13.08.01 Sept 96 (lof 2)

4

13.08.01 – Reading File

September 1996

.

.

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



September 30, 1996

Julie Dodds Anchorage Convention and Visitors Bureau 524 West 4th Avenue Anchorage, Alaska 99501-2212

Dear Ms. Dodds,

Thank you for the recent phone call regarding the *Exxon Valdez* Oil Spill Trustee Council's Restoration Symposium on March 23 - 27, 1999 to be held at the Egan Convention Center. For your reference, I have enclosed:

- a copy of the Request for Quotation that describes the needed facility space and associated services for the March 1999 event;
- a copy of the response from Theresa Wasson/Egan Convention Center (August 30, 1996); and
- a copy of the letter of confirmation from myself to Theresa Wasson (September 6, 1996) regarding use of the Egan Convention Center for the event.

Please note that we are planning on lunch service for March 24 and 25 and want to take steps to ensure that the needed space will be available. As you are aware, Brenda Baxter of the SeaGrant Program has been helping us with the event. Brenda recently related that you would help facilitate the process of getting a contract in place in the near future. Thanks again for your assistance.

Sincerely,

Eric F. Myers

cc: Teresa Wasson Brenda Baxter Stan Senner

Trustee Agencies

State of Alaska: Departments of Fish & Game, Law, and Environmental Conservation United States: National Oceanic and Atmospheric Administration, Departments of Agriculture and Interior March

I did this, it i 't go w/ the letter. RHW 10/2/96





SUNDAY	Monday	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	1	2	3	4	5	6
7	8	9	10	11	12	ß
14	15	16	17	18	19	20
21	22	23	24	25	26	27
		EXXOV	n Valden Dil C Restoration	Symposium	Council's	
28	29	30	31		,	

249.tc

I. Show

RE: Project 97249/Ecosystem Synthesis and Modeling

The *Exxon Valdez* Oil Spill Trustee Council received more than \$36 million in proposals for Fiscal Year 1997. Unfortunately, it was not possible to fund all projects that were submitted.

In June I notified you of my recommendation that the Trustee Council not fund Project 97249/Ecosystem Synthesis and Modeling. The Council acted on the FY 1997 Work Plan on August 29, 1996. This letter is to inform you that the Council accepted my recommendation and did not fund your project for FY 97.

I appreciate your interest in the restoration program and hope you will consider submitting proposals in future years.

Sincerely,

Molly McCammon Executive Director



cc: Byron Morris, NOAA Liaison



Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

TO: Restoration Work Force

FROM: Molly McCammon Executive Director

DATE: September 30, 1996

SUBJ: Meeting Dates

Please note that the Restortation Work Force will meet:

9:00 am - Wednesday, October 2, 1996

Anchorage:	Restoration Office
-	645 G Street
	4th floor conference room
Juneau:	Restoration Office
	Federal Building - room 225

A draft agenda is provided below. If there are other items you wish added to the agenda, please contact me as soon as possible.

<u>AGENDA</u>

RESTORATION WORK FORCE 9:00 am — Wednesday, October 2, 1996

- 1. revised Update on Injury and Status of Recovery
- October 15, 1996 Trustee Council meeting:
 Small Parcel Habitat Protection Program
 other agenda items
- 3. 1997 Restoration Workshop
- 4. Scientific American and other articles on EVOS science
- 5. Review of Trustee Council database

Trustee Agencies

State of Alaska: Departments of Fish & Game, Law, and Environmental Conservation United States: National Oceanic and Atmospheric Administration, Departments of Agriculture and Interior

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



FAX COVER SHEET

To: Restoration Work Force

From: Molly McCannon Date: Supt 30, 1996

Comments:

Total Pages: ____み____



RESTORATION WORK FORCE MEMBERS INCLUDE:

Belt, Gina Berg, Catherine Fries, Carol Gibbons, Dave Claudia Slater/Bill Hauser Bartels, Leslie/Lisa Thomas Miraglia, Rita Morris, Byron Piper, Ernie Rice, Bud Spies, Bob Thompson, Ray Wright, Bruce Sullivan, Joe

HARD COPY TO FOLLOW <u>n</u>

FAX SENT BY: fam

8/7/96

09/30/96	15:43	3 907	276	7178	EV Restoration		Ø 001
•			***	****** * MUL ******	**************************************		
TX/R	X NO.				9476		
INCO	MPLETE T	X/RX					
TRAN	SACTION	ок [09]	19075	867589	JUNEAU OFFICE	
		ĺ	10]	19075	867555	D.GIBBONS	
		ſ	13]	19077	896608	MORRIS-WRIGHT	
		[15]	26989	18	CAROL FRIES	
		[16]	26724	50	RITA MIRAGLIA	
		[17]	27139	92	R. THOMPSON	
		[18]	26724	74	SULL I VAN-SLATER	
		[19]	78636	36	L.BARTELS	
		[20]	78633	50	C.BERG	
		[21]	25725	17	B.RICE	
		[24]	26976	52	E. PIPER	
		[35]	15103	737834	B.SPIES	
		[38]	27158	27	G.BELT	
ERRO	R						

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

To:	Trustee Council
From:	Molly McCammon, Executive Director
Date:	September 30, 1996
Subject:	Scientific American article on EVOS Science

For your information, I have enclosed a copy of an article, "Sounding Out Science," in the October 1996 *Scientific American*. I also have enclosed a memorandum from Rick Steiner in which he renews his appeal that the Trustees commission an independent review of the EVOS science program.

The article presents an interesting perspective on the government- and Exxon-sponsored science programs following the oil spill. Much of the article addresses the damage assessment phase of EVOS science rather than the post-settlement restoration program. Near the end of the article the author discusses the ecological approach that is central to the current restoration science program, but I don't believe that the Council is given enough credit for its current efforts.

We will discuss this article at the next meeting of the Restoration Work Force and develop a response to it. Any suggestions you might have are very welcome.

enclosures (2)

cc: Restoration Work Force

September 24, 1996

- TO: EVOS Trustee Council
- FR: Rick Steiner
- RE: October "Scientific American" article entitled Sounding Out Science

Hello folks,

The subtitle of Sounding Out Science reads as follows:

Prince William Sound is recovering, seven years after the Exxon Valdez disaster. But the spill's scientific legacy remains a mess

and it should have continued as follows:

and the government Trustees remain unwilling to commission a thorough, independent review of their \$500 million science program

Although the article continues to feed the hypnotic pathology of 'science-without-purpose', it appropriately refers to EVOS as a "scientific fiasco".

Indeed.

Wouldn't it have been wonderful if the article could have concluded that the Trustee agencies, recognizing the scriousness of the issue and their public trust responsibility, have asked the National Academy of Sciences to conduct a comprehensive assessment of BVOS science? Fact of the matter seems to be, that any credible review would conclude that the vast majority of this enormous science investment - certainly in excess of 90% of it - has been utterly useless in terms of restoring, mitigating, or otherwise off-setting the extraordinary damage caused by the spill.

Your science program has become, by any independent account, a house of cards ready to collapse at the first real evaluation.

I would like to ask you once again to please reconsider your opposition to commissioning such a review of your science program.

Thanks.

TRENDS IN ECOLOGY

Sounding Out Science

by Marguerite Holloway, staff writer Photography by Stephen Ferry

tanding in front of his favorite boulder, Alan J. Mearns of the National Oceanic and Atmospheric Administration holds aloft a series of pictures, comparing this year's scene with those of the previous six. The rock is certainly a nice one -- potatoshaped as it is and covered with a fuzz of light-brown Fucus, or rockweed-but that alone cannot explain the photographic frenzy it triggers. Mearns takes another shot of the rock, capturing in the frame his colleague Gary Shigenaks, who is taking a video of the same outcropping, as well as Dennis C. Lees, who is studying the beach adjacent to the rock. Meanwhile, as a fourth scientist quips about the Heisenberg uncertainty principle and clamors to get a picture of Mearns taking a picture of Shigenaka taking a picture of Lees and the rock, a photojournalist records the whole assemblage.

This concept of an image inside an image and so on to infinity, what the French call mis-en-abîme, provides one of the keys to understanding what has happened in Prince William Sound, Alaska, since the Exxon Valdez crashed into Bligh Reef in 1989. More important, it sheds light on how to interpret "recovcry," a term that in the Sound means very different things to different people. The tanker spilled about 37,000 metric tons of North Slope oil, coating a total of 1,750 kilometers of shoreline and killing thousands of birds and animals. The accident was followed by massive infusions of money, lawyers and scientific studies into the same wilderness-and these inputs were about as clarifying as the coat of thick black crude itself.

For years, lawyers watched scientists watching other scientists watching an ecosystem that is little understood and infinitely variable; everyone used a different-size frame to peer through. The state of Alaska, the people who live on the Sound and the area's fishermen all wanted to document not only the extent



of the devastation but the endurance of the spill's deleterious effects. Exxon wished to show the effectiveness of its intensive cleanup as well as the evanescent quality of the oil, which is, after all, a natural substance.

Exxon lost, both in court and out. In addition to \$2.5 billion spent on cleanup, on claims and on reimbursing agencies for response expenses, the company is paying \$900 million to the Trustees—a panel of state and federal agency representatives—for "restoration," another ill-defined term that has come to include buying land so as to protect it. This 1991 out-of-court settlement includes a reopener provision: if, between the years 2002 and 2006, other impacts

Prince William Sound is recovering, seven years after the Exxon Valdez disaster. But the spill's scientific legacy remains a mess



of the oil spill come to light, the Trustees get \$100 million more. Exxon, which is also due to pay \$39.6 million to the region's fishermen and to Sound residents, plans to appeal a \$5-billion punitive settlement.

The studies that Exxon and the state of Alaska—including the departments of Fish and Game and of Environmental INTERTIDAL CREATURES on Rocky Islet in Northwest Bay are scrutinized and counted by researcher Dennis C. Lees.

Conservation-conducted to prove their respective points were kept largely secret until legal settlements were reached. This secrecy reduced most of the pillars of science to rubble: out went scientific dialogue, data sharing and, for some parties, peer review. Millions of dollars were shelled out in duplicate studiesthat reached opposite conclusions. In a scathing review of post-spill research in this year's Annual Review of Ecology and Systematics, marine biologist Robert T. Paine and his colleagues at the University of Washington quote a juror grappling with these apparent paradoxes. Originally cited in the American Lawyer, the juror at the \$5-billion punitive trial summed up many observers' feelings about the science: "You got a guy with four Ph.D.'s saying no fish were hurt, then you got a guy with four Ph.D.'s saying, yeah, a lot of fish were hurt.... They just kind of delete each other out."

Viewfinders

Tow, seven years after the disaster, one can see the mis-en-abime effect-or perhaps instead, the Sound uncertainty principle-at work. Scientists are still sparring, lawyers are still lurking around the edges of disputes, and both claim to be scarching for the truth. Nevertheless, it is becoming obvious that, with a few exceptions, most of the frames people have been looking through as they study the Sound are too small to permit clear conclusions about the effects of the oil-suggesting that the next big spill may be a scientific fiasco as well. Further, it appears oil may not be the whole story: there may be much larger factors at play in the Sound.

Some of this perspective has become

possible because Excon recently published its studies in a thick blue volume, and the Trustees' tome came out this summer. Not surprisingly, almost every abstract in the Excon book has the same retrain: by 1991 the Sound was well. To the oil company, recovery was defined as the reestablishment of a "healthy" biological community characteristic of the area. By this standard, even a biological community that was quite different from the one before the spill could, obviously, qualify as healthy.

If one scrutinizes Excon's research, one can see how the company reached its conclusions. For example-and this will relate later to Mearns's favorite rock, still sitting at the beginning of this article but not forgotten there-the intertidal zone can appear very healthy, two years after the spill. This zone is usually one of the most biologically active and important in marine ecosystems. Fucus and other algae anchor to tidally flooded rocks there; barnacles, drills, periwinkles, mussels, sea anemones, starfish, sea urchins, baby herring, pink salmon eggs, tiny sculpins, hermit crabs and other creatures that are part of the immense food web thrive in this rich, diverse place. Ravenous sea otters rake the intertidal, as do oyster-catchers and Harlequin ducks, searching for mussels and other invertebrates.

Looking through tiny trames called quadrats, Exxon contractor Edward S. Gilfillan of Bowdoin College and his team saw something quire different from what other intertidal researchers saw. Biologists lay down a quadrat on the spot they went to investigate and count every organism inside the boundaries. They then repeat this procedure many nmes, comparing species composition and diversity between beaches-in this case, oiled beaches versus unoiled ones. Frames can also be placed at different elevations-the lower, the middle and the upper intertidal-or along "transects" perpendicular to the water. In places



such as Prince William Sound, the intertidal is normally patchy and uneven, so that within a foot of a *Fucus*-matted rock, there may be a naked boulder; six inches to the right, there may be more *Fucus* and a bey of barnacles.

At each of his sites, Gilfillan put down one baby quadrat, 12.5 by 25 centimeters, at four places along three transccts. If he got, say, Fucus in one, none in the next and partial covering in the third, the beach looked extremely variable. And what he concluded, in essence, was that there was so much variability on any beach, it was almost impossible to 91 percent of the area had recovered," Gilfillan notes, adding that people mistakenly describe the Sound as a fragile ecosystem. "As anyone who has been through an Alaskan winter knows, it is not fragile. The animals and plants there are very good at making good their losses."

Needless to say, Gilfillan's findings bemuse some observers—among them. Charles H. Peterson, a marine scientist at the University of North Carolina at Chapel Hill. Peterson, who was an expert witness in various Sound-related trials, points out that the Exxon ap-



PICTURES INSIDE PICTURES reveal an obsession with frames and views in Prince William Sound.

distinguish oiled from unoiled sites: evcry beach resembled every other. Therefore, recovery had occurred.

The Importance of Being Random

Further, because his many sites had been chosen randomly—the cornerstone of all good field biology—Gilfillan's results could be extrapolated to the entire region, "By 1990 between 73 and proach not only exploits the Sound's patchiness, it mixes species together, wreaking havoc with biodiversity. For example, Gilfillan lumps different kinds of harnacles together in measuring mulbarnacle cover. And to him, the barracle cover in 1990 looked much the same at oiled and unoiled beaches. In truth Peterson explains, the lumping was misleading: the oiled sites principally contained one kind of barnacle—a little opportunistic gray species called Critiamalus dalli—whereas the unoiled beaches had larger, more diverse barnacles.

In another grouping, Exxon counted worms in the lower interticial and mixed these figures into totals for the number of organisms. Yet, Peterson cautions, those worms congregate at oily sites. It is akin to saying you have 100 creatures at place A and 100 at place B; therefore, place A and B are equivalent. In fact, 99 of the animals in place A could be worms that love to eat the microorganisms that love to eat oil. "I have never seen a data set in my life that combines these communities," Peterson exclaims. "Some have argued that what Exxon did was create a study that was inconclusive by design."

Whatever the study was designed to

do, its results gave Exxon evidence that all was well in 1991, so the company stopped monitoring the intertidal in quantitative ways. (Exxon researchers continue to conduct counts of sea orrers and birds.) The Trustees, for their part—with Exxon's fiscal contribution—are still watching, waiting for the long-term negative effects they are sure will manifest themselves.

Ernic Piper of the Alaska Department of Environmental Conservation, normally loquacious, hesitates for a long time before answering a question about recovery. "In terms of the ecology, that, in many ways, it appears to me, is a lot more resilient than we deserved," he says slowly. "At the same time, there are loss of effects from the spill and the cleanup that are not going to go away."

"I think it is an improved picture," adds Robert B. Spies of Applied Matine Sciences in Livermore, Calif.,

and the chief scientist for the Trustees panel. "But it is still variable, depending on what resource you are talking about. Pink salmon have improved, yet we are worried about the herring." The Trustees also remain concerned about sea otter populations and the intertidal.

The state's principal study of the intertidal, directed by Raymond C. Highsmith of the University of Alaska-Fairbanks, resembled Excon's in that it used randomly selected sites. It differed in that it incorporated more transects at each site and more spacious quadrats (40 by 50 centimeters). Highsmith and his colleagues-among them, Michael 5. Stekoll of the University of Alaska-Fairbanks-found a counterpoint to Gilfilian. By 1991 they saw only incomplete recovery.

And there the study stopped. Despite all the money available, the Trustees deemed the work too costly at its original price: \$10 million for three addi-

tional years. Even when the biologists proposed doing half the sites one year, half the next, it was still not cheap enough: "There is a lot of politics," Stekoll says, explaining that the Trustees are under great pressure to use the \$900 million to acquire land for the state, thereby protecting it from deforestation. Two hundred million dollars have already been spent to do so, and there are plans to spend about \$180 million more.

As unfinished business, nonetheless, the study permits the Trustees to defer conclusions about recovery. "I would like to bring closure to this intertidal thing. It is a question of priorities," Spies notes.

The Way We Were

For the Trustees, "recovery" will occur when the Sound looks as it would have if the spill had not occurred. The biggest problem with this criterion is that no one really knows exactly what the Sound was like before the blanket of oil and scientists descended on it or how it would have evolved. The scientists have had to grapple with the absence of baseline data, except for a few specific species, includ-

ing murres on the Barren Islands, killer whales, sea lions and, of course, the commercially crucial seimon.

To a lay traveler visiting Prince William Sound this summer for the first time since 1991, it appears beautiful and healthy. Although oil still lies under the boulders and cobbles on some beaches, it takes longer to find, and the oil is largely weathered—that is, nontoxic. Humpback whales can be seen in open water before they dive, flashing their Fucus- or barnacle-encrusted tails. Also visible are orcas, porpoises, seals, sea lions, puffins, kittiwakes, pigeon guillemots and river otters in coves or channels. In one unoiled eastern bay, sea otters float everywhere, bobbing like buoys, some with young on their chests, while myriad bald eagles make their high-pitched, halting cries. And the intertidal, even in places





INTERTIDAL VARIABILITY can range from a quadrat full of Fucus (top) to barren rock (bottom) a few feet away.

that were heavily damaged, seens more luxuriant than it did five years ago with purple and orange sea stars and tousled green, brown and red seaweed.

This big picture, however, can be just as misleading as a little quadrat. And that is why Mearns's rock is so interesting. Mearns belongs to yet another intertidal team, funded by NOAA. The NOAA study was designed differently from those of Exxon and the state, because it was never intended to be part of damage assessment—that is, it was not driven by litigation. Instead its agenda was to describe differences in recovery between oiled beaches that were left

> alone and those that were cleaned with high-pressure jets of very hot water.

> Given that they spend most of their time on the beach staring into fairly big quadrats-50 by 50 centimetersit is perhaps not surprising that Mearns and the rest of the NOAA team constantly joke about views and frames. Through these windows, this group-led by Jonathan P. Houghton of Pentec Environmental in Edmonds, Wash., and Lees of Ogden Environmental and Energy Services in San Diego-has watched recovery at many sites for the past seven years. Generally, they say, the intertidal looks good, although wide swings in species diversity and density persist.

The NOAA results suggest that hot-water cleaning sterilized the beaches; whatever survived the oiling did not survive the cure. The scientists report that a few years after the spill, the uncleaned beaches showed more health than did stark, cleaned sites. The finding-something oil spill experts warned about to no avail during the invasion of the cleanup crews-is not popular. Both Exxon and the state were, and are, under considerable public pressure to rid the Sound of every last inch of black veneer.

"Yeah, cleanup is disruptive, and If you clean up it is going to look like a very different shoreline," comments Piper of the Department of Environmental Conservation. But, he argues, as do some members of the NOAA team, hotwater washing just needs to be done more judiciously. One possible solution, Mearns suggests, is washing in strips, which would leave patches of beach oiled but alive so they can recolonize the bald sports.





been criticized on statistical grounds. Gilfillan of Exxon argues that because the sites were no: randomly chosen, they have little statistical power and therefore are not generalizable. (According to a recent paper by Gilfillan, in which he and three colleagues compare the three intertidal studies, the Exxon study was statistically the most powerful.) Stekoll concurs: "From a pure statistical viewpoint, you would have to say that it was not a design to extrapolate to the Sound."

Houghton and Lees recort that they

Mearns's subject sits in Snug Harbor. one of the loveliest places in the Sound. High mountains rise directly up from the shore, and a waterfall flows right onto the beach. Snug was heavily oiled and a large part of it left uncleaned, as "set-aside." Such places serve as important controls, allowing scientists to study how long it takes for oil to disappear naturally from various types of beaches. Nevertheless, set-asides are contreversial: because most Alaskans wanted all oil removed, NOAA officials had to fight to get the few they have.



OIL SHEEN can still be found in the mud or under boulders in parts of the Sound.

have fully characterized the biology of recovery—even if their sites were selected by different criteria, such as accessibility and the availability of baseline information (sometimes frantically gathered just before the oil came ashore). Thus, they are permitted to describe what is happening throughout the area. Statistics aside, it is true that by virtue of having monitored consistently for seven years, the NOAA crew has tracked some fascinating shifts in the ecosystem. And this is where the shaggy rock enters the picture again. As a protected area, not scoured by winter waves. Snug is a particularly important reference. The harbor looks cilfree these days, except for a small patch of asphalt, and the intertidal seems lush. But Mearn's photographs reveal that his Snug rock is going through a dramatic cycle. In 1990 its top was covcred with young Facus: in 1991 the rest of the rock sported a similar ensemble. Rockweed—a keystone of the intertidal eccystem—was rebounding.

Or was it? If the NOAA workers had stopped there, they could have shared the stand with Gilfillan: the Sound looked recrimered But they went back, and in 1992 the rock had lost a lot of cover. The next car some scattered germlings covered the crown again; in 1994 it was naked; the cycle began anew in 1995. And this past summer Mearns found a fuller shag and a few small mussels in the crevices.

Mystery of the Vanishing Fucus

he NOAA scientists have seen this pattern in cleaned places as well. The hypothesis they present is that most intertidal zones contain Fucus plants of different ages, whereas in the oiled and the cleaned sites, most, if not all, of the Fucus was killed in 1989. The slate wiped clean, every subsequent plant that recolonized the site was the same age, with the same life span. So when the Fucus dies, taking most of the creatures it protects with it, the system returns to ground zero. This suggestion is bolstered by recent research on the coast of Britain, where the Torrey Canyon tanker spilled 119,000 tons of oil in 1967. Fucus there, it seems, still goes through similar cycles. "Ten years after Torrey Canyon they said it was fine," Lees states. "Now they are going back and seeing flux still." In particular, Fucus and limpers seem to be in a race for space.

There are anecdotai reports, however, that such die-offs z_{-2} being seen in other, unoiled environments. And despite observations in the Sound, biologists admit that they do not really know all that auch about the omnipresent algae. As Jennifer L. Ruesink of the University of Washington remarks, scientists are not even sure how to measure the age of Fucus. Is it necessarily older when it is darke: Does the number of dichotomies, or branches off a stem, reflect its age in years, like tree rings? How do aduits help or hinder the establishment of young pi, hts?

Rucsiak tried to answer some of these questions as she accompanied the NOAA crew through the Sound over the summer; she sat on top of the Snug rock as well as many others, meticulously counting strends of *Fueus*, plying them apart. Her preliminary findings are "equivocal." It looks as though *Fueus* may have slip-sheed away, even at sites never touched by oil. So the mystery remains.

The Facus provides yet another frame through which to view the Faxon Valdez disaster. The basic questions asked about this seaweed give the real story away: nobody actually knows much about anything in the Sound—or in any such complicated cosystem, for that matter. Most of the studies conducted in the early years after the spill centered on one zone, or one species, at a time.

But, as David Duffy of the University of Alaska-Anchorage puts it, you have a problem if your species—say, the orter—starts eating your colleague's, the mussel. It is more appropriate instead to try to examine from the ourset how the frames fit within one another—lil : zooplankron inside herring inside saimon inside bear. Indeed, the relation between links in the food chain is proving to be perhaps the most important information that could be gleaned from science in the Sound.

A Bird's-Eye View

"he opportunity for real insight may, however, have been squandered. "The tragedy is that people are trying to look at oil spill relations seven years after the fact," Duffy explains. "There should have been greater thinking about an ecosystem approach." Spics of the Trustees agrees: "We are very aware that looking on a species-by-species basis has limitations. We thought that that was very appropriate at the time of the spill to learn what was killed." Still, he notes, "we have got some very exciting projects right now that go beyond 'When did this resource recover?' to the basic processes going on in the cosystem." The panel is funding several studies that take this wider perspective, looking at oceanographic trends in the Gulf of Alaska and at the food web. The frame is hundreds of kilometers a side.

For his part, Duffy is looking at birds, evaluating declines reported among kittiwakes and pigeon guillemots. "We don't know whether it is the spill, or the spill and environmental change, or just environmental change," Duffy says. "We have victims, we have the weapon, we have the [birds] at the scene of die erime, but we don't know whether something happened before that affected the population and that this spill was only the trigger. And we will never know."

What Duffy and others are piecing together is that the Gulf of Alaska, and Prince William Sound with it, seems to be going through a shift that predates the spill. Researchers have already had trouble teasing apart the pre-spill effects of an extremely cold winter in 1989; those of a 9.2-magnitude earthquake in 1964 that upturned the Sound, deviastating the cosystem and wiping out communities of people: and those of the 1982–1983 El Niño (a periodic oceanic disturbance that affects weather and ocean currents).

According to the only long-term study of bait fish in the region, the population of farty pelagic fish on which sea lions, seals and many seabirds feed plummeted in the early 1980s. Today there are only 17 percent as many sea lions as there were 20 years ago. The shrimp fishery, which peaked at about 119 million pounds in 1976, was down to 10 million in 1982. "At that time, there was a lot of arrow slinging about overfishing," remarks Robert Otto of the NaThe by-catch turned out to be the big catch after all. What Anderson saw was that capelin fell off when shrimp did, whereas cod and pollack increased. At the same time, the crab fishery crashed, and salmon numbers rose (while prices, consequently, sank). "There was something that happened in the North Pacific that changed the whole ecological structure," Otto says.

"We may be right in the middle of a shift back; people just don't know," Duffy remarks. He speculates that salmon may be plentiful because it is sim-



tional Marine Fisherics Service. "But the fact of the matter was that [shrimp] were declining both where they were fishing and where they were not."

Shrimp was the center of attention because it supports a large industry. But the problem did not stop there. Paul J. Anderson, also at the National Marine Fisheries Service, started sampling in the 1970s with a small mesh net and caught bait fish, such as capelin and candlefish. These so-called by-catch are routinely netted along with shrimp but are not typically counted, because they are not important to fish markets. They are, however, the meals for commercial fish and as such are as worthy of care as their flashier predators. PRESSING ALGAE for careful identification is still done, here by a member of the NOAA team, even after seven years of studies, because the intertidal seaweeds can be difficult to tell apart.

ply a salmon period. "When the fishery was under the feds, it was downtime for salmon, and the government workers were criticized as idiots for not managing a well. Maybe the state is not good or bad. Maybe salmon are just doing what they do."

The changes in hait fish numbers could be the result of the growth of hatcheries. These outfits release young fish each spring to feed in the Sound and the Gulf

Sounding Out Stience



of Alaska before they return home to spawn. These fish are, however, additions to the ecosystem—"extras" in a way—and they may be devouring bait fish that would have been available to wild fish and animals. Or the bait fish fluxes may be related to even bigger trends, such as those observed by Thomas C. Royer, an oceanographer at the University of Alaska Fairbanks. Royer began taking water samples in 1970 and has concluded that the temperature fluctuates by two degrees Celsius every 15 to 25 years—shifts that could dramatically alter fish distribution.

In addition, he has gathered evidence that salinity shifts in 10- to 11-year cycles. Salinity differences could alter the way water flows through the Sound, changing the amount of nutrients available in the upper layers of the water column and disrupting the food chain. "I keep preaching that we need longterm studies," Royer comments, adding that many natural cycles are so long, however, that funders lose interest in them. "The funding for science is declining dramatically. There is just a great deal of frustration."

When there is suddenly a large influx of money into a poorly studied ecosystem—and finally the opportunity to do in-depth work—there is bound to be

similar frustration. More money flooded into Prince William Sound after the Exxon Valder spill than has flowed after any other. But, thearly, wherever lingation and science intersect, there is litde hope for a frame with an expansive view. The federal rules governing damage assessment were recently modified to protect against another scientific fiasco after the next big spill, the new provisions try to ensure data sharing and to eliminate duplicative effort. Yet many observers doubt whether these changes will make any difference if billions of dollars are at stake. "I am not convinced at all that once we had the next big one everyone wouldn't go to their respective battle stations-'I have my science, and you have yours," comments David Kennedy of NOAA.

A Delicate Balance

Beyond the quality of science lies the public interpretation of science. Even though NOAA has shown that cleaning up can do more harm than good, demands to clean up persist. The Alaskan native village of Chenega has paid close attention to the spill-related research. Many of the residents of this community on Evans Island in the Sound are concerned about the oil's persistence. SOUND-WHE STUDIES that attenuit to look at the bigger-albeit more confusing-picture have just recently started m receive francial support.

Ghenega residents thought the oil was. having a biological effect, Piper says. "But there is nothing to show that it did." So are we going to spend a lot of money to clean up when there is no problem?" he asks. But science was not the point ridding the beaches of unsightly. oil was "It was more an issue of trashing the neighborhood it was a very le gitimate complaint," Piper explaints And so the Trustees, who go through a public review process before they allocate their funds, will spend \$1.9 million next summer to apply de-oiling compounds, at least one of which is known to be toxic to intertidal organisms.

Chenega is not alone. Ultimately, it is the frame of the redevision set and the mind-set of the media that dictate people's responses to images of oiled animals. The public wants the animals. saved at \$80,000 per outer and \$10,000 per eagle even if the stress of their salvation kills them. "Scientists waste a lot of time saying, 'Do nothing,' Duffy notes. "You have to balance the show and the science."

Sounding Out Sales

112 SCIENTIFIC AMERICAN October 1996

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

TO: Restoration Work Force

FROM: Eric F. Myers Director of Operations

DATE: September 30, 1996

SUBJECT: Notice of Equipment Availability

The Trustee Council Restoration Office is currently in the process of consolidating equipment and reducing our storage space needs as we prepare to vacate the meeting room side of the 1st floor. Attached is a list of excess equipment currently located at the Trustee Council Restoration Office.

If you have a restoration project that could make use of an item on this list, please advise your agency liaison who will in turn notify the Trustee Council Office.

Please note, unless otherwise contacted, this equipment will be sent to surplus on October 15, 1996.

attachment

cc: Tami Yockey

Custodian: Tami Yockey, EVOS Trustee Council

.

.

•

<u>PCN</u>	DESCRIPTION	CONDITION*
no tag #	NEC DTerm Series II Telephone System (38 phones)	Good
no tag #	White Drawing Board (large)	Good
1800229	Compaq DeskPro 386 Computer (sn - 4850HT2H1552)	Good
1800509	NEC VGA Monitor (sn - 96N04750Z)	Good
1800527	NEC VGA Monitor (sn - 96N047972)	Good
no tag #	ALR Powerflex Computer (sn -185715)	Poor
no tag #	ALR Powerflex Computer (sn -185699)	Poor
no tag #	ALR Powerflex Computer (sn -185667)	Poor
no tag #	Kyocera F-1800A Printer (sn - ABG0400165)	Poor
no tag #	Amdek Monitor (sn - 22B10701086)	Poor
no tag #	Amdek Monitor (sn - 22B10501771)	Poor
no tag #	Packard Bell Monitor (sn - V91101156)	Poor
no tag #	Magnavox Monitor (sn - 73839988)	Poor
no tag #	Amdek Monitor (sn - 22B10701080)	Poor
no tag #	Amdek Monitor (sn - 22B10701070)	Poor
no tag #	Room Divider Panels (15 panels)	Good

*Note: Equipment condition should be confirmed.

0/96 13:31 °2 '90	07 276 7178	Ev Restoration	
	************ *** MULTI 7 *********	**************************************	
TX/RX NO.		9462	
INCOMPLETE TX/RX	[38] 2715827		G.BELT
TRANSACTION OK	[09] 190758675	89	JUNEAU OFFICE
	[10] 190758675	555	D.GIBBONS
	[13] 190778966	508	MORR IS-WRIGHT
	[15] 2698918		CAROL FRIES
	[16] 2672450		RITA MIRAGLIA
	[17] 2713992		R. THOMPSON
	[18] 2672474		SULL I VAN-SLATER
	[19] 7863636		L.BARTELS
	[20] 7863350		C.BERG
	[21] 2572517		B.RICE
	[24] 2697652		E. PIPER
	[35] 151037378	34	B.SPIES
ERROR			

,09/30/96	13:43 2907 276 7	EV Restoration	لاً 001

	TRANSMISSION OK		
	TX/RX NO.	9462	
	CONNECTION TEL	2715827	
	CONNECTION ID	G.BELT	
	START TIME	09/30 13:42	
	USAGE TIME	01'07	
	PAGES	3	
	RESULT	ОК	

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



FAX COVER SHEET

To: Restoration Work Force

From: Eric myers	Date: Sept. 30,1996
Comments:	Total Pages: 3

RESTORATION WORK FORCE MEMBERS INCLUDE:

Belt, Gina Berg, Catherine Fries, Carol Gibbons, Dave Claudia Slater/Bill Hauser Bartels, Leslie/Lisa Thomas Miraglia, Rita Morris, Byron Piper, Ernie Rice, Bud Spies, Bob Thompson, Ray Wright, Bruce Sullivan, Joe

HARD COPY TO FOLLOW ______

FAX SENT BY: Dame

0

8/7/96

Trustee Agencies

State of Alaska: Departments of Fish & Game, Law, and Environmental Conservation United States: National Oceanic and Atmospheric Administration, Departments of Agriculture and Interior

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO: Claudia Slater/ADF&G
- FROM: Molly Mogammon Executive Director
- RE: Authorization: Project 97131/Chugach Native Region Clam Restoration
- DATE: September 30, 1996

The purpose of this memorandum is to formally authorize work to proceed on Project 97131/Chugach Native Region Clam Restoration. The work must be performed consistent with the revised Detailed Project Description dated July 2, 1996.





Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO: Claudia Slater/ADF&G
- FROM: Molly McCarthnen Executive Director
- RE: Authorization: Project 97214-CLO/Documentary on Subsistence Harbor Seal Hunting in PWS
- DATE: September 30, 1996

The purpose of this memorandum is to formally authorize work to proceed on Project 97214-CLO/Documentary on Subsistence Harbor Seal Hunting in PWS. The work must be performed consistent with the revised Detailed Project Description. In addition, I would ask that in distributing the completed video you take into consideration the suggestions of the peer reviewer and Martha Vlasoff, our community involvement coordinator. (Bill Simeone has been provided a copy of their recommendations.)

I look forward to the screening of the video. Please let me know when a date for the screening has been set.

cc: Bill Simeone, ADF&G Principal Investigator

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO: Claudia Slater/ADF&G
- FROM: Molly McCammon N Executive Director
- RE: Authorization: Project 97255-CLO/Kenai River Sockeye Salmon Restoration
- DATE: September 27, 1996

The purpose of this memorandum is to formally authorize work to proceed on Project 97255-CLO/Kenai River Sockeye Salmon Restoration, as described in the Detailed Project Description dated July 1996.



Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



September 27, 1996

Anne D. Castellina, Supervisor Kenai Fjords National Park P.O. Box 1727 Seward, Alaska 99664

Dear Anne:

Somewhat belatedly, thank you for the opportunity to join you and your staff and the NOAA guests on the cruise to Aialik Bay on August 30. Sandra Schubert, Joe Hunt, and I had a fine trip, and we learned a great deal about the NPS program, responsibilities, and needs in relation to the resources and services injured by the *Exxon Valdez* oil spill. We were especially pleased to see the Pedersen Glacier area and can appreciate its importance to wildlife and fisheries resources and to recreational values.

I had promised Mike Tetreau that I would forward a copy of Kathy Frost's most recent annual report (95064) from her EVOS harbor seal work in Prince William Sound. There may be information on methods or results that will aid your own efforts in regard to this species.

I also was very interested in learning about the park's workshop for tour operators each spring. I have discussed this with Forest Service personnel in the Glacier Ranger District and there may be interest in doing something similar for tour operators working out of Whittier. Would it be possible to have someone forward a copy of an agenda and any special handouts from such a meeting?

Thank you again for your hospitality on our Kenai Fjords visit. We greatly enjoyed and benefited from this day afield.

Sincerely,

Stan

Stanley E. Senner Science Coordinator

enclosure (1)

cc (w/o encl): Bud Rice, NPS Liaison

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



September 27, 1996

Randy Swett Wildwood Correctional Center 10 Chugach Avenue Kenai, Alaska 99611

Dear Mr. Swett:

This is in response to your letter of September 6, 1996, requesting information on making a claim against Exxon because of the March 1989 oil spill.

Individual plaintiffs or those requesting information need to contact the United States District Court at (907) 271-5568.

Sincerely,

Melly McCamon

Molly McCardmon Executive Director

mm/raw

RANDY A. SWETT Wildwood Correctional Center 10 Chugach Ave. Kenai, Alaska 99611

September 6, 1996

Reberca, This was faxed to you last week. Thought you might want the original

EXXON VALDEZ OIL SPILL SETTLEMENT TRUSTEES U.S. Forest Service 709 W. 9th. St., #225 Juneau, Alaska 99802-1628

RE: REQUEST FOR INFORMATION ON OIL SPILL CLAIM

Dear Sir(s);

I am writing this letter to you in hopes that you can provide me with the necessary information in regards to my desire to file a claim for economic losses concerning the oil spill.

I am an Alaskan salmon fisherman and have powertrolled in southeast Alaska since 1990. It is my understanding that the oil spill may ahve damaged or reduced the salmon stocks in Alaskan waters which or course would have had an effect on my income. Do I have a claim?

Thank you for your consideration in this most important matter. Please contact me at the above address.

S/icedely; archere

cc. Walther & Flanigan law firm



Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

To:	Restoration Work Force
From:	Molly McCammon/ Executive Director
Subject:	Update on Injury and Recovery Status
Date:	September 27, 1996

We have completed the final draft of the Update on Injury and Recovery Status (i.e., Chapter 5 revisions). This version incorporates the changes discussed at the Trustee Council meeting on August 29.

My plan is to have these printed with a September 1996 date and to distribute them to the general mailing list sometime this fall or winter, probably in combination with the final FY 1997 work plan or some other document that needs wide distribution.

I will put this topic on the agenda for the Work Force meeting on October 2nd. If you have any comments or suggestions, please bring them up at that time.

enclosure (1)

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



September 1996

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

Trustee Agencies

State of Alaska: Departments of Fish & Game, Law, and Environmental Conservation United States: National Oceanic and Atmospheric Administration, Departments of Agriculture and Interior [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*.]

Resource Page
Archaeological Resources
Bald Eagles
Black Oystercatchers
Clams
Common Loons
Common Murres
Cormorants
Cutthroat Trout
Designated Wilderness Areas 7
Dolly Varden
Harbor Seals
Harlequin Ducks
Intertidal Communities
Killer Whales
Kittlitz's Murrelets
Marbled Murrelets 11
Mussels
Pacific Herring
Pigeon Guillemots
Pink Salmon
River Otters
Rockfish
Sea Otters
Sediments
Sockeye Salmon
Subtidal Communities
Service
Commercial Fishing
Passive Use
Recreation and Tourism 19
Subsistence
List of Injured Resources and Services 23

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

3

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.

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 oilspill 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, 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 the 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 within the spill area designated as wilderness areas and wilderness study areas by Congress. Oil also was deposited above the mean high-tide line in these areas. 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 area. 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 these areas 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 is 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 MURRELET

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 MURRELET

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 1995 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 GUILLEMOT

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-tofry 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. The concentration of oil in sediments in 1990 was more than twice as great at oiled sites. 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, Kodiak, and Chignik. 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.

SUBSISTENCE

Injury and Recovery

Fifteen predominantly Alaskan Native communities (numbering about 2,200 people) in the oil-spill area rely heavily on harvests of subsistence resources, such as fish, shellfish, seals, deer, ducks, and geese. Many families in other communities, both in and beyond the oil-spill area, also rely on the subsistence resources of the spill area.

Subsistence harvests of fish and wildlife in most of these villages declined substantially following the oil spill. The reasons for the declines include reduced availability of fish and wildlife to harvest, concern about possible health effects of eating contaminated or injured fish and wildlife, and disruption of lifestyles due to clean-up and other activities.

Subsistence foods were tested for evidence of hydrocarbon contamination from 1989-94. No or very low concentrations of petroleum hydrocarbons were found in most subsistence foods. The U.S. Food and Drug Administration determined that 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.





•

22

.

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
	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.

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO: Claudia Slater/ADF&G /
- FROM: Molly McCammon Executive Director
- RE: Authorization: Project 97244/Community-Based Harbor Seal Management and Biological Sampling
- DATE: September 26, 1996

The purpose of this memorandum is to formally authorize work to proceed on Project 97244/Community-Based Harbor Seal Management and Biological Sampling, as described in the Detailed Project Description dated July 8, 1996.

Trustee Agencies State of Alaska: Departments of Fish & Game, Law, and Environmental Conservation United States: National Oceanic and Atmospheric Administration, Departments of Agriculture and Interior

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO: Claudia Slater/ADF&G /
- FROM: Molly McCammon Executive Director
- RE: Authorization: Project 97258A-CLO/Sockeye Salmon Overescapement Project
- DATE: September 26, 1996

The purpose of this memorandum is to formally authorize work to proceed on Project 97258A-CLO/Sockeye Salmon Overescapement Project, as described in the revised Detailed Project Description.

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO: Claudia Slater/ADF&G
- FROM: Molly McCammon Executive Director

RE: Authorization: Project 97166/Herring Natal Habitats

DATE: September 26, 1996

The purpose of this memorandum is to formally authorize work to proceed on the herring spawn deposition survey component of Project 97166/Herring Natal Habitats, as described in the Detailed Project Description submitted April 15, 1996. A decision on funding the hydroacoustics component of the project was deferred by the Trustee Council until December, pending review of a revised DPD.

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO: Claudia Slater/ADF&G
- FROM: Molly McCammon Executive Director
- RE: Authorization: Project 97190/Construction of a Linkage Map for the Pink Salmon Genome
- DATE: September 26, 1996

The purpose of this memorandum is to formally authorize work to proceed on Project 97190/Construction of a Linkage Map for the Pink Salmon Genome, as described in the Detailed Project Description submitted April 15, 1996.

Trustee Agencies State of Alaska: Departments of Fish & Game, Law, and Environmental Conservation United States: National Oceanic and Atmospheric Administration, Departments of Agriculture and Interior

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO: Claudia Slater/ADF&G
- FROM: Molly McCammon M Executive Director
- RE: Authorization: Project 97272-CLO/Chenega Chinook Release Program
- DATE: September 26, 1996

The purpose of this memorandum is to formally authorize work to proceed on Project 97272-CLO/Chenega Chinook Release Program, as described in the Detailed Project Description submitted April 15, 1996.



Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO: Claudia Slater/ADF&G
- FROM: Molly McCammon

RE: Authorization: Project 97127/Tatitlek Coho Salmon Release

DATE: September 26, 1996

The purpose of this memorandum is to formally authorize work to proceed on Project 97127/Tatitlek Coho Salmon Release, as described in the Detailed Project Description submitted April 15, 1996.

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO: Claudia Slater/ADF&G/
- FROM: Molly McCammon Executive Director
- RE: Authorization: Project 97162/Investigations of Disease Factors Affecting Declines of Pacific Herring Populations in PWS
- DATE: September 26, 1996

The purpose of this memorandum is to formally authorize work to proceed on Project 97162/Investigations of Disease Factors Affecting Declines of Pacific Herring Populations in PWS, as described in the Detailed Project Description submitted April 15, 1996.

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO: Claudia Slater/ADF&G /
- FROM: Molly McCampon Executive Director
- RE: Authorization: Project 97052B/Traditional Ecological Knowledge
- DATE: September 26, 1996

The purpose of this memorandum is to formally authorize work to proceed on Project 97052B/Traditional Ecological Knowledge, as described in the Detailed Project Description dated August 22, 1996.

Restoration Office

645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO: Claudia Slater/ADF&G
- FROM: Molly McCemmon Executive/Director
- RE: Authorization: Project 97139A2/Port Dick Creek Tributary and Development
- DATE: September 26, 1996

The purpose of this memorandum is to formally authorize work to proceed on Project 97139A2/Port Dick Creek Tributary and Development, as described in the Detailed Project Description submitted April 15, 1996.



Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO: Claudia Slater/ADF&G
- FROM: Molly McCammon Executive Director
- RE: Authorization: Project 97188/Otolith Thermal Mass Marking of Hatchery-Reared Pink Salmon in PWS
- DATE: September 26, 1996

The purpose of this memorandum is to formally authorize work to proceed on Project 97188/Otolith Thermal Mass Marking of Hatchery-Reared Pink Salmon in PWS, as described in the Detailed Project Description dated July 16, 1996.

Restoration Office

645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO: Claudia Slater/ADF&G
- FROM: Molly McCammon Executive Director
- RE: Authorization: Project 97259-CLO/Restoration of Coghill Lake Sockeye Salmon
- DATE: September 26, 1996

The purpose of this memorandum is to formally authorize work to proceed on Project 97259-CLO/Restoration of Coghill Lake Sockeye Salmon, as described in the revised Detailed Project Description.

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO: Ernie Piper/ADEC
- FROM: Molly McCammon Executive Director
- RE: Authorization: Project 97304/Kodiak Island Borough Master Waste Management Plan
- DATE: September 26, 1996

The purpose of this memorandum is to formally authorize work to proceed on Project 97304/Kodiak Island Borough Master Waste Management Plan, as described in the Detailed Project Description dated July 1996.

Restoration Office

645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO: Claudia Slater/ADF&G
- FROM: Molly McCammon Executive Director

RE: Authorization: Project 97320/Sound Ecosystem Assessment (SEA)

DATE: September 26, 1996

The purpose of this memorandum is to formally authorize work to proceed on Project 97320/Sound Ecosystem Assessment (SEA), as described in the Detailed Project Description submitted April 15, 1996. This authorization includes subprojects E, G, H, I, J, K, M, N, R, T, U, and Z.

cc: Byron Morris, NOAA

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO: Claudia Slater/ADF&G
- FROM: Molly McCammon Executive Director
- RE: Authorization: Project 97001/Recovery of Harbor Seals from EVOS: Condition and Health Status
- DATE: September 26, 1996

The purpose of this memorandum is to formally authorize work to proceed on Project 97001/Recovery of Harbor Seals from EVOS: Condition and Health Status, as described in the Detailed Project Description submitted April 15, 1996.

Trustee Agencies State of Alaska: Departments of Fish & Game, Law, and Environmental Conservation United States: National Oceanic and Atmospheric Administration, Departments of Agriculture and Interior

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO: Claudia Slater/ADF&G
- FROM: Molly McCammon Executive Director
- RE: Authorization: Project 97170/Isotope Ratio Studies of Marine Mammals in PWS
- DATE: September 26, 1996

The purpose of this memorandum is to formally authorize work to proceed on Project 97170/Isotope Ratio Studies of Marine Mammals in PWS, as described in the Detailed Project Description submitted April 15, 1996.

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO: Claudia Slater/ADF&G
- FROM: Molly McCammon Executive Director
- RE: Authorization: Project 97064/Monitoring, Habitat Use, and Trophic Interactions of Harbor Seals in PWS
- DATE: September 26, 1996

The purpose of this memorandum is to formally authorize work to proceed on Project 97064/Monitoring, Habitat Use, and Trophic Interactions of Harbor Seals in PWS. The work must be performed consistent with the Detailed Project Description, as modified by the May 9, 1996 memo from Kathy Frost to Molly McCammon.

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO: Claudia Slater/ADF&G
- FROM: Molly McCammon Executive Director
- RE: Authorization: Project 97186/Coded Wire Tag Recoveries From Pink Salmon in PWS
- DATE: September 26, 1996

The purpose of this memorandum is to formally authorize work to proceed on Project 97186/Coded Wire Tag Recoveries From Pink Salmon in PWS, as described in the Detailed Project Description dated April 15, 1996.

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO: Claudia Slater/ADF&G
- FROM: Molly McCammon Executive Director
- RE: Authorization: Project 97225/Port Graham Pink Salmon Subsistence Project
- DATE: September 26, 1996

The purpose of this memorandum is to formally authorize work to proceed on Project 97225/Port Graham Pink Salmon Subsistence Project, as described in the Detailed Project Description dated April 12, 1996.

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO: Byron Morris/NOAA
- FROM: Molly McCampon Executive Director
- RE: Authorization: Project 97163/APEX: Alaska Predator Ecosystem Experiment in PWS and Gulf of Alaska -- Subprojects A, B, C (partial), E, F, G, I, L, M, N, O, and Q
- DATE: September 26, 1996

The purpose of this memorandum is to formally authorize work to proceed on subprojects A, B, C (partial), E, F, G, I, L, M, N, O, and Q of Project 97163/APEX: Alaska Predator Ecosystem Experiment in PWS and Gulf of Alaska, as described in the Detailed Project Description dated June 1996. Subproject C (forage fish diet overlap) authorization is for processing, analyzing, and reporting on existing samples. Funding for the field sampling component of subproject C is contingent on the results of the APEX review session scheduled for February 1997.

Funding for subproject H (proximate composition of forage fish) is contingent on submittal to the Chief Scientist of the report on Project 95121.

Funding for subprojects J (Barren Island murres and kittiwakes) and K (fish as samplers) is contingent on submittal to the Chief Scientist of the revised report on Project 94039.

cc: Catherine Berg, USFWS/DOI Lisa Thomas, NBS/DOI Claudia Slater, ADFG

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO: Byron Morris/NOAA
- FROM: Molly McCammon Executive Director
- RE: Authorization: Project 97167-BAA/Preparation and Curation of Seabirds Salvaged from the *Exxon Valdez* Spill
- DATE: September 26, 1996

The purpose of this memorandum is to formally authorize work to proceed on Project 97167-BAA/Preparation and Curation of Seabirds Salvaged from the *Exxon Valdez* Spill, as described in the Detailed Project Description dated April 1996.
Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO: Byron Morris/NOAA
- FROM: Molly McCammon Executive Director
- RE: Authorization: Project 97194/Pink Salmon Spawning Habitat Recovery
- DATE: September 26, 1996

The purpose of this memorandum is to formally authorize work to proceed on Project 97194/Pink Salmon Spawning Habitat Recovery, as described in the Detailed Project Description dated March 29, 1996.

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

FROM: Molly McCammon Executive Director

RE: Authorization: Project 97076/Effects of Oiled Incubation Substrate on Straying and Survival of Wild Pink Salmon

DATE: September 26, 1996

The purpose of this memorandum is to formally authorize work to proceed on Project 97076/Effects of Oiled Incubation Substrate on Straying and Survival of Wild Pink Salmon, as described in the Detailed Project Description dated April 12, 1996.

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO: Byron Morris/NOAA
- FROM: Molly McCammon Executive Director
- RE: Authorization: Project 97142-BAA/Status and Ecology of Kittlitz's Murrelets in PWS
- DATE: September 26, 1996

The purpose of this memorandum is to formally authorize work to proceed on Project 97142-BAA/Status and Ecology of Kittlitz's Murrelets in PWS, as described in the Detailed Project Description dated July 5, 1996.

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO: Byron Morris/NOAA
- FROM: Molly McCampon Executive Director
- RE: Authorization: Project 97223-BAA/Analysis, Integration, and Publication of Pre- and Post-Spill Data on Sea Otter Reproduction, Survival, Development, and Health
- DATE: September 26, 1996

The purpose of this memorandum is to formally authorize work to proceed on Project 97223-BAA/Analysis, Integration, and Publication of Pre- and Post-Spill Data on Sea Otter Reproduction, Survival, Development, and Health, as described in the revised Detailed Project Description.

Trustee Agencies State of Alaska: Departments of Fish & Game, Law, and Environmental Conservation United States: National Oceanic and Atmospheric Administration, Departments of Agriculture and Interior

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO: Byron Morris/NOAA
- FROM: Molly McCammon Executive Director
- RE: Authorization: Project 97290/Hydrocarbon Data Analysis, Interpretation, and Database Maintenance
- DATE: September 26, 1996

The purpose of this memorandum is to formally authorize work to proceed on Project 97290/Hydrocarbon Data Analysis, Interpretation, and Database Maintenance, as described in the Detailed Project Description dated April 5, 1996.

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO: Byron Morris/NOAA
- FROM: Molly McCammon Executive Director
- RE: Authorization: Project 97012/Comprehensive Killer Whale Investigation in PWS
- DATE: September 26, 1996

The purpose of this memorandum is to formally authorize work to proceed on the remote hydrophone monitoring component of Project 97012/Comprehensive Killer Whale Investigation in PWS, as described in the Detailed Project Description and the July 19, 1996 memo from Craig Matkin to Sandra Schubert. A decision on funding the balance of the project has been deferred by the Trustee Council until December.

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



September 25, 1996

Betty Hill Office of the Clerk United States District Court for the District of Alaska 222 West Seventh Avenue Anchorage, Alaska 99513

Dear Ms. Hill:

In accordance with the Amended Order for Deposit and Transfer of Settlement Proceeds (Order), dated July 31, 1995, all money paid in relationship to <u>United States v. Exxon</u> <u>Corporation, et al.</u>, No. A91-082 CIV, and <u>State of Alaska v. Exxon Corporation, et al.</u>, A91-083 CIV, is placed in the Court Registry Investment System (CRIS) administered through the United States District Court for the Southern District of Texas.

Pursuant to the Order, all payments in connection with the *Exxon Valdez* Oil Spill Settlement are transferred to the Court electronically. The Order specifies that disbursements of settlement proceeds from the Registry of the Court are made upon joint application of counsel for the United States and the State of Alaska. However, the Order is silent regarding the method of disbursement.

Currently, when disbursements are made, the Court Clerk in Houston electronically transfers the appropriate amount to the Court Clerk in Anchorage. The Court Clerk in Anchorage then issues checks, as stipulated in the Joint Applications for Disbursement. Between the time that the funds are liquidated in CRIS and the checks are deposited in the interest-bearing trust funds maintained by the Governments, the funds are not earning interest.

It is estimated that, as a result of this time-lag, \$95,000 in interest was lost during fiscal 1995. As described in the attached letter, this estimate was developed by the firm of Elgee, Rehfeld and Funk. The letter also states that the Anchorage Court Clerk does not have the ability to wire transfer funds. However, the Houston Court Clerk does.

Based on the inability of the Anchorage Court Clerk to wire transfer funds, an alternative approach is outlined in the letter from Elgee, Rehfeld and Funk. Under this approach,

Trustee Agencies

after receipt of a voucher from the Anchorage Court Clerk, the Houston Court Clerk would wire transfer the funds directly to the Governments.

It is estimated that the wire transfer could reduce the lag time between liquidation at CRIS and reinvestment in the interest-bearing trust funds maintained by the Governments from seven days to one or two days. Using the Joint Applications for the twenty second disbursement as an example, this means that only \$11,884 in interest would be lost, rather than \$41,593.

Your assistance is requested to determine the current ability of the Anchorage Court Clerk to wire transfer funds. In addition, your analysis is requested regarding the alternative approach outlined in the attached letter from Elgee, Rehfeld and Funk.

If you have any questions regarding this letter, please do not hesitate to call me.

Sincerely,

mm/raw

MILI.

Molly McCammon Executive Director

cc: Craig Tillery, Alaska Department of Law Gina Belt, U.S. Department of Justice

,	FAX COVER SHEET
Craig Tillury	1
To: Gina Belt	Number:
From: <u>Molly M^cCa</u>	MMON Date: 9/27/96
Comments:	Total Pages: <u>3</u>
Pleas	e forward to
Craige a	ind Gina.
	Direction
	Manno

	09/27	/96	11:26	3 907	276	7178	EV Restora	tion		Ø 001
	• /2 • •	*		·	*** *** ***	********* MULTI T *******	************* RANSACTION REP0 *************	******* IRT *** ******		
$\mathbf{\mathbf{\nabla}}$		TX/R)	K NO.				9400			
		INCOM	MPLETE TX/	'RX						
		TRANS	SACTION OK	٦ (36]	2787022			ALEX-CRAIG	
				{	38]	2715827			G.BELT	
		ERROF	ł							

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

Agency Liaisons
Molly McGammon Executive Director
September 25, 1996
EVOS Trustee Council Procedures

Enclosed you will find ten copies of the recently adopted *Exxon Valdez* Oil Spill Trustee Council Procedures. Please distribute them as you see appropriate.

If you require additional copies of this document, please contact Rebecca Williams.

0 C mm/raw

Trustee Agencies State of Alaska: Departments of Fish & Game, Law, and Environmental Conservation United States: National Oceanic and Atmospheric Administration, Departments of Agriculture and Interior

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO:Michele Brown, CommissionerAlaska Department of Environmental Conservation
- FROM: Molly McCammpung Mule em

DATE: September 25, 1996

RE: Unreimbursed Oil Spill Costs

Under the Agreement and Consent Decree in <u>United States v. Exxon Corporation, et al.</u>, and <u>State of Alaska v. Exxon Corporation, et al.</u>, the State of Alaska may apply for reimbursement of past costs. In accordance with paragraph 10, reimbursement is based on costs associated with response and clean-up, natural resource damage assessment and litigation costs.

To date a total of \$86,559,288 has been reimbursed to the State of Alaska. Our records indicate that an additional \$20,000,000 remains outstanding. I propose that the outstanding reimbursement be satisfied through annual payments of \$5,000,000 each starting in September 1998 and ending in September 2001.

This payment schedule would provide sufficient flexibility to the Governments' for planning, administering and implementing the Restoration Plan and would satisfy the outstanding reimbursement.

I would appreciate hearing from you as to whether this is acceptable. I would also like to take the opportunity to discuss this the next time I meet with you.

If you have any questions, please do not hesitate to call me at (907) 278-8012.

cc: Craig Tillery Ernie Piper Traci Cramer

mm/raw

Trustee Agencies

State of Alaska: Departments of Fish & Game, Law, and Environmental Conservation United States: National Oceanic and Atmospheric Administration, Departments of Agriculture and Interior

09/25/96	16:31 2.907 276 7178	EV Restoration	Ø. 00
	**** *** ****	**************************************	
	TRANSMISSION OK		X
	TX/RX NO.	9321	Jak.
	CONNECTION TEL	19074655070	The Steam
	CONNECTION ID	MICHELE BROWN	No. 7. 15
	START TIME	09/25 16:30	D'Ar xoc.
	USAGE TIME	01'20	» S
	PAGES	2	
	RESULT	ОК	

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



FAX COVER SHEET

To: Michelo Brown Number: From: Molly MC Cammon Date: 9/25/96 Total Pages: _____ Comments: Please forward to MS. Brown HARD COPY TO FOLLOW

Document Sent By:

3/27/96

Trustee Agencies

State of Alaska: Departments of Fish & Game, Law, and Environmental Conservation United States: National Oceanic and Atmospheric Administration, Departments of Agriculture and Interior

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



	FAX COVE	ER SHEET
Craig Frie F	Lillerg iper	umber:
N. Trace (NUMER	
From: Moll	y Mª Cammon D	ate: September 26, 1996
Comments:	Т	otal Pages:
	Please forma	rd to those
1	isted above.	Thank you
See Ste		0
AND		
	and a second	
Document Ser	nt By: Rebecca	

9/9/94

r	09/26/96 12:40 🗃	907 276 7178	EV Restoration		∠ 001
	· /	*********** *** MULTI *********	**************************************		
	TX/RX NO.		9356		
	INCOMPLETE TX/RX				
	TRANSACTION OK	[09] 19075867	589	JUNEAU OFFICE	
		[24] 2697652		E. PIPER	
		[36] 2787022		ALEX-CRAIG	
	ERROR				

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



September 25, 1996

Frank M. Carlson, Mayor City of Larsen Bay P. O. Box 8 Larsen Bay, Alaska 99624

Dear Mr. Carlson:

I have received your letter regarding construction of a small boat harbor in Larsen Bay. Since our conversation when I visited Larsen Bay last spring, there has been little progress in securing funding for projects of this type.

As you will recall, a project such as this would not be eligible for funding by the Trustee Council. It does not meet the legal requirement of the civil settlement that Council funds be spent only on the restoration of injured resources. However, I have been exploring other possible funding options for projects in subsistence communities in the spill area. I am continuing to pursue this, but would also encourage you to contact your legislators about the harbor project.

Please forward the cost estimates to me once you get them from DOT. I'll keep you posted on my efforts.

Sincerely,

Milly McCamm

Molly McCammon Executive Director

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO: Catherine Berg/DOI
- FROM: Molly MpCammon Executive Director
- RE: Authorization -- Project 97159-CLO/Surveys to Monitor Marine Bird Abundance in PWS During Winter and Summer: Report and Publication Writing
- DATE: September 25, 1996

The purpose of this memorandum is to formally authorize work to proceed on Project 97159-CLO/Surveys to Monitor Marine Bird Abundance in PWS During Winter and Summer: Report and Publication Writing, as described in the Detailed Project Description dated June 28, 1996.

Restoration Office

645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO: Carol Fries/ADNR
- FROM: Molly McCammon Executive Director
- RE: Authorization: Project 97300/Synthesis of the Scientific Findings from the *Exxon Valdez* Oil Spill Restoration Program
- DATE: September 25, 1996

The purpose of this memorandum is to formally authorize work to proceed on Project 97300/Synthesis of the Scientific Findings from the *Exxon Valdez* Oil Spill Restoration Program, as described in the Detailed Project Description dated August 7, 1996.

Restoration Office

645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO: Carol Fries/ADNR
- FROM: Molly McCampon Executive Director
- RE: Authorization: Project 97149/Archaeological Site Stewardship
- DATE: September 25, 1996

The purpose of this memorandum is to formally authorize work to proceed on Project 97149/Archaeological Site Stewardship, as described in the Detailed Project Description submitted April 15, 1996.

Restoration Office

645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO: Carol Fries/ADNR
- FROM: Molly McCammon Executive Director
- RE: Authorization: Project 97007A/Archaeological Index Site Monitoring
- DATE: September 25, 1996

The purpose of this memorandum is to formally authorize work to proceed on Project 97007A/Archaeological Index Site Monitoring, as described in the revised Detailed Project Description.



Restoration Office

645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO: Carol Fries/ADNR
- FROM: Molly McCammon Executive Director
- RE: Authorization: Project 97180/Kenai Habitat Restoration and Recreation Enhancement
- DATE: September 25, 1996

The purpose of this memorandum is to formally authorize work to proceed on Project 97180/Kenai Habitat Restoration and Recreation Enhancement, as described in the Detailed Project Description dated April 16, 1996.

Restoration Office

645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO: Claudia Slater/ADF&G
- FROM: Molly McOammon Executive Director
- RE: Authorization: Project 97210/Youth Area Watch
- DATE: September 25, 1996

The purpose of this memorandum is to formally authorize work to proceed on Project 97210/Youth Area Watch, as described in the Detailed Project Description dated July 18, 1996.

Restoration Office

645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO: Claudia Slater/ADF&G
- FROM: Molly McCampon Executive Director
- RE: Authorization: Project 97427/Harlequin Duck Recovery Monitoring
- DATE: September 25, 1996

The purpose of this memorandum is to formally authorize work to proceed on Project 97427/Harlequin Duck Recovery Monitoring, as described in the Detailed Project Description submitted April 15, 1996.



Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO: Claudia Slater/ADF&G
- FROM: Molly McCammon Executive Director
- RE: Authorization: Project 97052A/Community Involvement
- DATE: September 25, 1996

The purpose of this memorandum is to formally authorize work to proceed on Project 97052A/Community Involvement, as described in the Detailed Project Description dated August 2, 1996.

Restoration Office

645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO: Catherine Berg/DOI
- FROM: Molly McCammon Executive Director
- RE: Authorization: Project 97286/Elders-Youth Conference on Subsistence and the Oil Spill
- DATE: September 25, 1996

The purpose of this memorandum is to formally authorize work to proceed on Project 97286/Elders-Youth Conference on Subsistence and the Oil Spill, as described in the revised Detailed Project Description.

cc: Bud Rice, NPS/DOI

Trustee Agencies State of Alaska: Departments of Fish & Game, Law, and Environmental Conservation United States: National Oceanic and Atmospheric Administration, Departments of Agriculture and Interior

Restoration Office

645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO: Catherine Berg/DOI
- FROM: Molly McCammon Executive Director
- RE: Authorization: Project 97161/Differentiation and Interchange of Harlequin Duck Populations Within the North Pacific
- DATE: September 25, 1996

The purpose of this memorandum is to formally authorize work to proceed on Project 97161/Differentiation and Interchange of Harlequin Duck Populations Within the North Pacific, as described in the Detailed Project Description submitted April 15, 1996.

cc: Bud Rice, NPS/DOI

Restoration Office

645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO: Catherine Berg/DOI
- FROM: Molly McCammon Executive Director
- RE: Authorization: Project 97306/Ecology and Demographics of Pacific Sand Lance in Lower Cook Inlet
- DATE: September 25, 1996

The purpose of this memorandum is to formally authorize work to proceed on Project 97306/Ecology and Demographics of Pacific Sand Lance in Lower Cook Inlet, as described in the revised Detailed Project Description.

cc: Lisa Thomas, NBS/DOI

Restoration Office

645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



	MEMORANDUM
TO:	Byron Morris
FROM:	Molly McCammon Executive Director
DATE:	September 23, 1996
SUBJ:	SEA Program - Project 97320 PWSSC BAA Contracts

Attached you will find a copy of the letter of authorization recently sent to Dr. Ted Cooney in regard to the SEA program funding for FY 97. As you implement the four FY 97 SEA projects being administered by the Prince William Sound Science Center (PWSSC) through the BAA contract process please ensure that the period of performance is extended to cover the submission of a report in April 1998.

As you will recall, this issue was raised last March in response to questions posed by Dr. Ted Cooney about the timing of the PWSSC contracts relative to other SEA elements. A copy of the letter sent to Dr. Cooney last March 28, 1996 and copied to you at the time is also attached for your reference (see pp. 2-3). As has been discussed more than once with Dr. Cooney and Gary Thomas, the BAA contracts require a deliverable (i.e., a report) and funding for that purpose has once again been included in the FY 97 PWSSC project budgets (for /320-M, /320-N, /320-I, and /320-J) as authorized by the Trustee Council and noted in the most recent correspondence to Dr. Cooney. That is, FY 97 funding approved by the Trustee Council for the four PWSSC projects has been explicitly budgeted to support both the field work/data collection during FY 97 as well as the cost of preparing the annual report on that work due April 15, 1998. The term for the performance of work on these projects under the NOAA BAA contract should accordingly extend through the date of report submission.

If you foresee any difficulty with this request, please let me know.

cc: Bill Hauser Stan Senner Ted Cooney Gary Thomas

Trustee Agencies

State of Alaska: Departments of Fish & Game, Law, and Environmental Conservation United States: National Oceanic and Atmospheric Administration, Departments of Agriculture and Interior

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



September 13, 1998

Dr. Ted Cooney, Lead Scientist Sound Ecosystem Assessment Institute of Marine Science University of Alaska Fairbanks Box 757220 Fairbanks, Alaska 99775-7220

The Exxon Valdez Oil Spill Trustee Council acted on the Fiscal Year 1997 Work Plan at its meeting on August 29, 1996. I am pleased to inform you that the Council approved funding in the amount of \$3,618,300 for Project 97320/Sound Ecosystem Assessment (SEA) as indicated in the attachment that records the Council's action.

Table 1, also attached, provides a breakdown of the Council's funding authorizations for the twelve sub-projects that will be implemented through RSAs with the University of Alaska (projects 97320-G,H,R,T,U and Z); NOAA-BAA contracts with the Prince William Sound Science Center (PWSSC) (projects 97320-I, J, M, and N); an RSA with the Prince William Sound Aquaculture Corporation (project 97320-K); and directly by ADF&G (97320-E). Total authorized funding for FY 97 includes support for the agency administrative costs for the respective projects.

As was the case for FY 96, the four PWSSC projects (/320-I, J, M, and N) will be implemented through the NOAA BAA contract process which requires deliverables in the form of final reports for the work conducted under the contracts. Accordingly, funding for the four PWSSC projects includes two components: (1) funds for field work/data collection in FY 97, as well as (2) funds to support report preparation associated with FY 97 work field work/data collection that will be due April 15, 1998 (see Table 1).

Projects approved for FY 97 are approved in the expectation that they will be funded to their completion. However, the Trustee Council will annually evaluate a project's future funding needs based on its progress or results to date, overall restoration needs, and restoration funding constraints. As we have agreed, the budget target for total SEA funding in FY 98 is \$2,600,000. In recognition of the FY 97 "borrow" from FY 98 for expanded modeling efforts (\$207.000) and the PWSSC report writing costs for FY 97

Trustee Agencies

work that will be conducted in FY 98 (\$445,800), we anticipate a recommendation of an additional \$1,947,200 for SEA in FY 98 (inclusive of agency administrative costs). FY 99 is anticipated to be a synthesis/closeout year for the program as we have known it, with further herring research and other monitoring work beyond that juncture to be evaluated in light of SEA's progress in meeting its objectives and consideration of overall restoration needs.

Before a project may begin, the lead agency for the project must provide documentation to the Executive Director showing that the requirements of the National Environmental Policy Act (NEPA) have been met. We hope that this will occur before October 1, 1996. If so, you may receive authorization from the Executive Director to begin the FY 97 project on that date. Any delay in documenting compliance will require that the start of the project be deferred. If you have any questions, please contact Bill Hauser/ADF&G who is working with Byron Morris/NOAA to secure documentation of NEPA compliance for the respective 97320 sub-projects.

Thank you for your continued leadership on the SEA program. The program has made significant progress toward addressing the central SEA hypotheses and is helping to redefine our understanding of the Prince William Sound ecosystem and the factors that may be limiting the recovery of injured resources and services.

I look forward to learning more about the results of the most recent field season in the months ahead.

Sincerely,

Mally McCamm

Molly McCammon Executive Director

Attachments

cc: Claudia Slater/ADF&G Liaison (Attn: Bill Hauser) Byron Morris/NOAA Liaison

Table 1. FY 97 - Summary of SEA Project Budgets

	FY 97 Remain Field/Data	FY 97/98 Rept Preparation	Project Cost Subtotal	Agency Gen Admin	TOTAL
97320-I Isotopes	71.1	46.1	117.2	8.2	125.4
97320-J Modelling	335.2	196.2	531.4	23.1	554.5
97320-M Oceanography	197.4	136.8	334.2	19.2	353.4
97320-N/Nekton Acoustics	278.3	66.7	345.0	19.4	364.4
PWSSC Subtotal	882.0	445.8	1,327.8	69.9	1,397.7
97320-K Fry Release			23.2	1.6	24.8
97320-E Predators			571.5	60.3	631.8
97320-G Phytoplankton			121.5	8.5	130.0
97320-H Zooplankton			127.5	8.9	136.4
97320-R Trophodynamics			170.2	11.9	182.1
97320-T Herring			869.9	29.9	899.8
97320-U Energetics			144.3	10.1	154.4
97320-Z Synthesis			57.3	4.0	61.3
TOTAL			3,413.2	205.1	3,618.3



;

<u>.</u>--

.....

÷.

. ~

SPREADSHEET B: TREEE COUNCIL 9/96 ACTION -- FY 97 WORK





Proj.No.	ProjectTitle	Proposer	Lead Agency	New or Cont'd	FY97 Request	Revised Request	FY97 Approved	FY97 Deferred	FY98 Estimate	FY99 Estimate	FY00-02 Estimate	FY97-02 Rec.
97320	Sound Ecosystem Assessment (SEA)	T. Cooney, et al.	ADFG	Cont'd 4th yr. 6 yr. proje	\$3,613.2 ect	\$3,618.3	\$3, 618.3		\$1,947.2			\$5,565.5

Project Abstract

This project is describing mechanisms of mortality for juvenile populations of pink salmon and Pacific herring in Prince William Sound. This information is being used to create a series of dynamic numerical models and an attendant nominal monitoring program to affect the restoration of these species through management options. The mechanisms influencing the distribution and growth rates of juveniles are being investigated by oceanographic studies. Mechanisms of predation and starvation are being studied by fisheries scientists and marine ecologists. <u>Chief Scientist's Recommendation</u> This is an excellent program that has undergone independent and thorough technical review annually. The program should better articulate the practical benefits and applications to be derived from the research, including a schedule for production of potential management tools. Key parameters for routine monitoring of the system to determine likely productivity of pink salmon and herring need to be identified. Continued improvement of the interaction between the modelers and the field scientists is required, as is a plan to integrate the results of SEA with the work of APEX(/163) and NVP(/025). In terms of the long-range scope of the program, resolution of the major hypotheses will be necessary over the next year prior to decisions about funding after the FY 99 closeout.

Trustee Council Action

Fund. Significant progress has been made to address the central SEA hypotheses. The program is now at a point when field work is transitioning to modeling and analysis. FY 98 will be the final year for most of the present SEA projects and only modest closeout funding is anticipated in FY 99 as a final synthesis year. Further herring research beyond FY 98 is uncertain and must be reevaluated in the context of other herring work and other restoration proposals. A key issue to be addressed in FY 97 is ensuring that SEA predictive models are useful to/used by resource managers. Further interaction between SEA investigators and resource managers appears needed. Clarification of any long-term data collection and monitoring to support predictive models is also critical to ensure that models can be maintained over time. On-going efforts to integrate the major ecosystem research projects (SEA, NVP and APEX) should be pursued during FY 97 and used to guide future funding decisions. In recognition of funds included in the FY 97 recommendation for additional data/modeling work (\$207.0) and for PWSSC's FY 98 report writing of FY 97 results (\$445.8), total SEA funding in FY 98 is projected to be \$1,947.2 (including agency administrative costs).

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



March 28, 1996

R. Ted Cooney School of Fisheries & Ocean Sciences University of Alaska Fairbanks, Alaska 99775-1080

Re: SEA Project (96320)

Dear Ted:

This letter is written in response to recent SEA Project communications regarding an extension of time for the FY 1996 annual report, the FY 1997 budget in relation to the target budget of \$3.6 million, the possibility of Pacific herring work in FY 1999, and the contracts between NOAA and the Prince William Sound Science Center. I will address these issues in that order:

Extension for FY 1995 Annual Report

I recognize that you have your hands full in pulling together the FY 1995 report at the same time as you are working on the FY 1997 Detailed Project Description. Thus, as per the letter from Bill Hauser dated March 18, I approve your request to submit the integrated FY 1995 report on the SEA project on April 30.

Shifting FY 1998 Funds into the FY 1997 Budget

You have requested permission to shift S240K from the FY 1998 budget to FY 1997 in order to increase resources available for the modeling part of the SEA Project. My understanding is that the FY 1998 budget will be reduced accordingly. I have no objection to your building a budget along these lines. However, the Trustee Council staff will have to evaluate your formal proposal and budget through the normal review of the FY 1997 Work Plan, and I am likely to recommend to the Trustee Council that approval of such a shift in funding be contingent on completion of a successful special review of the modeling component in autumn 1996 if the Chief Scientist finds that such a review is necessary and appropriate.

Trustee Agencies

R. Ted Cooney Page 2 March 28, 1996

To sum up the overall budget picture for FY 1997, what you then have to work with is:

\$3,600,000	(budget target)
- 250,000	(working estimate for agency administrative costs)
<u>+ 240,000</u>	(shift from FY 1998)
3,590,000	(available for the SEA Project, which includes the \$589.1K in FY 1997 report writing costs approved by Trustee Council in August 1995)

Herring Work in FY 1999

You had asked about the opportunity for additional Pacific herring work to be proposed in FY 1999. There is no objection to the submission of herring proposals in FY 1999, so long as you understand that there are no advance assurances of funding. In other words, any herring work proposed in FY 1999 will compete for funds with all other project proposals.

NOAA-PWSSC Contracts

In regard to the timing of the NOAA-PWSSC contracts vis a vis the ADFG-UAF agreements, I am sympathetic to the challenge it creates to have these components on different timetables. From a planning perspective, however, this is something we all have known since August 1995 when the Trustee Council approved the funds for the ADFG "Request for Alternative Procurement" needed to bridge the ADFG and NOAA contracts. You and your colleagues are going to have to map the science program over the next two years and then package the components temporally according to the sources of funds. Awkward as this may be, I see no alternative.

Let me be clear that the FY 1996 funds for the PWSSC components approved by the Trustee Council are specifically intended to cover FY 1996 field work and the associated report writing in FY 1997 on FY 1996 field work. To the extent that any FY 1996 funds will cover field work in FY 1997, I understand that such work will be only that which is essential to complete the 1996 field season. Thus, these funds are not to be used for field activity that is new and not previously approved by the Trustee Council.

Accordingly, the funds included in the NOAA contracts are to cover all PWSSC costs for the 1996 field season and associated report writing. (I have attached a breakout of Project 96320M budgets as an example.) I note that the period of performance on the NOAA contracts ends January 30, 1997, but that reports are due on April 15, 1997. Even though there are sufficient funds to cover the report-writing costs. I am concerned about how PWSSC is to bill NOAA for report costs incurred after January 30 and before April 15. It appears that it will be necessary

R. Ted Cooney Page 3 March 28, 1996

to amend the contracts to extend the period of performance to at least April 15 (or perhaps longer to allow any exchanges with peer reviewers). I will encourage NOAA to do so as soon the initial contracts are in place.

In regard to the FY 1997 budgets, which you and your colleagues are now assembling, I want to be clear that the UAF and PWSSC budget will differ. The UAF budgets should be strict 12month budgets corresponding with the federal Fiscal Year (October 1-September 30). The PWSSC budgets, on the other hand, should include the field activities to be carried out in FY 1997, plus the costs of writing reports (i.e., deliverables) on those activities, even if the report writing physically occurs in FY 1998 (see Report Writing instructions on p. B11, *Invitation to Submit Restoration Proposals for Federal Fiscal Year 1997*). Given the timing of the NOAA-BAA contracts (as described above), the FY 1997 PWSSC budget also should include field activities needed in the autumn that are essential to complete the FY 1997 field season. Such field activities, however, should be strictly limited to what is essential to complete the prior 1997 season.

Conclusion

Although I believe that the asynchronous funding cycles are unavoidable, I hope that the replies above are responsive to your requests and concerns. I am convinced of the worth of the SEA project and know that you are working hard to make it a success. To that end, the Trustee Council staff, ADFG, and NOAA will assist you in every way we can. I am especially eager that collectively we begin to develop a stronger idea of what is required in FY 1999 to close-out and synthesize the current SEA project as well as the longer-term program, including the possibilities of on-going monitoring and management applications for the SEA, APEX, and NVP projects.

Sincerely,

Molly McCammon th

Executive Director

enclosure: Attachment A

cc: Byron Morris & Bruce Wright, NOAA Joe Sullivan & Bill Hauser, ADFG Bob Spies & Andy Gunther, AMS


Attachment A

EXAMPLE: Project 96320-M — Physical Oceanography

1. For Project 320-M, the FY 96 Work Plan authorized:

1.

Report Writing (in FY 96) resulting from FY 95 work	179.0	(to ADFG for RAP)
FY 96 Field Season work	295.0	(to NOAA for BAA contract)
Report Writing (in FY 97) resulting from FY 96 work	146.4	(to NOAA for BAA contract)
Program Management and General Administration	25.4	(to ADFG and NOAA)
TOTAL authorized:	645.8	

NOTE: FY 96 Field Season (295.0) + resulting Report Writing (in FY 97) = 441.4

- The estimated (but not yet authorized by the Trustee Council) cost for continued work on 320-M in FY 97, as reflected in the approved detailed budget forms, was 337.5. [Note: The 337.5 figure is the same as estimated for 320-M work in FY 97 presented in the Sound Ecosystem Asessment (SEA): An Integrated Science Plan for the Restoration of Injured Species in Prince William Sound dated August 1, 1995 (Attachment 3).]
- The NOAA FY 96 work plan BAA contract for 320-M is structured into two parts, a "Base Period" and and an "Option Period" (see Section B.1 Offer Schedule, page 3 of 47).
 - "Base Period" (441.4) reflects Trustee Council authorized work on 320-M to be conducted under the NOAA BAA contract to complete FY 96 data collection and reporting as described in the approved FY 96 budget.
 - "Option Period" (337.5) is an *estimate only* of work that may be performed. Exercise of the "Option Period" as provided in the NOAA contract (Section H - Special Contract Requirements, page 12 of 47) would require additional Trustee Council action to authorize funding.

NOAA BAA Contract Period		Co	ost
"Base Period" (2/1/96 - 1/31/97) "Option Period" (2/1/97 - 1/31 98)	-	441.4 * 337.5 **	(FY 96 field - report writing (FY 97 field - report writing
	TOTAL	778.9	

* "Base Period" calculation:

441.4 = 295.0 (FY 96 Field work) + 146.4 (Report Writing for FY 96 field work)
"Option Period" (337.5) is an *estimate* of FY 97 field work and associated report writing. No Trustee Council authorization to expend these funds has been given.

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO: Byron Morris
- FROM: Molly McCamingh, Mxecutive Director
- DATE: September 23, 1996
- SUBJ: Amendment to PWSSC Contracts

At the August 29, 1996 meeting, the Trustee Council approved the transfer of \$93,400 from Project 96320-N/Nekton - Plankton Acoustics to Project 96320-J/Information Systems - Model Development. Material that describes this transfer in greater detail is attached. The purpose of this memo is to formally acknowledge the Trustee Council approval and to urge that you implement the transfer of funds as expeditiously as possible.

cc: Gary Thomas/PWSSC

Exxon Valdez Oil Spill Trustee Council Postoration Office 51



		ſ	leotoratio		~~	
645	G Street,	Suite	401, Ancl	horage	e, Alaska	99501-345
	Phone:	(907)	278-8012	Fax:	(907) 276	-7178

TO:	Trustee Council Members
FROM:	Molly McCampon Executive Director
DATE:	August 19, 1996
RE:	Technical Budget Amendment - SEA Program \$93.4 Transfer Between Projects

The Prince William Sound Science Center has asked for authority to transfer funds between two FY 96 SEA projects in the amount of \$93,400. The proposed action is a "net-zero" transfer between two projects (320-N and 320-J) and will not require any additional funds. This transfer requires Trustee Council authorization since the amount involved is greater than \$25,000.

This transfer is in direct response to guidance from Dr. Ted Cooney, the SEA program lead scientist, and reflects the program's response to the Trustee Council's peer review process. The purpose of the transfer is to increase the SEA program's synthesis and modeling efforts in response to the SEA peer review session in January 1996. The SEA program is now at a point where field data collection is giving way to model development and information synthesis. The two projects affected by this transfer are 96320-N/Nekton and Plankton Acoustics (reduced) and 96320-J/Information Systems and Model Development (increased). A summary of the effects of the transfer is as follows:

	Current Budget	Reduce/Increase	Revised Budget
320-N/Nekton-Plankton Acoustics	461.2	(93.4)	367.8
320-J/Information-Model Development	452.0	+93.4	545.4

The Chief Scientist is aware of this proposed transfer and supports the effort to further strengthen the SEA modeling and synthesis emphasis. Pending approval of the transfer by the Trustee Council, the National Oceanic and Atmospheric Administration will amend the current BAA contracts with PWSSC to provide for the transfer of funds.

I recommend approval of the transfer.

cc: Byron Morris/NOAA Bill Hauser/ADFG Ted Cooney/UAF Gary Thomas/PWSSC (attn: Penny Oswalt) Dr. Robert Spies

Trustee Agencies

Budget Category	Current CY Budget	Revised CY Budget	Difference
Salary	174,400.00	194,500.00	20,100.00
Travel	20,900.00	28,700.00	7,800.00
Services	172,300.00	218,300.00	46,000.00
Supplies	5,300.00	6,900.00	1,600.00
Equipment	3,800.00	6,000.00	2,200.00
Total Direct Costs	376,700.00	454,400.00	77,700.00
Indirect Costs	75,300.00	91,000.00	15,700.00
Total Costs	452,000.00	545,400.00	93,400.00

96320-J, NOAA Contract # 50ABNF600053 - Information and Modeling Development (SEA DATA)

ł

96320-N, NOAA Contract # 50ABFN600055 - Nekton and Plankton Acoustics (SEAFISH)

-

Budget Category	Current CY Budget	Revised CY Budget	Difference
Salary	311,300.00	244,000.00	(67,300.00)
Travel	35,200.00	28,800.00	(6,400.00)
Services	14,700.00	13,200.00	(1,500.00)
Supplies	9,300.00	10,300.00	- 1,000.00
Equipment	13,800.00	10,200.00	(3,600.00)
Total Direct Costs	384,300.00	306,500.00	(77,8 00.00)
Indirect Costs	76,900.00	61,300.00	(15,600.00)
Total Costs	461,200.00	367,800.00	(93,400 .00)

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



September 25, 1996

Dr. LeRoy F. Key, Superintendent Cordova Public Schools P. O. Box 140 100 Fisherman Avenue Cordova, Alaska 99574

Dear Dr. Key:

Thank you for your letter in support of the Youth Area Watch project. You will be pleased to learn that the Trustee Council approved funding to the Chugach School District in the amount of \$150,000 for continuation of this project in FY 97. This level of funding, which represents an increase over the current year, will allow the program to expand to Cordova, as well as to Whittier, Seward, and Valdez.

I agree that the Youth Area Watch project is a powerful method of educating students on the value of our natural resources. It is also an outstanding project for fostering community participation in the *Exxon Valdez* oil spill restoration program. I look forward to its continued good work in FY 97.

Sincerely,

holey McCama

Molly McCammon Executive Director

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



September 23, 1996

Riki Ott, Ph.D. Chair, UFA Habitat Committee POB 1271 Cordova, Alaska 99574-1271

Re: Project 97281/Habitat Improvement Through Redesigned Forest Workshops

On August 29, 1996, the *Exxon Valdez* Oil Spill Trustee Council acted on the Fiscal Year 1997 Work Plan. At that meeting, the Council voted to defer action on Project 97281/Habitat Improvement Through Redesigned Forest Workshops until you confirm joint sponsorship by key stakeholders, for example, Eyak Corporation, other village corporations and Chugach Alaska Corporation. The Council is tentatively scheduled to reconsider the project in mid-December.

At least one Trustee objected to negative statements in the Detailed Project Description concerning the Council's current habitat protection efforts. If you are able to confirm joint sponsorship by affected corporations and would like the Council to reconsider Project 97281 in December, I recommend that you revise the Detailed Project Description to be neutral in its description of the Council's acquisition program. If you would like more specific information on this recommendation, Veronica Christman can provide them. She can be reached at 278-8012.

At the August 29 meeting, the Trustee Council authorized projects totaling \$15.4 million. In December, an additional 20 projects totaling approximately \$1.1 million will be considered. The Council currently expects to fund slightly more than half of that amount, which would bring the total for the FY 97 Work Plan near the targeted amount of \$16 million.

Thank you for your participation in the Exxon Valdez Oil Spill restoration program.

Sincerely.

Molly McCam-

Molly McCammon Executive Director



cc: Dave Gibbons, USFS Liaison

mm/taw

Trustee Agencies

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



<u>MEMORANDUM</u>

TO: Claudia Slater

FROM: Eric F. Myers

DATE: 9/23/96

SUBJ: Small Parcel Program

I look forward to reviewing the small parcel program with you in greater detail. As we discussed on the phone, please find attached some background materials that I think you may find useful:

- 1. Trustee Council resolution dated February 13, 1995 (establishing process for evaluation and action on small parcels);
- 2. M. McCammon to Trustee Council, memo dated 6/26/96 regarding recommended action on small parcel program;
- 3. Transcript excerpt from Trustee Council meeting 6/28/96 re: future of small parcel program (the so-called "informal moratorium"); and
- 4. Small Parcel Status Report dated August 16, 1996 (this version is now in the process of being updated).

Please let me know what your schedule permits so that we can get together in the near future. If you have any questions at any time, please feel free to contact me or Veronica Christman.

enclosures

cc: Veronica Christman Molly McCammon

Trustee Agencies

Exxon Valdez Oil Spill Trustee Council Restoration Office

645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

To:	Brenda Baxter, Mike Castellini, Bill Hauser, Joe Hunt, Ernie Piper, Jeep Rice, Bob Spies, Joe Sullivan, Lisa Thomas, Dave Gibbons ¹ , and Bruce Wright
From:	Stan Senner, Science Coordinator
Subject:	10th Anniversary Planning
Date:	September 23, 1996

There have been several developments since we met on June 27, and a brief report seems timely. Early plans for the 10th anniversary science symposium have been discussed at August meetings of the Public Advisory Group and the Trustee Council. Although several issues and questions have been raised, the basic concept--as we have developed it to date-- has been well received. The following issues are the main ones raised so far.

One concern has been that the science symposium not be the only event held in recognition of the anniversary. The Executive Director has indicated that later in the fall she will convene a brainstorming meeting on other possibilities for anniversary events; these other events are not within the purview of this planning committee. Another concern was that there be ample time given to discussing the Trustee Council's efforts in the area of habitat protection and that there be attention given to the socio-economic impacts of the oil spill. We have responded that both the topics of habitat protection and socio-economic impacts would be appropriate to address at the one-day public summary symposium preceding the science symposium and that technical papers on the results of studies on socio-economic impacts would be invited for presentation at the science symposium.

Beyond discussing the anniversary at Public Advisory Group and Trustee Council meetings. there has been progress on several fronts. First, we have obtained a commitment for space at the Egan Center in Anchorage for March 23-27, 1999. No need to worry now about being preempted by a rock concert or an unnamed oil company. Second, Brenda Baxter has prepared a first cut at milestones and a time line for planning and execution of the anniversary event. This is attached for your review and consideration.

¹Substituting for Ray Thompson

Trustee Agencies

Page 2 September 23, 1996 10th Anniversary

ł,

As a tentative date, please mark October 24 on your calendar and let me know if you are available to participate (in person or by telephone) in a planning session at the Restoration Office in Anchorage. Please let me know of your availability by fax, telephone, or e-mail (stans@oilspill.state.ak.us) by 4:30 p.m. on Friday, October 4.

Finally, you may recall that we named chairs of several subcommittees at our June meeting. These were: Steering (Senner, Baxter, and Wright), Field Trips (Thompson), News Media (Hunt), Editorial/Proceedings (Wright), Scientific Program (Castellini and Rice), and Day-One Summary Symposium (Thomas). Except for the steering subcommittee, there is no expectation that these groups would have met or accomplished anything at this early date. However, between now and our October meeting, I strongly encourage each subcommittee chair to identify and contact the other members of your committee and develop a list of tasks you need to accomplish and by when. This should come easily be referring to Brenda's draft list of milestones. We can then use the October meeting to initiate the active efforts of these subcommittees.

Please let me know if you have comments or questions. Thank you.

enclosure (1)

cc: Jim King & John French, PAG
 Patty Ginsberg & Lisa Ka'aihue, PWS RCAC
 Molly McCammon & Eric Myers, Restoration Office

EVOS 10—The Legacy of an Oil Spill

` `2

•

.

10th Anniversary Scientific Symposium Planning Timeline Draft

1996	
Jun	1st planning meeting
Jul	space contract signed
Oct	logo finalized
Oct	2nd planning meeting
<u>1997</u>	
May	call for paper complete and printed
May	identify and invite guest speakers
Jun	1st call for papers mailing
<u>1998</u>	
Jan	2nd call for papers mailing
Apr 1	abstracts due
Apr 1-15	abstracts reviewed by committee
Apr	Seward field trip set up, materials for other trips set in motion
Apr	catering orders set
Apr	registration fee set
Apr	proceedings editorial and publishing commitments tied down
May 15	ms preparation instructions completed
May 15	oral and poster presentation instructions completed
May 15-30	program organized (sessions and session chairs scheduled)
Jun 1	final acceptance of papers and posters
Jun	1st registration brochure mailing
Jul	field trip materials available from vendors
Oct-Jan '99	paid ads run, if any
Nov 1	ms due
Nov 1-15	ms sent for peer reviews
Nov	2nd registration brochure mailing
1999	
Jan-Feb	finalize abstract book and printed program
Jan	ms reviews return
Feb - Mar 15	editors review ms and reviews and request revisions from authors
Feb 15	abstract book printed
Mar 1	advance registration cut-off
Mar 1	program printed
Mar 1	news media packets mailed
Mar 23	symposium
Apr 1	final electronic copy of ms due to technical editor
2000	
Mar	proceedings available

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



September 17, 1996

Suzanne Thacker Blue Wolves, Inc. 120 International Parkway Heathrow, FL 32746

Dear Ms. Thacker:

Enclosed for your information are the materials you requested regarding the *Exxon Valdez* Oil Spill Trustee Council.

Please refer to pages 29 - 40 in the Annual Report for detail about our funding process.

If I can provide any further information, please don't hesitate to contact me.

Sincerely,

Milly Mc Camm

Molly McCammon Executive Director

Enclosures

mm/raw

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



September 16, 1996

Katherine Kuletz Nongame Migratory Bird Management U.S. Fish & Wildlife Service 1011 East Tudor Road Anchorage, Alaska 99503

Re: Project 97231/Marbled Murrelet Productivity Relative to Forage Fish Availability and Environmental Parameters

Dear Ms. Kutetz

The Exxon Valdez Oil Spill Trustee Council acted on the Fiscal Year 1997 Work Plan at its meeting on August 29. 1996. I am pleased to inform you that the Council approved interim funding in the amount of \$31,300 for Project 97231/Marbled Murrelet Productivity Relative to Forage Fish Availability and Environmental Parameters. The Council also approved funding in the amount of \$88,700 for new field work in FY 97 contingent on the results of the APEX (Project /163) review session tentatively scheduled for February 1997.

Before the project may begin, the lead agency must provide documentation to the Executive Director showing that the requirements of the National Environmental Policy Act (NEPA) have been met. If this occurs before October 1, 1996, you may receive authorization from the Executive Director to begin the interim work on that date. Any delay in documenting NEPA compliance will delay the start of this part of the project. No new field work will be authorized until the APEX review session is conducted. For more information, please contact the lead agency representative:

Catherine Berg U.S. Department of the Interior, Fish & Wildlife Service 1011 East Tudor Road, Anchorage, Alaska 99503 Phone 907-786-3598/Fax 907-786-3350

Projects approved for FY 97 are approved in the expectation that they will be funded to their completion. However, the Trustee Council will annually evaluate a project's future funding needs based on its progress or results to date, overall restoration needs, and

Trustee Agencies

restoration funding constraints. The future years' funding projection for this project is unspecified and will depend on the results of the APEX review.

Thank you for your participation in the *Exxon Valdez* oil spill restoration program. We appreciate your continued interest, and look forward to working with you this coming year.

Sincerely,

Mally McCamm

Molly McCammon Executive Director

cc: Catherine Berg, DOI Liaison

mm/raw

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



September 16, 1996

David Cameron Duffy UAA/AK Natural Heritage Program 707 A Street Anchorage, Alaska 99501-3625

> Re: Project 97163/APEX: Alaska Predator Ecosystem Experiment in Prince William Sound and the Gulf of Alaska

Dear Dr. Duffy:-

The *Exxon Valdez* Oil Spill Trustee Council acted on the Fiscal Year 1997 Work Plan at its meeting on August 29, 1996. I am pleased to inform you that the Council approved funding in the amount of \$1,800,000 for Project 97163, APEX: Alaska Predator Ecosystem Experiment in Prince William Sound and the Gulf of Alaska. Approved funding includes \$69,800 for the modeling effort proposed in Project 97253-BAA.

The Trustee Council attached conditions to the approval of four of the subprojects. Funding for the field sampling component of subproject C (forage fish diet overlap) is contingent on the results of the APEX review session, which is tentatively scheduled for February 1997. Funding for subproject H (proximate composition of forage fish) is contingent on submittal of the annual report on Project 95121. Funding for subprojects J (Barren Island murres and kittiwakes) and K (fish as samplers) is contingent on submittal of the revised report on Project 94039.

In addition to the modeling effort proposed in Project 97253-BAA (now known as Project 97163Q-BAA), four subprojects are BAAs. Subprojects 97163H-BAA (proximate composition of forage fish), 97163I-BAA (project management) and 97163O (modeling) will require that the lead agency execute contracts under the BAA. The FY 96 contract for Subproject 97163G-BAA (energetics) has an option that allows the contract to be extended.

Project 97163 will be authorized by individual subproject. Before any subproject may begin, the relevant conditions specified above must be satisfied and the lead agency must provide documentation to the Executive Director showing that the requirements of the National Environmental Policy Act (NEPA) have been met. The lead agency must also execute various professional services contracts. For those subprojects for which

Trustee Agencies

these steps occur before October 1, 1996, you may receive authorization from the Executive Director to begin the subprojects on that date. Any delay in satisfying the conditions for approval, in documenting NEPA compliance, or in executing contracts will delay the start of the project. For more information, please contact the lead agency representative:

Byron Morris National Oceanic and Atmospheric Administration 11305 Glacier Highway, Auke Bay, Alaska 99821 Phone 907-789-6600/Fax 907-789-6608

Projects approved for FY 97 are approved in the expectation that they will be funded to their completion. However, the Trustee Council will annually evaluate a project's future funding needs based on its progress or results to date, overall restoration needs, and restoration funding constraints. The future years' funding projection for Project 97163 is \$1,800,000 for FY 98, \$1,800,000 for FY 99 and \$176,400 for project close-out in FY 2000.

Thank you for your participation in the *Exxon Valdez* oil spill restoration program. We appreciate your continued interest, and look forward to working with you this coming year.

Sincerely,

Molly M Camo

Molly McCammon Executive Director

cc: Byron Morris, NOAA Liaison Heide Sickles, NOAA Procurement Catherine Berg, DOI/USFWS Liaison Lisa Thomas, DOI/NBS Liaison

mm/raw

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



September 16, 1996

Dr. David Ainley H.T. HARVEY & ASSOC POB 1180 Alviso, California 95002

Dr. Glenn Ford Ecological Consulting, Inc. 2735 NE Weidler Street Portland, Oregon 97232-1746

Re: Project 97253-BAA(renumbered Project 97163Q-BAA)/Factors that Limit Seabird Recovery in the EVOS Study Area: A Modeling Approach

Dear Drs. Ainley and Ford:



The *Exxon Valdez* Oil Spill Trustee Council acted on the Fiscal Year 1997 Work Plan at its meeting on August 29, 1996. I am pleased to inform you that the Council approved funding in the amount of \$65,200 for the modeling effort proposed in Project 97253-BAA/Factors that Limit Seabird Recovery in the EVOS Study Area: A Modeling Approach. Your project has been incorporated into Project 97163/APEX: Alaska Predator Ecosystem Experiment in Prince William Sound and the Gulf of Alaska and assigned a new project number, 97163Q-BAA.

For more information, please contact the APEX project leader:

Dr. David Duffy UAA/AK Natural Heritage Program 707 A Street, Anchorage, AK 99501 Phone 907-257-2703/Fax 907-276-6847

Thank you for your participation in the *Exxon Valdez* Oil Spill restoration program. We appreciate your continued interest, and look forward to working with you this coming year.

Sincerely,

Molly McCammon Executive Director

- cc: Dr. Byron Morris, NOAA Liaison Heide Sickles, NOAA Procurement Dr. David Duffy, University of Alaska-Anchorage

mm/raw

Trustee Agencies

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



September 16, 1996

Charles N. Totemoff Presidnet & Chief Executive Officer Chenega Corp 3333 Denali Street, Suite 260 Anchorage, Alaska 99503-4038

Re: Project 97277/Archaeological Repository and Cultural Facility in Chenega Bay Chuch

Dear Mr. Totemoff:

On August 29, 1996, the *Exxon Valdez* Oil Spill Trustee Council acted on the Fiscal Year 1997 Work Plan. At that meeting, the Council voted to defer action on Project 97277/Archaeological Repository and Cultural Facility in Chenega Bay until after the completion of the comprehensive community plan for archaeological restoration (Project 96154) being prepared by the Chugach Heritage Foundation. If the Trustee Council subsequently issues an invitation for local heritage preservation projects, submission of a more detailed proposal will be invited through a process separate from the FY 97 work plan process.

Thank you for your participation in the Exxon Valdez oil spill restoration program.

Sincerely.

mm/raw

Molly Milemm

Molly McCammon Executive Director

cc: Dave Gibbons, USFS Liaison

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



September 16, 1996

Jody Seitz University of Alaska Fairbanks/Herring Program POB 2694 Cordova, Alaska 99574-0705

> Re: Project 97248/Collection of Historical Data and Local Environmental Knowledge of Forage Fish and Herring

Dear Ms. Seitz

On August 29, 1996, the *Exxon Valdez* Oil Spill Trustee Council acted on the Fiscal Year 1997 Work Plan. At that meeting, the Council voted to defer action on Project 97248/Collection of Historical Data and Local Environmental Knowledge of Forage Fish and Herring. The Council is tentatively scheduled to reconsider the project in mid-December once the TEK project (97052B) is up and running.

At the August 29 meeting, the Trustee Council authorized projects totaling \$15.4 million. In December, an additional 20 projects totaling approximately \$1.1 million will be considered. The Council currently expects to fund slightly more than half of that amount, which would bring the total for the FY 97 Work Plan near the targeted amount of \$16 million.

Thank you for your participation in the Exxon Valdez oil spill restoration program.

Sincerely,

Molly McCammon Executive Director

cc: Claudia Slater, ADF&G Liaison

г. . ам

Trustee Agencies

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



September 16, 1996

Mark Bradley Kachemak Shellfish Mariculture Assn. HC01 Box 1595-8 Kenai, Alaska 99611

RE: Project 97238/Kachemak Bay Shellfish Nursery Culture Project

Dear Mr. Bradley:

The *Exxon Valdez* Oil Spill Trustee Council received more than \$36 million in proposals for Fiscal Year 1997. Unfortunately, it was not possible to fund all projects that were submitted.

In June I notified you of my recommendation that the Trustee Council not fund Project 97238/Kachemak Bay Shellfish Nursery Culture Project. The Council acted on the FY 1997 Work Plan on August 29, 1996. This letter is to inform you that the Council accepted my recommendation and did not fund your project for FY 97.

I appreciate your interest in the restoration program and hope you will consider submitting proposals in future years.

Sincerely,

McComm

Molly McCammon Executive Director

cc: Claudia Slater, ADF&G

mm/raw

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



September 16, 1996

Andy Hoffman Alaska Department of Fish & Game, Sport Fish 333 Raspberry Road Anchorage, Alaska 99518-1565

> Re: Project 97172/Cutthroat Trout and Dolly Varden Recovery in Prince William Sound Project 97174/Cutthroat Trout and Dolly Varden in PWS: Restoration Project Support and Coordination

Dear Mr. Hoffman:

The *Exxon Valdez* Oil Spill Trustee Council received more than \$36 million in proposals for Fiscal Year 1997. Unfortunately, it was not possible to fund all projects that were submitted.

In June I notified you of my recommendation that the Trustee Council not fund Project 97172/Cutthroat Trout and Dolly Varden Recovery in Prince William Sound. The Council acted on the FY 1997 Work Plan on August 29, 1996. This letter is to inform you that the Council accepted my recommendation and did not fund your project for FY 97. The Council also endorsed my recommendation that they reconsider Project 97172 after a restoration strategy for cutthroat trout and Dolly Varden has been developed. We expect that a restoration strategy for these species will be developed in FY 97.

The Council took no action on Project 97174 because you had withdrawn the proposal.

I appreciate your interest in the restoration program and hope you will consider submitting proposals in future years.

Sincerely,

Milly McCemm

Molly McCammon Executive Director



cc: Claudia Slater, ADF&G Liaison

mm/raw

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



September 16, 1996

Jerome Selby, Mayor Kodiak Island Borough 710 Mill Bay Road Kodiak, Alaska 99615-6340

Re: Project 97304, Kodiak Island Borough Master Waste Management Plan

Dear Mayor Selby:

The *Exxon Valdez* Oil Spill Trustee Council acted on the Fiscal Year 1997 Work Plan at its meeting on August 29, 1996. I am pleased to inform you that the Council approved funding in the amount of \$267,500 for Project 97304, Kodiak Island Borough Master Waste Management Plan. The approved level of funding includes \$250,000 for a professional services contract with the Kodiak Island Borough.

Before the project may begin, the lead agency must provide documentation to the Executive Director showing that the requirements of the National Environmental Policy Act (NEPA) have been met. The lead agency must also execute the contract. If these steps occur before October 1, 1996, you may receive authorization from the Executive Director to begin Project 97304 on that date. Any delay in documenting NEPA compliance or in executing the contract will delay the start of the project. For more information, please contact the lead agency representative:

Ernie Piper Alaska Department of Environmental Conservation 555 Cordova Street, Anchorage, Alaska 99501 Phone 907-269-7632/Fax 907-269-7652

Projects approved for FY 97 are approved in the expectation that they will be funded to their completion. However, the Trustee Council will annually evaluate a project's future funding needs based on its progress or results to date, overall restoration needs, and restoration funding constraints. The work approved under Project 97304 is expected to have a duration of one year.

Trustee Agencies

Thank you for your participation in the *Exxon Valdez* Oil Spill restoration program. We appreciate your continued interest, and look forward to working with you this coming year.

-

Sincerely,

Melly M'Camm

Molly McCammon Executive Director

cc: Ernie Piper, ADEC Liaison

mm/raw

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



September 16, 1996

Gary Thomas, Executive Director Prince William Sound Science Center Box 705 Cordova, Alaska 99574 Carry Dear Mr. Phomas,

The purpose of this letter is to ask for your assistance to obtain additional information regarding Project 97151, the Prince William Sound Science Center (PWSSC) Research Facility proposal.

As you know, at the August 29 Council meeting, the Trustees discussed this proposal and asked that further information regarding the research facility project be provided to facilitate review. On the basis of the Council's discussion and further consultation with federal and state legal counsel, several questions have been identified to help better understand the proposal.

1. <u>Space Requirements</u> - The DPD for Project 97151 indicates that PWSSC currently employs 27 full and part-time employees in Cordova and that the project would provide the ability to consolidate staff that are now divided between the main office and a "satellite" office.

- Information previously provided by PWSSC lists the various staff working on EVOS projects (copy attached). Which of these staff work in the "main" facility vs. the "satellite" office?
- Would the 2,500 sq. ft. two story addition to the facility with 6 8 new offices allow for consolidation of all PWSSC staff working on Trustee Council restoration projects in the main facility (i.e., would the division of staff and associated inefficiencies be eliminated)?

2. <u>Potential Cost Savings from Facility Expansion</u> - Please provide additional information concerning increased efficiencies that would result from the facility expansion. As stated in the DPD, the current division of restoration project staff among two locations has proved ineffective for teamwork; sometimes slowed data analysis and preparation for fieldwork; and the

Trustee Agencies

overall cost of work has been increased by additional phone lines and other expenses.

• What kind of cost savings would result from the proposed expansion? Would the elimination of space needs at the "satellite" office reduce PWSSC rent payments that would otherwise be needed (i.e., the "satellite" office space)? Would this lower PWSSC indirect costs and reduce restoration project costs?

3. <u>Relationship to OSRI</u> - The role of the Oil Spill Recovery Institute (OSRI) as it relates to the Trustee Council's restoration mission and the SEA program is also of interest to the Council. At present, Trustee Council support for the SEA program is anticipated to continue during FY 97 and FY 98 with FY 99 scheduled as a synthesis/closeout year.

Some level of long-term monitoring to support the predictive models being developed through the SEA program is envisioned by the SEA leadership, although not necessarily to be funded by the Trustee Council. As you know, no long-term funding commitments have been made at this point. The OSRI mission includes long-term environmental monitoring that could support the SEA predictive models.

- Will the expanded facilities be used to support long-term environmental monitoring under the OSRI program that would benefit the Council's restoration mission in the years ahead (e.g., beyond FY 99)?
- Are there other entities or research institutions that would use the expanded facility for research in support of the Council's restoration mission?

4. <u>Implications for Delay</u> - Given legal and administrative requirements (e.g., NEPA compliance which would likely require at least an Environmental Assessment), it is not possible to meet the schedule identified in the DPD.

• What will PWSSC do to accommodate the existing space difficulties if additional funding for the expansion project is not available within your project timeline?

5. <u>Opportunities for Cost-Sharing</u> - The DPD indicates that of the 2,500 sq. ft. expansion proposed, 1,500 sq. ft. is for office space and the balance for a reception/exhibit area and a public conference room (for up to 40 people).

• What opportunities have been considered for cost-sharing the reception/exhibit area and a public conference room portion of the facility expansion with other entities? If the Trustee Council were to

fund only a portion of the proposed budget, what would the effect be on the project?

Your assistance in answering these questions as soon as possible would be greatly appreciated. If you have any questions, please don't hesitate to contact either myself or Eric Myers.

Sincerely,

Molly McCammon ∂ Executive Director

cc: Craig Tillery Gina Belt Maria Lisowski Barry Roth Dave Gibbons

Prince William Sound Science Center Staff - 1995/96

Full time employees

funded exclusively by support from EVOS restoration projects
 funded 50% or more by support from EVOS restoration projects
 funded through indirect cost support received from EVOS projects

G.L. Thomas, Ph.D., President** Nancy Bird, Vice President***

Penelope Oswalt, Finance Director*** Kathy Chamberlain, Bookkeeper*** Kristen Smith, MPP, Development Coordinator Shari Vaughan, Ph.D., Physical Oceanographer* Shelton Gay, M.S., Physical oceanographer* Loren Tuttle, M.S., Biological Oceanographer* David Scheel, Ph.D., Behavioral ecologist** Kathryn Hough, Biological research asst** Becca Dodge, Biological research asst** Jay Kirsch, Electrical engineer* Tom McLain, Fisheries biologist* Geoff Steinhart, Fisheries biologist* E. Vincent Patrick, Ph.D., Mathematical modeler* Jennifer Allen, Data/information systems* Stephen Bodnar, Computer net. assist* Sridar Rao, Program and modeling* Thomas Kline, Ph.D., Oceanographer & Fisheries ecologist** John Williams, Biological research asst. **

Part-time or intermittent employees

Thea Thomas, M.S., Biological research asst.* Doran Mason, Program and modeling* Ravi Kulkarni, Program and modeling* Roy Murray, Program and modeling* Teresa Robertson, Receptionist*** Robin Doane Irving, Administrative Asst. Elizabeth Trowbridge, Education Coordinator Bonnie Edmondson, Administrative Asst*** Liz Senear, M.S., Library & Admin. Assistant*** Erin Cooper, Volunteer intern, Education Program Richardo Nochetto, Program and modelling* Robert Plumb, Lineman** Kay Brown, Custodian***

Summary

20 full time employees, 17 of whom work directly on EVOS restoration projects (of these 17 employees, 6 are supported by funds from both EVOS restoration projects and other funding sources)

13 part time employees, 5 of whom work directly on EVOS restoration projects

, <u>,</u>

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

- TO: Restoration Work Force
- FROM: Molly McCampon, Executive Director
- DATE: September 16, 1996
- SUBJ: Meeting Dates

3

Please note the following dates and times:

Restoration Work Force:	9:00 am - We Anchorage:	ednesday, October 2, 1996 Restoration Office 645 G Street 4th floor conference room
	Juneau:	Restoration Office Federal Building - room 225
Trustee Council meeting:	2:00 pm - Tu Anchorage:	esday, October 15, 1996 Restoration Office 645 G Street 4th floor - conference room
	Juneau:	USFS conference room Federal Building – 5th floor - room 541A
Trustee Council meeting:	second weel topic: FY 97	k of December (date TBD) Work Plan - deferred projects

At this point, the only agenda item known for the October 15th Trustee Council meeting involves possible actions pertaining to the Small Parcel Habitat Protection Program. If you are aware of other issues that require consideration by the Trustee Council, please let me know as soon as possible.

09	/16/96	15:46	3 907	276	7178	EV Restoration		Ø 001
•				*** *** ***	*********** MULTI TRA ******	**************************************		
	TX/F	RX NO.			9	133		
	INCO	MPLETE T	X/RX					
	TRAN	SACTION (OK I	[09]	19075867589		JUNEAU OFFICE	
			ļ	[10]	19075867555		D.GIBBONS	••
			I	[13]	19077896608		MORR IS-WRIGHT	
			I	[15]	2698918		CAROL FRIES	
			1	[16]	2672450		RITA MIRAGLIA	
			1	[17]	2713992		R. THOMPSON	
			I	[18]	2672474		SULLIVAN-SLATER	
			1	[19]	7863636		L. BARTELS	
			I	[20]	7863350		C.BERG	
			I	[21]	2572517		B.RICE	
			I	24]	2697652		E.PIPER	
			I	[35]	15103737834		B.SPIES	
			I	[38]	2715827		G.BELT	
	ERRC)R						
							v	

•

3

	FAX		
To: Restoration Wo			(FAXED)
From: Mally M ^C	ammon	Date: Surtem	buc 16, 1996
Comments:		Total Pages:	2
Plea	use form	and to those	2 listed
be	low.		
	Alexan		

RESTORATION WORK FORCE MEMBERS INCLUDE:

Belt, Gina Berg, Catherine Fries, Carol Gibbons, Dave Claudia Slater/Bill Hauser Bartels, Leslie/Lisa Thomas Miraglia, Rita Morris, Byron Piper, Ernie Rice, Bud Spies, Bob Thompson, Ray Wright, Bruce Sullivan, Joe

HARD COPY TO FOLLOW ____

FAX SENT BY:	2HW
--------------	-----

8/7/96

)

Ex 645	KON Valdez Oil Spill Tr Restoration Office G Street, Suite 401, Anchorage, Phone: (907) 278-8012 Fax: (9	ustee Council Alaska 99501-3451 907) 276-7178
MEMORA	ANDUM	
		Craig - 24th ok, no other date that well is, the
TO:	Trustee Council Members	Deborah - OK
FROM:	Molly McCampon Executive Director	Kevin Relancy ok For Frank Rue
DATE:	September 16, 1996	13
RE:	Kenai River float	



A number of Trustees have requested a more complete description of the Council's strategies for restoration on the Kenai River, especially regarding habitat protection. To provide a better opportunity to view all the government actions currently taking place on the river, I have worked with the Kenai Refuge staff and with ADF&G and ADNR to put together a float trip on September 24 from Skilak Lake to Centennial Park in Soldotna. We would be using refuge boats, and the trip is anticipated to be a full day. I've attached a tentative itinerary. To pull this together, we need to know who will be coming as soon as possible. If you are not able to make this trip yourself, please feel free to designate your agency liaison or someone else within your agency. We'll be working with the appropriate agencies (USFWS, USFS, ADNR, ADFG) to make sure we also have local experts joining us.

Please RSVP to either myself or Rebecca Williams. Give me a call if you have any questions.

Trustee Agencies

09/16/96 15:23 🖀	907 270	6 7178	EV Restoration		Ø 001
` a ^				• • • • • • • • • • • • • • • • • • •	
	*: *: *:	************* ** MULTI TI **********	**************************************		
TX/RX NO.			9132		
INCOMPLETE TX/RX					
TRANSACTION OK	[09] 190758675	89	JUNEAU OFFICE	
	[25	5] 1907586784	40	P. JANIK	
	[26	5] 190746520'	75	B.BOTELHO	
	[23	7] 1202208468	84	G. FRAMPTON	
	[28	3] 1907586724	49	S. PENNOYER	
	[29] 190746523	32	FRANK RUE	
	[3]] 190746550	70	MICHELE BROWN	
	[36	3] 2787022		ALEX-CRAIG	
	[37	7] 2714102		D.WILLIAMS	
ERROR					

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



FAX COVER SHEET

To: Trustee Council Members

From: Molly Mª Canino	n Date: September 16, 1996 3:04p. ~
Comments:	Total Pages: <u>3</u>
Pilease forus	and to the Council
member in your	Office.
)	hank you.
	V

TRUSTEE COUNCIL MEMBERS AND ALTERNATES:

Botelho, Bruce Brown, Michele Frampton, Jr., George T. Janik, Phil Pennoyer, Steve Rue, Frank Tillery, Craig Bosworth, Rob Williams, Deborah Wolfe, Jim Collinsworth, Don

HARD COPY TO FOLLOW _

FAX SENT BY: PAU

3/27/96

Trustee Agencies

Restoration Office

645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM		Chuck Gilbert motead of Bud Rice Lisa Parker yes-most you?	
TO:	Distribution	Ken Bryant yes Scould Leve	
FROM:	Molly McCammon Executive Director	Jim Wolfe Yes Dave Gibbons Yes	
DATE:	September 16, 1996	Chris Degenus yes	
RE:	Kenai River float	Jim Stratton yes Byron Morris requests Bargarger	

A number of Trustees have requested a more complete description of the Council's strategies for restoration on the Kenai River, especially regarding habitat protection. To provide a better opportunity to view all the government actions currently taking place on the river, I have worked with the Kenai Refuge staff and with ADF&G and ADNR to put together a float trip on September 24 from Skilak Lake to Centennial Park in Soldotna. We would be using refuge boats, and the trip is anticipated to be a full day. I've attached a tentative itinerary. To pull this together, we need to know who will be coming as soon as possible. If you are not able to make this trip yourself, please feel free to designate your agency liaison or someone else within your agency. We'll be working with the appropriate agencies (USFWS, USFS, ADNR, ADFG) to make sure we also have local experts joining us.

Please RSVP to either myself or Rebecca Williams. Give me a call if you have any questions.

Write Mark Un

Trustee Agencies

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL KENAI RIVER FLOAT September 24, 1996

8:15 a.m. Fly Anchorage to Kenai ERA flight 4828

8:40 a.m. Picked up in vans at Kenai airport by Kenai Refuge staff. Stop at Safeway to pick up lunches. Transported to Skilak Lake.

9:30 a.m. Float/motor 3 miles to mouth of Skilak Lake and then 30 miles down river to Centennial Park using rafts/drift boats and stopping along way to view restoration projects and habitat acquisitions.

6:00 p.m. Transportation from Centennial Park to Kenai airport.

6:40 p.m. Fly Kenai to Anchorage ERA flight 4849

Dress warmly. It will be cold on the river. Wear hip waders or knee-high rubber boots. Bring your own float coat or mustang suit if you have one, or at least good rain gear. Life jackets will be provided.

RSVP to Rebecca Williams by Wednesday, September 18.



- Distribution: Alex Swiderski, ADOL
 - -24741 Lance Trasky, ADFG 267
 - Marty Rutherford, ADNR
 - f-Chris Degenes, ADNR 262 - 3717 Carol Fries, ADNR

269.8700

- Jim Stratton, ADNR 269-8907
 - Ernie Piper, ADEC
 - Byron Morris, NMFS
 - Bill Hines, NMFS
 - Gina Belt, USDOJ
 - -Dave Gibbons, USFS
 - Jim Wolfe, USFS
 - Catherine Berg, USFWS
 - Bud Rice, USNPS
- Kobin West/Mark Chase, USFWS Kuna Lisa Parker, Kenai Peninsula Borough Log 8618 - Lisa Thomas, USINBS -- Robin West/Mark Chase, USFWS Kinai Refuge 262-3599 - Lisa Parker, Kenai Peninsula Borough - Kenai Peninsula Borough - 262-7021

	09/16/96 16:43 🔊 9	07 276 7178	EV Restoration		Ø 001
	,	************* *** MULTI T) *********	**************************************		
•	TX/RX NO.		9137		
	INCOMPLETE TX/RX	26			
	TRANSACTION OK	[10] 190758675	55	D.GIBBONS	
		[13] 1907789660	08	MORR IS-WRIGHT	
		[15] 2698918		CAROL FRIES	
		[20] 7863350		C.BERG	
		[21] 2572517		B.RICE	
		[22] 7863636		L. THOMAS	
		[24] 2697652		E. PIPER	
		[28] 1907586724	49	S. PENNOYER	
		[38] 2715827		G.BELT	
		190726286	18		
		190726235	99		
		2672474			
		2698907			
	ERROR				

.

.
09/16/96 16:17	3 907 276 7178	EV Restoration		Ø 0 (
· ·				
	**************************************	**************************************		
TX/RX NO.		9139		
INCOMPLETE	TX/RX			
TRANSACTION	OK [15] 2698918		CAROL FRIES	
	[36] 2787022		ALEX-CRAIG	
	2672474			
	1907262	3717		
ERROR				

Exxon Valdez Oil Spill Trustee Council Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178 FAX COVER SHEET FAX COVER SHEET From: Molly McCammon Date: September 16, 1996 3''p. Comments: Total Pages: 3 Please Forward ASAP. Drank Yon' alex Swiderski Dave Gibbons Marty Rutherford Jim Wolfe.

Marty Restnerford Catherine Berg Carol Trues Bud Rice Piper Swon Morris isa homas Bill Hines rasky anco Guna Belt (aares Jim Stratton Chris Deanes Lisa the Robin West/Mark Chase HARD COPY TO FOLLOW Document Sent By: PAW

3/27/96

Trustee Agencies

State of Alaska: Departments of Fish & Game, Law, and Environmental Conservation United States: National Oceanic and Atmospheric Administration, Departments of Agriculture and Interior

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

TO:	Trustee Council
FROM:	Molly McCammon Executive Director
DATE:	September 16, 1996
RE:	Habitat protection status report

As requested, the following is the current status of active habitat protection activities as provided by the appropriate state and federal agencies:

Chenega: Conservation easement and purchase agreement expected to be sent to Department of Justice for their review by this week. Shareholder vote not expected before late October.

Tatitlek: Tatitlek annual meeting on September 20. Some minor glitches in agreement between Citifor and Tatitlek still need to be worked out.

Afognak Joint Venture: Field work for the timber cruise was completed by Ray Granval on September 12. A draft report of the timber appraisal is due November 8, with a final report due November 29. An appraisal incorporating timber and land values has been ordered by the US Forest Service with Blacksmith and Richards. They are beginning work on the land portion of the appraisal.

English Bay: A flyover of English Bay lands with lead negotiator Buff Bohlen took place September 13. Discussions on strategy are underway.

Port Graham: No action to report. The Public Advisory Group will be meeting in Port Graham on September 18.

Eyak: Roy Jones and Claire Doig met with the Eyak Board on September 8 and drafted a preliminary habitat package for us to begin work on. Roy and Claire met with Molly McCammon, Jim Wolfe and Alex Swiderski on September 9 to brief us on the package and get

Trustee Agencies

State of Alaska: Departments of Fish & Game, Law, and Environmental Conservation United States: National Oceanic and Atmospheric Administration, Departments of Agriculture and Interior some feedback. We will be getting together again on September 23 to respond in more detail to the proposal which includes a substantial amount of land in fee. We are also working out how best to proceed with finalizing an appraisal. Our goal is to have a package ready for Council consideration in mid-December. Shareholders will be briefed at the Eyak annual meeting on September 27.

Koniag: No recent action to report.

cc: Agency liaisons Legal counsel

· · ,

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



FAX COVER SHEET

To: Trustee Council Members

From: <u>Molly McCammon</u>	Date: Alpt. 16, 1996
Comments:	Total Pages: <u>3</u>
also distribute to:	
CCs: Catherine Berg	Byron morris Errie Piper
Dave Gibbons Veronica Christma	Claudia Stater w Carol Fries
Bud Rice	Bob Spies
alex Swiderski	Maria Lisowski
Ana Beet	Barry Roth

TRUSTEE COUNCIL MEMBERS AND ALTERNATES:

Jami

Botelho, Bruce Brown, Michele Frampton, Jr., George T. Janik, Phil Pennoyer, Steve Rue, Frank Tillery, Craig Bosworth, Rob Williams, Deborah Wolfe, Jim Collinsworth, Don

HARD COPY TO FOLLO

FAX SENT BY:

3/27/96

Trustee Agencies

State of Alaska: Departments of Fish & Game, Law, and Environmental Conservation United States: National Oceanic and Atmospheric Administration, Departments of Agriculture and Interior

09/	16/96	13:39	3 907 2	276	7178	EV Restoration		001
, , ,	1							
				*** *** ***	******** MULTI *******	**************************************		
	TX/F	X NO.				9126		
	INCO	MPLETE TX/R	X [50]				
	TRAN	SACTION OK	[09]	1907586	7589	JUNEAU OFFICE	
			[10]	1907586	7555	D.GIBBONS	
			ĺ	13]	1907789	6608	MORRIS-WRIGHT	
			l	15]	2698918		CAROL FRIES	
			ĺ	18]	2672474		SULLIVAN-SLATER	
			ĺ	20]	7863350		C.BERG	
			ĺ	24]	2697652		E.PIPER	
			ĺ	25]	1907586	7840	P. JANIK	
			[26]	1907465	2075	B.BOTELHO	
			[27]	1202208	4684	G. FRAMPTON	
			ĺ	28]	1907586	7249	S. PENNOYER	
			1	29]	1907465	2332	FRANK RUE	
			[31]	1907465	5070	MICHELE BROWN	
			[35]	1510373	7834	B.SPIES	
			[36]	2787022		ALEX-CRAIG	
	ERRO	R						

09/16/96	13:10	2 907	276 7178	B EV Restoration	Ø 001
. • * •			******* *** M *****	**************************************	* * * *
ТХ	/RX NO.			9127	
IN	COMPLETE TX/	RX			
TR	ANSACTION OK	. (36] 278	37022	ALEX-CRAIG
		Į	38] 271	15827	G.BELT
		[43] 190	075867251	M.LISOWSKI
		(45] 120	22083877	B.ROTH
ER	ROR				

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



September 13, 1996

Gordon M. Bolar, Ph.D. Alaska Public Telecommunications, Inc. 3877 University Drive Anchorage, Alaska 99508

Re: Project 97301, The Alaska Laboratory Series Television Pilot

Dear Dr. Bolar:

On August 29, 1996, the *Exxon Valdez* Oil Spill Trustee Council acted upon the Fiscal Year 1997 Work Plan. At that meeting, the Council voted to defer action on Project 97301, <u>The Alaska Laboratory Series</u> Television Pilot. The Council is tentatively scheduled to reconsider the Project in mid-December following a reevaluation of funding priorities. If funding for the Project is approved at that time, a request for proposals would be issued and a contract would be competitively awarded because several firms are capable of producing these kinds of television programs.

At the August 29 meeting, the Trustee Council authorized projects totaling \$15.4 million. In December, an additional 20 projects totaling approximately \$1.1 million will be considered. The Council currently expects to fund slightly more than half of that amount, which would bring the total for the FY 97 Work Plan near the targeted amount of \$16 million.

Thank you for your participation in the Exxon Valdez Oil Spill restoration program.

Sincerely,

Molly McCammon Executive Director

cc: Claudia Slater, ADF&G Liaison

rim, raw

Trustee Agencies State of Alaska: Departments of Fish & Game, Law, and Environmental Conservation

United States: National Oceanic and Atmospheric Administration, Departments of Agriculture and Interior

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



September 13, 1996

Gary Thomas, Ph.D. Prince William Sound Science Center POB 705 Cordova, Alaska 99574-0705

> Re: Project 97151-BAA/Facilities Improvement to the Prince William Sound Science Center

Project 97303-BAA/Sentinel Program for Walleye Pollock in the Greater Prince William Sound Area

Dear Dr. Thomas:



The *Exxon Valdez* Oil Spill Trustee Council acted on the Fiscal Year 1997 Work Plan at its meeting on August 29, 1996. The Council voted to defer action on Project 97151-BAA/Facilities Improvement to the Prince William Sound Science Center. The Council will reconsider the project, possibly in mid-October, after consideration of further information on the project's link to restoration objectives, legal permissibility, relationship to other marine research facilities already funded by the Trustee Council, compliance with the National Environmental Policy Act, and potential funding mechanisms. I will be contacting you soon about providing additional information on this project.

Regarding Project 97303-BAA/Sentinel Program for Walleye Pollock in the Greater Prince William Sound Area, in June I notified you of my recommendation that the Trustee Council not fund this project. At its August meeting, the Council accepted my recommendation and did not fund this project for FY 97. The Council received more than \$36 million in proposals for Fiscal Year 1997. Unfortunately, it was not possible to fund all projects that were submitted.

I appreciate your interest in the restoration program and hope you will consider submitting proposals in future years.

Sincerely,

Volly McCam

Molly McCammon Executive Director



mm/raw

Trustee Agencies

State of Alaska: Departments of Fish & Game, Law, and Environmental Conservation United States: National Oceanic and Atmospheric Administration, Departments of Agriculture and Interior

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



September 13, 1996

James Cochran Alaska Department of Fish & Game POB 25526 Juneau, Alaska 99802-5526

Tom Rutz Alaska Department of Fish & Game 9175 James Blvd Juneau, Alaska 99801

RE: Project 97171/ADF&G Mariculture Technical Center Operational Funding

Dear Mr. Cochran and Mr. Rutz:

The *Exxon Valdez* Oil Spill Trustee Council received more than \$36 million in proposals for Fiscal Year 1997. Unfortunately, it was not possible to fund all projects that were submitted.

In June I notified you of my recommendation that the Trustee Council not fund Project Project 97171/ADF&G Mariculture Technical Center Operational Funding. The Council acted on the FY 1997 Work Plan on August 29, 1996. This letter is to inform you that the Council accepted my recommendation and did not fund your project for FY 97.

l appreciate your interest in the restoration program and hope you will consider submitting proposals in future years.

Sincerely,

molly M Cam

Molly McCammon Executive Director

cc: Claudia Slater, ADF&G

∽m/raw

Trustee Agencies State of Alaska: Departments of Fish & Game, Law, and Environmental Conservation United States: National Oceanic and Atmospheric Administration, Departments of Agriculture and Interior

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



September 13, 1996

Gordon J. Pullar UAF, College of Rural Alaska 707 A Street, Suite 205 Anchorage, Alaska 99503

> Re: Project 97275/Rural Development Applied Field-Based Research Program in Oil Spill Affected Areas

Dear Mr. Pullar:

On August 29, 1996, the *Exxon Valdez* Oil Spill Trustee Council acted on the Fiscal Year 1997 Work Plan. At that meeting, the Council voted to defer action on Project 97275/Rural Development Applied Field-Based Research Program in Oil Spill Affected Areas. The Council is tentatively scheduled to reconsider the project in mid-December following further review of the revised Detailed Project Description and an indication of commitments from principal investigators to incorporate student research into specific restoration projects.

At the August 29 meeting, the Trustee Council authorized projects totaling \$15.4 million. In December, an additional 20 projects totaling approximately \$1.1 million will be considered. The Council currently expects to fund slightly more than half of that amount, which would bring the total for the FY 97 Work Plan near the targeted amount of \$16 million.

Thank you for your participation in the Exxon Valdez Oil Spill restoration program.

Sincerely,

Welli Melama

Molly McCammon Executive Director

cc: Claudia Slater, ADF&G

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



September 13, 1996

James A. Winchester Prince William Sound Economic Development Council POB 2353 Valdez, Alaska 99686-0467

Re: Project 97230/Valdez Duck Flats Restoration

On August 29, 1996, the *Exxon Valdez* Oil Spill Trustee Council acted on the Fiscal Year 1997 Work Plan. At that meeting, the Council voted to defer action on Project 97230/Valdez Duck Flats Restoration. The Council is tentatively scheduled to reconsider the project in mid-December following an evaluation of funding priorities and the status of efforts to acquire a small parcel on the Valdez Duck Flats.

At the August 29 meeting, the Trustee Council authorized projects totaling \$15.4 million. In December, an additional 20 projects totaling approximately \$1.1 million will be considered. The Council currently expects to fund slightly more than half of that amount, which would bring the total for the FY 97 Work Plan near the targeted amount of \$16 million.

Thank you for your participation in the Exxon Valdez oil spill restoration program.

Sincerely,

mm/raw

Molly McCammon Executive Director

cc: Carol Fries, ADNR Liaison



Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



September 13, 1996

Anthony J. Hooten Environmental Services Corporation of America 4005 Glenridge Street Suite 100 Kensington MD 20895-3708

RE: Project 97234/Ecosystem Synthesis Model of EVOS Restoration Findings for Resource Management

Dear Mr. Hooten:

The *Exxon Valdez* Oil Spill Trustee Council received more than \$36 million in proposals for Fiscal Year 1997. Unfortunately, it was not possible to fund all projects that were submitted.

In June I notified you of my recommendation that the Trustee Council not fund Project 97234/Ecosystem Synthesis Model of EVOS Restoration Findings for Resource Management. The Council acted on the FY 1997 Work Plan on August 29, 1996. This letter is to inform you that the Council accepted my recommendation and did not fund your project for FY 97.

I appreciate your interest in the restoration program and hope you will consider submitting proposals in future years.

Sincerely,

mm/raw

Molly McCarhmon Executive Director

cc: Byron Morris, NOAA Liaison



Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



September 13, 1996

Jim McCullough Division of Commercial Fisheries & Management Alaska Department of Fish & Game 211 Mission Road Kodiak, Alaska 99615-6399

Lisa Scarborough Subsistence Division Alaska Department of Fish & Game 333 Raspberry Road Anchorage, Alaska 99518

RE: Project 97247/Kametolook River Coho Salmon Subsistence Project

Dear Mr. McCullough and Ms. Scarborough:

On August 29, 1996 the *Exxon Valdez* Oil Spill Trustee Council acted upon the Fiscal Year 1997 Work Plan. At that meeting, the Council voted to defer action on Project 97247/Kametolook River Coho Salmon Subsistence Project. The Council is tentatively scheduled to reconsider the project in mid-December once the evaluation phase of the project, which was funded through the state's criminal settlement with Exxen Corporation, is complete. Prior to December consideration we would expect to see a revised Detailed Project Description that addresses the results of the evaluation phase currently underway as well as the technical concerns of the Chief Scientist, and a reduced budget more in line with the \$18,900 originally identified by the Subsistence Division to implement this project.

At the August 29 meeting, the Trustee Council authorized projects totaling \$15.4 million. In December, an additional 20 projects totaling approximately \$1.1 million will be considered. The Council currently expects to fund slightly more than half of that amount, which would bring the total for the FY 97 Work Plan near the targeted amount of \$16 million.

Thank you for your participation in the Exxon Valdez Oil Spill restoration program.

-

Sincerely,

Mally Milamm

Molly McCammon Executive Director

cc: Claudia Slater, ADF&G Liaison

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



September 13, 1996

Dan Gillikin U.S. Forest Service, Glacier Ranger District POB 129 Girdwood, Alaska 99587

Re: Project 97043B/Monitoring of Cutthroat Trout and Dolly Varden Habitat Improvement Structures Project 97222/Chenega Bay Salmon Habitat Enhancement Project 97256A/Sockeye Salmon Stocking at Columbia Lake Project 97256B/Sockeye Salmon Stocking at Solf Lake

Dear Mr. Gillikin:

The *Exxon Valdez* Oil Spill Trustee Council acted on the Fiscal Year 1997 Work Plan at its meeting on August 29, 1996. I am pleased to inform you that the Council approved funding in the amount of \$24,000 for Project 97043B/Monitoring of Cutthroat Trout and Dolly Varden Habitat Improvement Structures. FY 97 is expected to be the final year of monitoring for this project, with a small amount of close-out funds (\$8,000) for data analysis and report writing projected for FY 98.

Also at its August meeting, the Trustee Council accepted my recommendation to not fund Project 97222/Chenega Bay Salmon Habitat Enhancement, and to defer a decision on projects 97256A/Sockeye Salmon Stocking at Columbia Lake and 97256B/Sockeye Salmon Stocking at Solf Lake. The decision to not fund Project 97222 was based on the discovery by the US Forest Service of serious hazardous material contamination within Anderson Creek. The Council is tentatively scheduled to reconsider projects 97256A&B in mid-December once the feasibility work being conducted on Columbia and Solf lakes is complete and out-year costs of each project are identified.

Before Project 97043B may begin, the lead agency must provide documentation to the Executive Director showing that the requirements of the National Environmental Policy Act (NEPA) have been met. If this occurs before October 1, 1996, you may receive authorization from the Executive Director to begin the project on that date. Any delay in documenting compliance will delay the start of the project. If you have any questions, please contact the Trustee Council liaison for your agency.

Thank you for your participation in the *Exxon Valdez* Oil Spill restoration program. We appreciate your continued interest, and look forward to working with you this coming year.

Sincerely,

Maley M. Camma ____

Molly McCammon Executive Director

cc: Dave Gibbons, USFS Liaison

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



September 13, 1996

Leslie Holland-Bartels NBS Alaska Fish & Wildlife Research Center 1011 East Tudor Road Anchorage, Alaska 99503-6119

RE: Project 97025/Mechanisms of Impact and Potential Recovery of Nearshore Vertebrate Predators (NVP)

The *Exxon Valdez* Oil Spill Trustee Council acted on the Fiscal Year 1997 Work Plan at its meeting on August 29, 1996. I am pleased to inform you that the Council approved funding in the amount of \$1,705,800 for Project 97025/Mechanisms of Impact and Potential Recovery of Nearshore Vertebrate Predators (NVP), contingent on submitting to the Chief Scientist the final report on Project 95106. In addition, funding for analysis of the FY 96 avian copredator data is contingent on submitting the final report on Project 95320Q. Funding for preparation of the proposed sea otter publications is contingent on acceptance by the Chief Scientist of the reports from Project MM6.

Also at its August meeting the Trustee Council voted to defer action on funding the new avian copredator work (\$115,700) until the data collected in FY 96 has been examined.

In addition to satisfying the conditions specified above, before a project may begin the lead agency for the project must provide documentation to the Executive Director showing that the requirements of the National Environmental Policy Act (NEPA) have been met. We hope that for most projects this will occur before October 1, 1996. If so, you may receive authorization from the Executive Director to begin the FY 97 project on that date. Any delay in satisfying the conditions or documenting NEPA compliance will delay start of the project.

Projects approved for FY 97 are approved in the expectation that they will be funded to their completion. However, the Trustee Council will annually evaluate a project's future funding needs based on its progress or results to date, overall restoration needs, and restoration funding constraints. The future years' budget projection for your project is \$1,669,400 in FY 98 and \$450,000 in FY 99.

Thank you for your participation in the *Exxon Valdez* Oil Spill restoration program. We appreciate your continued interest, and look forward to working with you this coming year. If you have any questions, please contact the Trustee Council liaison for your lead agency.

Sincerely,

Wolly McCamm

Molly McCammon Executive Director

cc: Lisa Thomas, DOI/NBS Liaison

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



September 13, 1996

Dana Schmidt Commercial Fisheries Management & Development Alaska Department of Fish & Game 34828 Kalifornsky Beach Road Soldotna, Alaska 99669

> RE: Project 97239/Salmon Carcasses and Juvenile Chinook Salmon Production in the Kenai River Ecosystem Project 97258A-CLO/Sockeye Salmon Overescapement Project

Dear Mr. Schmidt:

The *Exxon Valdez* Oil Spill Trustee Council acted on the Fiscal Year 1997 Work Plan at its meeting on August 29, 1996. I am pleased to inform you that the Council approved funding in the amount of \$214,000 for Project 97258A-CLO/Sockeye Salmon Overescapement Project, contingent on approval of a revised budget. I know that the \$214,000 figure was worked out by you and Stan Senner; we simply need a revised detailed budget for our records that reflects this amount. Also, please note that funding is for project close-out only (analysis of FY 96 Kenai samples and preparation of final report on Kenai and Kodiak studies). No funding beyond FY 97 is anticipated for this project.

The Council voted to defer action on Project 97239/Salmon Carcasses and Juvenile Chinook Salmon Production in the Kenai River Ecosystem. The Council is tentatively scheduled to reconsider the project in mid-December following a reevaluation of funding priorities in the fall. At its August 29 meeting, the Trustee Council authorized projects totaling \$15.4 million. In December, an additional 20 projects totaling approximately \$1.1 million will be considered. The Council currently expects to fund slightly more than half of that amount, which would bring the total for the FY 97 Work Plan near the targeted amount of \$16 million.

In addition to satisfying the condition specified above (revised detailed budget), before Project 97258A-CLO may begin the lead agency for the project must provide documentation to the Executive Director showing that the requirements of the National Environmental Policy Act (NEPA) have been met. We hope that for most projects this will occur before October 1, 1996. If so, you may receive authorization from the

Executive Director to begin the FY 97 project on that date. Any delay in satisfying the condition or documenting compliance will delay start of the project. If you have any questions, please contact the Trustee Council liaison for your agency.

Thank you for your participation in the *Exxon Valdez* Oil Spill restoration program. We appreciate your continued interest, and look forward to working with you this coming year.

Sincerely,

Molly Mc Camm

Molly McCammon Executive Director

cc: Claudia Slater, ADF&G

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



September 13, 1996

Charles Coutant Oak Ridge National Laboratory POB 2008, MS 6036 Oak Ridge, TN 37831-6036

Webster Van Winkle Oak Ridge National Laboratory POB 2008, MS 6038 Oak Ridge, TN 37831-6036

RE: Project 97321-BAA/Model Integration of Pink Salmon Restoration

Dear Mr. Coutant and Mr. Van Winkle:

The *Exxon Valdez* Oil Spill Trustee Council received more than \$36 million in proposals for Fiscal Year 1997. Unfortunately, it was not possible to fund all projects that were submitted.

In July I notified you of my recommendation that the Trustee Council not fund Project 97321-BAA/Model Integration of Pink Salmon Restoration. The Council acted on the FY 1997 Work Plan on August 29, 1996. This letter is to inform you that the Council accepted my recommendation and did not fund your project. As I explained in my earlier correspondence, the Chief Scientist for the Trustee Council, Dr. Bob Spies, will be managing a modest start on a modeling project in FY 97. His focus in FY 97 will be a trophic-based ecosystem model that will not include the pink salmon dimension which you had proposed.

I appreciate your interest in the restoration program and hope you will consider submitting proposals in future years.

Sincerely,

Molly McCammon Executive Director



cc: Byron Morris, NOAA Liaison Heide Sickles, NOAA Procurement

mm/raw

Trustee Agencies

State of Alaska: Departments of Fish & Game, Law, and Environmental Conservation United States: National Oceanic and Atmospheric Administration, Departments of Agriculture and Interior

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



September 13, 1996

Kenneth Tarbox Alaska Department of Fish & Game POB 3507 Soldotna, Alaska 99669-3507

RE: Project 97255-CLO/Kenai River Sockeye Salmon Restoration

The *Exxon Valdez* Oil Spill Trustee Council acted on the Fiscal Year 1997 Work Plan at its meeting on August 29, 1996. I am pleased to inform you that the Council approved funding in the amount of \$158,300 for Project 97255-CLO/Kenai River Sockeye Salmon Restoration. Please note funding is for project close-out only, including preparation of a final report and manuscript for publication. We do not anticipate any additional funding for this project in FY 98.

Before a project may begin, the lead agency for the project must provide documentation to the Executive Director showing that the requirements of the National Environmental Policy Act (NEPA) have been met. We hope that for most projects this will occur before October 1, 1996. If so, you may receive authorization from the Executive Director to begin the FY 97 project on that date. Any delay in documenting compliance will delay start of the project. If you have any questions, please contact the Trustee Council liaison for your lead agency.

Thank you for your participation in the *Exxon Valdez* Oil Spill restoration program. We appreciate your continued interest, and look forward to working with you this coming year.

Sincerely,

Molly McCammon Executive Director



mm/raw

Trustee Agencies State of Alaska: Departments of Fish & Game, Law, and Environmental Conservation United States: National Oceanic and Atmospheric Administration, Departments of Agriculture and Interior

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



September 13, 1996

Mark Willette Alaska Department of Fish & Game POB 669 Cordova, Alaska 99574-0669

Re: Project 97166-CLO/Herring Natal Habitats Project 97191A/Field Examination of Oil-Related Embryo Mortalities that Persist in Pink Salmon Populations in PWS

Dear Mr. Willette:

The *Exxon Valdez* Oil Spill Trustee Council acted on the Fiscal Year 1997 Work Plan at its meeting on August 29, 1996. I am pleased to inform you that the Council approved funding in the amount of \$200,000 for the herring spawn deposition survey component of Project 97166-CLO/Herring Natal Habitats. The Council voted to defer action on the hydroacoustics component of Project 97166 (\$60,700) pending review of a revised DPD. Per your earlier correspondence with Stan Senner, Science Coordinator for the Trustee Council, I understand that the revised DPD will be submitted by September 30. It will provide a more complete discussion of methods for the hydroacoustics to spawn deposition as a management tool, how the hydroacoustic estimates can be incorporated into the existing management model, and the structure of the survey transect lines relative to the assumptions of the statistical model. The Council is tentatively scheduled to reconsider the project in mid-December.

Regarding Project 97191A/Field Examination of Oil-Related Embryo Mortalities that Persist in Pink Salmon Populations in Prince William Sound, the Council approved funding in the amount of \$208,500 for the stream sampling and embryo mortality component, contingent on approval of a revised Detailed Project Description which eliminates the genetics component of the project.

Before Project 97191A may begin, the condition specified above must be satisfied. In addition, before either project may begin the lead agency must provide documentation to the Executive Director showing that the requirements of the National Environmental Policy Act (NEPA) have been met. If these steps occur before October 1, 1996, you may receive authorization from the Executive Director to begin the FY 97 projects on

that date. Any delay in satisfying the condition or in documenting NEPA compliance will delay the start of a project. For more information, please contact the lead agency representative:

> Claudia Slater Alaska Department of Fish & Game 333 Raspberry Road, Anchorage, Alaska 99518 Phone 907-267-2336/Fax 907-267-2474

Projects approved for FY 97 are approved in the expectation that they will be funded to their completion. However, the Trustee Council will annually evaluate a project's future funding needs based on its progress or results to date, overall restoration needs, and restoration funding constraints. The future years' funding projection for Project 97166 is \$190,200 for FY 98 and \$22,400 for FY 99. The FY 98 figure includes the hydro-acoustics component and would be reduced if a decision is made to discontinue this component in FY 97. The future years' funding projection for Project 97191A is \$164,200 for FY 98 and \$58,700 for FY 99.

Thank you for your participation in the *Exxon Valdez* oil spill restoration program. We appreciate your continued interest, and look forward to working with you this coming year.

Sincerely,

Milemn

Molly McCammon Executive Director

cc: Claudia Slater, ADF&G Liaison

Restoration Office 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



September 13, 1998

Dr. Ted Cooney, Lead Scientist Sound Ecosystem Assessment Institute of Marine Science University of Alaska Fairbanks Box 757220 Fairbanks, Alaska 99775-7220

The *Exxon Valdez* Oil Spill Trustee Council acted on the Fiscal Year 1997 Work Plan at its meeting on August 29, 1996. I am pleased to inform you that the Council approved funding in the amount of \$3,618,300 for Project 97320/Sound Ecosystem Assessment (SEA) as indicated in the attachment that records the Council's action.

Table 1, also attached, provides a breakdown of the Council's funding authorizations for the twelve sub-projects that will be implemented through RSAs with the University of Alaska (projects 97320-G,H,R,T,U and Z); NOAA-BAA contracts with the Prince William Sound Science Center (PWSSC) (projects 97320-I, J, M, and N); an RSA with the Prince William Sound Aquaculture Corporation (project 97320-K); and directly by ADF&G (97320-E). Total authorized funding for FY 97 includes support for the agency administrative costs for the respective projects.

As was the case for FY 96, the four PWSSC projects (/320-I, J, M, and N) will be implemented through the NOAA BAA contract process which requires deliverables in the form of final reports for the work conducted under the contracts. Accordingly, funding for the four PWSSC projects includes two components: (1) funds for field work/data collection in FY 97, as well as (2) funds to support report preparation associated with FY 97 work field work/data collection that will be due April 15, 1998 (see Table 1).

Projects approved for FY 97 are approved in the expectation that they will be funded to their completion. However, the Trustee Council will annually evaluate a project's future funding needs based on its progress or results to date, overall restoration needs, and restoration funding constraints. As we have agreed, the budget target for total SEA funding in FY 98 is \$2,600,000. In recognition of the FY 97 "borrow" from FY 98 for expanded modeling efforts (\$207.000) and the PWSSC report writing costs for FY 97

work that will be conducted in FY 98 (\$445,800), we anticipate a recommendation of an additional \$1,947,200 for SEA in FY 98 (inclusive of agency administrative costs). FY 99 is anticipated to be a synthesis/closeout year for the program as we have known it, with further herring research and other monitoring work beyond that juncture to be evaluated in light of SEA's progress in meeting its objectives and consideration of overall restoration needs.

Before a project may begin, the lead agency for the project must provide documentation to the Executive Director showing that the requirements of the National Environmental Policy Act (NEPA) have been met. We hope that this will occur before October 1, 1996. If so, you may receive authorization from the Executive Director to begin the FY 97 project on that date. Any delay in documenting compliance will require that the start of the project be deferred. If you have any questions, please contact Bill Hauser/ADF&G who is working with Byron Morris/NOAA to secure documentation of NEPA compliance for the respective 97320 sub-projects.

Thank you for your continued leadership on the SEA program. The program has made significant progress toward addressing the central SEA hypotheses and is helping to redefine our understanding of the Prince William Sound ecosystem and the factors that may be limiting the recovery of injured resources and services.

I look forward to learning more about the results of the most recent field season in the months ahead.

Sincerely,

Mally McCanin

Molly McCammon Executive Director

Attachments

-m/raw

cc: Claudia Slater/ADF&G Liaison (Attn: Bill Hauser) Byron Morris/NOAA Liaison

Table 1. FY 97 - Summary of SEA Project Budgets

• • • • • • • • • • • • • • • • • • •	FY 97 Remain Field/Data	FY 97/98 Rept Preparation	Project Cost Subtotal	Agency Gen Admin	TOTAL	
97320-I Isotopes	71.1	46.1	117.2	8.2	125.4	
97320-J Modelling	335.2	196.2	531.4	23.1	554.5	
97320-M Oceanography	197.4	136.8	334.2	19.2	353.4	
97320-N/Nekton Acoustics	278.3	66.7	345.0	19.4	364.4	
PWSSC Subtotal	882.0	445.8	1,327.8	69.9	1,397.7	
97320-K Fry Release			23.2	1.6	24.8	
97320-E Predators			571.5	60.3	631.8	
97320-G Phytoplankton			121.5	8.5	130.0	
97320-H Zooplankton			127.5	8.9	136.4	
97320-R Trophodynamics			170.2	11.9	182.1	
97320-T Herring			869.9	29.9	899.8	
97320-U Energetics			144.3	10.1	154.4	
97320-Z Synthesis			57.3	4.0	61.3	
TOTAL			3,413.2	205,1	3,618.3	



`,

`*.

•

-

.

SPREA	DSHEET B: TRUSTEE COUN	NCIL 8/29/96 A	CTION FY 97 W	ORK							D	RAFT
PLAN			Lead	New or	FY97	FY97 Revised	FY97	FY97	FY98	FY99	FY00-02	Total FY97-02
Proj.No.	ProjectTitle	Proposer	Agency	Cont'd	Request	Request	Approved	Deferred	Estimate	Estimate	Estimate	Rec.
97320	Sound Ecosystem Assessment (SEA)	T. Cooney, et al.	ADFG	Cont'd 4th yr. 6 yr. proj	\$3,613.2 ect	\$3,618.3	\$3, 618.3		\$1,947.2			\$5,565.5
Project Abstract Chie This project is describing mechanisms of mortality for juvenile This is an ex populations of pink salmon and Pacific herring in Prince William This is an ex Sound. This information is being used to create a series of dynamic and thorough numerical models and an attendant nominal monitoring program to affect the restoration of these species through management potential mai options. The mechanisms influencing the distribution and growth rates of juveniles are being investigated by oceanographic studies. salmon and I Mechanisms of predation and starvation are being studied by field scientist SEA with the long-range s hypotheses v about fundin			Chief Scientist's Re This is an excellent program and thorough technical revie better articulate the practica derived from the research, i potential management tools monitoring of the system to salmon and herring need to improvement of the interact field scientists is required, a SEA with the work of APEX long-range scope of the pro hypotheses will be necessa about funding after the FY 9	ecommence that has that has we annual l benefits ncluding a . Key para determine be identif ion betwee s is a plar (/163) and gram, res ry over the 9 closeou	lation undergone ir ly. The progr and application schedule for ameters for ro- likely produ- ied. Continue en the model to integrate NVP(/025). olution of the e next year p t.	ndependent am should fons to be r production outine ctivity of pin ed ers and the the results In terms of major rior to decis	n of ye of cl k Fe of er the re the re the re fo sions C su be fo de fo gata	und. Signific EA hypothes transitioning ear for most oseout fund urther herrin evaluated in estoration pro- nsuring that esource man vestigators a larification o upport predic an be mainta- ajor ecosyste e pursued du ecisions. In ecommendat r PWSSC's EA funding i gency admir	Trustee cant progress ses. The pro g to modeling of the preser ing is anticipa g research b the context oposals. A k SEA predictive and resource f any long-ter ctive models ained over tin tem research uring FY 97 a recognition of tion for addition FY 98 report n FY 98 is pre-	Council Ac has been gram is now and analys at SEA proj- ated in FY S eyond FY S of other he ey issue to ve models a er interaction managers m data col- is also critic ne. On-goin projects (S and used to f funds incl- onal data/m writing of F ojected to to s).	tion made to ad wat a poin sis. FY 98 ects and on 99 as a fina 88 is uncert rring work be address are useful to be address are useful to be address are useful to chatter between appears n ection and cal to ensu- ng efforts to EA, NVP a guide futur uded in the odeling wo Y 97 resul- be \$1,947.2	ddress the central t when field work will be the final hly modest al synthesis year. tain and must be and other sed in FY 97 is o/used by n SEA eeded. monitoring to re that models o integrate the and APEX) should re funding e FY 97 ork (\$207.0) and ts (\$445.8), total 2 (including

TRUCTEE COUNCIL \$120/06 ACTION EV 07 MORK

۰,۰

٠.

Page

~ --- 645 G Street, Suite 401, Anchorage, Alaska 99501-3451 Phone: (907) 278-8012 Fax: (907) 276-7178



MEMORANDUM

To: Restoration Work Force

- From: Stan Senner Stan Science Coordinator
- Subject: Conference Database

Date: September 13, 1996

Since a new fiscal year is starting, we would like to circulate a new list of science conferences at which presentation of EVOS science and restoration results may be appropriate. With assistance from several of you, I have compiled a draft list. Would you please review this and let me know of any additional conferences to be included? Either send an e-mail (stans@oilspill.state.ak.us), fax, or mail. Please include as much information as possible about conference themes, contacts, or known EVOS participation.

If possible, please send me your suggestions by the end of the day on Monday, September 23. Thank you.

enclosure (1)

cc: Molly McCammon Robert Spies