mammal carcasses for educational purposes.

"It's not a fully formulated plan yet," Pfeiffenberger said, but he hopes to involve school children from the Seward area in the cleansing and reassembling project.

He also said the animal carcasses could be used to teach biological illustration to the kids and he hopes to involve other experts in the project.

He said Alaska Natives could also use the carcass as a visual aid for lectures on subsistence and the role of the whale in traditional Native lifestyles.

Kodiak Daily Mirror
August 21, 1998

Drift buoys follow herring larvae

Alaska Coastal Currents

By Jody Seitz

The mysterious currents of Prince William Sound are beginning to come into focus. Data from drifting buoys released in 1996 and 1997 have helped identify the major currents that would carry plankton or, perhaps, spilled oil around the sound. Now a new group of nine drifter buoys released in May is showing the more subtle complexities of currents within some bays. Scientists are hoping to learn more about the sound's circulation, especially how tiny herring larvae end up in bays and stay there.

Dr. Shari Vaughan, oceanographer with the Prince William Sound Science Center, is the principal investigator for the project, which is part of an ecosystem study of pink salmon and herring production in Prince William Sound.

Buoys have several advantages over a standard oceanographic cruise. They are objective, unbiased tracers of ocean currents. They transmit data continuously for weeks or months. And they are cost-effective. The buoys cost $2,200 each. Most dedicated oceanographic research vessels cost $12,000 to $15,000 per day to charter.

The buoys also produce results promptly. The buoys released in May quickly confirmed some previously suspected circulation patterns. The release of all nine buoys was timed to coincide with the hatching of herring spawn and the emergence of billions of larvae.

Each buoy is attached to a large canvas sack, or drogue, that measures the currents 13 to 17 meters down. The buoys transmit their position and the water temperature every two hours to a satellite which then sends the data to a processing center in France called ARGOS, which relays it to the Science Center in Cordova by e-mail.

The buoys were released between Hell's Hole and St. Matthew's Bay, in Port Gravina, historically one of the areas where spawn is the thickest. As of August 11, seven buoys were still transmitting their positions. Two were in the central part of the sound, one exited Hinchenbrook Entrance and made it all the way to Cook Inlet, and four were still within the grip of Port Gravina.

"What these things have told us so far is that there is something retaining them in at least Port Gravina in the springtime," said Vaughan.

In addition to testing circulation models of Prince William Sound, these buoys also may help scientists compare herring stocks in the sound to herring stocks along the southern Kenai Peninsula. "The fact that these drifters, especially from northeast Prince William Sound, could escape [the sound] and stop at every little bay along the southern Kenai until they reach Cook Inlet might have some implications for herring stock relationships."

Vaughan will let the buoys drift until they no longer transmit their position, which could be as long as six months.

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.

The Peninsula Clarion
August 24, 1998

Contractor sues SeaLife Center

ANCHORAGE (AP) — The builder of the Alaska SeaLife Center in Seward has sued the nonprofit organization for $6 million, contending it wasn't reimbursed for some extensive modifications made during construction.

The Washington state contractor, Strand Hunt Construction Inc., also contends that the nonprofit group wrongfully charged it $2.7 million for not meeting a construction deadline.

Strand Hunt claims it met the deadline and says the delays were caused by the center's owner, the Seward Association for the Advancement of Marine Science, according to documents filed in federal court.

"It is not unusual for a project of this magnitude to have outstanding issues with the general contractor," officials with the SeaLife Center said in a prepared statement.

The $56 million center opened this spring as a science research facility and tourist attraction. Construction costs were covered by municipal bonds, private contributions and money that Exxon paid federal and state governments to settle claims following the oil company's 1989 spill in Prince William Sound.

The facility was developed to be self-sustaining, with researchers bringing in money through grants and visitors paying $12.50 apiece to see the animals being studied.

Strand Hunt and SeaLife Center officials negotiated to resolve the dispute and Strand Hunt had accepted a settlement offer, court documents said. But officials with the center later reneged on the agreement, the lawsuit said.

AN ALASKAN PARADISE REGAINED

Prince William Sound has largely recovered from the Valdez oil spill, and Seward has opened a world-class sea life center.

Ken Graham/Ken Graham Agency

Visitors crowd the rail of a tour boat in Prince William Sound, Alaska's inland sea, where eco-tourism is booming.

By TIMOTHY EGAN

I WAS in Alaska almost a decade ago when a ship nearly three times the length of a football field went aground, spilling 11 million gallons of crude oil into the Eden of Prince William Sound. Day 1 was shock and trauma. Day 2 disbelief. By the third day, fishermen who would never so much as wince if their hands were pierced by grappling hooks were crying like infants. Alaska's beloved inland sea, with all its otters and whales, puffins and bald eagles, was thought to be mortally wounded.

So it was heartening this summer to return to the scene of one of the nation's worst environmental disasters — the largest oil spill in North American history — and see not only that the fecund life of Prince William Sound seemed to be coming back, but that an ever resourceful Alaska seaport had fashioned something lasting and monumental from the disaster.

In the months after the 1989 spill, as oil spread more than 600 miles from the rupture point near Valdez, the town of Seward served as a triage base for the thousands of dying marine mammals and birds. It was a gold rush camp for "spillionaires," as those who made a killing off the cleanup were called, and not a pretty sight. An army of people scrubbed oil from rocks, while others brought in fresh casualties: majestic, feisty birds or otters tarred and poisoned by oil. Most of them died slow, painful deaths.

Now Seward is jumping, but in a different way. The town, 130 miles from Anchorage on the southern shore of the Kenai Peninsula, has just opened the Alaska Sea Life Center, which the organizers say is the Western Hemisphere's foremost cold-water research and rehabilitation center for marine wildlife. The 115,000-square-foot facility cost $56 million to build, much of it from money paid by Exxon after a court settlement. State officials expect the center to rival Denali National Park as the No. 1 tourism site in Alaska within a few years, drawing upward of 300,000 visitors a year.

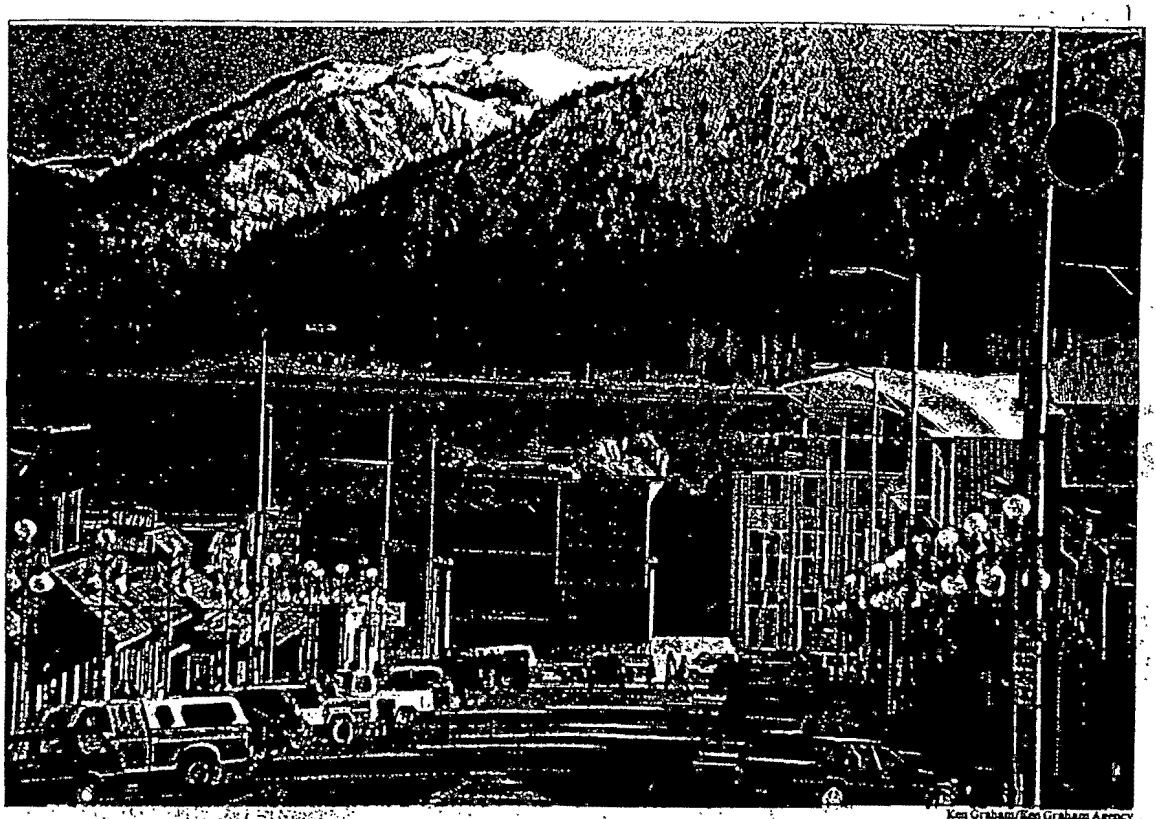
The center is a world-class hospital for marine mammals or birds in peril. But of equal import for the visitor, it is an enormous window on the world of the north Pacific and all its inlets — a place to watch many of the odd wonders and daily habits of everything from king crabs to sea lions to salmon, which return to spawn in a little waterway just next to the center.

At the same time, Seward has become a bustling base for excursions by kayak, cruise ship or tour boat into Prince William Sound and the neighboring Kenai Fjords National Park. Eco-tourism has brought unimagined prosperity to this town of 3,000 people.

A half-day at the sea life center watching sea otters fuss or puffins dive, followed by at least a half-day on the sound observing those creatures in their larger habitat is enough to leave anyone with some understanding of why Jacques Cousteau could get so worked up over the most complex ecosystem on earth.

Seward is an easy two-and-a-half-hour drive from Anchorage on one of Alaska's most scenic highways (it is a redundancy, of course, to call any highway in Alaska scenic). The road ends when you run out of land, on the shores of Resurrection Bay. Seward is home port to what may be the world's largest halibut fleet, and Sewardites are crazed about the big, goofy-looking fish. Halibut charters still make up much of the town's lifeblood. At the end of town, latched to rock at the base of mountains that rise steeply from shore, is the new sea life center. In the way of new buildings in the north that attempt to capture as much light

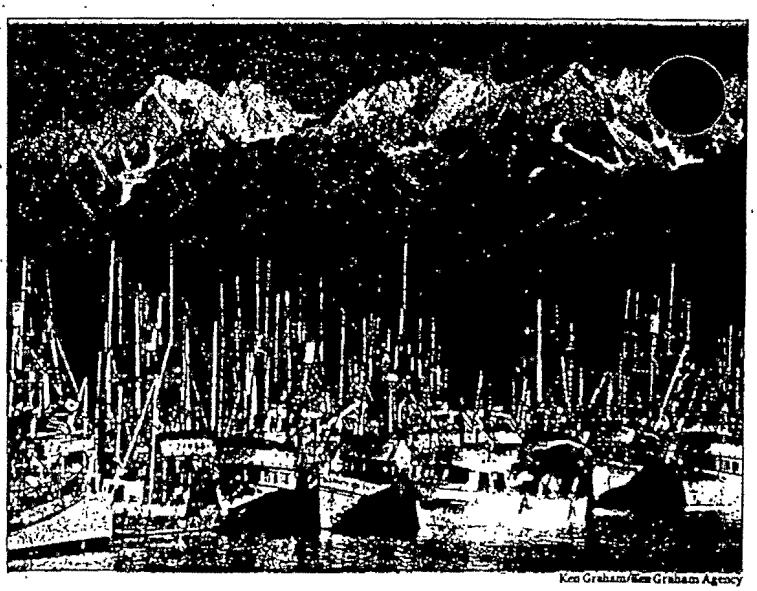
TIMOTHY EGAN is the chief of the Seattle bureau of The Times.



Ken Graham/Ken Graham Agency

ABOVE The Alaska Sea Life Center is at the end of Main Street in Seward. BELOW LEFT A 277.3-pound halibut. BELOW RIGHT The boat harbor on Resurrection Bay. The Kenai Mountains are in the background.

Evelyn Erickson/Ken Graham Agency



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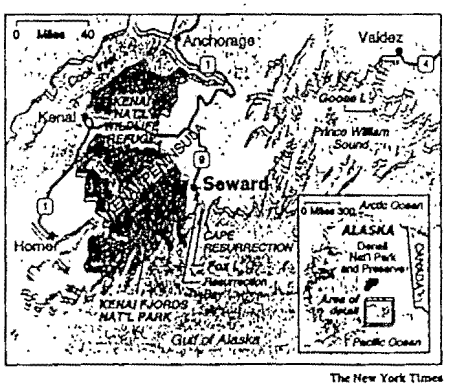
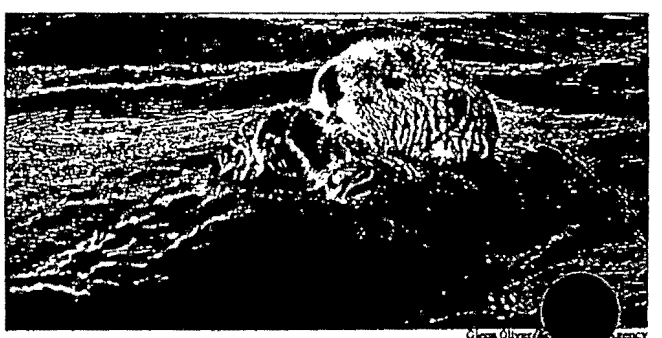


The New York Times



Glenn Oliver/Ken Graham Agency

A sea otter lolling about in Prince William Sound.

Paradise Regained

ssible, the center seems airy and sky-d, even in the below ground rooms their large windows to the sea. When I was there, not long after the solstice, it seemed so luminescent with summer glow that there was no need for electric light.

Most aquariums and saltwater theme parks are set up for entertainment. Orcas frolic on cue, penguins waddle for fish, and sea lions bark for their dinners. Not so at the sea life center. It is meant to draw people into the natural world of the sea, to engage them in a way Disney has never attempted. It is a nonprofit center, but they are selling the ocean. Still, while eschewing theme park shtick, the sea life center delivers its share of scientific exposition in an entertaining manner.

For example, consider halibut — an ugly fish that can weigh up to 500 pounds or more. It feels like a tire at the end of a fishing line. The meat, if fresh, is as good as lobster. A halibut, which is a flounder, has two eyes on one side, no eye on the other. One of the first tanks in the sea life center provides an answer for this anomaly: at a young age, a halibut starts to live on its side, at which point the eye facing down will migrate to join the eye facing out. There is halibut in mideye transition in the tank. After I'd spent a few minutes with him, fish and chips took on new meaning.

An entire room in the sea life center is devoted to the oil spill. The exhibit tends to stick with the facts, with minimal preachiness. The immortal words of Joseph Hazelwood, captain of the Exxon Valdez, are highlighted: "We've fetched up hard aground north of Goose Island off Bligh Reef, and evidently leaking some oil." The oil would contaminate more than 1,500 miles of shoreline, kill in excess of 250,000 sea- 2,000 sea otters, 300 harbor seals and ld eagles. Its full effect, particularly e dwindling population of Steller sea lions, may not be known for years.

SEA otters, frisky and bewhiskered, constantly fluffing up their thick fur to stay warm, became symbols of what oil could do to a pristine body of water and its inhabitants. And otters are likely to be one of the main draws at the sea life center. Once they were nearly extinct, hunted by Russians and the Aleut natives they enslaved.

They have made a strong comeback, though their numbers are down considerably since the spill. From the outdoor deck of the center, you can usually see otters floating on their backs in the bay below, grooming, and consuming large quantities of shellfish. If you linger long enough outside, you may also see Dall's porpoises or even humpback whales, both of which cruise the deep waters of the bay looking for prey.

Inside, down below, are the main attractions: several large, glass-walled tanks with sea lions, harbor seals and a variety of birds. These are creatures that, for the most part, have already grown used to life around humans, and after being cared for are unable to return to the wild. They live in rookeries designed to be like their natural habitats or in dark, deep-water hollows. The harbor seals, sleek-looking with tiny ears, are quite playful, and move like torpedoes through the water. A good-sized octopus, a wolf eel and king crabs occupy other tanks.

But the most fascinating, perhaps, are the seabirds. They use their wings like the collapsing sides of the Batmobile; divebomb- rom the air, they convert the wings to ing purpose to swim deep in search of ish.

In the evening I took a cruise in search of sea life beyond Resurrection Bay. Most Seward-based tour boats head southwest, for up-close views of glaciers breaking apart in Kenai Fjords National Park. We went the other way, on a double-tiered tour

Continued on Page 23

Continued From Page 13

boat holding about 60 people, to Prince William Sound. At Fox Island we stopped for a salmon bake, cooked in native style over alder wood, inside a lodge on an island with no electricity. Fox Island is a favorite place for kayakers who want to overnight at one of the small cabins.

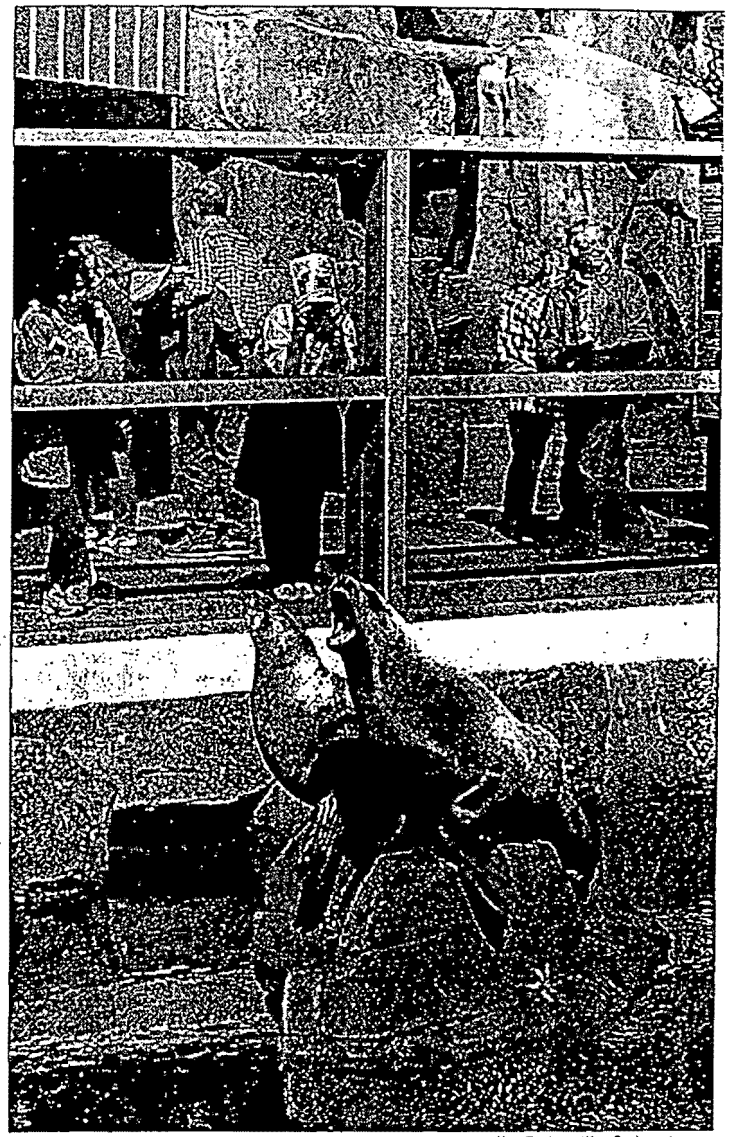
Then it was out beyond Cape Resurrection to islands packed with birds and animals. It was the time of year when Steller sea lions haul out on rocks for a mating ritual that makes 19th-century Mormon patriarchs seem celibate by comparison. The bulls, some weighing up to a ton, with manes that make them look like lions, will herd about 10 females on a rock, then keep them there for days, mounting them at will. They also guard them from other males. We passed several rocks jutting from the sea, each a place of fierce and polygamous lovemaking. Elsewhere the young bachelors, as they are called, have their own rock hangouts, where they lounge and dream of growing old and promiscuous.

Steller sea lions are disappearing, though, and their status is so uncertain that the Government has taken steps to place them under the protection of the Endangered Species Act. Research at the sea life center in Seward could prove to be the difference in whether mating displays like the one I saw will continue to be part of this cold, green section of the world.

The seabird rookeries were equally energetic. Puffins with rainbow-colored beaks dove between thousands of black-legged kittiwakes, murres, auklets and cormorants. A single rock island was packed so tight with birds it was like Yankee Stadium in the midst of pennant fever — minus the boo birds, of course. An eagle attacking a kittiwake nest was quite entertaining, as the smaller birds massed and squawked in an effort to distract the silver-headed raptor.

Away from the birds, the recent geology of the area provided other diversions. The 1964 earthquake, a 9.2 on the Richter scale, was the largest ever recorded in North America. It remade Alaska, destroying several small towns in the process. Around Seward, parts of the coastline slipped into the sea. The land dropped about six feet on average in the islands off Seward. Bluffs became beaches and beaches became ocean floors. What you see now in parts of the sound and around the Kenai Peninsula are ghost forests, the gray trees that were plunged down so deep that their roots reached salt water. Thus they are frozen, perfectly preserved, like Lot's wife. The ghost forests, with their new flat beaches, are wonderful places for kayakers to camp.

On the return to Seward, the high, glacier-bound peaks held the sun until nearly midnight. The deep crevasses and walls of ice, usually blue in midday, took on the pink blush of Alaskan summer sunsets. I saw black bears rambling through meadows, eagles everywhere, even a snow-white goat perched a high cliff. We were followed into port by a pair of sea otters and by fishermen exhausted by a day of reeling in halibut. They were not crying. ■



Ken Graham/Ken Graham Agency

Steller sea lions at the Alaska Sealife Center.

By Roger D. Stone • Photos by Daniel J. Cox

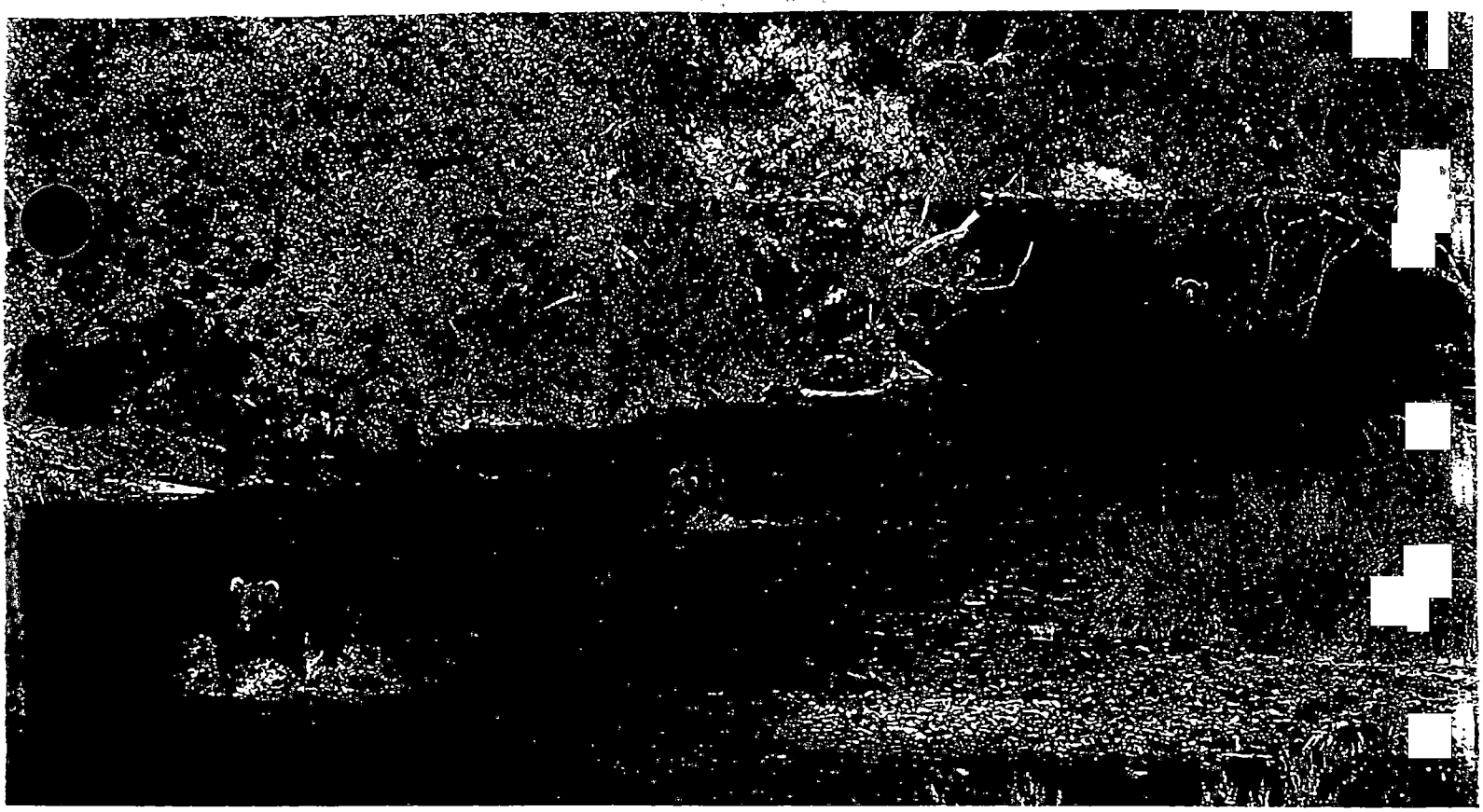
ALASKA'S Emerald Isles

An uncommon wilderness experience

DALL'S PORPOISES SURFED OUR BOW WAVES, THEIR BOLD WHITE undersides glinting in the blue-green seas. To the west, the snowcapped peaks and glaciers of Alaska's Katmai coast loomed on the horizon. As we turned east toward the Kodiak archipelago, clusters of lazing sea otters stirred from their belly-up positions to peer at our swift 24-foot inboard cruiser. Twenty minutes later we reached anchorage at Bluefox Bay on Afognak Island, second largest island in the Kodiak chain.

For the next several days, installed in a log cabin on Bluefox Bay, I relished the American north at its summer best. By day, the sun sparkled on the water; during brief nights, a full moon bathed the summit of Red Peak.

In equally brilliant weather six years before, I had circumnavigated Afognak's neighbor, Kodiak Island, in a 44-foot sailboat. Now, guided by Kodiak natives Jeff Peterson and Ralph Eluska and accompanied by two enthusias outsiders—Tim Richardson of Was ington, D.C., and Arkansas outdoors writer Gregg Patterson—I had returned to the Kodiak archipelago for another



FISH PATROL: Out to land some salmon, brown bears head down a river on Kodiak Island.

refuge, including many of the places where bears gather to fish for salmon. Until recently, it was all too likely that the native owners would consign much of this land to development (see "Hard Times . . . Hard Choices," September/October 1991).

The problem stemmed from the flawed, if well intended, 1971 Alaska Native Claims Settlement Act, the purpose of which was to liberate natives from welfare dependency. The law established native-run corporations, which were authorized to claim choice lands within the refuge, and granted federal dollars to launch fishery, timber, and mineral-development ventures. Few of these initiatives succeeded, and by the late 1980s, the Kodiak and Afognak corporations were left with little but their land. Desperate for cash, their choice was bleak: develop the land or sell it.

In hopes of prodding the government or philanthropists to fork over money for the sake of conservation, the corporations began waving red flags. When no buyers surfaced, aggressive development was the only option. Near the village of Larsen Bay on Kodiak, ten-acre lots were advertised, and native leaders weighed offering similar lots along the Karluk River leading to Karluk Lake—land that refuge manager Jay Bellinger characterizes as "the finest bear habitat in the world."

"The Kodiak Island land rush has begun," announced the *Kodiak Daily Mirror* in 1992. The island's borough assembly approved all development proposals, no matter how harmful to the hunting and wilderness values that the natives, at heart, wanted to uphold. When prices soared for old-growth Sitka spruce in the early 1990s, native corporations owning land on Afognak began aggressively clear-cutting.

Then came the *Exxon Valdez*. Of the $1 billion in fines that the Exxon company paid to compensate for the damage inflicted on the region, about one-third has been allocated for land acquisition. Of this windfall, $169,700,000 has been disbursed, all but $40 million to native corporations, to conserve 278,900 acres within or adjacent to the Kodiak refuge. Native corporation members receive regular dividends from land-sale proceeds, which they have invested in securities. With 80 percent of the native corporation-held land within the refuge bought back, the land rush is history. The bear and its habitat are mostly secure, and negotiations to protect the rest of the native-owned land are in progress.

Emil Christiansen, president of the Old Harbor Native Corporation, says, "It's no bonanza. But it's what we need and deserve." Adds Tim Richardson, who advises the native corporations on land sales and public relations matters, "If you count acquisitions elsewhere in Alaska as well as the Kodiak purchases, the people of the United States should get two and a half Yellowstones out of the Valdez oil spill."

Not all is well. Some of the Kodiak natives would prefer to take the cash in a lump payment rather than follow their leaders' advice, which would allow future generations to benefit from the land agreements. Kodiak's fishing industry is in trouble. Canneries have closed. The king crab fishery is defunct, and wild salmon prices range so low that often it hardly pays the fleet to leave the harbor. Overall, the native village economies remain shaky. But at least for visitor-geared entrepreneurs, prospects have turned positive. With their wildlife now well protected and their panoramic vistas unblemished by the haphazard development that threatened, the Kodiak archipelago's green and wild islands are a prime ecotourist destination.

◆

Roger Stone is president of the Sustainable Development Institute in Washington, D.C.

visit. I wanted to find out more about the improved outlook for the archipelago's abundant wildlife, especially its king-size brown bear, and for its thousand or so Alutiiq natives, in the wake of new land deals made with federal and state authorities.

Afognak Island is lush with green meadows and Sitka spruce forests carpeted with springy moss. Here, live Roosevelt elk and black-tailed Sitka deer, introduced in the 1920s to benefit hunters but thriving. Thriving here, too, is the Kodiak brown bear, a larger cousin of the grizzly found only on these islands. The bears feed so well on spawning salmon, they grow to be the world's largest land carnivore. A male in his prime can stand 12 feet tall and weigh 1,400 pounds.

Fishing and nature watching filled the long northern days. Each morning we boarded Jeff's *Refuge Rock* for excursions that lasted far into the twilight. We trolled for silver (coho) salmon in the Shelikof Strait and cast flies to catch pink (humpback) salmon that congregate around the mouths of rivers during the summertime spawning season. One evening I watched a river otter carry off the remains of a fish we had filleted for a midnight dinner.

The inspiring scenery continued when Jeff and I cruised the waters of his home village of Old Harbor, on the little-visited south end of Kodiak Island. Harbor seals basked and barked on outlying rocky ledges. Kittiwakes danced on the water's surface. Thousands of horned and tufted puffins, murres, and jaegers swam in the cold waters, dove for fish, and wheeled around the small islands they nest on during the short summer. Two-Headed Island yielded a colony of more than 100 ponderous Steller's sea lions. Most of the Kodiak bears were still up in the high meadows feeding on juicy red salmonberries, but we did spot several bears on the pebble beaches.

Ashore at Old Harbor, I visited the Russian Orthodox church, stark-white with blue trim, a reminder that Alaska was a Russian possession from 1784 to 1867. I hiked through velvet meadows—bear country—for an arresting view of the blue glacier towering over the town and a flock of mountain goats grazing on a steep slope. A day trip along Kodiak Island's rugged east coast, riding the long Pacific swells in the Gulf of Alaska, brought us to bustling Kodiak City, home to a major fishing fleet and most of the archipelago's 14,000 people.

Kodiak Island is also home to some 2,500 bears. Everybody here has a bear story and it is a place to experience wilderness. Yet, not so long ago, the threat of checkerboard development loomed. Ironically, the 1989 *Exxon Valdez* oil spill averted this outcome.

The story begins with the mighty bears. Hunted by natives for their meat and pelts, they came under added pressure from twentieth-century settlers. Cattlemen shot them to protect their herds. Fishermen killed them to use their meat to bait their crab pots.

For the sake of the bears, President Franklin D. Roosevelt signed a bill in 1941 establishing 1.9 million acres of bear habitat—including about two-thirds of Kodiak Island and a slice of Afognak—as a national wildlife refuge. Loopholes, however, allowed construction along a one-mile strip of shoreline and enabled native Alaskans to own some 25 percent of the land within the

Time and Place

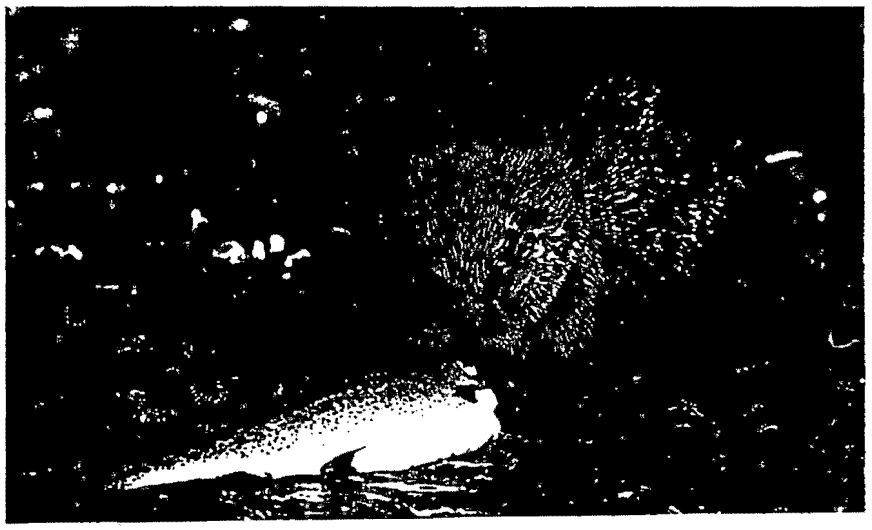
JULY AND AUGUST are the peak months for traveling to the Kodiak archipelago. Hikers prefer May and June, before Kodiak Island's summer grasses reach waist or chest height. Fishers and hunters like spring and fall.

From Anchorage, Alaska Airways (telephone 800-426-0333) flies to Kodiak City. To reach the native villages, take Pen Air's scheduled mail planes; telephone 800-448-4226. Arrange with floatplane operators for trips to remote locations.

On Kodiak Island, the Buskin River Inn (telephone 907-487-2700), at the airport, is a good jumping-off point. In the town of Old Harbor, the Sitkalidak Lodge (telephone 907-286-9246) is a good choice. The Kodiak Native Tourism Association (telephone 888-288-5736) can provide guides, lodgings, and a variety of wilderness experiences. The Kodiak National Wildlife Refuge (1390 Buskin River Road, Kodiak, AK 99615; telephone 907-487-2600) operates a public-use cabin at Bluefox Bay and seven others in out-of-the-way places. For summer bookings, sign up for lotteries held every April 1 and July 1 (cancellations create openings if you don't win a lottery slot). The Afognak Wilderness Lodge (Seal Bay, AK 99697; telephone 800-478-6442) offers high-end comfort in superb surroundings.

If you want to arrange for a guide, Jeff Peterson can be reached at Peterson's Adventures, P.O. Box 141, Old Harbor, AK 99643; telephone 907-286-2252. Jeff and his deep-keel *Refuge Rock* are just right for two to five people. First Frontier Adventures (P.O. Box 137, Old Harbor, AK 99643; telephone 907-286-2244) can handle larger groups aboard a sturdy 53-foot charter boat that sleeps 14.

— R. D. Stone



NATURE LOOMS: At rest, a Kodiak brown bear and her two fast-growing cubs (opposite); at work, a river otter tears into a trout (right).

Hairy solution for crude oil spills

Alaska science forum

By Ned Rozell

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.

In 1989, Phillip McCrory watched a CNN story on the Exxon Valdez oil spill. Seeing the difficulty volunteers were having cleaning oil from the fur of otters, McCrory wondered if perhaps human hair could be used to soak up oil. His curiosity could revolutionize how we attack oil spills.

McCrory is a hairdresser who lives in Madison, Alabama. After seeing the oily otters on CNN, he brought a bag of hair home the next day. He stuffed an old pair of his wife Sherry's nylons with five pounds of hair, then tied the ankles together to make a ring. After he filled his son's plastic pool with water, he dumped in a gallon of used motor oil. He dunked the ring of hairy panty hose.

"In two minutes, the water was crystal clear," he said recently over the phone from his salon.

Chicken feathers, wool, and straw are other natural substances used on oil spills, but hair seems to be more effective, said McCrory, who brought his discovery to researchers at NASA's Marshall Space Flight Center in nearby Huntsville, Alabama. The scientists did further tests: they filled a 55-gallon drum with 40 gallons of water and 15 gallons of oil. Another drum, which drained at the bottom, was stuffed with nylon bags full of hair. The drum with the oily water was poured into the drum with the hair. When the water flowed out the bottom, only 17 parts of oil per million parts of oil remained, equal to about two drops of oil.

Hair does not absorb oil. Oil clings to hair in a process known as adsorption, in which the tiny scales on hair snag and hold oil. Maurice Hall, a NASA engineer working with McCrory, said hair adsorbs better than wool or feathers. The researchers are working with McCrory to develop quilted pillows of hair of various sizes. The current version being tested weighs just more than a pound and will adsorb a gallon of oil in two minutes, McCrory said.

The hair within the pillows can collect oil many times if it is properly wrung out, and the hair can eventually be burned as fuel, McCrory said. The hair, a renewable resource, could eventually replace polypropylene fibers now used to collect oil.

McCrory figures about 1.4 million pounds of hair could have snatched up the 11 million gallons of oil leaked by the Exxon Valdez. Hair supply, he explained, is not a problem. About 200,000 salons and barber shops exist in the U.S., and the floors of each gather about one pound of hair a day. He currently collects hair from 12 Alabama salons for the work with Marshall Space Flight Center and hopes to eventually keep mountains of hair out of landfills nationwide.

"Two-hundred thousand pounds of hair a day grows, no matter what El Nino's doing," he said. "It's the same crop, every day."

McCrory received a patent for his idea and wants a company to buy his license and start making hair pillows once final tests at Marshall Space Flight Center are accomplished. If a large corporation isn't interested, he said he will develop the idea himself. He's done it before. McCrory, 52, has three patents, including one for a collapsible Christmas tree that hangs from the ceiling to prevent cats from knocking it over.

"I don't look for these ideas," he said. "They just come up and find me."

Human Hair Absorbs Oil...

A Hairy Solution for Crude Oil Spills

by Ned Rozell
Science Writer

In 1989, Phillip McCrory watched a CNN story on the Exxon Valdez oil spill. Seeing the difficulty volunteers were having cleaning oil from the fur of otters, McCrory wondered if perhaps human hair could be used to soak up oil. His curiosity could revolutionize how we attack oil spills.


Rozell

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He stuffed an old pair of his wife Sherry's nylons with five pounds of hair, then tied the ankles together to make a ring. After he filled his son's plastic pool with water, he dumped in a gallon of used motor oil. He dunked the ring of hairy panty hose.

"In two minutes, the water was crystal clear," he said recently over the phone from his salon. Chicken feathers, wool, and straw are other natural substances used on oil spills, but hair seems to be more effective, said McCrory, who brought his discovery to researchers at NASA's Marshall Space Flight Center in nearby Huntsville, Alabama.

The scientists did further tests: they filled a 55-gallon drum with 40 gallons of water and 15 gallons of oil. Another drum, which drained at the bottom, was stuffed with nylon bags full of hair.

The drum with the oily water was poured into the drum with the hair. When the water flowed out the bottom, only 17 parts of oil per million parts of oil remained, equal to about two drops of oil. Hair does not absorb oil. Oil clings to hair in a process known as adsorption, in which the tiny scales on hair snag and hold oil.

Maurice Hall, a NASA engineer working with McCrory, said hair adsorbs better than wool or feathers. The researchers are working with McCrory to develop quilted pillows of hair of various sizes.

The current version being tested weighs just more than a pound and will adsorb a gallon of oil in two minutes, McCrory said.

The hair within the pillows can collect oil many times if it is properly wrung out, and the hair can eventually be burned as fuel, McCrory said. The hair, a renewable resource, could eventually replace polypropylene fibers now used to collect oil.

McCrory figures about 1.4 million pounds of hair could have snatched up the 11 million gallons of oil leaked by the Exxon Valdez. Hair supply, he explained, is not a problem. About 200,000 salons and barber shops exist in the U.S., and the floors of each gather about one pound of hair a day. He currently collects hair from 12 Alabama salons for the work with Marshall Space Flight Center and hopes to eventually keep mountains of hair out of landfills nationwide. "Two-hundred thousand pounds of hair a day grows, no matter what El Nino's doing," he said.

"It's the same crop, every day." McCrory received a patent for his idea and wants a company to buy his license and start making hair pillows once final tests at Marshall Space Flight Center are accomplished.

If a large corporation isn't interested, he said he will develop the idea himself. He's done it before. McCrory, 52, has three patents, including one for a collapsible Christmas tree that hangs from the ceiling to prevent cats from knocking it over. "I don't look for these ideas," he said. "They just come up and find me."

(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.)

Homer News
August 20, 1998

News

Oil spill projects funded

Though it will pay for other projects in the Homer area in coming months like an ecological study of Mariner Park, the Exxon Valdez Oil Spill Trustee Council deferred a decision this month on funding reconstruction of the fire-damaged Port Graham salmon hatchery.

The council approved its project list last week for the fiscal year beginning Oct. 1.

The spending plan includes $99,500 for a one-year ecological study of Mariner Park at the base of the Homer Spit. Construction of the Homer Spit Road cut Mariner Park off from Mud Bay, and excavation and human use have further damaged it, according to the city. Now the city wants to assess the damage and figure out what can be done to bring the area back.

Council money will pay for an environmental assessment expected to be completed by September 1999.

The council will also spend $70,000 on a joint project between the Department of Fish and Game and the National Oceanographic and Atmospheric Administration to provide an ecological snapshot of Kachemak Bay. The study will also look at the lower Cook Inlet watershed, according to Fish and Game biologist Glenn Seaman.

"We don't have a good sense of what we know and don't know about the Kachemak Bay area," said Seaman.

A six-year study of salmon habitat in Port Dick, on the outer coast of the Kenai Peninsula, will receive an additional $86,000 in funding next year. Scientists hope to restore the salmon habitat there exposed to oil from the spill. The project will end in 2002.

Some projects proposed from the Homer area that were not funded in the plan this month will be reviewed again in December. Those include a Pratt Museum request for $231,000 to operate remote video links on East Amatuli Island in the Barren Islands, a project similar to the one the museum now operates on Gull Island.

Residents in Port Graham are hoping the council can squeeze a $777,500 request into its budget to help rebuild the salmon hatchery destroyed in a fire last January. The hatchery supplied pink, red and coho salmon for commercial fishermen and the subsistence fishery there.

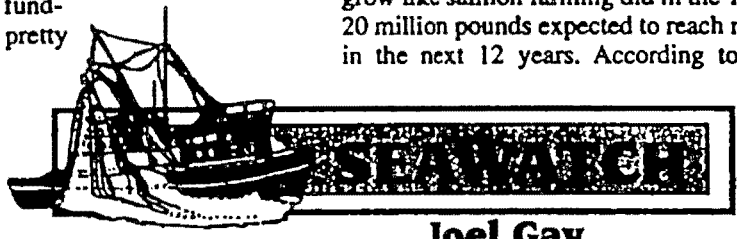
The village has some salmon projects going but they are scattered among separate sites.

"We're hoping we can get money to build a building that could hold everything," said village Chief Elenore McMullen.

Council spokesman Joe Hunt said the council will need to get Department of Justice approval to fund the project because it may not fit in with funding guidelines. If it does, it will then be a matter of whether the council has enough money left.

Dungeness numbers fall in both shallow waters and deep

THIS YEAR'S DUNGENESS CRAB survey in Kachemak Bay has come up with the same sad refrain of years past — almost no crab. The 1998 survey was even more extensive than usual, with an additional component that relied on both pots and trawl gear to check crab abundance in deep water. The 90 pots caught only four crab, while a mile-long trawl brought up just two more, said Department of Fish and Game Area Sportfish Biologist Nicole Szarzi, whose division funded the additional survey. "It's pretty disappointing," she said. "We thought the crab would be deeper."



Joel Gay

THOSE DATA COMPLEMENT the annual commercial survey in shallow waters east of the Spit. In 45 pot lifts Monday biologists found 13 males, and in 45 more Tuesday found just one Dungeness. "It's dismal," said Area Shellfish Biologist Charlie Trowbridge. Like everyone else, he has no idea what caused the crab to disappear, he said, other than a combination of factors including environmental and fishing-related.

Some naysayers believe Fish and Game would find crab if it surveyed deeper waters, but the Sportfish Division survey disproved that theory, Trowbridge said. The Commercial Fisheries survey is in waters that have traditionally been strong producers. In 1991, the first year of the survey, the 90 pots caught a total of 1,100 crab, and in 1991 caught 1,640. Unfortunately, few of those were new recruits and the number of recruits has dwindled ever since.

A HALIBUT FARMING INSIDER has been selected to do the study on the potential impact that industry will have on Alaska's wild halibut fishery. John Forster, president of Washington-based Forster Consulting, is a former Director of Business Development for Stolt Sea Farms, one of the Norwegian companies that is pioneering flatfish farming. Though Stolt and other farms are just starting to deliver product to markets, halibut farming is expected to grow like salmon farming did in the 1980s, with more than 20 million pounds expected to reach market annually within the next 12 years. According to the Pacific Halibut Coalition, more than $40 million is being invested in halibut farms in Norway and Britain alone, and salmon farms are being converted to halibut in other countries. Forster's report will be available for public review in March. It is being funded by the Alaska Department of Commerce, which contracted Forster to analyze the salmon farming industry in 1995.

PETER PAN QUIT BUYING PINKS in Prince William Sound on Monday, apparently after landing all the fish it needed. The pink flood continues almost unabated from Southeast to the South Peninsula. In the Sound, the catch through Monday was approaching 21 million, "and we have millions more to go," said Department of Fish and Game biologist Dan Sharp. Seiners have been on limits all season and the loss of Peter Pan, one of the largest buyers in the region, will make it more difficult to harvest all the available surplus. Already some 2 million fish have gone unharvested in the Sound, particularly around the hatcheries, Sharp said, and processors are directing their boats away from the terminal areas.

Though the loss of Peter Pan leaves 32 boats without a market, Prince William Sound Aquaculture Corp. is nearly done with its cost recovery effort and that should create a bit more demand for the fish. The run typically peaks around Aug. 15, Sharp said, which means catches could go on for weeks more. Last year one processor continued to buy until mid-September, he said.

HUMPIES CONTINUE TO ROLL IN to Kodiak seiners' nets, too, though strong winds earlier this week depressed catches a bit, according to Dennis Gretsch of the Department of Fish and Game in Kodiak. The catch through Monday was 18.2 million, and biologists expect the final tally to reach 20 million. Even better, the fish are slightly larger than average, at about 3.8 pounds apiece, he said. Kitoi Hatchery is enjoying the bonanza, too, with a total harvest of some 4.8 million pinks.

SOCKEYE RETURNS TO BRITISH COLUMBIA are disappointing this year, with most runs coming in below forecast. Wayne Saito of the Department of Fisheries and Oceans told the Associated Press that total returns will hit about 8 million, some 3 million below preseason projections. Commercial fishing has been pared back, sport fishing was halted, and Natives have been asked to forego their subsistence fisheries to ensure adequate escapement. However, fish that have made it upriver to spawn are dying from exhaustion and overheating due to high water temperatures, Saito said.

HOMER NEWS
OUTDOORS
Thursday, August 20, 1998

Trail expansion program nearly complete in state park

by J. Michael Lyons
Staff Writer

Standing atop Goat Rope Spur, the highest trail in Kachemak Bay State Park, one gets an idea of the immensity of the place. All around for as far as the eye can see are the forests, valleys, mountaintops and glaciers that make up much of the south side of the Bay.

A question that arises is why more people don't go. On a typical two- or three-day trip on some of the park's lesser-used trails it is a rare occasion to see another hiker. But that may change as the park's trail system has doubled in recent years.

Trail crews are winding down a three-year project funded with $11 million from the Exxon Valdez Oil Spill Trustee Council that will double the trail mileage in the park.

New trails finished this year include an expansion of the Grace Ridge Trail from a crest between Sadie Cove and Tutka Bay to a trailhead near the head of Tutka Bay. Another trail will begin near the head of China Poot Bay and follow the Wosnesenski River to connect with the trail that descends to the river from the base of Poot Peak.

Park officials began the trail construction project with the goal of doubling the 26 miles of existing trail and building new cabins and campsites. They've met that goal, said ranger Roger MacCampbell.

"Everything and more," he said. "We'll probably exceed our goal of 50 miles of trails."

A new route shooting off the China Poot Lake trail will connect hikers to the mouth of China Poot Creek and the re[illegible]on dipnet fishery before connecting to the C[illegible]Trail.

[illegible]rail work in the heart of the park this year near Halibut Cove Lagoon and the ranger station follows work last year on the northern end that created a loop from Mallard Bay to Emerald Lake to Grewingk Creek and back to Mallard Bay. That loop was briefly connected to the Grewingk Creek Trail and the rest of the park's trail system with a tram across Grewingk Creek.

The tram was closed earlier this summer when hikers complained it was difficult to operate. State park officials and their engineering firm have gone back to the drawing room to design a smaller, lighter tram.

"It's a prototype," said MacCampbell. "Parks wants to make it right."

Deadfall in the north end of the park, a hot spot for spruce beetle and part of the genesis of the beetle infestation sweeping the southern Kenai Peninsula, prevented some further trail clearing. Trees there and along the Grewingk Lake trail are falling.

"But there's a tremendous amount of new growth," said MacCampbell.

With the trail project complete, parks will now turn its focus to making the trails more user-friendly.

"The biggest problem for us now is catching up on maintenance and getting signs up so we can say they're officially open," he said.

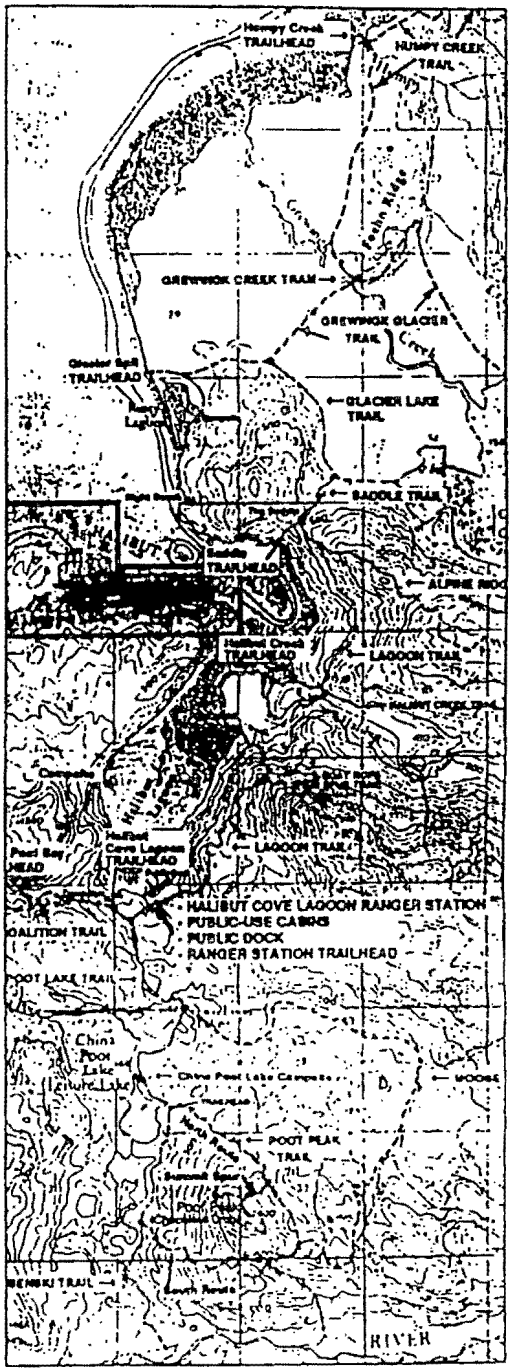
Decaying signs that are sometimes difficult to decipher will be replaced and new maintenance projects begun, he added. One could be a bridge across Halibut Creek, the glacial stream that hikers must ford to continue on the Lagoon Trail to Goat Rope Spur and the ranger station, which will be expanded. There will also be more mooring buoys near trailheads.

Unlike the trails, the new projects will rely on volunteers.

"We need people," said MacCampbell.

Photo by Joel Gay, Homer News

[illegible]iker starts off at the trailhead at Glacier Spit, one of the most popular jumpoff points to the 50-odd miles of [illegible]ils in Kachemak Bay State Park.



A full-size map dedicated to Kachemak Bay State Park should be available by next summer. Trails Illustrated is working with park rangers to develop a color fold-out map for the park, the first for a state park in Alaska. The maps are printed on paper-like plastic that is tearproof and waterproof.

"That's one thing we've needed for many years," said southern district ranger Roger MacCampbell. "The timing is perfect."

The Cordova Times
August 20,1998

Native Village of Eyak to host subsistence conference

By Cordova Times staff

The Native Village of Eyak will host a subsistence conference Aug. 19-22. The conference will bring together elders and youth from each village impacted by the 1989 Exxon Valdez oil spill in Prince William Sound.

The conference, funded by the Exxon Valdez Oil Spill Trustee Council, will bring traditional knowledge and western scientific knowledge together and share it with elders and youth. One elder and two youths from each village have been invited to discuss subsistence prior to the spill and subsistence today.

Panels of three — a scientist, an elder and a youth — will discuss issues related to the research and traditional knowledge in the spill area. A round-table discussion is also planned on ways to assist recovery efforts. Youth and elders will also have panel discussions concerning subsistence.

Speakers at the conference include Bob Henrichs, Molly McCammon, Father Michael Oleksa, and Sen. Georgianna Lincoln. The Nanwalek, Tatitlek and Kodiak dancers and Athabascan Fiddlers will also be featured.

Information and arts/crafts booths will also be available for community members. Call the Village of Eyak at 424-7738 for further information.

Shepard Point public information is now available

The Shepard Point Road and Port Project Habitat and Biological Assessment is now available to the public. It includes an inventory of the vegetation, fish mammals and birds along the proposed road corridor, and a discussion of the possible effects of road and port construction in the plants and wildlife, along with suggested mitigation measures.

The information in this report will be included in the Environmental Impact Assessment for the road and port project. There will be an opportunity for the public to comment during the permitting process, of which there will be public notice by the city.

This report was produced by the Prince William Sound Science Center, under contract from the City of Cordova. The report can be accessed on the Internet through the Prince William Sound Science Center home page at http://www.pwssc.gen.ak.us/~shepard. There is also a printed copy available at the Cordova Library.

Area update

Trustee council approves PWS project funding

The Exxon Valdez Oil Spill Trustee Council has approved its work plan for the 1999 fiscal year, providing $10.3 million to fund more than 60 research, monitoring and general restoration projects for the Kodiak Island, Kenai Peninsula and Prince William Sound regions.

The majority of research projects funded by the Council will take place in the Prince William Sound, several through the Prince William Sound Science Center in Cordova. The work plan includes $506,300 for herring research, $835,100 for research on pink salmon and $1.1 million for oceanographic and ecosystem work in the Sound.

The plan also provides funding for the release of coho salmon in Boulder Bay to create a subsistence fishery near Tatitlek, the stocking of sockeye salmon in Solf Lake on Knight Island, and $150,400 to the Chugach School District to maintain a program which gets students involved in restoration science.

A 6-year project developing a new way to identify hatchery-raised salmon will receive another $182,200 this year. The new method creates identifiable marks on the carbone of salmon, allowing fisheries managers to better understand which stocks are returning and adjust commercial harvests accordingly.

The FY99 Work Plan is the document that sets the Trustee Council budget and identifies restoration projects and scientific studies for the fiscal year beginning Oct. 1.

The budget goal set by the Council for FY99 is $10 million to $12 million. The six-member Council will meet in December to decide on another 17 projects totaling $1.4 million.

PWS seiners put on catch limits

Prince William Sound processors are having to limit the amount of fish they can buy from purse seine fleet, saying fishermen are catching more fish than they can process. The run of pink salmon in the Sound is higher than was projected.

"There's more fish then we have capacity to process. Each processor is limiting the purchase of fish," said Ken Roemhildt of North Pacific Processors.

"Everyone is on limits and has been for sometime and it will continue till the season ends," Roemhildt said.

SeaLife Center survives first months with few headaches

SEWARD (AP) — There have been some bumps along the way, but the directors of the SeaLife Center say the laboratory and tourist attraction has survived its first three months.

Despite worries from some Seward residents, parking problems and traffic congestion never materialized, even as about 10,000 people a week stopped by the new attraction on the edge of Resurrection Bay.

The center's financial picture isn't yet clear, but things look hopeful. "We probably won't know until late this fall how we're doing in 1998," general manager Darryl Schaefermeyer said. "But I think the trend shows we should be pretty close (to budget goals)."

By the end of August, about 150,000 people will have visited the marine research center, Schaefermeyer said, putting it at 94 percent of its late-summer attendance target.

Those visitors are key to the center's survival. It cost $56 million to build, and while construction costs were borne through a portion of the settlement paid by Exxon for the 1989 oil spill, municipal bonds and private contributions, the facility is supposed to be self-sustaining.

At its core, the SeaLife Center is a laboratory where researchers study animals that inhabit Alaska waters. For a $12.50 admission fee, people can see the animals being studied and the scientists at work.

But unlike marine theme parks, visitors don't see trained killer whales. They're more likely to watch researchers darting river otters with anesthetic to draw blood samples.

Three large tanks house sea lions, harbor seals and seabirds. There are also videos, photographic displays and large aquariums housing pollock, salmon, starfish, crab and other creatures.

So far, visitors appear to enjoy watching and interacting with the researchers, said Michael Castellini, the research director. Researchers, he said, are having fun being on display and answering questions — attention that's rare in a university or agency setting.

"There's no other place that does it like this," Castellini said.

Something that separates this facility from others is that researchers routinely stop what they're doing — taking a harbor seal out of a tank, for instance, and placing it in a cage to weigh — to explain to onlookers what they're up to.

"Questions range from, 'How come they're all disappearing?' to "How do you weigh them?' " he said.

Castellini can't answer the first question. It's one reason the SeaLife Center exists. Populations of harbor seals and sea lions in the Gulf of Alaska have dropped significantly since the 1970s, and studies conducted at the center are examining the role of diet in the declines. Populations of herring and crab have dropped in the region, and one theory is that seals and sea lions are eating more of other foods instead, including pollock, and they provide less nutrition.

Another break with tradition for some scientists has been naming, not numbering, captive birds and sea otters. A name is easier for children to grasp, said George Divoky, an Oregon State University seabird biologist who has spent the summer raising pigeon guillemot chicks that may one day colonize an old sea wall next to the SeaLife Center. Among the chicks' names: Mili and Nano.

With ticket revenue paying roughly two-thirds of research costs, biologists such as Divoky have been flocking to the center, Castellini said. More than a half-dozen studies are taking place now.

Castellini predicted the center, which has room for 13 separate studies at once, will be at full capacity early in 1999.

"I think they're getting a pretty good deal," said Schaefermeyer, who said the center may take a second look at its price breaks for researchers. "It'll still be heavily subsidized, but not as subsidized as this first year," he said.

The center also has what Schaefermeyer described as an "ambitious" program to raise $1.5 million from corporations and foundations in the year's final four months. That fund raising is just now seriously getting under way.

SEWARD PHOENIX LOG
AUGUST 6, 1998

Seward SeaLife Center makes staff changes

Compiled by Donna Harris

There are a few changes being made in staffing at the SeaLife Center. Darryl Schaefermeyer is now serving as general manager, while Ben Ellis, formerly with the Kenai River Sportfishing Association and the Kenai River Classic, has been hired as development director, effective Sept. 1.

The marketing department has hired Suanne Bynum as sales manager and Annette D'Alessandro as reservations/marketing coordinator.

The Alaska Visitors Association board of directors will meet at the SeaLife Center Aug. 6.

Steller's diet

Steller sea lions are opportunistic feeders and eat whatever they can catch. In many areas of Alaska, half of their diet consists of walleye pollock, the same fish that provides approximately $1 billion annually to the fishing industry.

Other important food to the Stellers includes a wide variety of fish such as Pacific cod, herring, salmon, capelin, sand lance and cephalopods (squid and octopus).

Sea lions also eat harbor seals and fur seals in the wild. Usually, smaller age classes of seals are consumed and then usually only parts of the seals are eaten. Some individual sea lions may specialize in preying on seals. Other pinnipeds make up a small but significant part of the overall Steller sea lion diet.

Exhibits

There have been some additions made to the microhabitats. Three kelp crabs (Pugettia gracilis) were added to the low-tide zone exhibit July 28. In the rocky-reef exhibit, six more pygmy rock crabs (Cancer oregonensis) have been added, to bring the total to seven. Three spot shrimp (Pandalus platyceros) have been added to the sandy-seafloor microhabitat.

The sheltered rock wall now features a juvenile cabezon (Scorpaenichthys marmoratus). Cabezon are good eating, but their eggs are poisonous and will make humans violently ill. Cabezon are rare this far north.

Ophelia, the female octopus, has been removed from the Denizens of the Deep habitat and taken to a back-holding area. In her place, we've added a male octopus who has been very active, putting on an incredible display of color and texture changes.

We are conducting a Name the Octopus contest for the unnamed male octopus. Bring your submission to the SeaLife Center by Aug. 23 (boxes are located at the front-entry ticket counter). The winning entry gets an octopus sweatshirt by Karla Morreira from the SeaLife Center's Discovery Shop.

Donna Harris is marketing director at the Alaska SeaLife Center.

Influx of rehabilitated animals cancels Fun Run

• The Rehab Fun Run scheduled for Aug. 8 has been canceled due to the influx of rehabilitated animals. The run will be rescheduled for next year.

• A visitor last week was Dr. Lorrie Rea from the University of Central Florida at Orlando, who presented the seminar "The Biology of Steller Sea Lions: From Woody as a Youngster to Population Declines." At one time, she worked with National Marine Fisheries Service on Steller sea lion pups in Alaska. She worked with our three sea lions when they were young animals in Vancouver, British Columbia.

Her expertise is in nutritional physiology and her work was the basis for some of the current studies at the SeaLife Center on the food requirements of seals and sea lions.

Exhibits

July 20: We added three small Aequorea aequorea, or many-ribbed hydromedusa to the jellyfish exhibit. This species grows to 1.5 inches high by 7 inches wide with varying numbers of long marginal tentacles. They are found from Alaska to California, floating in open water, occasionally near shore. They are luminescent and at night one can see the outline of their parts.

July 26: Today, we put a sailfin sculpin (nautichthys oculofascialus) into the sheltered rock wall microhabitat. This fish is easily identified by its very tall first dorsal fin. When swimming, it keeps one fin pointed forward, while the second dorsal fin undulates in a wave-like manner. Sailfin sculpins are nocturnal and like to eat crustaceans.

The crested sculpin that was in this microhabitat will be transferred to the kelp forest exhibit in the next few days.

Education

School's out, but there's no break for the SeaLife Center's education department. The department is providing hourly discovery education programs from the popular clay-seal classes to learning about beautiful blubber. Pick up a schedule on your way in.

SeaLife Scoop

The SeaLife Center is now accepting reservations for fall education programs.

The department had a birthday party for Natt Aderholt this week and it was a big success. The department is now offering marine-theme birthday parties for other school-age children. Call Leslie Peart at 224-6336 for more information.

The department offers "SeaLife Story Time" Tuesdays and Thursdays at 1:30 p.m. Stacey Schoening is reading "The Rainbow Fish" and "Rainbow Fish to the Rescue."

Rehabilitation

Wendy James, the SeaLife Center's rehabilitation coordinator, left Seward early the evening of July 15 to take Aialik, the sea otter pup, to his new home at Oregon Coast Aquarium. The following is her story:

"The first leg of the trip from Anchorage to Seattle was on an Alaska Airlines freight plane. Aialik managed to sleep through takeoff, then promptly demanded to be fed. We arrived at Sea/Tac airport at 2:30 a.m. and went by van to the twin Cessna that was to fly us the remainder of the way. Unfortunately, fog prevented us from landing in Newport, so we made an unscheduled three-hour stop in Corvallis. By 6:30 a.m., we were all tired of waiting for the weather and ended up driving the rest of the way.

"Throughout the entire trip, Aialik adhered to his three-hour schedule to the minute and slept amazingly well despite all the noise and movement. The staff at the Oregon aquarium is thrilled to have him. They have two female sea otters. Until Aialik is able to (take care of himself in another four to six weeks), the staff will continue around-the-clock care.

"Before I left, Aialik was starting to eat small pieces of clams after drinking his bottle, spending more time in the water and swimming much more efficiently. The aquarium mammal staff assures me they will keep us updated on his progress."

Our three harbor-seal pups are also doing well. Yukon weighs 25 kilograms, while Denali is 15.5 kg. They ate approximately 20 coho salmon smolt the other day and both seals caught and ate the fish rapidly. Our third seal pup, sent to us July 10 from Iliamna, was found with a serious facial laceration in the eye area. Iliamna, or "Ili," is gaining weight and will remain in the quarantine area until her eyelid laceration is fully healed.

Research

The pigeon guillemot research project now has 23 chicks and five more eggs ready to hatch. The first chicks born are ready to fledge. The birds will be banded this week. They will fledge off the roof of the SeaLife Center starting this week. The guillemots will be fledging from now until the first of September and will be picking their own times to fledge.

Donna Harris is marketing director at the Alaska SeaLife Center.

The Seward Phoenix Log
July 30, 1998

SeaLife update

The number of visitors at the Alaska SeaLife Center reached the 125,000-mark Sunday, according to Kim Sundberg, executive director at the facility. The 2,361 visitors passing through the doors on Saturday was an all-time high. "It was the biggest day so far," Sundberg said, eclipsing the number of visitors on July Fourth.

Visitation has been averaging 1,600 a day, he said, with an anticipated drop to 300 or 400 people a day this winter. If things remain strong through August and September, he said, the $56 million facility that opened May 2 should meet its goal of 235,000 by year's end.

The center's 78 employees are mostly Alaska hires, with quite a few Seward hires.

"Some of our best employees are Seward residents," Sundberg said.

Monthly utilities at the facility are about $30,000 for water, sewer and electricity.

Revenues are holding true to predictions. According to exit surveys of visitors, the SeaLife Center is scoring well in everything but price, according to the executive director. But he doesn't anticipate a reduction in admission fees, because he feels they are in line with prices charged at similar type facilities elsewhere.

HOMER NEWS
OUTDOORS
Thursday, July 23, 199

Dolly Varden: fightin' little fish on the rebound

by J. Michael Lyons
Staff Writer

The Dolly Varden is the Rodney Dangerfield of Alaska's sport fish. No respect.

In the Anchor River's hierarchy of fish, the king salmon reigns supreme. Silvers are second, followed by the rambunctious steelhead, the elusive rainbow trout and then probably pink salmon.

At least humpies are salmon and that alone ranks them ahead of the Dolly Varden, a voracious feeder that has been so defamed in Alaska that anglers past would rather have taken them with a pitchfork than a fly rod.

Dollies aren't tough to catch. They will go after salmon eggs or anything that look like salmon eggs, a fact that has made them the scourge of salmon anglers. The state placed a two-and-a-half cents per tail bounty on dollies in the 1930s. Though they're fairly scrappy for their size they don't have the rod-bending grit of a silver or a steelhead.

Anyone who has eaten a Dolly prepared right knows they taste good, but a platter of pan-fried dollies certainly wouldn't be the showcase of any dinner party.

Even their name, taken from a character in the Charles Dickens novel "Barnaby Rudge" who wore spotted dresses, implies a dainty fish that would rather curtsy than tail dance.

So why the heck fish for them?

First, during the mid-summer lull between silvers and kings dollies are about the only fish in the river. That alone is reason enough. And an angler will almost assuredly catch fish.

"It's not like kings, where you go all day and might catch a fish," said Bob Ditton, who has fished the Anchor for 30 years. "With these you have action all day."

Plus there aren't the crowds that accompany the king run, no wrestling for a good spot or getting ticked off at another angler's ill-placed cast.

If the high tide is late in the evening and an angler is dedicated to solitary fishing, he or she can find themselves casting alone as the sun dips below Mt. Iliamna. That doesn't happen often on the Anchor in June or August.

Pound for pound dollies are among the best fighters around. They strike hard and on light tackle are a challenge to keep.

Fishing for dollies in coming weeks will result in smaller fish than were available a couple of weeks ago. The incoming fish now are mostly those looking for a place to winter. The bigger, spawning fish came through earlier this month, though anglers will have another chance at them beginning on Aug. 1 when the river opens above the fork.

Male Dolly Varden can spawn up to twice and females up to three times. Studies say that an estimated 70 percent of males and 50 to 60 percent of females die after spawning the first time.

The Anchor River's Dolly Varden population came under study in the late 1980s after catch reports chronicled a steady decline beginning in 1984. In 1987, the Department of Fish and Game installed a counting weir to get hard data on the population decline.

The department's data bore out what many anglers knew, that there were fewer Dollies swimming the river each year. In 1987, 19,000 fish passed through the weir. By 1993, the number had dropped to 8,260. But the following year it jumped to a six-year high of 17,259.

Scientists still aren't sure what caused the population downturn. It could have been overfishing in the late 1970s, when the daily bag limit on dollies was 10.

Another reason could have been the time of year the dollies migrate to the river. Because the Anchor is shallow and relatively slow-moving, the water temperature in the middle of the summer is often warm enough to support infectious diseases like furunculosis, a bacteria always present in the river that sometimes attacks wounded fish. Fish that are snagged by anglers' hooks and those that are roughly handled before release and that lose some of their slime layer are especially susceptible.

A third explanation could be that Anchor River dollies were caught in other streams. Fish tagged in the Anchor River have been caught in the lakes along English Bay River, on Crooked Creek, the Kenai River and near the Homer Spit.

The decline caused Fish and Game to drop the daily bag limit to two in 1991 and dramatically changed the fishery from hook-and-cook to catch-and-release, a move that decreased angler numbers.

"It's more of a relaxed fishery," said Larry Larson, a Fish and Game biologist who led the Dolly research on the Anchor and is now studying the fish on the upper Kenai River.

Before the regulations went into effect 10 percent of the anglers harvested 90 percent of the fish. Now the department estimates that 80 percent of the dollies caught on the Anchor are released.

As for the fish's reputation as a salmon pillager, research has shown it may not be deserved. They do eat salmon eggs, but most eggs they eat have drifted from the redd and would die anyway. These eggs, if not eaten, would eventually become hosts for fungi which could affect live eggs and young salmon in the redds.

"Actually they can help salmon more than hurt them," said Larson.

Dollies also feed on freshwater snails, which host parasites that are known to infect the eyes of young silver and red salmon and cause blindness.

Because Anchor River dollies feed primarily on salmon eggs, that is the best bait. For more of a challenge, a yarn egg pattern, an egg-colored wet fly like a polar shrimp or a glo bug can be used. When they're hungry enough, usually later in the season, dollies will also hit big dry flies.

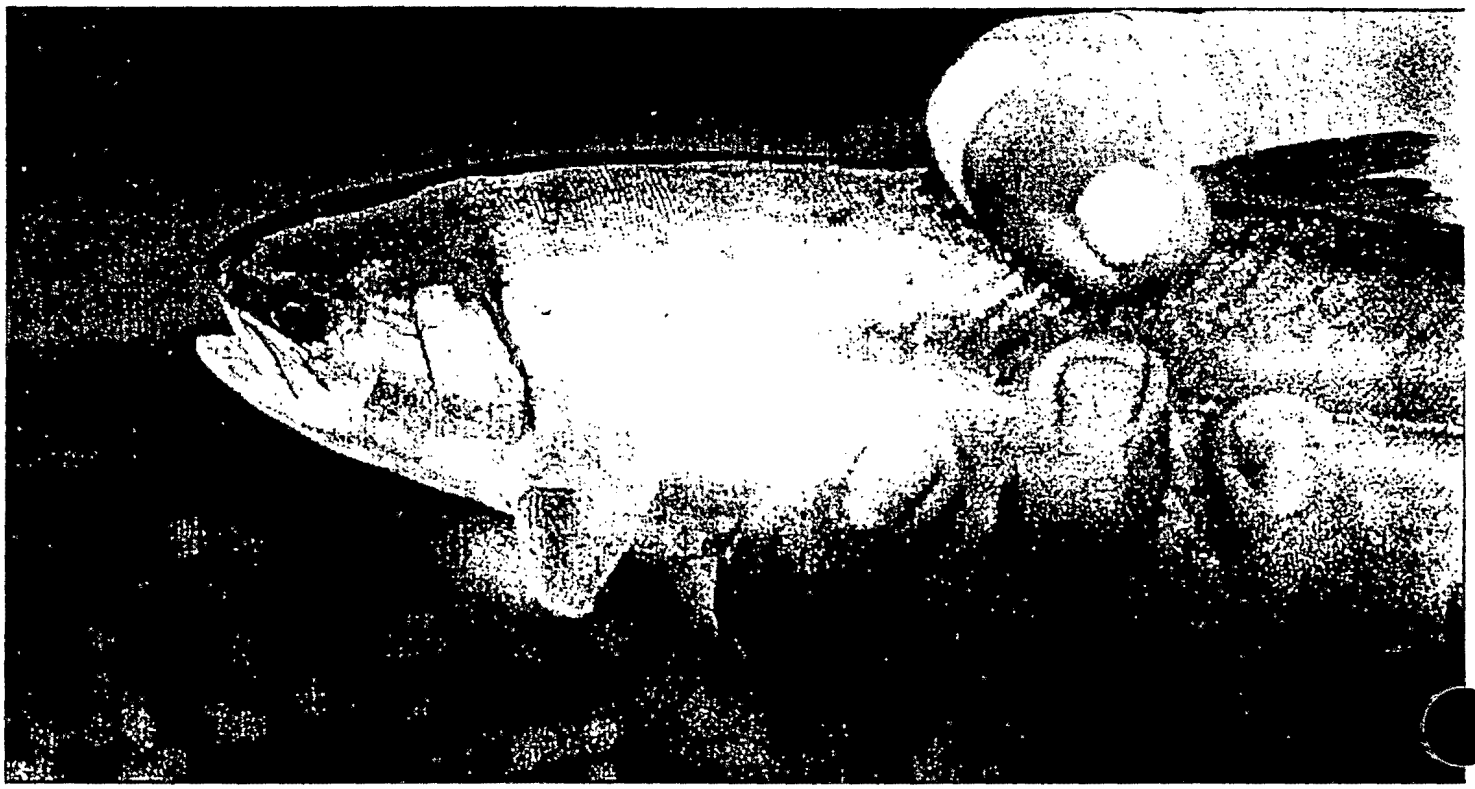
Those fishing with a spinning outfit can rely on most bright-colored spinners.

Dollies are best eaten soon after they're caught. Most anglers pan fry them with a light dusting of flour. They can also be stuffed with apples, garlic and onions and baked or even smoked.

The best time to fish for them, like most other fish entering the river, is on an approaching high tide. But any time the river is thin on anglers is a good time.

"The best time for me," said Ditton, "is when there's nobody else around."

Homer News
July 23, 1998



Photos by J. Michael Lyons, Homer News

The Dolly Varden that are entering the Anchor River now are smaller than a few weeks ago, when the river was full of spawners. Those larger fish should be available to anglers, however, when the river opens to fishing above the forks Aug. 1.

Prince William Sound Otter Study...

Oil-Fed Otters May Unravel Pollution Impact

by Ned Rozell
Science Writer

When the Exxon Valdez ran into Bligh Reef in the spring of 1989, the most visible victims of the oil spill were blackened sea otters and shore birds. Now, nearly a decade later, scientists are still trying to sum up the effects of the oil spill.

In Seward, one researcher is trying to learn more about the spill by feeding small amounts of crude oil to river otters. Merav Ben-David, an ecologist who studies animal behavior and physiology at the University of Alaska Fairbanks' Institute of Arctic Biology, is performing research on river otters that began right after the spill.

In 1989, UAF Professor Terry Bowyer, a wildlife biologist at the Institute of Arctic Biology, Professor Larry Duffy, head of UAF's Chemistry and Biochemistry department, and technicians from the Alaska Department of Fish and Game began examining river otters in oiled and non-oiled areas.

The scientists chose to study river otters because the animals often live where the land meets the sea. River otters, seldom-seen members of the same family as mink and sea otters, den along bodies of water in the forests of Alaska. The animals, which grow to four feet long, hunt in rivers, the ocean, and sometimes on land. River otters on the coast catch much of their diet-fish, crabs and shrimp from the sea.

Bowyer, Ben-David and graduate student Gail Blundell have studied river otters in Prince William Sound for the past three summers to look for lingering effects of the oil spill. Otters are notoriously hard animals to study--they are shy and too smart to come to a trap twice--so Blundell and Ben-David captured 15 river otters from different areas within Prince William Sound and brought them to the Seward Sea Life Center.

When river otters were first studied, right after the spill and the three years following, researchers found enzymes in the otters' blood indicating stress that could be caused by ingesting crude oil. Otters that lived near oil-fouled beaches showed high levels of the enzyme; otters in areas without oil showed much lower levels.

Today, the otters living near shores that were soaked by oil nine years ago are still showing elevated levels of the stress enzyme.

Rozell

Though crude oil is no longer visible, otters may still be suffering from its effects. That's what Ben-David hopes to find out as she feeds crude oil to some of the otters at the Seward Sea Life Center.

Ben-David has a small metal jug of crude oil given to her by ARCO workers at Prudhoe Bay. She and assistant Olav Ormseth will fill tiny capsules with the oil, slip the capsules inside herring, and feed the herring to the otters four times each week. Five otters will receive the heaviest dose of oil-1,000 parts per million, about the equivalent of a tablespoon of oil in five gallons of water. Five will get a dose ten times smaller, and five will ingest no oil whatsoever.

Ben-David said she is basing the highest dosage on oil levels found presently in blue mussels that live in Prince William Sound.

Ben-David and Ormseth will take blood samples from the otters every three weeks to see if the crude oil is causing the stress enzymes to increase. Using underwater cameras, they will watch otters to see if their diving ability is impaired by the crude oil, which can cause anemia.

The researchers will continue feeding some oil to the otters for 100 days, Ben-David said. Then, she will stop feeding them oil for 100 days before she releases them in March 1999. By feeding a toxin to one of the cutest mammals in Alaska, Ben-David expects a bit of opposition.

She said feeding oil to otters is the next logical step in her study, a step that will help determine how much oil spills affect living creatures, and for how long. "It's extremely important to validate those results we're getting out in the field," she said.

"These results will be very useful for future oil spill work. We can use the otters as a model for all marine mammals affected by oil."

(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.)

Peninsula Clarion
July 26, 1998

Life in tidal zone still not back to normal

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

Only one species, the bald eagle, has been removed from the list of species with chronic or population-level injuries from the Exxon Valdez oil spill.

While bald eagles forage over both land and sea, predators such as river otters, sea otters, pigeon guillemots and harlequin ducks, have less choice about where they look for food. They forage mostly among the eelgrass, kelp and sediments of the tidal zone — where most of the crude oil landed.

Scientists cooperation on a large ecosystem project called the Nearshore Vertebrate Predator project believe that populations of all of these predators are not back to the levels which occupied the oiled area before March of 1989. River otters might be the only exception, though their populations are hard to assess. Recently scientists discovered that river otters move over large areas, between fresh and marine environments and between the oiled and unoiled areas.

Harlequin ducks, pigeon guillemots and sea otters each show continued signs of stress in the oiled areas. Only 75 percent of female harlequins survived the winter in the oiled areas of the sound, compared to 90 percent in the unoiled area.

According to Dr. Leslie Holland-Bartels, the NVP project coordinator, that is not enough to maintain the population in the oiled areas of the sound. Especially since researchers found there is little to no immigration into the sound from neighboring populations.

Pigeon guillemot chicks at Naked Island are not doing well and sea otter populations today are still lower than the 1989 body count from the oiled bays of Knight Island.

Are the slow recovery rates of these animal populations related to food supplies or to chronic pollution from the Exxon Valdez? In the summer of 1997, researchers assessed the supply of clams, mussels and nearshore fish available to these four predators. The data shows there is an abundance of food to support higher numbers of sea otters, river otters and harlequin ducks. This was not necessarily true, however, for pigeon guillemots.

Pigeon guillemots are very inflexible in their tastes, according to Holland-Bartels. Different populations learn to eat specific types of fish, such as herring. When those fish aren't available, their colonies suffer.

"At Jackpot Bay, pigeon guillemots rely on herring," said [illegible]and-Bartels. "When herring didn't move into the area (last year). we had a 50 percent nest abandonment and poor chick production. But those chicks that were produced did quite well."

If food isn't the problem, is the poor recovery of these animals related to contamination? Scientists conducted tests to determine whether river otters, sea otters and harlequin ducks have been exposed to either polycyclic aromatic hydrocarbons (PAHs) or to polychlorinated byphenyls (PCBs).

"Approximately 40 percent of animals in our oiled sites have contaminant expressions that are above that in control areas," said Holland-Bartels. "A certain portion of the population is in fact demonstrating some sort of low-level exposure to contaminants."

The proof of exposure to either PCBs or PAHs doesn't necessarily mean the animals are in poor health, according to Holland-Bartels.

"Our blood chemistry data does not support a lack of health in the populations," said Holland-Bartels. "So we don't see what we saw right after the spill, when we found high levels of biomarkers that suggested that the animals were fighting off a contaminant."

Researchers still don't know if the animals are becoming contaminated through touching oily sediments or eating contaminated food. This summer, they are trying to discover the route of contamination and the biological risk it poses to animals living along the shores of southcentral Alaska that still contain oil.

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

Kodiak Daily Mirror August 4, 1998

Army Corps explains local cleanup projects

The United States Army Corps of Engineers will host an open house Thursday related to its Defense Environmental Restoration Program.

The open house, which takes place from 2-6 p.m. at the Safeway Plaza, is aimed at informing the public about restoration projects.

Members of the Corps' project team will be on hand to provide information on cleanup efforts at Buskin Beach, Woody Island, Long Island, Cape Chiniak Tracking Station and Little Navy Annex.

Team members will review the projects, and address related community questions and comments.

Interim removal actions at the five Kodiak sites address hazards, such as underground storage tanks, visually contaminated soil, and unsafe structures. The action is intended to reduce the number of identified hazards, while full site closure plans are being finalized.

Part of the cleanup includes disposal of various items from the World War II military installation at Buskin Beach; Buskin Beach tar disposal between Buskin and Artillery hills north of the Buskin River, and removal of storage tanks on Woody Island.

The project also includes removal of items from Long Island, site of harbor defense installation Fort Tidball and removal of items from Cape Chiniak Tracking Station and Little Navy Annex.

KODIAK DAILY MIRROR
August 19, 1998

Native commission will study subsistence food

By ROSANNE PAGANO
Associated Press Writer

ANCHORAGE (AP) — Alaska Natives worried that pollution is spoiling traditional foods will soon speak out in rural hearings organized over the next two years by the Anchorage-based Alaska Native Science Commission.

The commission, which traces it roots to a 1993 conference on pollutants in the arctic, said Tuesday it would use a three-year, $700,000 grant from the Environmental Protection Agency to help determine if Native foods such as berries, whale and walrus are safe.

While subsistence food quality was a focus of research following the Exxon Valdez oil spill in 1989, the commission said its study is the first of its kind to examine Alaska Native foods statewide by combining villagers' observations and western science.

"The commission wants to hear what people have noticed," said Mary Killorin, a research associate director with the Institute for Social Economic Research at the University of Alaska Anchorage. The institute is participating in the grant.

Field hearings based on the traditional "talking circle" are scheduled to start Sept. 30 in Nome. The commission said it was seeking out hunters, fishermen and others from throughout the northwest region to attend the three-day session and offer eyewitness accounts.

A tentative schedule also calls for meetings over the next year at Sitka, Fort Yukon, Bethel and the Aleutian Islands.

Killorin said that, over the years, villagers have testified at various hearings about unexplained oddities such as hairless seals or off-tasting Labrador tea, a commonly used plant.

The commission said it hoped to compile those observations in one published source with an eye toward potentially calling for a testing laboratory to determine the purity of subsistence foods.

"We have heard about lesions on fish, changes in the wind, changes in the air quality," Killorin said. "I don't think western science knows what's causing this."

Northwest Alaska Natives for years have complained about increasing cancer rates and potential links to emissions from the Chernobyl nuclear reactor meltdown in 1986 in neighboring Russia or radiation generated from U.S. military projects in Alaska.

No direct link has ever been found but Killorin said she hoped the EPA project, funded through the agency's office of Radiation and Indoor Air, would be a repository for local observations on the dispute.

Alaska Native life has been documented by itinerant scientists since the earliest contact with whites; Killorin says the traditional knowledge project is a departure because its agenda is based on what Natives themselves say they want to know.

"They're not against more research, they just want it to mean something," she said.

David Norton, a staff scientist with the Barrow Arctic Science Consortium, said Tuesday he welcomed more scientific study that attempted to join western and Native approaches.

"It can be done with a lot of patience," Norton said in a telephone interview from Fairbanks. "What comes out of it is a lot of mutual respect."

Norton, who said he was pursuing a similar study funded by the National Oceanographic and Atmospheric Administration, said Alaska's traditional foods generally are pure despite airborne and land-based pollutants that may creep northward from industrialized regions.

However contaminants have been detected in parts of Russia and extreme northeast regions of Greenland, Norton said.

"We're very concerned that southern sources of pollution may be accumulating in the Arctic," he said. "We want to start studying now."

World Wildlife Fund wants global fishing fleet slashed

By GREG CHANG
Associated Press Writer

MONTEREY, Calif. (AP) — Overfishing the planet's oceans is far more serious than originally thought, and the world's fishing fleet must be reduced by two-thirds to deal with the problem, the World Wildlife Fund said Tuesday.

A Fund report suggests that fishing boats worldwide can catch 155 percent more fish than can be replaced through normal reproduction.

"The prospect of a crash is possible unless there is a drastic attempt to reduce the worldwide fleet," said Gareth Porter, the study's author. "Without really radical surgery, the situation gets worse and worse."

Every fishing region faces overcapacity, including the U.S., the European Economic Union and China, Porter said.

Overfishing has long been recognized as a problem, with species such as haddock and cod fished until they have almost disappeared.

But Porter's study says the situation is even worse than previously thought. The latest United Nations Food and Agriculture Organization study estimates overcapacity at only 30 percent.

Porter's report comes before an October U.N. meeting of fishing nations in Rome, where environmentalists hope to propose solutions to overfishing.

Scott Burns, director of marine conservation for the World Wildlife Fund, said, "We're seeing an increasing recognition that this is a problem that needs to be dealt with. As it is now, fishermen have to fish harder and spend more money catching less fish."

One solution may be to issue each fishing company tradable rights to a percentage of the catch, similar to a taxi medallion. The rights could be leased or sold.

"If no one has the right to harvest any portion of a stock, every fisherman must strive to capture as much of the catch as possible because it is assumed that any fish in the water will be taken by someone else," said Porter. He said the scheme has worked in New Zealand, Australia and Iceland.

One problem is deciding how to fairly and evenly divide the fishing rights. Porter also called for an end to government subsidies to the fishing industry, which he estimates at $11 billion to $21 billion annually worldwide.

Subsidies can range from boatbuilding grants to a minimum price for fish. They make fishing more attractive to newcomers and prop up ailing companies suffering from a lack of fish, Porter said.

Other solutions governments may consider are buying and scrapping existing fishing boats and training workers for new jobs. Now, as fish supplies shrink and demand rises, fishermen can maintain their incomes while catching fewer fish.

Overfishing can lead to permanent changes in the ecosystem, Porter said.

"The high-value fish disappear and they're replaced by lower-value fish," he said. "What they call 'trash' fish have become a much larger portion of the total catch."

The World Wildlife Fund introduced the study at the Monterey Bay Aquarium as it kicked off an ecology campaign marking the last 500 days of the 20th century. Other issues the group plans to discuss were improving conditions for rhinoceros, forestry issues and global warming.

ANCHORAGE DAILY NEWS
August 21, 1998

Builder sues sea center for $6 million

By NATALIE PHILLIPS
Daily News reporter

The general contractor of Seward's Alaska SeaLife Center has filed a $6 million lawsuit against the nonprofit organization that owns the center, claiming it wasn't reimbursed for extensive modifications required during construction.

The Washington state contractor, Strand Hunt Construction Inc., also contends that the nonprofit wrongfully charged it $2.7 million for not meeting a construction deadline, according to the lawsuit filed in federal court. Strand Hunt claims it met the deadline and said delays were caused by the center's owner, the Seward Association for the Advancement of Marine Science.

SeaLife Center officials did not return phone calls Thursday. Instead, the organization issued a one-page statement.

"It is not unusual for a project of this magnitude to have outstanding issues with the general contractor," the statement said. "Issues that may arise during such a large construction project often include disputes over costs."

An attorney representing Strand Hunt declined to discuss the case.

The $56 million center opened this spring as a science research facility and tourist attraction. Construction costs were covered by municipal bonds, private contributions and money that Exxon paid federal and state governments to settle claims following the oil company's 1989 spill in Prince William Sound.

The facility was developed to be self-sustaining with researchers bringing in funding through grants and visitors paying $12.50 apiece to see the animals being studied and scientists at work.

According to the suit, Strand Hunt signed two contracts with the nonprofit organization, known as SAAMS, in May 1996. One was to build the center and the second to build the exhibit space.

The suit, filed July 23, states that "during the course of the construction, Strand Hunt experienced numerous problems, including, but not limited to, significant changes to the plans and specifications provided by SAAMS, incomplete, inadequate and defective plans and specifications provided by SAAMS, ... poor owner management of the project, ... and interference by SAAMS and its agents in Strand Hunt's construction of the project."

Strand Hunt officials claim that they talked to SAAMS officials about the modifications and the two parties agreed to the costs. SAAMS representatives assured them that the nonprofit organization had the money to cover the increased costs, the contractor claims in the lawsuit. But when it was time to collect, the nonprofit did not have the money to pay Strand Hunt, the suit contends.

At some point, Strand Hunt and SAAMS officials entered into negotiations to resolve the dispute and Strand Hunt accepted a settlement offer. But later, SAAMS reneged on the agreement, according to the lawsuit.

Anchorage Daily News
August 24, 1998

Stylist patents oil-spill sucking pillows of hair

By SHEILA TOOMEY
Daily News reporter

Inspired by an image from the Exxon Valdez oil spill, an Alabama hairdresser wants to turn discarded human hair into oil-sucking pillows for use in spill cleanup.

The hair will come from the floors of beauty salons all across America, said Phil McCrory of Madison, Ala. Now it just gets thrown in the garbage where it ends up clogging landfills at a rate of 200,000 pounds a day.

It's unclear if McCrory is Don Quixote off on a mad mission, or a man with an idea that will revolutionize oil spill technology.

Sandee McDowell, owner of Chez Ritz, a salon in downtown Anchorage, is betting on the revolution. An intense recycler, she is already boxing up her customers' discarded hair and mailing it south.

The idea came to McCrory, 52, while he was drinking coffee at home on his day off, watching CNN during the disastrous 1989 spill. At each commercial break, the now-famous photo of an oiled otter flashed on the screen.

Although he's never been to Alaska, the spill upset McCrory. "I play golf," he said. "I'm an outdoors person."

McCrory doesn't know how long he stared at the oiled otter before he thought, "human hair should do the same thing." That is, cause oil to stick to it —

" Please see Back Page, HAIR

JOHN TRAGIS / Anchorage Daily News

Stylist Lisa Alleva of Chez Ritz cuts Gloria Hanrahan's hair Thursday at the downtown salon. Chez Ritz sends its clippings to an Alabama entrepreneur.

HAIR: Pillows soak up what tankers spill

Continued from Page A-1

a process called adsorption.

McCrory ran his own hair salon at the time and was used to acting on bright ideas. He had already designed and marketed a dispenser for permanent wave curl papers. He also invented a backyard golf game and helped his brother patent an artificial Christmas tree that hangs from the ceiling so cats can't knock it over. It's made from a graduated series of hula hoops.

"I think patents come to people like songs come to songwriters," McCrory said. "I have ideas that are just wild. ... They seem like they just fall out of nowhere."

So McCrory tested his hair theory in a backyard wading pool, using a pair of pantyhose stuffed with three weeks' worth of clippings collected from the floor of his salon.

He poured a gallon of used oil from a local lube shop into the water and in two minutes, all but a few drops were stuck to the hair "pillow" and could be lifed out of the pool.

"You have to understand," he said. "I laughed. Who in the world would ever believe what I'm doing?"

On television Exxon was spending millions and recovering only a fraction of what it spilled, he said. McCrory was getting better results in his back yard with a giant hair ball.

Nine years, one patent, two tests by NASA, and $10,000 later, McCrory has sold his beauty shop, stockpiled a ton of bagged hair — that's 2,000 pounds — and is dickering with a Japanese company about a manufacturing deal.

It wasn't easy. It took four years of research before he even applied for a patent. Feathers and several kinds of animal hair had already been patented for oil cleanup, but no one had tied up human hair.

Over the years McCrory designed a net to replace the pantyhose and worked out a system with a parcel service to pick up boxed hair during routine deliveries to beauty salons all over the country. The salons won't get paid for the hair, but will receive addressed and stamped cartons so sending it is no trouble.

The pillows made from the waste human hair can be wrung out, washed and reused, or burned as industrial fuel, McCrory said. The recovered oil is usable.

Still, he had trouble getting business types to take him seriously. How could some guy in Alabama who has never seen an oil spill invent something better than the professionals? They weren't going to listen to a hairdresser, he said.

So McCrory appealed to a division of the NASA center in Huntsville that helps businesses transfer NASA technology to civilian uses. They also help people working on technology that NASA can use. "All we had to do were two very, very simple tests," said Ed Medal, a NASA spokesman. "It's up to him now. ... It's a very unique idea and there is some potential for us."

NASA determined that human hair, on average, adsorbs five times its weight in oil. They put out a press release, and the media began to call, including the Discovery Channel. That's how the people at Chez Ritz learned about him.

"The hair can be permed or colored, as long as it's clean," said Chez Ritz owner McDowell, a serious environmentalist in a business that normally uses lots of chemicals.

"We kind of do quite a bit of polluting to keep ourselves lovely," she said.

She called McCrory and the two bonded immediately. "He goes, 'Alaska, my God. I love it,' " McDowell recalled.

At this stage, McCrory doesn't really need more hair. He's collecting from salons in the Huntsville area, which is enough for experiments and demonstrations. But he couldn't turn down hair from the land of his inspiration. "It would be an honor to receive hair from Alaska to work on my project here in North Alabama," he said.

McDowell's customers, those who notice the special gray plastic wastebaskets for hair only, seem unfazed by thought of their snippings being shipped to Alabama.

"I just wish I had more to contribute," said Alicia Cook, whose daughters Cara and Audra used to take their hair cuttings home in a plastic bag and toss them outside for the birds to use in nest construction.

"We figured I could do a whole oil spill on my own," said Gloria Hanrahan. "I have a lot of hair."

So far no one has signed on to produce the hair pillows, but McCrory knows someone will. And the next best thing has happened. A producer of conventional oil spill equipment offered to buy his patent.

"They didn't plan on marketing it," he said. "They want to buy the patent and shelve it. That's not what it's about. It's not about money. I love fish."

He means to eat, not to catch. Nevertheless, the offer is a sign that he's on to something, he said.

Meanwhile, the raw material is out there, going to waste, getting snipped and swept and thrown away, costing money to discard when it could be used to help save places like Prince William Sound.

"Could you imagine New York City," McCrory said, excitement in his Southern voice. "Eight million people? How much hair they produce? I'd love to talk to Mayor Guiliani."

SEWARD PHOENIX LOG
August 20, 1998
pag 1 & 19

Contractor says SAAMS owes money

By Colleen Kelly
LOG Staff

Claiming that the developer of the Alaska SeaLife Center has refused to sufficiently compensate them for construction costs, the general contractor of the $56 million facility has filed a complaint in U.S. District Court seeking relief in excess of $6 million.

Lawyers for Strand Hunt, the contractor that completed the cold-water marine mammal research facility this spring, filed the civil complaint July 22 in Anchorage against the Seward Association for the Advancement of Marine Science.

Darryl Schaefermeyer, general manager since Aug. 1 at the SeaLife Center and SAAMS project administrator throughout the two-year construction phase, was reluctant to discuss the matter in detail, saying he had no intention of conducting "negotiations through the press."

He said SAAMS and Strand Hunt of Kirkland, Wash., are currently in discussions and trying to clear up contract problems. "We've not met with legal counsel present," he said.

According to a statement issued Tuesday by the SAAMS board of directors, Strand Hunt's lawyers filed the complaint last month in federal court during an ongoing series of meetings and conferences involving the two sides.

"No party has been served and no litigation has been activated," the SAAMS statement said.

"It is not unusual for a project of this magnitude to have outstanding issues with the general contractor. Issues that may arise during such a large construction project often include disputes over costs," the statement continued.

According to a federal court clerk in Anchorage, SAAMS received notice last month that Strand Hunt had filed a complaint. To activate the lawsuit, Strand Hunt will have to serve SAAMS with a summons.

Attorney David Trachtenberg with Groff and Murphy, the Seattle law firm representing Strand Hunt, wouldn't say if or when Strand Hunt would serve the summons.

Trachtenberg said although he "wouldn't call this lawsuit a non-event," he emphasized that neither side wants to derail the negotiations. "We're all — SAAMS and us — trying to resolve these issues," the attorney said.

He agreed with SAAMS' statement that litigation isn't that uncommon when dealing with construction projects similar to the SeaLife Center.

"It's a unique and complex project," he said, "where you're blending a lot of different issues" — including marine exhibits and a sophisticated water piping system that brings ocean water into the plant.

Strand Hunt filed the complaint because "there are some contract requirements that we needed to comply with," Trachtenberg said.

From the project's inception, SAAMS and Strand Hunt have worked together, the attorney said, "to solve issues as they came up on the job."

The construction contract provided for what is called a "partnering process," which was done

Attorney David Trachtenberg with Groff and Murphy, the Seattle law firm representing Strand Hunt, wouldn't say if or when Strand Hunt would serve the summons.

under the direction of Charles Cowan — "one of the leading partner facilitators in the country," according to Trachtenberg.

With construction complete and the facility open and operating since May, Strand Hunt is claiming that SAAMS still owes it money.

Strand Hunt was successful bidder for the $27.5 million construction contract. During the two-year construction phase, the project cost increased to $29.2 million. Trachtenberg said although SAAMS has paid Strand Hunt "about $29.2 million or so to date" for its work, there is an outstanding amount owed the Washington construction firm.

Neither he nor SAAMS are willing to disclose what the disputed outstanding dollar amount is. Describing SAAMS as a private nonprofit corporation, Schaefermeyer wouldn't go into detail about the dispute and said, "That's part of our business."

The SeaLife Center general manager said, "for purposes of the contract, SAAMS is the owner (of the SeaLife Center)."

But the City of Seward is the owner of the building, according to Rick Gifford, city finance director. The city and SAAMS have an agreement whereby SAAMS agreed to construct, complete and operate the SeaLife Center, Gifford said.

If SAAMS gets sued, the city doesn't anticipate getting involved in the fray. "SAAMS and their insurance company will have to deal with it," Gifford predicted.

Gifford, who was acting city manager until the city hired Scott Janke in May, served on SAAMS' executive board in the final phases of the construction project.

"As we got closer to the completion of the project, that's when differences started coming up," he said. Although Gifford said he was aware of negotiations between the contractor and SAAMS, he didn't know the details.

Both Gifford and Assistant City Manager Tylan Schrock said they had heard rumors about Strand Hunt's plans to seek damages from SAAMS. But neither of the city officials had received word from SAAMS in recent weeks about the latest developments.

In the complaint filed in federal court, Strand Hunt contends SAAMS breached the contract when it refused to compensate Strand Hunt for changes made during construction. Strand Hunt also said by delaying certification of project completion, SAAMS wrongfully assessed the construction firm in excess of $2.7 million for liquidated damages.

In addition to claiming breach of contract, Strand Hunt is alleging they were defrauded when SAAMS led them to believe they had enough money to pay for a number of change orders during the construction project.

The contractor further contends in its complaint that SAAMS was negligent because it failed to inform the contractor it "did not have sufficient financial resources to compensate Strand Hunt."

In the complaint, Strand Hunt seeks a court trial to determine damages in excess of $6 million for breach of contract, as well as further damages for fraud and intentional misrepresentation to be determined at a trial. Strand Hunt is also asking that SAAMS pay all funds outstanding on the contract balance.

August 19, 1998
KODIAK DAILY MIRROR

Environmental group urges trustee council to buy habitat

By MIKE ROSTAD
Mirror Writer

The World Wildlife Fund, the world's largest environmental organization, is urging the Exxon Valdez Oil Spill Trustee Council to allocate most of the remaining $140 million in the restoration reserve for habitat protection.

The $140 million is what remains of the $1 billion Exxon Valdez oil spill settlement reached in 1991 among the Bush and Hickel administrations and Exxon.

Some of the money has been used to purchase land for habitat protection.

The six member EVOS Trustee council will make allocative decisions for the reserve balance in October.

Research advocates are also vying for that money.

While it's likely the Council will divide the money between the two groups, "the emphasis provided by the Trustee Council could dramatically boost either spending category at the expense of the other," said Dominick DellaSala, WWF senior program director for forest conservation.

WWF is pushing for 90 percent of the reserve for habitat protection and 10 percent for research.

DellaSala compared research to monitoring the pulse of a patient, while habitat protection is akin to providing treatment, he said.

"Should we treat the patient or continue to monitor vital signs?" DellaSala said.

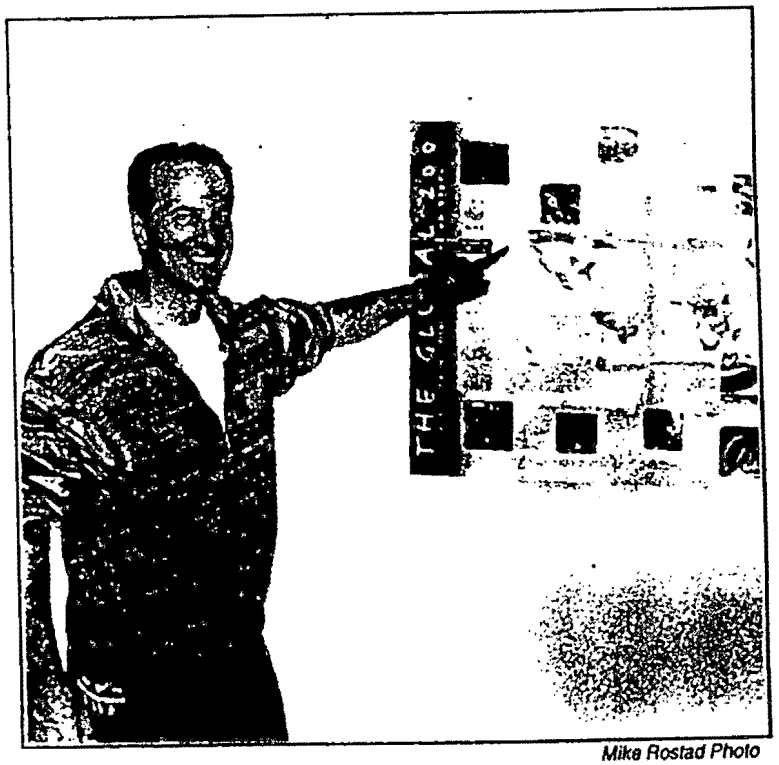
"We think treatment is the best remedy with some monitoring."

"The Trustee Council has already created an outstanding legacy of habitat protection throughout the oil spill region," DellaSala continued, "but the habitats still in need of protection represent world class fish and wildlife resources.

"Even with the impressive accomplishments of the Trustee Council to date in Prince William Sound, north Afognak Island, the Kenai Peninsula, Kachemak Bay and Shuyak Island, remaining parcels such as Afognak Lake, Paramanof Peninsula and Malina Bay deserve careful consideration," DellaSala said.

"We support conservation easements on any of these lands if mutually beneficial agreements can be worked out with the land owners," which include Native corporations.

In a conservation easement, DellaSala explained, owners retain title to their land and enjoy subsistence and other rights, but development is restricted, consequently



Mike Rostad Photo

Dominick DellaSala, senior program director for forest conservation for the World Wildlife Fund, points to a global map that identifies critical habitat areas, including Kodlak Island.

World Wildlife Fund

Continued from Page 1

protecting the resource.

"Large blocks of land with salmon spawning systems and spacious habitat corridors for animals like brown bears and elk should be vital targets for the restoration reserve," DellaSala said.

To date, the Trustees have approved purchase and/or protection of 80 percent of Native inholdings in the Kodiak National Wildlife Refuge, which amounts to 211,000 acres, and more than 110,000 acres of coastal rain forest on Afognak and Shuyak Islands, DellaSala said.

These acquisitions have cost the Council more than $235 million.

While commending the Council and Native corporations for great accomplishments, DellaSala said more needs to be done for habitat protection.

The Karluk and Sturgeon Rivers, as well as the Karluk River inside the Karluk Reservation are not protected.

He pointed out that federal land appraisal methods, used to determine property value of refuge lands, do not consider the value of salmon runs in the Karluk and other systems.

The Karluk River accounts for perhaps as much as a third of the total commercial salmon value on Kodiak Island, DellaSala said.

Other areas the WWF wants to protect include the mouth of the Ayakulik which is "threatened by incompatible human development," DellaSala said.

"The most heavily used area for commercial subsistence and recreational fishing on Afognak Island is not protected in part because Afognak Lake was never part of the original group of lands available for habitat protection.

"There are almost 4,000 acres in Kodiak Refuge, small parcels that are unprotected and a dozen key small parcels on state land on the south shore of the Shearwater Peninsula that should be picked up but are not on the 'radar screen' yet.

"Long Island, Termination Point and Chiniak should all be looked at along with any critical bird rookeries such as the Triplet Island near Ouzinkie."

DellaSala said the 1998 Alaska salmon returns offer dramatic evidence of the importance of safeguarding salmon habitat.

"Kodiak is going to break its even-year pink salmon record this year and over three million sockeye will have been caught this season," he said.

"These results are going to save Kodiak's commercial salmon fishery while catastrophe has struck Bristol Bay, the Yukon-Kuskokwim and Cook Inlet returns. Prince William Sound's season has been promising, underscoring the argument that habitat protection is the best economic investment facing the EVOS trustees," DellaSala said.

Concerning proposed salmon research in Prince William Sound, DellaSala responded, "Should you use limited funds to study the 60,000 sockeye escapement in the Sound or protect the Karluk escapement of 800,000 sockeye? When you add Afognak Lake's 100,000 sockeye escapement and the powerful Ayakulik system, more than 75 percent of the sockeye available to the Trustee Council for habitat protection in the whole oil spill region are still not protected and sockeye salmon are the largest single economic contributor to a region that depends on fishing. As important and beneficial as marine research can be, it can't hold a candle to the potential upside of protecting the remaining Kodiak archipelago sockeye salmon spawning and rearing habitats."

DellaSala said he suspects that pressure on the EVOS trustees to fund marine research is largely coming from an "understandable desire by spill region residents for economic development. Some argue that research will help restore the economy and the lives of fishermen that have not been made whole since the spill."

These people want to tap the wrong pot of money, DellaSala said.

They should be going after the $5 billion that is to be paid by Exxon in the class action suit, he said.

The verdict is currently under appeal by Exxon.

"If Exxon paid up today, you would likely see some of the support for research dry up and the EVOS funds would more likely go to the outstanding habitat protection opportunities still available on Kodiak and Afognak Islands," DellaSala said.

"It's our hope that the Council will not allow a raid on the restoration reserve by research advocates who are pitching badly needed economic stimulus for the region."

"The best use of the reserve fund is to put it into protecting areas that are producing resources, such as salmon," DellaSala said.

During a public comment period on how the reserve fund should be spent, there was overwhelming support for habitat protection, he said.

The WWF wants to get as much land that was affected by the oil spill into habitat protection as possible.

"This would have an economic value," such as eco-tourism, he said.

The WWF is considering working with Native land owners to put an ecotourism program together.

"This would enhance economic benefits that are sound," DellaSala said.

Wildlife viewing, DellaSala said, is an "exploding industry. But how do we respond (to that interest) in a way that doesn't jeopardize the resource?"

The WWF, which is based in Washington, D.C., recently completed a global mapping program identifying and prioritizing 233 unique and biologically critical ecosystems.

Because of the old growth rain forests on Afognak Island and Kodiak Island's relation to the Bering Sea land bridge, the Kodiak archipelago occupied two of those spots.

While visiting Kodiak, DellaSala joined WWF members in a tour of Old Harbor and Afognak Island.

Three months and counting

Anchorage Daily News
August 17, 1998

Photos by STEPHEN NOWERS / Anchorage Daily News

Allison Wright, a summer intern from Long Island University in New York, conducts a science lecture recently at the Alaska SeaLife Center. Below, river otters dine on salmon in their enclosure.

SeaLife Center closes in on budget goals

By JON LITTLE
Daily News Peninsula Bureau

SEWARD — The Alaska SeaLife Center, an experimental blend of science and entertainment, has survived its first critical three months in reasonable shape, its directors say.

But like any toddler, there have been some bumps along the way and the marine research facility has plenty of growing yet to do, said its general manager, Darryl Schaefermeyer.

"We probably won't know until late this fall how we're doing in 1998," Schaefermeyer said. "But I think the trend shows we should be pretty close (to budget goals)."

Despite fears from some local residents, parking problems and traffic congestion never materialized, even as roughly 10,000 people a week have stopped by the new attraction on the edge of Resurrection Bay. It opened in a mad dash on May 1, with construction still being completed. Most of the work is now done.

By the end of August, about 150,000 people will have visited the marine research center, Schaefermeyer said, putting it at 94 percent of its late-summer attendance target

Those visitors are key to

Please see Page B-3, CENTER

CENTER: Seward facility closes in on goals

Continued from Page B-1

the continuing survival of the center, which cost $56 million to build. While construction costs were borne through a portion of the settlement paid by Exxon for the 1989 oil spill, municipal bonds and private contributions, the facility was developed to be self-sustaining.

At its core, the SeaLife Center is a laboratory where researchers study animals that inhabit the cold seas surrounding Alaska. People who pay the $12.50 admission get to see some of the animals being studied and scientists at work.

But unlike marine theme parks, visitors don't see trained killer whales. They're more likely to watch researchers darting river otters with anesthetic to draw blood samples.

Three large tanks house sea lions, harbor seals and seabirds. There are also videos, photographic displays and large aquariums housing ocean dwelling creatures such as pollock, salmon, starfish and crab. Children can draw and mold clay in an art lab.

So far, visitors appear to enjoy watching and interacting with the researchers, said Michael Castellini, research director. Researchers, he said, are having fun being on display and answering questions — attention that's rare in a standard university or agency setting.

"There's no other place that does it like this," Castellini said.

So many visitors crowd a large picture window every time workers routinely drain the main outdoor pool for cleaning that one scientist will head upstairs to explain what's going on.

Something that separates this facility from others is that researchers routinely stop what they're doing — taking a harbor seal out of a tank, say, and placing it in a cage to weigh — to explain to onlookers what they're up to.

"Questions range from, 'How come they're all disappearing?' to "How do you weigh them?' " he said.

Castellini can't answer the first question. It's one reason the SeaLife Center exists. Populations of harbor seals and sea lions in the Gulf of Alaska have dropped dramatically since the 1970s, and studies conducted at the center are examining the role of diet in the declines. Populations of herring and crab have dropped in the region, and one theory is that seals and sea lions are eating more of other foods instead, including pollock, and they provide less nutrition. Scientists here are testing the theory.

To help the center shift its fund raising into higher gear, it recently hired former Kenai River Sportfishing Inc. executive director Ben Ellis to become the SeaLife Center development director.

The second question is a lot easier, he said. Animals are weighed after being loaded into a wheeled cage and placed on a scale.

Another break with tradition for some scientists has been naming, not numbering, captive birds and sea otters. A name is easier for children to grasp, said George Divoky; an Oregon State University seabird biologist who has spent the summer raising pigeon guillemot chicks that may one day colonize an old sea wall next to the SeaLife Center. Among the chicks' names: Mili and Nano.

With ticket revenue paying roughly two-thirds of research costs, biologists such as Divoky have been flocking to the center, Castellini said. More than a half-dozen studies are taking place now.

Castellini predicted the center, which has room for 13 separate studies at once, will be at full capacity early in 1999.

"I think they're getting a pretty good deal," said Schaefermeyer, who added that the center may take a second look at its price breaks for researchers. "It'll still be heavily subsidized, but not as subsidized as this first year," he said.

That won't be the only adjustment as the SeaLife Center moves further away from concept to reality.

While ticket and gift shop sales are a huge part of the center's income, sponsors are supposed to help out, too, Schaefermeyer said. The center has what Schaefermeyer described as an "ambitious" program to raise $1.5 million from corporations and foundations in the last four months of the year. That fund raising is just now seriously getting under way.

To help the center shift its fund raising into higher gear, it recently hired former Kenai River Sportfishing Inc. executive director Ben Ellis to become the SeaLife Center development director.

Officials with the facility hope that corporate and private sponsors will help the facility pay for everything from an Internet data base to endowments for science chairs.

Large construction projects, such as a sea otter habitat and an auditorium, also have been part of the center's plans from the beginning, if it can line up the money.

Before the SeaLife Center opened its bright yellow doors, it projected a $7.9 million income and $6.2 million in expenses for the year.

With visitor numbers — the biggest piece of the income puzzle — looking good, the biggest question now is whether the center will meet its $1.5 million sponsorship goal, Schaefermeyer said.

Oil company battles to lift Alaska ban on Exxon Valdez

By BILL RICHARDS
The Wall Street Journal

CORDOVA, Alaska (Wall Street Journal) — Nearly a decade has passed since the Exxon Valdez ran onto Bligh Reef near here, gashing its hull and spewing 11.2 million gallons of oil into Prince William Sound.

But Alaska is still extracting revenge.

Exxon Corp. is struggling to get courts to overturn an unusual federal restriction that bars the Exxon Valdez from ever sailing into Prince William Sound again. The oil company blames the ban, part of the 1990 Oil Pollution Act, on a vendetta by Alaskans who have demonized the 984-foot tanker.

The measure, which applies only to the Exxon Valdez, is unique in maritime law. "This is the only case where Congress has stripped a single vessel of its rights," says Craig Allen, director of law and marine affairs at the University of Washington Law School in Seattle. Mr. Allen, who, helped negotiate the 1991 settlement between Exxon and Alaska, in which the oil company agreed to pay the state $1 billion for the spill, calls the statutory ban "bizarre."

Exxon officials agree. They maintain that the Valdez, which Exxon has renamed the SeaRiver Mediterranean, is being unfairly singled out among dozens of tankers that ply Prince William Sound, the gateway to the Alaskan pipeline. The ban, says Exxon, is arbitrary, unconstitutional, and is costing it a lot of money.

"It's like saying that if your car hits a tree no one can drive that car back to the site of the accident," complains Exxon attorney Albert Galik.

Exxon officials say Alaska's Sen. Ted Stevens inserted the restriction into the Oil Pollution Act — known as OPA 90 — during a conference session on the bill. "This particular provision wasn't in the House or Senate bill when they went into conference," says Mr. Galik. "When it came out, it was there. We find that somewhat disheartening, unjust and unfair."

A spokeswoman for Sen. Stevens says the OPA 90 amendment proposed by the Alaska Republican didn't single out the Exxon Valdez by name. But the language of the provision bars "vessels that have spilled more than 1,000,000 gallons of oil into the marine environment after March 22, 1989" from entering Prince William Sound.

The Exxon Valdez spilled its oil March 24, 1989. It is the only vessel afloat meeting the amendment's profile.

The introduction of the amendment was "an emotional thing," concedes Sen. Stevens's staffer. "It was kind of like, 'And don't you ever come back here again.'"

Walter Hickel, Alaska's governor when the amendment was added, says he asked Sen. Stevens to introduce it to placate Alaskans angry over the spill. "The environmental groups put that in there," Mr. Hickel says. "When you look back now, it does seem kind of strange, but it's the law."

It also has plenty of local support. "I have to tell you, I don't have a whole lot of sympathy for Exxon," says Cheri Shaw, who heads Cordova District Fishermen United, a group representing about 250 fishermen in this coastal community. Ms. Shaw, who keeps a bottle of oil from the Exxon Valdez spill on her file cabinet and an Exxon Valdez life ring on her wall, says many of the area's fishermen have never recovered from the impact of the spill.

In addition to fouling hundreds of miles of shore, the spill temporarily wiped out Prince William Sound's herring fishery, killed thousands of birds and sea mammals, and put a number of fisherman into bankruptcy.

"Let's say you have a child and your child was molested," Ms. Shaw says. "After the molester has done time, do you want him back in the neighborhood?"

Last month, Alaskans cheered when U.S. District Judge H. Russel Holland, who sits in Anchorage, rejected Exxon's most recent bid to challenge the OPA 90 ban. The judge didn't rule on the ban itself, but said Exxon and its SeaRiver shipping unit signed away their rights to raise additional spill-related issues in court when the company negotiated its 1991 settlement with the state.

Exxon attorney Mr. Galik admits his company did agree to waive spill-related claims after the settlement was signed. "But we didn't agree to waive every issue under the Constitution," he says.

Mr. Allen, the University of Washington marine-law specialist, notes that one of the odd quirks of admiralty law is that it often personifies ships that get in trouble. For example, a sheriff can "arrest a vessel" to satisfy a judgment, he says.

Still, when the vessel's debt is paid, Mr. Allen adds, it is usually released.

Exxon officials say they have already paid plenty. In addition to the $1 billion settlement, the company has paid another $2.5 billion in cleanup costs and in compensation to fishermen. The OPA 90 ban, an Exxon spokesman says, amounts to a "double punishment."

Exxon itself isn't the target of the ban. The company currently has seven other tankers hauling oil from the port of Valdez — including tankers that company officials say are similar in design to the Exxon Valdez. But the offending tanker has been relegated to carrying oil around the Mediterranean Sea, where Exxon says profit margins are considerably lower than on the Alaska run.

The company won't say how much the OPA 90 ban is costing it, either in revenue losses or legal fees. But Mr. Allen says U.S.-built vessels like the Exxon Valdez have a considerable edge over foreign-built ships when they compete for business in U.S. ports. Under federal law, only ships built in this country can transport cargo between U.S. ports. Having the Exxon Valdez denied access to the Alaskan pipeline, Mr. Allen says, "certainly diminishes the value of that property."

That may explain why Exxon attorneys have been trooping to federal courthouses around the country for the last three years trying to get the OPA 90 ban thrown out. U.S. Justice Department attorneys have trooped right after them opposing the oil company's efforts.

Exxon, based in Dallas, filed its first challenge in Houston, presumably a friendly jurisdiction for an oil company. However, a federal judge there rejected the case, noting that, however sympathetic Texas might be to Exxon's concerns, it was the wrong venue. Exxon then tried Washington, D.C., but a federal judge there told the company to take its case to Judge Holland's court in Alaska, because that was where the spill occurred.

In his ruling turning away Exxon's claims, Judge Holland said the company's settlement with Alaska was intended to bring about "absolute, complete, and all-inclusive peace between the parties."

Exxon says it is still deciding whether to appeal the decision. But Mr. Allen says Exxon could face an uphill fight. "There is no constitutional requirement that Congress has to be fair," he says.

Kodiak Daily Mirror
July 29, 1998

Oil project comment period extended

FAIRBANKS (AP) — The U.S. Army Corps of Engineers has granted additional time for public comment on the proposed Northstar oil project.

Communities on the North Slope asked that the comment period be extended to Aug. 31, due to the magnitude of the project and the volume of documents associated with it, corps spokeswoman Pat Richardson said.

This is the second extension of the corps deadline. The original deadline of July 30 was pushed back to Aug. 10 after the death of a village elder in Nuiqsut forced postponement of a public hearing there.

BP Exploration (Alaska) Inc. spokesman Paul Laird said the company does not object to an extended public comment period, so long as it doesn't hold up final approval.

"As long as the entire process does not get pushed back 30 days then we're fine with extended," he said.

BP thinks the Northstar project could produce 145 billion barrels of oil over 15 years. The company wants to start work as soon after the new year as possible, Laird said.

Sara Callaghan of the Northern Alaska Environmental Center said there is no question that more time was needed for the public to comment on the corps' 15-pound draft environmental impact statement.

"The draft EIS the Corps has prepared is 7 volumes long, not including the appendices," she said. "This extra 30 days is going to help a lot."

Callaghan said the environmental center has concerns about the project, including the quality of the proposed leak detection system in the subsea

■ **MINISTERING:** Woman finds promise in prisoners / B-2 ■ **LETTERS:** Readers write / B-7, 8

METRO

MONDAY, August 24, 1998 ☆ ANCHORAGE DAILY NEWS SECTION B

New treatment for old oil

Spill settlement money funds plants in Prince William Sound

By NATALIE PHILLIPS
Daily News reporter

The five small communities in Prince William Sound produce about 45,000 gallons of used and tainted oil a year, and until this summer they mostly had no good way of disposing of it.

But now Tatitlek, Chenega Bay, Whittier, Valdez and Cordova each has a new oil burning treatment plant, courtesy of a $1.4 million grant from the Exxon Valdez Oil Spill Trustee Council.

A handful of Kodiak Island and Kachemak Bay communities are next in line.

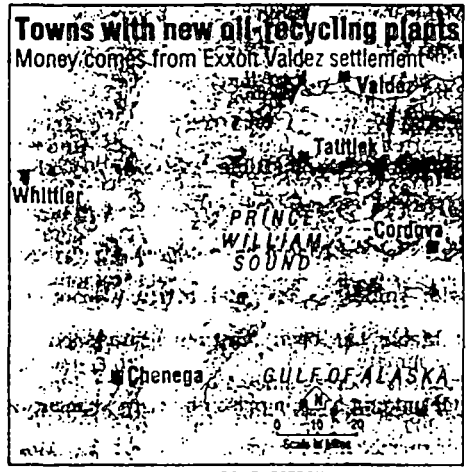
Trustee Council members voted last week to give Ouzinkie, Port Lyons, Old Harbor, Larson Bay, Karluk, Chiniak and Akhiok on Kodiak Island $1.9 million to install similar plants. And they approved a $54,000 study that will allow Seldovia, Port Graham and Nanwalek to study setting up the same kind of facilities in their communities.

"The villages don't really have a good answer as to what to do with used oils, some vehicle and some heating oils that get contaminated," said Ron Riemer, an environmental engineer for the Kodiak Island Borough. "Generally, all they had in the past was drums to store it in. It just accumulated."

Money for the projects is coming from the $900 million that Exxon paid to settle the state and federal governments' lawsuits against the oil giant after Exxon spilled 11 million gallons of oil in the Sound in 1989. The oil burner will help the trustees with their mandate to spend the money on restoring resources in the spill area, said Molly McCammon, trustee council executive director.

"You have a marine environment that is continuing to see the effects of the oil spill," she said.

Please see Page B-3, OIL



RON ENGSTROM Anchorage Daily News

OIL: Spill settlement money funds new treatment plants

Continued from Page B-1

"How much is hard to say. We can say that full recovery has not occurred. While that process is under way, we want to make sure there is no additional injury."

When the Trustee Council decided to fund the oil burner projects, council members were concerned they were paying for something that should be provided by local or state government, McCammon said. But after a close look, council members determined that because oil burners are not required by law, it was unlikely that local government would have the money to fund the projects.

Kara Merrell of the Prince William Sound Economic Development Corp. said that a lot of marine pollution can be traced back to land-based sources such as harbors and oily bilge water. So her agency wrote the grant proposal to address waste disposal issues in the Sound.

The Sound Waste Management Plan got $308,000 in 1996 to devise a system to deal with used oil, oily bilge water and household hazardous waste, like paint thinner and pesticides. Once the study was complete, construction was funded at $1.1 million.

Using the grant money, each Sound community got a new building and equipment to handle the used oil and oily bilge water. Matt Stephal, the engineer who designed the projects for the Sound communities, said it's not clear what happened in these small communities with tainted bilge water before the new buildings were brought in.

Gary Kompkoff, Tatitlek Village Council president, said his village used to try to burn as much used oil as possible. "We didn't have the standard waste oil burner that does it at a high temperature," he said. "We did it the old way, and that created a lot of black smoke and was a nuisance."

The oil that is treated and usable will be used to heat the new oil processing buildings. Cordova, which was already treating oil in a patched-together facility, expects to be able to process enough heat oil at the facility to heat other city-owned buildings, Stephal said.

The communities have taken over the financial responsibility for running the facilities, Stephal said.

The new facilities will also provide each community with a place to collect and store old household hazardous waste.

"Once a year, there will be a Sound-wide collection program," he said. Before, people were storing the old materials at home while waiting for the once-a-year roundup.

Kodiak Daily Mirror
August 17, 1998

Research center gets early ribbon cutting

A ribbon cutting ceremony Friday afternoon brought out roughly 200 people in celebration of the new Kodiak Fisheries Research Center on Near Island.

Several dignitaries from off island, many of whom have labored for years to bring the facility along, attended the event. Also in attendance were the facility's numerous local supporters.

When the research center opens its doors in October, it will be the first time scientists from the National Marine Fisheries Service, Alaska Dept. of Fish and Game and the University of Alaska will have a place to conduct research under one roof.

The 45,937 square-foot research center, complete with circulating seawater labs, is adjacent to the University of Alaska Fisheries Industrial Technology Center on Near Island across the bridge from the City of Kodiak.

But the facility, built by the Kodiak Island Borough, is more than a research center for scientists. Located in the central Gulf of Alaska amidst some of the most productive fishing grounds in the world, the research center will welcome commercial fishermen to share their knowledge of the North Pacific ecosystem and its fisheries.

"Part of the idea of having this here is to bring the 3,000 commercial fishermen into the research," said Kodiak Island Borough Mayor Jerome Selby. "Working in the marine environment, they often observe changes in the way fish behave or in the habitat and can share the information with scientists."

Visitors will be able to learn about Alaska's marine ecosystems — and the efforts being made to understand them — at the interpretive center. At completion, the facility will house a circulating seawater touch tank for intertidal animals, a large saltwater fish tank and exhibits depicting salmon migration routes, crab, birds, whales and other marine mammal species. and their habitats.

Mark Buckley photo

Congressman Don Young, assisted by Borough Mayor Jerome Selby, snips the ribbon at the Near Island Research Facility. The building is scheduled to open for business in October. Others enjoying the moment, are, from left, Vera Alexander, dean of the University of Alaska Fairbanks's School of Fisheries and Ocean Sciences, Dan Ogg, University Of Alaska Regent, Pete Probasco, the Dept. of Fish & Game's Westward Regional Supervisor, Bill Pierce, superintendent of Katmai National Park, and Steve Pennoyer, the National Marine Fisheries Service's Alaska Region administrator.

Homer News
Opinion Editorial
August 13, 1998

Hail to state, society

A bright development in Homer is the agreement between the state and Kachemak Bay Conservation Society for managing the new Overlook Park.

The park, located along the beach below the Baycrest Hill scenic pullout, was bought by five Homer residents in 1985 to save it from development and later sold to the Exxon Valdez Oil Spill Trustee Council. The council, in turn, gave the land to the state, which accepted the parkland on the condition it didn't have to spend any money on it. That opened the door for the society to "adopt" the park.

The area has freshwater lakes and intertidal zones and is frequented by beaver, muskrat, moose and birds.

The state of Alaska faces significant budgetary restrictions. That those restrictions have not eliminated progress in preserving important lands, such as the Overlook Park area, is a credit to the efforts of the state and Kachemak Bay Conservation Society.

The Valdez Star
August 12, 1998

Council Gives Nod To Native Museum

CITY HALL--A plan to expand the Valdez Museum to house a repository of Alaska Native artifacts won the blessing of the Valdez City Council Thursday night.

Meeting in a special session, the council voted 7 to 0 to endorse a plan that would set aside $2.8 in Exxon Corporation fine money for the project, including $1 million for a new building on land donated by the city.

The balance of the funds, $1.8 million, is earmarked in $250,000 increments to Native communities for small repositories, and the balance for a travelling exhibit.

All of the funding would come from the Exxon Valdez Oil Spill Trustee Council which is spending nearly $1 billion in fine money from the Exxon Corp. for preservation/restoration projects in the wake of the 1989 oil spill.

The Native artifacts proposal was originated by the Valdez Native Tribe with the support of the Valdez Museum & Historical Archive, and the City of Valdez.

But the project is not "in the bag" for Valdez.

Benna Hughey, president of the Valdez Native Tribe told the city council that her organization and the Chugach Native Corporation are the two principal contenders for the project. And even Seward has support from some Native villages as a potential site, she said.

On the other hand, the Valdez venue has the support of the Alaska State Museum, according to Pete LaPella, president of the Valdez Museum board.

In an effort to give the city a leg up on the ladder, councilman Jim Shirrell suggested the city contribute $250,000 to the project.

That idea rankled councilman Mike Williams. "I've never heard anything so silly. I can't support giving away a quarter million dollars to a group that says the project is already a go," he said.

Shirrell was offended by Williams' reply.

"I will not accept Mr. Williams personalization of this. He must treat me with respect. The fact that Mr. Williams does not support this idea does not entitle him to act in a disrespectful manner," said Shirrell.

"We gave away land (adjacent to the museum) to sweeten the deal. We're using cash or land to lever this project. There is merit in that," he added.

In the end, the council failed to pick up on Shirrell's suggestion but did vote 7 to 0 to call upon the Exxon Valdez Oil Spill Trustee Council to designate Valdez as the home for the artifact repository.

The Seward Phoenix Log
August 13, 1998

First pigeon guillemot chick fledges from center's roof

The first pigeon guillemot chick fledged from the SeaLife Center roof at about 11:30 p.m. Aug. 1. Gram, the first animal born at the center, was fed at 10 p.m. and then placed on the rood (i.e., cross) in his nesting box. As observers Andrew Hovey, David Cooper and Ida Cooper watched, Gram walked to the edge of the rood, flapped his wings several times and finally jumped — flying into the darkness.

The fledgling is now competing with salmon for the herring in Resurrection Bay. In the next three weeks, Gram will be joined by 22 more captive-raised guillemots. As nestlings, the seabirds are fed every two hours.

These birds can be identified by one silver and three colored leg bands. Anyone observing these birds should call the SeaLife Center's pigeon guillemot project at 224-6326.

Research

Aug. 1: Our Exxon Valdez-funded project on the genetics of economically important fish is finally getting started. Some of our early efforts will focus on DNA markers in rockfish, and we are starting a research collection for inheritance studies. There are more than 65 species of the rockfish genus Sebastes that inhabit the eastern North Pacific Ocean. Thirty-two species are found in Alaska waters. Increased fishing pressure in recent years has made some species vulnerable to overexploitation.

You may have met two of our research fish, Stan and Molly, that Mark Kansteiner, the SeaLife Center's aquarist, just introduced into the rockfish exhibit. These are copper rockfish, Sebastes caurinus, which inhabit shallow rocky areas from the Gulf of Alaska to Baja, Calif.

Rockfish are ovoviviparous: The males fertilize the females internally; the females incubate the eggs and give birth to the young alive.

Rehabilitation

Just an update to let you know that the seal pups, Yukon and Denali, are all doing well. We hope to release them within a week or two. Iliamna, the other harbor seal, is eating fish and gaining weight. Her eye is healing well and she should be released back to the Lake Iliamna area in three to four weeks.

The pigeon guillemot in rehab right now was sent to us July 21 from the Naked Island research group. The bird weighed 330 grams upon arrival and now tips the scales at 455 grams.

Exhibits

Just a reminder that the deadline for the Name the Octopus contest is Aug. 23. The unnamed male octopus is part of the Denizens of the Deep habitat. Entry boxes are at the front-door ticket counter. The winning entry gets an octopus sweatshirt.

Donna Harris is marketing director at the Alaska SeaLife Center.

The SeaLife Scoop

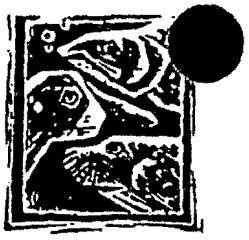
Compiled by Donna Harris

Kodiak Daily Mirror
August 14, 1998

PWS herring have still not recovered

Alaska Coastal Currents

By Jody Seitz



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With only five years of data on the virus, it is difficult to speculate on a trend. And it is unclear whether samples from three bays provide a strong picture of the overall herring population in Prince William Sound.

Based on the evidence of disease, however, Marty predicts slow recovery of herring from the crash of 1993. "Most likely the incidence of disease found this year will limit recovery," said Marty. "The population seems to get disease and at a higher prevalence and in more variation than some other populations we've studied."

Marty suggests a couple of explanations for the high incidence of disease. One is that a lot of young fish are entering the adult population, and, since young fish are more susceptible to the virus, this may cause a higher amount of the virus in the population. Another possible reason is environmental. Fish are cold-blooded and their metabolism increases with the warmer temperatures. "With the very warm winter, the fish may actually burn more energy during the winter, and if they don't have extra food supplies to carry them over the winter, they may actually be in worse condition than if the water was colder," said Marty.

Veterinarians hold little hope for completely eliminating the virus, which Marty says has been around for thousands of years. Researchers have also found the virus in other species of fish as well as herring. "We've seen lesions on capelin that look a lot like VHSV," said Marty.

To this day, there has been no conclusive link from the virus to the Exxon Valdez oil spill, according to Marty. However, in a scientific paper published by the American Fisheries Society, Evelyn Brown and other scientists estimated 52 percent of the eggs and larvae spawned that year died from exposure to crude oil.

Marty believes the likely effect of the spill was that it stressed the adult herring, which probably affected their immune system on a short-term basis. According to Marty, there were no top quality samples taken of herring with the virus in 1989, but the best samples show expression of the virus in herring from oiled areas and none in herring from unoiled areas. Researchers saw no virus in 1990, 1991, or 1992. "We have no concrete evidence that fish born at the time of the spill three or four years later showed some lack of ability to fight disease," said Marty.

Coincidentally, the Sitka 1989 year class was also one of the poorest recruiters in history, which Marty thinks might suggest other environmental phenomena at work. Data from a Prince William Sound plankton watch show that 1992 was a poor year for zooplankton production. That, combined with the high population density, may have stressed the herring and brought on the 1993 crash.

Marty will continue research on the disease, and hopes to one day create a model for managers to factor the [illegible] dence of disease into thei[illegible] culations of future herring returns.

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.

Anchorage Daily News
August 18, 1998

SeaLife Center

A remarkable institution

At the Alaska SeaLife Center, you won't see a trainer riding Shamu like a rocket or a synchronized leap of dolphins. "We're not Sea World," executive director Kim Sundberg said.

Delights are less spectacular at the Seward research center. Here you can lightly touch an array of starfish and learn about them by talking with an attendant on the spot. You can fall under the spell of the sea lions' graceful glide under water and marvel at the subsurface flying of puffins as they dive for their dinner.

Marine life puts on a show, but the center isn't theater. Its role is research, rehabilitation and education.

Mr. Sundberg points out, for example, that the puffins' underwater display has surprised even veteran marine scientists, who are now talking about different research into buoyancy and how the birds swim under water.

Steller sea lions have been in decline for years and still no one is certain why. "We're working hard to try to turn that around," Mr. Sundberg said.

The hard work here isn't all behind closed doors, either. Those $12.50 and $10 admission tickets pay for most of the research in progress. In return, researchers are expected to give something of themselves in explanations about their work.

"We've been fortunate to have researchers who enjoy that interaction," Mr. Sundberg said.

It brings the work of the center closer to home for Alaskans and out-of-state visitors, and gives people a better idea of what their tickets buy.

Those tickets also help cover the costs of making such research possible. Exxon Valdez oil spill money paid for most of its construction, but the sea life center aims to be self-sustaining. Part of that sustenance is covering costs that include monthly utility bills of $35,000 and a yearly $1.7 million bond repayment. Monthly payments on the bond go up to $149,000 in September.

"Our costs of operation are probably higher than anywhere else in the country," Mr. Sundberg said. "We'd love to be able to discount our tickets ... but that wouldn't make our operating expenses."

The Alaska SeaLife Center has even more ambitious plans for the future, including a sea otter habitat, auditorium, cooperative ventures with the University of Alaska, an Internet data base and an endowment for a research chair. Those dreams will take a bigger bankroll than gate receipts and gift shop sales will provide.

But those sales remain vital to the center's mission. When we put our money down, we gain knowledge, enjoy wonder and pay for the rescue of marine life. At the same time, we invest in the discovery of more knowledge and understanding. Like much research, the work of the center likely will pay off in ways we haven't imagined yet.

The Alaska SeaLife Center is only 3 months old. Already it's worth the price of admission.

Council says no to Moe, yes to repository

By Terry Wilson
Valdez Vanguard

Valdez City Council members held a special meeting Thursday at the City Council Chambers that generated debate and a little friction.

Two actions items were on the agenda. The council voted 4-3 to deny a public conveyance permit requested by Tom Moe Sr. of Wasilla to take 14-passenger vans full of tourists from the Village Inn to tour Mineral Creek Road. Council members then unanimously approved a resolution to support the Valdez Native Tribe's bid for an archeological repository to be located in Valdez and funded by the Exxon Valdez Oil Spill Trustees.

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Council...

From Page 1

A short public hearing was scheduled prior to voting on Moe's requested permit. Moe did not appear for the public hearing, and had skipped the Ports and Harbor Commission's required hearing for the permit due to scheduling conflicts.

He submitted no operations plan or safety plan, so the council members had little information about Moe's Wasilla-based tourism business. Mayor Dave Cobb had called the special meeting because Moe had complained to him about getting the runaround at City Hall.

But Kim Park, a tour operator, said that's the process. She also started at the Community Development Department and didn't know until later that to apply for a conveyance permit the applicant must contact the City Clerk.

"The time frame is confusing. It's a two to three month proposition," Park sa[redacted]cause the permits require public hearings by the commission and the council.

Dave Johnson, owner/operator of Valdez Tours said by holding a special meeting, Moe was given preferential treatment, and he should have been more aware of the process. Tourism operators should be preparing for the season in April, not July or August, Johnson and Park said.

"I've been working under these rules and regulations for a number of years. And we've not had a problem. We've never had an major accident in this town," Johnson said.

Park said she initially objected to the process, but was told it insures operators run safe businesses, that fly-by-night operators are not allowed a permit and that it helps new business owners to think the whole proposition through. Her only concern about Moe's application was the safety element.

Park said the bridge at about 1.5 Mile on Mineral Creek Road is not safe and once operators get beyond that mark, communications are difficult.

"Cell phones don't work back there, and if they had something happen, I don't know. It's not a safe road. I don't want to be in the headlines again. And I'm afraid about the liability issue," Park said.

But Council Member Mike Williams said business owners should not have to submit detailed plans and give their opposition a "chance to steal their plan."

"I don't think I cannot support this just because they didn't come down here and schmooz me. I think it's a viable business opportunity and they're meeting the requirements. I think it would be arbitrary and capricious of me not to approve this," Williams said.

Council Member Jim Shirrell said the city needs to insure the health and safety of people traveling in Valdez. "We're not here to approve economic enterprises," Shirrell said, but to make sure the operations are safe.

Council Member Lynn Chrystal said Moe should have shown common courtesy and attended at least one of the hearings.

"I think it's been rushed through the system. Th[redacted]ts and Harbor Commission felt there was political pressure to approve this permit, at least that's what they said in their report. They (Moe and his partner) didn't even show up for the public hearings. We know nothing about this. This is our system and they have to follow it," Chrystal said.

After a good deal more discussion, the council voted 4-3 to turn down the permit request, with Williams, John Harris and Cobb voting to approve the request. The permit must now go back to the Ports and Harbor Commission.

Members of the Valdez Museum Board of Directors told the council the submission deadline for the Valdez Native's Tribe's repository proposal was imminent and the resolution was an essential ingredient. Council members had already approved donating land for the project, and the resolution said the city would establish a capital improvement project fund of $250,000 to initiate work on the repository, provided the money was reimbursed by an EVOS Trustee grant.

But Shirrell said the city should donate the $250,000 to entice the trustees to choose Valdez over its chief competitor for the project, Seward. He proposed an amendment to the resolution stating that intention.

When Williams said the idea of of "giving away a quarter of $1 million to a group that has proposed they can pay for it with a grant" was "ludicrous," Shirrell reacted angrily, cutting Williams off and accusing his of "personalizing" the discussion.

He continued to criticize Williams after Cobb reminded Shirrell that Williams had the floor. Williams explained that he did not think donating the money would significantly strengthen Valdez's bid.

Harris said "the Trustees have a lot of money and they haven't shared enough of it with Valdez. We shouldn't have to enhance this any."

Chrystal said he thought "it was sufficient that they know we granted land for this." The council voted 6-1, to reject the amendment, with Shirrell voting to approve.

On the main motion, the council voted unanimously to approve the resolution.

Cobb said Valdez "got a good chance of getting" [redacted]epository.

Peninsula Clarion
August 9, 1998

Prince William Sound herring still not recovered

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

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Alaska Coastal Currents

Restoration and recovery following the Exxon Valdez oil spill

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

Journal of Alaska Business
Week of August 10, 1998

Scientists feed oil to otters to test spill's effects 10 years later

By Ned Rozell
Special to the Journal

When the Exxon Valdez ran into Bligh Reef in the spring of 1989, the most visible victims of the oil spill were blackened sea otters and shore birds. Now, nearly a decade later, scientists are still trying to sum up the effects of the oil spill. In Seward, one researcher is trying to learn more about the spill by feeding small amounts of crude oil to river otters.

Merav Ben-David, an ecologist who studies animal behavior and physiology at the University of Alaska Fairbanks' Institute of Arctic Biology, is performing research on river otters that began right after the spill. In 1989, Terry Bowyer, a wildlife biologist at the Institute of Arctic Biology, Larry Duffy, head of UAF's chemistry and biochemistry department, and technicians from the Alaska Department of Fish and Game began examining river otters in oiled and nonoiled areas.

The scientists chose to study river otters because the animals often live where the land meets the sea. River otters, seldom-seen members of the same family as sea otters, den along bodies of water in the forests of Alaska. The animals, which grow to 4 feet long, hunt in rivers, the ocean, and sometimes on land. River otters on the coast catch much of their diet — fish, crabs and shrimp — from the sea.

Bowyer, Ben-David and graduate student Gail Blundell have studied river otters in Prince William Sound for the past three summers to look for lingering effects of the oil spill. Otters are notoriously hard animals to study — they are shy and too smart to come to a trap twice — so Blundell and Ben-David captured 15 river otters from different areas within Prince William Sound and brought them to the Alaska SeaLife Center.

When river otters were first studied, right after the spill and the three years following, researchers found enzymes in the otters' blood indicating stress that could be caused by ingesting crude oil. Otters that lived near oil-fouled beaches showed high levels of the enzyme; otters in areas without oil showed much lower levels.

Today, the otters living near shores that were soaked by oil nine years ago are still showing elevated levels of the stress enzyme. Though crude oil is no longer visible, otters may still be suffering from its effects. That's what Ben-David hopes to find out as she feeds crude oil to some of the otters at the SeaLife Center in Seward.

Ben-David has a small metal jug of crude oil given to her by ARCO workers at Prudhoe Bay. She and assistant Olav Ormseth will fill tiny capsules with the oil, slip the capsules inside herring, and feed the herring to the otters four times each week. Five otters will receive the heaviest dose of oil — 1,000 parts per million, about the equivalent of a tablespoon of oil in five gallons of water. Five will get a dose 10 times smaller, and five will ingest no oil whatsoever. Ben-David said she is basing the highest dosage on oil levels found presently in blue mussels that live in Prince William Sound.

Ben-David and Ormseth will take blood samples from the otters every three weeks to see if the crude oil is causing the stress enzymes to increase. Using underwater cameras, they will watch otters to see if their diving ability is impaired by the crude oil, which can cause anemia.

The researchers will continue feeding some oil to the otter for 100 days, Ben-David said. Then, she will stop feeding them oil for 100 days before she releases them in March 1999.

By feeding a toxin to one of the cutest mammals in Alaska, Ben-David expects a bit of opposition. She said feeding oil to otters is the next logical step in her study, a step that will help determine how much oil spills affect living creatures and for how long.

"It's extremely important to validate those results we're getting out in the field," she said. "These results will be very useful for future oil spill work. We can use the otters as a model for all marine mammals affected by oil."

Ned Rozell is a science writer at the Geophysical Institute, University of Alaska Fairbanks.

The Cordova TImes
August 13, 1998

Carbon Mountain trees belong to Native corporation

Typical of a "tree hugger", Robyn Halloway, too, can't see the forest for the trees. In my July letter, not only were my questions simple, they were obvious. That was the point, proving again that everything is complex and nothing is simple to a "greenie." Admittedly, they would be complex to a "cheechako."

Robyn, read the science section in the June 29 issue of U.S. News titled "Sustainable logging proves unworkable" — you might be enlightened. (And to think forester Cal Baker just gave Rikki Ott's "organization" a $50,000 grant to study this controversial subject.)

As for Robyn's callous remarks concerning Marvyn Fox. The trees at Carbon Mountain aren't yours, Robyn; they belong to Marvyn's Native corporation, which selected this remote land (15 miles further than to Valdez) in the 70s to help sustain Native independence from the government. You should respect his right to work his own land. The sad irony in all this is that Marvyn's income taxes help pay your spouse's government pay check!

Dave Werner

The Cordova Times
August 13, 1998

Scientists seek new approach to predicting fish returns

Coastal currents

By Jody Seitz

1993 was a lousy year for both pink salmon and herring populations in Prince William Sound, and for the commercial fishermen who depend on them.

It seemed no coincidence to fishermen and residents of Prince William Sound that the disastrous fishing season fell four years after the massive oil spill of 1989. It was the year that most of the herring which were spawned during the spill were supposed to return to spawn for the first time, and the fourth year in a row in which wild pink salmon eggs laid in oiled streams had higher mortality than those laid in unoiled streams.

After fishermen staged a blockade of the Alyeska pipeline terminal and held many earnest discussions with scientists, an ecosystem-based study was created concentrating on Pacific herring and pink salmon. The study, called the Sound Ecosystem Assessment, was funded by the Exxon Valdez Oil Spill Trustee Council in 1994. It consists of nearly 20 scientific studies linked together, incorporating everything from ocean currents to plankton and fish production into a model of the ecosystem.

According to Phil Mundy, one of several independent scientific reviewers for the Trustee Council projects, the SEA program is gathering data which are vital for helping salmon runs recover. "Alaska is unusual in that it has a very good fisheries management program, yet we have not been able to collect adequate baseline data until we had the SEA program and other projects associated with oil spill research," said Mundy.

The spring plankton bloom is the cornerstone of the entire food web. Oceanographers have found fish populations don't just live on the Sound's resident stocks of zooplankton, but that a lot of plankton is carried into the sound on currents from the Gulf of Alaska. Resident stocks of pollock and cod also may affect populations of fish they prey on, such as herring and salmon.

Research has shown that a strong plankton bloom not only provides a good food supply for salmon fry and herring, but it also protects them from their predators. Cod and pollock tend to ignore the fish and, instead, target the easy meals of zooplankton.

Environmental conditions are very important for both pink salmon and herring. During the plankton bloom pink salmon smolt burst from the streams with their clocks ticking. They have 400 days to migrate to the open ocean, mature, and return to spawn.

Herring larvae must drift with the ocean currents. Some make it to the safety of bays, where they grow into juvenile herring and spend the next two years. Just as bears fatten up for winter, so do the herring. Just as there are berry patches, so too, there are plankton patches — some better and more productive than others.

"Some of the fish seem to be rearing in areas that at times don't provide the same amount of energy as other areas do and there is quite a range of energetic content as they begin the winter fast," said Ted Cooney, chief scientist for the SEA program.

Aside from ocean conditions and plankton production, other studies have shown that disease is another factor in controlling population size in herring populations.

Ultimately, these scientists want to be able to improve predictions of pink salmon and herring returns based on what the ocean environment did to the pink salmon, and on the summer conditions in the herring nursery areas.

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.

Alaska Coastal Currents

By Jody Seitz

Salmon eggs and oil mix only too well

An old adage of garage sales is that one person's garbage can be another person's treasure. It turns out the same can be true when it comes to research.

One mystery about the effect of oil on salmon eggs is closer to being solved because one agency contacted another before throwing out its garbage of old sediment samples.

When the Alaska Department of Fish and Game began to see unusually high mortalities of eggs in once-oiled streams, no one could explain why. Fish and Game biologists conducted the annual egg digs in Prince William Sound to estimate salmon returns. What they found was that more pink salmon eggs died in the oiled streams compared to the unoiled streams — not just in 1989, which surprised no one, but in 1990 and in 1991.

That got the attention of the National Marine Fisheries Service. "By 1991, we said what's happening here? This is not right, something's wrong," said Stanley Rice, a research biologist with NMFS at Auke Bay.

NMFS scientists began to think that the streams were still being contaminated. But no one could explain how, so toxicity studies were begun at Auke Bay lab on the effects of weathered oil on salmon and herring eggs. They showed that even very low levels of weathered oil, as low as four parts per billion (the state water quality standard) can still damage salmon eggs. "That's a level we can't really see or taste," said Rice.

In 1989, Exxon tested the stream itself, according to Rice, and didn't find any oil. "That meant the oil was probably coming from the sides, but the oil exposure was not continuous," Rice said.

It was theorized that weathered oil could be leaching into the streams, creating an ongoing toxic effect. But federal scientists needed soil samples from earlier years to check the toxicity of oil over time and none had been collected, according to Rice. They knew nothing about sediment samples collected by ADF&G until a biologist from Habitat Division called Rice. He was checking to see if NMFS had a use for the soil samples before tossing them in a dump, Rice said.

While collecting the samples in 1989, Fish & Game researchers meticulously documented and videotaped their locations. This allowed NMFS scientists to return to the exact locations to retest those sites for oil. It was still there, in concentrations from one part per billion to 664 parts per billion.

In fact, PAH (polynuclear aromatic hydrocarbon) levels along the edges of the streams in 1995 were high enough to explain the poor return in 1993, according to Rice. "The study showed that chronic exposure over time would probably explain these mortalities or at least a good portion of them," said Rice.

When salmon eggs are exposed to oil, they do not grow normally, nor survive as well. Weathered oil is attracted to the fat in the salmon's egg. "The yolk is lipid rich, so that when a tiny particle of oil comes along and bumps into the egg, it's absorbed and it's trapped," said Rice.

This productive study might not have happened if Rice had never received the courtesy call from ADF&G. Yet when its results are added to other studies, together they provide the strongest explanation so far of the low returns of pink salmon to their spawning streams from 1991 through 1994 in Prince William Sound.

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Homer News
August 6, 1998

SEAWATCH

Joel Gay

THE EXXON VALDEZ LAWSUIT advanced another step toward resolution last week when U.S. District Court Judge Russel Holland denied Exxon's request for a new trial. That effectively exhausts all of the oil company's attempts to overturn the suit at the Anchorage District Court level and moves the case into the Ninth Circuit Court of Appeals in San Francisco.

Exxon's original request for a new trial was denied several years ago; this one was based on discovery that a court officer had lied under oath regarding a matter of alleged juror coercion. Holland apparently didn't find the new evidence compelling and turned down that and several other requests for a new trial. The Ninth Circuit will now set up a schedule for taking up the appeal. Attorneys for fishermen recently told National Fisherman magazine that it could be another year or more before the issue is decided.

The Valdez Vanguard
August 5, 1998

Council discusses spill drill, Moe's tourism plans

By Terry Wilson
Valdez Vanguard

Valdez City Council members made quick work of a short agenda Monday evening, which included a public appearance by BP Oil officials regarding the company's major oil spill drill set for September, and a special request by Olympic Skier Tommy Moe's father.

Council members listened to Garry Willis, crisis manager for BP Exploration, detail the objectives of the drill. Willis said he expected 300 people to come to Valdez Sept. 18-20 to work on the drill, which will simulate a spill of more than 300,000 barrels heading out of the Sound between Montague and Knight Islands.

Cmdr. Ron Morris of the Valdez Marine Safety Office said the U.S. Coast Guard asked BP to designate the drill as a spill of national significance, which would put the Coast Guard national response system into practice.

Willis said BP plans to deploy

See Council, Page 2

Council...

From Page 1

about 34 fishing vessels out of Valdez and more equipment out of Seward. Morris said the Coast Guard will call out C-130 airplanes and will station a 380-foot Coast Guard cutter in Port Valdez for the drill.

Willis and Morris said the drill will also test use of the Alaska Rural Communications System, ARCS, and the Alaska Department of Environmental Conservation website to communicate with communities during press briefings.

Council members also were notified of a special public hearing set for 5:30 p.m. Thursday at the City Council Chambers to approve a permit of public convenience and necessity for Tom Moe Sr. of Wasilla, who intends to run 14-passenger vans up Mineral Creek Road and hike into the stamp mill area.

Moe, whose son won a gold medal in the 1994 Olympic downhill skiing event, was late in requesting the permit, and wants to get his business started as soon as possible.

"It looks like his emergency has become ours," said Council member Jim Shirrell of the need for a special meeting.

Moe's tourism operation is based out of Wasilla. The permit he is applying for is good for one year.

In other council business:

• Council members approved 6-0 with Dorothy Moore absent, to approve a $180,000 three-year contract with Black-Smith and Richards to perform the city's tax assessment. mended by a property assessment review committee, the members of which were Walt Wood, Council Member Mike Williams, Brian Johnson, City Manager Dave Dengel, City Clerk Sheri Caples and City Treasurer Tom Gilson.

The Black-Smith and Richards contract was chosen after the committee solicited bids from 10 firms and received 2 proposals.

• Mayor Dave Cobb said the council will consider approval of a resolution to lease land for an archeological repository as proposed by the Valdez Native Tribe, which is competing for the repository site with Seward. Funding for the repository would come from the Exxon Valdez Oil Spill Trustees.

• Attorney Bill Walker said the city has not finalized a lease with the Alaska Native Youth Sundance group. The lease agreement should be on the council's Aug. 17 agenda, he said.

• Acting City Manager Nancy Robb said the city had repaired damage to the sewer main inflicted by a contractor installing a fiber optic cable. Robb said the city was preparing a bill for the repairs to be sent to the contractor.

• Williams asked why the new lights in the Valdez Small Boat Harbor were not installed yet, and why the old lights had been.turned off.

"It puts us into a bad situation as far as liability," Williams said.

Stan Gilfillan, city public works manager, said the city will have the old lights back on in three to four days. Shipment of the new lights has

The Valdez Vanguard
August 5, 1998

Coastal currents

Scientists learn more about how Mother Nature tends to fish stocks

By Jody Seitz

Anyone who remembers the old herring fisheries in Prince William Sound can tell you it takes a long time for herring populations to increase once they're down. Exactly how they recover, no one really knows.

A year after the 1993 herring crash, scientists at the University of Alaska Fairbanks began to take a close look at Prince William Sound to see where and how herring survive the best. First, they discovered that herring spend the first two years of their lives in bays. Then researchers focused on four bays where they often found juvenile herring. There, they studied their food supply and the ocean currents, temperatures, and salinity of the bays. They sampled the plankton and tallied the types and amounts in each bay. Then they studied the condition of the herring and their stomach contents.

According to Robert Foy, UAF fisheries oceanographer, herring feed almost exclusively on zooplankton. The data showed the plankton the herring ate were not always the ones that were most abundant.

"That suggests it's energetically more favorable for them to be eating this prey rather than just opening their mouth and swimming through the water and picking up anything that's there," Foy said.

High-fat zooplankton such as calanoid copepods are one of the foods they prefer, but they aren't always available. Sometimes the herring have to put up with what's there.

The amount of zooplankton available depends on the season, ocean currents, and the amount of plant plankton produced each year.

Researchers conducted broad surveys of the sound, but focused on Simpson, Zaikoff, Eaglek and Whale bays.

"We wanted to be able to compare the different sides of the sound, and areas that might be a little more sheltered than others. Within each of the bays we had an inner, a middle and an outer site to compare distributions of (zooplankton) within the bays," Foy said.

They found that within each bay, different species of zooplankton have their own particular niches, showing up in abundance in certain seasons and places. The data showed that nearly one-third to one-half of the zooplankton in the bays is the same as that outside of the bays. That means half the zooplankton in a bay are unique to that bay, and may live there all year.

In summer of 1996, shallow, secluded Simpson Bay produced three to four times more food than Eaglek, Whale or Zaikoff bays. It also had the most juvenile herring.

"Ultimately, what this suggests is that Simpson Bay may be a better rearing area for juvenile herring because it actually has a larger abundance of zooplankton than the other three bays," Foy said. Other bays with stronger circulation might not provide as good of a habitat, Foy said.

Researchers are still analyzing their data from 1995, 1996 and 1997 to see how the food supply changes from year to year.

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.

Peninsula Clarion
August 2, 1998

Salmon eggs, weathered oil mix too well

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

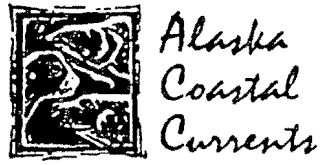
An old adage of garage sales is that one person's garbage can be another person's treasure. It turns out the same can be true when it comes to research.

One mystery about the effect of oil on salmon eggs is closer to being solved because one agency contacted another before throwing out its garbage of old sediment samples.

When the Alaska Department of Fish and Game began to see unusually high mortalities of eggs in once-oiled streams, no one could explain why. Fish and Game biologists conducted the annual egg digs in Prince William Sound to estimate salmon returns. What they found was that more pink salmon eggs died in the oiled streams compared to the unoiled streams — not just in 1989, which surprised no one, but in 1990 and in 1991.

That got the attention of the National Marine Fisheries Service.

"By 1991, we said what's happening here? This is not right, something's wrong," said Stanley Rice, a research biologist with NMFS at Auke Bay.



NMFS scientists began to think that the streams were still being contaminated. But no one could explain how, so toxicity studies were begun at the Auke Bay lab on the effects of weathered oil on salmon and herring eggs. They showed that even very low levels of weathered oil, as low as four parts per billion (the state water quality standard) can still damage salmon eggs.

"That's a level we can't really see or taste," said Rice.

In 1989, Exxon tested the stream itself, according to Rice, and didn't find any oil. "That meant the oil was probably coming from the sides, but the oil exposure was not continuous," Rice said.

It was theorized that weathered oil could be leaching into the streams, creating an ongoing toxic effect. But federal scientists needed soil samples from earlier years to check the toxicity of oil over time and none had been collected, according to Rice.

They knew nothing about sediment samples collected by Fish and Game until a biologist from Habitat Division called Rice. He was checking to see if NMFS had a use for the soil samples before tossing them in a dump, Rice said.

While collecting the samples in 1989, Fish and Game researchers meticulously documented and videotaped their locations. This allowed NMFS scientists to return to the exact locations to retest those sites for oil. It was still there, in concentrations from one part per billion to 664 parts per billion.

In fact, PAH (polynuclear aromatic hydrocarbon) levels along the edges of the streams in 1995 were high enough to explain the poor return in 1993, according to Rice.

"The study showed that chronic exposure over time would probably explain these mortalities or at least a good portion of them," said Rice.

When salmon eggs are exposed to oil, they do not grow normally, nor survive as well. Weathered oil is attracted to the fat in the salmon's egg.

"The yolk is lipid rich, so that when a tiny particle of oil comes along and bumps into the egg, it's absorbed and it's trapped," said Rice.

This productive study might not have happened if Rice had never received the courtesy call from Fish and Game.

Yet, added to other studies, the results provide the strongest explanation so far of the low returns of pink salmon to their spawning streams from 1991 through 1994 in Prince William Sound.

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

Peninsula Clarion
August 3, 1998

Weak salmon runs blamed on sea change

ANCHORAGE (AP) — The king salmon that managed to make it back to the Yukon River this year appeared battered by life at sea, state biologists say.

Their bodies were unusually small compared with their head sizes. Sea lampreys and a muscle fungus had attacked their flesh.

These are signs that stress in the marine environment — not foreign fleet interception or marine mammal predation — was responsible for this year's poor returns on the Yukon, said Tom Kron, a regional supervisor for the state Department of Fish and Game.

In much of Alaska, salmon runs have been poor. Gov. Tony Knowles declared a disaster for Western Alaska last week and said the declaration might be extended. And in case after case, biologists are pointing out to sea, saying something in the ocean has changed.

"We've suspected this for a few years.

...Runs

Continued from page A-1

We're in the midst of some kind of an ocean change," said Jack Helle of the National Marine Fisheries Service. "But everybody's looking for an easy answer and I don't think there is one."

Scientists have been unable to agree whether Alaska's salmon runs are hurting because the ocean is getting too cold or because it's getting too warm.

Many researchers, including the state's chief fisheries scientist, say the declining runs appear to be tied to long-term atmospheric cycles in the North Pacific. In the 1980s, when water temperatures were warmer, salmon production rose to unprecedented highs in Alaska. But now the cycle may have started cooling, researchers say, and salmon abundance could be returning to the lower levels of the 1970s.

"It looks like we are entering a regime of lower productivity," said Doug Eggers, chief fisheries scientist for Fish and Game. "And if the past is any indication of the future, it looks like these periods are quite persistent."

But other scientists, including some at the University of Alaska Fairbanks, note that for the past two years temperatures in the Bering Sea and the Gulf of Alaska grew warmer, not colder. They attribute that to the short-term atmospheric influence of a powerful El Nino as well as global warming.

The scientists say the unusually warm water — not the long-term cooling trend — could be responsible for the recent run declines, as well as unprecedented plankton blooms and large-scale seabird die-offs.

Biologists have traditionally focused on environmental effects on young salmon. Paying attention to adult salmon at sea is relatively new, said Gordon Kruse, a Fish and Game biologist.

If the warm-water theorists are right, then the effects on salmon came late in their life spans.

"There is a controversy. It's not confusion in the ranks; it's different points of view," said University of Alaska oceanographer Ted Cooney. "It will be resolved the way scientists resolve their differences, through further study."

The cold-water theory looks at a century of data on salmon abundance and measurements such as sea surface temperatures and sea level pressure. The North Pacific seems to shift between cold and warm trends on a cycle of 20 years or more, scientists say.

Since the late 1970s, Alaska has been basking in a warm water trend, culminating in a record salmon harvest of 217 million fish in 1995. The warm water trend may have started shifting about 1990, they say, though it is too soon to say for certain. If the Pacific has entered a cooling cycle the downward trend could be here awhile.

One model developed by Russian scientists, an index that matches salmon harvests and various atmospheric conditions this century, predicts the current decline won't bottom out until 2020, Helle said.

Statewide, the harvest of all salmon species bottomed out around 21 million in 1967, a far cry from the 110 million or more expected for this year.

Salmon production shouldn't sink so low this time around, state officials say. Improvements in fisheries management together with the closure of high-seas driftnet fisheries in the 1970s should help sustain Alaska's salmon harvests, they say.

Still, if the Pacific is entering a regime shift that brings colder water and fewer salmon to Alaska, there might be a few silver linings:

Crab and shrimp fisheries in the Gulf of Alaska, which disappeared after the 1970s, could stage a comeback, said Fish and Game's Eggers.

And smaller runs sometimes produce bigger individual fish, said Helle of the National Marine Fisheries Service. So even if there are fewer fish, the odds may be better of someone finally catching that mythical 100-pound Kenai River king salmon.

Ship came a long way to end on Monashka Bay beach

The Naturalist

By Michelle Bayes

At the end of a narrow gravel path winding down past the V.F.W. from Monashka Bay Road sits a huge hunk of twisted, rusted steel. Covered in graffiti and sand, it takes a few moments and an imaginative leap of faith to see the massive keel of a sailing ship lying on its side in the surf. From below the tide line, the interior of the hull is visible, though the decks are gone and the rivets have all disappeared from their holes. Each cycle of tides washes a slight layer of the structure away and, from the looks of it today, it won't be long before the entire wreck disappears from view.

This ship, the *Santiago*, was constructed by the firm of Harlem and Wolf as a steel barque in Belfast, Ireland for the White Star Line in 1885. One of the last steel hulled sailing ships, she was built of riveted steel plates over steel beams with teakwood decks. She weighed 978 tons and was 207 feet long, with a 33-foot beam, 20 foot depth, and 20-foot draft. First employed under the British flag in the Chilean nitrate trade, the *Santiago* was sold in 1894 to an American from San Francisco who employed her in his fleet of Hawaiian trading ships. For the next 11 years, she sailed between the Pacific coast and Hawaii, taking valuable sugar east and general cargo west.

In 1905, the *Santiago* was rerigged as a three-masted schooner and used to transport bulk oil up and down the California coast. She continued to haul oil through World War I, but was eventually "derigged" completely at the close of the war and used solely as a barge. She was waiting to be reduced to scrap metal in 1941 when Pearl Harbor was bombed and World War II began. The Navy badly needed an oil storage barge in Kodiak, and so she was towed north. For the duration of the war, she was tied up in Women's bay, carrying several thousand gallons of cheap, heavy, tar-like bunker fuel.

At the close of World War II, the Navy was once again ready to consign the *Santiago* to the scrap heap. Supposedly, in an effort to dispose of excess eight-inch gun ammunition along with the barge, the *Santiago* was towed out to sea and used for target practice. But she didn't sink, and was towed to shore near the head of Monashka Bay and tied up by her bowline to a large rock outcropping. It appeared that the Navy had every intention of coming back later and finishing the job. Before they could pull her back out to open sea, however, a series of fierce storms piled up gravel on her seaward side and forced her farther up the beach. Here *Santiago* was destined to remain. She stayed upright for a few years, until another storm blew in, washed gravel out from under her, and laid her down on the starboard side.

In 1955, curious fishermen exploring the wreck with a lighted torch discovered that the *Santiago* still held a full load of bunker oil. Whether by accident or on purpose, it may never be known, but the tanks somehow ignited and the oil wreck burned for days. the steel plates were oxidized to a bright rusty red, the beams warped, and the teakwood deck disappeared in the blaze. Hindsight tells us the inferno may actually have been a blessing, because had the hull been punctured a massive oil slick might have covered the beaches of Monashka Bay. The ship's structure was soon too heavy for the weakened beams to hold, and she collapsed into herself. The hull continued to rapidly deteriorate as the saltwater spray relentlessly worked on the exposed superstructure.

In 1986, the U.S. Army Corps of Engineers planned to remove the *Santiago* from her final resting place as a part of scheduled World War II cleanup, but a deluge of calls and letters from concerned Kodiak citizens persuaded them not to disturb the wreck. In 1988, a representative of the Hawaii Maritime Center in Honolulu advised the Baranov Museum and Alaska State Parks that the windlass was still salvageable, but the rest of the ship had simply eroded too much to be saved.

What remains still sits on the beach. Like many shipwrecks, this one only hints at its history. Most visible is the incredible power of the sea that has reduced it to this present shell of its former glory. It is a leftover of an era in which ships were propelled by the wind, their well-being dependent on the whim of the weather. Without electronics or advanced navigational devices, this ship sailed halfway around the world from its birth on one Emerald Isle to its death on another, reminding us how far mariners have come and how vast the ocean that surrounds us remains.

Alaska Coastal Currents

By Jody Seitz

Kodiak Daily Mirror
July 31, 1998

Only one species, the bald eagle, has been removed from the list of species with chronic or population-level injuries from the Exxon Valdez oil spill. While bald eagles forage over both land and sea, predators such as river otters, sea otters, pigeon guillemots, and harlequin ducks have less choice about where they look for food. They forage mostly amongst the eelgrass, kelp, and sediments of the tide zone - where most of the crude oil landed.

Scientists cooperating on a large ecosystem project called the Nearshore Vertebrate Predator (NVP) project believe that populations of all of these predators are not back to the levels which occupied the oiled area before March of 1989. River otters might be the only exception, though their populations are hard to assess. Recently scientists discovered that river otters move over large areas, between fresh and marine environments and between the oiled and unoiled areas.

Harlequin ducks, pigeon guillemots and sea otters each show continued signs of stress in the oiled areas. Only 75 percent of female harlequins survive the winter in the oiled areas of the sound, compared to 90 percent in the unoiled area. According to Dr. Leslie Holland-Bartels, the NVP project coordinator, that is not enough to maintain the population in the oiled areas of the sound. Especially since researchers found there is little to no immigration into the sound from neighboring populations.

Pigeon guillemot chicks at Naked Island are not doing well and sea otter populations today are still lower than the 1989 body count from the oiled bays of Knight Island.

Are the slow recovery rates of these animal populations related to food supplies or to chronic pollution from the Exxon Valdez? In the summer of 1997, researchers assessed the supply of clams, mussels and nearshore fishes available to these four predators. The data show there is an abundance of food to support higher numbers of sea otters, river otters, and harlequin ducks. This was not necessarily true, however, for pigeon guillemots.

Pigeon guillemots are very inflexible in their tastes according to Holland-Bartels. Different populations learn to eat specific types of fish, such as herring. When those fish aren't available, their colonies suffer.

"At Jackpot Bay, pigeon guillemots rely on herring," said Holland-Bartels. "When herring didn't move into the area (last year), we had a 50 percent nest abandonment and poor chick production. But those chicks that were produced did quite well."

If food isn't the problem, is the poor recovery of these animals related to contamination? Scientists conducted tests to determine whether river otters, sea otters and harlequin ducks have been exposed to either polycyclic aromatic hydrocarbons (PAHs) or to polychlorinated byphenyls (PCBs).

"Approximately 40 percent of animals in our oiled sites have contaminant expressions that are above that in control areas," said Holland-Bartels. "A certain portion of the population is in fact demonstrating some sort of low-level exposure to contaminants."

The proof of exposure to either PCBs or PAHs doesn't necessarily mean the animals are in poor health, according to Holland-Bartels.

"Our blood chemistry data do not support a lack of health in the populations," said Bartels. "So we don't see what we saw right after the spill, when we found high levels of biomarkers that suggested that the animals were fighting off a contaminant."

Researchers still don't know if the animals are becoming contaminated through touching oily sediments or eating contaminated food. This summer, they are trying to discover the route of contamination and the biological risk it poses to animals living along the shores of southcentral Alaska that still contain oil.

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.

ANCHORAGE DAILY NEWS
JULY 7, 1998
B4

State expands study of Kenai River erosion

The Associated Press

KENAI — Riverfront property owners might find strangers knocking on their doors or unexpected survey markers on their land this summer as the Alaska Department of Fish and Game expands its studies of erosion along the Kenai River and does some work on private land.

Results of the study could have major implications for future management of the world-class salmon stream and its sport fishery.

"In the past we have always had 100 percent cooperation knocking on doors," said Mary King, the fisheries biologist leading the study team.

Expanding the project has made it more difficult for the team to contact owners. Last year they worked at a dozen sites, studied plat maps and contacted people in advance.

This year, the biologists are marking points every half-mile along both banks from Skilak Lake to the tidal area at about River Mile 5.

The team will knock on doors this year but may not always see a house or find anyone home, so King said she wants area residents to know what is happening.

The study is trying to determine how much anglers affect the health of the riverbank habitat, which is crucial for salmon fry.

Biologists this year are counting anglers, measuring bank erosion and comparing plant and soil conditions before and after the peak sportfishing season.

ALASKA BAR ASSOCIATION

Recd. Thru 9/25/98

September 25, 1998

Dr. Theresa Obermeyer
3000 Dartmouth Drive
Anchorage, AK 99508

Dear Dr. Obermeyer:

Your repeated, unannounced visits to the Bar Association have caused unnecessary disruption to the work being performed by this office.

As of this date, this office will deal with you only in writing. If you come in, you may only drop documents off or pick documents up. You may not use Bar facilities for the preparation or review of documents nor may you use Bar office supplies. If you come in, I have directed my staff to advise you that they have been instructed to deal with you only in writing, to then terminate the conversation, and to ask you to leave the premises.

If you do not leave the premises when requested, Bar staff have been directed to call the administrative phone number of the Anchorage Police Department to obtain their assistance in having you removed from the office.

However, as a member of the public, you will be permitted to attend the open meetings of the Board of Governors held at the Bar office.

Sincerely,

Barbara Armstrong for
Deborah O'Regan
Executive Director

cc: Board of Governors
Alaska Bar Association Staff

Delivered to AK Supreme Ct. 9/25/98 thru

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P.O. Box 100279 • Anchorage, Alaska 99510-0279
907-272-7469 • Fax 907-272-2932 • http://www.alaskabar.org

TRANSACTION REPORT

SEP-28-98 MON 02:17 PM

FOR: OBERMEYER 9072789455

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DATE	START	RECEIVER	PAGES	TIME	NOTE
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THERESA NANGLE OBERMEYER

3000 Dartmouth Drive
Anchorage, Alaska 99508
(907) 278-9455 Message Phone, FAX
http://www.alaska.net/~obermeye

September 28, 1998

Mr. Rex Lamont Butler, Attorney
745 West Fourth Avenue #300
Anchorage, Alaska 99501
Fax:276-3306

RE:Your Representation in 3AN-S98-2211 CR through Office of Public Advocacy

Dear Mr. Butler:

Thirteen page fax. This is to let you knot that unlesss our communications improve that I will be unable to allow you to represent me in more fabricated State District Court charges. I am offended at your lack of respect for your employer in this matter, Mr. Brant McGee, Director, Office of Public Advocacy, who, like I, has had nothing but praise for your work until now. Mr. McGee, my husband, Tom, and I met September 11 and developed a "short list" of possible attorneys for me in this matter and then I understand Mr. McGee chose you as my attorney for which I had been originally grateful. Now, I am worried that you are "dragging your feet" and am questioning your interest in my case.

Background

I received the most serious injury of my life when I was invited to Hilton Anchorage on February 20, 1998 to be knocked out cold without provocation waking up in a pool of blood requiring seven stitches in the back of my head. I had gone to Hilton Anchorage that day to discuss with Mr. Bob Southall, General Manager, the seven page enclosed Pages 7-13 of this fax written admission of Mr. Mitchell Gravo, Alaska attorney, of a grave criminal act. Mr. Gravo, an admitted criminal, was not so much as disciplined by Ms. Beth Kerttula, then President, and Board of Governors, Alaska Bar Association, after he signed the enclosed seven page "No Contest" Plea Agreement dated May 15, 1995. Enclosed also as a cover sheet is a summary announcement in Anchorage Daily News dated December 18, 1996 (Page 6 of this fax). At the same time, my husband, Thomas S. Obermeyer, after 14 1/2 years still does not have Alaska law license even though there has never been any question of Tom's good character and he has been licensed in State of

Missouri which has reciprocity with Alaska since 1990. Please read 57 A.L.R. 4th 1195 (1987) which is Tom's lead case in the summary of American law that goes to every testing and licensing issue in the United States of America.

You filed "Entry of Appearance" in my case on September 16, 1998 but since that time you have been unable to meet with me at all and have only spoken to me once on the phone and another time when I dropped by as you were walking into your office. Of course, I understand from Mr. McGee that you are supposed to be paid $60.00 an hour for this work. I have talked to your wife, Stephanie, and asked her on September 23 if your office would simply file a "Motion for Dismissal." I then faxed the six page document that Mr. Ronald Patterson finally filed September 11, 1998 entitled "Motion to Dismiss in the Interest of Justice" after seven months since March 20, 1998 of "loading the file" in #AN-S98-2211 CR with extraneous documents that do not mean anything along with Mr. Hollis French, Assistant State Prosecutor.

I have been charged with "Harassment" by State of Alaska after Officers Apperson and Martin forged an Anchorage Police Report charging me with "Assault" and "Trespass" that Ms. Mary Hughes, Municipal Attorney, fradulently forwarded to Mr. Bruce Botelho, Attorney General. Her family's law firm makes literally millions of dollars a year from the Municipal Government. I regret that my husband works in the Municipal Attorney's Office under a supervisor who has "no scruples." Ms. Hughes has with full knowledge committed a very grave criminal act as a licensed Alaska attorney and past President, Alaska Bar Association. She is the party that should be defending herself, not I. My charge was then changed to the lowest level misdemeanor, "Harassment," so the "institution of the prosecution" is flawed and the case should have been dismissed immediately based on improper charging documents. Judge Stephanie Joannides arraigned me on March 20, 1998 even though she must have known the charging documents should have been the basis for immediate "Dismissal." I have continued to be "harassed" for almost eight months again. Every time my "Speedy Trial" right is "tolled" by Judge Joannides, I raise disagreement and yet she has done it repeatedly without thought to my rights. For these reasons

alone, the case should be thrown out of court. All I can do is file complaints against all of these unethical attorneys with Alaska Bar Association which I have done.

Of course, I assume you know that I have also had three non-jury federal, criminal trials made up against me which went on for over two years. The trials are a result of two assaults I suffered on June 29, 1994 and August 15, 1995 in Anchorage Federal Building. All of this because I gave up a paying teaching job at McLaughlin High School that I has held 1984-90 to volunteer my time to help our children get a good education on Anchorage School Board. I then became very well known. Those who control everything that goes on here thought I would simply resign my School Board seat just because of controversial publicity. My husband and I have been targeted to the point of disbelief.

Current Treatment

I want to record here my treatment in the last couple of weeks. The day before you submitted an "Entry of Appearance," I had called to R.S.V.P. Anchorage Convention and Visitors Bureau (ACVB) luncheon to be held at Regal Alaskan Hotel on September 17. The morning of September 17, I first was insulted and asked to "Shut up or I will call security!" by Chief Justice Warren Matthews when I went to a public meeting of Alaska Judicial Council interviews for Alaska Supreme Court. At lunch time, I went to Regal Alaskan Hotel per my acceptance two days earlier to be confronted by what I believed were four security guards who let me know that I could not go to the event. Not understanding what was going on, Mr. John Simien, whom I now understand is Director, Human Resources, Regal Alaskan, asked me if I wanted an explanation from Mr. Max Lowe, General Manager. I, of course, did need an explanation so I went to the outer office of Mr. Lowe, who tried to blame my rude treatment on Mr. Bill Elander, paid CEO, ACVB. I simply left the hotel. I went back to Alaska Judicial Council Meeting that afternoon and was asked to leave a public meeting a second time.

The other very insulting circumstance that arose last week was that I had called Alaska Support Industry Alliance office

as a two year dues paying member on September 24 to check to see if there would be a Board of Directors Meeting that afternoon. I understood there was so I let the staff know that I would be coming as I have done almost monthly since I joined. The moment I arrived at the Board Meeting, I was told that there was an Executive Session and that I should leave. I was amazed but was gratified that Mr.Robert Tallent, Current President, Alliance, came out to apologize and let me know he was sorry.

Interactions with Your Law Office

I was very enthused when I was first informed by Mr. McGee that you would represent me. Of course, we live in such a small town and I have known you since you worked for Ms. M. Ashley Dickerson, Attorney, in about 1983. We have seen each other at innumerable social functions and I had naively believed it would be a good message in this community if you would represent me. I have just spoken with Ms. Dickerson today who let me know that she believes that you did not settle up with her financially when you left her employment many years ago. This fact really saddens me.

Also, I had understood from your wife, Stephanie, that Mr. Hollis French was going to drop off at your office the State of Alaska's "Response to Motion for Dismissal in the Interest of Justice" #AN-S98-2211 CR on September 24. When I called September 23, you let me know that Mr. McGee was on the line and that you had to go. I also dropped off to your office the letter dated September 25, 1998 signed by Ms. Barbara Armstrong, CLE Director, Alaska Bar Association, which states: "If you do not leave the premises when requested, Bar staff have been directed to call the administraitve phone number of the Anchorage Police Department to obtain their assistance in having you removed from the office." I then called back to find out if Mr. French had indeed written and sent to your office a "Response to Motion for Dismissal in the Interest of Justice." Your wife's promise to me when I first talked to her about September 18 was that you would rountinely send me any document about me that your office receives so I am assuming that Mr. French did not send a motion to your office.

Conclusion

I am becoming convinced that you are unwilling to represent my best interest in #AN-S98-2211 CR as an advocate. Why did you agree to take my case if this is true? I am still hoping that I am mistaken and that you really might care about representing for me on October 12 at 9:00 A.M. when these charades continue. I will not sit with you in court if I truly believe that you do not care about representing me effectively. How could you treat me this way after we have been friends for so many years? Please think about whether you want to continue this case or withdraw in the next 24 hours. If we meet tomorrow, our first discussion will be almost two weeks after you took this case on September 16. Why have you simply not moved for "Dismissal" as I have requested? As I told your wife, you can still bill Office of Public Advocacy for your time. I had thought you would find it very appealing to consider a civil lawsuit against Hilton International, the largest gambling organization in the world, after my criminal case is concluded but after the way you have treated me, I doubt I will allow further representation from you.

Please give me a call if you would like.

Sincerely yours,

Theresa Nangle Obermeyer

Theresa Nangle Obermeyer
cc:Mr. McGee
Ms. Driscoll
Alaska Supreme Court
Enclosures

B4 Anchorage Daily News

December 18, 1996

New lobbyist picked

The Municipality of Anchorage will have a new lobbyist in Juneau this January — Mitch Gravo, who is also lobbyist for Anchorage Telephone Utility, the Anchorage Convention & Visitors Bureau and the Anchorage Economic Development Corp. Mayor Rick Mystrom picked Gravo for the job, and the Anchorage Assembly approved the move Tuesday. Gravo, who earned $445,000 in 1995 from his lobbying activities, pleaded no contest last year to charges he solicited illegal campaign contributions from the bingo and tab-pull industry. In a plea bargain, he agreed to pay $8,000 and perform 130 hours of community service. Gravo will replace Robert Evans and Joe Hayes, who have worked as lobbyists for the city since Tom Fink's administration. The contract with Gravo will cost $45,000 a year. The current lobbyists together charged $70,000 a year. Assembly members Charles Wohlforth and Bob Bell voted against hiring Gravo. Bell said legislators told him Hayes and Evans were doing a good job. Wohlforth complained that Mystrom waited until last Saturday to tell Evans and Hughes Hayes that he would not renew their contract. Mystrom did not criticize the performance of Hayes or Evans, except to say that neither had called his office in the last two months.

Daily News staff

1/98

To date there has been no effort by Alaska Bar Assn. to disbar Mr. Graves; an admitted criminal.

IN THE DISTRICT COURT FOR THE STATE OF ALASKA

THIRD JUDICIAL DISTRICT

STATE OF ALASKA,

Plaintiff,

vs.

MITCHELL GRAVO,

Defendant.

Case No. 3AN-S94-6312 Cr.

MAY 2 < 1995

DCLT

CRIMINAL RULE 11 PLEA AGREEMENT

VRA CERTIFICATION

I certify that this document and its attachments do not contain (1) the name of a victim of a sexual offense listed in AS 12.61.140 or (2) a residence or business address or telephone number of a victim of or witness to any offense unless it is an address used to identify the place of the crime or it is an address or telephone number in a transcript of a court proceeding and disclosure of the information was ordered by the court.

Pursuant to AS 12.55.005, et seq. and Alaska Rule Criminal Procedure 11(e), the State of Alaska and the defenda advise the court that they have reached a Rule 11 plea agreemen

TERMS OF THE AGREEMENT

1. The defendant agrees to enter a plea of no contest the charges in the Amended Information in this case for crimes of Solicitation of Excess Contributions (four coun which took place on or about June 1, 1990 through on or abo June 30, 1990. A copy of the Amended Information is attached

STATE OF ALASKA
DEPARTMENT OF LAW
OFFICE OF SPECIAL PROSECUTIONS AND APPEALS
310 K STREET, SUITE 308
ANCHORAGE, ALASKA 99501
(907) 269-6250

this plea agreement and will be filed if this agreement is accepted by the court.

2. The parties agree that the plea will result in the court imposing the following sentence:

a. Fifteen days incarceration for each count, with each count consecutive to all other counts for a total of sixty days. All jail time will be suspended, and the defendant will be placed on probation for a period of two years on the conditions set forth below.

b. Payment of a $2,000.00 fine for each count for a total of $8,000.00. Payment of the fine shall also be a special condition of probation.

c. Thirty hours of community work service for each count, total of 120 hours, to be performed in aid of the hungry or homeless in Alaska. Community work service to be monitored by ASAP and performed at a rate to be determined by ASAP, but in any event no community work service will be required in the months of January through May of each calendar year. Performance of the community work service shall also be a condition of probation.

3. The defendant agrees to be placed on informal probation under the supervision of the court. The defendant will abide any and all general and special conditions of probation ordered by the court.

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4. If the defendant fails to abide by the conditions this agreement or the terms of probation, a petition to revo defendant's probation may be filed and the court may impose a sentence permitted by law, including an order that any period incarceration previously suspended must be served.

5. The defendant acknowledges that this agreement has be discussed fully with counsel and is entered into with the advi and consent of counsel. The defendant fully understands t terms of this agreement and the consequences of abiding by violating this agreement. Further, the defendant acknowledg that after full consultation with counsel, defendant has be informed and understands the following:

a. The nature of the charges;

b. The maximum possible punishment provided by the statutes defining the offenses to the pleas being taken, to wit: six months incarceration, a $2,500.00 fine, or both on each count, for a total of 24 months incarceration, a $10,000.00 fine, or both.

c. That defendant has the absolute right to persist in his plea of not guilty;

d. That by entering a plea of guilty or no contest, defendant is voluntarily

(1) waiving defendant's right to remain silent;

(2) waiving the right to call witnesses on defendant's behalf;

(3) waiving the right to a public trial by jury or by judge;

(4) waiving the presumption of innocence and the requirement that the State prove the charge beyond a reasonable doubt;

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(5) waiving the right to be confronted by and cross-examine the witnesses against defendant;

(6) waiving the right to appeal the convictions or to appeal the terms of the agreed sentence to be imposed, and waiving the right to bring any motions under Criminal Rule 35(a);

(7) waiving the right to counsel at trial and on appeal.

6. In addition to abiding by the general terms of probation as required by the court, defendant also agrees to the following special conditions of probation:

a. Mr. Gravo may not prefile the reports of his activities as a lobbyist with APOC. Mr. Gravo must prepare and submit monthly lobbyist reports to APOC each month of the calendar year without regard to whether he has terminated or added a client as a lobbyist. Each such monthly report must be submitted to APOC by the end of the month immediately following the reporting period.

b. Mr. Gravo may solicit campaign contributions to the extent permitted by law under AS 24.45. However, Mr. Gravo shall report all solicitations for campaign contributions to the Office of Special Prosecutions and Appeals on a monthly basis. The report shall list the date of the solicitation, the person solicited, and the candidate, group, association or ballot proposition for whom the solicitation was made. The Office of Special Prosecution and Appeals may use this report for law enforcement purposes.

c. Mr. Gravo must strictly comply with the requirements of AS 15.13 (campaign disclosure) and AS 24.45 (regulation of lobbying) and regulations promulgated under those statutes. Mr. Gravo may not prepare or fill out employer of lobbyist (his clients') disclosure reports. He may advise them on the preparation of the report.

d. Payment of a $2,000.00 fine for each count for a total of $8,000.00. Payment of the fine shall also be a term of the judgment.

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e. Thirty hours of community work service for e count, total of 120 hours, to be performed in of the hungry or homeless in Alaska. Commun work service to be monitored by ASAP performed at a rate to be determined by ASAP, in any event no community work service will required in the months of January through May each calendar year. Performance of the commun work service shall also be a term of judgment.

7. If the defendant has never been fingerprinted photographed or otherwise processed by the Department Corrections, defendant shall do so within five calendar days f the date of signing of this agreement by presenting a copy this signed agreement at the Cook Inlet Pretrial Facility, Th Avenue at Post Road in Anchorage, Alaska, and submit to s processing. Failure to appear for processing shall be grounds set aside the plea agreement.

8. The defendant acknowledges and affirmatively represe to the court that, by entering this agreement:

a. Defendant is fully satisfied with the representation and advice of defendant's lawyer;

b. Defendant has fully discussed the charge(s) made against defendant in this case, potential defenses, sentencing ranges and this agreement with defendant's lawyer and is entering this agreement voluntarily, knowingly and intelligently;

c. Defendant understands that defendant is voluntarily giving up defendant's right to testify in defendant's own behalf at trial;

d. Defendant is voluntarily waiving the right to contest all factual and legal issues in this case, and is waiving the right to proceed with the hearing before the Alaska Public Offices Commission which was ordered by Judge Wolverton in this case.

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e. Defendant is presently not under the influence of alcohol, drugs or medication, and is not presently under the care of any physician, psychiatrist or psychologist.

9. The parties further represent that the terms of the agreement are completely set out by this document. The defenda acknowledges and represents that there have been no threat coercion, or promises apart from this plea agreement.

CERTIFICATION OF PARTIES

I, MITCHELL GRAVO, defendant, certify that I have careful read and understand the terms of this agreement and all of i consequences and have no questions. I have discussed th agreement with my lawyer, Jeffrey M. Feldman, and he h explained to me all the rights which I am waiving if I sign th agreement. I am signing this document freely and voluntarily a I agree to be bound by its terms or suffer the consequences s forth above should I violate any of the provisions of th agreement. I am not now under the influence of alcohol or drug

Defense counsel certifies to the court the following: Th counsel has read this document, has explained the terms of th agreement and its contents to defendant, including but n limited to the minimum and maximum sentencing range and the Ru 11 requirements, that to the best of counsel's knowle defendant understands the agreement and consents to its terms

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that it is being entered into with the advice and consent

counsel.

Defendant — Date 5/15/95

JEFF FELDMAN

Counsel for Defendant — Date 5/17/95

Assistant Attorney General — Date 5/18/95

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11.09.09

LAW OFFICES
BIRCH, HORTON, BITTNER AND CHEROT
1155 Connecticut Avenue, N.W., Suite #1200
Washington, D.C. 20036

Telephone: (202) 659-5800 Telecopier: (202) 659-1027

TELECOPY TRANSMITTAL COVER SHEET

TO: Tracy for Ms. McCammon FAX NO.: 907 586-7589
(Fax No. Verified □)

FROM: Yoni for Roy Jones NO. OF PAGES:__
(including this page)

DATE: September 29, 1998

REMARKS: **Please forward the attached to Ms. McCammon.**

THANK YOU.

IF YOU DO NOT RECEIVE ALL PAGES, PLEASE CALL AS SOON AS POSSIBLE AT (202) 659-5800.

File No.: 401,777.97 *Telecopy Operator:* Mary

September 29, 1998

Molly McCammon
Executive Director
EVOS Trustee Council
645 G Street
Anchorage, AK 99501

Re: Land Exchange Within the Tatitlek-EVOS Trustee Council Wildlife Habitat Conservation Transaction

Dear Molly:

The purposes of this letter are (1) to review the context in which the exchange of a parcel of Tatitlek land was negotiated as part of the overall Tatitlek-Exxon-Valdez Oil Spill Trustee Council fish wildlife habitat conservation transaction and (2) to seek the Councils assistance in facilitating the finalization of the draft exchange agreement that will result in the application to the Tatitlek exchange lands at South Whalen Bay of the identical covenants, restrictions, and reverter already negotiated for applicability to all other surface fee lands in the overall habitat package that are being transferred.

During the negotiations on the Tatitlek habitat agreement which began four years ago, a Forest Service negotiator raised the issue of Tatitlek providing access across its lands to three sections of land which were owned in fee by the United States in Landlock Bay. Tatitlek indicated at the time that this grant of a fee parcel for access was something that could probably be done in the context of an overall habitat agreement. That issue remained dormant during the time that the agreement package was being further refined and appraisals were being conducted, etc.

During the process of selecting its land entitlement under the Alaska Native Claims Settlement Act, Tatitlek specifically considered and rejected the three sections of land which are the subject of discussions in this letter and are part of an exchange agreement proposal that evolved from the negotiations surrounding the Tatitlek habitat project. Tatitlek rejected selecting those three sections of land in the context of ANCSA because they were of low value to the

Corporation and had very little waterfront access. The lands are substantially rocks and hillside land with no commercial timber value nor any known valuable mineral potential.

As the negotiations proceeded, a Forest Service representative suggested that Tatitlek consider accepting through an exchange the three sections of land as part of the overall lands package, which would thereby consolidate land holdings by Tatitlek as well as the United States by eliminating an inholding of the Forest Service. This was, on its face, a management headache for the United States in that the land had very little water access, was of no significant benefit to the United States, and was surrounded by Tatitlek land.

Since the exchange was simply a small component of the much larger transaction, the purpose of the exchange was, in essence, to effect land ownership consolidation and facilitate better management of the lands and less property line for the USFS to maintain. To add a "sweetener" to the transaction to make it potentially in the self-interest of the Corporation to even consider taking the three sections of land which it had rejected previously in the context of making its ANCSA selections, it was proposed that the three sections of land include the subsurface estate. Tatitlek agreed to such an exchange not because it represented any great benefit to the Corporation, but that it gave the Corporation an estate they would not normally own, did help consolidate land ownership in the Landlock Bay area, and was of benefit to the United States.

During the early discussions about the potential exchange, a Forest Service representative suggested that when time came to select some parcel of land already scheduled for inclusion in the habitat transaction and designate it as the "Tatitlek exchange parcel," the two sides would select a mutually agreeable parcel. Initial consideration was given to such an exchange parcel being located somewhere in the middle of the Two-Moon Bay parcel. No parcels were selected, however, or locations identified, since this exchange was a diminimus part of the overall land transaction and not

a determinant of whether the transaction would be accepted or rejected by any party. Priority was placed on other aspects of the overall transaction.

The Regional Appraiser for the Forest Service and the Land Manager of Tatitlek finally met and selected a parcel to be designated "the exchange parcel" for Tatitlek. This was not done by the respective negotiating teams but by the two people mentioned above as a ministerial action. It did not matter where the parcel was designated, merely that it be of approximate equal value for purposes of consummating an exchange. It did not matter to Tatitlek where the parcel was because it was to be conserved regardless of where it was located. The parcel selected was South Whalen Bay, consisting of 761 acres of waterfront. It could just as easily have been some other parcel of an appropriate acreage to be of roughly equivalent value to the value of the 1,918 acre Forest Service parcel.

The Forest Service undertook the task of drafting an exchange agreement. That document was not drafted by the team that had carried out the negotiations, however, and was drafted late in the process because it was, as mentioned earlier, simply not a substantial portion of the overall agreement. It was merely one of the minor pieces to the overall mosaic making up the land's package.

During the process of finalizing documents, it became apparent to Tatitlek that the draft exchange document inadvertently had omitted the convenants and restrictions which were applicable to every other parcel of surface fee land being conveyed to the United States in this overall transaction. When this was raised, the response from the drafters of the document was that their instructions did not include conserving this parcel. The drafters admittedly were not aware of details of how the exchange came about and had drafted the exchange document to the best of their knowledge so that it comformed to the authorities the Forest Service uses for land

exchanges. When it became clear that the disagreement on what the exchange should entail could not be remedied quickly as part of the preparation of documents for the first closing on the Tatitlek habitat transaction, an amendment to the Land's Agreement was prepared to place the exchange among the documents to be dealt with at the second closing. This was done in order to buy some time for the exchange issue to be remedied.

A number of discussions have taken place, but there remains an impasse.

On Tatitlek's side of the issue, there has been a reasonable expectation throughout the process that -- since it was dealing with the Trustee Council, whose primary goals include conserving the habitat in the spill zone for restoration purposes and since one of the stated reasons for the Corporation to enter into such a transaction was to ensure that even the government would not sell the lands or violate the covenants which run with them in the future – the habitat lands in the package would be conserved in perpetuity. After all, it was for precisely those reasons that the "reverter" provisions on all acreage being conveyed to either the United States or to the state of Alaska were negotiated and drafted. Unless remedial action is taken on this matter, the Tatitlek land selected to serve as the designated exchange parcel would not be conserved/restored **as have the rest of the surface fee lands in the package.** The covenants and restrictions on the Tatitlek exchange parcel should be identical to the convenants and restrictions on each of the 28,746 remaining acres of surface estate that are being conveyed to the United States as part of the habitat package.

Given this background, one can conclude that on this very small piece to the larger lands package, there was not a meeting of the minds. The question then becomes how to remedy this matter in a way that conserves these lands as envisaged by Tatitlek in the negotiations and still adhere to mandates that the United States must follow to with respect to exchanging equal value parcels of land.

Tatitlek believes that the value of two parcels of land, one being subject to a timber conservation easement (on the United States land parcel at Landlock Bay) and the other being subject to convenants, restrictions and the reverter (on the parcel that Tatitlek proposes to convey at South Whalen Bay), **are approximately equal**. One would have great difficulty seriously or authoritatively contending otherwise.

However, if representatives of the Secretary of Agriculture cannot agree that the two parcels are of approximately equal value and that the disparity, however small, favors the United, States, then we would recommend the use of the Secretary's authority to "accept cash in order to equalize the values of the property exchanged." In this case, because of the entire context of this exchange reviewed previously, we believe that it is appropriate for and urge that the Trustee Council provide from its resources such a payment to the United States to ensure the restoration of the South Whalen Bay parcel.

We look forward to closing that transaction on or about October 1, 1998, and concluding the Agreement on this historic wildlife habitat package for the benefit of the public as well as The Tatitlek Corporation.

We very much appreciate your assistance and that of the Trustees in working out an equitable resolution of this issue in a way which will result in the Tatitlek lands in the habitat package that are

designated as exchange lands being conserved to the same extent as other Tatitlek surface fee lands in the habitat package.

Sincerely,

Counsel to The Tatitlek Corporation

Roy Stapleton Jones, Jr.

Enclosure: (1) Suggested amendment to the draft Exchange Agreement
(2) ANCSA Land Exchange Authority

cc: Carroll Kompkoff

Village Corporation and the revenues and lands granted by this chapter shall not be subject to lien, execution or judgment to fulfill such a contract.

(b) Patents for homesteads, headquarters sites, trade and manufacturing sites, or small tract sites; use and occupancy protection

The Secretary is directed to promptly issue patents to all persons who have made a lawful entry on the public lands in compliance with the public land laws for the purpose of gaining title to homesteads, headquarters sites, trade and manufacturing sites, or small tract sites (43 U.S.C. 682[1]), and who have fulfilled all requirements of the law prerequisite to obtaining a patent. Any person who has made a lawful entry prior to August 31, 1971, for any of the foregoing purposes shall be protected in his right of use and occupancy until all the requirements of law for a patent have been met even though the lands involved have been reserved or withdrawn in accordance with Public Land Order 4582, as amended, or the withdrawal provisions of this chapter: *Provided*, That occupancy must have been maintained in accordance with the appropriate public land law: *Provided further*, That any person who entered on public lands in violation of Public Land Order 4582, as amended, shall gain no rights.

(c) Mining claims; possessory rights, protection

On any lands conveyed to Village and Regional Corporations, any person who prior to August 31, 1971, initiated a valid mining claim or location under the general mining laws and recorded notice of said location with the appropriate State or local office shall be protected in his possessory rights, if all requirements of the general mining laws are complied with, for a period of five years and may, if all requirements of the general mining laws are complied with, proceed to patent.

(d) Purchase restrictions for personnel inapplicable to chapter

The provisions of section 11 of this title shall not apply to any land grants or other rights granted under this chapter.

(e) National Wildlife Refuge System; replacement lands

If land within the National Wildlife Refuge System is selected by a Village Corporation pursuant to the provisions of this chapter, the secretary[2] shall add to the Refuge System other public lands in the State to replace the lands selected by the Village Corporation.

(f) Land exchanges

The Secretary, the Secretary of Defense, the Secretary of Agriculture, and the State of Alaska are authorized to exchange lands or interests therein, including Native selection rights, with the corporations organized by Native groups, Village Corporations, Regional Corporations, and the corporations organized by Natives residing in Juneau, Sitka, Kodiak, and Kenai, all as defined in this chapter, and other municipalities and corporations or individuals, the State (acting free of the restrictions of section 6(i) of the Alaska Statehood Act), or any Federal agency for the purpose of effecting land consolidations or to facilitate the management or development of the land, or for other public purposes. Exchanges shall be on the basis of equal value, and either party to the exchange may pay or accept cash in order to

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(1) Where lands
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equalize the value of the property exchanged: *Provided*, That when the parties agree to an exchange and the appropriate Secretary determines it is in the public interest, such exchanges may be made for other than equal value.

(g) National Wildlife Refuge System lands subject of patents; Federal reservation of first refusal rights; provision in patents for continuing application of laws and regulations governing Refuge

If a patent is issued to any Village Corporation for land in the National Wildlife Refuge System, the patent shall reserve to the United States the right of first refusal if the land is ever sold by the Village Corporation. Notwithstanding any other provision of this chapter, every patent issued by the Secretary pursuant to this chapter—which covers lands lying within the boundaries of a National Wildlife Refuge on December 18, 1971, shall contain a provision that such lands remain subject to the laws and regulations governing use and development of such Refuge.

(h) Withdrawals of public lands; termination date

(1) All withdrawals made under this chapter, except as otherwise provided in this subsection, shall terminate within four years of December 18, 1971: *Provided*, That any lands selected by Village or Regional Corporations or by a Native group under section 1611 of this title shall remain withdrawn until conveyed pursuant to section 1613 of this title.

(2) The withdrawal of lands made by section 1610(a)(2) and section 1615 of this title shall terminate three years from December 18, 1971.

(3) The provisions of this section shall not apply to any withdrawals made under section 1616 of this title.

(4) The Secretary is authorized to terminate any withdrawal made by or pursuant to this chapter whenever he determines that the withdrawal is no longer necessary to accomplish the purposes of this chapter.

(i) Administration of withdrawn lands; contracting and other authority of Secretaries not impaired by withdrawal

Prior to a conveyance pursuant to section 1613 of this title, lands withdrawn by or pursuant to sections 1610, 1613, and 1615 of this title shall be subject to administration by the Secretary, or by the Secretary of Agriculture in the case of National Forest lands, under applicable laws and regulations, and their authority to make contracts and to grant leases, permits, rights-of-way, or easements shall not be impaired by the withdrawal.

(j) Interim conveyances and underselections

(1) Where lands to be conveyed to a Native, Native Corporation, or Native group pursuant to this chapter as amended and supplemented have not been surveyed, the same may be conveyed by the issuance of an "interim conveyance" to the party entitled to the lands. Subject to valid existing rights and such conditions and reservations authorized by law as are imposed, the force and effect of such an interim conveyance shall be to convey to and vest in the recipient exactly the same right, title, and interest in and to the lands as the recipient would have received had he been issued

(1)

NOTE: Proposed edits to draft Exchange Agreement in bold and underlined text.

STATE BUSINESS - NO CHARGE

AFTER RECORDING RETURN TO:
U.S. Department of Agriculture
Forest Service
P. O. Box 21628
Juneau, Alaska 99802-1628

TATITLEK EXCHANGE AGREEMENT

THIS EXCHANGE AGREEMENT (the "Exchange Agreement") is entered into by **The Tatitlek Corporation** ("Tatitlek"), a Native Village Corporation organized pursuant to the Alaska Native Claims Settlement Act, as amended, 43 U.S.C. § 1601 et. seq. ("ANCSA"), and the laws of the State of Alaska, whose address is P. O. Box 650, Cordova, Alaska 99574, and the **United States of America** ("United States"), acting by and through the Forest Service, Department of Agriculture, whose address is P. O. Box 21628, Juneau, Alaska 99802-1628, in consideration of the interests in land herein described and other good and valuable considerations, the receipt of which is hereby acknowledged. Tatitlek and the United States hereby agree as follows:

WITNESSETH:

This Exchange Agreement authorizes an equal value exchange of interests in land between Tatitlek and the United States (the "Exchange"). The purpose of this Exchange is to eliminate a surface and subsurface estate in-holding within the Tatitlek lands and to consolidate Forest Service lands and Tatitlek lands.

Pursuant to the Agreement for Sale and Purchase of Lands and Interests in Land among Tatitlek, the United States, and the State of Alaska, dated May 13, 1998, (the "Agreement") and to the authority of **the Alaska Native Claims Settlement Act** ANCSA and the Alaska ~~Native~~ **National** Interest Lands Conservation Act, Tatitlek does hereby agree to convey to the United States the surface estate to the real property described in Appendix L attached hereto. In exchange therefore the United States agrees to convey to Tatitlek by U.S. Patent issued by the United States, the surface and subsurface estates to the real property described in Appendix B attached hereto. Upon conveyance by the United States of the real property described in Appendix B, such lands shall

be subject to the Timber Conservation Easement at Exhibit XIII of the Agreement, **and upon conveyance by Tatitlek of the real property described in Appendix L, such lands shall be subject to the covenants, restrictions and reverter in paragraphs 1-3, 8 and 9 of the U.S. Warranty Deed at Exhibit XIV.**

The Exchange shall proceed as follows: First, Tatitlek agrees to convey, when requested by the United States, by general warranty deed, in accordance with Department of Justice standards, the lands or interests in land described in Appendix L, to the United States and its assigns, together with necessary documents required to convey good title, free from all encumbrances except those set forth in Appendix L, **subject to the covenants, restrictions and reverter in paragraphs 1-3, 8 and 9 of the U.S. Warranty Deed at Exhibit XIV of the Agreement.** Then, Tatitlek agrees to furnish title evidence on the real property described in Appendix L in a form satisfactory to the Office of the General Counsel of the United States Department of Agriculture.

When title is acceptable to the United States, pursuant to the General Exchange Act, the Federal Land Policy and Management Act, the Federal Land Exchange Facilitation Act and the Alaska National Interest Lands Conservation Act, the United States agrees to convey by U.S. Patent the real property described in Appendix B, subject to valid existing rights and any encumbrances noted therein, and subject to the Timber Conservation Easement at Exhibit XIII of the Agreement.

Both parties agree not to do, or suffer others to do, any act by which the value of the real property that is the subject of this Exchange Agreement may be diminished or further encumbered. In the event any such loss or damage occurs from any cause, including acts of God, to the real property described in Appendices B and L, before execution of deed or issuance of patent, either party may refuse without liability to complete the Exchange.

This Exchange Agreement terminates in the event that either party cannot convey good and sufficient title to the real property agreed to be exchanged.

No Member of Congress or Resident Commissioner shall be admitted to any share or part of this Exchange Agreement or to any benefit that may arise therefrom unless it is made with a corporation for its general benefit (18 U.S.C. 431, 433).

IN WITNESS WHEREOF, Tatitlek and the Regional Forester, acting on behalf of the United States, have executed this Exchange Agreement. This Exchange Agreement shall be effective on the last date signed.

DATED this _____ day of _____, 1998.

THE TATITLEK CORPORATION

By:_____
Carroll Kompkoff, President

STATE OF ALASKA)
) ss:
THIRD JUDICIAL DISTRICT)

THIS IS TO CERTIFY that on the _____ day of _____, 1998, before me, the undersigned, a Notary Public in and for the State of Alaska, commissioned and sworn, personally appeared CARROLL KOMPKOFF, to me known to be the individual described and who executed the within and foregoing TATITLEK EXCHANGE AGREEMENT as President of The Tatitlek Corporation, the Corporation that executed the within and foregoing instrument, and acknowledged to me that he signed the same as President of The Tatitlek Corporation in the name of and for and on behalf of said Corporation, freely and voluntarily and by authority of its Board of Directors and shareholders for the use and purposes therein mentioned.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my official seal the day and year first above written.

_____
Notary Public in and for Alaska
My commission expires:_____

DATED this _____ day of _____, 1998.

USDA FOREST SERVICE, ALASKA REGION

By:_____
James A. Caplan, Acting Regional Forester

STATE OF ALASKA)
) ss.
THIRD JUDICIAL DISTRICT)

THIS IS TO CERTIFY that on the _____ day of _____, 1998, at _____, Alaska, the foregoing instrument was acknowledged before me by JAMES A. CAPLAN, of the Alaska Region of the Forest Service within the Department of Agriculture of the United States of America, on behalf of the United States of America.

GIVEN UNDER MY HAND and official seal the day and year last above written.

_____
Notary Public in and for Alaska
My commission expires:_____

LOCATION INDEX:
See attached Appendices B and L

F:\502402\116C\KAB2999

ATTORNEY GRIEVANCE FORM
Alaska Bar Association

ABA File No. 19_____D_____
(ABA Use Only)

1. THERESA NANGLE OBERMEYER
Your Name

3000 DARTMOUTH DRIVE
Mailing Address

ANCHORAGE, AK 99508-4413
City State ZIP

(907) 278-9455
Phone Number (Daytime)

_____
ABA Date Rec'd Stamp

2. MARY K. HUGHES
Attorney's Name

MUNICIPAL ATTORNEY
Mailing Address 632 W. 6TH AVE #730

P.O. BOX 196650, ANCHORAGE, AK 99519-6650
City State ZIP

(907) 343-4545
Phone Number (Daytime)

3. I am the: (circle one)

a. Client

b. Opposing party

c. Opposing attorney

d. Judicial officer

(e.) Another person with knowledge of attorney's conduct

ALASKA BAR ASSOCIATION
BOX 100279
ANCHORAGE, ALASKA
99510
(907) 272-7469
FAX (907) 272-2932

USE ADDITIONAL PAGES IF EXTRA SPACE NEEDED.
Please do not write on the back side of this form. Thank you.

4. **IF YOU ARE A CLIENT:**

a. I hired this attorney on: NA
(Date)

in _____.
(City) (State)

b. I asked this attorney to perform the following legal services for me:

c. I signed a written fee agreement: (circle one) YES NO
(If yes, please attach a copy)

d. This grievance is related to the following court case:

_____
(Case Name) (Case Number)

5. **IF YOU ARE SOMEONE OTHER THAN THE CLIENT:**

a. I was (or am) involved in the following legal or other matter with this attorney:

ENCLOSED 13 PAGES AND SPECIFICALLY MY PREVIOUS COMPLAINTS AGAINST MR. MITCHELL GRAVO OF MARCH 5, 1997 AND MR. JOSEPH HUDDLESTON OF JUNE 22, 199[illegible]

ALASKA BAR ASSOCIATION
BOX 100279
ANCHORAGE, ALASKA
99510
(907) 272-7469
FAX (907) 272-2932

USE ADDITIONAL PAGES IF EXTRA SPACE NEEDED.
Please do not write on the back side of this form. Thank you.

b. My first contact with this attorney in this matter was

on: _____ (Date) in _____ (City) (State).

I GREW UP WITH MS. HUGHES' COUSINS, THE ANSTEYS, IN ST. LOUIS, MISSOURI AND CALLED HER FATHER, MR. JOHN HUGHES AND I MOVED HERE IN 1978

c. This grievance is related to the following court case:

_____ (Case Name) IN 1978 WHEN MY HUSBAND, TOM, (Case Number)

6. I complain about the following things this attorney did or didn't do:

① Please be as clear and concise as possible.
② Attach additional pages if needed ③ Do not write on the back side of this form.

1. MS. HUGHES HAS FORWARDED THE ENCLOSED PAGES # 1 + 2 ANCORAGE POLICE TICKETS CASE NO. 98-9609 TO ALASKA STATE PROSECUTOR WHEN SHE HAS A SWORN DUTY TO NOT ALLOW FRADULENT TICKETS TO BE PROCESSED.

2. THE REHIRING OR CONTINUANCE OF THE EMPLOYMENT OF MR. MITCHELL GRAVO BY MUNICIPALITY IS MS. HUGHES' DIRECT RESPONSIBILITY

7. Attached are copies of letters, court papers or other documents in my possession which help explain this complaint:

(Please list what you have attached) (Attach additional pages if needed)

1. PAGES 1 + 2 TICKETS CASE NO. 98-9609
2. PAGES 3 + 4 PRESS RELEASE OF 2/23/98
3. PAGES 5-9 MR. GRAVO COMPLAINT AND CONTRACT
4. PAGES 10-13 COMPLAINT AS MR. JOSEPH HUDDLESTON, MS. HUGES LAW PARTNER
5.
6.
7.
8.

ALASKA BAR ASSOCIATION
BOX 100279
ANCHORAGE, ALASKA
99510
(907) 272-7469
FAX (907) 272-2932

USE ADDITIONAL PAGES IF EXTRA SPACE NEEDED.
Please do not write on the back side of this form. Thank you.

8. The following is a list of letters, court papers or other documents not in my possession which help explain this complaint:
(Please list what you have attached) (Attach additional pages if needed)

I HAVE VERY LENGTHY BACK UP DOCUMENTATION OF DEFAMATORY ISSUES TRUMPED UP AGAINST MY GOOD NAME FOR MANY YEARS BEGINNING DURING RECALL OF ANCHORAGE SCHOOL BOARD DECEMBER 15, 1992.

9. The following persons have information concerning this grievance:
(Attach additional pages if needed)

MAYOR RICK MYSTROM
Name

632 W. 6TH AVE, P.O. BOX 196650
Mailing Address

ANCHORAGE, AK 99519-6650
City State ZIP

(907) 343-4431
Phone Number (Daytime)

This person can provide the following information:

MS. HUGHES REPORTS TO AND GIVES LEGAL ADVICE TO MAYOR.

ALASKA BAR ASSOCIATION
BOX 100279
ANCHORAGE, ALASKA
99510
(907) 272-7469
FAX (907) 272-2932

USE ADDITIONAL PAGES IF EXTRA SPACE NEEDED.
Please do not write on the back side of this form. Thank you.

GOVERNOR TONY KNOWLES
Name FRONTIER BLDG.
3601 C ST. # 758
Mailing Address
ANCH AK
City State ZIP
(907) 269-7450
Phone Number (Daytime)

This person can provide the following information:

ALASKA STATE PROSECUTOR SUSAN PARKES IS APPOINTED BY GOVERNOR KNOWLES.

10. **IF YOU ARE A CLIENT OR PERSON LEGALLY OBLIGATED TO PAY THE ATTORNEY:**

a. I have filed a Petition For Arbitration Of Fee Dispute concerning this attorney: (circle one) YES NO

Filed: _____ ABA No: _____
(Date)

b. I have filed a civil law suit against this attorney:
(circle one) YES NO

Filed: _____ Case No: _____
(Date)

11. *I understand that, under the Alaska Bar Rules adopted by the Alaska Supreme Court, I and other persons contacted during the course of a grievance investigation have a duty to maintain the confidentiality of the investigation prior to the initiation of formal proceedings.*
I also understand that it will be regarded as a contempt of the Supreme Court to breach this confidentiality in any way; although I also understand it is not a breach of confidentiality for me or a person contacted to consult with an attorney.

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USE ADDITIONAL PAGES IF EXTRA SPACE NEEDED.
Please do not write on the back side of this form. Thank you.

12. I have made a copy of this Attorney Grievance Form and any attachments for my own use.

13. I have received a copy of the pamphlet "Ethical Grievances Against Attorneys" which provides answers to common questions about the attorney discipline process. If I have other questions, I may contact the Bar Association.

14. PLEASE RETURN THIS ATTORNEY GRIEVANCE FORM AND ATTACHMENTS TO:

Bar Counsel
Alaska Bar Association
P.O. Box 100279
Anchorage, AK 99510-0279

15. **PLEASE DATE AND SIGN THIS ATTORNEY GRIEVANCE FORM BELOW. GRIEVANCES WHICH ARE NOT SIGNED OR ARE UNCLEAR OR INCOMPLETE WILL BE RETURNED FOR APPROPRIATE COMPLETION.**

I have reviewed this Attorney Grievance Form and the information I have provided is true and complete to the best of my knowledge.

DATE: 3/19/98 SIGNED: Theresa Nangle Obermeyer
Complainant *

***PLEASE SUBMIT YOUR ORIGINAL ATTORNEY GRIEVANCE FORM WITH YOUR ORIGINAL SIGNATURE.**
THE ALASKA BAR ASSOCIATION CANNOT ACCEPT A COPY OR FAX OF YOUR ATTORNEY GRIEVANCE FORM.
PLEASE KEEP A COPY OF EVERYTHING YOU SUBMIT TO OUR OFFICE FOR YOURSELF.

G:\DS\FORMS\INTAKE\GRIEVANC.DOC
(Rev: 3/25/97)

ALASKA BAR ASSOCIATION
BOX 100279
ANCHORAGE, ALASKA
99510
(907) 272-7469
FAX (907) 272-2932

USE ADDITIONAL PAGES IF EXTRA SPACE NEEDED.
Please do not write on the back side of this form. Thank you.

ATN: 1 0 1 9 1 4 4 5 2

UNIFORM SUMMONS AND COMPLAINT
ANCHORAGE POLICE DEPARTMENT

DMV CODE

MUNICIPALITY OF ANCHORAGE, PLAINTIFF
THIRD JUDICIAL DISTRICT OF ALASKA,
IN THE DISTRICT COURT OF ANCHORAGE

No. A1112942

The undersigned officer states that he has reasonable grounds to believe that the defendant named below committed the offense described herein:

ON SAT THE 21 DAY OF Feb 19 98 AT 1736 A.M. P.M.

DEFENDANT Obermeyer (LAST) Theresa (FIRST) N (MIDDLE)

MAIL/ADDRESS 3000 Dartmouth

RES/ADDRESS SAME

ANCH (CITY) AK (STATE) HOME PH# 278-9455

DOB 7-25-45 RACE W SEX F HT 5'10" WT 150

SSN: 496-50-9138

DRIVERS LIC: D (CLASS) 5243340 (NUMBER) AK (STATE)

VEHICLE LICENSE _____ STATE _____ YEAR EXPIRES _____

VEHICLE _____ (YEAR) (MAKE) (MODEL) (COLOR)

EMPLOYER _____ WORK PH# _____

LOCATION OF OFFENSE: Hilton Hotel 500 W. 3rd Ave

DID UNLAWFULLY COMMIT THE FOLLOWING OFFENSE: 8.05.030B2

☒ Municipal Ordinance ☐ State Statute/ Regulation | ☐ Commercial Vehicle ☐ Hazardous Materials

ASSAULT TO WIT: THERESA OBERMEYER DID UNLAWFULLY ASSAULT WILLIAM RODASKY BY INTENTIONALLY OR RECKLESSLY USING PHYSICAL FORCE AGAINST HIM BY GRABBING HOLD OF RODASKY'S SHIRT WITH ONE HAND + CHOKING HIM WITH THE OTHER

POINTS: FINE/BAIL: SURCHARGE:

☐ CORRECTABLE: Appear at Anchorage Police Department. 4501 S. Bragaw, within 7 days.

☐ CORRECTABLE/HHS: Appear at 825 L St., MUNICIPAL Environmental Service Division within 7 days. CALL FIRST.

☐ OPTIONAL COURT: May pay fine or appear in court within 5 Working days. READ REVERSE SIDE.

☐ MANDATORY COURT-INFRACTION: Must appear at 303 K St., Traffic Court ROOM 126, WITHIN 5 WORKING DAYS.

☒ MANDATORY COURT-CRIMINAL: Must appear at 825 W. 4th Ave., COURT ROOM B1, ON MAR 20 ,19 98 , at 9:00 am

☐ I CERTIFY UNDER PENALTY OF PERJURY THAT THE FOREGOING IS TRUE.

Officer Signature / 1431 (DSN) / 2-21-98 (DATE)

Signature: T M Obermeyer ☒ Personally Served

CASE # 98 - 9609

NAME Obermeyer (LAST) Theresa (FIRST) N (MIDDLE)

A1112942

ATN: 1 0 1 9 1 4 4 6 1

UNIFORM SUMMONS AND COMPLAINT
ANCHORAGE POLICE DEPARTMENT

DMV CODE

MUNICIPALITY OF ANCHORAGE, PLAINTIFF

THIRD JUDICIAL DISTRICT OF ALASKA,
IN THE DISTRICT COURT OF ANCHORAGE

No. A1112943

The undersigned officer states that he has reasonable grounds to believe that the defendant named below committed the offense described herein:

ON SAT THE 21 DAY OF Feb 19 98 AT 1736 A.M. (P.M.)

DEFENDANT Obermeyer (LAST) Theresa (FIRST) N (MIDDLE)

MAIL/ADDRESS 3000 Dartmouth

RES/ADDRESS Same

ANCH (CITY) AK (STATE) HOME PH# 278-9455

DOB 7-25-45 RACE W SEX F HT 5'10" WT 150

SSN: 496-50-9138

DRIVERS LIC: D (CLASS) 5243340 (NUMBER) AK (STATE)

VEHICLE LICENSE _____ STATE _____ YEAR EXPIRES _____

VEHICLE _____ (YEAR) (MAKE) (MODEL) (COLOR)

EMPLOYER _____ WORK PH# _____

LOCATION OF OFFENSE: Hilton Hotel 500 W. 3rd Ave

DID UNLAWFULLY COMMIT THE FOLLOWING OFFENSE: 8.30.010A1

☒ Municipal Ordinance ☐ State Statute/ Regulation ☐ Commercial Vehicle ☐ Hazardous Materials

TRESSPASS TO WIT: THERESA OBERMEYER did unlawfully fail to leave the premises at the Hilton Hotel after being verbally requested to do so.

POINTS: FINE/BAIL: SURCHARGE:

☐	CORRECTABLE:	Appear at Anchorage Police Department. 4501 S. Bragaw, within 7 days.
☐	CORRECTABLE/HHS:	Appear at 825 L St., MUNICIPAL Environmental Service Division within 7 days. CALL FIRST.
☐	OPTIONAL COURT:	May pay fine or appear in court within 5 Working days. READ REVERSE SIDE.
☐	MANDATORY COURT-INFRACTION:	Must appear at 303 K St., Traffic Court ROOM 126, WITHIN 5 WORKING DAYS.
☒	MANDATORY COURT-CRIMINAL:	Must appear at 825 W. 4th Ave., COURT ROOM B1, ON Mar 20 19 98 at 9:00 am

I CERTIFY UNDER PENALTY OF PERJURY THAT THE FOREGOING IS TRUE.

Officer Signature / 1431 DSN / 2-21-98 DATE

Signature: _____ ☒ Personally Served

CASE # 98 9609

NAME LAST: OBERMEYER FIRST: THERESA MIDDLE: N

A1112943

THERESA NANGLE OBERMEYER

3000 Dartmouth Drive
Anchorage, Alaska 99508
(907) 278-9455 Message Phone, FAX
http://www.alaska.net/~obermeye

FOR IMMEDIATE RELEASE
FEBRUARY 23, 1998

REVISION

BACKGROUND

Tom and I are getting tired of the corrupt media here about 95% of which is owned in many states in the Lower 48. Our good name has sold your advertising for at least this decade without any thought of the substance of the issues we have raised. Why has one person been targeted for fourteen years having been denied an Alaska law license even though licensed in 1990 by identical Missouri Bar Exam, a state with which Alaska has reciprocity? Alaska law license is a livelihood and Alaska and Nevada are the only states that do not have law schools. Tom takes his 25th Alaska Bar Exam February 24-26 while Alaska Bar Association hands out Alaska law licenses all over U.S. by reciprocity to lawyers that have never landed on our soil. A foreign Russian was given more access to Alaska courts as long ago as 1993 without a test or fee and now American military are being given the opportunity to practice without testing as Tom, an eight year veteran of U.S. Air Force and 20 year homeowner raising four young children here, is not. Tom should be licensed today. Please cover immediately the lead case in summary of American law, In the Matter of the Application of Thomas S. Obermeyer, 717 P.2d 382 (Alaska 1986), which was published at 57 American Law Reports 4th 1195 (1987) in connection with an annotation entitled Failed Applicant's Right of Access to Bar Examination Questions and Answers, 57 A.L.R. 4th 1212 (1987).

My own legal issues began on October 29, 1981 when Theresa Nangle Obermeyer vs. University of Alaska No. 85-3826 DC Civil #A81-448 was filed. The result was that I was required to pay $17,161.25 on May 8, 1986, three weeks after Tom's precedent setting case was published. I have five transcripts as regards three fabricated non-jury federal criminal trials commencing September 26, 1994 and two hearings before Violent Crimes Compensation Board regarding my two assaults in Anchorage Federal Building June 29, 1994 and August 16, 1995. The result is three "Not for Publication" Rulings by U.S. Court of Appeals for Ninth Circuit and four denials by U.S. Supreme Court.

On May 28, 1996 I filed for U.S. Senate thinking that I was an American and had a right to run for public office. I was jailed for 29 days but still won the Democratic Primary beating six opponents. It was only then that I learned that I live in a dictatorship when the handful of people that control everything that goes on here were willing to pay any price so that I could not wage an effective General Election campaign.

MR. BOB CHRISTAL

In 1990 I gave up a five year teaching position at McLaughlin to volunteer my time to help Anchorage K-12 education on Anchorage School Board. There was a recall on December 15, 1992. Anchorage School Board and our community did nothing as Mr. Bob Christal, Superintendent, ASD, misappropriated $315,551 directly with my name on it to discredit me during the remainder of my term on Anchorage School Board. As I ran for reelection a traffic accident was dreamed up as the headline read "Obermeyer Hit and Run," Anchorage Daily News, a McClasky newpaper that has a monopoly on readership here and my home was stormed through by four APD in uniforms with loaded guns in front of our four children and a friend April 11, 1994. I

filed a complaint against Mr. Howard Trickey, Counsel, Anchorage School Board, on December 20, 1993 with Alaska Bar Association and against Mr. Christal on September 22, 1995 with Professional Teaching Practices Commission.

This January 12 Mr. Christal was allowed to call APD at Anchorage School Board Meeting. Sergeant S. J. Smith walked in and handcuffed me. I was charged with "Trespassing" and entire Anchorage School Board let Bob embarrass me as it became a media event orchestrated to make it look as though I were at fault even though the charges were dropped by Alaska District Court on February 9.

MR. MITCHELL GRAVO

I had filed a complaint against Mr. Mitch Gravo on March 5, 1997 with Alaska Bar Association after he pled "No Contest" to four misdemeanor charges of solicitation of illegal campaign contributions from the bingo and pull-tab industry on May 15, 1995 having to pay $8,000, perform 120 hours community service, and be on probation for two years. To my knowledge this admitted criminal has not been disciplined; this is a blatant example of derogation of duty on the part of Board of Governors Alaska Bar Association. I have found no accountability at any level.

On February 19 Anchorage Hilton scheduled an "Educational Seminar" hosted by Mr. Gravo, paid lobbyist, Anchorage Convention and Visitors Bureau (ACVB). I contacted Mr. John Kreilkamp, President, ACVB, on February 17 to let him know I would be going to the event. I dropped materials about Mr. Gravo off to Mr. Kreilkamp February 17, left 22 copies with Ms. Diane White, ACVB, and dropped a copy off at Mr. Chris Swalling's office February 19. When I arrived at Hilton that day, Ms. Cheryl Frasca was there but I was rudely asked to leave by Mr. Scott Bedford, Director of Catering, and Mr. Bill Rodasky, Chief of Security, which I did immediately. I faxed materials to Mr. Robert Southall's office, General Manager, Anchorage Hilton and Secretary-Treasurer, ACVB, that afternoon and called early February 20 letting Ms. Sherry Reedy know that I would simply come by later in the afternoon if I did not hear back from Mr. Southall. When I followed up about mid-afternoon, I was invited by Mr. Southall into his office, to be informed that Mitch Gravo is "my best friend." I was then abruptly asked to leave as Mr. Rodasky arrived. As I was leaving the building on the Third Floor, without provocation I was pushed backward so hard by Mr. Rodasky and at least three other men that I required seven stitches in the back of my head that day. As usual, Anchorage Daily News fabricated stories February 21 and 22 without a byline as though I were the aggressor without even calling me. I am in the process of filing another complaint with Violent Crimes Compensation Board. This newspaper has gone way beyond the limits of ethics and decency endlessly as regards my good name without printing my responses as their profits have continued to go up. I was charged with "Trespassing" and "Assault" by Officer Patrick Martin, APD, February 21. I find Anchorage Police inept and totally politicized. It is time that law enforcement and court officials prosecute those responsible instead of further harassing and attempting to intimidate me.

THERESA NANGLE OBERMEYER

3000 Dartmouth Drive
Anchorage, Alaska 99508
(907) 278-9455 Message Phone, FAX

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March 5, 1997

ARRIVED
MAR 5 1997

Ms. Beth Kerttula, Attorney and President
Alaska Bar Association
510 L Street
Anchorage, Alaska 99501

RE:Mr. Mitchell Gravo

Dear Ms. Kerttula:

I find it unbelievable that I am left with filing a formal complaint against Mr. Mitchell Gravo as enclosed. I now understand from Ms. Karen Boorman, Executive Director, APOC, that the legal power of the Commission does not include criminal acts so I must file a complaint with you.

Please let me know if I can assist you in the investigation.

Sincerely yours,

Theresa Nangle Obermeyer

Theresa Nangle Obermeyer
cc:Ms. Boorman

THERESA NANGLE OBERMEYER

3000 Dartmouth Drive
Anchorage, Alaska 99508
(907) 278-9455 Message Phone, FAX

6

ARRIVED
FEB 28 1997
APOC-ANCH
PM HC

February 28, 1997

Ms. Kohout

This is to lodge a formal complaint against Mr. Mitchell Graves, Attorney, as enclosed. For your information, I brought these papers to Ms. Deborah O'Reagan, Ex. Director, Alaska Bar Assn., on about December 23, 1996. I then went to Board of Governors, Alaska Bar Assn. on January 17, 1997. I asked Ms. O'Reagan if she had given the documents to Bd. of Govs. prior to the meeting per my assumption. Since she had not, I passed out 12 copies to them.

Please give me a call if I can assist in your investigation.

Sincerely yours,
Theresa Nangle Obermeyer

The Foregoing Instrument was acknowledged
before me on this 28 day of February, 1997

Corrine Finnie
Notary Public

Corrine Finnie
Notary's printed name
My Commission Expires 8/31/99

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MUNICIPALITY OF ANCHORAGE

ASSEMBLY MEMORANDUM

No. AM 54-98

Meeting Date: January 27, 1998

FROM: MAYOR

SUBJECT: Proprietary Service Contract with Mitch Gravo for 1998 Lobbyist Services

The Administration is requesting the Municipality of Anchorage enter into a contract with Mitch Gravo for lobbyist services during the period of January 1, 1998 through December 31, 1998.

The purpose of this contract is to provide information to and work with the Administration, Assembly, and Anchorage Legislators during the second regular session of the 20th Alaska Legislature. Mr. Gravo will work closely with the State Administration to ensure support for Municipal priorities and projects; provide information to and work with Anchorage legislators to secure support of the municipal operating budget and legislative priorities, coordinate meetings with legislators and the Municipality, and assist in the introduction and facilitation of legislation for the Municipality.

Mr. Gravo was the Municipality's representative in 1997, and has represented Anchorage economic development interests in Juneau for many years. This coupled with his background in government relations uniquely qualifies him to serve as the lobbyist for the Municipality of Anchorage.

THE ADMINISTRATION RECOMMENDS APPROVAL TO ENTER INTO A PROFESSIONAL SERVICES CONTRACT, IN THE AMOUNT OF $45,000, WITH MITCH GRAVO FOR LOBBYING SERVICES FROM JANUARY 1, 1998 THROUGH DECEMBER 31, 1998.

Concur:

Theo Chenier
Purchasing Officer

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Concur:

Larry D. Crawford
Municipal Manager

Respectfully submitted,

Rick Mystrom
Mayor

Prepared by:

Tim Rogers, Executive Assistant
Municipal Manager's Office

Fund Certification:
0101-1210-3101 $22,500
(Municipal Mgr. 1998 Operating)
0101-1010-3101 $22,500
(Assembly 1998 Operating)

Soren Orley
Chief Fiscal Officer

-9

MUNICIPALITY OF ANCHORAGE
MEMORANDUM

DATE: January 7, 1998

TO: Theo Chenier, Purchasing Officer

FROM: Larry D. Crawford, Municipal Manager

Tresse Williams left message 1/27/98

SUBJECT: Request for Proprietary Services Contract with Mitch Gravo

The 1998 General Government Operating Budget includes an allocation of funds for lobbyist services on behalf of the Municipality of Anchorage. Pursuant to AMC 7.20.080, this memorandum provides the basis for your approval of a proprietary services lobbying contract in the amount of $45,000, including all fees and expenses, with Mitch Gravo, 1/1/98 through 12/31/98. The scope of his contract includes, but is not limited to, working closely with the Governor's Office, Administration, and Anchorage Legislators to ensure the support for legislative, operating and capital budget priorities.

Mr. Gravo was selected to represent the Municipality of Anchorage as legislative lobbyist in Juneau because of his experience in representing Anchorage economic development interests in Juneau. This coupled with his background in government relations uniquely qualifies him to serve as the lobbyist for the Municipality of Anchorage.

Approve:

Theo M. Chenier
Purchasing

THERESA NANGLE OBERMEYER

3000 Dartmouth Drive
Anchorage, Alaska 99508
(907) 278-9455 Message Phone, FAX

June 22, 1995

Mr. Stephen J. Van Goor, Bar Counsel
Alaska Bar Association
510 L Street
Anchorage, AK 99501

RE: Complaints against Mr. William D. Cook, Mr. Joseph Huddleston, and Mr. William Erwin, Attorney Members - Municipal Board of Ethics

Dear Mr. Van Goor:

This is to file ethics complaints against the above cited Alaska attorneys who are members of Alaska Bar Assn. Please refer specifically to USA vs. Obermeyer, No. 94-30368, DC# A94-0074 WBE "Appellant's Excerpt of Record" pp. 47-97 and "Appellant's Amended Excerpt of Record" pp. 57-107. Although my complaint is a couple of years old, these three

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Alaska attorneys still sit on Municipal Board of Ethics. About 5 or 6 meetings were held by them in orchestration with Mr. Peter Blumberg, Reporter, Anchorage Daily News, for the purpose of intimidating me in Spring, 1993 or in order to hold a "witch hunt" to make me look bad. It is noted that I repeatedly asked that these "kangaroo courts" be adjourned without success. These attorneys acted very unethically as regards my good name and reputation as purveyors of the status quo."

Please let me know if you would like to read my entire file on my disrespectful and prejudicial treatment by these gentlemen under the guise of ethics.

Sincerely yours,

Theresa Nangle Obermeyer

cc: Mayor Mystrom
Ms. Hughes
Mr. Cook
Mr. Huddleston
Mr. Erwin
Ms. Phillips
Mr. Frost
Mr. Nyman
Anchorage Assembly
Anchorage School Board
Mr. Christal
Mr. Gottstein
Ms. Long
Ms. Stolpe
Mr. Featherly
Mr. Jordan
Ms. Ballow
Mr. Arlington
Ms. Richards
Mayor Fink
Mr. McCoy
Enclosure
Mr. McVeigh
Mr. Meadors

MUNICIPALITY OF ANCHORAGE

BOARD OF ETHICS AGENDA

Regular Meeting of June 22, 1995

632 W. 6th Avenue
Room 240
Anchorage, Alaska
3:00 p.m.

1. CALL TO ORDER

2. ROLL CALL

3. MINUTES OF PREVIOUS MEETING

   A. May 18, 1995 - Regular Meeting
   B. May 18, 1995 - Executive Session

4. PERSONS TO BE HEARD

   A. Theresa Obermeyer, PhD., regarding previous interactions with the Board of Ethics

5. SPECIAL ORDERS

6. OLD BUSINESS

   A. **AO 95-104**, an ordinance of the Municipality of Anchorage amending Anchorage Municipal Code Section 1.15.170 (Code of Ethics) to prohibit Assembly an School Baord members from doing vusiness with the Municipaity and its agencies and corporate entities, including the Anchorage School District during their term of office.

7. NEW BUSINESS

8. MEMBER'S COMMENTS

9. ADJOURNMENT

ALASKA BAR
ASSOCIATION

June 27, 1995

CONFIDENTIAL

Theresa Nangle Obermeyer
3000 Dartmouth Drive
Anchorage, Alaska 99508

RE: Grievance against William D. Cook, Joseph Huddleston, and William Erwin

Dear Dr. Obermeyer:

I received your complaint against attorneys William Cook, Joseph Huddleston, and William Erwin on June 26, 1995.

You indicated that your fax was intended as a formal grievance against these attorneys; however, our policy requires an original signature on a grievance prior to processing by our office. Accordingly, I am returning your complaint. Our office has not retained a copy.

If you wish to correct the deficiency I've identified, kindly do so at your earliest convenience and resubmit your grievance. Upon receipt of your original documents, or your original signature on the enclosed fax documents, your grievance will be processed.

Sincerely,

ALASKA BAR ASSOCIATION

Deborah C. Ricker

Deborah C. Ricker
Discipline Investigator/
Paralegal

Enclosures

290.02:606

P.O. Box 100279 • Anchorage, Alaska 99510-0279
907-272-7469 • Fax 907-272-2932