

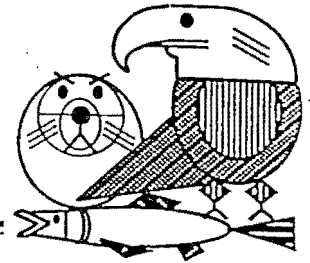
1992-1993 PROJECT UPDATE

Exxon Valdez Oil Spill Trustee Council

Restoration Office

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TO: Exxon Valdez Oil Spill Trustee Council

FROM: Molly McCammon, Director of Operations

DATE: January 21, 1994

SUBJ: 1992 and 1993 Project Status Reports

RECEIVED

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL
ADMINISTRATIVE RECORD

Please find attached the most recent versions of the 1992 and 1993 restoration project Status Reports (1/21/94). Statements regarding restoration project status, results and references have been reviewed by both the affected agencies as well as the Chief Scientist.

Please make special note that the budget numbers for the 1993 projects are for the period March 1, 1993 - September 30, 1993 (i.e., 7 months) as a result of the transition being made to the federal fiscal year.

As you can appreciate, these reports should be considered "working documents" and will be subject to on-going revision as the status of individual projects changes over time. As more current information becomes available, the reports will be updated.

attachments

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

Status Report: 1992 Exxon Valdez Oil Spill Restoration Projects
(for the period March 1, 1992 - February 28, 1993)

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<u>No.</u>	<u>Title</u>	<u>Agencies</u>	<u>Amount Budgeted*</u>	<u>Amount Spent*</u>	<u>Status</u>	<u>Results and References</u>	<u>Related Projects</u>
Administration			\$5,076.1	\$4,019.0			
AD	Administrative Director's Office		\$2,248.7	\$1,943.7	Ongoing.	Not applicable.	
RT	Restoration Team		\$2,827.4	\$2,075.3	Ongoing.	Not applicable.	
Archaeological Resources			\$408.0	\$242.3			
ARC1	Archeological Survey	ADNR	\$248.8	\$118.7	Project is complete. Report peer reviewed and released.	See Reger, D.R., J.D. McMahon, and C.E. Holmes. 1992. Effect of Crude Oil Contamination on Some Archaeological Sites in the Gulf of Alaska, 1991 Investigations.	None.
R104A	Site Stewardship	ADNR USFS	\$159.2	\$123.6	Project is complete. Report awaiting final review.	Increased public knowledge of archaeological sites following the spill led to increased vandalism. A stewardship program to train local residents to protect cultural resources was developed. A site stewardship manual and field notebook were written.	None.

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Ecosystems			\$2,042.3	\$1,729.8			
CH1B	Hydrocarbons in Mussels	NOAA	\$51.4	\$31.1	Report being drafted.	<i>Exxon Valdez</i> oil is located in oiled mussel beds. Mussels are concentrating the oil.	93036, B11, R71, and R103.
R102	Herring Bay Experimental and Monitoring Study	ADFG	\$485.6	\$324.3	Report being revised.	Cover of the dominant intertidal alga, <i>Fucus gardneri</i> , was reduced at oiled/cleaned sites. <i>Fucus</i> recruitment was poor in the mid- to upper intertidal, probably due to lack of shelter from desiccation and heating by adult plants. Limpet densities continued to be lower in the upper intertidal. Recovery appeared to be occurring in the lower intertidal zone in 1990-1991 and in the upper intertidal in 1993. Results have been incorporated into an interaction web to elucidate potential oil spill effects on community dynamics.	B11, CH1A, R103, and TM3.
R103	Oiled Mussels	ADFG NOAA DOI	\$874.0	\$879.8	Report being revised. Project continued as 93036.	Identified 27 mussel beds with total petroleum hydrocarbons greater than 10,000 mg/g wet weight. Minimally intrusive site manipulation was conducted at three heavily oiled mussel beds. Black oystercatchers fed in oiled mussel beds. Chicks raised on oiled sites grew more slowly than chicks raised on unoiled sites. Differences in levels of blood haptoglobin and Interleukin-6 in, which were previously found to be elevated in river otters inhabiting oiled compared to unoiled areas in Prince William Sound, were not observed in Summer 1992. Additionally, river otters from oiled areas continued to regain body size from levels noted in 1990. This suggests that river otters may be recovering from chronic effects that were observed in 1990 and 1991. Consequently, no adverse effects in 1992 could be attributed to oiled mussel beds from areas where river otters were captured.	B11, B12, CH1B, R7, TM3, 93035 and 93036.

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ST1A	Subtidal Sediments	NOAA	\$103.5	\$96.5	Report being drafted.	Subtidal sediments have been found to be contaminated at no fewer than 15 sites within Prince William Sound by June 1990. Contamination had reached at least 20 meters at some sites. Evidence of hydrocarbon movement downslope into subtidal sediments was detected by 1991.	ST1B
ST1B	Subtidal Microbial	ADEC	\$17.1	\$3.2	Final report accepted.	The numbers and activity of oil-degrading microorganisms were measured in sediments periodically for two years after the oil spill. Populations of oil-degrading microorganisms were significantly higher in sediments collected at oiled sites relative to reference sites. This information is useful in establishing the extent of contamination of the oil with time and also provides evidence that biodegradation is occurring naturally in Prince William Sound.	93047
ST2A	Shallow Benthic	ADFG	\$109.8	\$68.9	Final report being revised.	At oiled sites there was a decrease in some subtidal organisms relative to unoled sites. Partial recovery observed in 1991.	B11, CH1A, R103, and TM3. Provides population assessment information for 94320 (Ecosystem Study Plan).
ST2B	Deep Water Benthic	ADFG	\$44.9	\$54.0	Report being revised.	Analyses of 1990 data collected approximately 16 months after the oil spill indicate that the deep benthic environment within the spill region appeared healthy. It appears that movement of water within the region of the oil trajectory was sufficient to flush out toxic fractions, resulting in minimal damage to life at depths of 40 to >100 meters.	CH1A, ST1B, ST2A, ST4, ST5, ST6, ST7, ST8, and TS1.

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ST3A	Caged Mussels Damage Assessment	NOAA	\$39.1	\$24.2	Report being revised.	Mussels transplanted along spill trajectory accumulated particulated oil at concentrations that decreased with depth, elapsed time, and distance from heavily oiled beaches. In 1990 and 1991, low concentrations of polynuclear aromatic hydrocarbons were sporadically detected at locations adjacent to heavily oiled beaches. Petroleum hydrocarbons were detected only sporadically in mussels deployed in locations outside Prince William Sound in 1989.	ST3B.
ST3B	Sediment Traps Damage Assessment	ADEC	\$50.9	\$24.5	Report being drafted.	The subtidal sediment trap study demonstrated that oiled particulated matter derived from oil-impacted beaches in Prince William Sound contaminated adjacent subtidal sediments. The study further showed that the transfer rate of oil from beach to subtidal sediment was highest the year following the spill, and declined steadily thereafter.	ST3A and ST4.
ST7	Demersal Fishes Damage Assessment	NOAA	\$60.4	\$55.1	Report being reviewed.	Results show continuing exposure of several benthic fish species and pollock, suggesting continuing petroleum contamination of subtidal sediments, water and food in 1990 and 1991 at sites up to 400 miles from the spill origin.	ST1A
ST8	Sediment Data Synthesis	NOAA	\$205.6	\$168.2	Report being drafted. Project continued as 93053.	Analyzed several thousand environmental samples, provided numerical correlations directly related to oil, and assessed associations of observed biological effects with concentrations of Exxon Valdez oil.	TS1, TS3, and 93053.

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Status Report: 1992 Projects - 1/21/94

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Fish/Shellfish			\$5,531.9	\$3,756.3			
FS1	Spawning Area Injury	ADFG	\$64.3	\$32.8	Report being drafted (combined with R60B).	Documented oil contamination of Prince William Sound pink salmon spawning area. Improved current and historic pink salmon escapement estimates which are necessary for accurate estimates of total wild returns. For preliminary results, see 1989, 1990 and 1991 NRDA Drafts Status Reports.	FS1, FS2, FS3, FS4A, and FS4B measured oil damages to specific life stages. FS28 incorporated their results into a model to estimate population level damages.
FS11	Herring Injury	ADFG	\$303.6	\$212.2	Report being revised.	Adult herring migrating to the spawning grounds in 1989 were exposed to oil. Exposure to oil continued throughout 1989 and into 1990. Internal tissues were damaged but the short- and long-term effects are speculative. There may have been a short-term effect which inhibited egg deposition and a long-term reproductive impairment (reduced survival of offspring). Eggs were deposited in oiled areas in 1989. Larvae hatched from exposed embryos suffered reduced survival.	None.
FS13	Effects of Hydrocarbons on Bivalves	ADFG	\$75.8	\$51.8	Report being revised.	This study needs more extensive analyses of the data on which the conclusions are based and proper interpretations of the results.	Clams are an important prey for ducks, sea otters, river otters, and bears. This study is related to studies of these species.
FS2	Pre-emergent Fry	ADFG	\$29.3	\$11.4	Final report being reviewed.	Measured higher embryo mortalities in oil-contaminated streams than in unoiled streams.	FS1, FS2, FS3, FS4A, and FS4B measured oil damages to specific life stages. FS28 incorporated their results into a model to estimate population level damages.

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FS27	Sockeye Salmon Overescapement	ADFG	\$630.0	\$354.6	Report accepted.	Approximately ten- to fifteenfold reduction in Kenai River smolt when compared to brood year 1987. Reduced smolt production from Akalura and Red Lakes, Kodiak Island. Reduced harvests for the Kenai are forecast for 1994 with returns below escapement levels possible for 1995 and 1996. Minimal harvests of Kenai River sockeye salmon are likely. Reduced harvest are forecast for Red and Akalura Lakes for 1994 through 1996. See Schmidt, D.C. and K.E. Tarbox. 1993. Sockeye Salmon Overescapement. State/Federal Natural Resource Damage assessment Status Report. FRED Technical Report 136. 65 pp.; and Schmidt, D.C., J.P. Koenings, and G.B. Kyle. In press. Predator induced changes in diet vertical migration of copepods in Skilak Lake, Alaska; a hypothesis to explain the decrease in overwinter survival of juvenile sockeye salmon (<i>Onchorhynchus nerka</i>).	RS3 acquired new information to facilitate management of anticipated reduced future runs. R113 examined potential for hatchery-reared fry in Red Lake, but forecasted returns make the project unfeasible.
FS28	Run Reconstruction	ADFG	\$250.6	\$126.4	Report being revised.	Estimated losses to adult populations from oil damages to early life stages at 2 to 3 million in 1990, and 40 to 70 thousand in 1991. Projected losses of 100 to 200 thousand adults in 1993 and 1994.	Through this project, results from FS1, FS2, FS3, FS4A and FS4B were incorporated into a model to estimate population level damage.
FS3	Coded-Wire Tags Damage Assessment	ADFG	\$126.7	\$38.7	Final report being reviewed.	Unable to detect significant differences in survival to adults from fry emerging from oiled and control streams. Also unable to detect significant difference in survival of hatchery fish reared in oiled versus unoled areas of Prince William Sound.	FS1, FS2, FS3, FS4A, and FS4B measured oil damages to specific life stages. FS28 incorporated their results into a model to estimate population level damages.

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FS30	Database Management	ADFG	\$202.5	\$151.1	Report accepted.	Software was written to provide access to fish harvest database using the ADFG commercial fisheries Wide-Area Network (WAN). Procedures were implemented to provide reports in numerous database, spreadsheet, and statistical formats. Documentation and guidelines for using the harvest database were completed. WAN capability is now available between Juneau, Cordova, Anchorage, Kodiak, Soldotna, and Homer. See DiCostanzo, C. and B.P. Simonson. 1993. Database Management. Final Report, State/Federal Natural Resource Damage Assessment. 14 pp.	This database provides a repository for all NRDA and restoration projects information.
FS4A	Early Marine Salmon Damage Assessment	ADFG	\$145.2	\$99.1	Report being revised.	Detected reduced growth and survival of fry rearing in oiled areas in 1989. No significant differences in growth and survival between oiled and nonoiled areas in subsequent years. Rate of adult returns to unoled hatcheries twice that of oiled hatcheries in 1990.	FS1, FS2, FS3, FS4A, and FS4B measured oil damages to specific life stages. FS28 incorporated their results into a model to estimate population level damages.
FS4B	Juvenile Pinks	NOAA	\$119.4	\$121.6	Revised report in review.	Documented exposure and contamination of juvenile salmon in Prince William Sound. Contamination was associated with reduced growth. Ingestion of oil or oiled prey was route of contamination.	FS4A, AW3, and ST3A.
FS5	Dolly Varden Damage Assessment	ADFG	\$22.2	\$4.2	Report being revised (combined with R90).	See R90.	
R105	Instream Survey Restoration Implementation Planning	ADFG USFS	\$348.1	\$148.5	Final report in preparation. USFS transmitted report to Chief Scientist.	Results of Cost:Benefit Study Implementation has been integrated and design planning has been completed. Awaiting construction funding. Cost:Benefit analysis for improved barrier bypass for Little Waterfall Creek on Afognak Island is positive.	Related projects: FS1, R47, 93024, 93032, and 93063. New project proposal: 94139.

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R106	Dolly Varden Restoration	ADFG	\$34.9	\$16.2	Final report being revised.	The nature and extent of injury to Dolly Varden and cutthroat trout was documented in FS5. The goal of R106 was to provide information for developing a management plan to protect impacted stocks, while allowing for continued recreational fishing for sport anglers where stocks could support fisheries. Sixty-one streams were surveyed to provide this information.	FS5, R106, and 94320 (Ecosystem Study Plan).
R113	Red Lake Sockeye Salmon Restoration	ADFG	\$55.9	\$54.3	Report being reviewed.	Red Lake does not need restoration effort but Ayakulik does.	FS27
R53	Kenai River Sockeye Salmon Restoration	ADFG	\$674.2	\$434.6	Report being revised.	Successful collection of baseline and fishery samples for genetic stock identification. Unsuccessful in choosing new adult inriver hydroacoustic equipment. Successful hydroacoustic enumeration of returning adult salmon in Upper Cook Inlet.	R59 analyzed genetic samples collected by this project.
R59	Genetic Stock Identification	ADFG	\$320.9	\$257.2	Report being revised.	Genetic data were collected during 1992 from spawning populations contributing to mixed-stock harvests of sockeye salmon in Cook Inlet. These data can be used to estimate the presence of Kenai River stocks in mixed-stock areas of Upper Cook Inlet.	R53 collected spawning samples.
R60A/B	Prince William Sound Pink Salmon	ADFG	\$1,479.7	\$1,204.3	Final R60A report being revised. R60C report being drafted (combined with FS1).	The CWT program (R60A) helped reduce the commercial harvest on damaged pink salmon populations by providing fishery managers with timely inseason fishery stock composition estimates. The escapement project (R60B) provided improved pink salmon escapement information which was essential for the precise fisheries management required to protect damaged wild stocks.	R60C monitors and investigates mechanisms for oil damage to early life stages of pink salmon populations. R60AB allows fisheries managers to protect damaged stocks from overexploitation.

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R60C	Pink Salmon Egg/Fry	ADFG NOAA	\$492.8	\$369.9	Report being revised. Project continued as 93003. Expected to be continued into 1994 and 1995.	Oil exposures completed for 1992 and 1993 brood years. Persistence of elevated mortalities among embryos in oiled streams versus those in nonoiled streams suggests genetic damage. Spawning of surviving adults is scheduled for September 1994 with possible long-term genetic damage and survival of progeny to be determined in early 1995.	Related projects: B11, CH1B, R60AB, R103, 93003 and 93036.
R90	Dolly Varden Char Monitoring	ADFG	\$91.5	\$34.2	Report being revised (combined with FS5).	Two populations of Dolly Varden and cutthroat trout emigrated from lakes into the wake of the spill. Growth from 1989-1990 was 24% and 22% slower for recaptured subadult and adult Dolly Varden and 36% to 43% slower for subadult and adult populations of cutthroat trout in populations associated with the oil. This difference persisted through 1991 for cutthroat trout but not for Dolly Varden. Chronic starvation and direct exposure to petrogenic hydrocarbons were hypothesized as effects leading to reduced growth and accelerated mortality of both Dolly Varden and cutthroat trout.	R90 and R106 provide information on populations of Dolly Varden and cutthroat trout for 94320 (Ecosystem Study Plan).
ST5	Shrimp	ADFG	\$47.7	\$15.9	Report accepted.	Hydrocarbon analyses did not detect oil contamination with sampled spot shrimp. Shrimp collected in unoiled areas had more inflammatory gill lesions than did shrimp from the oiled area. These results indicate that oil contamination had little or no effect on spot shrimp. See Trowbridge, C. 1992. Injury to Prince William Sound Spot Shrimp. Final Report, State/Federal Natural Resource Damage Assessment. 83 pp. + appendices.	Relates to all other fish studies. Shrimp are a principal food source for fish and some whales.

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ST6	Rockfish Damage Assessment	ADFG	\$16.6	\$17.3	Final report being revised.	Oil was determined to be the cause of death for a small number of demersal rockfish in Prince William Sound. Dead and dying rockfish were reported from the spill area. Of the five fish that were fresh enough to be necropsied, exposure to crude oil was found to be the cause of death. These results prompted additional testing for hydrocarbons in live fish. These tests showed at least 11 of 36 rockfish tested from oiled sites had been exposed to oil within 2 weeks prior to testing. None of the 13 fish from unoiled sites were exposed to oil. Subsequent studies showed some indications of sublethal injuries to rockfish from exposure to oil.	ST2A and ST2B.
Marine Mammals			\$275.3	\$231.9			
MM1	Humpback Whales Damage Assessment	NOAA	\$17.3	\$13.6	Report being revised.	No documented injury.	None.
MM2	Killer Whales Damage Assessment	NOAA	\$33.3	\$23.9	Report accepted.	Whales missing from AB and AT pods. A total of 14 AB pod members lost from 1988-1990 due to unknown causes.	None.
MM6	Sea Otters Damage Assessment	DOI	\$199.7	\$191.9	Most reports being revised; some accepted.	Direct mortality was probably on the order of 4000 sea otters, and the majority of the mortality probably occurred within Prince William Sound. In late 1991, patterns of mortality, as reflected in a relatively high number of prime-age carcasses, were abnormal compared to prespill patterns. Surveys showed no increase in abundance, and juvenile survival was low in oiled areas of western Prince William Sound. Preliminary data from 1992-1993 indicate some improvement in survival of juvenile and middle-aged sea otters.	93043

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R73	Harbor Seals	ADFG	\$25.0	\$2.5	No final report for R73. A final report for MM5 is being reviewed.	Harbor seals continue to use heavily oiled haulouts even when unoiled sites were available nearby. They were observed to give birth and care for their pups on these sites. The pelage of both pups and adults became oiled when they used these sites or contacted oil in the water. However, the pelage became cleaner with time if they did not continue to use oiled sites. Many carcasses recovered were either stillborn or died shortly after birth. Observations suggest that stress and/or toxic effects of oil resulted in abortions, premature births, and increased mortalities in heavily oiled areas.	MM5
Multiple Resources			\$4,405.2	\$2,982.1			
AW1	Surface Oil Maps	ADEC	\$17.0	\$8.4	Report overdue.	Maps have been developed depicting the spread of oil on a daily basis for the first three months following the spill.	None
B2	Boat Surveys	DOI	\$48.5	\$58.4	Report being revised.	Populations of 9 species or species groups (black oystercatcher, pigeon guillemot, cormorants, harlequin duck, loons, scoters, newgull, arctic tern, northwestern crow) declined more than expected in the oiled zone of Prince William Sound suggesting an oil effect. Most injured species were ecologically tied to intertidal or nearshore areas.	93045
CH1A	Coastal Habitat Damage Assessment	USFS	\$2,358.5	\$1,454.7	Final report submitted and in review.	Serious and long-term lasting effects on intertidal algae. Recovery occurring but slow to none in upper intertidal habitat. Full recovery expected. Intertidal invertebrates indicate negative effects from spill. Intertidal fish findings were inconclusive.	B11, CH1A, FS13, R102, R103, MM6, R71, ST3A, TM3, TS1.

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R47	Stream Habitat Assessment	ADFG	\$399.6	\$323.9	Report accepted.	About 250 km of shoreline and 260 km ² of uplands were surveyed for anadromous fish streams on private lands on Afognak Island, resulting in discovery of 167 anadromous streams totaling about 56 km. Stream habitat parameters and upper extents of anadromous distribution were documented, and streams were mapped by GPS. Kuwada, M. and K. Sundet. 1993. Stream Habitat Assessment Project: Afognak Island. Habitat and Restoration Division Technical Report No. 93-3, Exxon Valdez Restoration and Habitat Protection Planning. 104 pp.	R47 information was used in evaluating lands for habitat protection and to supplement habitat information for marbled murrelet and harlequin duck projects.
R92	GIS Mapping and Analysis: Restoration	ADNR DOI	\$125.5	\$105.7	Completed. No report necessary.	Provided mapping and database support for restoration projects. Developed timber harvest database and land status and parcel maps for imminent threat parcels. Contributed to a 3-volume data dictionary produced for the Trustee Council by the Nature Conservancy.	Supported numerous restoration projects.
ST4	Fate and Toxicity Damage Assessment	NOAA	\$52.6	\$53.2	Report returned for revision.	Results indicate that some toxicity was still associated in 1990 and 1991 with sediments from lower intertidal zones of heavily oiled sites. The fate of Exxon Valdez oil will include transformation of most constituents (through biodegradation and photooxidation) mainly into carbon dioxide and water, although some constituents may persist indefinitely.	AW4, ST1, ST2, ST3A, ST3B, ST7, TS1 and response studies.
TS1	Hydrocarbon Analysis	NOAA DOI	\$1,028.3	\$711.2	Report being reviewed.	Coordinated the chemical analysis of all samples collected by damage assessment studies to develop a single set of analytical data comparable across projects.	ST8 and TS3.
TS3	GIS Mapping and Analysis: Damage Assessment	ADNR DOI	\$375.2	\$266.6	Completed. No report necessary.	Provided mapping and database support for damage assessment projects.	Supported numerous damage assessment projects, including FS 4, FS13, CH1A and R47.

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<u>No.</u>	<u>Title</u>	<u>Agencies</u>	<u>Amount Budgeted*</u>	<u>Amount Spent*</u>	<u>Status</u>	<u>Results and References</u>	<u>Related Projects</u>
Seabirds			\$1,398.2	\$1,216.4			
B11	Harlequin Ducks Damage Assessment Closeout	ADFG	\$22.9	\$21.7	Final report in second revision.	Petroleum exposure confirmed in four species of sea ducks. Hydrocarbons in food, liver and bile. Diverse intertidal prey used by ducks. Blue mussels are a key contaminated prey. 1990-1992 low harlequin breeding densities and negligible harlequin stream activity and production in western Prince William Sound. Report not yet accepted.	B2: status of populations. CH1B: contaminated prey. TS1: hydrocarbon analysis of food/tissues. Others: R71, and R103 (mussels), and 93036.
B12	Shorebirds Damage Assessment Closeout	DOI	\$20.7	\$11.4	Report revised and submitted for final approval. Revised report in review.	Spring migrant shorebirds (surfbirds and black turnstones) escaped impacts because shorelines used by these species (particularly around Montague Island) were largely unoiled. Black oystercatcher breeding was disrupted and hatching success reduced. Chicks raised on oiled beaches grew more slowly than chicks raised on unoiled beaches, perhaps due to ingestion of contaminated food.	R103 and 93035.
B3	Murres Damage Assessment Closeout	DOI	\$75.7	\$62.9	Report accepted.	Numbers were reduced, nesting was delayed, and productivity rates were far below normal at major colonies within the spill trajectory. Reproductive success improved slightly in 1991.	R11 and 93049.
B4	Eagles Damage Assessment Closeout	DOI	\$60.6	\$65.7	Report revised and submitted for final approval.	Reproductive success of Prince William Sound bald eagles was significantly impaired in 1989, and nest failures were correlated with the distribution of crude oil on beaches. Although estimated direct mortality throughout the spill area was relatively large (about 300 - 900 eagles), no change in the population could be detected due to wide variation in population counts. The Prince William Sound eagle population was expected to return to its prespill level by 1993.	None.

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B6	Marbled Murrelets Damage Assessment Closeout	DOI	\$24.8	\$23.4	Report being revised.	The marbled murrelet population at a site within the path of the oil (Naked Island) was lower in 1989 than in prespill years, but returned to normal in 1990. Murrelet numbers in Kachemak Bay where oiling was minimal did not change following the spill.	R15 and 93051B.
B7	Storm Petrels Damage Assessment Closeout	DOI	\$7.5	\$7.1	Report accepted.	At the largest storm-petrel colony within the spill trajectory (Barren Islands), no evidence of adverse effects to breeding petrels was found. Burrow occupancy rates were above average, nesting chronology was not delayed, and productivity was normal.	None.
B8	Kittiwakes Damage Assessment Closeout	DOI	\$7.5	\$5.1	Revised report in review.	The number of breeding pairs did not decline at colonies in the oiled area of Prince William Sound but reproductive success in 1989 was less than expected, apparently due to low hatching success. Reproductive success did not recover by 1992 but whether the decline was due to the spill is unknown.	None.
B9	Pigeon Guillemots Damage Assessment Closeout	DOI	\$18.0	\$37.0	Report being revised.	The population at a major breeding site within the spill trajectory (Naked Island) declined by 50% compared to 1972-1973 levels. The long-term decline predated the spill and, therefore, could not be attributed to the spill. Reproduction was largely normal following the spill.	93034
R11	Murre Recovery Monitoring	DOI	\$316.7	\$385.7	Report being revised.	Numbers of murre breeding at major colonies within the trajectory remained lower in 1992. Breeding chronology was delayed. Productivity at the Barren Islands was high than in other postspill years, but still lower than normal. Productivity at Puale Bay was normal	B3 and 93049.
R15	Marbled Murrelet Restoration Study	DOI	\$419.3	\$396.8	Annual progress report reviewed.	Using ground search techniques, 10 tree nests were found on Naked Island in 1991 and 1992. Nest trees were in stands of high volume and size class trees, and upland activity of murrelets throughout Prince William Sound was highest in such stands.	B6 and R15.

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<u>No.</u>	<u>Title</u>	<u>Agencies</u>	<u>Amount Budgeted*</u>	<u>Amount Spent*</u>	<u>Status</u>	<u>Results and References</u>	<u>Related Projects</u>
R71	Harlequin Duck Restoration and Monitoring	ADFG	\$424.5	\$199.6	Report being revised.	Comparative harlequin data in eastern Prince William Sound for B11. 1991-1992 harlequin production in eastern Prince William Sound similar to prespill. Techniques devised to capture and track harlequins. Breeding stream parameters and nest sites described. Additional oiled mussel beds identified.	B2 corroborated harlequin status in Prince William Sound. R103 documented continued oiled prey.
Terrestrial Mammals			\$74.0	\$16.1			
TM3	River Otter and Mink Damage Assessment in Prince William Sound	ADFG	\$74.0	\$16.1	Report being revised.	The results indicate that differences in home range, habitat selection, and latrine site abandonment, as well as changes in food habits, occurred in river otters.	CH1B and R103.
1992 Total			\$19,211.0	\$14,193.9			

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Status Report: 1993 Exxon Valdez Oil Spill Restoration Projects
(for the 7 month period March 1, 1993 - September 30, 1993)

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No.	Title	Agencies	Amount Budgeted*	Amount Spent*	Status	Results and References	Related Projects
Administration			\$4,135.8	\$1,434.6			
93AD	Administrative Director's Office		\$1,702.2	\$425.8	Ongoing.	Not applicable.	None.
93FC	Financial Committee		\$105.2	\$36.5	Ongoing.	Not applicable.	None.
93RT	Restoration Team Support		\$2,328.4	\$972.3	Ongoing.	Not applicable.	None.
Archaeological Resources			\$260.1	\$14.3			
93006	Site Specific Archaeological Restoration	DOI ADNR USFS	\$260.1	\$14.3	Fieldwork is complete. Report is under preparation and expected to be submitted 1/15/94.	Not available.	
93066	Alutiiq Archeological Repository	ADEC	\$0.0	\$0.0	About to issue grant to Kodiak Area Native Association for construction of the facility.	Facility expected to open in early 1995.	None.

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<u>No.</u>	<u>Title</u>	<u>Agencies</u>	<u>Amount Budgeted*</u>	<u>Amount Spent*</u>	<u>Status</u>	<u>Results and References</u>	<u>Related Projects</u>
Ecosystems			\$1,913.1	\$1,207.7			
93036	Oiled Mussel Beds	DOI NOAA	\$404.8	\$155.7	Report in preparation. Continuation of R103.	Identified 27 mussel beds with total petroleum hydrocarbons greater than 10,000 mg/g wet weight. Minimally intrusive site manipulation was conducted at three heavily oiled mussel beds.	B11, CH1B, R7I and 93033.
93039	Herring Bay Experimental and Monitoring	ADFG	\$507.5	\$452.1	Draft report due by end of February 1994.	Recovery patterns and rates continued to be monitored and studied experimentally. Recruitment and growth rates of organisms at oiled and unoiled sites were studied relative to currents to test the hypothesis that oil tended to ground on the most productive coastal locations.	B11, CH1A, and R103.
93047	Subtidal Monitoring	ADEC ADFG NOAA	\$1,000.8	\$599.9	Draft final report on 1989-1991 and 1993 due on 6/30/94.	As a follow-up to previous studies from 1989-1991, the numbers and activity of oil-degrading microorganisms were measured in sediments collected in 1993. Preliminary results suggest some contamination remains in subtidal sediments. However, generally very low numbers and activities were found where visible oil was present (e.g., subsurface sediments, Northwest Bay). These results support the hypothesis that populations of oil-degrading microorganisms are good indicators of the presence of biodegradable (e.g., relatively "fresh") oil in Prince William Sound. 1993 infaunal samples have been processed and analyses are underway. Epifauna appears reduced from previous years. Sea urchins are more abundant. Hemosiderosis in fishes from oiled sites.	ST1A, ST1B and 93053.

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Fish/Shellfish			\$2,816.5	\$915.4			
93002	Sockeye Salmon Overescapement	ADFG	\$714.6	\$275.8	1993 field data collection completed. Laboratory analysis approximately 50% completed. Final 1993 progress report will be submitted in March 1994.	1993 Kenai smolt demonstrated continued high overwintering mortality with less than 500,000 smolt estimated to migrate, while Tustumena Lake produced approximately 9 million smolt. Red and Akalura lakes demonstrated poor smolt production on Kodiak Island. Fall 1992 Tustumena and Skilak Lake dry fat content support poor nutrition going into winter as probable cause of mortality in Skilak Lake. Adult 1992 returns to the Kenai River were consistent with smolt estimates. However, primary age class of the 1989 brood year will return in 1994 and will determine accuracy of smolt estimates. (Recent improvement in forecasted returns for 1994.)	93012 and 93015 provide information useful in managing expected low returns to the Kenai River in 1994-1996.
93003	Salmon Egg to Pre-emergent Fry Survival	ADFG NOAA	\$686.0	\$361.6	Report being revised. Continuation of R60C. Expected to continue into 1994 and 1995.	Oil exposures completed for 1992 and 1993 brood years. Spawning of surviving adults is scheduled for September 1994 with possible long-term damage to genetics and survival of progeny to be determined in early 1995. Persistence of elevated embryo mortalities in oiled streams in 1992 indicate possible genetic damage to wild pink salmon populations from the <i>Exxon Valdez</i> oil spill. Preliminary laboratory studies support the genetic hypothesis. Additional laboratory studies demonstrate dose response of pink salmon embryos when incubated in gravel exposed to crude oil from the <i>Exxon Valdez</i> .	R60AB and R60C. 93067 provides fisheries managers with information critical for protecting these chronically damaged wild pink salmon populations from overexploitation in commercial fisheries.
93012	Genetic Stock Identification of Kenai River Sockeye Salmon	ADFG	\$300.6	\$68.1	Report being drafted.	Genetic data were collected during 1992 and 1993 from spawning populations contributing to mixed-stock harvest of sockeye salmon in Cook Inlet. These data were used in a pilot study to estimate the component of Kenai River stocks harvested in mixed-stock areas of Upper Cook Inlet.	Collection of spawning samples is being conducted by study 93015.

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No.	Title	Agencies	<u>Amount Budgeted*</u>	<u>Amount Spent*</u>	Status	Results and References	Related Projects
93015	Kenai River Sockeye Salmon Restoration	ADFG	\$512.6	\$124.0	Draft report due 3/31/94.	Successful collection of baseline and fishery genetic samples. Successful inseason hydroacoustic survey of Upper Cook Inlet by subcontractor.	Genetic samples analyzed by 93012.
93024	Restoration of Coghill Lake Sockeye Salmon Stock	ADFG USFS	\$191.9	\$31.8	Lake fertilization completed for 1993 season. Lake morphology completed.	Monitoring showed the need for modifying both the type and concentrations of fertilizer.	None.
93032	Cold Creek Pink Salmon Restoration (NEPA Compliance)	ADFG	\$5.0	\$0.0	Final report completed.	Cost:benefit analysis showed project to be marginal.	R105.
93063	Anadromous Stream Surveys	ADFG USFS	\$59.4	\$36.3	Report for R105 is being revised.	This project was funded only for retrieving stream thermometers and completion of report for R105, not for field work. See R105 status report.	R105.
93067	Pink Salmon Coded Wire Tag Recovery	ADFG	\$220.0	\$10.5	Report being reviewed.	Reduced commercial exploitation of damaged wild pink salmon populations through timely inseason estimates of hatchery and wild contributions to harvest. Accurate and timely stock composition estimates were used by fisheries managers to justify restriction of fishing fleet to areas where interception of damaged wild populations in mixed-stock fisheries could be minimized.	93003 demonstrated chronic damage to wild pink salmon populations in western Prince William Sound.
93068	Non-Pink Salmon Coded Wire Tag Recovery	ADFG	\$126.4	\$7.3	Report being drafted.	Timely and accurate inseason estimates of hatchery and wild stock contributions to commercial harvest for improved management of wild stocks in mixed-stock fisheries.	93024 is designed to restore the natural population of sockeye salmon from Coghill Lake.

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Marine Mammals			\$652.5	\$163.4			
93042	Killer Whale Recovery	NOAA	\$127.1	\$106.0	Report being drafted.	AB pod number has increased by one (a calf) to a total of 26. The 14 missing pod members were not present in 1993.	None.
93043	Sea Otter Demographics and Habitat	DOI	\$291.9	\$0.0	Field work and data collected complete; data analysis and report writing ongoing. Reports will be completed 3/1/94. Habitat component dropped.	Aerial survey of sea otters in Prince William Sound completed Summer 1993; estimated abundance is approximately 18,000. Age distribution of sea otter carcasses recovered in Spring 1993 in western Prince William Sound is similar to prespill distribution. Age- and sex-specific survival rates generated from carcass data for sea otters in Prince William Sound.	
93046	Habitat Use, Behavior, and Monitoring of Harbor Seals in PWS (NEPA Compliance)	ADFG	\$233.5	\$57.4	Progress report has been completed.	Counts of seals at 25 trend sites in Prince William Sound were similar during pupping and molting in 1992 and 1993. However, 1993 pupping counts were 23% lower than in 1989. Molting counts were similar to 1989 postspill counts, but 27% lower than 1988 counts. Sixteen seals satellite-tagged since 1992 indicate that seals in central Prince William Sound haul out and feed near the same sites with little movement to other areas. Feeding usually occurs in depths of 100-200 meters, with a maximum recorded dive depth of 404 meters.	No related restoration projects. However, ADFG is conducting similar studies in southeast Alaska and near Kodiak.

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Multiple Resources			\$40,494.3	\$677.9			
93038	Shoreline Assessment	ADEC ADNR ADFG NOAA USFS DOI	\$539.2	\$197.3	Report being drafted. Results presented to the Trustee Council 11/30/93.	Surface oil has become stable. Subsurface oil has decreased substantially since 1991. Oiling is discontinued throughout the study site.	93036
93041	Comprehensive Monitoring	NOAA	\$237.9	\$0.0	Request for proposals withheld by Trustee Council.	Not applicable.	All monitoring projects.
93045	Marine Bird / Sea Otter Surveys	DOI	\$262.4	\$0.0	Draft report in internal Fish and Wildlife Service review.	Overall marine bird population estimates in Prince William Sound have not changed significantly since 1989, but were 41% lower than 1972-1973 estimates. Rates of increase of goldeneyes and surfbirds were higher in the unoiled zone of Prince William Sound than in the oiled zone, whereas oystercatchers increased more rapidly in the oiled zone.	93033, 93034, 93035, and 93043.
93051	Stream Habitat Assessment and Habitat Information for Murrelets	ADFG USFS DOI	\$1,222.3	\$185.8	This is the second and final year of the project. It is a continuation of R47. Draft report on habitat information for murrelets is in internal Fish and Wildlife Service review. First draft report on stream habitat assessment is being revised.	Late season surveys, sites at the heads of bays, low elevations, high percentages of forest cover, and large trees were all consistent predictors of high murrelet activity. Radar performed better than humans in detecting murrelets and was cheaper than boat-based or ground-based surveys by humans. About 995 km of shoreline and 117 km ² of uplands were surveyed for anadromous fish streams on private lands on the lower Kenai Peninsula and in Prince William Sound, resulting in discovery of 186 anadromous streams totaling about 57 km. Stream habitat parameters were collected along all streams, upper extents of anadromous distribution were documented and streams were mapped by GPS.	Information will be integrated into the restoration GIS (93062) and supplement 93033. Also related to 93045.

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No.	Title	Agencies	Amount Budgeted*	Amount Spent*	Status	Results and References	Related Projects
93053	Hydrocarbon Database	NOAA	\$105.5	\$81.5	Report being drafted. Continuation of ST8.	Analyzed several thousand environmental samples, provided numerical correlations directly related to oil, and assessed associations of observed biological effects with concentrations of <i>Exxon Valdez</i> oil.	ST8, TS1 and TS3.
93057	Damage Assessment GIS	ADNR	\$67.5	\$55.6	Completed. No report necessary.	Provided mapping and database support for damage assessment studies. Cataloged and plotted over 160 maps for public access at OSPIC.	Supported numerous damage assessment projects, including B11, FS13, AW1, and CH1A.
93059	Habitat Identification Workshop	USFS	\$42.3	\$23.0	Final report completed.	Identified parcels of nonpublic land containing critical habitat necessary for the recovery of injured resources and services.	93046, 93051, 93059, 93063, 93064, and 93065.
93060	Accelerated Data Acquisition	USFS	\$43.9	\$42.9	Project completed. Data collected.	Collected and organized existing resource data needed for the analysis of private lands in the oil spill area.	93046, 93051, 93059, 93063, 93064, and 93065.
93062	Restoration GIS	ADNR	\$123.3	\$28.8	Completed. No report necessary.	Provided technical mapping and database support for restoration projects. Generated spill area map and land status maps for Kachemak Bay, Seal Bay, and Eyak lands.	Supported numerous restoration projects, including 93038, 93063, 93064 and R47.
93064	Imminent Threat Habitat Protection	ADNR ADEC USFS	\$37,850.0	\$63.0	Completed. The Comprehensive Habitat Protection process was reviewed at a workshop; recommendations were incorporated into the process.	Imminent Threat Evaluation and the first round of Large Parcel Evaluation were completed. \$7.5 million from settlement funds were combined with \$14.5 million from other sources for the purchase of private inholdings in Kachemak Bay. \$29,950,000 was committed from the most recent court request for the initial payment for purchase of private land near Seal Bay on Afognak Island. The total purchase price of this transaction is \$38,700,000 with the balance to be paid in three annual installments. References: "Opportunities for Habitat Protection/Acquisition" (2/16/93) and "Comprehensive Habitat Protection Process; Large Parcel Evaluation & Ranking, Volume 1" (11/30/93).	Data sources: 93051, 93059, 93060, 93062, and 93063.

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Seabirds			\$750.9	\$102.8			
93032	Monitor Murre Colony Recovery	DOI	\$177.2	\$0.0	Project report in preparation.	Murre productivity in the Barren Islands was 0.4 - 0.6 chicks per nest site in 1993, up from near zero in 1989. Population counts on plots were similar to or higher than in previous postspill years.	None.
93033	Harlequin Duck Restoration	ADFG	\$300.0	\$102.8	Draft final report in preparation. Completed habitat evaluation assistance.	Only 3 harlequin broods observed in western Prince William Sound; 14 in eastern Prince William Sound. Decreased numbers of harlequins molting in western Prince William Sound in July. Suspect incomplete gonadal development in prenesting western Prince William Sound harlequins. Blood/physiological analysis and hydrocarbon analyses in process. Harlequin breeding stream/nest site model in preparation. Harlequin breeding assessment completed on North Afofnak Island.	CH1B, R71, R103, and 94159. Project 93036 documents continued oil in prey species. 93045 surveys corroborate harlequin status in Prince William Sound. 93053: hydrocarbon database for sea duck samples.
93034	Pigeon Guillemot Recovery	DOI	\$165.8	\$0.0	Draft report in review.	One hundred eighty-four colonies, concentrated in southwest Prince William Sound and in the Naked Islands were identified. Guillemots continue to decline in Prince William Sound from a high of 15,000 in 1970 to a present population of 3,000 - 4,900.	93045
93035	Black Oystercatchers / Oiled Mussel Beds	DOI	\$107.9	\$0.0	Draft report in revision prior to submission to Chief Scientist.	Growth rates of oystercatcher chicks were lower on oiled than unoiled nest sites. Some aliphatic compounds were detected in 1992 fecal samples from oiled sites. Breeding pairs increased on oiled Green Island from 1992 to 1993 but decreased on Knight Island from 1991 to 1993.	93036 and 93045.

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Status Report: 1993 Projects - 1/21/94

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No.	Title	Agencies	Amount Budgeted*	Amount Spent*	Status	Results and References	Related Projects
Services			\$389.8	\$155.8			
93016	Chenega Bay Chinook and Silver Salmon (NEPA Compliance)	ADFG	\$10.7	\$0.0	Final document due to lead federal agency (NOAA) on 1/14/94.	Not applicable.	Not applicable.
93017	Subsistence Food Safety Survey and Testing	ADFG NOAA	\$307.1	\$144.1	Analysis of samples collected is ongoing.	First round of tests for hydrocarbon contamination of subsistence resources showed little or no contamination. Results of second round of testing are pending. The observations of abnormalities in the tested resources caused a shift in concerns of subsistence users from oil contamination to what effects these abnormalities have on these resources.	This project depends on information from all resource restoration projects as well as the shoreline oiling survey.
93065	Prince William Sound Recreation	ADNR USFS	\$72.0	\$11.7	Continued as 94217. Analysis of findings and final report being drafted.	Recreation Injury Statement (10/93) was incorporated into the Draft Restoration Plan. Recreation restoration projects for Prince William Sound were prioritized through a public consensus process; high priority projects were included in the Draft 1994 Work Plan.	Expansion to other areas: 94216. High priority recreation projects: 94266, 94316, 94419, and 94420.
1993 TOTAL			\$51,413.0	\$4,671.9			

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Parcel	Region	Landowner	Acres	Coop	Will Discuss
AJV 01 Shuyak Strait	KOD	Afognak Joint Venture	13,400	DOL/ USFWS	Fee Simple, w/ add'l parcels included
AJV 03 Pauls/Laura Lake	KOD	Afognak Joint Venture	27,100	DOL/ USFWS	Fee Simple, w/ add'l parcels included
AKI 04 Aliulik Peninsula	KOD	Akhiok Kaguyak	34,300	USFWS/ DOL	Fee Simple, other parcels must be incl., conservation easements
AKI 06 North Olga Bay	KOD	Akhiok Kaguyak	16,900	USFWS/ DOL	Fee Simple, other parcels must be incl., conservation easements
AKI 08 Upper Station Lakes	KOD	Akhiok Kaguyak	15,600	USFWS/ DOL	AKI prefers to keep, willing to discuss
CHE 01 Eshamy Bay	PWS	Chenega	7,900	USFS/ DOL	Partial interests; timber, access, possibly fee
CHE 02 Jackpot Bay	PWS	Chenega	12,100	USFS/ DOL	Partial interests; timber, access, possibly fee
ENB 06 James Lagoon	KEN	English Bay	3,800	NPS/ DOL	Fee simple, surface estate Subsurface not avail. (CAC)
EYA 01 Port Gravina	PWS	Eyak	3,400	USFS/ DOL	Unclear, not fee
EYA 02 Sheep Bay	PWS	Eyak	9,100	USFS/ DOL	Unclear, not fee
EYA 03 Windy Bay/ Deep Bay	PWS	Eyak	7,100	USFS/ DOL	Unclear, not fee
KIB 01 Shuyak Island	KOD	Kodiak Island Borough	27,900	DOL/ NPS	Fee simple
KON 01 Brown's Lagoon	KOD	Koniag	9,900	USFWS/ DOL	Fee simple, but must incl. a mix of high, mod, low parcels
KON 02 Uyak Bay	KOD	Koniag	7,000	USFWS/ DOL	Fee simple, but must incl. a mix of high, mod, low parcels
KON 04 Karluk River	KOD	Koniag	28,200	USFWS/ DOL	Fee simple, not all in 1st. yr., however, but must incl. a mix of high, mod, low parcels
PTG 05 Delight/Desire Creeks	KEN	Port Graham	11,500	NPS/ DOL	Unspecified partial interest Subsurface not avail. (CAC)
TAT 01 Bligh Island	PWS	Tatitlek	8,800	USFS/ DOL	Timber Rights Only No access or development rights

Dept. of Law: Craig Tillery, Alex Swiderski

USFS: John Harmening

USFWS: Glenn Ellison

NPS: Chuck Gilbert

Chugach Alaska Corporation (CAC) stated in writing in October, 1993, that i subsurface).

The following abbreviations have been used: Afognak Joint Venture (AJV), Al Borough (KIB), Koniag (KON), Port Graham (PTG), Tatitlek (TAT). 1/26/94

Ownership	Score	\$ Needed	For	Related Parcels
Surface Estate AJV Subsurface Koniag Native Allotments	65.0	No additional funds req. \$70,000 from 94126 to be used for both AJV parcels	Appraisal Title Work Timber Valuation	Undefined at this time
Surface Estate AJV Subsurface Koniag Native Allotments	78.0	No additional funds req. \$70,000 from 94126 to be used for both AJV parcels	Appraisal Title Work Timber Valuation	Undefined at this time
Surface estate AKI Subsurface, USA Native Allotments	65.0	\$368,000 for all 3 AKI parcels	Appraisal, mapping, water rights review, hazmat, EA, personnel	AKI 01-05 AKI 09
Surface estate AKI Subsurface, USA Native Allotments	67.5	\$368,000 for all 3 AKI parcels	Appraisal, mapping, water rights review, hazmat, EA, personnel	AKI 01-05 AKI 09
Surface estate AKI Subsurface, USA Native Allotments	60.0	\$368,000 for all 3 AKI parcels	Appraisal, mapping, water rights review, hazmat, EA, personnel	AKI 01-05 AKI 09
Surface estate CHE Subsurface CAC	66.0	No additional funds req. until acquisition \$ determined		Remainder of Chenega lands
Surface Estate CHE Subsurface CAC	72.0	No additional funds req. until acquisition \$ determined		Remainder of Chenega lands
Surface Estate ENB Subsurface CAC	55.0	No additional funds req.		All ENB holdings in Kenai Fjords
Surface estate EYA Subsurface CAC	54.0	No additional funds req.		EYA 04-12
Surface estate EYA Subsurface CAC	75.0	No additional funds req.		EYA 04-12
Surface estate EYA Subsurface CAC	63.0	No additional funds req.		EYA 04-12
Surface Estate KIB Subsurface AK	63.0	No additional funds req. \$50,000 from 94126 to be used.	Appraisal	none
Surface estate KON Subsurface USA Native Allotments	58.0	\$429,000 requested for all 3 Koniag parcels	Appraisal, mapping, water rights review, hazmat, EA, personnel	KON 03,05,06
Surface estate KON Subsurface USA Native Allotments	54.0	\$429,000 requested for all 3 Koniag parcels	Appraisal, mapping, water rights review, hazmat, EA, personnel	KON 03,05,06
Surface estate KON Subsurface USA Native Allotments	57.0	\$429,000 requested for all 3 Koniag parcels	Appraisal, mapping, water rights review, hazmat, EA, personnel	KON 03,05,06
Surface Estate PTG Subsurface CAC	52.5	No additional funds req.		All PTG holdings in Kenai Fjords
Surface estate TAT Subsurface CAC	69.0	No additional funds req. \$29,000 from 94126 to be used.	Timber Appraisal Prelim Title Rpt.	none

it it was not interested in selling any rights to any of its land (surface or

Akhiok Kaguyak (AKI), Chenega (CHE), Eyak (EYA), Kodiak Island

1/26/94

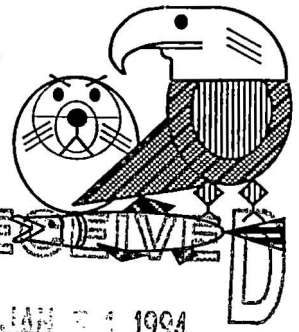
ADMINISTRATIVE STRUCTURE

Exxon Valdez Oil Spill Trustee Council

Restoration Office

645 G Street, Suite 402, Anchorage, Alaska 99501

Phone: (907) 278-8012 Fax: (907) 276-7178



To: Trustee Council Members
From: James R. Ayers, Executive Director
Re: Administrative Restructuring

January 21, 1994

JAN 31 1994

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL
ADMINISTRATIVE RECORD

This is to update you on my activities in streamlining the Trustee Council staff, reducing costs, and improving the overall efficiency of Trustee Council activities. As I committed during the Nov. 30 Council meeting, I have developed an overall administration budget that reflects 20% in reductions, from approximately \$5.6 million down to \$4.2 million for FFY94, plus \$280,000 for the Oil Spill Public information Center (OSPIC). The OSPIC is now shown as a separate project for future reference (Project Number 94423). By reducing staff and transferring the old CACI positions to the State of Alaska system, I was able to reduce the costs of the OSPIC from approximately \$350,000 in operating expenses and \$48,000 in rent to about \$280,000 a year for both! This is a significant savings, which I believe will allow us to give closer attention to the goals and objectives we wish to achieve with the OSPIC. I have copies of both the OSPIC budget and the revised Administration budget for your information.

Attached is the organization chart I presented you in November. Since that time, I have hired the Director of Operations, Molly McCammon, and the Director of Administration, June Sinclair, as well as the Project Management Coordinator, Eric Myers. I have also reorganized the support staff and transferred them from the CACI contract to the state system, at a substantial cost savings. The CACI contract has been canceled, effective January 31, 1994. I have no plans at this time to hire a Special Assistant or the Habitat and Lands Coordinator. My staff and I are continuing to seek improved efficiencies to both better serve the public and reduce our administrative costs.

Administration Cost Savings FFY94

Prior Budget		Revised Budget
Admin.	\$5.6M	\$4.2M
OSPIC	.35M (included)	+.28M
	\$5.6M	\$4.48M

20% Reduction

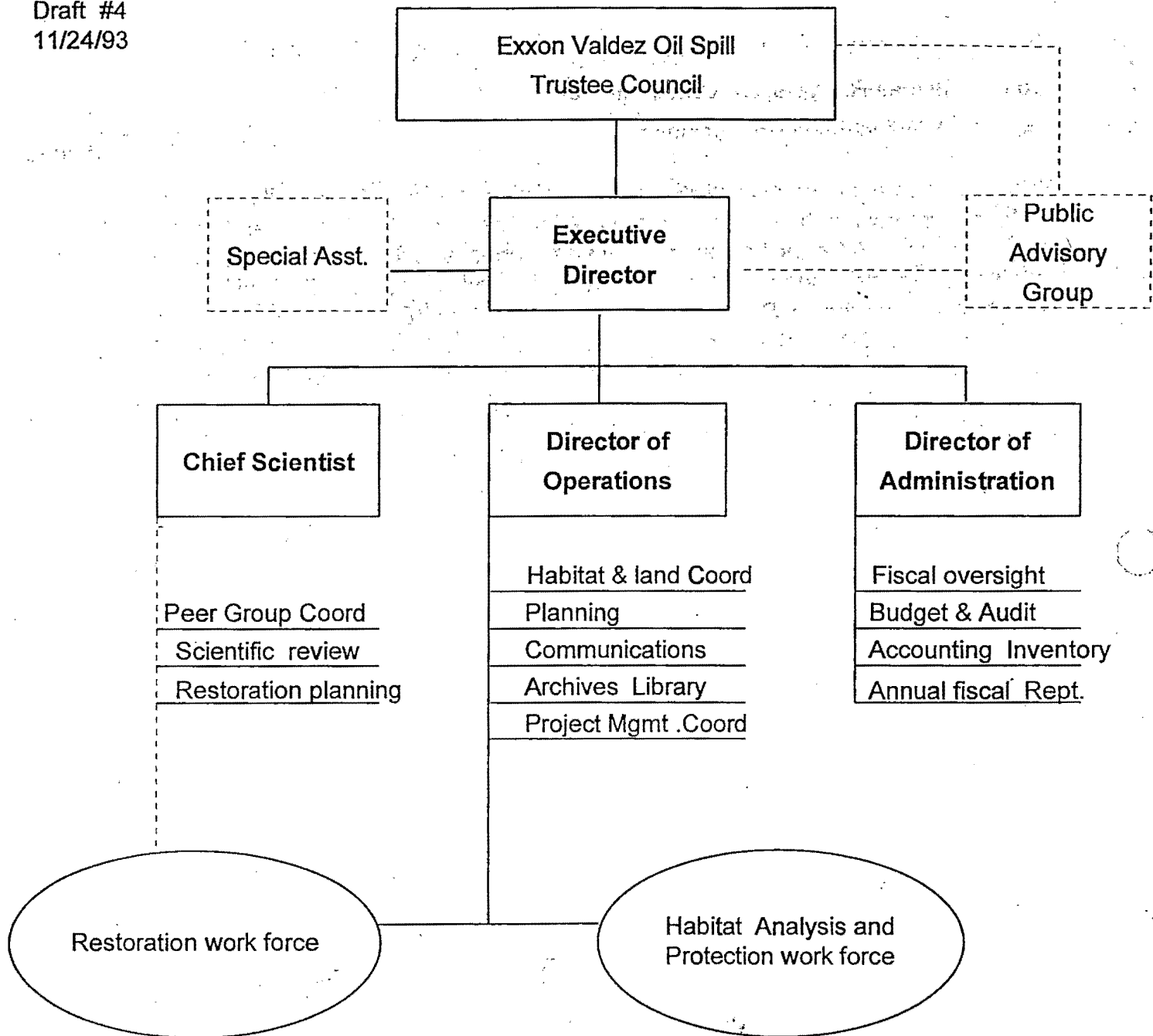
Trustee Agencies

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

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

Exxon Valdez Oil Spill Trustee Council Organization Chart

Draft #4
11/24/93



- Notes:
1. This structure provides efficient management of the Council business at reduced costs.
 2. Secretarial and administrative staff will be developed as needed within the budget .
 3. There will be a transition period as we implement a formal management and tracking system.
 4. Items listed below directors are functions except Corrdinators and fiscal.

CHIEF SCIENTIST

January 18, 1994

RECEIVED

Mr. James Ayers
Executive Director
Exxon Valdez Restoration Trustee Council
645 G Street
Anchorage, Alaska 99501

Post-It™ brand fax transmittal memo		# of pages	11
To	MOLLY McCann		
Co.	EXXON VALDEZ OIL SPILL		
Dept.	258 TRUSTEE COUNCIL		
Fax #	(907) 276-7178		

Dear Jim,

I have enclosed are my comments on the 1994 workplan. The accompanying spreadsheet shows the project number, title, whether the proposed project is a continuation of a past project, the status of the resource to be restored, the status of reports on past activities, comments and recommendations.

I judged a proposal's merit on several considerations. What is the general status of the resource? Are the reports up to date if there has been past work on the same general subject? Is the approach a generally credible one to meet a restoration objective? Is the project cost effective? As you can see many of the projects are not up to date in submitting reports; most of them have required revision and this takes more time yet. In general there is not the same sense of urgency as there has been in the past for missing study opportunities, so I would generally favor having complete information available before committing funds for further work. Its just good management practice.

The SEA plan (94320) deserves a few further explanatory comments. As you know, the reviewers at the Cordova workshop were generally very supportive of testing the "river-lake" and prey-switching hypotheses with the attendant oceanography. That was a good outcome because it gave a very concrete starting place in 1994 for what was a generally a very ambitious plan. Implementation of the necessary scientific activities in testing these two hypotheses would have allowed the various groups and the public members to begin work together in the first year. In subsequent years the synergy of the process would allow creative approaches to future work and some very good things would be done. Project 94320, however, is not proposed as a phased approach that starts with the most promising scientific questions. Rather, it asks for immediate funding of nearly everything that was presented in the original and very preliminary version of the plan produced before the December workshop. The budget is constructed so that it is not possible to tease out the cost for the phased approach. At the same time, it is important for the Trustees to recognize the hard work that has gone into the Cordova effort and their intention to begin to implement an ecosystem approach to studying injured resources. I have therefore suggested that the Trustees consider approving in principle a core scientific program that received

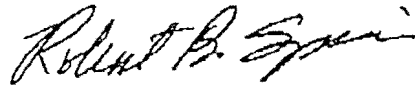


consensus support at the workshop, but before funds are released that the Prince William Sound Fisheries Ecosystem Research Planning Group (PWSFERPG) produce a proposal that addresses more narrowly these hypotheses. It is my sense that for 1 to 1.5 million dollars a very good start could be made on this work.

I have also talked again with Dr. George Rose. He read the proposal for the hatchery support in light of the SEA plan. He thought that there was ample opportunity to test some of the questions about interactions of released fry with potential predators. It will require that a few people get together to flesh out some concepts. I would suggest an investigator from PWSFERPG, a representative from the aquaculture association, a reviewer, myself and you.

Please let me know if there is anything further that you require in support of these comments. I will be available for next week's meeting by conference call starting at 12 PM PST on the 24th.

Sincerely yours,



Robert B. Spies
Chief Scientist

CC: M. McCammon

CHIEF SCIENTIST'S COMMENTS ON PROPOSED 1994 WORK PLAN

Project #	Project Title	Continuation		Resource Status	Reporting Status	Comments	Recommendation
		Yes	No				
94007	Site Specific Archaeological Restoration	X		24 sites with vandalism or other damage	1989-'91 reports in 2nd review; '93 in preparation	Further search for injured sites; recovery of materials; site repair. If approved, review budget.	Approve
94015	Archaeological Site Stewardship Program	X		see 94007	1993 in preparation	Without a current status report program effectiveness not known.	None
94020	Black Oystercatcher Interaction with Intertidal Communities	X		Population and chick growth differences apparently persist between oiled and unoiled areas	revised '89-'91 report in review; '93 in preparation	It is unclear whether oystercatchers in oiled sites are accumulating significant amounts of oil from their environments. Population differences could have existed prepill.	Suggest skipping a year until all reports have been reviewed and accepted and state of injury can be assessed.
94025	Fishery Industrial Technology Center		X	N.A.	N.A.	None	None
94039	Common Murre Population Monitoring			recovering slowly	1992 accepted; '93 in prep	Projected recovery times are long, monitoring every 3-5 years is most appropriate.	skip 1994
94040	Reduce Disturbance Near Injured Murre Colonies		X	see 94039	N.A.	Could help speed the recovery of murrees at the Barren Islands.	Recommend funding for 1 year.
94041	Introduced Predator Removal from Islands		X	see 94039	N.A.	This could benefit murre populations out of spill area.	Fund feasibility on only 1 Island in '94.
94043	Cutthroat and Dolly Varden Habitat Restoration in Prince		X	unknown	1992 in revision	Improves freshwater habitat for both species.	Approve
94064	Harbor Seals Habitat Use and Monitoring	X		Population may be stable in PWS, declining elsewhere.	1992 in 2nd review	Investigator has performed very well; population monitoring and developing information on movements by radiotagging are needed for restoration.	Approve

CHIEF SCIENTIST'S COMMENTS ON PROPOSED 1994 WORK PLAN

Project #	Project Title	Continuation		Resource Status	Reporting Status	Comments	Recommendation
		Yes	No				
94066	Harlequin Duck Recovery Monitoring	X		No sign of recovery in western PWS	1989-'91 in rev; '92 in rev; '93 in preparation	Results of previous work needs completion and review before more work is undertaken. Recovery process may be slow.	Skip 1994
94068	Deposit Sand to Promote Clam Recruitment - Feasibility Study		X	Populations injured by spill; current status unknown	N.A.	Success of project depends on a number of assumptions, however feasibility study seems warranted if review of detailed proposal is favorable.	Approve pending review.
94070	Restoration of High Intertidal Fucus		X	Population recovering	N.A.	Investigators report that the upper intertidal zone is showing signs of recovery; restoration methods are probably not needed now.	Disapprove
94081	Recruitment Monitoring of Littleneck Clams		X	see 94068	N.A.	Reports of previous clam projects need completion; personnel qualifications will be key to evaluating proposed project.	Needs further consideration, costs appear to be too high for accomplishing the main objective. Suggest competing proposal if funded.
94083	Monitoring of Oiled and Treated Shoreline	X		Beaches are recovering	N.A., funded mainly by others	Although it would be desirable to consolidate this with other intertidal projects, need for site continuity prevents this economy.	Approve, if not for full amount, provide partial funding. Second alternative would be funding in 1995.
94086	Herring Bay Experimental Monitoring Studies		X	Upper intertidal is starting to recover	1992 accepted; '93 due	Investigators have seen major change in recovery of upper intertidal zone.	skip 1994 or reduce scope and consolidate with other intertidal projects
94090	Mussel Bed Restoration and Monitoring	X		Oil in mussel beds is persisting	1992 in revision; '93 in prep	A study component should be added that measures reduction in oil under beds in order to determine when objective is met.	reduce in scope through consolidation with other intertidal projects.

CHIEF SCIENTIST'S COMMENTS ON PROPOSED 1994 WORK PLAN

Project #	Project Title	Continuation		Resource Status	Reporting Status	Comments	Recommendation
		Yes	No				
94092	Killer Whale Recovery	X		AB pod is recovering	1993 in prep	AB pod does not have to be studied every year until it has recovered; in addition credible work is being proposed in 1994 by independent group.	Skip 1994
94102	Marbled Murrelet Prey and Foraging Habitat in Prince William Sound	X		overall population has declined since 1973	1993 in prep	Investigator is doing good work. Controlling factors for population are not known. Nesting habitat was addressed in 93 and study of foraging habitat is being proposed for 94. Coordination with the forage fish study is necessary.	Approve pending acceptable study plan showing tight coordination with forage fish and any other appropriate studies approved for the 1994 workplan.
94110	Habitat Protection - Data Acquisition & Support	X		multiple species with connections to upland habitats are not recovering	Final ranking document for large parcels has been completed	Continuation of this project is necessary in order to develop objective criteria, to apply these criteria to land parcels in the spill area, and to rank parcels for protection.	Approve
94126	Habitat Protection and Acquisition Fund	X		see 94110	N.A.	This provides the funds for protecting lands identified by the habitat protection group (94110)	Approve
94137	Stock Identification of Chum, Sockeye, Chinook, and Coho Salmon in P.W.S.		X	No identified injury for these species in PWS	N.A.	It may never be possible to know if these species were affected by the spill. Trustees are already carrying out a program for enhancement of sockeye salmon in Coghill Lake.	Disapprove
94139	Salmon Instream Habitat and Stock Restoration		X	See 94137	N.A.	If the Trustees wish to engage in enhancement of fish runs through habitat alteration this is probably the best project to do it.	No recommendation

CHIEF SCIENTIST'S COMMENTS ON PROPOSED 1994 WORK PLAN

Project #	Project Title	Continuation		Resource Status	Reporting Status	Comments	Recommendation
		Yes	No				
94147	Comprehensive Monitoring Program		X	For multiple injured resources	N.A.	This could provide an overall umbrella for coordination of resource monitoring. The new executive director will be identifying a strategy for implementation of the Restoration Plan and something like this may be valuable in that effort.	Hold for later consideration.
94159	Marine Bird and Sea Otter Boat Surveys	X		sea otters and birds were injured by the spill and are starting to recover.	1989-'91 being revised; '93 in preparation	Investigators need to be more responsive to peer review comments on earlier report.	Hold for latter possible approval pending acceptance of 1989-'91 final report
94163	Forage Fish Influence on Recovery of Injured Species		X	Health of resource may be key to recovery of injured species	N.A.	Very little is known about forage fish populations in the spill area. This project will begin to evaluate this resource that appears to be the key for the recovery of main bird and mammal species injured in the spill.	Highly recommended. Approve funding.
94165	Herring Genetic Stock Identification in Prince William Sound		X	Poor returns in 92	1989-'91 report in revision	Completion and acceptance of final report from herring damage assessment is necessary before this project is funded.	Hold for latter possible approval pending acceptance of 1989-'91 final report
94166	Herring Spawn Deposition and Reproductive Impairment	X		Poor returns in 92	1989-91 report in revision	Completion and acceptance of final report from herring damage assessment is necessary before this project is funded.	Hold for latter possible approval pending acceptance of '89-'91 final report
94173	Pigeon Guillemot Recovery Monitoring	X		Injured by the spill; recovery status unknown	1993 report in review	Species is in long-term decline. The colony counts probably only need to be done every several years, but other activities on feeding could go forward when the appropriate activities in the forage fish study are occurring.	This study should be very closely linked with the forage fish study and only be funded in the years where the forage fish study documents the changes. Hold for possible later funding.

CHIEF SCIENTIST'S COMMENTS ON PROPOSED 1994 WORK PLAN

Project #	Project Title	Continuation		Resource Status	Reporting Status	Comments	Recommendation
		Yes	No				
94184	Coded Wire Tag Recoveries from Pink Salmon in Prince William Sound	X		Poor returns in 92 and 93	1993 report in preparation	Without a comprehensive review of pink salmon research needed in PWS, how it relates to Trustee goals for restoration, and a clear picture of how the proposed actions are integrated with normal agency activities, it is difficult to make a recommendation.	Hold for latter possible approval pending comprehensive review of pink salmon research in PWS.
94185	Coded-wire Tagging of Wild Pink Salmon for Stock Identification in P.W.S.		X	Poor returns in 92 and 93	final report 1989-91 in revision	See comments for 94184	See comments for 94184
94187	Otolith Marking-Inseason Separation Tool to Reduce Wild Stock Salmon Exploitation		X	Poor returns in 92 and 93	N.A.	See comments for 94184	See comments for 94184
94189	Pink Salmon Stock Genetics in P.W.S.		X	Poor returns in 92 and 93	X	See comments for 94184	See comments for 94184
94191	Oil Related Egg and Alevin Mortalities	X		Poor returns in 92 and 93	1993 report in preparation	In the last year important heritable differences in egg mortality have been found between oiled and unoiled streams in PWS	Highly recommended. Approve.
1192	Estimation of Straying Rates Among Hatchery and Wild Pink Salmon Populations in		X	Poor returns in 92 and 93	N.A.	See comments for 94184	See comments for 94184
94199	Alaska Sea Life Center		X	Addresses multiple injured spp.	N.A.	Would provide a center for coordination of long-term monitoring and research on injured species in the spill area, housing of reports and information from Trustee-sponsored projects.	Highly recommended

CHIEF SCIENTIST'S COMMENTS ON PROPOSED 1994 WORK PLAN

Project #	Project Title	Continuation		Resource Status	Reporting Status	Comments	Recommendation
		Yes	No				
94200	Public Land Access and 17(b) Easement Identification		X	Addresses loss of recreational opportunities	N.A.	Would compile atlas showing legal public access	No recommendation
94216	Gulf of Alaska Recreation Plan Development		X	see 94200	N.A.	This will describe injury, identify goals for restoration and develop projects for outside PWS.	No recommendation
94217	Prince William Sound Area Recreation Implementation Plan		X	see 94200	N.A.	This develops recreation projects inside PWS	No recommendation
94237	River Otter Recovery Monitoring	X		River otters have shown some signs of damage	1989-'91, '92 reports not accepted	There is controversy over the interpretation of the damage to this species. The investigators have been encouraged to present a more balanced discussion of their data.	Disapprove
94241	Rockfish Management Plan Data Development	X		unknown	revised '89-'91 report in review	This is an enhancement action since injury to this species is not certain. There was increase fishing pressure on this species after the spill.	Review normal agency management obligations
94244	Harbor Seal and Sea Otter Co-op Subsistence Harvest Assistance		X	Injured but some recovery may be starting	N.A.	It is not clear why the summary information on these resources, which is available, can not be simply conveyed to subsistence users for less cost.	Evaluate costs for this project.
94246	Sea Otter Recovery Monitoring	X		May be recovering	A majority of the 1989-'91 reports are in revision. '93 report due in 3/94	Claims for injury from '93 studies based on serum chemistry not yet reviewed. Publication record of sea otter biologists could improve considering the total amount of funding provided in past.	Skip '94 in order to provide sea otter biologists a chance to thoroughly analyze report and prepare publications on past work.
94255	Kenai River Sockeye Salmon Restoration	X		Injury now being manifested	1993 in preparation	Includes genetic characterization of Kenai River fish in UCI mixed stock	Suggest continuation, but normal agency management obligations should be reviewed.

CHIEF SCIENTIST'S COMMENTS ON PROPOSED 1994 WORK PLAN

Project #	Project Title	Continuation		Resource Status	Reporting Status	Comments	Recommendation
		Yes	No				
94258	Sockeye Salmon Overescapement	X		See 94255	1992 report in revision; '93 in preparation	Program was favorably reviewed in '93. '94 run forecasts less gloomy than previous.	Fund. Highly recommended
94259	Coghill Lake Sockeye Salmon Restoration	X		Run is depleted	1993 in preparation	This is an enhancement action. Project was not peer reviewed in '93.	No recommendation.
94266	Shoreline Assessment and Oil Removal	X		Oil in beaches is declining	1993 in preparation	It is not necessary to do this survey every year. It was done thoroughly in '93.	Consideration should be given to either a scaled-down version of this project in 94, skipping a year, and/or combining with other intertidal work.
94272	Chenega Chinook Release Program		X	This a replacement activity	N.A.	Trustees approved the concept last year	Implement
94279	Subsistence Food Safety Testing	X		Small concentrations of oil remain in some resources in some areas	1993 in preparation	If the chemical analyses reported in the past did not satisfy the subsistence users then this present approach is not likely to be successful. I understood that 93 was to be the last year of this effort	The trustees may wish to consider only funding the information distribution portion of the proposed 94 program
1280	Spot Shrimp Survey and Juvenile Shrimp Habitat Identification	X		Uninjured by the spill	damage assessment report accepted	No evidence of damage to this species	Disapprove
94285	Subtidal Sediment Recovery Monitoring	X		subtidal sediments still contaminated	1989-'93 damage assessment study overdue	Subtidal sediments in the Gulf of Alaska have not been surveyed since 1990 and this program will provide new information on their recovery	Approve pending submission of final report acceptable to peer reviewers.
94290	Hydrocarbon Data Analysis and Interpretation	X		Aids in interpretation of results of past and ongoing studies	N.A.	This is essential to proper interpretation of study results as long as hydrocarbon data need to be interpreted	Highly recommended

CHIEF SCIENTIST'S COMMENTS ON PROPOSED 1994 WORK PLAN

Project #	Project Title	Continuation		Resource Status	Reporting Status	Comments	Recommendation
		Yes	No				
94316	Shoreline Trash Cleanup		X	Some litter on beaches	N.A.	Uncertain how much litter was a result of spill	Disapprove
94320	Ecosystem Study Plan		X	Addresses poor fisheries runs in PWS in 92/93	N.A.	Reviewers at the Cordova workshop enthusiastically supported studies of oceanographic control of zooplankton abundance and prey switching by fish. The present study plans requires more details, especially in light of the \$5 million request.	Approve in concept the core scientific program supported by the reviewers and require favorable reviews of detailed study plans before release of funds. Implement this study gradually, basing '95 allocation on results and performance in '94.
94345	Salmon Spawning Escapement on the Lower Kenai Peninsula		X	unknown for Lower Kenai streams	N.A.	It is unlikely that the proposed methods of estimating a lingering effect of the spill on the salmon runs in the Lower Kenai River will be successful.	Disapprove
94386	Artifact Repository - Planning and Design		X	Some damage of sites from looting	N.A.	None	None
94417	Waste Oil Disposal Facilities		X	N.A.	N.A.	Connection to the spill is tenuous	Disapprove
94419	Leave no trace educational program		X	aid to recreational use of wilderness	N.A.	Addresses loss of public recreational use of spill area	No comment
94421	Common property salmon stock restoration		X	poor returns of pink salmon in 92/93	N.A.	If the hatcheries release fry into PWS in order to answer specific questions about relationships of fry survival to marine conditions, this study may be able to contribute to the proposed ecosystem study of PWS.	Delay decision pending review of the benefits of understanding fry survival versus the risks that pink salmon hatcheries may be contributing to declines of wildstock salmon or other resources.
94504	Genetic Stock Identification of Kenai River Sockeye Salmon	X		Injury now being manifested	1993 in preparation	This is a closeout of a 1993 project. Costs appear high for closeout.	Examine costs before approval

CHIEF SCIENTIST'S COMMENTS ON PROPOSED 1994 WORK PLAN

Project #	Project Title	Continuation		Resource Status	Reporting Status	Comments	Recommendation
		Yes	No				
94505	Habitat Protection Information for Anadromous Steams and Marbled Murrelets	X		Murrelets were injured by spill	Part in revision, part in preparation	This is a closeout of a 1993 project. Costs appear very high for closeout.	Examine cost before approval
94505A	Stream Habitat Assessment	X		Addresses injury to anadramous and catadramous fish.	Report in preparation	Cost appear to be reasonable.	Approve
94505B	Marbled Murrelet Habitat Identification	X		Murrelets were injured by spill	Report in preparation	Costs appear high. All information has been gathered only requires report to be written.	Examine cost before approval
94505C	Stream Channel Typing	X		Addresses multiple species	Report in preparation	This is a closeout of a 1993 project. Costs appear high for closeout.	Examine cost before approval
94506	Pigeon Guillemot Recovery	X		Pigeon guillemots were injured by spill	1993 report submitted	These are reasonable closeout costs	Approve

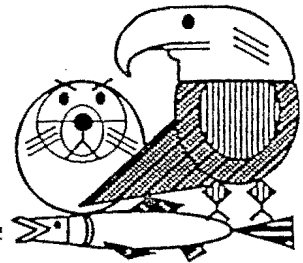
MONITORING & RESEARCH

Exxon Valdez Oil Spill Trustee Council

Restoration Office

645 G Street, Suite 402, Anchorage, Alaska 99501

Phone: (907) 278-8012 Fax: (907) 276-7178



January 6, 1994

Bill Brighton, Assistant Chief
Environmental Enforcement Section
Environment & Natural Resources Division
Department of Justice
POB 7611
Ben Franklin Station
Washington, DC 20044-7611

RECEIVED
JAN 5 1 1994

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL
ADMINISTRATIVE RECORD

Dear Mr. Brighton:

The Trustee Council has received considerable comment from the public suggesting that some monies from the Exxon Valdez Oil Spill Trustee Fund be set aside for long term restoration research and monitoring. For example, in response to the Draft Restoration Plan brochure, approximately two thirds of the public who commented on this issue supported some form of long term funding. Accordingly, at its November 30, 1993 meeting, the Trustee Council directed me to develop several options for reserving trust funds for restoration monitoring and research extending beyond the date of the last payment from Exxon. Some of these options raise fundamental legal issues and the Council requested that I seek the legal opinion of the Justice Department on these issues.

Specifically, I would appreciate your views on the following:

1. Rate of Return - The trust funds are currently held in the Court Registry Investment System pursuant to an order of the United States District Court. The investment return on these funds is very low (currently 2.86%) as contrasted to returns by other investment funds (e.g., for the Alaska Permanent Fund in FY93, 12.65% unrealized or 9.55% realized). To minimize the amount of trust funds required as principal, the monies set aside should be invested elsewhere for a higher rate of return. Can these funds be invested by the Trustee Council in another account? In the alternative, could the Trustee Council designate a State agency to be the agency carrying out this project, withdraw the principal to be reserved, pass those funds to the State, and allow the State to invest the funds through one of its investment systems such as the Permanent Fund until the money is required for expenditure? This is the way in which all other projects are currently handled.
2. Management of Reserved Funds - Can the reserved monies be set aside in an endowment managed by an entity other than the Trustee Council, or must the

Trustee Agencies

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

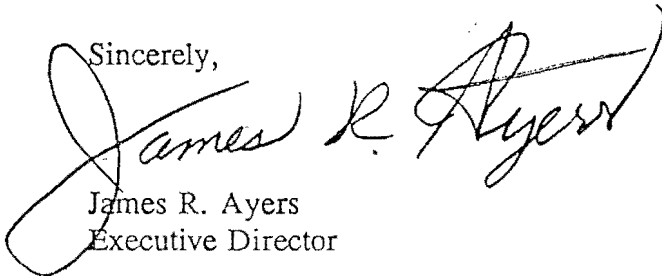
United States: National Oceanic and Atmospheric Administration, Departments of Agriculture and Interior

Trustee Council remain in existence and control expenditure of the funds until all are spent? Would it make a difference if the separate entity was required to adhere to strict standards, derived from the Memorandum of Agreement, in determining how to spend the funds?

3. Type of Reserved Funds - We do not know how long it will be necessary to continue restoration monitoring and research. To create flexibility, can the reserved monies be administered so as to exist in perpetuity (by expending only the interest available after inflation proofing), pending a future decision by the appropriate entity to end the program? In the alternative, can we create a declining balance fund over a specific period of time, even though we do not have sufficient information to determine what that time period should be?

I would appreciate receiving your views on these issues before the next Trustee Council meeting, now scheduled for January 31, 1994. If you have any questions concerning this matter, please do not hesitate to contact me.

Sincerely,

A handwritten signature in cursive script that reads "James R. Ayers". The signature is written in dark ink and is positioned above the printed name and title.

James R. Ayers
Executive Director

HABITAT PROTECTION/ACQUISIT'N

11.5.1 S

DRAFT
Comprehensive Habitat Protection Process
Small Parcel Element

RECEIVED
JAN 31 1994

INTRODUCTION

Habitat protection is a significant part of the restoration program. The Comprehensive Habitat Protection Process, is the method for evaluating and ranking lands containing habitats linked to resources and/or services injured by the Exxon Valdez oil spill. The Comprehensive Process consists of large and small parcel evaluation and ranking elements. The products developed in the Comprehensive Process are an important part of technical support necessary for successful negotiations.

Results of the first phase of the Large Parcel Evaluation and Ranking element (parcels greater than one thousand acres) were presented to the Trustee Council on November 30, 1993 and were reviewed by the public. The small parcel element is a continuation of the effort started in the large parcel element. This document presents the proposed small parcel analysis element that evaluates the benefit of small parcel protection (less than one thousand acres) to the recovery of injured resources and services.

The goal of the *Small Parcel Element* is to protect lands that are linked to the recovery of injured species and services. In the Large Parcel Element, parcels were configured to create boundaries around entire ecosystem-level units such as watersheds and key physiographic features in order to protect large areas of linked habitat. In the Small Parcel Element, parcels are too small to encompass entire ecosystems, consequently boundaries are primarily determined by ownership. As a result, emphasis in this evaluation will be placed not only upon the intrinsic resource/service value of a small parcel but also will examine the relationship of the parcel to the surrounding land. Significant restoration benefits that can be achieved by protecting small parcels include:

- 1) Eliminate potential threats to key habitats of injured species;
- 2) Create enhancement opportunities for resources and/or services;
- 3) Improve management of lands that contain linked habitats;
- 4) Facilitate access to public lands and resources.

The Small Parcel Element is divided into nomination, evaluation, ranking, negotiation, acquisition and post-acquisition management phases. This element is depicted graphically in Figure 1.

The Small Parcel Element includes *threshold criteria* and *evaluation and ranking criteria*. The threshold criteria are designed to eliminate proposals that would not fulfill restoration objectives or would otherwise be inappropriate. The evaluation and ranking criteria are used to prioritize or rank those candidate lands that are in compliance with the threshold criteria.

NOMINATION

Nominations will be solicited by the Trustee Council from landowners, resource agencies, and the public. Each nomination, regardless of source, will be initially processed and evaluated against a set of threshold criteria by the Trustee Council staff. These threshold criteria (Table 1) are designed to determine whether or not a nomination is acceptable for further consideration. Nominations will be rejected if not in compliance with all threshold criteria. Nominations that are in compliance with all criteria will be further evaluated and ranked.

Table 1: Threshold Criteria

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

PARCEL EVALUATION

Each parcel will be evaluated by Trustee Council staff. This step will include a confirmation of compliance with threshold criteria and an evaluation against a set of Evaluation/Ranking Criteria. These criteria are currently being developed. These criteria will be designed to determine:

- The presence of key habitat of an injured resource or service;
- The potential for benefit that implementation of habitat protection would have on each linked resource and service; and
- The benefits to management of public lands containing injured resources/services that would be derived from protection of the parcel.

A list of injured resources and services that are linked to upland and nearshore habitats was developed from the Draft Restoration Plan, Summary of Injury and the recommendations of the chief scientist. These are listed in Table 3, Linked Resources and Services.

Table 3: Linked Resources and Services

Resources

Sockeye Salmon
Pink Salmon
Dolly Varden
Cutthroat Trout
Pacific Herring
Bald Eagle
Black Oystercatcher
Common Murre

Harbor Seal
Harlequin Duck
Inter/Subtidal
Marbled Murrelet
Pigeon Guillemot
River Otter
Sea Otter

Services

Recreation
Wilderness
Subsistence
Cultural Resources

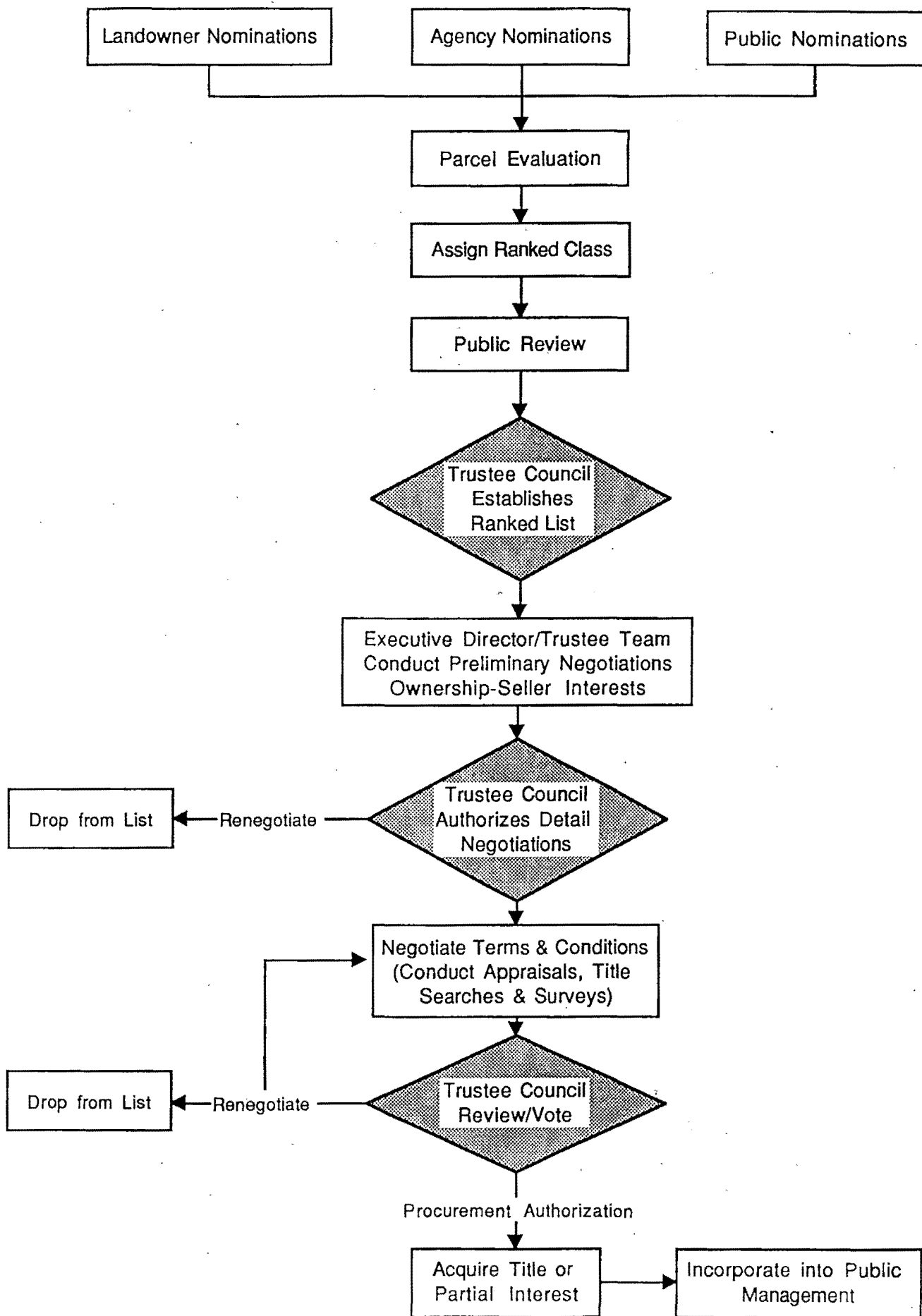
Linkage to a small parcel means that the parcel contains habitat for a resource or service that is especially important during critical life stages. Key habitats include: spawning areas, overwintering areas, concentrated nesting areas, haul-outs, seabird colonies (rookeries), dense seagrass beds, mussel beds, etc. Areas of more general use, such as feeding habitat, migration corridors or nearshore spawning habitat will not be considered key in this context.

Services are considered linked to a small parcel if the parcel has strategic value to services. For example, a small parcel may provide the only public access to an adjacent area of public land or the parcel contains the only or best camping, subsistence harvest or sport fishing site in the area. Scenic viewsheds and other more general service values are not considered key in this evaluation.

Information submitted as part of a nomination will be reviewed as part of the evaluation. Data will be solicited from resource agency staff on specific parcels. Information used in the evaluation process will include resource agency data on anadromous fish streams, marine mammal haul-out areas, bald eagle nest locations and seabird colony locations. EVOS natural resources damage assessment studies and agency planning studies will also be reviewed. In determining the potential benefits to injured resources and services a parcel will provide, the process considers the susceptibility of injured resources / services to adverse impacts from human activities. Potential threats to resources and their habitats include both disturbance and habitat degradation or loss. These criteria will evaluate the potential threats of development on the parcel to the habitats of injured resources/services both on parcel and on adjacent lands.

PUBLIC REVIEW AND PARCEL PRIORITIZATION

Following staff parcel evaluation and ranking, the public will have the opportunity to comment. These comments will be incorporated with staff recommendations in establishing a list of prioritized parcels for Trustee Council review and possible acquisition.



Negotiations Summary Report **17 High Value Parcels Potential for Benefit to Injured Species**

PARCEL #	PARCEL	Injured Resource/Service																			Total	Score
		Pink Salmon	Sockeye Salmon	Cutthroat Trout	Dolly Varden	Pacific Herring	Bald Eagle	Black Oystercatcher	Common Murre	Harbor Seal	Harlequin Duck	Intertidal/Subtidal Biota	Marbled Murrelet	Pigeon Guillemot	River Otter	Sea Otter	Recreation/Tourism	Wilderness	Cultural Resources	Subsistence		
AJV 01	Shuyak Strait	H	low	none	H	H	M	H	low	H	H	H	H	H	M	H	low	H	H	low	12H/2M	65.0
AJV 03	Pauls/Laura Lake	H	M	none	low	M	H	H	low	H	H	H	H	H	M	H	M	H	H	low	11H/4M	78.0
AKI 04	Aliulik Peninsula	H	none	none	H	M	M	H	H	H	H	H	H	H	H	low	low	H	M	M	11H/4M	65.0
AKI 06	North Olga Bay	H	H	none	H	H	H	low	low	H	H	H	M	H	H	low	H	M	M	H	12H/3M	67.5
AKI 08	Upper Station Lakes	low	H	none	H	H	H	M	low	H	M	low	low	low	H	low	M	M	H	H	8H/4M	60.0
CHE 01	Eshamy Bay	M	H	H	H	low	H	M	low	M	M	M	M	low	H	M	H	M	low	H	7H/8M	66.0
CHE 02	Jackpot Bay	H	H	M	H	low	M	low	low	M	H	M	M	H	M	M	H	H	M	H	8H/8M	72.0
ENB 06	James Lagoon	H	low	low	M	low	H	H	low	low	H	H	H	H	H	H	M	H	low	low	10H/2M	55.0
EYA 01	Port Gravina	M	low	low	low	M	H	low	low	M	H	M	M	low	H	M	M	H	M	H	5H/8M	54.0
EYA 02	Sheep Bay	H	low	low	M	M	H	H	low	H	H	H	M	low	M	H	H	M	H	H	10H/5M	75.0
EYA 03	Windy Bay/Deep Bay	H	low	H	M	M	H	M	low	M	low	M	M	low	M	H	H	H	low	H	7H/7M	63.0
KIB 01	Shuyak Island	M	low	none	H	M	low	M	low	M	M	H	M	H	H	H	M	H	H	low	7H/7M	63.0
KON 01	Brown's Lagoon	H	none	none	low	H	H	H	M	H	H	H	H	H	H	H	H	low	H	H	14H/1M	58.0
KON 02	Uyak Bay	low	none	none	low	M	H	M	M	H	H	H	H	H	H	H	H	H	H	H	12H/3M	54.0
KON 04	Karluk River	H	H	none	H	none	H	none	none	none	H	none	low	none	H	none	H	M	H	H	9H/1M	57.0
PTG 05	Delight/Desire Creeks	H	H	none	M	M	low	H	low	low	H	H	H	M	H	H	M	M	low	low	8H/5M	52.5
TAT 01	Bligh Island	low	low	low	low	H	H	H	low	M	H	H	M	H	H	M	M	M	H	H	9H/5M	69.0

LARGE PARCEL NEGOTIATION S

	Parcel	Region	Landowner	Acres	LEAD/ Coop	Will Discuss
AJV 01	Shuyak Strait	KOD	Afognak Joint Venture	13,400	DOL/USFWS	Fee Simple, w/ add'l parcels included
AJV 03	Pauls/Laura Lake	KOD	Afognak Joint Venture	27,100	DOL/USFWS	Fee Simple, w/ add'l parcels included
AKI 04	Aliulik Peninsula	KOD	Akhiok Kaguyak	34,300	USFWS/DOL	Fee Simple, other parcels must be incl., conservation easements
AKI 06	North Olga Bay	KOD	Akhiok Kaguyak	16,900	USFWS/DOL	Fee Simple, other parcels must be incl., conservation easements
AKI 08	Upper Station Lakes	KOD	Akhiok Kaguyak	15,600	USFWS/DOL	AKI prefers to keep, willing to discuss
CHE 01	Eshamy Bay	PWS	Chenega	7,900	USFS/DOL	Partial interests; timber, access, possibly fee
CHE 02	Jackpot Bay	PWS	Chenega	12,100	USFS/DOL	Partial interests; timber, access, possibly fee
ENB 06	James Lagoon	KEN	English Bay	3,800	NPS/DOL	Fee simple, surface estate Subsurface not avail. (CAC)
EYA 01	Port Gravina	PWS	Eyak	3,400	USFS/DOL	Unclear, not fee
EYA 02	Sheep Bay	PWS	Eyak	9,100	USFS/DOL	Unclear, not fee
EYA 03	Windy Bay/ Deep Bay	PWS	Eyak	7,100	USFS/DOL	Unclear, not fee
KIB 01	Shuyak Island	KOD	Kodiak Island Borough	27,900	DOL/NPW	Fee simple
KON 01	Brown's Lagoon	KOD	Koniag	9,900	USFWS/DOL	Fee simple, but must incl. a mix of high, mod, low parcels
KON 02	Uyak Bay	KOD	Koniag	7,000	USFWS/DOL	Fee simple, but must incl. a mix of high, mod, low parcels
KON 04	Karluk River	KOD	Koniag	28,200	USFWS/DOL	Fee simple, not all in 1st. yr., however, must incl. a mix of high, mod, low parcels
PTG 05	Delight/Desire Creeks	KEN	Port Graham	11,500	NPS/DOL	Unspecified partial interest Subsurface not avail. (CAC)
TAT 01	Bligh Island	PWS	Tatitlek	8,800	USFS/DOL	Timber Rights Only No access or development rights

Dept. of Law: Craig Tillery, Alex Swiderski

USFS: John Harmening

USFWS: Glenn Ellison

NPS: Chuck Gilbert

Chugach Alaska Corporation (CAC) stated in writing in October, 1993, that it was not intended that the following abbreviations have been used: Afognak Joint Venture (AJV), Akhiok Kaguyak (AKI), Karluk River (KAR), Kodiak Island Borough (KIB), Koniag (KON), Port Gravina (PG), Sheep Bay (SB), Shuyak Strait (SS), Upper Station Lakes (USL), Windy Bay/Deep Bay (WB/DB), Yakutat Bay (YB), and Yakutat River (YR). The potential for or existence of Spruce Bark Beetle infestations will be reviewed as part of the project. * Funding within project 94126 is sufficient to fund these preacquisition expenses. No additional funding is required.

TATUS SUMMARY

Ownership	Score	\$ Needed *	For	Related Parcels
Surface Estate AJV Subsurface Koniag Native Allotments	65.0	No additional funds req. \$80,000 from 94126 to be used.	Appraisal Title Work Timber Valuation Hazmat, beetle review	Undefined at this time
Surface Estate AJV Subsurface Koniag Native Allotments	78.0	No additional funds req. \$80,000 from 94126 to be used.	Appraisal Title Work Timber Valuation Hazmat, beetle review	Undefined at this time
Surface estate AKI Subsurface, USA Native Allotments	65.0	No additional funds req. \$172,700 from 94126 to be used for all 3 AKI parcels	Appraisal, mapping, water rights review, hazmat, EA, personnel	AKI 01-05 AKI 09
Surface estate AKI Subsurface, USA Native Allotments	67.5	No additional funds req. \$172,700 from 94126 to be used for all 3 AKI parcels	Appraisal, mapping, water rights review, hazmat, EA, personnel	AKI 01-05 AKI 09
Surface estate AKI Subsurface, USA Native Allotments	60.0	No additional funds req. \$172,700 from 94126 to be used for all 3 AKI parcels	Appraisal, mapping, water rights review, hazmat, EA, personnel	AKI 01-05 AKI 09
Surface estate CHE Subsurface CAC	66.0	No additional funds req. until acquisition \$ determined		Remainder of Chenega lands
Surface Estate CHE Subsurface CAC	72.0	No additional funds req. until acquisition \$ determined		Remainder of Chenega lands
Surface Estate ENB Subsurface CAC	55.0	No additional funds req.		All ENB holdings in Kenai Fjords
Surface estate EYA Subsurface CAC	54.0	No additional funds req. Funding sufficient w/in 94126		EYA 04-12
Surface estate EYA Subsurface CAC	75.0	No additional funds req. Funding sufficient w/in 94126		EYA 04-12
Surface estate EYA Subsurface CAC	63.0	No additional funds req. Funding sufficient w/in 94126		EYA 04-12
Surface Estate KIB Subsurface AK	63.0	No additional funds req. \$80,000 from 94126 to be used.	Appraisal Title Work Hazmat, beetle review	none
Surface estate KON Subsurface USA Native Allotments	58.0	No additional funds req. \$172,700 to be used from 94126 for all 3 KON parcels	Appraisal, mapping, water rights review, hazmat, EA, personnel	KON 03,05,06
Surface estate KON Subsurface USA Native Allotments	54.0	No additional funds req. \$172,700 to be used from 94126 for all 3 KON parcels	Appraisal, mapping, water rights review, hazmat, EA, personnel	KON 03,05,06
Surface estate KON Subsurface USA Native Allotments	57.0	No additional funds req. \$172,700 to be used from 94126 for all 3 KON parcels	Appraisal, mapping, water rights review, hazmat, EA, personnel	KON 03,05,06
Surface Estate PTG Subsurface CAC	52.5	No additional funds req.		All PTG holdings in Kenai Fjords
Surface estate TAT Subsurface CAC	69.0	No additional funds req. \$29,000 from 94126 to be used.	Timber Appraisal Prelim Title Rpt.	none

interested in selling any rights to any of its land (surface or subsurface).

uyak (AKI), Chenega (CHE), Eyak (EYA), Kodiak Island Borough (KIB), Koniag (KON), Port Graham (PTG), Tatitlek (TAT).

t of the appraisal process.

additional funds beyond those itemized in project 94126 are required.

1/30/94

DRAFT
Comprehensive Habitat Protection Process
Comparative Benefit Element

- 1) **Goal:** Develop a comparative analysis of large parcels using resource and service values (parcel score), acreage and cost, to facilitate the selection of those parcels for acquisition that result in the greatest benefit at the lowest cost.
- 2) **Background:** The comprehensive habitat protection process evaluated 81 parcels totalling approximately 840,000 acres. This process focused on resource and service values but did not consider costs in establishing ranked values. Since there is not enough money left in the joint fund to acquire or protect even the 17 highest ranked parcels, it is necessary to optimize and maximize our investment considerations. Consequently, cost considerations are proposed to be factored into the evaluation.
- 3) **Method:** Using the results of the comprehensive habitat protection process, a comparative benefit analysis will be developed. A range of values will be used to establish a unit cost using all available information including timber, minerals, development opportunities and base land values. Timber market data incorporated into the analysis will reflect current market values. Adjustments in estimated land values will be updated to respond to such things as changes in the timber market and completed appraisals as they become available. The above-listed information sources will be used to develop value estimates for each parcel.
A "directed restoration approach" will be implemented using the results of the comprehensive habitat protection process. A data base will be developed and used for evaluating specific restoration end points.
A variety of resource and realty experts will be consulted. Estimates of values could also be developed with the aid of the review appraisers and negotiators.
- 4) **Schedule:** We will use existing appraisals for both surface and subsurface estates and any additional information as it becomes available. Products will be contingent upon availability of appraisals.
- 5) **Budget:** The project can be completed as part of Project Number 94110 (Habitat Protection - Data Acquisition & Support). No additional funds will be requested.
- 6) **Other:** There is a concern that any mention of value may influence the appraisals. It may be desirable to use a range of numbers to reflect specific attributes which would display the comparative values of the parcels, rather than a range of estimated dollar values. These attributes could reflect the same criteria used in appraisal but would circumvent displaying any dollar amounts.

REPORT ON EIS FOR REST PLAN

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CRITICAL MILESTONES FOR THE EIS

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL
ADMINISTRATIVE RECORD

<u>Date:</u>	<u>Benchmark to Be Accomplished</u>
2/11/94	Interdisciplinary Team (ID Team) completed formulation of issues.
2/22/94	ID Team complete Purpose and Need, Chapter 1.
1/31/94	ID Team formulated an array of alternatives for the consideration of the Trustee Council (TC).
2/25/94	Array of alternatives approved by TC.
4/25/94	Interagency review of the Draft EIS. (starts 4/25, ends 5/6/94)
5/9/94	ID Team incorporates Agency comments.
5/23/94	DEIS goes to the printer.
6/18/94	Begin 45-day public review period for the DEIS. Hearings will need to be held during this time.
8/1/94	End 45-day public review period for the DEIS.
8/12/94	TC selects alternative for the Final EIS.
8/12/94	Interagency review of the FEIS. This will be completed by 8/23/94
8/24/94	ID Team incorporates Agency comments.
9/12/94	Printing of the FEIS.
10/1/94	The FEIS 30-day appeal period begins.
10/17/94	Interagency review of R.O.D (ends 10/24/94).
10/31/94	Sign R.O.D.
11/1/94	Print R.O.D.
11/10/94	R.O.D. to EPA.

EXXON VALDEZ OIL SPILL PROJECT DESCRIPTION

Title: Restoration Plan Environmental Impact Statement

Project Number: 94422

Lead Agency: USDA Forest Service

Cooperating Agencies: ADF&G, DOI, NOAA

Cost of Project, FY94: \$ 323,500

Project Startup Date: February 1, 1994 Duration: Eight months

Geographic Area: Prince William Sound, Gulf of Alaska, Kenai Peninsula, Kodiak Archipelago, Alaska Peninsula

INTRODUCTION

This project will analyze the environmental effects of implementing the Draft Restoration Plan developed over the past two years, develop alternative Restoration Plans and disclose the effects in an Environmental Impact Statement. Federal law requires an Environmental Impact Statement for major federal actions significantly affecting the quality of the human environment. The Trustee Council have agreed that the Restoration Plan constitutes a major federal action and an Environmental Impact Statement is required before adopting a Final Restoration Plan.

PROJECT DESCRIPTION

On October 8, 1991, a federal court approved settlement between the State and Federal governments and Exxon under which Exxon will pay over \$1 billion in criminal restitution and civil damages to the governments. The State and Federal Trustees will receive \$900 million in civil damages from Exxon over 10 years. The funds are to be used to restore to their pre-spill condition the natural resources and the services they provide, that were injured by the Exxon Valdez oil spill. This includes the restoration of any natural resource injured, lost or destroyed and the services provided by that resource or which replaces or substitutes for the injured, lost or destroyed resource and affected services. Restoration includes all phases of injury assessment, restoration, replacement, and enhancement of natural resources, and acquisition of equivalent resources and services.

All decisions about restoration and uses of restoration funds are determined by six natural resources Trustees, three Federal and three State. The three Federal Trustees are: The Administrator for the National Oceanic and Atmospheric Administration, U.S. Department of Commerce, and the Secretaries of the Department of Agriculture and of the Interior. The three State Trustees are: The Commissioners of Fish and Game and Environmental Conservation, and the Attorney General. A Trustee Council, located in Alaska, which is made up of designees of the Federal Trustees

Project Description

and the three State Trustees, is responsible for all decisions relating to the assessment of injuries, uses of the restoration funds, and all restoration activities including the preparation of a Restoration Plan.

On April 10, 1992 (57 FR 12473-12475) the Forest Service published a Notice of Intent to prepare an EIS on the Restoration Plan. Since then the Trustee Council has developed a draft Restoration Plan which has become the proposed action for the analysis to be conducted in the EIS. The Forest Service has subsequently updated this Notice on January 14, 1994.

The proposed action (Draft Restoration Plan) consists of nine policy statements, a discussion of categories of restoration actions and broad objectives for injured resources. The policies for identifying and conducting restoration actions are:

1. The restoration program will take an ecosystem approach.
2. Restoration activities may be considered for any injured resource or service.
3. Most restoration activities will occur within the spill area. However, restoration activities outside the spill are, but within Alaska, may be considered when the most effective restoration actions for an injured migratory population are in a part of its range outside the spill area or when the information acquired from research and monitoring activities outside the spill area will be important for restoration or understanding injuries within the spill area.
4. Restoration activities will emphasize resources and services that have not recovered. Resources and services will be enhanced, as appropriate, to promote restoration. Restoration projects should not adversely affect the ecosystem.
5. Projects designed to restore or enhance an injured service must have a sufficient relationship to an injured resource; must benefit the same user group that was injured; and, should be compatible with the character and public uses of the area.
6. Competitive proposals for restoration projects will be encouraged.
7. Restoration projects will be subject to independent scientific review before Trustee Council approval.
8. Meaningful public participation in restoration decisions will be actively solicited.
9. Government agencies will be funded only for restoration work that they do not normally conduct.

Four types of restoration actions are identified and discussed in the Draft Restoration Plan: general restoration, habitat protection and acquisition, monitoring and research, and public information and administration. Alternatives to the proposed action will place different emphases on each of these categories of restoration actions, while satisfying the policies and objectives for injured resources described in the Draft Restoration Plan.

General Restoration consists of activities that fall within manipulation of the environment and management of human use for reduction of marine pollution. Decisions about conducting general restoration projects would

look at the following factors: Extent of natural recover, the value of an injured resource to the ecosystem and to the public, the duration of benefits, the technical feasibility of the project, the likelihood of success, the relationship of costs to expected benefits, potential for harmful side effects, benefits to more than one resource, effects on health and human safety, consistency with applicable laws, and policies, and duplication with other actions.

Habitat Protection and Acquisition is a category that included purchase of private land or interests in land such as conservation easements, mineral rights, or timber rights. It also includes recommendations for changing public agency management practices. Specific policies that relate to habitat protection and acquisition are proposed. These policies deal with ranking potential lands to determine potential benefits to injured resources and associated services, the need for a willing seller, purchasing at fair market value, post acquisition management of the acquired lands and involvement of the public.

Monitoring and Research consists of recovery monitoring, restoration monitoring and ecological monitoring and research. Specific policies governing the selecting and performance of monitoring activities are discussed in the Draft Restoration Plan.

Public Information and Administration is the last category of restoration actions. It consists of all necessary administrative actions that are not attributable to a particular project. The Draft Restoration Plan goal for this category is for administrative costs to average no more than 5% of overall restoration expenditures for the remainder of the settlement period.

General restoration objectives have been developed for resources that are recovering, resources not recovering, resources where the recovery is unknown, resources such as archaeological resources and wilderness, and services. These broad objectives will guide in the development of annual work plans.

Using an Interdisciplinary approach, the important issues that arise from the proposed Restoration Plan will be analyzed and alternative restoration plans developed. These alternatives will be analyzed and a draft Environmental Impact Statement will be written and made available to the public and Trustee Council. The public and agencies will be invited to comment on the Draft Environmental Impact Statement. After the comments are analyzed and the draft statement revised a Final Environmental Impact Statement will be issued. The Trustee Council will then be able to adopt a Final Restoration Plan.

A. Resources and/or Associated Services

The Restoration Plan EIS will address all resources and services addressed in the Draft Restoration Plan. This includes bald eagles, black oystercatchers, killer whales, sockeye salmon, common murre, harbor seals,

Project Description

harlequin ducks, marbled murrelets, Pacific herring, pigeon guillemots, pink salmon, sea otters, intertidal ecosystem, subtidal ecosystem, clams, cutthroat trout, Dolly Varden, river otter, rockfish, archaeological resources, and designated wilderness areas. Services addressed will include subsistence, commercial fishing, and recreation and tourism.

B. Objectives

The objective of this project is to identify relevant issues from implementing the proposed Draft Restoration Plan, analyze the environmental and social consequences of implementing the Draft Restoration Plan and alternative Restoration Plans, and display the information in an Environmental Impact Statement.

C. Methods

An interdisciplinary team of State and Federal resource specialists will review available resource information, analyze the proposed action and alternatives, and write a Draft Environmental Impact Statement. The Draft will be released for 45 day public review, after which a final EIS will be developed and published.

D. Location

All of the analysis and writing will be conducted in Anchorage, Alaska.

E. Technical support

Federal and State agency personnel will provide technical expertise to assure compliance with National Environmental Policy Act requirements. Personnel will also be available to review resource reports and specific sections of the Draft and Final EIS to assure accuracy.

F. Contracts

Printing the Draft and Final Environmental Impact Statements will be contracted.

SCHEDULES

A Draft Environmental Impact Statement will be released for public comment in June 1994. The Final Environmental Impact Statement will be completed by September 30, 1994.

ENVIRONMENTAL COMPLIANCE/PERMIT/COORDINATION STATUS

None

PERFORMANCE MONITORING

The project team leader will be responsible for coordinating the work of all team members and assuring work is completed on time. Agency specialists will review draft products before the Draft EIS is released to assure the document is accurate and complete.

FY94 PROJECT BUDGET (\$K)

	USFS	DOI	NOAA	ADF&G	ADNR	TOTAL
Personnel	105.9	54.6	14.0	43.8	0.0	218.3
Travel	15.5	0.0	3.8	0.0	0.0	19.9
Contractual	44.0	0.0	0.0	0.0	5.0	49.0
Commodities	0.7	0.0	0.0	0.0	0.0	0.7
Equipment	0.0	0.0	0.0	0.0	0.0	0.0
Capital Outlay	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal	166.1	54.6	17.8	43.8	5.0	292.0
General Administration	19.0	8.2	2.1	6.6	.4	35.8
Project Total	185.1	62.8	19.9	50.4	5.4	323.5
NEPA Compliance						0.0



United States
Department of
Agriculture

Forest
Service

Alaska Region

P.O. Box 21628
Juneau, AK 99802-1628

Reply to: 1590

Date: January 21, 1994

Mr. Jim Ayers
Executive Director
Exxon Valdez Restoration Program
P.O. Box 21668
Juneau, AK 99801

RECEIVED
JAN 31 1994

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL
ADMINISTRATIVE RECORD

Dear *Jim* Ayers:

Enclosed for distribution to the Trustee Council is the September 30, 1993 Financial Statement. The statement is cumulative and reflects expenditures through September 30 against Trustee Council approved projects for the 1992 Work Plan and the 1993 Work Plan.

Walt Sheridan
WALT SHERIDAN
Chair, Finance Committee

Enclosure

cc:
Finance Committee



Caring for the Land and Serving People

FS-6200-28b(3/92)

EXXON VALDEZ TRUSTEE COUNCIL

1992/93 WORK PLAN

FINANCIAL STATEMENT

SEPTEMBER 30, 1993

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EXXON VALDE FINANCIAL SUMMARY

1992 WORK PLAN

03/01/92 to 09/30/93

Lead Agency	Project Number	1992 Work Plan 03/1/92 to 02/28/93(a pproved 5/20/92)	Seven month Court Request	Five Month Court Request	Cumulative Adjustments thru 09/30/93	Adjustments this quarter 07/01/93 to 09/30/93 (see notes)	Authorized for Agency Expenditure	Settlement Fund Obligations 03/01/92 to 9/30/93	State Funded EVOS Obligations 03/01/92 to 06/30/92 (see note)	Settlement Fund Unobligated Balance 09/30/93
ADEC	AD	244.3	144.8	99.5	0.0		244.3	188.3	31.8	56.0
ADEC	RT	716.6	365.0	351.6	0.0		716.6	462.7	101.5	253.9
ADEC	AW1	17.0	3.0	14.0	(6.5)		10.5	8.4	0.0	2.1
ADEC	ST1B	17.1	17.1	0.0	0.0		17.1	3.2	4.6	13.9
ADEC	ST3B	50.9	45.9	5.0	0.0		50.9	24.5	36.5	26.4
	Subtotal	1,045.9	575.8	470.1	(6.5)		1,039.4	687.1	174.4	352.3
ADF&G	AD	0.0	0.0	0.0	0.0					
ADF&G	RT	523.8	305.6	218.2	(7.5)		516.3	223.5	288.0	292.8
ADF&G	B11	22.9	22.9	0.0	(1.8)		21.1	21.7	0.0	(0.6)
ADF&G	FS1	64.3	55.4	8.9	(14.2)		50.1	32.8	2.6	17.3
ADF&G	FS2	29.3	25.6	3.7	(0.4)		28.9	11.4	11.9	17.5
ADF&G	FS3	126.7	82.1	44.6	0.0		126.7	38.7	84.8	88.0
ADF&G	FS4A	145.2	94.1	51.1	5.8		151.0	99.1	45.8	51.9
ADF&G	FS5	22.2	21.6	0.6	0.0		22.2	4.2	17.8	18.0
ADF&G	FS11	303.6	219.1	84.5	(5.5)		298.1	212.2	63.9	85.9
ADF&G	FS13	106.3	64.0	11.8	(27.8)		78.5	51.8	14.6	26.7
ADF&G	FS27	583.0	385.7	244.3	35.3		618.3	354.6	217.8	263.7
ADF&G	FS28	250.6	169.4	81.2	(19.8)		230.8	126.4	88.1	104.4
ADF&G	FS30	202.5	126.7	75.8	16.4		218.9	151.1	65.8	67.8
ADF&G	R47	399.6	251.3	148.3	0.0		399.6	323.9	59.0	75.7
ADF&G	R53	674.2	371.1	303.1	15.5		689.7	434.6	219.2	255.1
ADF&G	R59	320.9	215.3	105.6	(8.4)		312.5	257.2	53.7	55.3
ADF&G	R60AB	1,479.7	871.9	607.8	(7.9)		1,471.8	1,204.3	217.5	267.5
ADF&G	R60C	389.8	228.4	210.2	36.7		426.5	315.2	60.0	111.3

EXXON VALDEZ FINANCIAL SUMMARY

1992 WORK PLAN

03/01/92 to 09/30/93

Lead Agency	Project Number	1992 Work Plan 03/1/92 to 02/28/93(a pproved 5/20/92)	Seven month Court Request	Five Month Court Request	Cumulative Adjustments thru 09/30/93	Adjustments this quarter 07/01/93 to 09/30/93 (see notes)	Authorized for Agency Expenditure	Settlement Fund Obligations 03/01/92 to 9/30/93	State Funded EVOS Obligations 03/01/92 to 06/30/92 (see note)	Settlement Fund Unobligated Balance 09/30/93
ADF&G	R71	424.5	281.5	143.0	43.6		468.1	199.6	270.9	268.5
ADF&G	R73	25.0	12.5	12.5	0.0		25.0	2.5	22.2	22.5
ADF&G	R90	91.5	91.5	0.0	2.7		94.2	34.2	58.3	60.0
ADF&G	R102	485.6	375.7	109.9	0.0		485.6	324.3	161.3	161.3
ADF&G	R103	175.9	148.4	27.5	(16.3)		159.6	98.1	29.2	61.5
ADF&G	R105	263.2	160.2	103.0	21.3		284.5	141.4	92.7	143.1
ADF&G	R106	34.9	34.9	0.0	3.0		37.9	16.2	21.7	21.7
ADF&G	R113	55.9	28.0	27.9	(0.4)		55.5	54.3	0.0	1.2
ADF&G	ST2A	109.8	67.7	42.1	3.1		112.9	68.9	0.0	44.0
ADF&G	ST2B	87.6	44.9	0.0	0.0		87.6	54.0	0.0	33.6
ADF&G	ST5	90.6	47.7	0.0	(67.7)		22.9	15.9	7.5	7.0
ADF&G	ST6	16.6	8.3	8.3	1.2		17.8	17.3	0.5	0.5
ADF&G	TM3	74.0	71.1	2.9	0.0		74.0	16.1	56.0	57.9
	Subtotal	7,579.7	4,882.6	2,676.8	6.9		7,586.6	4,905.5	2,230.8	2681.1
ADNR	AD	433.8	433.8	0.0	0.0		433.8	287.7		146.1
ADNR	RT	462.4	283.0	179.4	0.0		462.4	235.9	88.2	226.5
ADNR	ARC1	248.8	160.0	88.8	0.0		248.8	118.7	106.3	130.1
ADNR	R92	60.3	35.2	25.1	0.0		60.3	42.8	7.2	17.5
ADNR	R104A	59.5	40.0	19.5	0.0		59.5	43.7	9.2	15.8
ADNR	TS3	255.1	148.8	106.3	0.0		255.1	148.7	104.0	106.4
	Subtotal	1,519.9	1,100.8	419.1	0.0		1,519.9	877.5	314.9	642.4
NOAA	AD	231.1	231.1	0.0	0.0		231.1	217.6		13.5

EXXON VALDE. FINANCIAL SUMMARY
1992 WORK PLAN
03/01/92 to 09/30/93

Lead Agency	Project Number	1992 Work Plan 03/1/92 to 02/28/93(a pproved 5/20/92)	Seven month Court Request	Five Month Court Request	Cumulative Adjustments thru 09/30/93	Adjustments this quarter 07/01/93 to 09/30/93 (see notes)	Authorized for Agency Expenditure	Settlement Fund Obligations 03/01/92 to 9/30/93	State Funded EVOS Obligations 03/01/92 to 06/30/92 (see note)	Settlement Fund Unobligated Balance 09/30/93
NOAA	RT	347.8	210.6	137.2	0.0		347.8	368.1		(20.3)
NOAA	CH1B	51.4	31.2	20.2	0.0		51.4	31.1		20.3
NOAA	FS4B	119.4	66.9	52.5	0.0		119.4	121.2		(1.8)
NOAA	MM1	17.3	5.0	12.3	0.0		17.3	13.6		3.7
NOAA	MM2	33.3	4.5	28.8	0.0		33.3	23.9		9.4
NOAA	R60C	0.0	0.0	54.2	54.2		54.2	37.7		16.5
NOAA	R103	524.6	261.0	263.6	0.0		524.6	512.9		11.7
NOAA	ST1A	103.5	72.2	31.3	0.0		103.5	96.5		7.0
NOAA	ST3A	39.1	23.3	15.8	0.0		39.1	24.2		14.9
NOAA	ST4	52.6	28.2	24.4	0.0		52.6	55.1		(2.5)
NOAA	ST7	60.4	39.2	21.2	0.0		60.4	55.1		5.3
NOAA	ST8	205.6	113.1	92.5	0.0		205.6	168.2		37.4
NOAA	TS1	851.7	786.2	65.5	0.0		851.7	671.0		180.7
	Subtotal	2,637.8	1,872.5	819.5	54.2		2,692.0	2,396.2	0.0	295.8
USFS	AD	1,231.8	718.2	513.6	0.0		1,231.8	1,203.5		28.3
USFS	RT	493.9	473.5	20.4	0.0		493.9	457.5		36.4
USFS	CH1A	2,358.5	1,415.0	943.5	0.0		2,358.5	1,454.7		903.8
USFS	R15	76.2	60.9	15.3	0.0		76.2	77.9		(1.7)
USFS	R104A	4.9	4.9	0.0	0.0		4.9	3.0		1.9
USFS	R105	84.9	66.9	18.0	0.0		84.9	7.1		77.8
	Subtotal	4,250.2	2,739.4	1,510.8	0.0		4,250.2	3,203.7		1,046.5
NPS	R103	51.9	51.9	0.0	0.0		51.9	0.0		51.9

EXXON VALDEZ FINANCIAL SUMMARY

1992 WORK PLAN

03/01/92 to 09/30/93

Lead Agency	Project Number	1992 Work Plan 03/1/92 to 02/28/93(a pproved 5/20/92)	Seven month Court Request	Five Month Court Request	Cumulative Adjustments thru 09/30/93	Adjustments this quarter 07/01/93 to 09/30/93 (see notes)	Authorized for Agency Expenditure	Settlement Fund Obligations 03/01/92 to 9/30/93	State Funded EVOS Obligations 03/01/92 to 06/30/92 (see note)	Settlement Fund Unobligated Balance 09/30/93
USDI	AD	107.7	30.8	76.9	0.0		107.7	62.9		44.8
USDI	RT	282.9	176.0	106.9	0.0		282.9	113.3		169.6
USFWS	B2	48.5	48.5	0.0	0.0		48.5	48.5		0.0
USFWS	B3	75.7	75.7	0.0	0.0		75.7	75.7		0.0
USFWS	B4	60.6	60.6	0.0	0.0		60.6	60.6		0.0
USFWS	B6	24.8	24.8	0.0	0.0		24.8	24.8		0.0
USFWS	B7	7.5	7.5	0.0	0.0		7.5	7.5		0.0
USFWS	B8	7.5	7.5	0.0	0.0		7.5	7.5		0.0
USFWS	B9	18.0	18.0	0.0	0.0		18.0	18.0		0.0
USFWS	B12	20.7	20.7	0.0	0.0		20.7	20.7		0.0
USFWS	MM	199.7	145.8	53.9	0.0		199.7	199.7		0.0
USFWS	R11	316.7	260.2	56.5	0.0		316.7	274.0		42.7
USFWS	R15	343.1	277.0	66.1	7.5	7.5	350.6	350.6		0.0
USFWS	R92	65.2	36.0	29.2	(2.0)	(2.0)	63.2	62.6		0.6
USFWS	R103	121.6	108.9	12.7	7.5	7.5	129.1	129.1		0.0
USFWS	R104A	94.8	62.0	32.8	0.0		94.8	67.4		27.4
USFWS	TS1	176.6	176.6	0.0	0.0		176.6	176.6		0.0
USFWS	TS3	120.1	120.1	0.0	0.0		120.1	120.1		0.0
	Subtotal	2,143.6	1,708.6	435.0	13.0		2,156.6	1,819.6		337.0
	Total	19,177.1	12,879.7	6,331.3	67.6		19,244.7	13,889.6	2,720.1	5,355.1

EXXON VALDEZ FINANCIAL SUMMARY
1992 WORK PLAN

03/01/92 to 09/30/93

Note: State Funded EVOS Obligations (03/1/92 to 06/30/92). For the period 03/01/92 to 06/30/92 the State of Alaska expended State funds rather than Settlement Funds. The State will request reimbursement of these funds at a later date. These amounts are subject to revision pending completion of final accounting. This amount has not been subtracted from the settlement fund unobligated balance column.

Note: ADEC. Obligations and balances carried forward from 6/30/93 statement and subject to revision.

Note: State Funded EVOS Obligations (03/1/92 to 06/30/92). For the period 03/01/92 to 06/30/92 the State of Alaska expended State funds rather than Settlement Funds. The State will request reimbursement of these funds at a later date. These amounts are subject to revision pending completion of final accounting. This amount has not been subtracted from the settlement fund unobligated balance column.

Note: USFWS. Adjustments

\$7.5 from 93051 to R15

\$5.5 from 93051 to R103

\$2 from R92 to R103

Note: USFWS. Unobligated balances may not be available for reallocation pending further agency review and possible adjustments.

Note: The Revised Authorized total of \$19,177.1 differs from that approved by the Trustee Council of \$19,173,800 due to correction of clerical errors.

Note: Actual five-month request to the Court was for \$6,567,253.77. The difference is due to the inclusion of \$356.6 of funding for FY93 projects less \$120.6 in interest earned on previously received funds.

EXXON VALDEZ DETAILED STATEMENT
ADMINISTRATIVE DIRECTOR/RESTORATION TEAM/WORK GROUPS
1992 WORK PLAN
SEPTEMBER 30, 1993

Lead Agency	Project Number	Sub-Project Title	1992 Work Plan 03/01/92 to 02/28/93	Seven Month Budget	Five Month Budget	TC/Agency Adjusted Budget 03/01/92 to 02/28/93	Settlement Fund Obligations 03/01/92 to 09/30/93	State Funded EVOS Obligations 03/01/92 to 06/30/92 (see note)	Settlement Fund Unobligated balance 09/30/93
ADEC	AD	Administrative Director	244.3	142.5	101.8	244.3	188.3	31.8	56.0
ADNR	AD	Scientific Peer Review	433.8	253.1	180.8	433.8	287.7		146.1
NOAA	AD	Scientific Support	231.1	134.8	96.3	231.1	217.6		13.5
USFS	AD	Administrative Director	1,231.8	718.6	513.3	1,231.8	1203.5		28.3
USDI	AD	Public Advisory Group	107.7	62.8	44.9	107.7	62.9		44.8
		TOTAL AD	2,248.7	1,311.7	937.0	2,248.7	1,960.0	31.8	288.7
ADEC	RT	Restoration Team	192.0	112.0	80.0	192.0	178.4	101.5	13.6
ADEC	RT	Finance Committee	31.2	18.2	13.0	31.2	10.9	0.0	20.3
ADEC	RT	Restoration Planning WG	421.8	246.1	175.8	421.8	222.9	0.0	198.9
ADEC	RT	Habitat Protection WG		0.0	0.0		0.0		0.0
ADEC	RT	1992 Work Planning WG		0.0	0.0		0.0		0.0
ADEC	RT	1993 Work Plan WG	45.9	26.8	19.1	45.9	37.3	0.0	8.6
ADEC	RT	Process WG	25.7	15.0	10.7	25.7	13.2	0.0	12.5
ADEC	RT	Cultural Resources WG		0.0	0.0		0.0		0.0
ADEC	RT	Environmental Compliance WG		0.0	0.0		0.0		0.0
ADEC	RT	GIS Working Group		0.0	0.0		0.0		0.0
ADEC	RT	Public Participation WG		0.0	0.0		0.0		0.0
		SUBTOTAL	716.6	418.0	298.6	716.6	462.7	101.5	253.9

EXXON VALDL DETAILED STATEMENT
ADMINISTRATIVE DIRECTOR/RESTORATION TEAM/WORK GROUPS
1992 WORK PLAN
SEPTEMBER 30, 1993

Lead Agency	Project Number	Sub-Project Title	1992 Work Plan 03/01/92 to 02/28/93	Seven Month Budget	Five Month Budget	TC/Agency Adjusted Budget 03/01.92 to 02/28/93	Settlement Fund Obligations 03/01/92 to 09/30/93	State Funded EVOS Obligations 03/01/92 to 06/30/93 (see note)	Settlement Fund Unobligated balance 09/30/93
ADF&G	RT	Restoration Team	146.8	85.6	61.2	144.7	62.7	80.7	82.0
ADF&G	RT	Finance Committee	18.8	11.0	7.8	18.5	8.0	10.3	10.5
ADF&G	RT	Restoration Planning WG	165.8	96.7	69.1	163.4	70.8	91.2	92.6
ADF&G	RT	Habitat Protection WG	43.2	25.2	18.0	42.6	18.4	23.8	24.2
ADF&G	RT	1992 Work Planning WG	35.3	20.6	14.7	34.8	15.0	19.4	19.8
ADF&G	RT	1993 Work Plan WG	66.3	38.7	27.6	65.4	28.3	36.5	37.1
ADF&G	RT	Process WG		0.0	0.0	0.0	0.0	0.0	0.0
ADF&G	RT	Cultural Resources WG		0.0	0.0	0.0	0.0	0.0	0.0
ADF&G	RT	Environmental Compliance	26.9	15.7	11.2	26.5	11.4	14.8	15.1
ADF&G	RT	GIS Working Group	8.6	5.0	3.6	8.5	3.7	4.7	4.8
ADF&G	RT	Public Participation WG	12.1	7.1	5.0	11.9	5.2	6.6	6.7
		SUBTOTAL	523.8	305.6	218.2	516.3	223.5	288.0	292.8
ADNR	RT	Restoration Team	157.4	91.8	65.6	157.4	82.6	43.4	74.8
ADNR	RT	Finance Committee	9.8	5.7	4.1	9.8	0.0	0.0	9.8
ADNR	RT	Restoration Planning WG	113.3	66.1	47.2	113.3	67.3	13.0	46.0
ADNR	RT	Habitat Protection WG	68.0	39.7	28.3	68.0	46.8	17.6	21.2
ADNR	RT	1992 Work Planning WG	16.5	9.6	6.9	16.5	3.8	1.6	12.7
ADNR	RT	1993 Work Plan WG	72.0	42.0	30.0	72.0	24.3	8.9	47.7
ADNR	RT	Process WG	17.1	10.0	7.1	17.1	8.2	3.7	8.9
ADNR	RT	Cultural Resources WG	8.3	4.8	3.5	8.3	2.9		5.4
ADNR	RT	Environmental Compliance WG		0.0	0.0				0.0
ADNR	RT	GIS Working Group		0.0	0.0				0.0
ADNR	RT	Public Participation WG		0.0	0.0				
		SUBTOTAL	462.4	269.7	192.7	462.4	235.9	88.2	226.5

EXXON VALDEZ DETAILED STATEMENT
ADMINISTRATIVE DIRECTOR/RESTORATION TEAM/WORK GROUPS
1992 WORK PLAN
SEPTEMBER 30, 1993

Lead Agency	Project Number	Sub-Project Title	1992 Work Plan 03/01/92 to 02/28/93	Seven Month Budget	Five Month Budget	TC/Agency Adjusted Budget 03/01.92 to 02/28/93	Settlement Fund Obligations 03/01/92 to 09/30/93	State Funded EVOS Obligations 03/01/92 to 06/30/92 (see note)	Settlement Fund Unobligated balance 09/30/93
NOAA	RT	Restoration Team	163.5	95.4	68.1	163.5	226.3		(62.8)
NOAA	RT	Finance Committee	26.1	15.2	10.9	26.1	26.1		0.0
NOAA	RT	Restoration Planning WG	90.7	52.9	37.8	90.7	109.9		(19.2)
NOAA	RT	Habitat Protection WG	28.0	16.3	11.7	28.0	5.8		22.2
NOAA	RT	1992 Work Planning WG		0.0	0.0		0.0		0.0
NOAA	RT	1993 Work Plan WG	26.3	15.3	11.0	26.3	0.0		26.3
NOAA	RT	Process WG		0.0	0.0		0.0		0.0
NOAA	RT	Cultural Resources WG		0.0	0.0		0.0		0.0
NOAA	RT	Environmental Compliance WG		0.0	0.0		0.0		0.0
NOAA	RT	GIS Working Group		0.0	0.0		0.0		0.0
NOAA	RT	Public Participation WG	13.2	7.7	5.5	13.2	0.0		13.2
		SUBTOTAL	347.8	210.6	137.2	347.8	368.1	0.0	(20.3)
USFS	RT	Restoration Team	139.2	81.2	58.0	139.2	85.7		53.5
USFS	RT	Finance Committee	24.1	14.1	10.0	24.1	16.9		7.2
USFS	RT	Restoration Planning WG	140.0	81.7	58.3	140.0	126.7		13.3
USFS	RT	Habitat Protection WG	40.1	23.4	16.7	40.1	40.4		(0.3)
USFS	RT	1992 Work Planning WG	5.6	3.3	2.3	5.6	19.1		(13.5)
USFS	RT	1993 Work Plan WG	28.4	16.6	11.8	28.4	55.7		(27.3)
USFS	RT	Process WG		0.0	0.0		0.0		0.0
USFS	RT	Cultural Resources WG	5.6	3.3	2.3	5.6	2.1		3.5
USFS	RT	Environmental Compliance	107.0	62.4	44.6	107.0	107.0		0.0
USFS	RT	GIS Working Group	3.9	2.3	1.6	3.9	3.9		0.0
USFS	RT	Public Participation WG		0.0	0.0				0.0
		SUBTOTAL	493.9	288.1	205.8	493.9	457.5		36.4

EXXON VALDE DETAILED STATEMENT
ADMINISTRATIVE DIRECTOR/RESTORATION TEAM/WORK GROUPS
1992 WORK PLAN
SEPTEMBER 30, 1993

Lead Agency	Project Number	Sub-Project Title	1992 Work Plan 03/01/92 to 02/28/93	Seven Month Budget	Five Month Budget	TC/Agency Adjusted Budget 03/01/92 to 02/28/93	Settlement Fund Obligations 03/01/92 to 09/30/93	State Funded EVOS Obligations 03/01/92 to 06/30/92 (see note)	Settlement Fund Unobligated balance 09/30/93
USDI	RT	Restoration Team	83.3	48.6	34.7	83.3	60.3		23.0
USDI	RT	Finance Committee	18.8	11.0	7.8	18.8	0.0		18.8
USDI	RT	Restoration Planning WG	77.2	45.0	32.2	77.2	31.2		46.0
USDI	RT	Habitat Protection WG	21.2	12.4	8.8	21.2	10.2		11.0
USDI	RT	1992 Work Planning WG	13.0	7.6	5.4	13.0	2.0		11.0
USDI	RT	1993 Work Plan WG	22.9	13.4	9.5	22.9	2.9		20.0
USDI	RT	Process WG	10.6	6.2	4.4	10.6	0.3		10.3
USDI	RT	Cultural Resources WG	6.0	3.5	2.5	6.0	1.0		5.0
USDI	RT	Environmental Compliance	13.6	7.9	5.7	13.6	3.6		10.0
USDI	RT	GIS Working Group	4.5	2.6	1.9	4.5	0.8		3.7
USDI	RT	Public Participation WG	11.8	6.9	4.9	11.8	1.0		10.8
		SUBTOTAL	282.9	165.0	117.9	282.9	113.3	0.0	169.6
				0.0	0.0				
ALL	RT	Restoration Team	882.2	513.4	366.7	880.1	778.0	225.6	102.1
ALL	RT	Finance Committee	128.8	75.0	53.6	128.5	72.4	10.3	56.1
ALL	RT	Restoration Planning WG	1,008.8	587.1	419.3	1,006.4	721.4	104.2	285.0
ALL	RT	Habitat Protection WG	200.5	116.6	83.3	199.9	145.8	41.4	54.1
ALL	RT	1992 Work Planning WG	70.4	40.8	29.1	69.9	59.7	21.0	10.2
ALL	RT	1993 Work Plan WG	261.8	152.2	108.7	260.9	185.6	45.4	75.3
ALL	RT	Process WG	53.4	31.2	22.3	53.4	21.7	3.7	31.7
ALL	RT	Cultural Resources WG	19.9	11.6	8.3	19.9	6.0	0.0	13.9
ALL	RT	Environmental Compliance	147.5	85.8	61.3	147.1	137.1	14.8	10.0
ALL	RT	GIS Working Group	17.0	9.8	7.0	16.9	13.2	4.7	3.7
ALL	RT	Public Participation WG	37.1	21.5	15.4	36.9	12.9	6.6	24.0
		TOTAL	2,827.4	1,644.9	1,175.0	2,819.9	2,153.8	477.7	666.1

EXXON VALDEZ OIL SPILL PROJECT STATUS
1992 WORK PLAN
SEPTEMBER 30, 1993

AGENCY	PROJECT NUMBER	PROJECT NAME	PROJECT STATUS
ADEC	AD	ADMINISTRATIVE DIRECTOR	
ADEC	RT	RESTORATION TEAM	
ADEC	AW1	SURFACE OIL MAPS	Report being drafted.
ADEC	ST1B	SUBTIDAL MICROBIAL	Final report accepted
ADEC	ST3B	SEDIMENT TRAPS DAMAGE ASSESSMENT	Report being drafted
ADF&G	AD	ADMINISTRATIVE DIRECTOR	
ADF&G	RT	RESTORATION TEAM	
ADF&G	B11	HARLEQUIN DUCKS DAMAGE ASSESSMENT CLOSEOUT	Final report being revised
ADF&G	FS1	SPAWNING AREA INJURY	Report being drafted (combined w/R60B)
ADF&G	FS2	PRE-EMERGENT FRY	Final report at peer review
ADF&G	FS3	CODED-WIRE TAGS DAMAGE ASSESSMENT	Final report at peer review
ADF&G	FS4A	EARLY MARINE SALMON DAMAGE ASSESSMENT	Report being revised
ADF&G	FS5	DOLLY VARDEN DAMAGE ASSESSMENT	Report being revised (combined w/R90)
ADF&G	FS11	HERRING INJURY	Report being revised
ADF&G	FS13	CLAM INJURY	Report being revised
ADF&G	FS27	SOCKEYE SALMON OVERESCAPEMENT	Final Report approved
ADF&G	FS28	RUN RECONSTRUCTION	Report being revised
ADF&G	FS30	DATABASE MANAGEMENT	Final Report approved
ADF&G	R47	STREAM HABITAT ASSESSMENT	Final Report approved
ADF&G	R53	KENAI RIVER SALMON RESTORATION	Report being revised
ADF&G	R59	GENETIC STOCK ID	Draft report being revised
ADF&G	R60AB	PRINCE WILLIAM SOUND SALMON	Report being revised.
ADF&G	R60C	PINK SALMON EGG/FRY	Report being revised. Project continued as 93003. Expected to be continued into 1994 and 1995.

EXXON VALDEZ SPILL PROJECT STATUS
1992 WORK PLAN
SEPTEMBER 30, 1993

	PROJECT NUMBER	PROJECT NAME	PROJECT STATUS
ADF&G	R71	HARLEQUIN DUCKS RESTORATION AND MONITORING	Report being reviewed
ADF&G	R73	HARBOR SEALS	No final report for R73. A final report for MM5 is being reviewed.
ADF&G	R90	DOLLY VARDEN CHAR MONITORING	Report being revised (combined with FS5)
ADF&G	R102	COASTAL HABITAT RESTORATION	Draft report being revised
ADF&G	R103	OILED MUSSELS	Draft report being revised
ADF&G	R105	INSTREAM SURVEY RESTORATION IMPLEMENTATION PLANNING	Report in preparation
ADF&G	R106	DOLLY VARDEN RESTORATION	Final report being revised
ADF&G	R113	RED LAKE SOCKEYE RESTORATION	Report being reviewed
ADF&G	ST2A	SHALLOW BENTHIC	Final report being revised
ADF&G	ST2B	DEEP WATER BENTHOS	Draft report being revised
ADF&G	ST5	SHRIMP	Final report approved
ADF&G	ST6	ROCKFISH DAMAGE ASSESSMENT	Final report being revised
ADF&G	TM3	RIVER OTTER & MINK DAMAGE ASSESSMENT IN PWS	Report being revised
ADNR	AD	ADMINISTRATIVE DIRECTOR	
ADNR	RT	RESTORATION TEAM	
ADNR	ARCI	ARCHAEOLOGICAL SURVEY	Complete. Peer reviewed. Released
ADNR	R92	GIS MAPPING AND ANALYSIS; RESTORATION	Completed. No report necessary.
ADNR	R104A	SITE STEWARDSHIP	Complete
ADNR	TS3	GIS MAPPING AND ANALYSIS; DAMAGE ASSESSMENT	Completed. No report necessary.
NOAA	AD	ADMINISTRATIVE DIRECTOR	
NOAA	RT	RESTORATION TEAM	
NOAA	CH1B	HYDROCARBONS IN MUSSELS	Final report in peer review

EXXON VALDEZ OIL SPILL PROJECT STATUS
1992 WORK PLAN
SEPTEMBER 30, 1993

	PROJECT NUMBER	PROJECT NAME	PROJECT STATUS
NOAA	FS4B	JUVENILE PINKS	Report being revised
NOAA	MM1	HUMPBACK WHALES DAMAGE ASSESSMENT	Report being revised
NOAA	MM2	KILLER WHALES DAMAGE ASSESSMENT	Final report finalized 10/19/93
NOAA	R60C	PINK SALMON EGG/FRY	Report being revised. Project continued as 93003. Expected to be continued into 1994 and 1995.
NOAA	R103	OILED MUSSELS	Status report in peer review
NOAA	ST1A	SUBTIDAL SEDIMENTS	Final report in peer review
NOAA	ST3A	CAGED MUSSELS DAMAGE ASSESSMENT	Final report in peer review
NOAA	ST4	FATE AND TOXICITY DAMAGE ASSESSMENT	Final report in peer review
NOAA	ST7	DEMERSAL FISHES DAMAGE ASSESSMENT	Final report in peer review
NOAA	ST8	SEDIMENT DATA SYNTHESIS	Report being drafted. Project continued as 93053.
NOAA	TS1	HYDROCARBON ANALYSIS	Final report in peer review
USFS	AD	ADMINISTRATIVE DIRECTOR	
USFS	RT	RESTORATION TEAM	
USFS	CH1A	COASTAL HABITAT DAMAGE ASSESSMENT	Final report completed 12/93
USFS	R15	MARbled MURRELET RESTORATION	Complete
USFS	R104A	SITE STEWARDSHIP	Complete
USFS	R105	INSTREAM SURVEY	Complete
NPS	R103	OILED MUSSELS	Report being revised. Project continued as 93036
USDI	AD	ADMINISTRATIVE DIRECTOR	

EXXON VALDEZ C OIL SPILL PROJECT STATUS
1992 WORK PLAN
SEPTEMBER 30, 1993

	PROJECT NUMBER	PROJECT NAME	PROJECT STATUS
USDI	RT	RESTORATION TEAM	
USFWS	B2	BOAT SURVEYS	Report being revised.
USFWS	B3	MURRES DAMAGE ASSESSMENT CLOSEOUT	Report accepted.
USFWS	B4	EAGLES DAMAGE ASSESSMENT CLOSEOUT	Report revised and submitted for final approval
USFWS	B6	MARbled MURRELET DAMAGE ASSESSMENT CLOSEOUT	Report being revised.
USFWS	B7	STORM PETRELS DAMAGE ASSESSMENT CLOSEOUT	Report revised and submitted for final approval.
USFWS	B8	KITTIWAKES DAMAGE ASSESSMENT CLOSEOUT	Report revised and submitted for final approval.
USFWS	B9	PIGEON GUILLEMOTS DAMAGE ASSESSMENT CLOSEOUT	Report being revised.
USFWS	B12	SHOREBIRDS DAMAGE ASSESSMENT CLOSEOUT	Report revised and submitted for final approval.
USFWS	MM6	SEA OTTERS DAMAGE ASSESSMENT	Most reports being revised; some accepted
USFWS	R11	MURRE RESTORATION MONITORING	Report being revised.
USFWS	R15	MARbled MURRELET RESTORATION	Annual progress report reviewed.
USFWS	R92	GIS MAPPING AND ANALYSIS RESTORATION TECH SUPPORT	Completed. No report necessary.
USFWS	R103	OILED MUSSELS	Report being revised.. Project continued as 93936.
USFWS	R104A	SITE STEWARDSHIP	Project is complete. Report has been reviewed.
USFWS	TS1	HYDROCARBON ANALYSIS	Report being reviewed.
USFWS	TS3	GIS MAPPING AND ANALYSIS DAMAGE ASSESSMENT	Completed. No report necessary.

EXXON VALDEZ FINANCIAL SUMMARY
1993 WORK PLAN
10/1/92 to 09/30/93

Lead Agency	Project Number	PROJECT DESCRIPTION	1993 Work Plan	Cumulative Adjustments Thru 09/30/93	Adjust this quarter	Authorized for Agency Expenditure	Obligations 10/01/92 to 09/30/93	Unobligated Balance 09/30/93
ADEC	93AD	Administrative Director	245.3	0.0		245.3	168.3	77.0
ADEC	93RT	Restoration Team	558.3	0.0		558.3	364.1	194.2
ADEC	93FC	Finance Committee	15.6	0.0		15.6	7.3	8.3
ADEC	93038	Shoreline Assessment/Treatment	466.7	0.0		466.7	336.6	130.1
ADEC	93047-2	Subtidal Monitoring - Microbiology	69.6	0.0		69.6	67.1	2.5
ADEC	93064	Imminent Threat Habitat Protection	100.0	0		100.0		100.0
ADEC	93066	Alutiiq Museum & Culture Center	1,500.0	0.0		1,500.0		1,500.0
		SUBTOTAL	2,955.5	0.0	0.0	2,955.5	943.4	2,012.1
ADFG	93 RT	Restoration Team	351.5	0.0		351.5	205.3	146.2
ADFG	93 FC	Finance Committee	14.7	0.0		14.7	13.5	1.2
ADFG	93002	Sockeye Salmon Overescapement	714.6	0.0		714.6	637.1	77.5
ADFG	93003	Salmon Egg to Pre-Emergent Fry Survival	343.3	0.0		343.3	318.4	24.9
ADFG	93012	Genetic Stock ID Kenai River Sockeye	300.6	0.0		300.6	292.6	8.0
ADFG	93015	Kenai River Sockeye Restoration	512.6	0.0		512.6	402.3	110.3
ADFG	93016	Chenega Chinook/Silver Release	10.7	0.0		10.7	10.7	0.0
ADFG	93017	Subsistence Food Survey/Testing	212.6	0.0		212.6	195.1	17.5
ADFG	93024	Restoration Coghill Lake Sockeye	166.6	0.0		166.6	128.4	38.2
ADFG	93030	Red Lake Restoration		0.0		0.0	0.0	0.0
ADFG	93032	Cold Creek Pink Salmon Restoration	5.0	0.0		5.0	0.0	5.0
ADFG	93033	Harlequin Duck Restoration	300.0	0.0		300.0	193.0	107.0
ADFG	93038	Shoreline Assessment/Treatment	11.5	0.0		11.5	0.0	11.5
ADFG	93039	Herring Bay Studies	507.5	0.0		507.5	504.6	2.9
ADFG	93046	Harbor Seals Monitoring/Habitat	233.5	0.0		233.5	215.3	18.2
ADFG	93047-3	Subtidal Monitoring - Eelgrass Communities	254.2	0.0		254.2	250.6	3.6
ADFG	93047-4	Subtidal Monitoring - Rockfish	133.0	0.0		133.0	0.0	133.0
ADFG	93051	Stream Habitat Assessment	335.7	0.0		335.7	294.9	40.8
ADFG	93063	Survey/Evaluation Restoration Techniques	59.4	0.0		59.4	59.0	0.4
ADFG	93067	Pink Salmon Coded Wire tag	220.0	0.0		220.0	147.1	72.9
ADFG	93068	Non-Pink Salmon Coded WireTag	126.4	0.0		126.4	84.6	41.8
		SUBTOTAL	4,813.4	0.0	0.0	4,813.4	3,952.5	860.9

EXXON VALDEL FINANCIAL SUMMARY
1993 WORK PLAN
10/1/92 to 09/30/93

Lead Agency	Project Number	PROJECT DESCRIPTION	1993 Work Plan	Cumulative Adjustments Thru 09/30/93	Adjust this quarter	Authorized for Agency Expenditure	Obligations 10/01/92 to 09/30/93	Unobligated Balance 09/30/93
ADNR	93AD	Administrative Director	576.4	0.0		576.4	338.5	237.9
ADNR	93RT	Restoration Team	299.8	0.0		299.8	205.5	94.3
ADNR	93FC	Finance Committee	15.0	0.0		15.0	0.4	14.6
ADNR	93006	Archeological Restoration	87.2	0.0		87.2	50.8	36.4
ADNR	93038	Shoreline Assessment/Treatment	11.5	0.0		11.5	6.5	5.0
ADNR	93057	Damage Assessment GIS	67.5	0.0		67.5	62.1	5.4
ADNR	93062	Restoration GIS	123.3	0.0		123.3	122.1	1.2
ADNR	93064	Habitat Protection (see note)	7,600.0	0.0		7,600.0	7,583.0	17.0
ADNR	93065	PWS Recreation	29.3	0.0		29.3	14.9	14.4
		SUBTOTAL	8,810.0	0.0	0.0	8,810.0	8,383.8	426.2
NOAA	93RT	Restoration Team	254.4	1.9	1.9	256.3	208.3	48.0
NOAA	93FC	Finance Committee	19.4	(1.9)	(1.9)	17.5	16.4	1.1
NOAA	93003	Salmon Egg to Fry Survival	342.7	7.3	7.3	350.0	367.8	(17.8)
NOAA	93017	Subsistence Restoration	94.5	(9.5)	(9.5)	85.0	48.1	36.9
NOAA	93036	Oiled Mussel Beds Monitoring/Restoration	302.8	7.5	7.5	310.3	318.6	(8.3)
NOAA	93038	Shoreline Assessment/Treatment	26.5	(2.7)	(2.7)	23.8	5.4	18.4
NOAA	93041	Comprehensive Monitoring, Phase 2	237.9	0.0		237.9	0.0	237.9
NOAA	93042	Killer Whale Recovery	127.1	(12.7)	(12.7)	114.4	113.3	1.1
NOAA	93047-1	Subtidal Monitoring - Sediment Hydrocarbon	325.5	7.9	7.9	333.4	333.4	0.0
NOAA	93047-5	Subtidal Fish	218.5	2.2	2.2	220.7	220.7	0.0
NOAA	93053	Hydrocarbon Data Tech Support	105.5	0.0		105.5	121.4	(15.9)
		SUBTOTAL	2,054.8	0.0	0.0	2,054.8	1,753.4	301.4
USDI	93AD	Adm Director	73.1	0.0		73.1	0.0	73.1
USDI	93RT	Restoration Team	185.6	0.0		185.6	12.3	173.3
USDI	93FC	Finance Committee	14.1	0.0		14.1	0.0	14.1
USFWS	93006	Archeological Restoration	34.4	0.0		34.4	20.0	14.4
NPS	93006	Archeological Restoration	111.2	0.0		111.2	30.1	81.1
USFWS	93022	Murre Decoy Feasibility/Monitoring	177.2	0.0		177.2	135.7	41.5
USFWS	93034	Pigeon Guillemot Survey	165.8	0.0		165.8	134.4	31.4

EXXON VALDEZ FINANCIAL SUMMARY
1993 WORK PLAN
10/1/92 to 09/30/93

Lead Agency	Project Number	PROJECT DESCRIPTION	1993 Work Plan	Cumulative Adjustments Thru 09/30/93	Adjust this quarter	Authorized for Agency Expenditure	Obligations 10/01/92 to 09/30/93	Unobligated Balance 09/30/93
USFWS	93035	Black Oystercatchers/Oiled Mussel Beds	107.9	0.0		107.9	51.0	56.9
NPS	93036	Oiled Mussel Beds	102.0	0.0		102.0	70.5	31.5
USDI	93038	Shoreline Assessment/Treatment	11.5	0.0		11.5	0.0	11.5
USFWS	93043	Sea Otter Demographics/Habitat	291.9	0.0		291.9	79.3	212.6
USFWS	93045	Marine Bird/Sea Otter Surveys	262.4	0.0		262.4	257.2	5.2
USFWS	93051	Marbled Murrelet Habitat ID	301.4	(13.1)	(13.1)	288.3	98.1	190.2
		SUBTOTAL	1,838.5	(13.1)		1,825.4	888.6	936.8
USFS	93AD	Administrative Director	807.4	0.0		807.4	762.1	45.3
USFS	93RT	Restoration Team	678.8	0.0		678.8	475.3	203.5
USFS	93FC	Finance Committee	26.4	0.0		26.4	15.0	11.4
USFS	93006	Site Specific Archeological Restoration	27.3	0.0		27.3	0.0	27.3
USFS	93024	Coghill Lake Sockeye Salmon	25.3	0.0		25.3	14.7	10.6
USFS	93038	Shoreline Assessment/Treatment	11.5	0.0		11.5	4.5	7.0
USFS	93051B	Marbled Murrelet Habitat ID	222.2	0.0		222.2	97.2	125.0
USFS	93051C	Channel Typing	363.0	0.0		363.0	300.1	62.9
USFS	93059	Habitat ID Workshop	42.3	0.0		42.3	23.1	19.2
USFS	93060	Accelerated Data Acquisition	43.9	0.0		43.9	43.9	0.0
USFS	93064	Imminent Threat Habitat Protection	200.0	0.0		200.0	7.5	192.5
USFS	93065	PWS Recreation	42.7	0.0		42.7	25.9	16.8
		SUBTOTAL	2,490.8	0.0	(13.1)	2,490.8	1,769.3	721.5
		TOTAL	22,963.0	(13.1)	(13.1)	22,949.9	17,691.0	5,258.9

EXXON VALDL FINANCIAL SUMMARY

1993 WORK PLAN

10/1/92 to 09/30/93

Note: ADNR Project 93064. \$7,500,000 from this project contributed to the purchase of Kachemak Bay inholdings. Total purchase price \$22 million.

Note: NOAA adjustments this quarter

\$1.9 from 93FC to 93RT

\$7.3 from 93017 to 93003

\$2.2 from 93017 to 93047-5

\$2.7 from 93038 to 93047

\$5.2 from 93042 to 93047

\$7.5 from 93042 to 93036

EXXON VALDEZ DETAILED STATEMENT
ADMINISTRATIVE DIRECTOR/RESTORATION TEAM/WORK GROUPS
1993 WORK PLAN
SEPTEMBER 30, 1993

Lead Agency	Project Description	Authorized for Agency Expenditure	Obligations 03/01/93 to 09/30/93	Unobligated Balance 09/30/93
ADEC	Administrative Director	245.3	168.3	77.0
ADNR	Peer Review/Chief Scientist	576.4	338.5	237.9
USDI	Public Advisory Group	73.1	0.0	73.1
USFS	Administrative Director	807.4	762.1	45.3
	TOTAL	1,702.2	1,268.9	433.3
ADEC	Restoration Team Sub Proj	147.9	196.3	(48.4)
ADEC	Habitat Protection WG	52.4	3.3	49.1
ADEC	Restoration Plan WG	245.9	102.6	143.3
ADEC	Work Plan WG 93	0.0	0.0	0.0
ADEC	Work Plan WG 94	79.7	49.4	30.3
ADEC	Enviro Compliance WG	0.0	0.0	0.0
ADEC	GIS WG	0.0	0.0	0.0
ADEC	Cultural Resources WG	0.0	0.0	0.0
ADEC	Management WG	32.4	12.5	19.9
ADEC	Public Participation	0.0		0.0
	TOTAL	558.3	364.1	194.2
ADFG	Restoration Team Sub Proj	90.7	69.3	21.4
ADFG	Habitat Protection WG	57.7	38.4	19.3
ADFG	Restoration Plan WG	100.5	56.3	44.2
ADFG	93 Work Plan WG	0.0	0.0	0.0
ADFG	94 Work Plan WG	79.0	25.0	54.0
ADFG	Enviro Compliance WG	23.6	16.3	7.3
ADFG	GIS WG	0.0	0.0	0.0
ADFG	Cultural Resources WG	0.0	0.0	0.0
ADFG	Management WG	0.0	0.0	0.0
ADFG	Public Participation	0.0	0.0	0.0
	TOTAL	351.5	205.3	146.2

EXXON VALDEZ DETAILED STATEMENT
ADMINISTRATIVE DIRECTOR/RESTORATION TEAM/WORK GROUPS
1993 WORK PLAN
SEPTEMBER 30, 1993

Lead Agency	Project Description	Authorized for Agency Expenditure	Obligations 03/01/93 to 09/30/93	Unobligated Balance 09/30/93
ADNR	Restoration Team	95.7	56.8	38.9
ADNR	Habitat Protection WG	78.7	63.1	15.6
ADNR	Restoration Plan WG	70.1	55.5	14.6
ADNR	93 Work Plan WG	0.0	0.0	0.0
ADNR	94 Work Plan WG	55.3	30.1	25.2
ADNR	Environ Compliance WG	0.0	0.0	0.0
ADNR	GIS WG	0.0	0.0	0.0
ADNR	Cultural Resources WG	0.0	0.0	0.0
ADNR	Management WG	0.0	0.0	0.0
ADNR	Public Participation	0.0	0.0	0.0
	TOTAL	299.8	205.5	94.3
NOAA	Restoration Team	115.9	124.9	(9.0)
NOAA	Habitat Protection WG	30.4	0.0	30.4
NOAA	Restoration Plan WG	83.2	83.4	(0.2)
NOAA	93 Work Plan WG	0.0	0.0	0.0
NOAA	94 Work Plan WG	15.7	0.0	15.7
NOAA	Enviro Compliance WG	5.6	0.0	5.6
NOAA	GIS WG	2.5	0.0	2.5
NOAA	Cultural Resources WG	0.0	0.0	0.0
NOAA	Management WG	3.0	0.0	3.0
NOAA	Public Participation WG			0.0
	TOTAL	256.3	208.3	48.0

EXXON VALDEZ DETAILED STATEMENT
ADMINISTRATIVE DIRECTOR/RESTORATION TEAM/WORK GROUPS
1993 WORK PLAN
SEPTEMBER 30, 1993

Lead Agency	Project Description	Authorized for Agency Expenditure	Obligations 03/01/93 to 09/30/93	Unobligated Balance 09/30/93
USDI	Restoration Team	48.7	12.3	36.4
USDI	Habitat Protection WG	29.8	0.0	29.8
USDI	Restoration Plan WG	37.6	0.0	37.6
USDI	93 Work Plan WG	0.0	0.0	0.0
USDI	94 Work Plan WG	41.0	0.0	41.0
USDI	Enviro Compliance WG	23.7	0.0	23.7
USDI	GIS WG	1.2	0.0	1.2
USDI	Cultural Resources WG	1.3	0.0	1.3
USDI	Management WG	0.0	0.0	0.0
USDI	Public Participation WG	2.3	0.0	2.3
	TOTAL	185.6	12.3	173.3
USFS	Restoration Team	83.7	58.7	25.0
USFS	Restoration Plan WG	136.9	97.7	39.2
USFS	Habitat Protection WG	101.0	59.0	42.0
USFS	93 Work Plan WG	0.0	0.0	0.0
USFS	94 Work Plan WG	95.4	54.4	41.0
USFS	Enviro Compliance WG	258.7	205.1	53.6
USFS	GIS WG	1.8	0.2	1.6
USFS	Cultural Resources WG	1.3	0.2	1.1
USFS	Management WG	0.0	0.0	0.0
USFS	Public Participation WG	0.0	0.0	0.0
	TOTAL	678.8	475.3	203.5

EXXON VALDEZ .TAILED STATEMENT
ADMINISTRATIVE DIRECTOR/RESTORATION TEAM/WORK GROUPS
1993 WORK PLAN
SEPTEMBER 30, 1993

Lead Agency	Project Description	Authorized for Agency Expenditure	Obligations 03/01/93 to 09/30/93	Unobligated Balance 09/30/93
ALL	Restoration Team	582.6	518.3	64.3
ALL	Restoration Plan WG	472.9	202.5	270.4
ALL	Habitat Protection WG	638.3	356.8	281.5
ALL	93 Work Plan WG	0.0	0.0	0.0
ALL	94 Work Plan WG	366.1	158.9	207.2
ALL	Enviro Compliance WG	311.6	221.4	90.2
ALL	GIS WG	5.5	0.2	5.3
ALL	Cultural Resources WG	2.6	0.2	2.4
ALL	Management WG	35.4	12.5	22.9
ALL	Public Participation WG	2.3	0.0	2.3
	TOTAL	2,417.3	1,470.8	946.5

EXXON VALDEZ DETAILED STATEMENT
ADMINISTRATIVE DIRECTOR/RESTORATION TEAM/WORK GROUPS
1993 WORK PLAN
SEPTEMBER 30, 1993

Note: ADEC. A large amount of Administrative Director support was charged to the Restoration Team in error. Corrections are being made.

EXXON VALDEZ SPILL PROJECT STATUS
FY 93 WORK PLAN
SEPTEMBER 30, 1993

FORM 5F

AGENCY	PROJECT NUMBER	PROJECT NAME	PROJECT STATUS
ADEC	93038	SHORELINE ASSESSMENT/TREATMENT	Report being drafted. Results presented to the Trustee Council 11/30/93.
ADEC	93047-2-	SUBTIDAL MONITORING - MICROBIOLOGY	Draft final report on 1989-1991 and 1993 due on 6/30/94.
ADEC	93064	IMMINENT THREAT HABITAT PROTECTION	No expenditures
ADEC	93066	ALUTIQ MUSEUM & CULTURE CENTER	Grant negotiations nearing completion with Kodiak Area Native Association for construction of facility.
ADFG	93002	SOCKEYE SALMON OVER ESCAPEMENT	Field work complete. Lab analysis 50% complete. Progress report due March.
ADFG	93003	SALMON EGG TO PRE-EMERGENT FRY SURVIVAL	Report being revised. Continuation of R60C. Expected to continue into 1994 and 1995.
ADFG	93012	GENETIC STOCK ID KENAI RIVER SOCKEYE	Report being drafted
ADFG	93015	KENAI RIVER SOCKEYE RESTORATION	Draft report due March
ADFG	93016	CHENEGA CHINOOK/SILVER RELEASE	Final document due January
ADFG	93017	SUBSISTENCE FOOD SURVEY/TESTING	Samples being analyzed
ADFG	93024	RESTORATION COGHILL LAKE SOCKEYE	Lake fertilization and morphology completed
ADFG	93030	RED LAKE RESTORATION	Project withdrawn
ADFG	93032	COLD CREEK PINK SALMON RESTORATION	Final report completed
ADFG	93033	HARLEQUIN DUCK RESTORATION	Draft final report being drafted. Completed habitat evaluation assistance.
ADFG	93038	SHORELINE ASSESSMENT/TREATMENT	Report being drafted. Results presented to the Trustee Council 11/30/93.
ADFG	93039	HERRING BAY STUDIES	Draft report due February
ADFG	93046	HARBOR SEALS MONITORING/HABITAT	Progress report completed
ADFG	93047-3	SUBTIDAL MONITORING - ELEGRASS COMMUNITIES	Draft final report on 1989-91 and 1993 due June
ADFG	93047-4	SUBTIDAL MONITORING - ROCKFISH	Project withdrawn
ADFG	93051	STREAM HABITAT ASSESSMENT	This is the second and final year of the project. It is a continuation of R47. Draft report on habitat information for murrelets is in internal USFWS review. First draft report on stream habitat assessment is being revised.
ADFG	93063	SURVEY/EVALUATION RESTORATION TECHNIQUES	Field equipment retrieved. R105 report being revised
ADFG	93067	PINK SALMON CODED WIRE TAG	Report being reviewed
ADFG	93068	NON-PINK SALMON CODED WIRE TAG	Report being drafted

EXXON VALDEZ OIL SPILL PROJECT STATUS
FY 93 WORK PLAN
SEPTEMBER 30, 1993

FORM 5F

AGENCY	PROJECT NUMBER	PROJECT NAME	PROJECT STATUS
ADNR	93006	ARCHEOLOGICAL RESTORATION	Field work complete. Report is under preparation and expected to be submitted 1/15/94..
ADNR	93038	SHORELINE ASSESSMENT/TREATMENT	Report being drafted. Results presented to the Trustee Council 11/30/93.
ADNR	93057	DAMAGE ASSESSMENT GIS	Completed. Provided mapping and database support for damage assessment studies. Catalogued and plotted over 160 maps for public access at OSPIC.
ADNR	93062	RESTORATION GIS	Completed, no report necessary. Provided technical mapping and database support for restoration projects.
ADNR	93064	HABITAT PROTECTION	Completed. Project included purchase of Kachemak Bay inholdings and support for Seal Bay/Tonki Cape negotiations and purchase. First phase of Large Parcel Evaluations completed.
ADNR	93065	PWS RECREATION	Continued as 94217. Analysis of findings and final report being drafted.
NOAA	93003	SALMON EGG TO FRY SURVIVAL	Report being revised. Continuation of R60C. Expected to continue into 1994 and 1995.
NOAA	93017	SUBSISTENCE RESTORATION	Final report due 4/15/94
NOAA	93036	OILED MUSSEL BEDS MONITORING/RESTORATION	Report being revised. Continuation of R103
NOAA	93038	SHORELINE ASSESSMENT/TREATMENT	Report being drafted. Results presented to the Trustee Council 11/30/93.
NOAA	93041	COMPREHENSIVE MONITORING, PHASE 2	RFP on hold until development of Restoration Plan and Ecosystem study plan.
NOAA	93042	KILLER WHALE RECOVERY	Final report due 4/15/94
NOAA	93047-1	SUBTIDAL MONITORING - SEDIMENT HYDROCARBONS	Final report due 4/15/94
NOAA	93047-5	SUBTIDAL FISH	Final report due 4/15/94
NOAA	93053	HYDROCARBON DATA TECH SUPPORT	Final report due 4/15/94
USFWS	93006	ARCHEOLOGICAL RESTORATION	Field work complete. Report is under preparation and expected to be submitted 1/15/94..
NPS	93006	ARCHEOLOGICAL RESTORATION	Field work complete. Report is under preparation and expected to be submitted 1/15/94..
USFWS	93022	MURRE DECOY FEASIBILITY/MONITORING	Project report in preparation.
USFWS	93034	PIGEON GUILLEMOT SURVEY	Draft report submitted to Chief Scientist.

EXXON VALDEZ OIL SPILL PROJECT STATUS
FY 93 WORK PLAN
SEPTEMBER 30, 1993

FORM 5F

AGENCY	PROJECT NUMBER	PROJECT NAME	PROJECT STATUS
USFWS	93035	BLACK OYSTER CATCHERS/OILED MUSSEL BEDS	Draft report in revision prior to submission to Chief Scientist.
USFWS	93036	OILED MUSSEL BEDS	Report being revised. Continuation of R103
USDI	93038	SHORELINE ASSESSMENT/TREATMENT	Report being drafted. Results presented to the Trustee Council 11/30/93.
USFWS	93043	SEA OTTER DEMOGRAPHICS & HABITAT	Field work and data collected complete; data analysis and report writing ongoing. Reports will be completed 3/1/94. Habitat component dropped.
USFWS	93045	MARINE BIRD/SEA OTTER HABITAT ID	Draft report in internal USFWS review.
USFWS	93051	MARBLED MURRELET ID	This is the second and final year of the project. It is a continuation of R47. Draft report on habitat information for murrelets is in internal USFWS review. First draft report on stream habitat assessment is being revised.
USFS	93006	SITE SPECIFIC ARCHEOLOGICAL RESTORATION	Awaiting 8A contracting authority with Chugach Alaska Corporation so contract to restore site can be let.
USFS	93024	COGHILL LAKE SOCKEYE SALMON	Field work completed. Fertilizer applied to lake.
USFS	93038	SHORELINE ASSESSMENT/TREATMENT	Report being drafted. Results presented to the Trustee Council 11/30/93.
USFS	93051B	MARBLED MURRELET HABITAT ID	Six field trips completed. Data entry and mapping in progress.
USFS	93051C	CHANNEL TYPING	Field work completed. Data entry and mapping in progress.
USFS	93059	HABITAT ID WORKSHOP	Workshop held in November 1992. Workshop products provided to work group. Project complete.
USFS	93060	ACCELERATED DATA ACQUISITION	Cost Share Agreement with The Nature Conservancy completed. Data dictionary provided and work complete.
USFS	93064	IMMINENT THREAT HABITAT PROTECTION	Contract for appraisal work awarded.
USFS	93065	PWS RECREATION	Continued as 94217. Analysis of findings and final report being drafted.

STATUS OF EXXON VALDEZ SETTLEMENT ACCOUNTS
FEDERAL/STATE OF ALASKA JOINT TRUST FUND
September 30, 1993

State of Alaska		
Funds received 10/1/91 through 9/30/93	\$45,110,988	5)
Disbursements through 9/30/93	\$18,016,803	
Interest earned through 9/30/93	\$283,316	6)
Balance as of 9/30/93	\$27,377,502	1) 6)
United States		
Funds received 10/1/91 to 9/30/93	\$15,426,380	2)
Disbursements through 9/30/93	\$13,260,800	3)
Interest earned through 9/30/93	\$94,751	
Balance as of 9/30/93	\$2,260,331	4)
1) Cash and investments less outstanding warrants		
2) Disbursed from Court and deposited to the NRDA&R Fund		
3) Disbursed from NRDA&R Fund to USDI, NOAA and USFS accounts		
4) Balance in NRDA&R Fund		
5) Inclusive of interest posted in 12/93 for interest earned from 7/93 through 9/93		
6) Includes prior year adjustment of \$22,675		

CRIMINAL SETTLEMENT MONIES

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8-GS1014R

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL
ADMINISTRATIVE RECORD

HOUSE CS FOR CS FOR SENATE BILL NO. 183(FIN)

IN THE LEGISLATURE OF THE STATE OF ALASKA

EIGHTEENTH LEGISLATURE - FIRST SESSION

BY THE HOUSE FINANCE COMMITTEE

Offered: 5/10/93
Referred: Rules

Sponsor(s): SENATE RULES COMMITTEE BY REQUEST OF THE GOVERNOR

A BILL

FOR AN ACT ENTITLED

1 "An Act making special appropriations for restoration projects relating to the
2 Exxon Valdez oil spill and for oil spill response projects; making appropriations
3 for capital project matching grant funds; making appropriations for capital
4 projects; making an appropriation to pay judgment, interest, and attorney fees for
5 Frontier Flying Service v. Turpin; and providing for an effective date."

6 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

7 * Section 1. LEGISLATIVE FINDINGS AND PURPOSES. The legislature finds that

8 (1) As a result of the judgments entered by the United States District Court in
9 the criminal cases United States of America v. Exxon Shipping Company and Exxon
10 Corporation, No. A90-015 CR, the State of Alaska received \$50,000,000 in restitution "to be
11 used by the State of Alaska ... exclusively for restoration projects, within the State of Alaska,
12 relating to the 'Exxon Valdez' oil spill." The judgments define restoration as including
13 "restoration, replacement, and enhancement of affected resources; acquisition of equivalent

1 resources and services; and long-term environmental monitoring and research programs
2 directed to the prevention, containment, cleanup, and amelioration of oil spills." The money
3 received by the state in restitution is held in the Exxon Valdez oil spill restoration fund,
4 established by the Department of Revenue, to implement the terms of those judgments.

5 (2) As a result of the Agreement and Consent Decree entered by the United
6 States District Court in State of Alaska v. Exxon Corporation and Exxon Shipping Company,
7 No. A91-083 CIV and the Memorandum of Agreement and Consent Decree entered by the
8 United States District Court in United States of America v. State of Alaska, No. A91-081 CIV,
9 the State of Alaska is entitled to receive reimbursements, paid into the state's general fund,
10 for certain expenditures made by the state from the general fund in responding to the oil spill.
11 It is the intent of the legislature that such money received during fiscal year 1994 be used for
12 projects that enhance the ability of the state and the oil industry to respond to marine oil spills
13 in the area affected by the Exxon Valdez oil spill.

14 (3) The appropriations in secs. 2 - 13 of this Act are made in order to achieve
15 the purposes described in the court's restitution order and to carry out the legislature's intent
16 with regard to fiscal year 1994 reimbursements to the general fund under the Exxon
17 settlement.

18 * Sec. 2. The sum of \$12,500,000 is appropriated from the Exxon Valdez oil spill
19 restoration fund, described in sec. 1(1) of this Act, to the Department of Administration for
20 payment as a grant under AS 37.05.315 to the City of Seward for development of the Alaska
21 Sea Life Center as a recreation and marine mammal rehabilitation center and as a center for
22 education and research related to the natural resources injured by the Exxon Valdez oil spill
23 and to the prevention and amelioration of marine oil spills. The appropriation made by this
24 section may be used for planning, design, engineering, and construction of the facility. Until,
25 however, the grantee has provided to the Alaska Industrial Development and Export Authority
26 a financial plan and a feasibility study demonstrating the financial viability of the proposed
27 center and the Alaska Industrial Development and Export Authority has approved the project
28 plan and has found the center to be financially viable, no money from this appropriation may
29 be expended. In addition, no money from this appropriation may be expended for any phase
30 of construction until all financing necessary to complete construction of the entire stand-alone
31 facility has been obtained. Not more than \$4,000,000 may be expended from this

1 appropriation for design of the center.

2 * Sec. 3. The sum of \$7,000,000 is appropriated from the Exxon Valdez oil spill
3 restoration fund, described in sec. 1(1) of this Act, to the Department of Natural Resources
4 for the purchase, for \$22,000,000, of the property rights of the Seldovia Native Association,
5 Cook Inlet Region, Inc., and Timber Trading Company, Inc. within the Kachemak Bay State
6 Park as identified in the Agreement For Sale and Purchase of Lands and Interests Within
7 Kachemak Bay State Park entered into in March 1993 between the state, the Seldovia Native
8 Association, Cook Inlet Region, Inc. and Timber Trading Company.

9 * Sec. 4. The sum of \$500,000 is appropriated from the Exxon Valdez oil spill restoration
10 fund, described in sec. 1(1) of this Act, to the Department of Natural Resources for
11 construction of a Kachemak Bay State Park visitors center and related facilities.

12 * Sec. 5. The sum of \$3,250,000 is appropriated from the Exxon Valdez oil spill
13 restoration fund, described in sec. 1(1) of this Act, to the Department of Fish and Game to aid
14 in the restoration of subsistence resources or services, lost or diminished as a result of the
15 Exxon Valdez oil spill, including the development of a shellfish hatchery and technical center
16 to be located on the lower Kenai Peninsula, at a location considered appropriate by the
17 Department of Fish and Game, and through shellfish nursery research at existing aquatic farms
18 or other facilities in Kachemak Bay. The appropriation made by this section may be used for
19 feasibility studies, design and engineering work, and construction of the facility, on the
20 condition that no money may be expended for design and engineering work or construction
21 until the Department of Fish and Game has completed a feasibility study, including a financial
22 and operating plan.

23 * Sec. 6. The sum of \$4,000,000 is appropriated from the Exxon Valdez oil spill
24 restoration fund, described in sec. 1(1) of this Act, to the Department of Fish and Game to
25 enhance sport fishing services lost or diminished as a result of the Exxon Valdez oil spill,
26 including the construction of a water delivery system connecting the Anchorage Municipal
27 Water Utility with the Fort Richardson hatchery and the integration of that system with the
28 hatchery and the development of a salmon production capacity model for Upper Cook Inlet
29 drainages.

30 * Sec. 7. The sum of \$4,750,000 and the interest accrued before July 1, 1994, on the
31 restitution payment described in sec. 1(1) of this Act, is appropriated from the Exxon Valdez

1 oil spill restoration fund, described in sec. 1(1) of this Act, to the Department of Natural
2 Resources for the construction or placement, within Prince William Sound, the southern Kenai
3 Peninsula, and the coastal areas of the Kodiak Archipelago, of recreational amenities,
4 including recreational cabins, trails, mooring buoys, floating docks and similar items, and the
5 acquisition of sites and access rights for such amenities, that restore or enhance recreational
6 services lost or diminished by the Exxon Valdez oil spill.

7 * Sec. 8. The sum of \$3,000,000 is appropriated from the Exxon Valdez oil spill
8 restoration fund, described in sec. 1(1) of this Act, to the Department of Fish and Game for
9 habitat restoration and enhancement projects, including the acquisition of development rights
10 or conservation easements in aquatic, wetland, and riparian areas, within the Kenai River
11 watershed related to the maintenance of commercial and sport fish species, and the services
12 they provide, that were injured or lost as a result of the Exxon Valdez oil spill.

13 * Sec. 9. The sum of \$2,000,000 is appropriated from the Exxon Valdez oil spill
14 restoration fund, described in sec. 1(1) of this Act, to the Department of Commerce and
15 Economic Development for payment as a grant under AS 37.05.316 to the Prince William
16 Sound Aquaculture Corporation for upgrade of the Main Bay Hatchery.

17 * Sec. 10. The sum of \$3,000,000 is appropriated from the Exxon Valdez oil spill
18 restoration fund, described in sec. 1(1) of this Act, to the University of Alaska, Fairbanks,
19 Fishery Industrial Technology Center for design and engineering work and construction of an
20 addition to the existing fishery technology and research facility, to enable that facility to
21 engage in long-term environmental monitoring and restoration work in the area affected by
22 the Exxon Valdez oil spill, on the condition that no money may be expended for design and
23 engineering work or construction until the University has provided, and the governor has
24 approved, a financial plan and feasibility study.

25 * Sec. 11. (a) The sum of \$5,000,000 is appropriated from the Exxon Valdez oil spill
26 restoration fund, described in sec. 1(1) of this Act, to the Department of Community and
27 Regional Affairs for payment as grants under AS 44.47.050 to unincorporated rural
28 communities for purposes of restoring, replacing, or enhancing subsistence resources or
29 services damaged or lost as a result of the Exxon Valdez oil spill.

30 (b) It is the intent of the legislature that selection of the grant recipients shall be made
31 after consultation with the state trustees, as defined in AS 37.14.450(2).

1 * Sec. 12. The sum of \$5,000,000 is appropriated from the Exxon Valdez oil spill
 2 restoration fund, described in sec. 1(1) of this Act, to the Department of Environmental
 3 Conservation to enter into competitively awarded contracts with public or private entities for
 4 research programs directed to the prevention, containment, cleanup, and amelioration of oil
 5 spills within the state.

6 * Sec. 13. (a) Subject to the conditions set out in (b) of this section, the sum of
 7 \$15,000,000 is appropriated from the fiscal year 1994 general fund Exxon Valdez
 8 reimbursement payments to the Department of Transportation and Public Facilities for the
 9 design and engineering work and construction of a road connecting the Seward Highway and
 10 the Port of Whittier.

11 (b) The first \$15,000,000 received by the state as fiscal year 1994 general fund Exxon
 12 Valdez reimbursement payments is allocated to the project described in (a) of this section.

13 * Sec. 14. The sum of \$18,325,000 is appropriated from the general fund to the municipal
 14 capital project matching grant fund (AS 37.06.010(b)) in the Department of Administration
 15 to provide grants to municipalities under the municipal capital project matching grant program.

16 * Sec. 15. The sum of \$1,675,000 is appropriated from the general fund to the
 17 unincorporated community capital project matching grant fund (AS 37.06.020(b)) in the
 18 Department of Community and Regional Affairs to provide grants to unincorporated
 19 communities under the unincorporated community capital project matching grant program.

20 * Sec. 16. The sum of \$400,000 is appropriated from the general fund to the Department
 21 of Administration for payment as a grant under AS 37.05.315 to the City of Kenai for
 22 construction cost overruns on the state courthouse located in the City of Kenai.

23 * Sec. 17. (a) The following amounts are appropriated from the general fund to the
 24 following departments for the purposes and in the amounts stated:

25 DEPARTMENT AND PURPOSE	APPROPRIATION
26 Department of Administration for Alaska Public	
27 Broadcasting Commission satellite interconnection	
28 planning	\$100,000
29 Department of Education for a statewide data	
30 management system	100,000
31 Department of Health and Social Services for	

1	administrative services E-mail	40,000
2	Department of Labor for workers' compensation	
3	records imaging	383,800
4	Department of Commerce and Economic Development	
5	for data processing system enhancement	400,000
6	Department of Public Safety for a statewide law	
7	enforcement data processing system	900,000
8	Alaska Court System for an imaging system	207,500

9 (b) The sum of \$50,000 is appropriated from the receipts of the Alaska Commission
10 on Postsecondary Education to the Department of Education, Alaska Commission on
11 Postsecondary Education for borrower records data imaging analysis.

12 (c) The sum of \$430,000 is appropriated from the oil and hazardous substance release
13 response fund (AS 46.08.010) to the Department of Military and Veterans' Affairs for
14 emergency operation center enhancements.

15 (d) An appropriation made by (a) - (c) of this section may not be expended until the
16 office of management and budget certifies that the project is consistent with the
17 recommendations from the Telecommunications Information Council after completion of the
18 council's studies begun in the fiscal year ending June 30, 1992. A department that receives
19 an appropriation made by (a) - (c) of this section shall report to the Legislative Budget and
20 Audit Committee on the status of the project for which the appropriation was received no later
21 than December 1, 1993.

22 * Sec. 18. Federal or other program receipts as defined under AS 37.05.146 that exceed
23 the amount appropriated in secs. 19 and 20 of this Act are appropriated conditioned upon
24 compliance with the program review provisions of AS 37.07.080(h).

25 (SECTION 19 OF THIS ACT BEGINS ON PAGE 7)

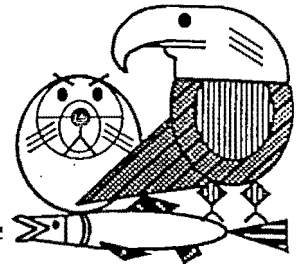
STRATEGY FOR IMPLEMENTATION
OF RESTORATION PLAN

Exxon Valdez Oil Spill Trustee Council

Restoration Office

645 G Street, Suite 402, Anchorage, Alaska 99501

Phone: (907) 278-8012 Fax: (907) 276-7178



TO: Trustee Council
 FROM: Jim Ayers, Executive Director
 DATE: January 20, 1994
 SUBJ: Management Structure for Implementation of Restoration

RECEIVED
 JAN 31 1994

EXXON VALDEZ OIL SPILL
 TRUSTEE COUNCIL
 ADMINISTRATIVE RECORD

The purpose of this memorandum and the attached material is to provide you with an update on the effort to develop an implementation management structure for the restoration plan and an approach to the development of the FY 1995 work plan and beyond.

In order to move forward with the direction given by the Council that the restoration program will be implemented with an ecosystem approach, an Ecosystem-Based Management Structure work session was held January 13-14. This work session included a broad cross-section of agency staff, independent scientists, representation from the Public Advisory Group as well as members of public from the spill affected communities. A listing of the participants in the work session is attached.

A complete and up to date set of the working materials developed during the work session is provided for your review and comment. It is important to emphasize that I view these materials as working draft documents that will continue to evolve as we work to meet the challenge of devising an effective management structure to implement the Restoration Plan. (A more detailed set of meeting notes that recorded the sense of the group discussion during the work session is also available.)

The attached materials provide the basic elements of an implementation management structure being developed for use in formulation of the FY 1995 work plan and beyond:

- | | |
|---|--------------|
| • Mission Statement | Attachment 1 |
| • Definitions | Attachment 2 |
| • Guiding Principles | Attachment 3 |
| • Injured Resources/Services Goals and Objectives | Attachment 4 |
| • Management Goal and Objectives | Attachment 5 |

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

The Mission Statement adopted by the Trustees at the November 30, 1993 meeting, establishes overall guidance regarding restoration efforts. The Definitions (for goal, objective, and strategy) provide a common language for describing restoration actions. The Guiding Principles, which incorporate and elaborate upon the policies stated in the Draft Restoration Plan (November 1993) adopted by the Trustee Council, provide a comprehensive set of parameters that will be used to formulate and evaluate future work plans and project proposals.

The listing of Injured Resources and Services provides an ecosystem context (consistent with the court decrees) for restoration activities. The goals reflect the general concept of striving to restore the injured environment to a healthy, productive ecosystem and the objectives identify specific, measurable end points for each injured resource or service. These objectives for resources and services are taken from the definitions of recovery stated in the Draft Restoration Plan (November 1993). Collectively, these goals and objectives will guide development of a long-term, comprehensive and cost-effective restoration program comprised of integrated strategies that are a balanced combination of Monitoring and Research, Habitat Protection and General Restoration.

Finally, although we did not have time to address Management Processes directly during the work session, a draft goal statement and objectives concerning management processes is also provided for your review.

We are now working on the development of a draft timeline in order to apply this implementation approach to the formulation of the FY 1995 work plan. Let me again say that this is an on-going endeavor and that these are draft materials that need your input. I look forward to continuing to work with you on this effort.

ATTACHMENT 1

MISSION STATEMENT

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

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

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

— adopted by the *Exxon Valdez* Oil Spill Trustee Council November 30, 1993

ATTACHMENT 2

GOAL

A mental concept of what you want.

OBJECTIVE

Pertaining to a material or measurable specific object (as distinguished from a mental concept).

STRATEGY

Activity or expenditure that is directed toward accomplishment of an objective (i.e., who, what, where, when, how).

CATEGORY OF RESTORATION STRATEGY

- Monitoring and Research
- Habitat Protection
- General Restoration

STRATEGY TIMELINE AND COSTS

ATTACHMENT 3

GUIDING PRINCIPLES

1. Restoration should contribute to a healthy, productive and biologically diverse ecosystem within the spill area.
2. Restoration will focus upon injured resources and services and will emphasize resources and services that have not recovered. Restoration may include resources for which there was no documented injury if such activities will benefit an injured resource or service.
3. Resources and services not previously identified as injured may be considered for restoration if reasonable scientific or local knowledge obtained since the spill indicates a spill-related injury.
4. Projects designed to restore or enhance an injured service:
 - must have a sufficient relationship to an injured resource,
 - must benefit the same user group that was injured, and
 - should be compatible with the character and public uses of the area.
5. Priority will be given to restoring injured resources and services which have economic, cultural and subsistence value to people living in or using the oil spill area, as long as this is consistent with other goals.
6. Restoration activities will occur primarily within the spill area. Limited restoration activities outside the spill area, but within Alaska, may be considered under the following conditions:
 - when the most effective restoration actions for an injured migratory population are in a part of its range outside the spill area, or
 - when the information acquired from research and monitoring activities outside the spill area will be significant for restoration or understanding injuries within the spill area.
7. Restoration must take an ecosystem approach in order to understand what factors control the populations of key species.
8. Restoration will include an interpreted synthesis of findings, results, and an indication of important remaining issues or gaps in knowledge.
9. Possible negative effects on resources or services must be assessed in undertaking specific restoration projects.

ATTACHMENT 3 (continued)

10. Priority shall be given to strategies that involve multi-disciplinary, interagency and collaborative partnerships.
11. Restoration must include a meaningful public participation process at all levels — planning, project design, implementation and review.
12. Restoration projects will be subject to open, independent scientific review before Trustee Council approval.
13. Proposed restoration actions should state a clear, measurable and achievable end point.
14. Restoration must be conducted as efficiently as possible, reflecting a proper balance between costs and benefits.
15. Restoration must reflect public ownership of the process by timely release and reasonable access to information and data.
16. Past performance should be taken into consideration when making determinations regarding future commitments regarding restoration strategies.
17. Restoration shall take advantage of cost sharing opportunities where effective.
18. Competitive proposals for restoration projects will be encouraged.
19. Government agencies will be funded only for restoration work that they do not normally conduct.
20. Restoration should be guided and reevaluated as information is obtained from damage assessment studies and restoration actions.

These Guiding Principles reflect and elaborate on the Policies identified in Chapter 2 of the Draft *Exxon Valdez* Oil Spill Restoration Plan (November 1993). Further guidance regarding the categories of restoration action — General Restoration, Habitat Protection and Acquisition, Monitoring and Research, and Public Information and Administration — are provided in Chapter 3 of the Draft *Exxon Valdez* Oil Spill Restoration Plan (November 1993).

This attachment organizes information according to its location in the ecosystem, identifies resources and services injured by the spill, and provides a statement of goals and objectives for those resources and services..

Resources and services injured by the spill. The list of injured resources and services is taken from Appendix B of the Draft *Exxon Valdez* Oil Spill Restoration Plan (November 1993). As a result of the work session, the information was modified by subdividing some resource categories:

- mussels was made its own category rather than being included in intertidal organisms, and
- intertidal and subtidal ecosystem was subdivided into organisms and sediments, respectively.

In order to make the ecosystem links more apparent, each resource and service is shown according to where it exists in the ecosystem: pelagic (offshore) near-shore, or upland ecosystem.

Goals. Draft goals are provided for each of the three parts of the ecosystem.

Objectives. Objectives are statements that pertain to a measurable, specific object (as distinguished from a mental concept). They are given for each injured resource and service, and are taken from definitions of recovery in Chapter 4 of the Draft Restoration Plan.

ATTACHMENT 4**INJURED RESOURCE - ECOSYSTEM MATRIX**

	ECOSYSTEM		
	<u>PELAGIC (Off-shore)</u>	<u>NEAR-SHORE</u>	<u>UPLAND</u>
<u>Natural Resources</u>			
Harbor seal	X	X	
Sea otter		X	X
Killer whale	X		
Sockeye salmon	X	X	X
Cutthroat trout	X	X	X
Dolly Varden	X	X	X
Rockfish	X		
Pacific herring	X	X	
Pink salmon	X	X	X
Common murre	X		X
Harlequin duck		X	X
Marbled murrelet	X		X
Pigeon guillemot	X		X
Bald eagle		X	X
Black oystercatcher		X	X
River otter		X	X
Clams		X	
Mussels		X	
Intertidal organisms		X	
Subtidal organisms		X	
Sediments	X	X	X
<u>Other Resources</u>			
Archeological Resources			X
Designated Wilderness			X

ATTACHMENT 4 (continued)

INJURED RESOURCES

Pelagic (Off-shore) Ecosystem

Sockeye salmon
Pink salmon
Pacific herring
Rockfish
Killer whale
Harbor seal

Common murre
Marbled murrelet
Pigeon guillemot

Nearshore Ecosystem

Sockeye salmon
Pink salmon
Cutthroat trout
Dolly varden
Pacific herring
Harbor seal
Sea otter
Clams
Mussels

Bald eagle
Harlequin duck
Black oystercatcher
River otter
Intertidal organisms
Intertidal sediments
Subtidal organisms
Subtidal sediments

Upland Ecosystem

Sockeye salmon
Pink salmon
Cutthroat trout
Dolly varden
Intertidal organisms
Supratidal sediments
River otter
Sea otter

Common murre
Harlequin duck
Marbled murrelet
Pigeon guillemot
Bald eagle
Black oystercatcher

Archeological resources
Designated wilderness

LOST OR REDUCED SERVICES

Commercial fishing
Passive uses
Recreation/Tourism
Subsistence

GOALS

Pelagic (Off-shore) Ecosystem: A healthy, productive, pelagic (off-shore) ecosystem that supports resources and services injured by the oil spill.

Near-shore Ecosystem: A healthy, productive, near-shore ecosystem that supports resources and services injured by the oil spill.

Upland Ecosystem: A healthy, productive, upland ecosystem that supports resources and services injured by the oil spill.

OBJECTIVES

(In the table below, the first column shows the ecosystem to which the objective applies: P=pelagic (off-shore) ecosystem, N=near-shore ecosystem, and U=upland ecosystem.)

Natural Resources

N, U	Bald Eagle: Bald eagle population and productivity comparable to prespill levels.
N	Clam: Clam populations and productivity that are at prespill levels.
P, U	Common Murre: Prespill populations of common murre at all injured colonies.
P, N, U	Cutthroat Trout and Dolly Varden Trout: Growth rates for Cutthroat Trout and Dolly Varden Trout within oiled areas that are comparable to those for unoled areas.
N, U	Harbor Seal: A population level of harbor seals in the oiled area comparable to that which would have likely occurred in the absence of the spill.
N, U	Harlequin Ducks: For harlequin ducks, prespill populations or when differences between oiled and unoled areas are eliminated.
N	Intertidal Organisms: For each intertidal organisms (lower, middle, and upper), community composition, population abundance of component species, and ecosystem functions and services at levels that would have prevailed in the absence of the oil spill.
P	Killer Whale: Recovery of the injured AB killer whale pod to the 1988 level (of 36 individuals).
P, U	Marbled Murrelet: Population trends in marbled murrelets that are stable or

increasing.

- N **Mussel:** Mussel populations and productivity that are at prespill levels, and which do not contain oil that contaminates predator species.
- P, N **Pacific Herring:** Populations of pacific herring that are healthy and productive and exist at prespill abundances.
- P, U **Pigeon Guillemot:** Population trends in pigeon Guillemots that are stable or increasing.
- P, N, U **Pink Salmon:** Populations of pink salmon that are healthy and productive and exist at prespill abundances. (An indication of recovery is when egg mortalities in oiled areas match prespill levels or levels in unoiled areas.)
- N, U **River Otters:** For river otters, population levels are unknown but indications of recovery are when use and physiological indices have returned to prespill conditions.
- P **Rockfish:** Populations of Rockfish levels are unknown, but indications of recovery are when habitat use and physiological indices have returned to prespill conditions.
- N, U **Sea Otter:** A population abundance and distribution of sea otters comparable to prespill abundance and distribution, and when all ages appear healthy.
- P, N, U **Sediments:** Sediments whose contamination, if any, causes no negative effects to the spill-affected ecosystem. (*Editor's note: this objective is not taken from the Draft Restoration Plan. It has not been reviewed by the Chief Scientist.*)
- P, N, U **Sockeye Salmon (Kenai River):** Populations of sockeye salmon (Kenai River) that are healthy and productive and exist at prespill levels. (One indication of recovery is when Kenai and Skilak Lakes support Sockeye smolt outmigrations comparable to prespill levels.)
- P, N, U **Sockeye Salmon (Red Lake):** Population of sockeye salmon (Red Lake) that is healthy, productive, and exist at prespill levels in Red Lake.
- P, N **Subtidal Organisms:** For subtidal organisms, community composition, population abundance of component species, and ecosystem functions and services in each injured subtidal habitat that have returned to levels that would have prevailed in the absence of the oil spill.

Other Resources

- U **Archaeological Resources:** For archaeological resources, an end to spill-related injury, and looting and vandalism that are at or below prespill levels.

- U **Designated Wilderness Areas:** Designated wilderness areas where oil is no longer encountered, and that the public perceives to be recovered from the spill.

Services

Subsistence: Subsistence resources that are healthy and productive and exist at prespill levels, and people that are confident that the resources are safe to eat. (One indication that recovery has occurred is when the cultural values provided by gathering, preparing, and sharing food are reintegrated into community life.)

Commercial Fishing: Population levels and distribution of injured or replacement fish used by the commercial fish industry match conditions that would have existed had the spill not occurred. Because of the difficulty of separating spill-related effects from other changes in fish runs, the Trustee Council may use prespill conditions as a substitute measure for conditions that would have existed had the spill not occurred.

Recreation and Tourism: Recreation and tourism fish and wildlife resources are recovered, recreation use of oiled beaches is no longer impaired, and revised management capabilities and facilities can accommodate spill-related changes in human use.

Passive Use: A public that perceives that aesthetic and intrinsic values associated with the spill area are no longer diminished by the oil spill.

Attachment 5

MANAGEMENT PROCESSES

This attachment lists a goal and four objectives for management processes. (These were not developed during the work session but are included here for your review.)

GOAL

A long-term, comprehensive and cost-effective restoration program comprised of integrated strategies that are a balanced combination of Monitoring and Research, Habitat Protection and General Restoration.

OBJECTIVES

Administration: Administrative costs that average no more than five percent of overall restoration expenditures over the remainder of the settlement period.

Integrated Research: A research program that coordinates project development and design across goals and objectives; appropriately reflects and addresses ecosystem relationships; and ensures that collected data will be readily available and accessible to resource managers, policy makers and the general public.

Information Management: Information that is available in a timely manner and usable format to scientists, managers and the public.

Communication: A public involvement program that provides information and an opportunity for meaningful involvement in all levels of restoration — planning, project design, implementation and review.

List of Attendees
Ecosystem-based Management Structure for Implementing the EVOS Restoration Plan
January 13 & 14, 1994

Jim Ayers - Executive Director, fax 907-586-7249/276-7178 Anch
Molly McCammon - Director of Operations, fax 907-276-7178
Eric Meyers - Project Manager, fax 907-276-7178
Bob Spies - Applied Marine Sciences, fax 510-373-7834
Pete Peterson - University of North Carolina, fax 919-726-2426
George Rose - DFO Canada/Open, fax 709-772-4188
Glenn Juday - University of Alaska, Fairbanks, fax 907-474-7439
Byron Morris - National Marine Fisheries Service, fax 907-789-6608
Alex Werthheimer - National Marine Fisheries Service, fax 907-789-6608
Jeep Rice - National Marine Fisheries Service, fax 907-789-6608
Dave Gibbons - U.S. Forest Service, fax 907-586-7555
Sandy Rabinowitch - U.S. DOI, National Park Service, fax 907-257-2510
Jerome Montague - Ak Department of Fish & Game, fax 907-465-4759
Mark Brodersen - Ak Department of Environmental Conservation, fax 907-465-5375
Tom Van Brocklin - PWS Communities Organized to Restore the Sound,
fax 907-835-3864
Torie Baker - PWS Ecosystem Assessment Planning Group, fax 907-424-3430
Dan Hull - PWS Ecosystem Assessment Planning Group, fax 907-243-1679 call first
John French - Fisheries Industrial Technology Center, Kodiak, fax 907-486-1540
Gary Kompkoff, Tatitlek, fax 907-325-2298
Gail Evanoff, Chenega, fax 907-573-5135
Steve Planchon, The Nature Conservancy, fax 907-276-2584
Pam Brodie, Sierra Club, fax 907-258-6807
Leslie Holland-Bartel, U.S. DOI, National Biological Survey, fax 907-786-3636
Kim Sundberg, Ak Department of Fish & Game, fax 907-349-1723
Jess Grunblatt, Ak Department of Natural Resources, fax 907-276-7178
Andy Gunther, Applied Marine Sciences, fax 510-373-7834
Bob Loeffler, Ak Department of Environmental Conservation, fax 907-276-7178
Art Weiner, Ak Department of Natural Resources, fax 907-278-7178
L.J. Evans, Ak Department of Fish & Game, fax 907-258-9860
Tony DeGange, U.S. Fish & Wildlife Service, fax 907-786-3350

Invited but did not attend:

David Irons - U.S. Fish & Wildlife Service, fax 907-786-3641
Bill Hines - National Marine Fisheries Service, fax 907-586-7249
Veronica Gilbert - Ak Department of Natural Resources, fax 907-276-7178
Brad Phillips, Public Advisory Group, fax 907-276-5315
Ted Cooney, University of Alaska, Fairbanks, fax 907-474-7204

Meeting Summary

A. GROUP: Exxon Valdez Oil Spill Public Advisory Group (PAG)

B. DATE/TIME: January 11-12, 1994

C. LOCATION: Anchorage, Alaska

D. MEMBERS IN ATTENDANCE:

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<u>Name</u>	<u>Principal Interest</u>
(King alternate for Andrews)	Sport Hunting and Fishing
Pamela Brodie	Environmental
Kim Benton	Forest Products
(on 1-11, for Sturgeon)	
Jim Diehl	Recreation Users
Donna Fischer	Local Government
John French	Science/Academic
Sharon Gagnon (for Williams)	Public-at-Large
James King	Conservation
(Cloud alternate for McCorkle)	Public-at-Large
Mary McBurney (for McCune)	Commercial Fishing
John McMullen	Aquaculture
Brad Phillips, Chair	Commercial Tourism
(absent 1-12)	
John Sturgeon	Forest Products
Charles Totemoff	Native Landowners

E. NOT REPRESENTED:

<u>Name</u>	<u>Principal Interest</u>
Cliff Davidson (<i>ex officio</i>)	Alaska State House
Richard Eliason	Public-at-Large
Richard Knecht	Subsistence
Don McCumby (alternate)	Public-at-Large
Drue Pearce (<i>ex officio</i>)	Alaska State Senate

F. OTHER PARTICIPANTS:

<u>Name</u>	<u>Organization</u>
Jim Ayers	Executive Director, EVOS Restoration Office
Torie Baker	Cordova District Fishermen United
Jim Barnett	City of Whittier
Judy Bittner	AK Dept. Natural Resources
Terry Brady	Husky Wood, Inc.
Mark Broderson	AK Dept. Environ. Conservation
Roger Burnside	AK Dept. Natural Resources
Tony DeGange	Fish and Wildlife Service

Cliff Eames	Alaska Center for the Environment
L.J. Evans	Restoration Office Staff
Steve Hennick	U.S. Forest Service
Ed Holsten	U.S. Forest Service
Dan Hull	Prince William Sound Fisheries Ecosystem Research Planning Group
Bob Loeffler	AK Dept. Environmental Conservation
George Matz	Alternate to King
Charles McKee	
Win Minefee	AK Dept. Natural Resources
Jerome Montague	AK Dept. Fish and Game
Byron Morris (telecon)	National Oceanic and Atmospheric Administration
Doug Mutter	Designated Federal Officer Dept. of the Interior
Eric Myers	Restoration Office Staff
Sandy Rabinowitch	National Park Service
Doug Reger	AK Dept. Natural Resources
Sean Ryan	
Larry Smith	
Mark Stahl	Chugach Native Corp.
Ray Thompson	U.S. Forest Service
Art Weiner	AK Dept. Natural Resources
Dave Wallingford	AK Dept. Natural Resources

G. SUMMARY:

The meeting was opened January 11 at 9:30 a.m. by Chairperson Brad Phillips. The November 23, 1993 meeting summary was accepted with the addition of a note that Jim Cloud was represented by designating Vern McCorkle as his alternate.

Eric Myers identified the handouts before the PAG.

Jim Ayers was weathered in at Juneau until the afternoon of January 12, and gave the Executive Director's report via teleconference. The 1992 and 1993 project status reports (see attachments J. 12 and 13) were produced at PAG request. Information on the status of reimbursements is still being developed. The management structure and approach to restoration is in the process of being developed. A coordinated database of spill and restoration information should be developed. Ayers anticipates that the mission will go beyond the year 2001, but funding mechanisms are not determined. On January 13 and 14 a workshop will be held to further develop the ecosystem approach to restoration.

The PAG discussed the best approach to determining a position on the FY 94 restoration projects.

The meeting was opened for public comment. Testimony was presented by Jim Barnett and Mark Stahl on the proposed Shotgun Cove project at Whittier. Dave Wallingford, Ed Holsten, and Roger Burnside gave a presentation on bark beetle infestations. Terry Brady, Cliff Eames, and Larry Smith also commented on bark beetle infestations. Torie Baker and Dan Hull presented the status of the PWS Fisheries Ecosystem Research Work Group. Charles McKee commented (see attachment J.16).

Brad Phillips was unable to attend January 12 and turned the chair over to the Vice Chairperson, Donna Fischer.

The PAG reviewed Fiscal Year 1994 (FY 94) draft Work Plan Projects by lead agency and voted on whether each project should be given a high (H), medium (M), or low (L) priority, or not (NO) be funded at this time (see attachment J.1). Individual member comments on each project may be found in the PAG January 11-12, 1994 Meeting Transcript. Representatives of the agencies gave a brief presentation on their projects and answered questions:

Alaska Department of Fish and Game: Jerome Montague
National Park Service: Sandy Rabinowitch
U.S. Fish and Wildlife Service: Tony DeGange
Alaska Department of Natural Resources: Win Minefee,
Judy Bittner, Art Weiner (Minefee also briefed the
PAG on the the results of the Recreation Work Group)
U.S. Forest Service: Ray Thompson and Steve Hennick
National Oceanic and Atmospheric Administration: Byron
Morris (via telecon)
Alaska Department of Environmental Conservation: Mark
Broderson

A position was not taken on the following projects:

94064: already approved by Trustee Council (TC)
94147: withdrawn by NOAA
94166: already approved by TC
94217: already approved by TC
94423 and 940ED: Executive Director's Office projects
evolving and no figures yet available
94199: not enough information was presented
94422: not enough information provided

PAG members are to turn in any written comments on the Project Summary List to Doug Mutter at the end of the meeting, and any other written comments are due to the Executive Director by January 21, 1994. Two additional resolutions were passed (see attachments J.2 and 3).

An additional general comment on the FY 94 Work Plan Projects that had wide support was that projects are still not presented in a comprehensive, ecosystem approach.

It was moved by Pamela Brodie and seconded by John Sturgeon and passed by unanimous consent that the PAG send a letter to Charlie Cole with PAG appreciation of his hard, effective work on the EVOS restoration program.

Mutter asked PAG members to clear up any outstanding travel issues and to get their travel for this meeting in as soon as possible because there will be a transition in the travel procedures from the Federal to the State system March 1, 1994.

The meeting adjourned at 4:00 p.m. on January 12, 1994.

H. FOLLOW-UP:

1. Jim Cloud will present a summary of PAG actions at the January 31, 1994 Trustee Council meeting, since the Chairperson will be out of town at that time.
2. John French will represent the PAG at the January 13-14, 1994 ecosystem/restoration planning workshop.
3. All PAG members who wish to do so, are to get their written comments on FY 94 projects to the Executive Director by January 21, 1994.
4. Mutter will meet with Ayers and contact Phillips to determine when the next PAG meeting should be.
5. Mutter will prepare a letter from the PAG Chairperson thanking Charlie Cole for his efforts on the EVOS Trustee Council.

I. NEXT MEETING: To be determined.

J. ATTACHMENTS:

1. FY 94 Projects Reviewed and PAG Vote Record
2. PAG Resolution for Examination of FY 94 Project Budgets
3. PAG Resolution to include endowment in FY 94 Work Plan
4. January 11, 1994 letter from Jim Ayers to PAG Chairperson

Handouts attached for those not present:

5. Mission Statement of the EVOS Trustee Council
6. January 3, 1994 letter from Lew Williams
7. December 1993 PAG Membership List
8. Fishery Industrial Technology Center, Kodiak
9. July 12, 1993 Recommendations on FY 94 Projects from Chief Scientist
10. November 24, 1993 Memorandum on PAG Recommendations for the Draft Restoration Plan from Loeffler and Rabinowitch
11. 1993 PWS Fisheries Problems
12. Status Report 1992 EVOS Restoration Projects
13. Status Report 1993 EVOS Restoration Projects
14. Project Description: Common Property Salmon Stock Restoration
15. PWS Fisheries Ecosystem Research Planning Group Project
16. Charles McKee Statement

K. CERTIFICATION:

PAG Chairperson

Date

REPORT ON TRUST ACCOUNT

11.5.1m

11.5.1

**EXXON VALDEZ OIL SPILL SETTLEMENT ACCOUNT
RESTORATION JOINT TRUST FUND**

DRAFT

Date	Transaction	Amount	Account Balance
12/13/91	First Exxon payment pursuant to Consent Decree	\$90,831,232.50	
	Reimbursement to the State of Alaska for oil spill related expenditures		
	General Fund	(\$25,313,756.18)	
	Hazardous Substance Mitigation Account	(\$3,954,085.40)	
	Reimbursement to the United States for oil spill related expenditures	(\$24,726,279.95)	
	Amount deposited in Joint Trust Fund	\$36,837,110.97	\$36,837,110.97
06/12/92	First 1992 Work Plan withdrawal authorized by Trustee Council Date filed with Court - 06/15/92		
	State of Alaska	(\$6,559,200.00)	
	United States	(\$6,320,500.00)	
	Amount deducted from the Joint Trust Fund	(\$12,879,700.00)	\$23,957,410.97
12/01/92	Second Exxon payment pursuant to Consent Decree	\$150,000,000.00	
	Exxon cleanup cost deduction	(\$39,913,688.18)	
	Reimbursement to the State of Alaska for oil spill related expenditures		
	General Fund	(\$16,685,133.00)	
	Hazardous Substance Mitigation Account	(\$12,314,867.00)	
	Reimbursement to the United States for oil spill related expenditures	(\$24,500,000.00)	
	Amount deposited in Joint Trust Fund	\$56,586,311.82	\$80,543,722.79

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EXXON VALDEZ OIL SPILL SETTLEMENT ACCOUNT
RESTORATION JOINT TRUST FUND

DRAFT

Date	Transaction	Amount	Account Balance
01/04/93	Second 1992 Work Plan withdrawal authorized by Trustee Council Date filed with Court - 01/19/93		
	State of Alaska	(\$3,574,000.00)	
	Interest earned by the State of Alaska on previous funds	\$80,774.69	
	United States	(\$3,113,900.00)	
	Interest earned by the United States on previous funds	\$39,871.54	
	(This request included \$356.6 for 1993 projects which is included in the total.)		
	Amount deducted from the Joint Trust Fund	(\$6,567,253.77)	\$73,976,469.02
06/14/93	First 1993 Work Plan withdrawal authorized by Trustee Council Date filed with Court - 06/21/93		
	State of Alaska	(\$15,070,900.00)	
	Interest earned by the State of Alaska on previous funds	\$35,012.17	
	United States	(\$6,035,500.00)	
	Interest earned by the United States on previous funds	\$3,648.00	
	Amount deducted from the Joint Trust Fund	(\$21,067,739.83)	\$52,908,729.19
09/01/93	Third Exxon payment pursuant to Consent Decree	\$100,000,000.00	
	Reimbursement to the State of Alaska for oil spill related expenditures		
	General Fund	(\$14,762,703.00)	
	Hazardous Substance Mitigation Account	(\$5,237,297.00)	
	Reimbursement to the United States for oil spill related expenditures	(\$11,617,165.00)	
	Amount deposited in Joint Trust Fund	\$68,382,835.00	\$121,291,564.19

**EXXON VALDEZ OIL SPILL SETTLEMENT ACCOUNT
RESTORATION JOINT TRUST FUND**

DRAFT

Date	Transaction	Amount	Account Balance
09/16/93	Second 1993 Work Plan withdrawal authorized by Trustee Council Date filed with Court - 11/10/93		
	State of Alaska	(\$29,950,000.00)	
	United States	\$0.00	
	Amount deducted from the Joint Trust Fund	(\$29,950,000.00)	\$91,341,564.19
	This withdrawal is the down payment on the Seal Bay parcel. An additional \$8,750,000 will be paid to the seller in three equal annual payments plus interest.		
11/30/93	First 1994 Work Plan withdrawal authorized by Trustee Council Date filed with Court - 12/16/93		
	State of Alaska	(\$5,954,400.00)	
	Interest earned by the State of Alaska on previous funds	\$64,944.32	
	Unobligated balance for 03/01/92 to 02/28/93	\$3,661,600.00	
	United States	(\$2,567,300.00)	
	Interest earned by the United States on previous funds	\$51,231.00	
	Amount deducted from the Joint Trust Fund	(\$4,743,924.68)	\$86,597,639.51

SANDOR PROPOSAL 11.5.16

RESOLUTION TO APPROVE FUNDING FOR EXPANSION OF THE UNIVERSITY OF
ALASKA INSTITUTE OF MARINE SCIENCE AT SEWARD, ALASKA

The Exxon Valdez Trustee Council approves financial support for the proposed expansion of the Institute of Marine Science at Seward, Alaska and authorizes the Executive Director to:

1. Take necessary steps to secure NEPA compliance;
2. Consult appropriate entities, including the University of Alaska, the City of Seward, the Seward Association for the Advancement of Marine Science and appropriate Trustee Agencies to review the assumptions relating to the proposed improvements and capital and operating budgets;
3. Develop an integrated funding approach which assures that the use of trust funds are appropriate and legally permissible under the terms of the Memorandum of Agreement and Consent Decree.
4. Prepare a recommendation of the appropriate level of funding for consideration by the Trustee Council that would be legally permissible under terms of the Memorandum of Agreement and Consent Decree.

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**SUMMARY OF PUBLIC COMMENTS
FFY94 RESTORATION DRAFT WORK PLAN**

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The Trustee Council sent out the *Exxon Valdez* Oil Spill Restoration Draft 1994 Work Plan for public review on December 13th, 1993. A total of 462 comments were received by the end of the 30-day comment period. A write-in campaign for the Alaska Marine Research Center contributed 311 individual comments advocating that project, most of which were clip-out newspaper coupons. Each letter received was coded as either advocating or opposing one or more of the 64 projects contained within the draft 1994 Work Plan.

In addition to comments on specific projects the following general themes were expressed in a number of letters:

- ◇ Public perception that Restoration Funds are being used primarily for monitoring and little general restoration is taking place,
- ◇ A perception that the public should be allowed to receive contracts to perform restoration work--rather than having the state and federal governments monopolizing control and spending of the oil spill funds, and
- ◇ A need for habitat protection through land acquisition.

Additionally, seven new projects were proposed for inclusion in the final 1994 Restoration Work Plan:

1. Establishment of an endowment
2. Endowed Chairs to be established at the University of Alaska
4. Land trades as a form of habitat acquisition
5. Spruce bark beetle program
6. Retirement of the PWSAC hatchery debt
7. Construction of recreation cabins in Prince William Sound

Few respondents commented on all of the projects.

Habitat acquisition, the hatchery operating expenses support proposal, and the Alaska Marine Research Institute generated the greatest amount of public comment.

Most comments were received from inside the state (30 comments were received from the rest of the United States). A breakdown on the number of comments by location follows:

ANCHORAGE	227
SEWARD	94
CORDOVA	34
FAIRBANKS	22
KENAI/SOLDOTNA	19
HOMER	13
USA	10
OTHER MAT-SU	15
VALDEZ	7
SOUTHEAST ALASKA	7
SEWARD PENINSULA	4
WESTERN ALASKA	3
BARROW	2
KETCHIKAN	1
NOME	1
UNKNOWN	3

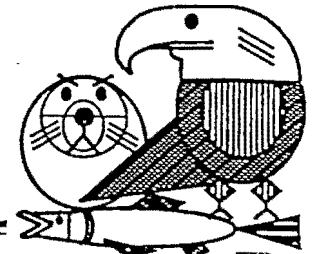
11.5.73

Exxon Valdez Oil Spill Trustee Council

Restoration Office

645 G Street, Suite 402, Anchorage, Alaska 99501

Phone: (907) 278-8012 Fax: (907) 276-7178



TRUSTEE COUNCIL MEETING NOTES

RECEIVED
JAN 31 1994

November 30, 1993

By Dave R. Gibbons
Interim Administrative Director

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL
ADMINISTRATIVE RECORD

Members Present:

Trustee Council

John Sandor (ADEC)
Mike Barton (USFS)
Charlie Cole (ADOL)
Carl Rosier (ADF&G) ♦
Steve Pennoyer (NMFS)
Paul Gates (USDOJ) •

Restoration Team

Jim Ayers (Exec Dir)
Dave Gibbons (IAD)
Mark Brodersen (ADEC)
Ken Rice (USFS)
Marty Rutherford (ADNR)
Jerome Montague (ADF&G)
Byron Morris (NOAA)
Pamela Bergmann (USDOJ)

♦ Chair

• Alternates:

George Frampton served as alternate for Paul Gates until 5:00 p.m.

1. Public Advisory Group Meeting Report

APPROVED MOTION: Approved elected officers of the Public Advisory Group for FY 1994. Chair: Brad Phillips, Vice-Chair: Donna Fischer

APPROVED MOTION: Form a small group of people flush out endowment options. Subsequently, ask Department of Justice to give legal opinion on endowment options.

ACTION: Add exchange document prepared by the Department of Interior to appendix and include exchange options to flow-chart, if appropriate. What do you do with Bark Beetle infested areas - need discussion of this point in document.

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

2. Status Report of the 1993 Shoreline Assessment Project

3. Comprehensive Habitat Protection Evaluations

APPROVED MOTION: Move to send the appropriate habitat documents out to the public for information. **Amended:** Leave it up to the Executive Director to determine what to distribute. All documents that have been prepared are accessible to the public for information.

4. Habitat Protection Negotiations Options

APPROVED MOTION: Authorize Executive Director to determine whether to proceed with small parcel evaluation and if needed, move to proceed with development of the process and analysis of small parcels to bring back to the Trustee Council for review.

APPROVED MOTION: Executive Director be charged with defining negotiations options for each parcel identified by the Trustee Council for possible Habitat Protection actions.

5. Draft/Final Restoration Plan

APPROVED MOTION: Adopt Draft Restoration Plan as amended by inclusion of the Public Advisory Group comments that the staff has incorporated.

6. 1994 Draft Work Plan

APPROVED MOTION: Send out for public review the 1994 Draft Work Plan including all projects except for: 94025, 94273 and 94277.

AMENDMENT: Staff is to continue to work with Alaska Marine Research Institute personnel to re-format project proposal 94199, identifying no costs at this time (TBD).

APPROVED MOTION: Approve full yearly funding for projects:

94064 - Harbor Seals @ \$270.2

94166 - Herring Spawn Deposition @ \$466.3

APPROVED MOTION: Fund project 94159, Marine Boat Survey at \$107,000 which is to cover Spring survey costs only.

APPROVED MOTION: Move to provide funding for the Kodiak Artifact Repository at \$1.5 million.

ACTION: For the January Trustee Council meeting, prepare a document that displays the interrelationships of like species, projects, (i.e., Sockeye, Pink and Intertidal). Include:

- interrelationships
- recommendations by staff/project
- why this year?
- perhaps restructure projects if appropriate

Status report is needed for each project which is included in the 1994 Work Plan. This report is to capsulize the injury/restoration findings concerning this species or service and is due to the Trustee Council for their January 31, 1994 meeting.

7. Management Structure/Administrative Budget

APPROVED MOTION: Adopted the Mission Statement for the Exxon Valdez Oil Spill Trustee Council developed by Executive Director.

APPROVED MOTION: Adopted the organizational chart as developed by Executive Director. Also send the Administrative Budget out for public comment with the Draft 1994 Work Plan and identify that it is to be reduced by at least 15% during the remaining 9 months.

APPROVED MOTION: Transfer \$25,000 from the Department of Agriculture to Alaska Department of Environmental Conservation for publication of the Draft 1994 Work Plan.

8. NEPA Compliance

APPROVED MOTION: Have the federal attorneys and the Department of Justice look at Draft Restoration Plan and report back to Trustee Council ASAP, with an opinion on the ability to develop Environmental Impact Statement document from the approved draft Restoration Plan.

Next Trustee Council meeting will begin at 9:00 a.m. on January, 31, 1994.

Next Public Advisory Group meeting will be on January 11 & 12, 1994.

rw

Projekt 199

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EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL
ADMINISTRATIVE RECORD

EXXON VALDEZ OIL SPILL PROJECT DESCRIPTION

Improvements to Institute of Marine Science - Seward

Project # 94199

Lead Agency: ADF&G

Cooperating Agencies: NOAA and DOI-FWS/NBS

Project Start-up Date: February 1994

Geographic Area: Spill area

Cost of Project, FY94: \$ 24,984,000

Cost of Project, FY95: \$ 680,000

Cost of Project, FY96: \$ 1,580,000

Cost of Project, FY97: \$ 680,000

January 21, 1994

Purpose of Improvements to Institute of Marine Science at Seward

The primary purpose of improving the facilities of the Institute of Marine Science (IMS) at Seward is to enhance the capability of the Trustee Council to conduct and coordinate appropriate research and monitoring relating to marine mammals, marine birds, and their habitats. Additionally, the improvements will serve as a center for the coordination and integration of the comprehensive research and monitoring of the ecosystem affected by the Exxon Valdez oil spill (EVOS) with the goal of benefiting the long term health and restoration of injured resources and services.

The improvements are intended to help focus and carry out a long term research and monitoring program for the EVOS area. This will be accomplished through two objectives: 1) programmatically coordinating EVOS related research and monitoring among existing coastal research facilities, and 2) improving existing IMS research facilities in Seward to augment capabilities that do not currently exist elsewhere, principally for studies on marine mammals and marine birds. In meeting the second objective, there is an opportunity to supplement and complement some \$12.5 million in state criminal settlement funds already earmarked for a Seward Sea Life Center and potentially some \$3.2 million for an Alaska Shellfish Hatchery and Technical Center. Additionally, there is an opportunity to support the long term costs of operating improved research facilities in Seward with revenues derived from public education and tourism. Guidance for this project is contained in the EVOS Memorandum of Agreement and Consent Decree and the Draft EVOS Restoration Plan.

The Seward improvements are intended to address among other things: 1) long term monitoring, research, and rehabilitation needs for the EVOS, 2) enhancing the capabilities of available infrastructure to meet those needs, and 3) coordinating the programs for monitoring and research at the various research facilities with existing responsibilities in the EVOS area.

Monitoring and Research Functions

The following information describes an ecosystem-based monitoring and research program that could be conducted at improved IMS facilities in Seward. A description of specific improvements including a budget for equipment and facilities follows this section:

Integration and Modeling Program

- Ecological relationships
- Food webs
- Synthesis, gap analysis, forecasting
- Specialized library and database

The institute would assist with comprehensive data integration and modeling of the ecosystem in the EVOS region. The IMS program will be integrated with existing monitoring and research activities by agencies and other groups, but it will not duplicate or replace them. A major task will be to help organize and synthesize existing abiotic and biotic information from relevant EVOS damage assessment, restoration, and other studies. Concurrently, a long term study program following an ecosystem-based plan will be undertaken to monitor the recovery and health of the ecosystem in the EVOS region. The task of information integration will involve a specialized library, database program, and tracking of current research. It will also include modeling designed to organize ecological information about species interactions and to develop consistent protocols and techniques that can be used to forecast changes and identify data gaps. The institute would assist with oceanographic measurements including estimates of primary and secondary production, the status of intertidal and subtidal communities, surveys of commercially harvested and non-commercial fish and invertebrate taxa, and the status of marine mammals and birds in the EVOS region. Field measurements will be augmented by laboratory studies of animal health, energetics, and physiology. The institute will actively engage in synthesizing and disseminating information concerning its research and the status of the ecosystem in the EVOS region. This will be accomplished through scientific publications, bulletins, newsletters, and on-line services.

Oceanography

- Physical (temperature, salinity, turbidity, nutrients)
- Biological (phytoplankton, zooplankton)

The institute could provide several critical oceanographic services to the EVOS region that are not currently available. A program of basic physical oceanography measurements including temperature, salinity, and nutrients would be integrated among resource agencies, academic institutions, and private entities. A long term phytoplankton and zooplankton monitoring program would provide information on primary and secondary production, plankton composition, and biomass for the EVOS region. These oceanographic data are vital to gaining an understanding of ecosystem functions including food web interactions and changes in higher level species composition and abundance. Oceanographic information would be synthesized and maintained in a database that will be accessible to all organizations.

Intertidal/Subtidal Habitat

- Intertidal/subtidal community composition and biomass
- Intertidal/subtidal community health

The institute could assist with two key elements of intertidal/subtidal habitat in the EVOS area. Information on the distribution, composition, and relative abundance of key intertidal and subtidal organisms would be collected and synthesized. A database will be maintained on the location and status of key coastal habitats including estuaries, kelp beds, seagrass beds, mussel and clam beds. Reference stations would be monitored in the EVOS area to determine baseline conditions, recovery, and seasonal and long-term population/composition trends. Laboratory plant/animal research would help detect factors influencing the health of intertidal/subtidal communities including natural and man-induced perturbations, parasites, disease, and recruitment. Rehabilitation of injured clam and mussel populations could be supported by a potential shellfish hatchery.

Fish/Invertebrates

- Fish/invertebrate health
- Food habits
- Population and reproductive status

The institute could assist research in several critical areas of the biology and ecology of fish and invertebrates with emphasis on injured species and associate prey (macro-zooplankton, forage fishes). Data on commercially harvested species would be synthesized in coordination and collaboration with state and federal resource agencies (primarily ADF&G and NMFS) and programs at other coastal research facilities. The institute could undertake a combination of population, food web interaction, and health studies to help compile a long term database on ecologically important taxa. The institute would help to synthesize data from in-house research and other sources, and disseminate that information to other organizations. Improved wet-laboratory and tank facilities would allow for controlled studies on bioenergetics, reproduction, and disease.

Marine Mammals

- Population and reproductive status
- Marine mammal health
- Food habits
- Live animal studies (physiology, pathology)
- Rehabilitation

The institute would address five critical areas of marine mammal research and monitoring while focusing on injured species. These include conducting research in population and reproductive status by collaborating with agencies that are responsible for management issues (NMFS, USFWS, ADF&G) and by helping to relate population trends to changes occurring in the ecosystem. The institute would conduct primary work on marine mammal health issues involving research on disease states, contaminants and potential food competition. This would include work on food habits such as daily nutritional requirements, prey preferences, the energetic costs of living at sea, and how much food is required to support whole populations. The institute would conduct carefully controlled studies on animals held at the facility to define physiological and health status, and adaptations to environmental conditions. The institute would help to maintain a

stranding network for marine mammals that periodically come ashore and require necropsy or emergency medical attention to gain a better understanding of marine mammal health. Injured or sick marine mammals could be rehabilitated and returned to the wild to benefit the recovery of marine mammal populations.

Marine Birds

- Population and reproductive status
- Avian health
- Food habits
- Live animal studies (physiology, pathology)

Work at the institute would focus on four critical elements of avian biology. First, in coordination and collaboration with federal and state agencies, staff could assist with population and reproductive studies of bird species in the EVOS area. Research would focus on the relationship of bird population and reproductive trends to their environment, and would help to synthesize and disseminate information from these studies. The institute would have facilities that could conduct basic research on avian health including individual birds and, perhaps more important, address population health by looking at levels of contaminants, disease state, and body condition of wild species. Research on injured or sick birds would focus on animal health and wildlife diseases with the goal of helping to rehabilitate and restore injured species. Research programs will also focus on the important area of food habits by studying the dietary requirements and limits of critical species. Work with live birds in holding tanks, aquaria, and research habitat would enable detailed controlled laboratory and experimental studies in energetics, physiology, and animal health that would help to understand natural recovery in the EVOS area.

Additional Research Capabilities

- Shallow water submersible (130 meter depth capability)
- Research vessel/sub tender (130 foot rig tender design)
- ROV

Improved facilities in Seward could accommodate the basing of a research submersible and vessel/tender for the EVOS area. Submersibles are becoming increasingly valuable for marine research and would enhance the work of the institute and other State, Federal, and private research entities particularly in studies of fish, marine mammals, birds, invertebrates, and benthos. Certain types of marine research can only be conducted using a submersible. Presently, the nearest available submersible is located in California and must be ferried to and from Alaska, at considerable additional time and cost to research programs. A shallow water submersible and supporting vessel that would support allow for work throughout the EVOS area could be obtained at a reasonable cost. The support vessel/tender would provide a research platform for other EVOS monitoring and research. There is an opportunity to offset approximately one-half of the cost of purchase and operation of a vessel targeted for research in the North Pacific through coordination with the University National Oceanographic Laboratory System.

Although not as flexible as a submersible and with more limited capabilities, a Remote Operated Vehicle (ROV) provides another alternative and could be used from modified existing vessels. A research submersible and vessel/tender have been incorporated into this phase of the project. Modifications to the facility have been anticipated.

Improvements to Institute of Marine Science at Seward Project Budget

The proposed improvements at Seward are to be located adjacent to the existing campus of the Seward Marine Center of the University of Alaska, Institute of Marine Science (IMS). The Seward improvements will consist of nearly 39,000 square feet of interior space made up primarily of laboratories, staff offices, computer work stations, and building support systems for the study of the marine mammals and marine birds affected by the 1989 Exxon Valdez oil spill (EVOS).

There will also be 50,000 square feet of exterior space containing outdoor research habitat for those marine mammals and marine birds that are being studied. The research habitat will include tanks for pinnepeds and sea otters, and aviary for the study of marine bird species. The outdoor and indoor live tanks and research habitat will be supported by an extensive life support system using sea water from Resurrection Bay.

The Seward improvements will also accommodate the basing of a research submersible and support vessel for conducting research and monitoring in the EVOS area.

The following line item estimate provides a budget for the total project costs associated with the Seward improvements.

Cost Categories	Budget
Equipment: Life Support System	\$ 9,190,000
Live Tanks (10) and Live Pools (4)	841,000
Research Habitat	1,683,000
Laboratory Equipment	² 5,343,000
Subtotal Equipment	\$ 17,057,000
Facilities: Site Work (includes wave barrier)	\$ 5,747,000
Building Construction	10,560,000
Subtotal Facilities	\$ 16,207,000
Research Submersible and Support Vessel	2,800,000
Permits and Agency Review	170,000
Grand Total Project	\$ 36,234,000
Contribution from State Criminal Settlement Funds	<11,250,000>
Total Joint Funds Requested	\$ 24,984,000

¹ Budget based on estimates at conceptual phase of project.

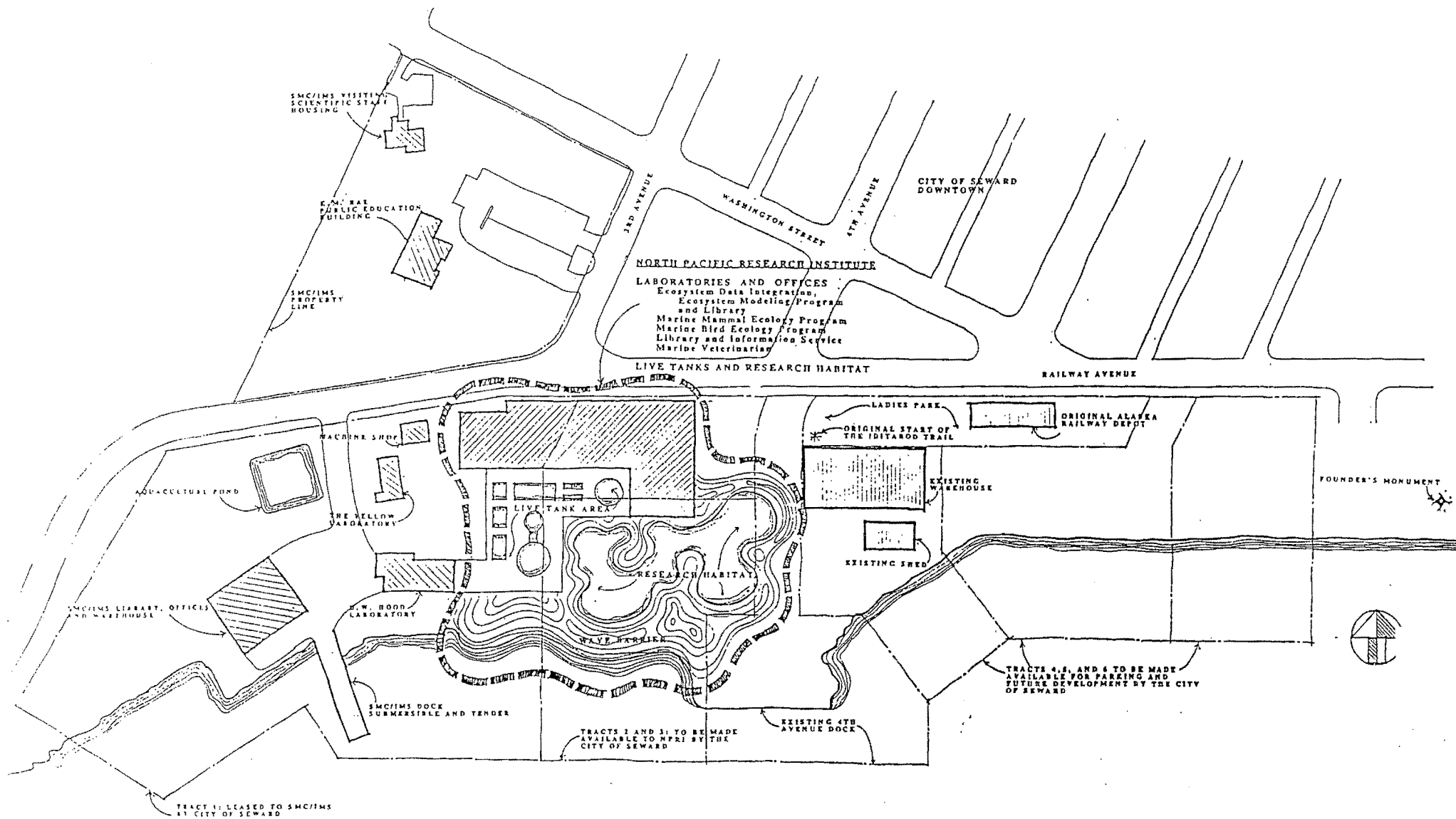
² @15% of total construction (standard architectural estimation for research laboratory)

Existing Marine Science Program at Seward

The University of Alaska Fairbanks (UAF), Institute of Marine Science (IMS) carries out its shore based activities in Seward. The Seward Marine Center facility has been operational since 1970. The program consists of vessel operations, research, and education. The state's only oceanographic vessel the R/V *Alpha Helix* (133') operates from Seward and supports most of the oceanographic research done in the Gulf of Alaska and Bering Sea. The National Science Foundation is currently designing an ice breaker (330') that will operate from Seward and provide access to the Arctic Ocean. A variety of small vessels (< 30') are available for local research. The facility has warehouse and docking facilities, machine shop, and staff to support oceanographic vessels.

The laboratory at Seward has the only running seawater system in the northern Gulf of Alaska region and a variety of marine biological and medical research is undertaken through the University research and graduate student training program. The areas of study include oceanography (physical, chemical, biological), marine biology, physiology, and ecology. The UAF medical program uses the Seward facility to conduct their joint UAF-Russia medical research projects. The Seward Area Native Association is actively involved in shellfish aquaculture at the laboratory and the Alaska Department of Fish and Game is conducting a siting study for the Alaska Shellfish Hatchery and Technical Center that may lead to establishing a shellfish research laboratory and hatchery on the site.

The current IMS facility has two marine science laboratories including the Hood physiology and medical research lab (4,000 sq.ft.) and the Marine Biology Lab (1,540 sq.ft.). An educational program is operated from the Rae Public Education Building (5,000 sq.ft.). This public service program disseminates the results of marine science research to the public, science educators, policy makers, and researchers from other institutions.



RESURRECTION BAY

Seward Improvement - IMS
January 21, 1994
Illustrative Site Plan

Total Facility Program Space Description	Total Facility		Dedicated Research Program		Scientific Support Narrative for Research Program
	Exterior Area sf	Interior Area sf	Ext.	Inter.	
A. RESEARCH (Interior)					
1. Marine Mammal Ecology Program					
a. Principal Scientist Office		250		250	
b. Master of Science assistant office		150		150	
c. Graduate student office(2 students)		150		150	
d. Dry Laboratory		500		500	
e. Wet Laboratory		900		900	
f. Storage		100		100	
2. Marine Bird Ecology Program					
a. Principal Scientist Office		250		250	
b. Master of Science assistant office		150		150	
c. Graduate student office(2 students)		150		150	
d. Dry Laboratory		500		500	
e. Wet Laboratory		600		600	
f. Storage		100		100	
3. Ecological Modeler					
a. Principal Scientist Office		350		350	
b. Master of Science assistant office		220		220	
c. Graduate student office(2 students)		150		150	
d. Computer Room		400		400	
f. Storage		150		150	
Subtotal(this page)	0	5,070	0	5,070	

Total Facility Program Space Description	Total Facility		Dedicated Research Program		Scientific Support Narrative for Research Program
	Exterior Area sf	Interior Area sf	Ext.	Inter.	
A. Research (continued)					
Visiting Scientific Area(other Federal, State and Institutional agencies)					
a. 6 offices(@150 sf)		900		900	
b. 2 dry laboratories(@500 sf)		1,000		1,000	
c. 2 wet laboratories(@ 1500 sf)		3,000		3,000	
 Veterinary Program					
a. Chief veterinarian's office		250		250	
b. Assistant veterinarian's office		150		150	
c. Graduate student office(2 students)		150		150	
d. Clinic		200		200	
e. Intensive Care Unit		100		100	
f. Rehabilitation treatment		200		200	
g. Indoor pools		300		300	
h. Freezer		50		50	
k. Laundry		100		100	
l. Kitchen		100		100	
m. Storage		100		100	
 B. RESEARCH (Exterior)					
a. Outdoor Research Tanks			25,000		
b. Outdoor Research Pens			2,000		
 Subtotal(All Research pages 1 and 2)	0	11,670	27,000	11,670	

Total Facility Program Space Description	Total Facility		Dedicated Research Program		Scientific Support Narrative for Research Program
	Exterior Area sf	Interior Area sf	Ext.	Inter.	
D. Library/Data Management					
a. Computer Area		400		400	
b. Stacks		2,000		2,000	
c. Office and work area		500		500	
Subtotal	0	2,900	0	2,900	
E. Core Facilities					
1. Administration					
d. Conference Room		200		200	
Subtotal	0	200	0	200	
2. Curatorial					
a. Water Quality Lab		400		400	
b. Necropsy		400		400	
c. Main Pathology Lab		400		400	
d. Storage		100		100	
e. Mammal Holding		4,000		4,000	
f. Bird Isolation Room		150		150	
g. Brooder Room		150		150	
h. Bird Holding Room		300		300	
i. General Storage		200		200	
Subtotal	0	6,100	0	6,100	

Total Facility Program Space Description	Total Facility		Dedicated Research Program		Scientific Support Narrative for Research Program
	Exterior Area sf	Interior Area sf	Ext.	Inter.	
3. Maintenance					
a. Central control room		200		200	
c. Custodial Office		100		100	
d. Custodial Storage		400		400	
e. General Storage/Workshop		400		400	
Subtotal	0	1,100	0	1,100	
4. Building Mechanical		3,000		3,000	
Subtotal	0	3,000	0	3,000	
5. Life Support		5,000		5,000	
Subtotal	0	5,000	0	5,000	
6. Service					
a. Trash Storage		200		200	
b. Loading Dock and Recieving		1,650		1,650	
Subtotal	0	1,850	0	1,850	

Total Facility Program Space Description	Total Facility		Dedicated Research Program		Scientific Support Narrative for Research Program
	Exterior Area sf	Interior Area sf	Ext.	Inter.	
7. Building Circulation a. Horizontal and vertical circulation, rest rooms.		7,180		7,180	
Subtotal	0	7,180	0	7,180	
Total Facility	0	39,000	27,000	39,000	

Seward Improvement - Institute of Marine Science

OPERATING COSTS & REVENUE PROJECTIONS

**Facility
Opens 6/1/97**

1994		1995		1996		1997		1998	
Jan	Dec	Jan	Dec	Jan	Dec	Jan	Dec	Jan	Dec
FY 1994		FY 1995		FY 1996		FY 1997		FY 1998	
Oct '93	Sep '94	Oct '94	Sep '95	Oct '95	Sep '96	Oct '96	Sep '97	Oct '97	Sep '98

	1994	1995	1996	1997	1998
OPERATING COST					
Staff *	0	680,000	680,000	1,000,000	1,000,000
Building Operations *	0	0	900,000	1,825,000	2,000,000
Total	\$0	\$680,000	\$1,580,000	\$2,825,000	\$3,000,000
<i>Notes: Operating costs for research submersible and vessel are currently being developed.</i>					
REVENUE					
Admissions *	0	0	0	2,100,000	2,400,000
Memberships	0	0	0	325,000	400,000
Corp. Sponsors	0	0	0	100,000	200,000
Retail	0	0	0	300,000	500,000
Total	\$0	\$0	\$0	\$2,825,000	\$3,500,000
NET (COST)/REVENUE	\$0	[\$680,000]	[\$1,580,000]	\$0	\$500,000

*ASSUMPTIONS

STAFF:

1 Director
1 Marine Mammal Ecologist
1 Marine Bird Ecologist
1 Ecological Modeler
1 Librarian
1 Information Specialist
1 Marine Veterinarian

Cost included in administrative component of capital budget

6 Research Positions @ \$80,000 = \$480,000
3 Administrative @ \$35,000 = \$105,000
1 Building Engineer @ \$60,000 = \$60,000
1 Asst. Building Engineer @ \$35,000 = \$35,000
1 Custodial @ \$30,000 = \$30,000
1 Security @ \$30,000 = \$30,000
13 Total Staff = \$740,000
Employee Benefits @ 35% = \$260,000
Total Staff Costs = \$1,000,000

Seward IMS Staff Not Currently Assigned to EVOS Restoration and Monitoring: Oceanographer; Intertidal/Subtidal Ecologist; Fish Ecologist; Marine Mammal Ecologist

Seward IMS Support Facilities Not Currently Assigned to EVOS

Restoration and Monitoring:

RN Alpha Helix (133')
R/V Little Dipper (30')
Deep Water Dock (150')
Mobile Crane (20 Ton)
Warehouse Space (10,000 SF)
Machine Shop (1,800 SF)
Housing for Researchers (4 Plex)
Education/Meeting Facility (5,000 SF)
100 Seat Auditorium
Dry Lab Space (2,100 SF)
Seawater Lab (2,400 SF)

BUILDING OPERATIONS: Includes utilities, telephone, supplies, postage, prof. fees, outside services, equipment, travel, prof. development, dues, animal food, insurance, legal fees, misc.

ADMISSIONS: Assumes \$10.00 admissions charge per visitor.

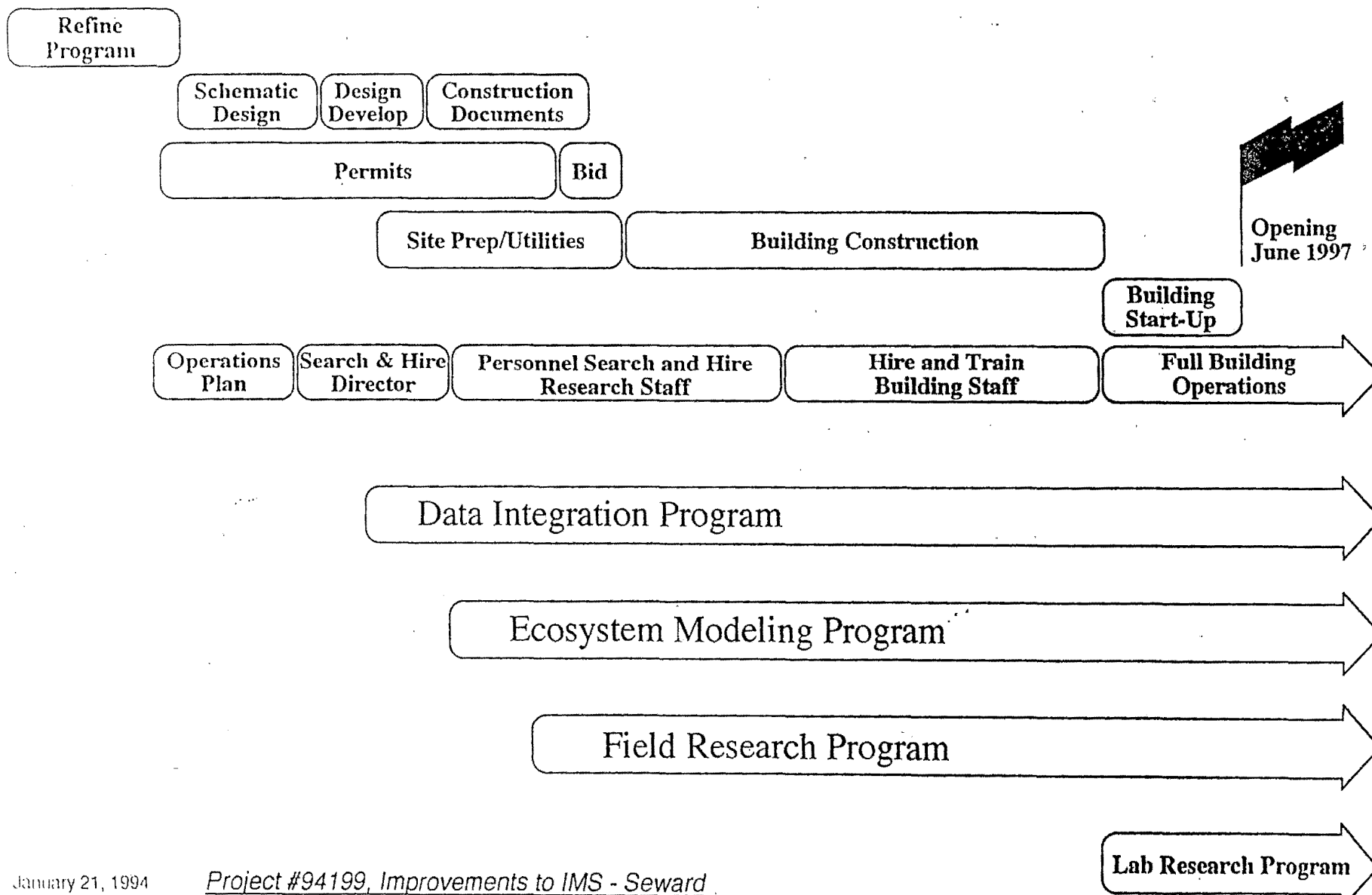
Project #94199, Improvements to IMS - Seward

January 21, 1998

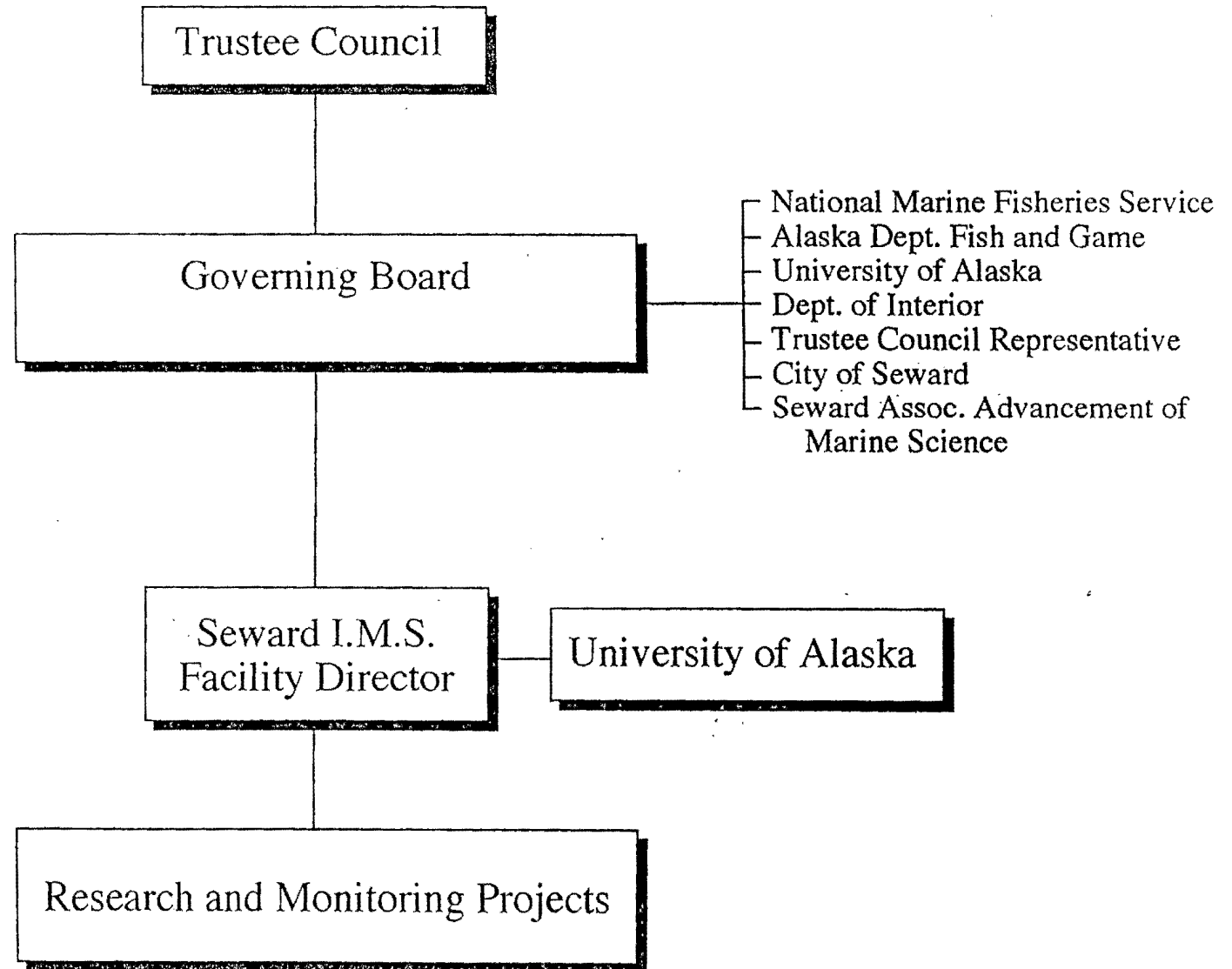
Seward Improvements - Institute of Marine Science

PROJECT MANAGEMENT PLAN

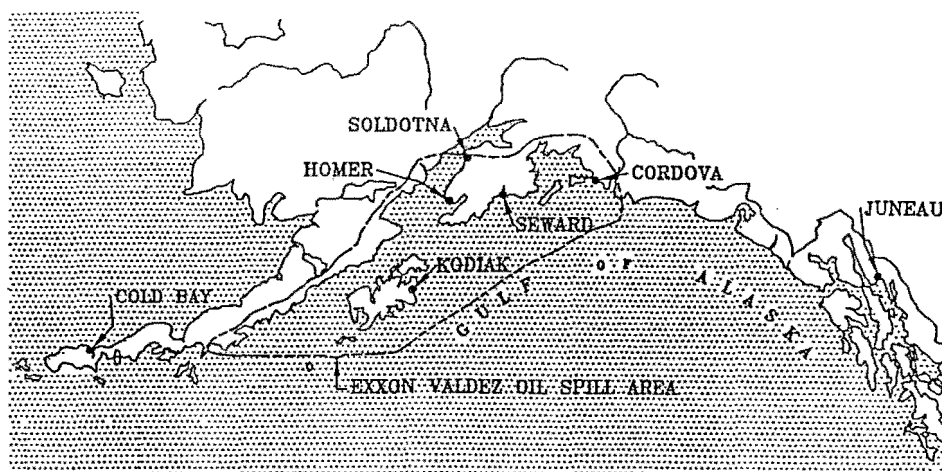
1993	1994					1995					1996					1997					
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	FY '94					FY '95					FY '96					FY '97					FY '98



Seward Improvements - Institute of Marine Science
PROPOSED ORGANIZATION



COASTAL MARINE RESEARCH FACILITIES



Seward: SEWARD MARINE CENTER

Ownership: University of Alaska, Institute of Marine Science

Mission: Shore station for the Institute of Marine Science (research arm of the School of Fisheries and Ocean Science [SFOS]). Oceanography (physical, chemical, biological), marine biology, physiology and ecology, medical research, shellfish aquaculture, graduate level education, vessel (R/V *Alpha Helix* and other) base and support.

Research Emphasis: Bioenergetics, crustacean physiology and reproduction, plankton, ecology, neural science

Professional Staff: 2 faculty, 6-12 visiting scientists; manager, public education; technicians; ship crew; port engineer; maintenance

Approximate Budget: \$593,000 unrestricted; \$1,514,400 restricted

Kodiak: FISHERIES INDUSTRIAL TECHNOLOGY CENTER

Ownership: University of Alaska, School of Fisheries and Ocean Science

Mission: Improved seafood processing methods, harvesting technology, fisheries technology transfer and instruction.

Research Emphasis: Seafood Processing and gear development

Professional Staff: 5 faculty, 2 research associates

Approximate Budget: \$840,000 unrestricted; \$1,515,400 restricted

Juneau: JUNEAU FISHERIES CENTER

Ownership: University of Alaska, School of Fisheries and Ocean Science (SFOS)

Mission: Graduate Studies in marine fisheries for SFOS.

Research Emphasis: Genetic improvement of salmon, aging growth of fish, population dynamics, fishery management

Professional Staff: 8 faculty, 4 research associates, manager

Approximate Budget: \$1,000,000 unrestricted; \$1,550,000 restricted

Juneau: AUKE BAY LABORATORY

Ownership: NOAA, National Marine Fisheries Service

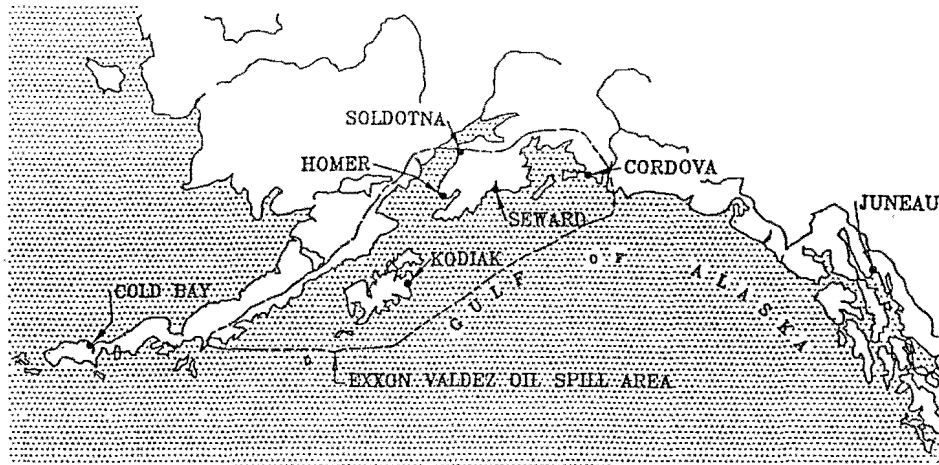
Mission: Support international treaty negotiations concerning interceptions of U.S. salmon; provide information on the status of ground fish in eastern gulf of Alaska; investigate impact of industrial development on fish and shellfish production in Alaska.

Research Emphasis: Salmon, ground fish, fish habitat, contaminants

Professional Staff:

Approximate Budget: \$5,200,000

COASTAL MARINE RESEARCH FACILITIES



Homer: KASITSNA BAY LABORATORY

Ownership: NOAA leased to University of Alaska, School of Fisheries and Ocean Science (SFOS)

Mission: Instruction in marine biology and intertidal ecology.

Research Emphasis: Near shore studies

Professional Staff: Maintenance, visiting faculty

Approximate Budget: \$100,000 unrestricted

Cordova: PRINCE WILLIAM SOUND OIL SPILL RECOVERY INSTITUTE

Ownership: Established by the Oil Pollution Act of 1990 and is administered by the PWS Science Center through the Department of Commerce.

Mission: To develop oil pollution R & D plan for cold water oil spills; and, to document, assess and understand the long-range of the Exxon Valdez oil spill.

Research Emphasis: Development of oil spill prevention, response, damage assessment and restoration techniques and equipment; long-term monitoring in EVOS impacted area. Coordinates research plans with Alaska's Hazardous Substance Spill Technology Review Council.

Professional Staff: 2 affiliate faculty researchers; 1 education associate; 2 administrative associates and several intermittent staff (positions shared with PWS Science Center).

Approximate Budget: \$200,000

Cordova: PRINCE WILLIAM SOUND SCIENCE CENTER

Ownership: PWS Science Center is a non-profit (501c3)

Mission: Develop a better ecological understanding of the Prince William Sound/Copper River Delta/North Gulf of Alaska through research, monitoring, and education programs.

Research Emphasis: Ecosystem, fisheries, oceanography, terrestrial

Professional Staff: 4 affiliate faculty researchers; 2 research associates; 3 education associates; 2 administrative associates and intermittent employees (several staff positions shared with the PWS Oil Spill Recovery Institute).

Approximate Budget: \$400,000

Soldotna: ALASKA DEPARTMENT OF FISH AND GAME COMMERCIAL FISHERIES MANAGEMENT AND DEVELOPMENT DIVISION

Ownership: Alaska Department of Fish and Game

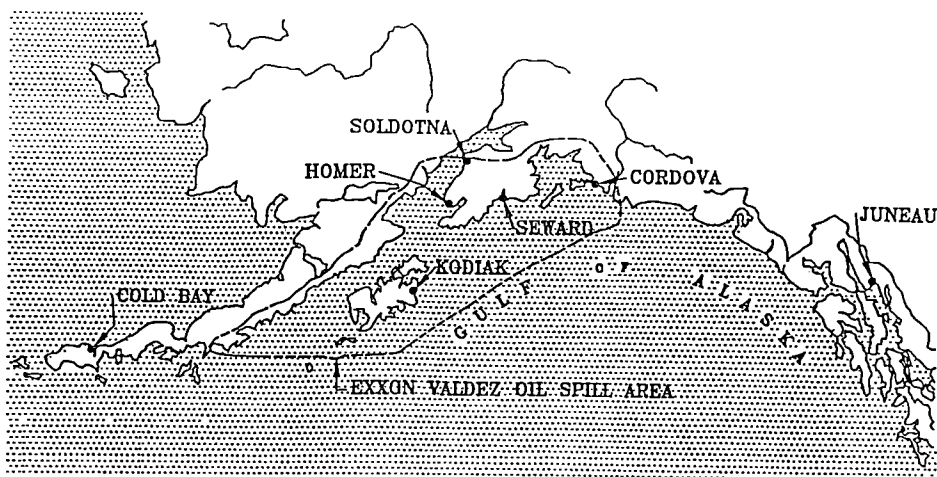
Mission: Manage, protect, rehabilitate, enhance, and develop fisheries and aquatic plant resources in the interest of the economy and general well-being of the state, consistent with the sustained yield principal and subject to allocations established through public regulatory processes.

Research Emphasis: Salmon

Professional Staff: 3 fishery biologist

Approximate Budget: \$1,500,000

COASTAL MARINE RESEARCH FACILITIES



Kodiak: ALASKA DEPARTMENT OF FISH AND GAME COMMERCIAL FISHERIES MANAGEMENT AND DEVELOPMENT DIVISION

Ownership: Alaska Department of Fish and Game

Mission: Manage, protect, rehabilitate, enhance, and develop fisheries and aquatic plant resources in the interest of the economy and general well-being of the state, consistent with the sustained yield principal and subject to allocations established through public regulatory processes.

Research Emphasis: Salmon, herring, commercial shellfish

Professional Staff: 5 fishery biologist, vessel captain and crew

Approximate Budget: \$1,400,000

Cordova: ALASKA DEPARTMENT OF FISH AND GAME COMMERCIAL FISHERIES MANAGEMENT AND DEVELOPMENT DIVISION

Ownership: Alaska Department of Fish and Game

Mission: Manage, protect, rehabilitate, enhance, and develop fisheries and aquatic plant resources in the interest of the economy and general well-being of the state, consistent with the sustained yield principal and subject to allocations established through public regulatory processes.

Research Emphasis: Salmon, herring, commercial shellfish

Professional Staff: 7 fishery biologist, vessel captain and crew

Approximate Budget: \$2,000,000

Soldotna: ALASKA DEPARTMENT OF FISH AND GAME COMMERCIAL FISHERIES MANAGEMENT AND DEVELOPMENT DIVISION

Ownership: Alaska Department of Fish and Game

Mission: Manage, protect, rehabilitate, enhance, and develop fisheries and aquatic plant resources in the interest of the economy and general well-being of the state, consistent with the sustained yield principal and subject to allocations established through public regulatory processes.

Research Emphasis: Salmon, herring, commercial shellfish

Professional Staff: 4 fishery biologist, vessel captain and crew

Approximate Budget: \$300,000

Seattle: ALASKA FISHERIES SCIENCE CENTER

Ownership: NOAA, National Marine Fisheries Center

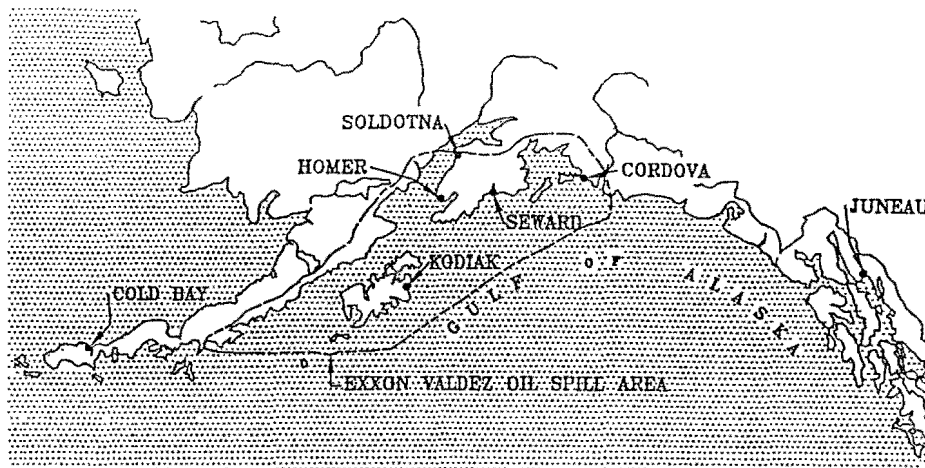
Mission: Provide scientific and technical advice to two U.S. Fisheries Management Councils, NMFS Alaska Regional Office, U.S. representatives to international fisheries negotiations and to fisheries industry and constituents; coordinate fisheries research with state and federal agencies, academic institutions and foreign nations

Research Emphasis: Approximately 40 species of fish and crab that inhabit NE Pacific and Bering Sea; compile and analyze broad data bases on fishery, oceanography, marine mammal and environmental research to develop policies and strategies for fisheries management in the EEZ; monitor fishing operations for the incidental catch of protected fish, crab and marine mammals; protection of depleted marine mammal populations; study impact of chemical contaminants and physical alterations on organisms and marine habitat

Professional Staff: 300 staff trained in biological and physical sciences, economics, statistics, computer science, electronics, engineering and other.

Approximate Budget: (estimated North Pacific operations): \$7,500,000.

COASTAL MARINE RESEARCH FACILITIES



Cold Bay: RUSSELL CREEK LABORATORY

Ownership: Aleutians East Borough

Mission: Fisheries and coastal marine research. Formerly a State of Alaska salmon hatchery; now operated by the Aleutians East Borough to provide facilities and opportunities for university and government research.

Research Emphasis: Limnology of shallow-water sockeye-producing lakes, productivity and nutrient uptake of seagrasses. Available for other freshwater, estuarine, marine, and terrestrial research projects.

Professional Staff: Maintenance staff on-site, visiting scientist, administrative support from Aleutians East Borough

Approximate Budget: \$150,000

EXXON VALDEZ OIL SPILL PROJECT DESCRIPTION

Title: Exxon Valdez Restoration Reserve

Project Number: 94424

Lead Agency: Alaska Department of Law

Cooperating Agencies: All Trustee Agencies

Cost of Project, FY94: \$12,000,000

Cost of Project, FY95: \$12,000,000

Project Startup Date: Fiscal Year 2003 **Duration:** Undetermined

Geographic Area: Spill Area

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EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL
ADMINISTRATIVE RECORD

INTRODUCTION

Complete recovery from the *Exxon Valdez* oil spill will not occur for decades. Scientists have identified a clear need to establish capability to act in the years after 2001. However, annual payments to the Restoration Fund end September 2001. The *Exxon Valdez* Restoration Reserve provides a location to hold funds for restoration activities after the last annual payment. Allocation of the Reserve to specific activities will be made by the Trustee Council at a later date.

According to the Consent Decree between Exxon and the state and federal governments, Exxon must make 10 annual payments totalling \$900 million. The payments began in December 1991 and the last payment is due September 2001.

The need for restoration will continue long beyond 2001. For example, some salmon return in cycles of four to six years, and other resources have lives that are much longer. To be effective, activities may have to span more than one salmon generation. Sometimes research is necessary to understand why a resource is not recovering. In many cases, research must precede effective restoration or improved management decisions that will protect a resource or service. For these reasons, some restoration activities may continue for a long time.

The \$12 million of this project would be the first payment toward the *Exxon Valdez* Restoration Reserve. Additional annual deposits of \$12 million payments made each of the remaining eight years and would provide a reserve of more than \$108 million. This amount is expected to be appropriate to carry out long-term restoration activities needed after Exxon payments end.

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PROJECT DESCRIPTION

The \$12 million of this project and future payments to the *Exxon Valdez* Restoration Reserve will fund restoration activities after the annual payments end. Interest earned on the Reserve's principal will remain with the Reserve until needed.

The fund will be administered by the Alaska Department of Law for the Trustee Council. Expenditures from the Reserve will be made only at the direction of the Trustee Council. Any spending from the Reserve must be consistent with the Consent Decrees that established the Restoration Funds and with the Memorandum of Understanding between the state and federal governments.

A. Resources and Services

Exxon Valdez Restoration Reserve could potentially benefit any resource or service injured by the oil spill.

B. Objectives

The sole objective for the Reserve is to assure the availability of funds to allow the Trustees to continue restoration activities that are necessary for recovery of resources and services injured by the oil spill after the last annual payment to the Restoration Fund.

ENVIRONMENTAL COMPLIANCE/PERMIT/COORDINATION STATUS

This project conserves rather than expends funds and thus does not require permits nor environmental compliance at this time. Any expenditure of funds from the Reserve would require appropriate permits and NEPA compliance activities.

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Prince William Sound Pink Salmon Research and Restoration

The SEA, ADFG, and PWSAC pink salmon program will achieve seven objectives:

- (1) monitor toxicological damage to wild salmon,
- (2) achieve wild salmon escapements,
- (3) define wild salmon population structure,
- (4) evaluate hatchery salmon straying,
- (5) evaluate marine carrying capacity,
- (6) test salmon predation hypotheses, and
- (7) test lake-river hypothesis.

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EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL
ADMINISTRATIVE RECORD

Monitor toxicological damage:

Project 94191 Egg and Alevin Mortalities is the cornerstone of the pink salmon restoration program in PWS. Project 94191 will monitor recovery in eggs and alevins, evaluate injury to gametes, and integrate field and laboratory observations.

Achieve wild salmon escapements:

Project 94184 CWT Recovery will provide fishery managers with information needed to achieve escapement of injured stocks. Fishery exploitation rates must be reduced on injured stocks to achieve escapement. Coded-wire tags tell fishery managers how many wild and hatchery salmon are available for harvest. Project 94187 Otolith Marking will initiate development of otolith mass marking as an alternative to coded-wire tags. Otolith marking is expected to provide more accurate estimates of stock composition.

Define wild salmon population structure:

Two strategies will be employed to define pink salmon population structure in PWS. In FY94, Project 94189 Pink Salmon Genetics will employ gel electrophoresis to describe genetic variation among wild salmon. Project 94185 Wild Stock Straying will examine genetic exchange among wild salmon. This project will be deferred until FY95 pending implementation of Project 94187 Otolith Marking which will develop chemical marking techniques needed to quantify wild salmon straying.

Evaluate hatchery salmon straying:

Project 94192 Hatchery Straying will examine effects of genetic exchange between wild and hatchery salmon. The project will be deferred until FY95 pending implementation of Project 94187 Otolith Marking which will provide the tool needed to quantify hatchery salmon straying.

Evaluate marine carrying capacity:

The SEA Program will evaluate the carrying capacity of PWS for juvenile salmon. Recoveries of coded-wire tagged salmon and stomach contents analysis will be used to examine food limitation of growth as well as habitat utilization by hatchery and wild salmon and other forage fish. This effort will be concentrated in western PWS in FY94. Project 94163 Forage Fish will complement the SEA effort through descriptions of forage fish distribution and species composition in areas of the Sound not covered by SEA.

Test salmon predation hypotheses:

The SEA Program will test macrozooplankton prey-switching, density-dependent predation, and size-dependent predation hypotheses. During the first year, the Nearshore Fish (PWSSC) and Salmon Predator (ADFG) components of the SEA Program will focus an intensive sampling effort in western PWS to identify principal predator species, estimate predator abundance along the migratory pathway, and develop a sampling design to estimate predator feeding rates. The Experimental Manipulation (PWSAC) component will evaluate the effect of fry size, time of release, and number of fish released on survival. The Salmon Growth (ADFG) component will track juvenile salmon through predator fields. A shipboard base of operations will direct the activities of several vessels employed in the effort. The shipboard base will also measure macrozooplankton abundance and describe physical structures along the migratory pathway.

Test lake-river hypothesis:

An interdisciplinary effort involving physical and biological oceanographers will be initiated in FY94 to test the lake-river hypothesis. Physical oceanographers will describe processes that cause seeding or flushing of Sound waters. Biological oceanographers will describe interactions between macrozooplankton behavior and physical processes regulating macrozooplankton abundance in PWS.

DRAFT

Table 1: SEA 1994 (7 month FY) budget summary (amounts in \$K)

REVISED

Project descriptions	Personnel	Travel	Contractual	Commodities	Equipment	Indirect	Project Cost	Organization Totals
PWSSC								1,969.31
Met/Phys oceanography	126.3	5	105	20	340	61.51	657.81	
Nearshore fish	188	12	41	19	269	62.40	591.40	
Information & modeling	168.9	22.5	83.5	10.5	267	68.50	620.90	
Program management	30	30	10	10	0	19.20	99.20	
ADF&G								1,502.06
Salmon outmigration	*****	phase	in	during	FY95	*****		
Salmon growth	124.2	0.5	114.3	13.2	4	26.6	282.80	
Salmon predators	242.2	3.3	689	20.2	81.6	62.6	1,098.90	
Harbor seals	6.5	1	15	1.5	0	2.0	26.00	
Zoop sample processing	*****	phase	in	during	FY95	*****		
Administration	0.0	0.0	0.0	0.0	0.0	94.36	94.36	
UAF								543.90
Phytoplankton/Nutrients	92.7	4.5	10.1	9	0	29	145.30	
Zooplankton in Ecosystem	169.5	15	23	7.4	31.5	61.6	308.00	
Larval drift	*****	phase	in	during	FY95	*****		
Trophics/Stable isotopes	24.6	3.2	12	6.9	0	11.7	58.40	
Information & modeling	25.8	1	0	0	0	5.4	32.20	
NBS								77.50
Information & modeling	58.8	0	8.7	10	0	0	77.50	
USPS								120.00
Salmon outmigration	27.3	0	0	0	0	2.7	30.00	
Avian predation	25.8	2	23	10	21	8.2	90.00	
PWSAC								50.00
Exper. Fry Release	2.6	1.5	0	40	5.9	0	50.00	
Total	1,313.20	101.50	1,134.60	177.70	1,020.00	515.77	4,262.77	4,262.77

Due to SEA's interdisciplinary nature, activity funded under one project will frequently support the needs of several projects. This is particularly true for funds listed under Contractual and Equipment.

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Table 2: Other projects that complement SEA.

REVISED

Project descriptions	Personnel	Travel	Contractual	Commodities	Equipment	Indirect	Project Cost	Organization Totals
ADP&G								737.20
94184 CWT Recovery	134.6	11.8	18.4	10.3	0.0	21.5	196.60	
94185 Wild Straying	*****	phase	in	during	FY95	*****		
94187 Otolith Marking	30.0	0.0	305.0	15.2	0.0	19.2	369.40	
94189 Pink Genetics	36.2	3.0	112.2	6.5	0.0	13.3	171.20	
94192 Hatchery Straying	*****	phase	in	during	FY95	*****		
94163 Forage Fish	*****	integrate	with	SEA	Program	*****		
PWSAC								1,500.00
Exper. Manipulation	845.5	31.7	170.0	452.8	0.0	0.0	1,500.00	
Total	1,046.30	46.50	605.60	484.80	0.00	54.00	2,237.20	2,237.20

Grand Total 6,499.97

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Project 110

EXXON VALDEZ OIL SPILL PROJECT DESCRIPTION

Title: Comprehensive Habitat Protection Process

Project Number: 94110

Lead Agency: ADNR

Cooperating Agencies: ADF&G, DOI-FWS, USFS

Cost of Project, FY94: \$678.7K

Cost of Project, FY95: \$0.0K

Project Startup Date: October 1993

Duration: 1 year

Geographic Area: Prince William Sound, Gulf of Alaska

RECEIVED
JAN 31 1994

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL
ADMINISTRATIVE RECORD

INTRODUCTION

This project is a continuation of the Comprehensive Habitat Protection Process. The objective of habitat protection is to identify and protect essential wildlife and fisheries habitats and associated services injured by the *Exxon Valdez* oil spill. Protection of these habitats prevents additional injury to these resources and services supported by them while recovery is taking place. Habitat Protection is a significant and integral part of restoration.

The Comprehensive Habitat Protection Process was initially approved in July 1992, and has since received overwhelming support from both the public and the Trustee Council. The Imminent Threat phase of the comprehensive process was completed in February 1993, with the acquisition of lands in Kachemak Bay and Seal Bay. The Large Parcel Evaluation and Ranking methodology was approved in February 1993, and the initial evaluation and ranking of 81 parcels was completed and approved by the Trustee Council on November 30, 1993.

The continuation of the Comprehensive Habitat Protection Process involves evaluation of additional large parcels, a comparative benefits analysis, development and implementation of the small parcel evaluation and ranking process. These products will also be used to provide secondary evaluations during negotiations.

PROJECT DESCRIPTION

This project will provide the logistical and technical support necessary for the Habitat Work Force (HWF) to identify and assess the upland and nearshore habitats of the linked resources and services injured by the oil spill. The chief objective of this 1994 project is to complete the Comprehensive Habitat Protection Analysis. Tasks involve additional large parcel evaluations; development and implementation of a small parcel process; and development of a comparative benefits analysis for large parcels. Products generated in the project will be used to support parcel negotiations.

- **Large Parcel Evaluations:** Provide analysis for newly nominated lands (greater than 1000 acres) that have been submitted subsequent to Trustee Council approval of the Large Parcel Evaluation and Ranking Process on November 30, 1993.
- **Small Parcel Process:** Develop a methodology for processing, evaluating and ranking small parcels. The objective of the process to provide a standardized method for determining the relative benefit of small parcels to restoration. This process complements the Large Parcel Evaluation and Ranking by considering restoration benefits of parcels less than 1000 acres.
- **Comparative Benefits Analysis:** Develop a comparative analysis of large parcels using resource and service values (parcel score), acreage and cost, to facilitate the selection of those parcels for acquisition that result in the greatest benefit at the lowest cost. This tool will be used to assist negotiators in optimizing and maximizing the use of limited restoration funds.

A. Resources and/or Associated Services

The affected injured resources and associated services are listed below. Habitat protection objectives and benefits for each of these resources and services would differ depending on the particular parcel and the options acquired; however, general objectives and benefits are outlined below.

Pink salmon, sockeye salmon, cutthroat trout, Dolly Varden, herring: Ensure maintenance of adequate water quality, riparian habitat and intertidal habitat for spawning and rearing.

Bald eagle: Ensure maintenance of adequate nesting habitat and reduce disturbance in feeding and roosting areas.

Black oystercatcher: Reduce disturbance to feeding and nesting sites.

Common murre: Reduce disturbance in nearshore feeding areas and near nesting colonies.

Harbor seal and sea otters: Reduce disturbance at haul-out sites, pupping sites, and in nearshore feeding areas.

Harlequin duck: Ensure maintenance of adequate riparian habitat for nesting and brood rearing, and reduce disturbance to nearshore feeding, molting, and brood-rearing habitats.

Intertidal/subtidal biota: Maintain water quality along shorelines and reduce disturbance in nearshore areas.

Marbled murrelet: Ensure maintenance of adequate nesting habitat and reduce

disturbance to nearshore feeding and broodrearing habitats.

River otter: Ensure maintenance of adequate riparian and shoreline habitats for feeding and denning.

Recreation: Maintain or enhance public access for recreational opportunities, and reduce disturbances that would create visual impacts.

Wilderness: Maintain wilderness qualities, and reduce impacts to wilderness qualities.

Cultural resources: Maintain or reduce disturbance to cultural resource sites.

Subsistence: Ensure subsistence opportunities in known harvest areas.

B. Objectives

1. Evaluation, restoration unit design, scoring and ranking of selected large parcels (ADFG, ADNR, USFS, FWS).
2. Design and implementation of small parcel evaluation methodology (ADFG, ADNR, USFS, FWS).
3. Data collection, interpretation, sorting, management, programming, and mapping (ADNR & ADFG).
4. Site inspections and evaluation of protection options (project specific) (ADFG, ADNR, USFS, FWS).
5. Development of comprehensive analysis document, including large and small parcel evaluations and ranking, and comparative benefits analysis to the Trustee Council (ADFG, ADNR, USFS, FWS).
6. Provide products in support of parcel negotiations (ADFG, ADNR, USFS, FWS).

C. Methods

Existing data and data obtained by Habitat Protection Work Group in 1993 will be analyzed to fill data gaps to the maximum extent possible. This will include some additional programming, database management, and GIS work to sort data and to map resource information where appropriate. Document and project tracking databases will be designed to handle raw data and specific project information.

Site reconnaissance visits and on-site option evaluations will be conducted as necessary by the Habitat Work Force using standard evaluation formats developed by this group. Travel will be done via air charters.

Documentation and final report preparation will be accomplished by Habitat Work Force staff. Final products may be sent out to a printer on an as needed basis.

D. Location

The analysis will cover all nominated lands within the oil spill zone. These lands are located within Prince William Sound, Kenai Peninsula, Kodiak/Afognak Archipelago and on the Alaska Peninsula.

E. Technical Support

Technical support is needed from the Restoration Office to catalog and manage documents required by this project and acquire documents related to this project.

Alaska Department of Natural Resources will provide computer support for programming and data management.

F. Contracts

Reimbursable services agreements will be issued to divisions of participating agencies and private contractors to provide services specified under technical support.

SCHEDULES

Evaluation and ranking of additional large parcels and small parcels will be completed during FY94 as part of the continuing Comprehensive Habitat Protection Process. The comparative benefits analysis and ongoing negotiation support will continue throughout FY94.

EXISTING AGENCY PROGRAM

During FY94, the federal and state agencies involved in this project will contribute to the project information and expertise associated with normal operations. This project will synthesize this information and develop an effective knowledge base specific to the goals and needs of habitat protection and the comprehensive parcel evaluation.

ENVIRONMENTAL COMPLIANCE/PERMIT/COORDINATION STATUS

Environmental documentation will need to be conducted on a project/parcel specific basis as the Trustee Council approves proceeding with negotiations.

PERFORMANCE MONITORING

1. Computer databases easily accessible with resource information for lands within the spill zone.
2. Cataloged and organized library containing all resource documents required by this project.
3. Color maps depicting restoration units and surrounding lands.
4. Comprehensive analysis documents for all available lands within the spill zone.

FY94 BUDGET (\$K)

	ADNR	ADF&G	USFS	FWS	TOTAL
Personnel	109.5	69.9	36.8	33.5	249.7
Travel	9.2	4.6	4.5	4.6	22.9
Contractual	290.1	34.5	4.5	4.5	333.6
Commodities	4.2	5.5	0.5	0.5	10.7
Equipment	1.0	0.0	0.0	0.0	1.0
Capital Outlay	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
Subtotal	414.0	114.5	46.3	43.1	617.9
General Administration	36.7	12.9	5.8	5.3	60.8
Project Total	450.7	127.4	52.1	48.4	678.7
NEPA Compliance	0.0				

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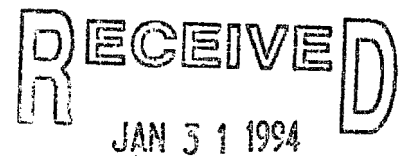
EXXON VALDEZ OIL SPILL PROJECT DESCRIPTION

Title: Habitat Protection and Acquisition Fund

Project Number: 94126

Lead Agency: ADNR

Cooperating Agencies: ADF&G, USFS, DOI-FWS, DOI-NPS



EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL
ADMINISTRATIVE RECORD

Cost of Project, FY94: \$1,160.3K

Cost of Project, FY95: \$TBD

Project Startup Date: October 1993

Duration: 1 year

Geographic Area: Prince William Sound, Kodiak Island Borough, and Alaska Peninsula

INTRODUCTION

The objective of habitat protection is to identify and protect essential wildlife and fisheries habitats and associated services injured by the *Exxon Valdez* oil spill. Protection of these habitats, prevents additional injury to the resources and services while recovery is taking place.

In 1993 the Restoration Team's Habitat Work Force (formerly the Habitat Protection Work Group) conducted a survey and assessment of selected parcels of private land within the oil spill zone. The lands were evaluated, ranked and mapped using the Trustee Council approved Interim Evaluation Process to determine the value of these areas to injured resources and services, and the benefits that could be achieved through habitat protection. Following that ranking the Trustee Council started negotiations on several parcels to provide habitat protection. Successful negotiations were conducted with owners of inholdings within Kachemak Bay State Park and on northern Afognak Island. The Large Parcel Evaluation and Ranking methodology was approved in February 1993, and the initial evaluation and ranking of 81 parcels was completed and approved by the Trustee Council on November 30, 1993. The Habitat Work Force will provide continuing support to negotiators during secondary evaluations using products developed in the Comprehensive Habitat Protection Process.

PROJECT DESCRIPTION

The purpose of this project is to facilitate the purchase of habitat protection rights by the Trustee Council. In addition, this project will provide information necessary to develop post-acquisition management recommendations consistent with restoration objectives for the acquired interest in a particular parcel. Site inspections may be necessary during the final negotiation process and also during the development of post-acquisition management

recommendations.

A. Resources and/or Associated Services

The affected injured resources and associated services are listed below. Habitat protection objectives and benefits for each of these resources and services would differ depending on the particular parcel and the options acquired, however, general objectives and benefits are outlined below.

Pink salmon, sockeye salmon, cutthroat trout, Dolly Varden, herring: Ensure maintenance of adequate water quality, riparian habitat and intertidal habitat for spawning and rearing.

Bald eagle: Ensure maintenance of adequate nesting habitat and reduce disturbance in feeding and roosting areas.

Black oystercatcher: Reduce disturbance to feeding and nesting sites.

Common murre: Reduce disturbance in nearshore feeding water and near nesting colonies.

Harbor seal and sea otters: Reduce disturbance at haul-out sites, pupping sites, and in nearshore feeding areas.

Harlequin duck: Ensure maintenance of adequate riparian habitat for nesting and brood rearing and reduce disturbance to nearshore feeding, molting, and brood-rearing habitats.

Intertidal/subtidal biota: Maintain water quality along shoreline and reduce disturbance in nearshore areas.

Marbled murrelet: Ensure maintenance of adequate nesting habitat and reduce disturbance to nearshore feeding and broodrearing habitats.

River otter: Ensure maintenance of adequate riparian and shoreline habitats for feeding and denning.

Recreation: Maintain or enhance public access for recreational opportunities, reduce disturbances that would create visual impacts.

Wilderness: Maintain wilderness qualities, reduce impacts to wilderness qualities.

Cultural resources: Maintain or reduce disturbance to cultural resource sites.

Subsistence: Ensure subsistence opportunities in known harvest areas.

B. Objectives

The Habitat Protection and Acquisition Fund Project will be used for acquiring lands or partial interests in lands that contain habitats linked to resources and/or services injured by the oil spill. The Trustee Council will consider purchasing habitat protection rights using the following tools: fee acquisition, conservation easements, acquisition of partial interests, cooperative management agreements, and others.

C. Methods

Funds from this project will be used to acquire full title or partial interests in lands, subject to approval by the Trustee Council, that contain habitats linked to resources and services that were injured by the *Exxon Valdez* oil spill. Acquisition of lands or interests in lands will be accomplished according to accepted realty principles and practices. Technical support to negotiators will be provided by the Habitat Work Force using products developed in the Comprehensive Habitat Evaluation Process and Project 94110. All acquisitions will require title evidence, appraisals of fair market value, litigation reports, hazardous substances surveys, legal review of title, and negotiations. Some acquisitions may require land surveys and additional ecological surveys. Post-acquisition management surveys will be conducted by the Habitat Work Force using standard evaluation formats developed by this group. Travel will be done via air and boat charters to be determined on a site-specific basis. This fund allows for expenditure of funds for the activities noted above, once a specific parcel has been approved for acquisition/protection by the Trustee Council. Following purchase, acquired parcels (or interest in parcel) will be managed by the appropriate resource agency in a manner that is consistent with the restoration of the affected resources and/or services. The Trustee Council will decide which agency will manage the land.

D. Location

The analysis will cover all selected lands within the oil spill zone. Lands are located within Prince William Sound, Kodiak/Afognak Archipelago and on the Alaska and Kenai Peninsulas.

E. Technical Support

Appropriate federal agencies and the Alaska Department of Natural Resources will provide support for title searches, appraisals, and hazardous substances surveys.

F. Contracts

Contracted support is expected for appraisals of fair market value, litigation reports, legal title reviews and other contracts deemed necessary by the Trustee Council.

SCHEDULES

Dependent upon negotiations with landowners.

EXISTING AGENCY PROGRAM

Habitat Protection - Acquisition Fund activities will coordinate with and consider ongoing agency activities whenever possible.

ENVIRONMENTAL COMPLIANCE/PERMIT/COORDINATION STATUS

Environmental documentation will need to be conducted on a project/parcel-specific basis as the Trustee Council approves proceeding with negotiations.

PERFORMANCE MONITORING

Performance monitoring procedures are currently being developed.

FY94 BUDGET (\$K)

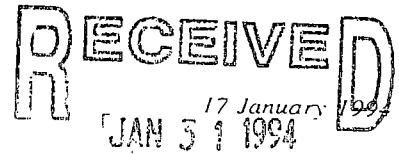
The allocation of Joint Trust Funds to this project is presented below.

	ADNR	ADFG	USFS	USFWS	TOTAL
Personnel	25.2	9.0	37.4	135.8	207.4
Travel	12.8	0.0	33.0	9.7	55.5
Contractual	249.0	0.0	400.0	151.4	800.4
Commodities	0.0	0.0	0.0	0.7	0.7
Equipment	0.0	0.0	0.0	16.7	16.7
Capital Outlay	0.0	0.0	0.0	0.0	0.0
Subtotal	287.0	9.0	470.4	314.3	1080.7
General Administration	21.2	1.4	26.1	31.0	79.6
Project Total	308.2	10.4	496.5	345.3	1,160.3

NEPA Compliance To be determined

* The dollar amount for FFY 94 capital outlay and FFY 95 costs are to be determined (TBD) based on Trustee Council actions.

94320

**Exxon Valdez Oil Spill Project Description**

Title: Sound Ecosystem Assessment (SEA) - An Ecosystem Study for Prince William Sound

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL
ADMINISTRATIVE RECORD

Project Number: 94320

Lead Agencies: Alaska Department of Fish & Game
National Oceanic and Atmospheric Administration

Cooperating Entities: Prince William Sound Science Center
US Forest Service
Prince William Sound Aquaculture
University of Alaska Fairbanks
National Biological Survey

Cost of Project, FY94: \$5314.1K

Cost of Project, FY95: \$5000K

Project Startup Date: February 1994

Duration: Long-term

Geographic Area: Prince William Sound

Introduction

The Sound Ecosystem Assessment program (SEA) evaluates changes occurring in the Prince William Sound ecosystem in the context of groups of interacting species. The knowledge gained by implementing SEA is vital to determining the feasibility of, and the approach to, restoring many resources and services injured by EVOS. Resources addressed by SEA include pink salmon, herring, and the principal species interacting with these fishes. These pelagic organisms support a host of birds and mammals, some which have also been described as injured species. Services addressed include subsistence, commercial fishing, recreation and tourism, and passive use. While SEA is primarily a monitoring and research activity, this program will also provide support for other EVOS Trustee Council programs (i.e., informing land and fisheries management to promote a healthy ecosystem, increasing public information about the state of the ecosystem). The SEA program was created by the PWS Fisheries Ecosystem Research Planning Group, comprised of the scientists, communities, managers and resource users of the Sound. Plans for SEA were developed with the encouragement and support of the EVOS Trustee Council to provide an understanding of important ecological influences on injured resources and services. The draft SEA plan (with related technical information) was reviewed by independent scientists and agents of the EVOS Trustee Council at a workshop in December 1993, and was endorsed as innovative, reasonable, and scientifically testable. Future expansion of SEA will involve coupling pelagic and nearshore benthic ecology and linking aquatic and terrestrial ecology through dominant ecosystem pathways.

Ecosystem approach

SEA is a model that studies interacting predator and prey resources and the fluctuating physical-chemical environment in which they live, to explain some of the variation in productivity of specific animal populations. Anthropogenic events may affect specific animal populations in several ways, either directly by causing mortality or reduced growth, or indirectly by changing the physical-chemical environment, the predator-prey assemblages, and more. Thus, the absence of change to single populations does not prove an absence of impact to the ecosystem.

The anthropogenic factor that is of paramount interest is the impact of the EVOS. Oiled animals cannot move or feed normally, and crude oil can alter physiology and genetics of individual organisms. Beyond these effects, the ecological impact of the spill is felt through altered quality of critical habitat, changes in the availability of prey and predators for species of interest, and more. Such ecological changes could produce domino effects through the ecosystem that result in (often delayed) impacts on trophic structure and efficiency. It may be that extremely large perturbations could result in an irreversible impact. Trophic models, such as SEA, are needed to develop ecotoxicological approaches and test ecosystem level hypotheses such as resiliency and the reversibility of environmental impact.

There is a general need to understand and separate anthropogenic and natural effects on the variability of the Prince William Sound ecosystem. In recent years, poor runs of both pink salmon and herring, and the decline in seabirds and some marine mammals, are forceful reasons to initiate long-term ecological studies. The probability of future oil-related impacts is an additional compelling reason for integrated, long-term research that will enable assessment of man-induced and natural variability. The SEA program focuses on pink salmon and herring as important components of the marine ecosystem. In the words of Dr. Ken Sherman (NOAA), "*Changes in the abundance levels of . . . fish, mollusks, and crustaceans through human intervention in fishing or from natural environmental perturbations can alter the structure and dynamics of large marine ecosystems, generating cascading effects up the food chain to predators, including cetaceans, pinnipeds, and sea birds, and down the food chain to the plankton.*"¹ The SEA program proposes to look at the entire community of species that interact closely with pink salmon and herring in Prince William Sound. Accordingly, SEA encompasses the interactions of climate and ocean currents, their effects on plankton and fishes, and the distribution and diet of apex predators on fishes. Results will be fundamental to related projects that examine propagating effects through the food chain to marine mammals and birds, and to projects that examine the roles of ecotoxicology, disease, and genetics in limiting the survival of these fishes.

Injured resources and services

The history of communities within Prince William Sound is closely linked, culturally, social, and economically, with the use of marine resources. In particular, pink salmon and herring

¹Sherman, K. 1991. The large marine ecosystem concept: research and management strategy for living marine resources. *Ecological Applications* 1: 41-50.

have historically supported the largest commercial fisheries in the region. These species are critically important to subsistence and recreational users of fishery resources in the Sound. They also provide a food source for many species of fish, birds, and mammals. According to the EVOS Draft '94 Work Plan, pink salmon and herring currently show no sign of recovery nearly five years after the oil spill. In August 1993, members of the Prince William Sound fishing community blockaded the Alyeska Pipeline Terminal in Port Valdez, and drew state and national attention to the plight of these resources. The public will not regard Alaskan waters as pristine as long as fish stocks in Prince William Sound remain depressed and the region continues to be the focus of national attention and concern.

Restoration activities

SEA is a research program designed to understand the natural and anthropogenic factors that constrain the abundance levels of pink salmon and Pacific herring in the Sound. The SEA program includes developing predictive ecosystem models for oceanographic conditions and animal populations (i.e., zooplankton, fishes). This increased understanding and formal modeling will allow better design of restoration activities, and will improve prediction and monitoring of the effects of restoration on injured resources and services.

Scientific review

This proposal seeks funding to implement the SEA program, beginning in 1994 and continuing for a minimum of 8-10 years or until sufficient information is available to restore the injured resources. Among other things, the December 1993 workshop findings emphasized that the time frame for SEA must be long enough to encompass cycles of climatic variation (on time scales of five to twenty years) and recovery from oil impacts. Additionally, the life cycles of many resources damaged by EVOS can be 5 or more years, and the effects of EVOS on these populations (particularly genetic and ecotoxicological) can only be understood over several life spans of these species. SEA therefore requires a time sequence encompassing as much natural variation as possible. Low fisheries returns in 1991-1993 suggest that Prince William Sound may be at one extreme of variation right now. For these reasons, we request support to begin data collection in 1994 and to develop SEA as a long-term research program.

PROJECT DESCRIPTION

A. Resources and/or Associated Services

SEA will provide ecosystem level information, that is now lacking, about injured pink salmon and herring populations in Prince William Sound. This information will assist the EVOS Trustee Council in restoring these resources and associated services to pre-spill conditions. Commercial, subsistence and sport users in Cordova, Valdez, Whittier, Tatitlek, Chenega, Anchorage and other communities inside and outside Alaska depend on these resources and associated services. The depressed condition of these resources continues to affect the social and economic health of the resource users and communities in the Sound, and in the eyes of

passive users diminishes the value of these resources to levels below those that existed before spill.

Although designed around the biology of these fisheries resources, the ecosystem approach to research will result in information relevant to the restoration of other injured resources throughout the oil spill affected area. SEA will provide a better understanding of processes regulating the size of the pink salmon and herring spawning populations available to apex predators such as birds, marine and terrestrial mammals, and humans. Initial collaborations in 1994 and further planning for work to be implemented beginning in 1995 will focus on expanding SEA to address the roles of sea birds, marine mammals, the intertidal community, the benthos, and ecotoxicological factors in the marine system, and on building connections to ongoing projects already working in these areas. The results of this study of ecosystem dynamics in Prince William Sound should also be transferable to other parts of the spill affected area, especially for sea birds and mammals.

B. Objectives

The goal of SEA is to develop an ecosystem level understanding of natural and man-caused factors influencing the production of pink salmon and herring in Prince William Sound. SEA is developing formal ecosystem models, designed to more accurately forecast production, predict population responses to ecosystem disturbance (natural and anthropogenic), and design and conduct restoration efforts for resources damaged by EVOS. New information emerging from SEA will establish a comprehensive data base for the fisheries of Prince William Sound serving the needs of the region for more informed management, enhancement, and mandated restoration activities. As a multi-disciplinary, integrated study, SEA will achieve the following objectives:

1. Describe the oceanographic and meteorological mechanisms (currents, wind-driven upwelling, mixing, nutrients) that interact to establish levels of food for juvenile pink salmon, herring, and other species with similar feeding behavior (planktivores) in Prince William Sound each year;
2. Determine how prey/predator relationships affecting the survival of juvenile pink salmon, herring, and other fish with similar predators are modified by both seasonal and year-to-year changes in upper-layer plankton stocks;
3. Determine how physical processes affect the natal habitats (egg and larva incubation sites) for pink salmon and herring and contribute to losses of eggs, embryos and alevins;
4. Describe the ecological factors responsible for juvenile herring biological condition and overwinter survival in Prince William Sound;

5. In collaboration with agents of the EVOS Trustee Council, integrate the SEA research program with research encompassing 1) sea birds and mammals, 2) intertidal communities and processes, 3) benthic processes, and 4) ecotoxicological pathways;
6. Develop a comprehensive numerical simulation (model) including plankton, fishes, and apex predators (including sea birds and mammals) in Prince William Sound as the principal tool for directing SEA, for data integration and resource prediction, and for "what-if" modeling of management and restoration scenarios;
7. Plan and realize a multi-disciplinary, long-term, ecosystem research program in Prince William Sound involving area residents, resource users, aquaculture corporations, educators and students, and industries in cooperation with area scientists and managers;
8. Establish a regional and historical data base to assist the EVOS Trustee Council, the agencies, and area resource users to more efficiently manage, enhance, and restore a healthy ecosystem in Prince William Sound.

C. Methods

Much of SEA will be undertaken as a multi-disciplinary study (see Appendix I for Program integration and individual project descriptions) that will rely on: 1) formal model development to assist in project design, interpretation, prediction, sensitivity and risk analysis. monitoring and restoration, 2) vessel and sea-side facilities in Prince William Sound for data collection and logistical support and, 3) remote sensing. SEA will rely heavily on private vessels (e.g., fishing, ecotourism, industry) outfitted with scientific equipment, and will require some use of agency and university scientific vessels. Salmon hatcheries in the region will provide SEA with spring and summer plankton data and year-round measurements of local weather and ocean conditions. These facilities will be supplemented by satellite-linked buoys, oceanographic moorings, and aircraft and satellite measurements.

SEA hypothesizes that the recruitment success of pink salmon and herring populations in Prince William Sound is related to losses due to physical processes and to predation during early life stages (embryo to late juvenile) that occur within the Sound. This hypothesis provides a means to focus the field efforts on those parts of the ecosystem that support these critical life stages. The freshwater, intertidal and shallow sub-tidal spawning habitats for both species form a natural subdivision for embryo and alevin studies. In the drifting (herring) and free-swimming (pink salmon) environments, the different developmental stages and the habitats they exploit will define the regions of study. The resulting ecological pathways will establish the important links to food and predators and determine the structuring of direct and remote field sampling, and of model development.

Previous studies of Prince William Sound indicate that the important early portions of the marine production cycle are tightly compressed in time around the months of April and May.

During this period, massive upper-layer stocks of large zooplankton arise from the deeper water to graze on a short-lived diatom bloom. Herring spawning and the wild and hatchery-reared pink salmon out-migration occurs at this time as well. SEA hypothesizes that the success or failure of a pink salmon (and to some extent) a herring brood year depends on ecosystem level interactions at this time. These interactions include oceanographic and meteorological influences, prey/predator relationships, physical effects, and mortality associated with toxic pollutants and diseases. SEA includes a formal model of this hypothesis that we are using to design sampling programs and to predict brood year success for these fishes.

Oceanographic and meteorological effects on plankton dynamics, and fish distribution

Standard oceanographic methods will be employed to describe changes in upper layer and deep ocean circulation in the Sound and the bordering shelf of the Gulf of Alaska. Acoustic doppler current profilers (ADCP) will be used to assess large scale intrusions and losses of water between the Sound and the bordering shelf waters of the Gulf of Alaska, especially in relation to the abundance of important food resources for animals in the Sound. Closely spaced hydrographic measurements will be used in conjunction with ADCP data to discern the distribution and characteristics of oceanographic structures (e.g. eddies, fronts, mixed layers, thermoclines) in the central Sound and in the nearshore region. These measurements will be designed to relate the distribution and abundance of pink salmon and herring, their predators and their prey to environmental conditions (including natural and anthropogenic disturbances). Variability of animal distribution and abundance in relation to physical oceanographic structures and climatic forcing will be examined over a broad range of time scales ranging from hours to years. Ocean temperature and salinity will be measured using conductivity temperature-depth (CTD) equipment and nutrient distributions will be sampled with Niskin bottles. Differences in (oceanic) shelf derived waters and those of the Alaska Coastal Current will be discerned using chemical tracers and differing zooplankton assemblages. Broad-scale upper layer measurements (i.e. temperature, phytoplankton distributions, and ocean color) will be augmented by satellite and aircraft mounted remote sensors. Moored buoys will be used to continuously monitor atmospheric and oceanic conditions, plankton density, and to provide sea-truthing for remotely measured quantities. Meteorological and hydrological data will be used with formal predictive models to assess the importance of wind and buoyancy forcing on oceanographic properties and animal distributions in PWS.

Plankton productivity and the timing of phyto- and zooplankton blooms will be determined using standard oceanographic methods. Zooplankton abundance will be measured quantitatively by nets, ADCP backscatter, high-frequency acoustics, and optical plankton counting. Acoustic techniques and optical plankton counting will also be used to describe meso and micro-scale distributions of zooplankton along the ecological pathways of pink salmon and herring.

Prey/predator relationships

Pink salmon and herring predators will be identified from collections made with large trawls and seines along the migratory pathways for both species. Potential predators (1+ and older juvenile and adult fishes) will be identified, measured and their stomach contents examined at times and places where overlap with fry and larval/post-larval herring populations occurs. Attention will be paid to dawn and dusk feeding times for larger fishes in the near-surface waters. The location, behavior and extent of predator populations will be measured acoustically. Experimental releases of hatchery juveniles will provide a powerful test of the influence of ocean-entry timing and of fry size at ocean entry on losses to predators. Initial work will focus on predation by fish, although some research on birds and mammals is included here and further projects examining predation by birds and mammals are being planned for the future. Initially, the importance of predation by marine birds and mammals on early life stages will be assessed through simultaneous observations from sampling platforms, and additional aerial and boat surveys (focused initially on the rocky intertidal). Diet composition of birds and mammals (initially with harbor seals) will be assessed with fatty acid and stable isotope analyses. Additional assessment of predation by birds and mammals will be done through integration with marine bird and mammal studies conducted by other investigators.

Physical processes in natal habitats

Studies of the natal habitats of pink salmon and herring will be undertaken to determine how the different watershed characteristics of the region influence losses to scouring, low oxygen, wave energy, desiccation, and freezing. Prediction and estimates of survival in natal habitats, the timing of ocean entry, and its relationship to zooplankton blooms are also important components of an ecosystem model. Spawning habitats (streams, beaches, kelp beds) will be typed by physical, biological and microclimatic properties, and predictive models will be developed to related natural and man-made environmental variations to survival within habitat types. Typing and modeling of spawning habitat for these species will be predicated upon existing but incomplete data bases and models created by USFS and ADF&G. The USFS, in conjunction with ADF&G and the PWSSC will expand the streams spawning habitat data set (particularly in the intertidal) using a combination of aerial photo interpretation and foot survey techniques. Habitat typing for herring spawning habitat must be developed but much of the data is already collected under existing ADF&G studies and under other EVOS-related studies. Predation on herring spawn will also be investigated as a function of spawning habitat type and predator behavior. Meteorological and hydrographic data will be measured over a broader scale using on-site and remote sensors, and used in SEA modeling projects to predict survival and the timing of ocean entry. Actual survival and ocean entry will be estimated using techniques similar to those of existing ADF&G programs and EVOS Trustee Council damage assessment projects.

Herring condition and overwinter survival

The roles of food availability and winter severity in regulating the overwinter survival of juvenile herring will be examined. Herring condition will be assessed from samples obtained during hydroacoustic and trawl surveys. Ocean temperature will be obtained as described

above. Laboratory studies of metabolic rates and behavior will be used with models to examine the relationship between herring condition, starvation, and losses to predation.

Simulation model

Simulation modeling of pink salmon and herring populations in Prince William Sound will include assessments of ocean state, plankton dynamics, predators, competitors, and prey, and mortality associated with physical and toxicological features of the system that vary in time and space. These models will be capable of both nowcasting and forecasting, as well as sensitivity and risk analyses. As a research tool, the model will be used to drive appropriate sampling protocols to resolve biological and physical interactions on levels consistent with the development and behavior of juvenile pink salmon and herring along their migratory pathways.

Program development and relationship to other programs

The initial plan for SEA focusses on the fisheries resources in Prince William Sound. Additional planning or the inclusion of research on other important resources will require more interaction with agency- and EVOS Trustee Council-sponsored scientist and managers. Increased collaborative planning and data sharing will result in more efficient use of scientific knowledge to understand and restore the ecosystem. The December 1993 workshop identified four areas where further information would be valuable in understanding, managing and restoring the ecosystem: 1) sea birds and mammals, 2) intertidal communities and processes, 3) benthic processes, and 4) ecotoxicological pathways. Pilot plans for research addressing components of the birds, mammal, and intertidal communities, and the ecotoxicology in these communities, are being coordinated between SEA and researchers active in these areas, and are included in this project proposal, as mentioned above.

The regional planning and the concepts of SEA were overwhelmingly supported by outside reviewers at the December 1993 workshop. However, the expansion of SEA in response to the findings of the workshop and the establishment of a large-scale, long-term ecosystem research program will require additional planning, organization and communication efforts. In order to be successful, SEA planners will need to continue program development in 1994-1995 and beyond. On-going field work should serve as a pilot program for SEA. Planning needs to continue through an organized series of meetings between agency, independent, and academic scientists, resource users, managers, industry, and local communities, together with continued integrative workshops. As SEA is integrated with research in the above areas, ecosystem models will be developed to include additional components of the system.

Regional database

A data base and archival/retrieval system will be developed so that the results of SEA are accessible to the agencies responsible for restoration in Prince William Sound, as a tool for improving resource forecasting, management and enhancement, and as an educational resource for use within the spill-impacted area. A necessary component of this database will be interaction with or creation of a database of historical information (pre- and post-spill) already available on the ecosystem, with particular attention to EVOS-related research. Geographic

visualizations and analyses, data listings, reports, and other services will be available as part of the SEA data base and management system. Predictive and "what-if" scenario modeling tools, computer, communication, and library facilities will be available to assist in conducting SEA programs and to aid in restoration design and implementation as well as in resource management.

Equipment and implementation

Acoustic, optic, and remote sensors are vital if SEA is to link measurements on migrating animals to conditions in the Sound. These sensors are complementary tools that have the ability to measure both biological and physical characteristics of the system at the same time. The SEA group has the necessary expertise to apply these technologies. Outside reviewers at the December workshop agreed about the importance of incorporating this type of assessment in SEA.

We propose a phased initial implementation with a focussed study area in 1994 in western Prince William Sound, followed by expansion in 1995-96 to encompass the entire Sound. The western region is chosen because it is the area most heavily impacted by oil and most heavily used by many migratory species (notable pink salmon), it contains the deep-water reservoir of macrozooplankton central to SEA hypotheses, and includes substantial hatchery activity as well as a representative subset of habitats.

D. Location

This project will be conducted within the EVOS-impacted area in Prince William Sound and the waters immediately adjacent to this region. Prince William Sound is an ideal location for such a long-term ecosystem study. The Sound is a semi-enclosed basin, of tractable size, and suitable for sampling and monitoring with small vessels. Because of fundamental similarities in the structure of northern pelagic ecosystems and in the nature of unexplained declines in seabirds and marine mammals in the north Pacific, an ecosystem study for Prince William Sound could serve as a model for understanding the ecosystem dynamics of the entire region.

Siting of the SEA program in Cordova is both efficient and practical since the logistics of travel and freight are enhanced by daily jet service. In addition, there is easy access to the Sound on a year around basis from Cordova. Within Cordova there is local expertise from the Alaska Department of Fish and Game, the U.S. Forest Service, the Copper River Delta Institute, the Prince William Sound Science Center, the Prince William Sound Aquaculture Corporation, the Hazardous Substance Spill Technology Review Council, the Prince William Sound Oil Spill Recovery Institute, and the immediate availability of commercial vessels, fishermen and Alaska Natives for expertise on the region.

E. Technical Support

The SEA science community is interdisciplinary and unique to the Trustee process in that it involves collaboration between non-profit research organizations (the University of Alaska Fairbanks, PWS Science Center, PWS Aquaculture) and government agencies. It includes a diverse group of scientists that are well versed in acoustical and optical technologies, physical and biological oceanography, quantitative aquatic ecology, population dynamics and mathematical modeling. This integration of technology and science is critical to effectively study and understand the structure and dynamics of the Sound ecosystem. Establishment of a coherent approach for SEA issues, especially to quantify the physical environment and its relation to the distribution of organisms in the Sound, will require continuing concern for measurement and analytical technologies.

F. Contracts

The Prince William Sound Science Center, the Prince William Sound Aquaculture Corporation, the University of Alaska Fairbanks, the US Forest Service, and the private sector fishermen in Prince William Sound will be contracted to conduct the oceanography, meteorology, plankton dynamics, remote sensing, modeling and predation studies.

SCHEDULES

SEA is a long-term project to be implemented in three phases: 1) an initial 1-2 year phase of model development, planning, and field surveys; 2) an intensive 4-5 year phase of field and laboratory studies focussed on production and trophic interactions, and model testing and improvement; and 3) an extended phase of less intensive sampling, monitoring and model validation, and perhaps involving adaptive management manipulations of stocking and harvest practices. Studies should begin in 1994. Generally, the annual schedule will include activities listed in Table 1.

Table 1: Annual schedule of SEA activities

January-February	Stage for the field season
March-July	Full-scale field studies focused around the marine production cycle
August-December	Sample processing, data assessment
November	Macrozooplankton overwintering survey
December-February	Herring overwintering studies
December-February	Annual report preparation

EXISTING AGENCY PROGRAMS

Related Studies in the EVOS 1994 Draft Work Plan

The projects incorporated in SEA will benefit from interaction with ongoing EVOS Trustee sponsored projects, most notably those listed here. We expect that many of these project could be profitably informed by the results of the SEA program as well. Some support is requested in this proposal to conduct research complementary to some of these studies in collaboration with the investigators on those projects (work proposed here is complementary to, rather than overlapping with, work proposed in the projects listed below).

- 94064 Harbor seal habitat use and monitoring
- 94070 Restoration of high intertidal fucus
- 94083 Monitoring of oiled and treated shorelines
- 94086 Herring Bay experimental and monitoring studies
- 94102 Marbled murrelet prey and foraging habitat in PWS
- 94147 Comprehensive monitoring program
- 94159 Marine bird and sea otter boat surveys
- 94163 Forage fish influence on injured species.
- 94165 Herring genetic stock identification, PWS
- 94166 Herring spawn deposition, reproduction
- 94184 Coded wire tag recoveries of pink salmon
- 94185 Coded wire tagging of wild pink salmon
- 94187 Otolith marking of pink salmon
- 94189 Pink salmon stock genetics
- 94191 Pnk salmon egg mortality
- 94192 Evaluation of hatchery straying
- 94244 Harbor seal and sea otter co-op subsistence harvest assistance

ENVIRONMENTAL COMPLIANCE/PERMIT/COORDINATION STATUS

This project should qualify for a categorical exclusion under NEPA

PERFORMANCE MONITORING

An internal quality assurance and control program will be instituted through the modeling and data management project. Independent review of performance will be conducted through annual reports and workshops. Such review, begun in the December 1993 workshop, will work with the planning project to guide further development of the ecosystem research program, and ensure that the studies are integrated.

BUDGET**ADF&G**

Salaries and Benefits	\$538.1K
Services	\$700K
Vessel charters	
Trawlers (\$550K)	
R/V Alpha Helix (\$50K)	
Laboratory services (ADF&G Limnology lab, \$100K)	
Supplies	\$39.5K
Equipment	\$266K
Travel	\$9K
Total direct costs, ADF&G	\$1,552.6K
Indirect costs	\$124.2K
Total costs, ADF&G, FY94	\$1,676.8K

SUBCONTRACTS

PWS Science Center	\$2427.3K
University of Alaska Fairbanks	\$815K
United States Forest Service	\$120K
Copper River Delta Institute, Pacific NW Research Station (\$90K)	
Chugach National Forest (\$30K)	
National Biological Survey	\$125K
Future planning efforts	\$100K
PWS Aquaculture Corporation	\$50K
Total subcontracts	\$3637.3K
 TOTAL COSTS, FY94	 \$5,314.1K

APPENDIX I SEA Program Study Components

Overview

The ecosystem approach of the SEA science plan has identified four fundamental system processes that we propose as regulators of the Prince William Sound pink salmon and Pacific Herring fisheries along with trophic levels closely coupled to these two populations. The objectives of SEA (pg 4) address the validation of these proposals and the quantification and modeling of the processes.

The SEA implementation plan (outlined here) consists of four major programs that parallel the ecosystem processes of the SEA science plan. A fifth program for modeling studies, plus a sixth for SEA development and planning are included.

The major programs of the 1994 SEA implementation plan are:

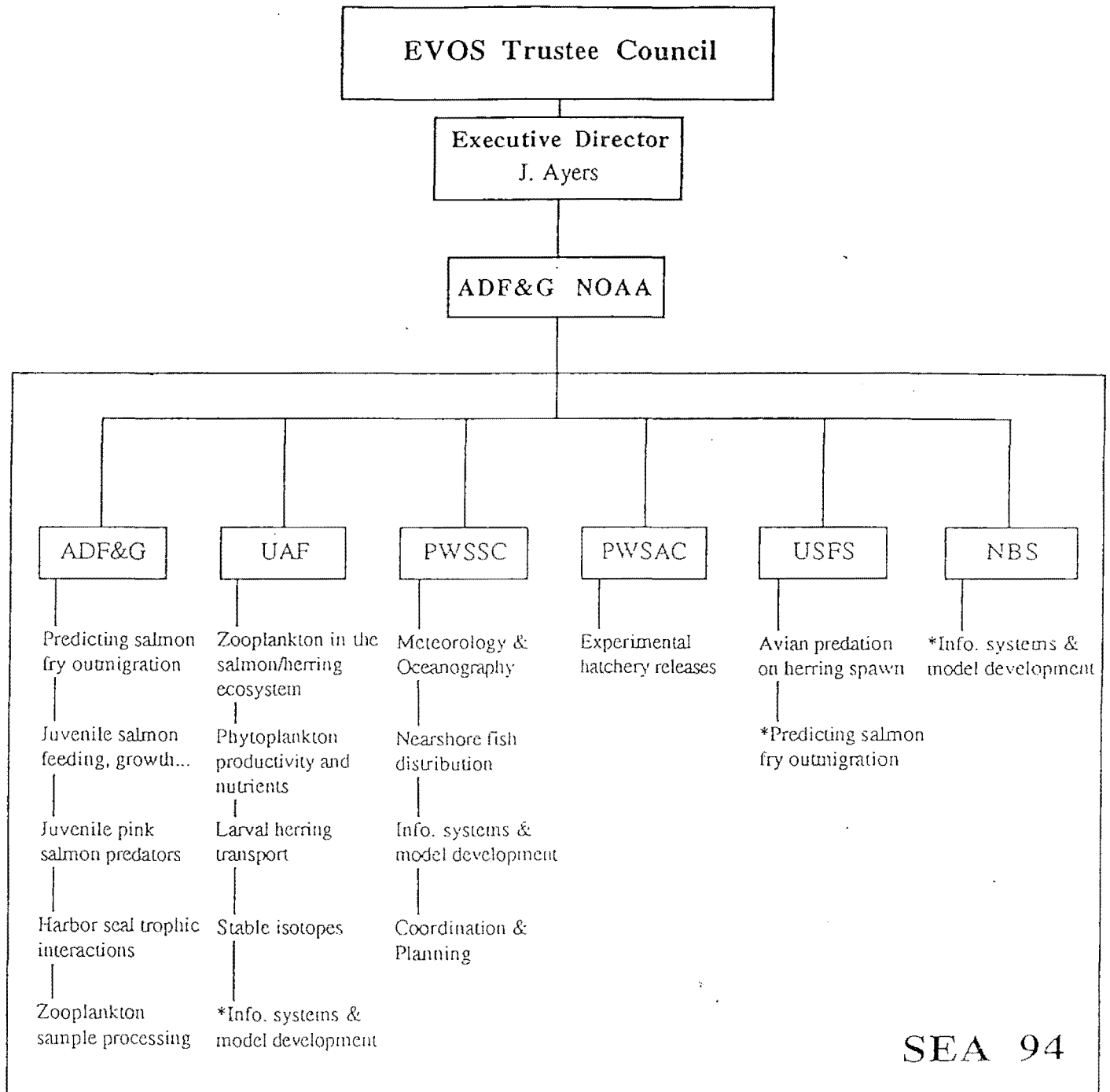
- 1) lake-river processes
- 2) predator-prey relationships
- 3) productivity of natal habitats
- 4) overwintering survival of herring (and other forage fish)
- 5) models and data management
- 6) SEA program development and planning

Studies of marine birds and mammals will be initially (for 1994) administered as projects under the predator-prey relationships program. New program elements that integrate current knowledge and methods in genetics, diseases and ecotoxicology will be developed during 1994 for the 1995 SEA implementation plan.

Figure 1 illustrates the Fiscal organization proposed for interdisciplinary and interagency projects. It assumes that federal and state agencies (ADF&G and NOAA) will continue to administer funds dispersed by the Trustees through the Executive Director. Federal, state and private organizations responsible for completing SEA projects will receive funds through ADF&G and NOAA. Projects will receive funds for their research responsibilities through their parent organizations.

A proposed structure for SEA scientific coordination and collaboration is outlined in Figure 2. SEA planning, project implementation, and results will receive scientific peer review at two levels. First, responsibility for project implementation and scientific accountability reside within the six major programs at the bottom of the diagram. For each program, a Coordinating Scientist (selected from among the project leaders) will sit on a scientific committee chaired by the SEA senior scientist (selected from among the project leaders). The scientific committee coordinates the six major programs under SEA, makes annual revisions to the SEA plan, and provides preliminary peer review of project plans and analyses. Second, PWSFERPG conveys SEA products from the science committee to a formal peer review panel composed of independent scientists with recognized expertise in disciplines related to the SEA program. PWSFERPG also coordinates public participation from PWS residents, interest groups and communities in the annual SEA planning and review process through a

Fiscal Organization



*Multiple entry reflecting multiple agency funding

Figure 1

Organizational Structure
for Scientific
Coordination and
Collaboration

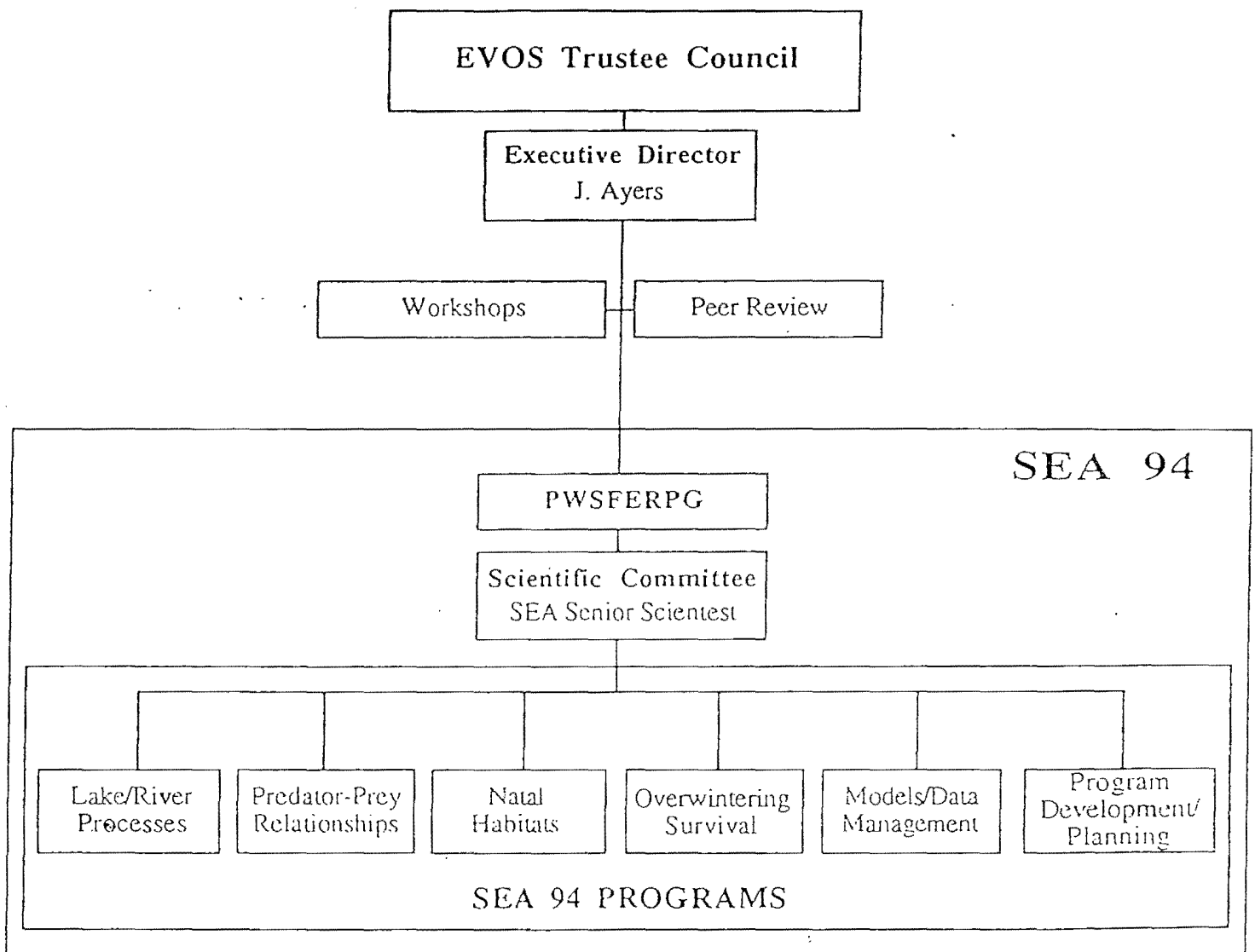


Figure 2

series of annual workshops. Results of peer review and public workshops are forwarded to the Trustee Council Executive Director for a final presentation to the Council.

Interdisciplinary coordination among projects within the six programs is critical to the design of SEA. The relationship between individual projects and the SEA programs are shown in Table 1. Projects are listed in the left column, and the five major scientific programs are listed along the top. An individual project typically consists of a collection of tasks that share common methodologies and draw upon related technical expertise, but projects will contribute to more than one program. The major investigative programs of SEA (columns) each rely upon multiple within-discipline projects, and within-discipline projects (rows) are accountable to more than one of the major organizing programs. Each major program is administered by a committee consisting of project leaders from the supporting individual projects. In this manner each project leader is accountable for both the disciplinary and the interdisciplinary aspects of SEA.

Programs

Objectives of the six program elements, and a brief statement regarding the contributing key disciplines for the programs are presented here.

Lake-river Processes. SEA proposes that wind and buoyancy-driven flushing of the upper-layers of Prince William Sound during April and May determines the biomass of macrozooplankton populations feeding on the early spring diatom bloom. It is also believed that transport of surface and deep water into the region during the late spring and summer months helps "seed" the Sound with oceanic species whose progeny feed planktivores the following spring. These conjectures will be addressed by SEA projects studying upper-layer and deep circulation, nutrient-limited primary production, and the zooplankton (nets, acoustics, optical plankton counting) associated with these water masses.

During each year, a variant of Lake/River conditions is provided naturally in association with the ontogenetic migrations of the oceanic copepods. During April and May, surface populations of macrozooplankton increase their biomass by growth from April through mid-May. After reaching copepodite stage V (mid-May), *Neocalanus* leaves the surface for deep overwintering depths. Thus, each year provides a "Lake-like high biomass condition" (April-mid May) followed by a transition to a "River-like low biomass condition" in June and July, regardless of how the over-all levels of upper-layer macrozooplankton may be modified by flushing. This means that the consequences of Lake/River processes can be partially addressed each year, rather than relying on chance to provide the necessary contrasting flushing regimes.

Predator-prey relationships. SEA will examine predation as a mechanism that may limit pink salmon and herring populations (through losses to predation) and also as a factor that may regulate apex predator populations (through feeding success). SEA suggests that many predators on juvenile fish (piscivores) in Prince William Sound feed primarily on macrozooplankton (planktivory) when macrozooplankton are abundant (lake-like years or seasons). Conversely, in years (and seasons) when macrozooplankton is weak, consumers in the system will be forced to adopt piscivory to meet their growth demands. The ecological

consequence is that in years of high macrozooplankton stocks, small fishes (0-class and other) are "sheltered" to some degree by the general system shift to planktivory, whereas when zooplankton stocks are low, predation is shifted more to smaller forage fishes. This proposed prey-switching mechanism will be studied by identifying juvenile pink salmon and herring predators (seines, trawls, acoustics), by experimentally determining the feeding rates of these predators given alternate prey kinds and abundance, and by stable isotope techniques. These studies will take advantage of Lake/River conditions established by flushing and ontogenetic migrations each year. The predictive consequences of zooplankton-modulated prey switching for pink salmon and herring production will be assessed by the modeling component.

Productivity of natal habitats. A variety of physical and, to a lesser degree, biological factors influence the survival of early life stages incubating in freshwater and nearshore marine spawning areas. These factors include losses of herring eggs to storm-caused wave turbulence, and pink salmon embryo and alevin mortalities due to freezing, desiccation, stream scouring and low oxygen levels. Herring eggs are also subject to predation (birds, fishes and invertebrates), but pink salmon embryos and alevins are believed to be relatively protected from predators. Outmigration timing of salmon fry appears to be determined by nearshore physics, but has an important effect on survival through interaction with marine predator fields and zooplankton blooms at the time of outmigration and shortly thereafter. Factors influencing the survival of early life stages in natal habitats will be described by interacting studies of meteorology, oceanography, hydrology, and egg and alevin survivals. Study results will be integrated by modeling for predictive purposes.

Overwintering survival of herring (and other forage fish). The survival of juvenile herring to successful adult recruitment at age 2 or 3 is achieved by avoiding predation and other sources of mortality (disease, anthropogenic). It is believed that one source of loss may be associated with overwintering conditions experienced by juveniles rearing in Prince William Sound. Upper-layer planktonic forage stocks are reduced from late fall through early spring. Depending on the lipid reserves stored by juveniles (condition factor) entering the winter season, and the balance between food intake and metabolic demand, winter mortalities may be elevated and growth recovery during the following spring bloom period compromised (with ramifications for survival). These possibilities will be examined by collecting and censusing (nets, seines, acoustic) juveniles prior to, during and after the overwintering period.

Models and data management. This program is responsible for SEA data acquisition, communication, archiving, management, formats, distribution, and query tool development, as well as for process modeling and prediction. To coordinate data integration and model development for SEA, each individual project is a contributor to and a member of the modeling program and shares in the responsibility for the development of effective, validated modeling and monitoring tools. The end products of SEA are quantitative descriptions, or models, of the principle processes and systems regulating pink salmon and herring populations of Prince William Sound. These models in conjunction with a monitoring program are the tools whereby the consequences of perturbations to the systems can be assessed. Models both describe and predict conditions within the ecosystem. Descriptions are quantitative accounts from past and current measurements, for example, descriptions of the circulation fields within the Sound or of the timing and distribution of spawning.

Predictions are based on numerical models that include the processes that link systems to one another, thereby projecting current observational information into the future. For example, predictions for macrozooplankton abundance and distribution are obtained from descriptions of particle advection processes and ocean circulation fields, as well as models of macrozooplankton behavior (vertical migration).

SEA program development and planning. SEA was developed in response to questions about the Sound's ability to produce healthy pink salmon and herring populations following the EVOS. The resulting pathway approach identified several natural processes in the Prince William Sound ecosystem that constrains or promotes the production of these two species. The subsequent review of SEA suggested that additional development will be required to meet the needs of the communities, residents and resource-users in Prince William Sound. The predator-prey relationships portion of SEA, which currently includes studies on marine mammals and birds, will require expansion. Project labels for ecotoxicology, genetics, and diseases have been added as place-holders for additional projects that may emerge through the planning process in 1994.

Project Descriptions

Brief project descriptions are attached with short-form budgets so that reviewers can assess the nature of the investigative and planning work proposed by SEA investigators in 1994. During the first year, many projects will be limited in geographic extent while techniques and procedures are being developed. For simplicity in accounting, most contract expenses for vessel time have been collected under ADF&G projects. Similarly, most equipment costs have been collected under PWS Science Center projects. Both vessel time and equipment will be shared among projects. Most research equipment can be expected to provide useful service over several years of the SEA program. These changes are reflected in redistribution of funds among participating organizations. Table 2 shows a summary of the 1994 SEA budget, and reflects these reallocations.

Table 1. SEA Program project integration

Project Description	SEA Program Elements				
	Natal Habitat	Lake/River Processes	Predator-prey	Herring Over-Winter	Data & modeling
<i>Physical processes</i>					
Meteorology, Physical Oceanography	X	X	X	X	X
<i>Primary and secondary production</i>					
Phytoplankton Productivity and Nutrients		X	X		X
Zooplankton in the Salmon/Herring Ecosystem		X	X	X	X
Zooplankton Sample Processing		X	X	X	X
<i>Fish</i>					
Larval Herring Studies	X	X	X		X
Predicting Salmon Fry Outmigration	X	X	X		X
Juvenile Salmon Feeding, Growth & Survival			X		X
Experimental Hatchery Releases			X		X
Nearshore Fish Distribution		X	X	X	X
Juvenile Pink Salmon Predators			X		X
<i>Birds and mammals</i>					
Avian predation on herring spawn	X		X		X
Harbor Seal Trophic Interactions			X		X
<i>Ecotoxicology, Disease & Genetics</i>					
<i>Ecosystem Integration</i>					
Defining Trophic Status Using Stable Isotopes			X		X
Information Systems and Models	X	X	X	X	X
SEA Coordination and Planning	X	X	X	X	X

Table 2: SEA 1994 budget summary (amounts in \$K)

Project descriptions	Personnel	Travel	Contractual	Commodities	Equipment	Indirect	Project Cost	Organization Totals
PWSSC								2,246.03
Mct/Phys oceanography	126.3	5	120	20	375	129.3	775.60	
Nearshore fish	202	23	47	21	265	112	670.00	
Information & modeling	193.6	23.5	88.6	10.7	267	117.03	700.43	
Program management	30	30	10	10	0	20	100.00	
ADF&G								1,940.87
Salmon outmigration	611.3	4.4	28	4	93	15.24	205.77	
Salmon growth	86.4	0	174	4	15	0	279.40	
Salmon predators	260.2	3	856	15	192	0	1,326.20	
Harbor seals	6.5	1	15	1.5	0	0	24.00	
Zoop sample processing	100	0	0	2	3.5	0	105.50	
UAF								832.20
Phytoplankton/Nutrients	92	4.5	14.2	9	0	29	148.70	
Zooplankton in Ecosystem	202.4	15	18	7.4	31.5	68.6	342.90	
Larval drift	152	14	16	20	7	41	250.00	
Trophics/Stable isotopes	24.6	3.2	12	6.9	0	11.7	58.40	
Information & modeling	25.8	1	0	0	0	5.4	32.20	
NBS								125.00
Information & modeling	102.5	0	10.5	12	0	0	125.00	
USFS								120.00
Salmon outmigration	27.3	0	0	0	0	2.7	30.00	
Avian predation	25.8	2	23	10	21	8.2	90.00	
PWSAC								50.00
Exper. fry releases	2.6	1.5	0	40	5.9	0	50.00	
Total	1,721.13	131.10	1,432.30	193.50	1,275.90	560.17	5,314.10	5,314.10

Due to SEA's interdisciplinary nature, activity funded under one project will frequently support the needs of several projects. This is particularly true for funds listed under Contractual and Equipment.

PHYSICAL PROCESSES

Physical Oceanography and Marine Meteorology

Major hypotheses in the SEA program include the idea that the physical environment of Prince William Sound (PWS) and the Gulf of Alaska (GOA) is the major determinant of natural variability in the ecosystem. The elucidation of the physical oceanographic structure of PWS, and its space/time variability is critical to understanding how the ecology of the region changes in response to natural disturbances. This project will characterize and monitor major physical processes (atmospheric and oceanic) that constrain the ecology of PWS. Information concerning the origin and modifications of water masses that affect both the surface and deep waters of PWS will be obtained in PWS/GOA. Large scale oceanographic measurements will consist of temperature, salinity, and ocean currents (derived density and baroclinic ocean currents) obtained from conductivity/temperature/depth and acoustic doppler recording instruments. Meteorological measurements will include air temperature, precipitation, wind speed and direction and derived products that relate atmospheric forcing to oceanic structure, properties and circulation. Fine scale oceanographic measurements will include determination of horizontal and vertical physical structures (e.g. thermocline, pycnocline, fronts, eddies, shear zones). This study will be closely coordinated with all components of SEA, in particular both chemical and biological data will be used as tracer fields in the determination of how physical processes in PWS act to control the fluctuations of ecological populations.

Objectives:

- 1) Determine the relationships and interactions between atmospheric forcing (winds, storms, long term temperature changes) and wind and buoyancy driven ocean currents in PWS/GOA.
- 2) Determine how the relationships described in 1) act to retain or disperse major food resources for ecologically important species within PWS.
- 3) Ascertain the large and fine scale oceanographic structure and the major climatic cycles (El Niño-Southern Oscillation, nodal tide) and events (e.g storms) that affect PWS/GOA within the context of the space/time distributions of important populations in these regions.

Project Leader: David Salmon, Oceanographer, Prince William Sound Science Center and Institute of Marine Science, University of Alaska

Budget

Personnel	\$126.3K
Travel	\$5.0K
Equipment	\$375.0K
Supplies	\$20.0K
Subcontracts	\$120.0K
Total Direct Costs	\$646.3K
Indirect Costs (20%)	\$129.3K
TOTAL	\$775.6K

PRIMARY AND SECONDARY PRODUCTION

Phytoplankton Community Composition, Productivity and Nutrient Cycling

SEA contends that upper-layer zooplankton biomass controls consumer feeding strategies in Prince William Sound. An hypothesis (Lake/River) is advanced to account for interannual differences in springtime macrozooplankton populations. Ecological theory provides another (bottom-up) mechanism for determining levels of zooplankton production/biomass as a function of primary production. This project will provide information to SEA on nutrient-driven primary and secondary productivity so that the influence of advection (Lake/River) can be indirectly evaluated as a mechanism establishing zooplankton stock size in the Sound. Information on the species composition, standing stocks and timing and duration of phytoplankton blooms will also be used by SEA to define the feeding, growth and reproductive environments for zooplankton.

Objectives:

- 1) Measure the timing and biomass of phytoplankton blooms.
- 2) Measure primary productivity.
- 3) Determine the spatial and temporal patterns in phytoplankton distribution using satellite imagery.
- 4) Determine the species composition of the phytoplankton community.
- 5) Measure the distribution and quantity of the major dissolved nutrients including nitrate/nitrite, ammonia, phosphate and silicate.
- 6) Contribute phytoplankton and nutrient data to the SEA ecosystem model.

Project Leaders: David Eslinger and C. Peter McRoy, Biological Oceanographers, Institute of Marine Science, University of Alaska Fairbanks

Budget

Personnel	\$92.0K
Travel	\$4.5K
Contractual	\$14.2K
Commodities	\$9.0K
Equipment	\$0.0K
Indirect costs (20%)	\$29.0K
Total	\$148.7K

The Role of Zooplankton in the Pink Salmon and Herring Ecosystem of Prince William Sound

SEA hypothesizes that zooplankton populations in Prince William Sound play a major role in structuring pelagic prey/predator relationships seasonally and from year to year. This project is designed to cooperate with studies of upper layer currents in the region (Lake/River) to describe seeding of oceanic species into the Sound each summer and fall, and retention or wash-out of upper-layer stocks in April and May. These bio-physical relationships form the basis for establishing lake/river-driven prey switching each year and its subsequent influence on pink salmon and herring production.

Objectives:

- 1) Use PWSAC plankton watch collections (March-June) to describe the timing, duration, magnitude and species composition of springtime zooplankton stocks.
- 2) Use shipboard collections (nets, trawls) to describe ontogenetic and diel shifts in vertical distributions influencing prey/predator relationships affecting juvenile pink salmon and herring survival.
- 3) Describe the species composition, sizes and indices of abundance of macrozooplankton occurring in layers and swarms detected and censused acoustically and with optical counters.
- 4) Determine how the timing and duration of the phytoplankton bloom influences the timing and magnitude of upper-layer zooplankton growth, and locally produced overwintering stocks.
- 5) Provide field taxonomic assistance with descriptions of forage dependencies for fishes, birds and mammals.
- 6) Work cooperatively with other SEA projects to formally test the lake/river-driven prey switching hypothesis.

Project Leader: R. Ted Cooney, Biological Oceanographer, Institute of Marine Science, University of Alaska Fairbanks

Budget

Personnel	\$202.4K
Travel	\$15.0K
Contractual	\$18.0K
Commodities	\$7.4K
Equipment	\$31.5K
Indirect costs (20%)	\$68.6K
TOTAL	\$342.9K

Macrozooplankton Sample Processing

SEA intends to collect large numbers of zooplankton and ichthyoplankton samples to support tests of the lake/river-driven prey switching hypothesis, and as part of other projects examining forage resources for fishes, birds and mammals in Prince William Sound. The majority of these samples will be sorted, and plankters identified and enumerated at the ADF&G Limnology Laboratory in Soldotna. This facility has had previous EVOS experience with the subarctic marine zooplankton community. The Laboratory will work with the University of Alaska taxonomists to develop a voucher collection of species sampled by SEA in Prince William Sound as part of the sample analysis program.

Objective:

1) Process and analyze up to 2000 zooplankton samples (annually) and provide data to all components of SEA

Project Leader: Limnology Laboratory, Alaska Department of Fish & Game, Soldotna

Budget

Personnel	\$100.0K
Travel	
Contractual	
Commodities	\$2.0K
Equipment	\$3.5K
Indirect	
TOTAL	\$105.5

FISH

Interpreting Interannual Variations in Herring Recruitment to Age 3 in Relation to Spatial Patterns of Larvae, Post-Larvae and Juveniles in Prince William Sound.

The purpose of this study is to gain an understanding of interannual variability in successful year-classes of Pacific herring and other fishes in PWS. This study is designed as an interdisciplinary investigation with emphasis on transport (physical oceanography), growth (zooplankton) and survival. Previous investigations have suggested that distributions of larval herring (and other larval fishes) in the Sound reflect interactions with wind and buoyancy-forced flow fields and losses to predators. Herring larvae and post-larvae that are flushed from the region in the spring/summer are thought to recruit elsewhere.

Objectives:

1. Follow patches of herring larvae from beach deposition throughout their passage within PWS.
2. Identify and count all larval fish collected.
3. Determine relationships between observed distributions of herring larvae and broad-scale oceanographic patterns (transport and food).
4. Determine if local oceanography differentially affects herring larvae spawned at separate locations in PWS.
5. Compare and contrast distribution patterns of all larval fish in relation to the physical oceanography.

Project leader: Brenda Norcross, Fisheries Oceanographer, Institute of Marine Science, University of Alaska Fairbanks.

Budget

Personnel	\$152.0K
Travel	\$14.0K
Contractual	\$16.0K
Commodities	\$20.0K
Equipment	\$7.0K
Indirect costs	\$41.0K
TOTAL	\$250.0K

Predicting Pink Salmon Fry Outmigration Abundance and Timing

Changes in the abundance of pink salmon in the marine environment in Prince William Sound will reflect in part variation in the number of fry that enter the system, and the timing of ocean entry relative to the abundance and distribution of food supplies (zooplankton blooms) and predators. The purpose of this study is to develop and test models that predict fry outmigration abundance and timing. Estimates of in-stream mortality to early pink salmon life stages range from 60 to more than 90 percent. Scouring, freezing, desiccation, and low dissolved oxygen are the principle in-stream sources of mortality. These are all related directly to stream conditions, such as temperature, stream discharge and sediment load, which are in turn determined by the watershed and stream-bed characteristics, and local or Sound-wide meteorological events. Outmigration abundance and timing result from the effects of these in-stream environmental variables interacting with spawner timing, distribution, and abundance.

Objectives:

- 1) Characterize stream habitats using the USFS stream channel type database, and additional data on intertidal habitats. Type streams according to predicted hydrological factors relevant to important sources of mortality to pink salmon.
- 2) Develop and test an outmigration abundance and timing model for pink salmon that
 - a) predicts in-stream hydrology from meteorological data and stream-channel characterization, and
 - b) relates in-stream hydrology to hatch timing, survival, and emergence timing.

Field measurements for developing and testing models of stream hydrology will include remote-sensor measures of stream temperature and water depth, and field measures of flow rates, wetted area and local precipitation. Study streams will be selected from those included in on-going ADF&G embryo and pre-emergent fry studies. Project activities for 1994 will include analysis of historical data sets, initial model development, and initial equipment testing.

Project Leader: Sam Sharr, Fisheries Biologist, ADF&G

Budget

Personnel	\$88.43K
Travel	\$4.4K
Contractual	28.0K
Commodities	\$4.0K
Equipment	\$93.0K
Indirect Costs	\$17.94K
Total:	\$235.77K

Juvenile Pink Salmon Feeding, Growth and Survival

The growth rate of early life-stage pink salmon is thought to be a critical determinant of survival. Faster growing juveniles spend less time in the smallest most vulnerable sizes, and losses to predation are minimized. Studies elsewhere indicate that temperature and food control fry and juvenile growth rates. An investigation of recaptured coded wire-tagged juveniles in Prince William Sound suggests that temperature may be the more dominant factor controlling growth. Seasonal, spatial and interannual patchiness in upper-layer forage resources and temperature fields for early life-stage pink salmon provide opportunities to examine the influence of both factors. An extensive coded wire-tagging program for hatchery released and some wild stocks allows measures of absolute growth rates for these different stocks. The tagging program will also be exploited to determine the migratory behavior of fry and juveniles.

Objectives:

- 1) Estimate the growth rates of juvenile pink salmon in northern and western Prince William Sound.
- 2) Describe the prey composition and estimate food consumption rates for juvenile pink salmon.
- 3) Determine the relative importance of food and temperature in determining growth rates.

Project leader: Mark Willette, Fisheries Biologist, Alaska Department of Fish and Game

Budget:

Personnel	\$86.4K
Travel	
Contractual	\$174.0K
Commodities	\$4.0K
Equipment	\$15.0K
Indirect	
TOTAL	\$279.4K

An Experimental Approach to Evaluating Pink Salmon Marine Survival as a Function of Fry Size and Time of Release

SEA focuses on processes and mechanisms that regulate losses of fry and juveniles to predators after emergence from nearshore natal habitats. Previous studies in Alaska and elsewhere suggest that fry size is an important determinant of survival during early marine residence. Faster growing juveniles are thought to enjoy better marine survivals than slower growing fish. Preliminary evidence from Prince William Sound indicates that fry growth rate is often a good predictor of adult survival. About 40 million (some coded wire-tagged) fry at two hatcheries will be reared to 1.5 g for a special late spring release in 1994 to evaluate the influence of size and time of ocean entry on adult production. The largest pink salmon fry released currently by PWSAC hatcheries average about 0.4 g. The marine survivals of these special released fry will be compared with historical survivals of all releases and the survivals of fry released according to standard hatchery practice in 1994.

Objectives:

- 1) Rear early emerging fry at the Wally Noerenberg (Esther Island) and Armin F. Koernig (Evans Island) hatcheries to 1.5 g live weight for release in mid-June.
- 2) Determine the marine survivals of fry in experimental releases from coded wire-tagged individuals recovered in the brood stocks and common property fishery the following year.
- 3) Compare the marine survivals of late released larger fry with other releases (of smaller fry) at these same hatcheries.

Project leader: Jeff Olsen, Operations Manager, Prince William Sound Aquaculture Corporation, Cordova

Budget

Personnel	\$2.6K
Travel	\$1.5K
Contractual	
Commodities	\$40.0K
Equipment	\$5.9K
Indirect costs	
TOTAL	\$50.0K

Overlaps in Distributions and Interactions Between Juvenile Herring, Gadoids, Salmonids, and other Fishes in the Nearshore

The protected nature of Prince William Sound, and abundant zooplankton probably makes the region an ideal nursery for pelagic and demersal fishes. Ichthyoplankton surveys in 1989 revealed that walleye pollock and Pacific herring were two of the most abundant larval fish species in the Sound. In 1993, a layer of mostly juvenile walleye pollock was observed by sonar to extend for miles across the region. Extensive shoals of juvenile pollock, herring, true cod and tom cod have been observed in Orca Inlet and other regions of the Sound during spring and summer. Little is known of the apparent overlap in the distributions and diet demands of these fishes. Also, almost nothing is known about the overwintering habitat and condition of juvenile fishes believed to reside in the Sound during this critical time. This study will address these questions through interactive investigations with other elements of the SEA project.

Objectives:

- 1) Conduct winter and summer sonar/net surveys of the nearshore juvenile fish assemblages to measure spatial overlap, forage dependencies, growth and distributional relationships to physical features like fronts, eddies, shears, and clines.
- 2) Determine how nearshore conditions influencing the distributions of juvenile fishes are influenced by climate driven processes seasonally and interannually.
- 3) Test the plankton-patch-dependence and nekton-patch-response hypotheses as means for understanding the distributions of juvenile fishes and their predators and prey.

Project Leader: Gary Thomas, Prince William Sound Science Center, Prince William Sound Oil Spill Recovery Institute and Institute of Marine Science, University of Alaska Fairbanks.

Budget

Personnel	\$202.0K
Travel	\$ 23.0K
Contractual	\$47.0K
Commodities	\$21.0K
Equipment	\$265.0K
Indirect	\$112.0K
TOTAL	\$670.0K

Juvenile Salmon Predators

High marine mortality of early life-stage pink salmon in a healthy ecosystem is generally attributed to predation; starvation has not been documented. Juvenile and adult pollock, tom cod and other pelagic fishes are known to feed on fry released from net pens during the spring. The population dynamics and growth model developed by SEA for pink salmon indicated that more than 80 percent of the fry entering the Sound may be consumed locally by predators. Pollock, cod, tom cod, black cod, herring and other pelagic and semi-demersal species are suspected to be the major fish predators on pink salmon fry and juveniles. This study is designed to identify predators along the migratory pathway, and determine how the abundance of juveniles and alternate prey influences feeding rates on the pink salmon fry and juveniles. This work contributes directly to tests of the SEA lake/river-driven prey switching hypothesis.

Objectives:

- 1) Estimate the feeding rate and diet composition of potential predators along the migratory pathway of juvenile pink salmon through northern and western Prince William Sound.
- 2) Test for differences in the abundance of juvenile salmon predators between cases of low and high juvenile salmon abundance.
- 3) Test for differences in the proportion of pink salmon and macrozooplankton in predator diets under low and high (seasonal and interannual) macrozooplankton abundance.

Project Leader: Mark Willette, Fisheries Biologist, Alaska Department of Fish and Game

Budget

Personnel	\$260.2K
Travel	\$3.0K
Contractual	\$856.0K
Commodities	\$15.0K
Equipment	\$192.0K
Indirect	
TOTAL	\$1326.2K

BIRDS AND MAMMALS

Assessing Avian Predation on Herring Spawn

Large numbers of several species of shorebirds and Larids (e.g. gulls, kittiwakes) use the rocky intertidal habitats of Prince William Sound each spring. Rocky intertidal habitats in the Sound are important to these birds, particularly to black turnstones and surfbirds. Up to 45% of the breeding populations of these two species stage each spring in these habitats in the Sound. The coastal intertidal was severely contaminated by the oil from the *Exxon Valdez*. Shorebirds feed regularly on small crustaceans and mollusks, Larids on benthic invertebrates, plankton and small fish. Large concentrations of black turnstones, surfbirds, and glaucous-wing gulls have also been recorded feeding on herring spawn. These species using the rocky intertidal are likely to be exposed to petroleum hydrocarbons through their food.

Despite the critical importance of the Sound's rocky intertidal habitat to these concentrations of birds, baseline information is lacking on the relative abundance of shorebirds and gulls, their spatial and temporal distribution patterns, their length of stay and their key concentration areas during herring spawning and incubation.

Objectives:

- 1) Examine the phenology, relative abundance, and species composition of birds using herring spawn in the rocky intertidal habitats from boat and aerial surveys.
- 2) Identify key bird concentrations on herring spawn in PWS from boat and aerial surveys (herring spawn distributions will be available from regular ADF&G operations).
- 3) Examine spatial and temporal distribution (including length of stay for shorebirds only) in relation to habitat type and abundance of pacific herring spawn using observations of marked and radio-tagged birds.
- 4) Assess the relative importance of prey for birds using nearshore habitats, including the importance of herring spawn. Calculate the extent of losses of herring eggs to these birds using a combined analysis of bird and herring spawn distributions.

Project Leader: Mary Anne Bishop, Copper River Delta Institute, US Forest Service

Budget

Personnel	\$25.8K
Travel	\$2.0K
Contractual	\$23.0K
Commodities	\$10.0K
Equipment	\$21.0K
Indirect Costs (10%)	\$8.2K
TOTAL	\$90.0K

Trophic Interactions of Harbor Seals in Prince William Sound

Harbor seals in the northern Gulf of Alaska, including Prince William Sound, are declining for unknown reasons. In Prince William Sound, this decline was exacerbated by the *Exxon Valdez* oil spill. Because of the significant decline, harbor seals are currently being considered for listing as depleted under the Marine Mammals Protection Act. If data are not adequate to determine that mortality of seals due to subsistence use and fisheries interactions are sustainable, more restrictive regulations for these activities in PWS could result.

Changes in the availability of prey have been postulated as possible causes for recent declines of harbor seals, Steller sea lions, and sea birds in the Gulf of Alaska and the Bering Sea. Current satellite tagging studies of harbor seals are providing information about site fidelity and location and depth of feeding. This project will examine the trophic interactions of harbor seals and the possible effects of prey availability on their status and population trends.

Objectives:

- 1) Integrate information from ongoing studies about seal feeding behavior (location, depth, duration) with information on the distribution and abundance of key species of forage fish (from SEA fish studies).
- 2) Elucidate the trophic ecology of harbor seals through identification of prey types and diet composition using fatty acid signatures of seal blubber, serum, and (if available) milk, in conjunction with lipid analysis of prey (fish, octopus, shrimps).
- 3) Provide seal tissue samples to a proposed stable isotope study and integrate results of stable isotope analysis of seal tissue with analyses of other components of the pelagic ecosystem.

Seal serum and blubber collected as part of on-going projects (94064) and available from seals collected after EVOS will be used for lipid analysis and analyzed as part of this SEA component.

Project Leader: Kathy Frost, Wildlife Biologist, Alaska Department of Fish & Game

Budget

Personnel	\$6.5K
Travel	\$1.0K
Contractual	\$15.0K
Commodities	\$1.5K
Equipment	
Indirect Costs	
TOTAL	\$24.0K

ECOTOXICOLOGY, DISEASE, AND GENETICS

This page has been added as a place-holder for additional projects that may emerge through the planning process in 1994.

ECOSYSTEM INTEGRATION

Confirming Food-Web Dependencies in the Prince William Sound Ecosystem Using Stable Isotope Tracers

This interdisciplinary project focuses on understanding trophic relationships supporting apex predator production in Prince William Sound. The study will provide an integrating function to SEA projects examining different levels in the food chain and will employ stable isotope ratios of carbon and nitrogen to trace trophic transfers of carbon and nitrogen between levels. Stable isotope ratios of carbon serve as effect tracers of energy supply in the study area because of the conservative transfer between plankton, small fishes and higher-level consumers. Temporal signals stored in tissues can be used to reconstruct feeding strategies and regions. Nitrogen isotope ratios provide additional information on trophic position in food webs. This information will be central to tests of the SEA lake/river-driven prey switching hypothesis.

Objectives:

- 1) Determine the stable isotope ratios of nitrogen and carbon in selected samples of species from Prince William Sound including macrozooplankton, juvenile herring and salmon, and other fishes, birds and mammals to allocate food sources, trophic status and differences in feeding behavior between life stages.
- 2) Determine migratory patterns and habitat dependencies of harbor seals by comparing isotope ratios in vibrissae and claws.
- 3) Contribute stable isotope results to formal tests of the lake/river-driven prey switching hypothesis developed by SEA to explain pink salmon and herring production trends.

Project Leaders: Don Schell and Tom Kline, Biological Oceanographers, Institute of Marine Science, University of Alaska Fairbanks.

Budget:

Personnel	\$24.6K
Travel	\$3.2K
Contractual	\$12.0K
Commodities	\$6.9K
Equipment	
Indirect costs	\$11.7K
TOTAL	\$58.4K

Information Systems and Model Development

The primary function of the Information Systems and Model Development project is the integration of data and findings into system-level descriptions of the functioning of specific parts of the Prince William Sound ecosystem. Information systems related activities will include coordination of and technical support for data acquisition and communications for the individual projects, integration of both new and historical data resources, and program-wide data management and distribution. Modeling topics parallel the principal programs of SEA: weather, ocean states and stream hydrology; the roles of these physical states in the productivity of natal habitats and in the dispersion and flushing of plankton and larval fish; predation and prey selection; and juvenile fish distribution, growth, and survival relative to feeding, predation, and physical conditions during outmigrations and overwintering.

Objectives:

- 1) Acquisition and installation of hardware, data loggers, and communications equipment for near real-time data acquisition from SEA vessels, ships of opportunity, buoys and aircraft.
- 2) Implementation of a prototype distributed database system suitable for both project and non-project data and reflecting current developments in NOAA JGOFS, NASA EOS, and EVOS data systems. Implementation of graphical query, display, and analysis tools.
- 3) Implementation of initial versions of numerical models for circulation, advective dispersion of plankton and larva, and primary production. The development and evaluation of models that simply yet adequately describe growth and mortality of pink salmon fry and juvenile herring in terms of the physical conditions and their foraging and dispersion behavior along with that of their prey, predators, and competitors.

Project Leader: Vince Patrick, Applied Mathematics, Institute for Systems Research,
University of Maryland, and Prince William Sound Science Center.

Project Collaborations:

David Douglas, Gary Drew, NBS. Remote sensing.
Mark Johnson, UAF. Ocean circulation models

Budget

Personnel	\$193.6K
Travel	23.5K
Contractual	245.8K
Commodities	10.7K
Equipment	267.0K
Indirect	117.03K
TOTAL	\$857.63K

SEA Program Coordination, Reporting and Planning

SEA is designed to address specific ecosystem-level questions about impacts of the EVOS relative to failures in pink salmon and herring production in Prince William Sound. The study is intended to be iterative in function; when certain tasks have been accomplished, SEA projects and study themes will be changed to reflect new direction and focus. Post-field season evaluations and future program planning at an annual workshop to include all investigators, selected peer reviewers, agents of the EVOS Trustee Council and the interested public will be provided for under this program. Small workshops and meetings may be necessary at other times to assure that priority scientific activities are accommodated. As well, coordination of required annual reporting will be supported under this task.

The PWS Fisheries Ecosystem Research Planning Group, a coalition of user groups, resource managers, and scientists from the PWS region, provides the regional umbrella under which the SEA plan has been developed, peer reviewed and brought to the EVOS Trustee Council. In order to assure that SEA continues to reflect the concerns and priorities of the citizens and users of the region, ongoing involvement of PWSFERPG in SEA is a critical component of this program. Along with the SEA Senior scientist and program leaders, PWSFERPG will continue to interact with the EVOS Trustee Council and it's staff on the interface of the SEA program and other EVOS science and restoration activities.

Objectives:

- 1) Coordinate development and annual revisions of SEA goals, objectives and projects by hosting a public SEA annual meeting each year, and by other means as necessary.
- 2) Coordinate annual reporting requirements for SEA programs.
- 3) Assure inclusion of regional user priorities in SEA program objectives and facilitate SEA coordination with other EVOS restoration activities through consultation and coordination with PWSFERPG.

Project Leader: Chief SEA Scientist and PWS Fisheries Ecosystem Research Planning Group leadership. Program funds will be administered through the PWS Science Center.

Budget

Personnel	\$45.0K
Travel	\$10.0K
Contractual	\$10.0K
Commodities	\$9.0K
Equipment	\$6.0K
Indirect	\$20.0K
TOTAL	\$100.0

APPENDIX 2 SEA Collaborators¹

C. Berernstein. math, tomography inverse problems. ISR-UMD
E. Biggs. fisheries biology. ADF&G
M. Bishop. bird ecology. USFS
R. Cooney. biological oceanography, zooplankton. IMS-UAF
K. Coyle. zooplankton taxonomy. IMS-UAF
R. DeCino. aquatic ecology, hydroacoustics. PWSSC
D. Douglas. ecology, remote sensing. NBS
G. Drew. ecology, remote sensing. NBS
D. Eslinger. biological oceanography, numerical models. IMS-UAF
H. Ferrin. institutional planning. PWSAC
K. Frost. wildlife biology, harbor seals. ADF&G
E. Jin. plankton ecology, optical counters. U. Toronto
M. Johnson. physical oceanography, numerical models. IMS-UAF
J. Kirsch. electrical engineering, hydroacoustics. PWSSC
T. Kline. biological oceanography, stable isotopes. IMS-UAF
R. Kulkarni. computer systems, graphical interface. UMD
D. M. Mason. fish ecology, hydroacoustics. U. Wisconsin and UMD
C. McRoy. biological oceanography, phytoplankton. IMS-UAF
R. Murray. electrical engineering, numerical models, genetics. Utah State
B. Norcross. fisheries oceanography, larval fish. IMS-UAF
J. Olson. hatchery management. PWSAC
V. Patrick. applied math, models, visualization. PWSSC and UMD
T. Royer. physical oceanography, Gulf of Alaska. IMS-UAF
D. Salmon. physical oceanography, GFD. PWSSC
D. Scheel. ecology, GIS. PWSSC
D. Schell. biological oceanography, stable isotopes. IMS-UAF
D. Schmidt. fish biology. USFS
S. Sharr. fisheries biology. ADF&G
G. Thomas. fisheries, hydroacoustics. PWSSC
J. Wilcock. fisheries biology. ADF&G
M. Willette. fisheries biology. ADF&G

¹Additional professionals have assisted in the development and preparation of the SEA plan. Some of these are expected to assume research responsibilities as the study develops.

Revised 320

11-5-1-B

EXXON VALDEZ OIL SPILL PROJECT DESCRIPTION

Title: Common Property Salmon Stock Restoration

Project Number: 94421

Lead Agency: Alaska Department of Fish and Game

Cooperating Entities: Prince William Sound Aquaculture Corporation (PWSAC)
Valdez Fisheries Development Association (VFDA)
Cook Inlet Aquaculture Association (CIAA)

Cost of Project, FY94: \$ 5,336,800

Project Startup Date: February 1, 1994 **Duration:** Eight months

Geographic Area: Prince William Sound and Lower Cook Inlet, North Gulf of Alaska

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JAN 31 1994

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL
ADMINISTRATIVE RECORD

INTRODUCTION

As the oil from the *Exxon Valdez* spread southwest through Prince William Sound, out into the Gulf of Alaska, and past the Kenai Peninsula, the region's hatcheries were in the process of releasing millions of pink salmon fry. Unfortunately, many of the fry immediately faced an oil contaminated water column after being released. Concurrently, the wild fry were leaving streams and faced the same contaminated waters. The initial spill killed millions of salmon fry from both wild and hatchery stocks. Besides the acute impact of the oil on the fry, the oil appears to also have had a chronic impact as evidenced by reduced egg and fry survival and perplexing run failures of both pink salmon and Pacific herring within the spill area.

While the hatcheries themselves escaped any direct impact from the spilled oil, often due to the prompt action of fishermen, they are now suffering from the recent poor returns of pink salmon. The hatcheries operate on funds from a cost recovery program of catching some of the returning hatchery fish to sell and cover costs. As detailed below, the last three years have brought disappointing returns of pink salmon to the hatcheries, which, combined with sagging prices, have presented the hatcheries with problems in meeting their cost recovery requirements. In anticipation of higher returns, the hatcheries have been resourceful and used their contingency and capital improvement reserves over the past three years to cover costs, however, those funds were nearly exhausted after the catastrophic run failure in 1993. At this point the hatcheries require an outside infusion of capital to be able to release fry in the spring of 1994, and are therefore requesting a one time allocation of funds to cover operations through the 1994 spring fry releases. Before approaching the Trustee Council, the aquaculture associations failed in their extensive efforts to secure emergency funds from other sources.

In short, this project will prevent the loss of 1994 brood stocks that would be expected to return as adults in 1996. Loss of this brood stock would most likely mean a 75-80% reduction in the pink salmon return to Prince William Sound and Lower Cook Inlet. The salmon stocks of Prince William Sound and Lower Cook Inlet have reached a point where self-sustaining hatcheries require sustainable pink salmon returns, with the converse also being true. Thus, a missing link in the cycle would have tremendous implications, and a guaranteed loss of production, coupled with the apparent poor health of the ecosystem, would make the 1996 return extremely weak, possibly ending the fishery altogether. The viability of the resource and the hatcheries is inextricably linked, therefore this project aims to restore and replace the common property fishery to pre-spill level through ensuring sustained hatchery operations.

Alaska's salmon, including those produced in wild streams, state hatcheries and private non-

profit hatcheries, are considered the common property of all Alaska residents. Common property salmon fisheries supported by fish produced from all of these sources were injured by the *Exxon Valdez* oil spill (EVOS). In recent years, the collapse of common property fisheries in Prince William Sound and Lower Cook Inlet have created a particular hardship on commercial fishermen. In particular, the pink salmon produced by Prince William Sound and Lower Cook Inlet streams and hatcheries held a major role in sustaining the ecosystems of these areas by their contribution to the food web. Other species of salmon produced here have also contributed, but to a lesser degree. By incubating, rearing and releasing salmon eggs, fry and smolt at hatcheries, this project, consistent with the mandated restoration objectives, would help restore and replace the resource while assisting the commercial fisheries and impacted predator species in the spill area.

In 1971, the Division of Fisheries Rehabilitation, Enhancement and Development (FRED Division) of the Alaska Department of Fish and Game (ADF&G) was created by the Alaska State Legislature. The legislature directed the division "through rehabilitation, enhancement, and development programs to do all things necessary to insure perpetual and increasing production and use of food resources of Alaska waters," or to promote and maintain the common property fisheries.

In 1973, the United Fisherman's Association (UFA) was formed, organizing commercial fishermen at the state level for the first time. Fishermen's groups such as UFA were a driving force behind Alaska's salmon hatchery programs. This group, along with others, believed it would take artificial propagation as well as some restrictive regulations to bring the commercial harvest level back up from an annual harvest level of 23 million fish between 1973 and 1975.

In 1973, the legislature implemented limited entry in the commercial salmon fishery with the long term goal of increasing economic returns to commercial fishermen. With the limited entry program in place, legislators felt more confident about expanding the hatchery program because the economic benefits of a rehabilitated fishery resource would not be dissipated among an ever-increasing number of fishermen. At this time, legislators also began to accept that nongovernmental hatcheries had much to offer from the perspective of public finance issues: the operation of private hatcheries could be funded from the harvest of returning fish and from tax assessments on the fishermen who had access to the hatchery production, thus shifting the cost of the facilities from the shoulders of the general public to the people who derived benefits directly from them. Thus, fisheries organizations and other Private Non-Profit (PNP) groups were encouraged to build and operate PNP hatchery facilities. The 1974 Alaska State Legislature authorized the Commissioner of ADF&G to issue permits to PNP corporations for the construction and operation of salmon hatcheries.

As the PNP hatchery program developed and hatchery technology progressed, it became evident that the cost of developing viable salmon hatcheries was far greater than was initially expected. In 1974 funds became available through the Renewable Resources Development Fund that was established that year. Additional state loans for construction of PNP hatcheries became available in 1975 when the commercial fisheries loan program was expanded to include hatcheries. The following year, a separate fisheries enhancement loan program was established.

Another positive step toward the long range goal of increasing the commercial salmon harvest occurred in 1974 with the passage of the Magnuson Act. This created a 200 mile limit along Alaska's coastline where foreign registered boats could not fish.

In 1976, Alaska legislation was passed creating Regional Aquaculture Associations that were responsible for the regional planning and coordination of salmon enhancement activities. The legislature felt that comprehensive planning on the regional level; primarily, careful hatchery site selection, would help mitigate potential problems such as intermingling of hatchery and wild stocks.

Project Description

All of this legislation and funding set the stage for the development of the public and private hatchery programs that developed during the 70's and 80's.

The hatchery program in Alaska went from five operating facilities in 1971 to thirty-eight in 1990. In the early stages of this development, the majority of the hatcheries were built and operated by the State of Alaska. For example of the twenty-six facilities in 1980 eighteen were publicly funded and operated and eight were privately funded and operated. By 1985 the number had increased to thirty-six (twenty public and sixteen private). It was a cooperative effort to build and maintain the common property salmon stocks of Alaska.

PROJECT DESCRIPTION

A. Resources and/or Associated Services

The primary goal of the proposed project is to restore the health by maintaining operations of seven hatcheries in Prince William Sound and Lower Cook Inlet, in order to promote recovery of the common property pink salmon stocks to their pre-spill levels. The direct beneficiaries are the commercial, recreational and subsistence fishermen, as well as local populations of fish, birds and mammals dependent on salmon. Achievement of this goal is explained in the following three plans. Four of these seven hatcheries are owned by the State of Alaska which currently makes bond payments on three of them. At the time of the *Exxon Valdez* oil spill, three of the four state hatcheries were operated by the State of Alaska using General Fund monies. Because of the cooperative relationship between private non-profit hatcheries and the state in producing common property fisheries (as described in the introduction), operation of these facilities, which remain in the ownership of the State, was given to the private non-profit (PNP) aquaculture facilities with the proviso that operation costs could be recovered by the harvest of salmon for this purpose only in special harvest areas. This is same procedure used by the PNP's to recover operating costs for the facilities they own as well as operate. In 1993, sales from returns of adult salmon to these special harvest areas were insufficient to meet operating costs. Because of poor returns in previous years, reserve accounts have been depleted to the extent that the PNP's could not make up this shortfall from reserves. For Prince William Sound Aquaculture Corporation and Cook Inlet Aquaculture Association, accepting the responsibility for operating state facilities has increased the budget shortfalls for their entire organizations.

The monies being requested from the Trustee Council are for operating expenses only. None of these monies will be used to retire loans or to make interest payments on loans. Further, none of these monies will be used to replenish contingency reserve accounts. The monies being requested from the Trustee Council are only for operating budget shortfalls, not the entire operating budget where the aquaculture associations have some operating monies. Any monies recovered by the associations through litigation against Exxon, Alyeska, or subsidiaries thereof as regards to the *Exxon Valdez* oil spill will be used to repay these project costs to the Trustee Council.

PLAN I - PRINCE WILLIAM SOUND AQUACULTURE ASSOCIATION

INTRODUCTION

This plan advocates maintaining the existing salmon enhancement and restoration system operated in the Prince William Sound bioregion by the Prince William Sound Aquaculture Corporation. The aquaculture corporation was created under the Private Nonprofit Hatchery Act (AS Title 16.10.8) to "rehabilitate the state's depleted and depressed salmon fishery." For 18 years, this restoration/enhancement system has sustained and augmented the salmon resources in the Sound. Pre-spill, healthy natural and hatchery stocks of all five species of Pacific salmon supported a strong commercial fishing industry of 800 permit holders and 20 processing plants, and the economies of six Sound communities. In addition, the salmon resources fostered a growing sport fishing industry, and provided the basis for the subsistence lifestyles of the region. At various life stages, salmon are a food source for birds, marine mammals and other fishes in the PWS and North Gulf of Alaska ecosystem. During the ten years prior to 1989, the average annual return of all salmon to the PWS management region was 22 million fish.

Total natural and hatchery salmon returns have dwindled to 10.5 million in 1992 and 7.0 million in 1993, in response to ecosystem changes that require further investigation. The Draft Restoration Plan lists pink salmon and herring in PWS as "non-recovering." The damaged salmon resources and the lost services provided by those resources have heavily impacted all user groups. Revenues to the aquaculture corporation, primarily dependent on sales of returning fish, have fallen far short of what is necessary to maintain its restoration and enhancement efforts. While the extent of short- and long-term damage to the Prince William Sound ecosystem is still being assessed, it is more important than ever to the people of the Sound that the salmon enhancement programs be maintained to both restore and replace these lost resources and services.

Prince William Sound Aquaculture Corporation (PWSAC) was founded by the fishermen, processors and communities of Prince William Sound in 1974, following several years of low salmon returns, to restore and enhance the salmon resources of the region. The private, non-profit, regional aquaculture association began with one pink salmon hatchery, and during the subsequent ten years built a second, multi-species hatchery, largely with state aquaculture loans. During the same period, the state of Alaska built and operated three salmon hatcheries in the Prince William Sound area. As state revenues declined, the state shifted the cost and responsibility of its 3 state hatchery operations in PWS to the private sector. This in addition to its capital construction debt have greatly increased PWSAC's financial responsibilities since 1989.

Pre-spill, the combined production of the five hatcheries in the Prince William Sound/Copper River region contributed substantially to the salmon harvest, particularly to the commercial catch. In the commercial fishery prior to 1989, hatcheries produced up to 75% of the pink salmon catch, 25% of the chum and sockeye, and smaller percentages of coho and chinook. Wild returns of pinks ranged from average to record highs. However, in 1991, an aberrant return of adult pink salmon, spawned in the parent year of 1989, came in late and dark, and millions went unsold. In 1992, the wild and hatchery pink salmon return was approximately one-third of the projected size; in 1993, pinks came back at about one-fifth of their expected strength, and wild chum returns were far under projections. The 1993 wild and hatchery sockeye returns to the Sound were less than half the expected strength.

These failed salmon returns to Prince William Sound, coupled with deflated fish prices, resulted in financial disaster for commercial fishermen and for PWSAC in 1991, 1992, and 1993. In an effort to understand the ecosystem of the Sound and determine the causes of the failures, the

Project Description

fishermen and PWSAC have joined in a bioregional coalition - Prince William Sound Fisheries Ecosystem Research Planning Group (PWSFERGP) - encouraged and funded by the Trustee Council. While the scientific questions are being answered, the role of the salmon enhancement programs in research, restoration and replacement of lost services must be maintained. PWSAC is requesting \$3.9 million from the EVOS Trustee Council to fund its FY94 revenue shortfall. This request is not intended to set a precedent for operational funding by the Trustee Council.

Endeavoring to maintain operations, PWSAC has cut its budgets for each of the last three years, has committed the remainder of its contingency funds, and is actively pursuing additional funding sources, as well as means of increasing revenue. On PWSAC's behalf, the Department of Commerce has asked that \$4 million in aquaculture loan funds be included in the Governor's FY94 supplemental budget request to the Legislature. The chance of success of this request is very unsure, given the present condition of the State's finances. Litigation claims settlements from Alyeska and Exxon could increase revenue, although it is questionable when and by how much. In addition, this year the PWSAC Board of Directors, in an effort to achieve better value for fish sold, authorized a product development and marketing project, supported by the Department of Commerce and the Governor. Additional revenues resulting from any of these efforts would reduce the amount of PWSAC funding sought from the Trustee Council.

PROJECT DESCRIPTION

A. Resources and/or Associated Services

The primary goal of the proposed project is to maintain operations of the hatcheries in Prince William Sound, in order to promote recovery of the populations and distributions of injured salmon resources to their pre-spill levels, and/or replace those resources.

B. Objectives

Specific objectives of this project include the following:

1. Maintain the current salmon restoration and enhancement program in PWS by preventing the closure of all salmon hatcheries and their ability to replace, restore and enhance lost services and resources to pre-spill conditions.
2. Replace, restore, and enhance lost and damaged salmon resources to return salmon productivity within the PWS ecosystem to pre-spill levels and thereby maintain those Indigenous mammal, bird and fish species dependant on salmon.
3. Replace, restore and enhance lost and damaged resources and services to pre-spill conditions which support the consumptive and non-consumptive human users of the PWS salmon resource including primary users (subsistence, commercial, sport, etc.) and secondary users and beneficiaries (processors, transportation and PWS communities).

C. Methods

Based on long-term average survival rates, the PWSAC hatchery system expects annual adult salmon production of approximately 21 million pink salmon, 2 million chums, about 1 million sockeye salmon and lesser numbers of coho and chinook salmon. However, production expectations following the spill have been downgraded/reduced, based on recent run failures.

Armin F. Koerning Hatchery (Evans Island) produces pink salmon. The oldest hatchery in the PWS salmon hatchery system, the AFK program has enjoyed more than 15 years of operational success with run declines only experienced following the spill. With an annual operational budget of \$800,000, the program is capable of producing approximately 6 million adult pink salmon under normal conditions.

Wally Noerenberg Hatchery (Esther Island) produces pink, chum, coho and chinook salmon. The facility and salmon program is one of the more complex and advanced in North America. The annual operational budget is \$1,600,000. The program normally has the capacity to produce approximately 9 million pink salmon, 2 million chum, 40,000 chinook and 200,000 coho salmon. The coho and chinook program provides sport fisheries with releases of young salmon at Cordova, Whittier and Valdez. The hatchery site is also a significant sport fishery.

Main Bay Hatchery (Western PWS) is a State hatchery contracted to PWSAC. It is a sockeye salmon program on the leading edge of sockeye salmon hatchery technology. The program currently has the capacity to produce nearly 1.2 million adult sockeye, including first generation Coghill and Eshamy Lake stocks used in a long-term program to rehabilitate the Coghill and Eshamy lake systems. The annual operating budget is \$850,000.

Cannery Creek Hatchery (Unakwik Inlet) is also a State hatchery contracted to PWSAC. This program produces pink salmon and normally has the capacity to produce 6 million adult pink salmon. The operating budget is \$750,000.

Gulkana Hatchery (Gulkana River, Copper River Basin) is the third State hatchery contracted to PWSAC. The program is located on the Gulkana River and produces sockeye salmon for harvest within the Copper River system. The program produces approximately 200,000 sockeye annually and contributes to a significant sport, subsistence and personal use fishery on the Copper and Gulkana rivers, along with a commercial harvest on the Copper River delta. This

Project Description

production has provided replacement of resources degraded within PWS. The annual operating budget is \$250,000.

Coghill Smolt Project The release of 800,000 sockeye smolts annually at Coghill River is integral to the restoration program cooperatively funded by USDA Forest Service, ADF&G and PWSAC. PWSAC provides the wild stock smolts, while other agencies provide limnological research, fish enumeration and lake fertilization to rehabilitate the lake productivity (project 94259). The operating budget is \$70,000. If the PWSAC operating budget shortfall of \$3.9 million is not approved by the Trustee Council, PWSAC requests that this portion be considered and approved separately as it complements project 94259.

General Methods

In methods annually employed at all facilities, brood stock are harvested by contracted seiner at the four PWS hatcheries and held until spawning maturity. Eggs are taken from the females and fertilized at a 1:1 female to male ratio. Incubation and rearing takes place at the hatchery sites. Stocks such as pink and chum salmon which enter the marine environment as fry are released into the spring plankton bloom. Coho, chinook and sockeye salmon are reared for an additional year and released as smolts.

Remote releases of salmon are conducted to rehabilitate wild stocks such as the Eshamy and Coghill programs. Approximately 700,000 Eshamy stock smolts are released annually at Eshamy Lagoon to rehabilitate Eshamy Lake.

Coho and chinook remote release programs are conducted to provide resources and services to salmon resource users at Cordova, Whittier and Valdez. These programs annually cost PWSAC approximately \$25,000. In addition, a recent proposal to provide replacement of lost subsistence resources and services in the vicinity of Chenega will likely be fulfilled.

D. Location

Four hatcheries are located in PWS, and one on the upper Copper River system. In addition, remote release sites include Cordova, Whittier, Valdez, Eshamy Lake, and Coghill Lake. New release sites have been investigated at Port Chalmers (Montague Island), Naked Island and Port Wells, for remote releasing salmon to restore fisheries to historic locations which have been closed due to weak wild stock returns.

E. Technical support

The PWSAC salmon program receives technical support from permitting agencies, University of Alaska Fairbanks, and PWS Science Center. ADF&G reviews project applications from numerous biological and management perspectives. The ADF&G pathology lab, genetic lab, and coded wire tag lab are among specific expertise areas overseeing the hatchery salmon program. Cooperative ecosystem component studies are conducted with UAF and PWSAC to better understand environmental conditions affecting salmon and predator-prey relationships. ADEC provides technical support on water quality issues, whereas the Forest Service and DNR provide technical support on terrestrial and tidelands concerns. The Cordova ADF&G staff are in constant communication with PWSAC staff to monitor marine conditions, wild stock productivity, adjust harvesting to match production levels and fishery concerns, and provide technical guidance in hatchery practices.

F. Contracts

PWSAC requires the use of contracted vessels for harvesting brood stock and cost recovery fish, and for support of remote release operations. PWSAC also contracts vessels for hauling, placement and retrieval of barrier seines, buoys and anchors as needed, and barge services for hauling salmon fry/smolts and hatchery supplies. Air charter services are contracted for personnel, supplies and remote field transportation.

SCHEDULES

Incubation, outmigration, rearing, release: Oct 1993 - May 1994

Incubate eggs/embryos; enumerate, tag and outmigrate fry to rearing pens; rear fry; clean and sterilize incubation units; rear smolts; assess marine plankton abundance, release fry and smolts.

Adult returns, brood stock and cost recovery harvest: June 1994 - Sept 1994

Contract harvest vessels; place and secure brood barrier seines; harvest adult fish; spawn fish and incubate eggs/embryos; market sales fish.

In addition to the annual hatchery cycle, administrative cycles include budgeting (October-November); project permitting (December-March); annual hatchery reporting (October-December); annual hatchery planning (December-February); seasonal personnel hiring (January-July); sales fish marketing (ongoing); construction, maintenance and supplies transportation (ongoing).

ENVIRONMENTAL COMPLIANCE/PERMIT/COORDINATION STATUS

Permitting is a significant aspect of the PWSAC salmon program. Hatcheries must receive extensive permitting prior to construction which address water use and quality, land use, wild stocks and other concerns. Each salmon project must receive ADF&G review and permitting with scrutiny for genetic and disease histories, wild stock interactions, fishery management implications and common property benefit. Hatchery and remote release sites also require permitting from Department of Army Corp, DNR Lands Division, Forest Service special use or EA permitting if necessary, and ADF&G fry transport permits. Certain projects may require more thorough analysis such as the Main Bay Hatchery EIS.

PERFORMANCE MONITORING

Under mandate of law, the Regional Planning Team (RPT) for PWS is required to produce a comprehensive salmon plan. The RPT is composed of ADF&G staff appointed by the Commissioner and representatives from the regional salmon association. The RPT develops specific salmon rehabilitation and enhancement objectives which receive public review and approval by the ADF&G Commissioner. These objectives set the direction, production limits, and often specific projects for salmon rehabilitation or hatchery enhancement. Hatchery permits are issued which comply with agency regulation and address regional objectives. Rehabilitation and enhancement programs are reviewed by the RPT and recommended to the Commissioner. Annual review of accomplishments by Department personnel and the RPT, and recommendations for program revisions are processes to guide salmon programs and maintain performance within permitting requirements.

BUDGET NARRATIVE

Since the 1991 season, PWSAC has been faced with continual revenue shortfalls due to extreme and unusual variations in the quantity, quality, size and market value of their returning cost recovery fish. From 1991 through June 1993 these shortfalls were covered through the use of a contingency fund established and added to during years of surplus.

PWSAC's FY94 budget includes debt payment of \$637,000, administrative costs of \$1.2 million, in-house repair and maintenance of \$500,000, plus direct operating costs of our enhancement program of \$3.9 million. This \$3.9 million includes \$70,000 in costs associated with the Coghill Lake program, for which a separate funding request has been submitted. It does not include any funds for the Chenega chinook remote release program. In addition, PWSAC has committed to an aggressive market development project with the realization that value-added products will play a large part in returning economic viability to the fishery in PWS. Total projected cost of this project is \$1.0 million. Product sales of up to \$800,000 have been projected. Because of the developmental nature of this project, we realistically cannot consider these funds "in the bank" until they become fact. **However, receipts from sales will be used to address operating shortfalls in lieu of using Trustee Council monies rather than to create a contingency reserve account or to make principle or interest loan payments.**

Many uncertainties face PWSAC over the next several months. We have spent all revenues from last summer and in November began spending the remainder of our reserve funds. We currently project, that if the marketing project performs fully as budgeted and we have no emergency situations at our remote sites, that we will, at best, have zero funds to carry us past June 30, 1994. Our situation is further complicated by the fact that the major portion of our

annual expenditures occur in the first three months of our fiscal year (July through September) when our fish return and are either spawned or sold. With no funds left to enter the fiscal year beginning July 1, 1994, except those that might be collected from fish sales after the year begins, we will be at great risk in the case of another revenue shortfall.

FY94 PROJECT BUDGET (\$K)

Personnel	2,213.0
Travel	83.0
Contractual	445.0
Commodities	<u>1,185.0</u>
	3,926.0

PLAN II - VALDEZ FISHERIES DEVELOPMENT ASSOCIATION

INTRODUCTION

Solomon Gulch Hatchery, located in the Eastern District of Prince William Sound, has been in operation since 1977. This facility has grown from a very modest 10 million egg facility to one of the largest Pink salmon producing hatcheries in the State of Alaska. The 1993 return of Pink salmon, while insufficient to cover the needed revenues for operations in FY94 did provide sufficient spawners to allow us to reach our permitted egg level of 230 million green eggs.

Valdez Fisheries Development Association has experienced revenue shortfalls each of the last three years, requiring us to request assistance from the State of Alaska revolving loan fund during each of those years. A steady decline in the numbers of returning adult Pink and Chum salmon to Port Valdez culminated in 1993 with a return that was 60% below what was projected to return.

While Pink and Chum salmon produced at Solomon Gulch Hatchery contribute significantly to the commercial harvest in the eastern district of Prince William Sound, the Pink salmon returns have also fostered one of the most unique and successful sport fishing programs found anywhere in the State of Alaska. The annual harvest rate of pink salmon by shore-based sport fishermen exceeds 100,000 fish.

Falled salmon returns to the Port Valdez area have resulted in financial disaster for commercial fishermen and charter boat operators and for VFDA in 1991, 1992 and 1993. The need for assistance is paramount in keeping this successful program.

PROJECT DESCRIPTION

A. Resources and/or Associated Services

The primary focus of the proposed project is to maintain operations of the Solomon Gulch Hatchery program to help foster the recovery of the common property fisheries, both commercial and sport, in eastern Prince William Sound. None of this money will be used for debt retirement.

B. Objectives

The objectives of this project are to collect and incubate the permitted egg levels assigned to this facility. Those levels being 230 million Pink salmon eggs; 18 million Chum salmon eggs; 2 million Coho salmon eggs and 200 thousand Chinook smolts.

Project Description

C. Methods

The accepted methods for fish culture described in the Annual Management Plan for Solomon Gulch Hatchery will be used. These methods conform to those methods approved by the Alaska Department of Fish and Game.

D. Location

Solomon Gulch Hatchery is located in Port Valdez between the Alyeska Marine Terminal and Petro Star Refining and is a successful example of the cooperation between a large industrial complex and a resource producer.

E. Technical Support

The Alaska Department of Fish and Game, Prince William Sound Aquaculture Association and Valdez Fisheries Development Association biologists all provide technical support to this facility.

F. Contracts

Valdez Fisheries requires the use of contracted fishing vessels for harvesting cost recovery fish and for support of our remote release operations.

SCHEDULES

Incubation, outmigration, rearing, release: Oct 1993 - May 1994

Incubate eggs/embryos; enumerate, tag and outmigrate fry to rearing pens; rear fry; clean and sterilize incubation units; rear smolts; assess marine plankton abundance, release fry and smolts.

Adult returns, brood stock and cost recovery harvest: June 1994 - Sept 1994

Contract harvest vessels; place and secure brood barrier seines; harvest adult fish; spawn fish and incubate eggs/embryos; market sales fish.

In addition to the annual hatchery cycle, administrative cycles include budgeting (October-November); project permitting (December-March); annual hatchery reporting (October-December); annual hatchery planning (December-February); seasonal personnel hiring (January-July); sales fish marketing (ongoing); construction, maintenance and supplies transportation (ongoing).

ENVIRONMENTAL COMPLIANCE/PERMIT/COORDINATION STATUS

Environmental analysis of the hatchery stocking program is included in ADF&G's Statewide Stocking Plan.

FY94 BUDGET (\$K)

The operating expenses for VDFA, not including loan payments, for FY 94 are \$2,280,627. Available revenue from all sources is \$1,312,106 leaving a projected shortfall of \$968,521 which is being requested from the Trustee Council. A more detailed budget is being developed and will be provided to the Trustee Council.

PLAN III - COOK INLET AQUACULTURE ASSOCIATION

INTRODUCTION

Tutka Lagoon Hatchery has been producing pink salmon since the mid 1970's. Originally constructed and operated by ADF&G, operating responsibility (but not facility ownership) was transferred by contract to CIAA in 1991.

Since 1991 CIAA has operated Tutka Lagoon Hatchery under Alaska Law as a private nonprofit hatchery. The operating principle of a private nonprofit hatchery is that numbers of returning fish should be abundant enough to provide both sufficient revenue to carry on hatchery operation and significant contribution to common property fisheries.

Since taking over operation of Tutka Lagoon Hatchery CIAA has experienced adult returns so small that there has been virtually no contribution to the common property fisheries and insufficient revenue to support continued hatchery operation. Pink salmon fry released in 1987 and 1988, the two years immediately prior to the spill, experienced release to return survival rates of 3.7 and 6.1% which resulted in adult returns of 920,000 and 950,000 respectively.

Pink salmon fry released in 1989 experienced a survival rate of 0.8%; only 250,000 fish returned. Fry released in 1990 experienced a 1.1% survival rate; 320,000 fish returned. Fry released in 1991 experienced a 1.6% survival rate; 460,000 adult fish returned. Fry released in 1992 experienced a 2.4% survival rate; 775,000 adult fish returned. The low survival rates of fry released since the spill has caused fish sale revenues to be less than hatchery operation expense. The financial drain has finally exhausted CIAA's financial reserves for Tutka Lagoon Hatchery.

Project Description

PROJECT DESCRIPTION

A. Resources and/or Associated Services

The goal of this project is to maintain operation of Tutka Lagoon Hatchery in order to help promote recovery of common property pink salmon stocks to pre-spill levels. Recovery of these stocks benefits commercial, recreational and subsistence fishermen as well as local populations of fish, birds and mammals which prey on migrating fry and adults.

B. Objectives

The objectives of this project are to collect and incubate up to 120M pink salmon eggs and release up to 100M Pink salmon fry into the waters of Tutka Bay.

C. Methods

Standard methods will be used to culture pink salmon. Standard methods are described in CIAA's Annual Management Plan for Tutka Lagoon Hatchery as approved by ADF&G.

D. Location

Tutka Lagoon Hatchery is located in lower Cook Inlet, on the southern shore of Kachemak Bay across from Homer.

E. Technical Support

CIAA biologists, the ADF&G fish pathology and genetics laboratories, and the Cook Inlet Seiners Association all provide technical support to CIAA's Tutka Lagoon Hatchery.

F. Contracts

A contract will be issued for logistical and technical support to the Cook Inlet Seiners Association of Homer, Alaska. Local vessel and aircraft charters are also required to support normal operations of the Tutka Hatchery.

SCHEDULES

Incubation, outmigration, rearing, release: Oct 1993 - May 1994

Incubate eggs/embryos; enumerate, tag and outmigrate fry to rearing pens; rear fry; clean and sterilize incubation units; rear smolts; assess marine plankton abundance; release fry and smolts.

Adult returns, brood stock and cost recovery harvest: June 1994 - Sept 1994

Contract harvest vessels; place and secure brood barrier seines; harvest adult fish; spawn fish and incubate eggs/embryos; market sales fish.

In addition to the annual hatchery cycle, administrative cycles include budgeting (October-November); project permitting (December-March); annual hatchery reporting (October-December); annual hatchery planning (December-February); seasonal personnel hiring (January-July); sales fish marketing (ongoing); construction, maintenance and supplies transportation (ongoing).

ENVIRONMENTAL COMPLIANCE/PERMIT/COORDINATION STATUS

CIAA operates Tutka Lagoon Hatchery under a contract with ADF&G. CIAA is a qualified Regional Aquaculture Association operating under Alaska's private nonprofit hatchery statutes. CIAA's operation of Tutka Lagoon Hatchery fully complies with Borough, State and Federal law. Environmental analysis of the hatchery stocking program is included in ADF&G's Statewide Stocking Plan.

PERFORMANCE MONITORING

Through auditing CIAA's operating contract and administering the Alaska private nonprofit hatchery program, ADF&G will, in the course of normal business, monitor CIAA's performance as a hatchery operator.

FY94 BUDGET (\$K)

None of the following budget would be used for debt retirement because CIAA has no Tutka Lagoon Hatchery debt load.

Personnel	145.3
Travel	11.2
Contractual	43.0
Commodities	215.0
Equipment	0.0
Capital Outlay	<u>0.0</u>
Subtotal	414.5
Less Fish Sale Revenue	- <u>104.2</u>
Project Total	310.3

FY94 BUDGET (\$K), ALL PARTS COMBINED

Operating expenses for all three aquaculture associations have been combined in the budget which follows.

	ADF&G
Personnel	13.4
Travel	0.0
Contractual	5,204.8
Commodities	0.0
Equipment	0.0
Capital Outlay	<u>0.0</u>
Subtotal	\$5,218.2
General Administration	<u>118.6</u>

Project Description

Project Total \$5,336.8

NEPA Compliance 0.0

Prince William Sound Aquaculture Corporation
Cashflow for the Period January 1994 Through September 1994

JAN 07 '94 11:24 PM:PC

Hatchery cashflows, by project	Total Budget Jan94-Sep94	Jan94	Feb94	Mar94	Apr94	May94	Jun94	Jul94	Aug94	Sep94
Capital/Major maint.	\$489,888	\$29,955	\$29,955	\$29,955	\$50,000	\$50,000	\$75,000	\$75,000	\$75,000	\$75,000
Harvest	727,149					20,000	105,000	135,001	184,745	271,002
Eggtake	838,751					13,327	60,090	60,834	75,000	190,000
Incubation	160,816							14,582	15,000	131,235
Rearing & release	588,218	142,459	142,459	142,459	145,030	15,899				
Tagging	280,834				20,000	260,834				
Remote releases	171,000				95,000	101,000	85,000			
Remote eggtakes	39,816					39,816				
Maintenance	689,491	50,275	50,275	56,425	81,743	85,000	90,000	90,000	69,000	70,771
Commissary	411,381	15,789	15,789	15,789	40,000	65,000	75,000	71,026	47,998	65,000
Safety	98,776	9,347	9,347	9,347	9,347	9,347	10,000	9,347	9,347	9,347
Tagrecovery	25,252									25,252
Total hatchery cashflows	3,803,858	241,828	241,828	247,977	375,030	654,183	450,090	450,090	470,080	772,207
Indirect cashflows										
Administrative	942,235	104,693	104,693	104,693	104,693	104,693	104,693	104,693	104,693	104,693
Debt	697,909	697,909								
Product development project	576,601	175,338	269,007	269,007	175,338					
Total indirect cashflows	2,456,825	917,930	367,700	367,700	280,031	104,693	104,693	104,693	104,693	104,693
Total monthly cashflow	\$6,360,183	\$1,159,758	\$609,528	\$615,677	\$655,121	\$758,855	\$554,783	\$554,783	\$574,783	\$876,900
Cumulative cashflow										
Hatchery		\$241,828	\$483,651	\$731,628	\$1,106,718	\$1,760,881	\$2,210,971	\$2,661,061	\$3,131,151	\$3,903,35
Indirect		\$917,930	1,385,630	1,653,830	1,869,361	2,036,054	2,142,747	2,247,439	2,352,132	2,456,825
Total cumulative		\$1,159,758	\$1,769,281	\$2,384,958	\$3,040,679	\$3,799,935	\$4,353,718	\$4,908,501	\$5,483,284	\$6,360,183

January 18, 1994

Jerome Montague, PhD
Chief of Restoration
Habitat and Restoration Division
Alaska Department of Fish & Game
P.O. Box 25526
Juneau, Alaska 99802

Post-It™ brand fax transmittal memo 7671		* of pages *
To	Jerome Montague	From
Co	ADF+G	Co
Dept.		Phone #
Fax #	465-4759	Fax #

Dear Jerome:

Betty Martin, PWSAC's Finance Manager has put together some responses to your questions regarding our operating expenses and our request for Trustee Council funds for hatchery operations. Betty handed me her materials this morning prior to leaving for the East Coast until February 2nd. I will relate her responses as best I can.

Apparently you asked Betty to provide detail regarding the following four budget categories.

1. Hatchery harvests (cost recovery)
2. Commisary
3. General maintenance
4. Major maintenance and in-house C.I.P.

In addition, I know you asked about contract costs. Let me start with that one by saying our contracted work covers such items as fishing vessels needed to harvest our cost recovery fish in the hatchery special harvest areas and annual barge service to supply our hatcheries.

Now I will relay Betty's responses to your other questions. She wants you to know that for the purpose of our proposal, budget totals are moving targets because they are projected monthly expenditures, which change values when we change our format from a line item presentation to a project presentation. Sorry for the confusion.

We do not break out some hatchery costs by project code. These include (but are not limited to) the majority of the regular staff's wages, hatchery fuel and freight costs (except for commissary and fish food supplies) and insurance. For the purposes of this budget summary, Betty weighted these hatchery wide costs across all projects based upon each project code's budget as a percent of the total of all project code budgets. The total allocated was \$2,403,698.

Four of our hatcheries operate with one maintenance engineer and one assistant. The Gulkana hatchery operates with one 10-month maintenance technician. These people are all coordinated by a Maintenance Manager. The hatchery maintenance budget of \$590,000 includes approx. \$200,000 in wages and benefits. That leaves \$390,000 for five sites for nine months.

Our major maintenance program is led by our Capital Projects Manager, who oversees our larger projects dealing with facility upkeep and equipment replacement. There is a document attached which lists the funded projects for FY-94.

We employ one cook and an assistant at each of our four remote facilities in the Sound. Total number of employees at all sites peaks at about 120 people during the spring, summer, and fall. Average number of employees on station is about 75, which are fed three meals per day and housed. We propose to feed these seasonal hatchery workers for nine months at a cost of \$350,000, or \$5.76 per meal, which is good considering the cost of shipping to remote locations.

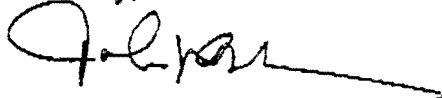
I believe in an earlier letter I stated that PWSAC has sources of revenues, but that those sources are so uncertain that we cannot depend upon them at this time. One source of revenue is the sale of value added products by our marketing project. As yet, no projects have reached the market and no revenue has been collected. The other source of revenue is our cost recovery program at our hatcheries. Last year we gathered in only about \$2 million overall, and have been informed that markets and fish prices will be even more depressed this year. Any money we make on fish sales will need to be dedicated toward hatchery operations in FY-95.

Lastly, I am enclosing Betty's summary sheet, which has slightly different totals than the spreadsheet you saw earlier. That's what I attempted to explain in the first paragraph of this letter.

Must go now. I just received your statement regarding the status of our future if I don't get this in to you today.

Thanks for your help and support.

Sincerely,



John McMullen
President

Prince William Sound Aquaculture Corporation
Cashflow for the Period January 1994 Through September 1994

<u>Hatchery cashflows by project</u>	<u>Total Budget Jan94-Sep94</u>	<u>Jan94</u>	<u>Feb94</u>	<u>Mar94</u>	<u>Apr94</u>	<u>May94</u>	<u>Jun94</u>	<u>Jul94</u>	<u>Aug94</u>	<u>Sep94</u>
Capital/Major maint.	\$575,000	\$40,000	\$40,000	\$40,000	\$75,000	\$95,000	\$115,000	\$75,000	\$50,000	\$45,000
Harvest	805,000					40,000	125,000	140,000	200,000	300,000
Eggtake	338,751					13,327	60,090	60,334	75,000	130,000
Incubation	160,818							14,582	15,000	131,235
Rearing & release	588,218	142,459	142,459	142,459	145,000	15,839				
Tagging	280,834				20,000	260,834				
Remote releases	171,000				35,000	101,000	35,000			
Remote eggtakes	39,816					39,816				
Maintenance	590,000	60,000	60,000	60,000	60,000	70,000	70,000	70,000	70,000	70,000
Commissary	350,000	20,000	20,000	20,000	40,000	50,000	50,000	50,000	50,000	50,000
Safety	36,778	3,347	3,347	3,347	3,347	3,347	10,000	3,347	3,347	3,347
Tag recovery	25,252									25,252
Total hatchery cashflows	3,961,462	265,806	265,806	265,806	378,347	689,183	465,090	413,263	463,347	754,833
<u>Indirect cashflows</u>										
Administrative	942,235	104,693	104,693	104,693	104,693	104,693	104,693	104,693	104,693	104,693
Debt	637,899	637,899								
Product development project	876,691	175,338	263,007	263,007	175,338					
Total indirect cashflows	2,456,825	917,930	367,700	367,700	280,031	104,693	104,693	104,693	104,693	104,693
Total monthly cashflow	\$6,418,287	\$1,183,736	\$633,506	\$633,506	\$658,378	\$793,855	\$569,783	\$517,956	\$568,040	\$859,526
<u>Cumulative cashflow</u>										
Hatchery		\$265,806	\$531,613	\$797,419	\$1,175,766	\$1,864,929	\$2,330,019	\$2,743,282	\$3,206,629	\$3,961,462
Indirect		917,930	1,285,630	1,653,330	1,933,361	2,038,054	2,142,747	2,247,439	2,352,132	2,456,825
Total cumulative		\$1,183,736	\$1,817,243	\$2,450,749	\$3,109,127	\$3,902,982	\$4,472,765	\$4,990,721	\$5,558,761	\$6,418,287

JAN 19 1994

P. 3/20

SUMCUT.XLS

all CIP revised budget to this level
 1-4 Revised Cap Budget
 D. Mcmullen

CAPITAL PROJECTS BUDGET SUMMARY FY 94 REVISIONS AND CUTS

	FY 93 BUDGET	FY 93 ACTUAL	FY 94 BUDGET Base Budget	FY 94 BUDGET (Proposed Cuts)	% OF SPECIFIC LINE ITEM
I. APK HATCHERY					
A) New Construction and Equipment			\$44,275		
B) Maintenance and Replacement			\$56,072	\$89,960	
C) In-house Construction Plans and Administration			\$3,522	\$1,000	
SITE TOTAL	\$13,150	\$10,621	\$103,869	\$90,960	-12.43
II. WNH HATCHERY					
A) New Construction and Equipment			\$23,975		
B) Maintenance and Replacement			\$139,875	\$136,982	
C) In-house Construction Plans and Administration			\$7,640	\$2,840	
D) Remote Release Site			\$37,075	\$0	
SITE TOTAL	\$103,107	\$219,549 *netpen loss	\$208,565	\$139,822	-32.96
III. CANNERY CR. HATCHERY					
A) New Construction and Equipment			\$23,160		
B) Maintenance and Replacement			\$79,925	\$65,452	
C) In-house Construction Plans and Administration			\$3,897	\$2,300	
SITE TOTAL	\$16,975	\$9,774	\$106,982	\$67,752	-36.67
IV. MBY HATCHERY					
A) New Construction and Equipment			\$34,277		
B) Maintenance and Replacement			\$68,525	\$60,097	
C) In-house Construction Plans and Administration			\$3,959	\$2,210	
Remote Release Site			\$37,064	\$0	
SITE TOTAL	\$12,625	\$1,415	\$143,825	\$82,307	-42.77
V. GULKANA HATCHERY					
A) New Construction and Equipment			\$0	\$0	
B) Maintenance and Replacement			\$0	\$0	
C) In-house Construction Plans and Administration			\$0	\$0	
SITE TOTAL	\$0	\$0	\$0	\$0	

SUMCUT.XLS

HER					
A) Capital Projects Administrative Budget	\$134,175	\$118,082	\$131,219	\$114,473	
B) Pre- construction Long Term Planning for FY94 to FY98	\$10,525	\$7,653	\$8,875	\$7,684	
C) Capital Admin. Equipment	\$0	\$0	\$0	\$0	
D) Cordova Admin. Equipment	?	?	\$10,175	\$0	
E) Freight Capital Equipment	\$0	\$0	\$4,500	\$4,500	
F) Cordova Duplexes	\$0	\$0	\$4,283	\$4,283	
AREA TOTAL			\$158,052	\$130,940	-17.67
GRAND TOTAL			\$722,293	\$611,781	-23.14
VII REVISED REMOTE RELEASE COSTS					
A) Port Chalmers Remote Equipment (Assumes 24 million releases)				\$46,435	
B) Mainbay Releases (Eshamy and Coghlin)				\$7,910	
TOTAL				\$54,345	
TOTAL WITH REMOTE COSTS				\$620,471	-14.10
			<i>Total</i>	<i>566,126</i>	

Dec 93 to
date actual <157,166>
408,960

AFK94CUT.XLS

AFK FY 94 CAPITAL WORKSHEET			PROJECT STATUS CODES	
FY 94 BUDGET REVISIONS AND CUTS			A - STILL NEEDED / NOT COMPLETE	
	MR = Maintenance Replacement		B - PROJECT COMPLETE	
	NEC = New Equipment or Construction		C - PROJECT CANCELED / DOWN SIZED / INCREASED	
			D - FUNDING TRANSFERRED / RE-ALLOCATED	
			E - NEW PROJECT FROM REALLOCATED	
			F - NEW REQUIREMENT / IN THE PIPE	
AREA			ORIGINAL FY 94 BUDGET BASE	PROJECT STATUS
II	WATER SUPPLY			
	PIPELINE BLOCKING	MR	\$0.00	
	INTAKE INVESTIGATION	MR	\$0.00	
	FALLS POOL PUMP HOUSE	MR	\$0.00	
	PIPELINE VALVE ASSESSMENT	MR	\$600.00	A
	PIPELINE WALKWAY	MR	\$0.00	
	SALT WATER PUMP REPLACEMENT	MR	\$5,950.00	C
	PIPELINE JOINT ASSESSMENT	MR	\$1,000.00	A
III	POWER NEEDS		\$0.00	
	REBUILD CAT # 1		\$0.00	F
IV	FUEL SYSTEMS			
	FUEL PUMP		\$0.00	
	CONTAINMENT TANKS			
	CALVERT	MR	\$0.00	
	HILLSIDE	MR	\$0.00	
	PAINT / REPAIR TANK FARM	MR	\$0.00	
	EXPLOSION PROOF LIGHTING	NEC	\$1,800.00	C
	AT BOOSTER PUMP AND TANK FARM			
	METERING PUMP ON HATCHERY TANK		\$0.00	
	TANK FARM WALKS	MR	\$0.00	
V	HOUSING			
	HOUSES			
	INTERIOR PAINT	MR	\$2,050.00	A
	REPAINT DECKS	MR	\$1,875.00	A
	CALVERT HOUSE	MR	\$0.00	
	FURNISHINGS	MR	\$0.00	
	STAIRS TO CALVERT HOUSE	MR	\$0.00	
	FURNISH NEW DORM	NEC	\$30,275.00	B
VI	LAB / OFFICE			
	COMPUTER	NEC	\$2,000.00	B
	COPIER	MR	\$4,175.00	A
	FURNITURE	MR	\$4,537.00	C
	SCALE	MR	\$2,200.00	C
VII	STORAGE			
	WAREHOUSE UPGRADE	MR	\$0.00	

AFK94CUT.XLS

	WAREHOUSE ALARMS	NEC	\$0.00				
	WAREHOUSE SHELVING	NEC	\$0.00				
VIII	<u>COMMUNICATIONS</u>						
	VHF AND SSB ANTENNA	NEC	\$1,075.00	A	\$1,075	0	82412
VIX	<u>DOCKING</u>						
	FLOAT DOCK LANDING / STAIRS	MR	\$0.00				
	LADDER EXTENTION		\$0.00				
X	<u>MAINTENANCE</u>						
	BOBCAT OVERHAUL / REPLACEMENT	MR	\$5,750.00	A	\$11,564		82413
	931 CAT REPAIR	MR	\$2,765.00	A	\$2,765		82414
XI	<u>HARVEST</u>						
	BARRIER AND HARVEST SEINE REPAIR	MR	\$3,075.00	A	\$3,075		82415
	BILLET REPAIR	MR	\$0.00				
	OUTBOARDS (1- 40 HP)	MR	\$0.00				
XII	<u>EGGTAKE</u>						
	EGG COVEYER REPAIR	MR	\$0.00				
	DELTA REPAIR	MR	\$5,125.00	C	\$2,575	0	82416
	EGG TAKE BUILDING REPAIR	MR	\$0.00				
	NEW EGG TROLLEY	NEC	\$0.00	F	\$3,000	HOLD / INFO	
XIII	<u>INCUBATION</u>						
	FRY SCREEN REPLACEMENT	MR	\$3,820.00	A	\$3,820		82417
	EGG TRAYS	MR	\$0.00				
	PRESSURE WASHER	MR	\$0.00				
	FORKLIFT	NEC	\$0.00				
XIV	<u>REARING PINK AND CHUM</u>						
	REPLACE SPIROFLEX HOSE	MR	\$7,650.00	A	\$7,650		82418
	FRY PEN COLLARS	MR	\$0.00				
	FRY PEN COLLAR CONNECTOR BRACKET	MR	\$0.00				
	NETPEN REPAIR	MR	\$5,500.00	C	\$2,225		82419
XV	<u>REARING OTHER</u>		\$0.00				
XVI	<u>ENVIRONMENTAL</u>						
	REMOVE OLD SEPTIC TANKS	MR	\$0.00				
	INCINERATOR	MR	\$0.00				
	WASTE OIL HEATER	NEC	\$7,700.00	C	\$0	0	82420
XVII	<u>SAFETY</u>						
	DOCK CRANE	MR	\$0.00				
	HAZMAT LOCKERS	NEC	\$1,425.00	A	\$1,425		82421
	TOTAL		\$100,347.00	\$0.00	\$89,960.00	0	
			\$44,275.00				
			\$56,072.00				

INHADMC.T.XLS

IN- HOUSE CONSTRUCTION ADMINISTRATION					
FY 94 BUDGET REVISIONS AND CUTS					
	ORIGINAL FY 94 CONTRACT HRS.	ORIGINAL FY 94 BUDGET BASE	REVISED FY 94 CONTRACT HRS.	FY 94 BUDGET PROPOSED CUTS	% OF SPECIFIC LINE ITEM
AFK HATCHERY					
Hrs.	52	\$1,622.40	0	\$0	-100.00
Fixed Cost		\$1,900.00		\$1,000	-47.37
WNH HATCHERY					
Hrs.	184	\$5,740.80	46	\$1,440	-74.92
Fixed Cost		\$1,900.00		\$1,400	-26.32
CAN. CR. HATCHERY					
Hrs.	64	\$1,996.80	30	\$900	-54.93
Fixed Cost		\$1,900.00		\$1,400	-26.32
MBY HATCHERY					
Hrs.	66	\$2,059.20	27	\$810	-60.86
Fixed Cost		\$1,900.00		\$1,400	-26.32
	366	\$19,019.20	106	\$8,350	-56.10

JOBS THAT REQUIRE SPECIFIC EXPERTISE, ORGANIZATION AND PLANNING TIME ABOVE WHAT CAPITAL PROJECTS OR OPERATIONAL MAINTENANCE CAN PROVIDE ARE IDENTIFIED BY JOB IN THE CONTRACT HOURS COLUMN IF A JOB IS CUT OR REDUCED THE CONTRACT HOURS ASSOCIATED WITH THAT JOB ARE ALSO REDUCED. NOT ALL JOBS REQUIRE CONTRACT HOURS FOR PLANNING. THE MAIN CUTS RESULT FROM TIME ALLOCATED FROM OPERATIONS MAINTENANCE FOR PLANNING CAPITAL PROJECTS (ROB TORELL'S TIME)

WNH94CUT.XLS

FY - 94 CAPITAL WORK SHEET BUDGET REVISIONS AND CUTS			PROJECT STATUS CODES				
			A - STILL NEEDED / NOT COMPLETE				
			B - PROJECT COMPLETE				
			C - PROJECT CANCELED / DOWN SIZED / INCREASED				
			D - FUNDING TRANSFERRED / RE-ALLOCATED				
			E - NEW PROJECT FROM REALLOCATION				
			F - NEW REQUIREMENT / IN THIS BUDGET				
AREA			ORIGINAL FY 94 BUDGET BASE	PROJECT STATUS	FY 94 BUDGET <i>Proposed cuts</i>	CONTRACT HOURS	PROJECT NO.
II	WATER SUPPLY						
	SW PUMP REPLACEMENT	MR	\$5,550	B	\$6,000	0	83401
	MOTORS						
	PUMP						
	INTAKE LINES						
	SW 5-YEAR PLAN						
	FILTERS						
	TREATMENT						
	PROCESS PIPE PAINTING	MR	\$0				
	INTAKE MAINTENANCE	MR	\$4,900	A	\$4,900	0	83402
	WNH II LINE FIX	MR	\$0				
	DOMESTIC WATER PRESSURE	NCE	\$0				
	FLOW METER REPAIR			F	\$1,500		
III	POWER NEEDS						
	TURBINE INSPECTION	MR	\$2,000	A	\$2,000	0	83403
	COMPREHENSIVE SITE ELECTRICAL	MR	\$0				
	FUEL SHED HEAT	NCE	\$5,275	A	\$0	0	83404
	GENERATOR REBUILD	MR	\$0				
IV	FUEL SYSTEMS						
	TANK SECOND VALVE	NCE	\$7,150	C	\$0		83405
	FUEL TRANSFER HOSE	MR	\$2,025	C	\$0		83406
	DIKE TANKS GAS / DIESEL	NCE	\$0				
V	HOUSING						
	DISH WASHING	MR					
	FURNITURE IN DORMS	MR	\$1,750	C/D	\$5,500	0	83407
	APPLIANCE REPLACEMENT	MR	\$2,075	C/D	\$920	0	83408
	DORM DOORS	NCE	\$0				
	DORM CARPET	MR	\$0				
	HOUSE FURNITURE	MR	\$3,150	C/D	\$650	0	83409
	HOUSE PAINTING						
	INTERIOR	MR	\$8,100	C	\$2,025	0	83410
	EXTERIOR	MR	\$0			0	
	HOUSE 5 REPAIRS	MR	\$2,925	A	\$2,925	8	83411
	DRYERS VENTING ON SECOND FLOOR	NCE	\$2,000	C/D	\$0	0	83412
	EMERGENCY APPLIANCE ORDER	MR		E	\$2,400	0	83438
VI	LAB / OFFICE						
	COMPUTER	NCE	\$2,175	C/D	\$4,175	0	83413
	COPIER	MR	\$4,175	D	\$2,175	0	83414
	WALL REPAIR FINISH	NCE	\$0				0

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VII	<u>STORAGE / SHOP</u>						
	HEAT IN WAREHOUSE	NCE	\$0				
	ADDITIONAL STORAGE	NCE	\$0				
	UTILIZATION OF EXISTING STORAGE	NCE	\$0				
	SHELVES						
	CRATES						
	CEILING OVER SHOP	NCE	\$0				
	CODE VIOLATION						
	MAJOR TOOLS	NCE	\$0				
	(HOIST)						
VIII	<u>COMMUNICATIONS</u>						
	PHONE SYSTEM UPGRADE	MR	\$1,000	A	\$1,000	0	83415
IX	<u>DOCKING</u>						
	FLOAT DOCK REPAIR	MR	\$1,375	A	\$1,375	0	83416
X	<u>MAINTENANCE</u>						
	BARGE RAMP WORK	MR	\$0				
	SEWER MAJOR MAINT	MR	\$0	F	\$2,100		
	HATCHERY DOORS	MR	\$1,500	A	\$1,500	0	83417
	MAINTENANCE PAINTING	MR	\$23,525	A	\$23,575	40	83418
	SITE FILL / DRAINAGE / GRADING	NCE	\$0				
	LOWER UNIT/ PHYLLIS DAY			B / E	\$3,000	0	
XI	<u>HARVEST</u>						
	OUTBOARDS - 2	MR	\$5,925	A	\$5,925	0	83419
	HARVEST PENS - 5	MR	\$8,500	C / D	\$3,100	0	83420
	PEN COLLARS	MR	\$0				
	SEINE REPAIR	MR	\$2,400	A	\$2,400	0	83421
	BILLET REPLACEMENT	MR	\$0				
	ALUMINUM WORK SKIFF	MR	\$0				
XII	<u>EGGTAKE</u>						
	GATE ACCTUATORS	MR	\$1,825	A	\$1,825	0	83422
	MAINTENANCE MORTALATOR	MR	\$2,075	A	\$2,075	0	83423
	TOTES - 10	NCE	\$2,700	C	\$0	0	83424
	BEACH SEINES		\$0				
	FISHWAY DIFFUSER GRATE			B / E	\$2,000	0	83436
XIII	<u>INCUBATION</u>						
	FRY SCREENS (200)	MR	\$7,375	C	\$3,687	0	83425
	EGG TRAYS (100)	MR	\$6,150	C	\$3,075	0	83426
	SADDLE REPLACEMENT -1000 FT 2	MR	\$0				
	PALLET JACKS	MR	\$0				
	INCUBATORS -10	MR	\$0				
	PAINT STANDS	MR	\$0				
	STEAM CLEANER	MR	\$0				
	PRESSURE WASHER	MR	\$0				
	HEATERS IN WNH II MODS	NEC	\$1,275	A	\$1,275	0	
	ELECTRIC FORKLIFT	MR	\$0				

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XIV	PINK / CHUM REARING						
	NET PEN REPAIR	MR	\$4,200	A	\$4,200	0	83428
	NET PEN ANCHOR SYSTEM	MR	\$15,600	B	\$15,600	0	83429
	FISH PUMP AND DRIVE UNIT	NCE	\$0				
	SPIROFLEX REPLACEMENT	MR	\$3,500	A	\$3,500	0	83430
	NETPEN FRAMES	MR	\$16,000	A	\$16,000	0	83431
	NET PENS		\$0				
	FEED SHED REPLACEMENT	MR	\$0			0	
	CHUM FRESH WATER ISSUES		(MAJOR)				
XV	REARING OTHER SPECIES						
	BROOD POND MISC. MAINTEN.	MR	\$0				
	BROOD POND EROSION	MR	\$0				
	BROOD POND WALKWAYS		(depends on FY 93 R+D)				
	OTHER BROOD POND ISSUES	MR	\$0				
	CONEX BOXES FOR FEED	NCE	\$0				
	RACEWAY / BROOD POND CLEANING		FY 93				
	COHO S.W. REARING 5- YEAR PLAN	NCE	\$0				
XVI	ENVIRONMENTAL						
	HAZARDOUS WASTE ISSUES	NCE	\$0				
	DNR COMPLIANCE	NCE	\$2,000	A	\$2,000	0	83432
	WASTE WATER COMPLIANCE	NCE	\$0				
	SOLID WASTE HANDLING	MR	\$1,200	A	\$1,200	0	83433
	INCINERATOR OVER HAUL	MR	\$1,075	C	\$0	0	83434
XVII	SAFETY						
	WELDING FAN ISSUE		\$0				
	WNH II STEPS TO DE- GASSING		\$0				
	FLAMMABLE STORAGE LOCKERS	NCE	\$1,400	A	\$1,400	0	83435
	FIRE (ANYTHING MAJOR)		\$0				
XVIII	REMOTE RELEASE						
	UNIT COST FOR ANY ADDED REMOTE	NCE	\$0				
	RELEASE SITE						
	TOTAL		\$163,850		\$136,982	48	
			\$23,975				
			\$139,875				

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IN-HOUSE CONSTRUCTION ADMINISTRATION					
FY 94 BUDGET REVISIONS AND CUTS					
	ORIGINAL FY 94	ORIGINAL FY 94 BUDGET	REVISED FY 94	FY 94 BUDGET	% OF SPECIFIC LINE ITEM
	CONTRACT HRS.	BASE	CONTRACT HRS.	PROPOSED CUTS	
AFK HATCHERY					
Hrs.	52	\$1,622.40	0	\$0	-100.00
Fixed Cost		\$1,900.00		\$1,000	-47.37
WNH HATCHERY					
Hrs.	184	\$5,740.80	48	\$1,440	-74.92
Fixed Cost		\$1,900.00		\$1,400	-26.32
CAN. CR. HATCHERY					
Hrs.	64	\$1,996.80	30	\$900	-54.93
Fixed Cost		\$1,900.00		\$1,400	-26.32
MBY HATCHERY					
Hrs.	66	\$2,059.20	27	\$810	-60.66
Fixed Cost		\$1,900.00		\$1,400	-26.32
	366	\$19,019.20	106	\$8,360	-56.10
JOBS THAT REQUIRE SPECIFIC EXPERTISE, ORGANIZATION AND PLANNING TIME ABOVE WHAT CAPITAL PROJECTS					
OR OPERATIONAL MAINTENANCE CAN PROVIDE ARE IDENTIFIED BY JOB IN THE CONTRACT HOURS COLUMN IF A JOB					
IS CUT OR REDUCED THE CONTRACT HOURS ASSOCIATED WITH THAT JOB ARE ALSO REDUCED. NOT ALL JOBS REQUIRE					
CONTRACT HOURS FOR PLANNING. THE MAIN CUTS RESULT FROM TIME ALLOCATED FROM OPERATIONS MAINTENANCE FOR					
PLANNING CAPITAL PROJECTS (ROB TORELL'S TIME)					

CC94CUT.XLS

ERY CREEK FY-94 CAPITAL WORKSHEET			PROJECT STATUS CODES			
FY 94 BUDGET CUTS AND REVISIONS			A - STILL NEEDED / NOT COMPLETE			
MR = Maintenance Replacement			B - PROJECT COMPLETE			
NEC = New Equipment or Construction			C - PROJECT CANCELED / DOWN SIZED / INCREASED			
			D - FUNDING TRANSFERRED / RE-ALLOCATED			
			E - NEW PROJECT FROM REALLOCATION			
			F - NEW REQUIREMENT / IN THIS BUDGET			
AREA			ORIGINAL FY 94 BUDGET BASE	PROJECT STATUS	FY 94 BUDGET Proposed cuts	CONTRACT HRS PROJECT NO.
II	WATER SUPPLY					
	ROCK SILL IN LAKE	NEC	\$0.00			
	RECYCLE BYPASS	NEC	\$0.00			
	DAM INSPECTION	MR	\$0.00			
	DAM GATE MAINTENANCE	MR	\$0.00			
	DOMESTIC WATER TO BUNKHOUSE	MR	\$0.00		\$0	0
	DOMESTIC WATER TREATMENT SYSTEM			E / F	\$4,710	10
III	POWER NEEDS					
	OVERHAUL / REPLACE ONE GENERATOR	MR	\$14,975.00	A	\$14,975	0 85401
	SERVICE SECOND GENERATOR	MR	\$0.00			
	MOVE GENERATOR BUILDING	MR	\$0.00			
	POWER TO WIERS	NEC	\$0.00			
	POWER TO DAM	NEC	\$0.00			
IV	FUEL SYSTEM					
	EQUIPMENT FUELING STATION	NEC	\$1,000.00	A	\$0	85402
	TANK FARM LINER REPLACEMENT	MR	\$0.00			
	PAINT FUEL LINE	MR	\$3,075.00	A	\$3,075	0 85403
	MAINTENANCE PAINTING	MR	\$0.00			0
	FUEL DELIVERY HOSE	NEC	\$0.00			
	CLEAN FUEL BULK TANKS	MR	\$0.00			
V	HOUSING					
	HOUSES					
	FLOORING / CARPET	MR	\$0.00			
	APPLIANCES	MR	\$1,300.00	A	\$1,300	85404
	FURNITURE	MR	\$0.00			
	WATER HEATERS	MR	\$0.00	F	\$5,500	
	PAINTING					
	DUPLEX INTERIOR / EXTERIOR	MR	\$5,725.00	C	\$3,000	3 85405
	DORM					
	FURNITURE	MR	\$1,800.00	A	\$1,800	0 85406
	APPLIANCES	MR	\$950.00	A	\$950	0 85407
	PAINTING					
	DORM EXTERIOR / EXTERIOR	MR	\$16,425.00	C	\$11,000	9 85408
VI	LAB / OFFICE					
	FLOOR / WALLS OVER RW 5,6,7	NEC	\$0.00			
	FLOORING FOR OFFICE	MR	\$0.00			

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	INTERIOR PAINT FOR OFFICE	MR	\$0.00				
	COMPUTER	NEC	\$0.00	E/B	\$1,511	C	85410
VII	<u>STORAGE / SHOP</u>						
	CONEX BOXES	NEC	\$10,225.00	C	\$0	0	85410
	WAREHOUSE	NEC	MAJOR		\$0		
VIII	<u>COMMUNICATIONS</u>						
	TELEPHONE		\$0.00		\$0		
IX	<u>DOCKING</u>						
	MOBILE FLOAT DOCK FOR CARGO	NEC	\$0.00			0	
	AMPHIBIOUS VEHICLE	NEC	\$0.00				
	MAJOR GABION REPAIR ON BARGE RAMP	MR	\$0.00				
	FEED SHED REPAIR	MR	\$1,000.00	A	\$1,000		85411
X	<u>MISC. MAJOR MAINTENANCE</u>						
	NEW DOORS ON HATCHERY	MR	\$6,275.00	C	\$0	0	85412
	MAJOR ELECTRICAL	MR	\$0.00				
XI	<u>HARVEST</u>						
	ANCHOR CHAIN FOR BARRIER SEINE		\$0.00				
	SKIFF REPLACEMENT	MR	\$10,125.00	A	\$0		85413
	OUTBOARD REPLACEMENT	MR	\$5,850.00	A	\$5,850		85414
	HARVEST PEN REPLACEMENT	MR	\$8,450.00	C	\$0		85415
	MAJOR BARRIER SEINE REPAIR	MR	\$2,400.00	A	\$2,400		85416
	FLOAT OR BILLET REPAIR	MR	\$0.00				
	HARVEST SEINE REPAIR	MR	\$0.00				
XII	<u>EGGTAKE</u>						
	GREEN CHUTE TO LOWER GREEN HOLDING		MAJOR				
	FISH GRINDER AND PUMP FOR CARCASSES		MAJOR				
	GABION BASKETS FOR FISH TRAP		\$0.00				
	MORT ELEVATOR MAJOR MAINTENANCE	MR	\$1,575.00	A	\$1,000		85417
	PERMANENT SPAWN SHED		MAJOR				
	RAISE DAM ROAD TO MINIMIZE FLOOD DAMAGE		MAJOR				
XIII	<u>INCUBATION</u>						
	INCUBATOR STANDS		\$0.00				
	DIVERT INCUBATION DRAINS FROM SEWER	NEC	\$5,400.00	C	\$0		85418
	PRESSURE WASHER	MR	\$0.00				
	EGG TRAY REPLACEMENT	MR	\$0.00				
XIV	<u>PINK / CHUM REARING</u>						
	FLOAT REPAIRS	MR	\$0.00				
	SPIROFLEX	MR	\$0.00				
	FIX FRY LINE	MR	\$0.00				
XV	<u>REARING OTHER</u>		\$0.00				

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N- HOUSE CONSTRUCTION ADMINISTRATION FY 94 BUDGET REVISIONS AND CUTS					
	ORIGINAL FY 94 CONTRACT HRS.	ORIGINAL FY 94 BUDGET BASE	REVISED FY 94 CONTRACT HRS.	FY 94 BUDGET PROPOSED CUTS	% OF SPECIFIC LINE ITEM
AFK HATCHERY					
Hrs.	52	\$1,622.40	0	\$0	-100.00
Fixed Cost		\$1,900.00		\$1,000	-47.37
WNH HATCHERY					
Hrs.	184	\$5,740.80	48	\$1,440	-74.92
Fixed Cost		\$1,900.00		\$1,400	-26.32
CAN. CR. HATCHERY					
Hrs.	64	\$1,996.80	30	\$900	-54.93
Fixed Cost		\$1,900.00		\$1,400	-26.32
MBY HATCHERY					
Hrs.	66	\$2,059.20	27	\$810	-60.66
Fixed Cost		\$1,900.00		\$1,400	-26.32
	366	\$19,018.20	105	\$8,360	-56.10
JOBS THAT REQUIRE SPECIFIC EXPERTISE, ORGANIZATION AND PLANNING TIME ABOVE WHAT CAPITAL PROJECTS OR OPERATIONAL MAINTENANCE CAN PROVIDE ARE IDENTIFIED BY JOB IN THE CONTRACT HOURS COLUMN IF A JOB IS CUT OR REDUCED THE CONTRACT HOURS ASSOCIATED WITH THAT JOB ARE ALSO REDUCED. NOT ALL JOBS REQUIRE CONTRACT HOURS FOR PLANNING. THE MAIN CUTS RESULT FROM TIME ALLOCATED FROM OPERATIONS MAINTENANCE FOR PLANNING CAPITAL PROJECTS (ROB TORELL'S TIME)					

MBY94CUT.XLS

FY 94 CAPITAL WORKSHEET			PROJECT STATUS CODES				
FY 94 BUDGET REVISIONS AND CUTS			A - STILL NEEDED / NOT COMPLETE				
MR = Maintenance Replacement			B - PROJECT COMPLETE				
NEC = New Equipment or Construction			C - PROJECT CANCELED / DOWN SIZED				
			D - FUNDING TRANSFERRED / RE-ALLOCATED				
			E - NEW PROJECT FROM REALLOCATION				
			F - NEW REQUIREMENT / IN THIS BUDGET				
AREA			ORIGINAL FY 84 BUDGET BASE	PROJECT STATUS	FY 84 BUDGET Proposed cuts	CONTRACT HOURS	PROJECT NO.
II	<u>WATER SUPPLY</u>						
	PIPELINE PAINTING	MR	\$13,725.00	A	\$13,725	0	86402
	PIPELINE SUPPORT REPAIRS	MR	\$0.00				
	SALTWATER SYSTEM	NEC	\$0.00				
	DIVING INSPECTION ON PIPELINE	MR	\$0.00				
	SADDLES IN PACKED COLUMNS	NEC	\$0.00				
	ALARM SYSTEM IMPROVEMENTS	NEC	\$0.00				
	CONTROLS ON T-1 AND T-2 INTAKES	MR	\$1,775.00	A	\$1,775	0	86403
	LAKE LEVEL MEASUREMENT	NEC	\$0.00				
	VALVEMATIC REPAIR		0	F	\$1,000		
III	<u>POWER NEEDS</u>						
	TURBINE CONTROLS	MR	\$0.00				
	GENERATOR REBUILDS	MR	\$0.00				
	TRANSFORMER REPLACEMENT	MR	\$0.00				
	SHOP ELECTRICAL	MR	\$0.00				
IV	<u>FUEL NEEDS</u>						
	LEAK DETECTION	NEC	\$0.00				
	OVERFILL ALARMS	NEC	\$0.00				
	GAS TANK	NEC	\$0.00				
	FUEL LOADING HOSE	NEC	\$0.00				
V	<u>HOUSING</u>						
	REPAINT HOUSE INTERIORS	MR	\$8,125.00	A	\$8,125	6	86404
	REPAINT HOUSE EXTERIORS	MR	\$10,300.00	A	\$10,300	10	86405
	APPLIANCES						
	HOUSE	MR	\$3,875.00	C	\$1,000	0	86407
	DORM		0				
	FURNITURE		\$0.00				
	HOUSE	MR	\$0.00				
	DORM		0				
	MISC. DORM MOVING COSTS	NEC	\$3,950.00	C	\$0	0	86408
	SNOW COVERS ON HOUSE WALKS	NEC	\$0.00				
	STAIRWAY MAINTENANCE	MR	\$0.00				
VI	<u>LAB / OFFICE</u>						
	FUME HOOD	NEC	\$0.00				
	COPIER	MR	\$4,150.00	A	\$4,150	0	86409

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	LAB PHASE I		\$0.00				
VII	SHOP / STORAGE						
	FEED STORAGE UNIT	NEC	0				
	NEW WAREHOUSE ISSUES						
	SHELVING	NEC	\$0.00				
	HAZARDOUS WASTE AREA	NEC	\$0.00				
	MAJOR SHOP EQUIPMENT						
	WELDERS	NEC	\$0.00				
	UPGRADE ISSUES EXISTING SHOP	MR	\$0.00				
VIII	COMMUNICATIONS						
	RADIOS		\$0.00	F	\$1,000		
IX	DOCKING						
	WALKWAY TO NETPENS	NEC	\$0.00				
	FEED STORAGE FLOAT	NEC	\$0.00				
	NETPEN ANCHORING	NEC	\$2,550.00	A	\$2,550	0	86410
X	MISC. MAJOR MAINTENANCE						
	INCINERATOR ROOM FLOODING	MR	\$3,725.00	C	\$0	0	86411
	STEEL PAINTING	MR	0				
	SNOW MACHINE	NEC	\$3,102.00	A	\$3,102	0	86412
	4 - WHEELER (FY93)						86401
XI	HARVEST						
	HARVEST PEN REPLACEMENT	MR	\$3,400.00		\$3,400	0	86413
	OUTBOARDS (40 HP AND 15 HP)	MR	\$4,850.00	A	\$4,850	0	86414
	SEINES	NEC	\$12,000.00	B	\$11,195	0	86415
	BROOD COLLECTION	NEC	\$0.00				
	BROOD POND HOLDING FOR INJECTIO	NEC	\$0.00				
	BARRIER SEINE	MR	\$2,400.00	A	\$2,400	3	86416
	BROOD POND SORTING ISSUES	NEC	\$0.00				
	FLAPPER VALVE	MR	\$0.00				
	SKIFFS	MR	\$0.00				
XII	EGGTAKE						
	EGGTAKE AREA						
	MOBILE BUILDING	NEC	\$4,800.00	A	\$4,800	8	86417
	CREEK IMPROVEMENTS	NEC	\$0.00				
	BROOD CARCASS DISPOSAL	NEC	\$0.00				
XIII	INCUBATION						
	STEAM CLEANER	MR	\$2,075.00	A	\$2,075	0	86418
	SADDLES FOR NEW INCUBATORS	NEC	\$0.00				
XIV	PINK AND CHUM REARING						
XV	SOCKEYE REARING						

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	FEED STORAGE FLOAT	NEC	\$0.00				
	SMOLT PEN FRAMES	NEC	\$0.00				
	SMOLT PEN NETS	NEC	\$0.00				
	RACEWAY EQUIPMENT						
	CLEANING	NEC	\$1,075.00	A	\$1,075	0	86419
	DIVIDERS	NEC	\$0.00				
	SMOLT GRADING LOADOUT TRAILER	NEC	\$0.00				
	PUMP						
	HOSE						
	CROWDERS	NEC	\$0.00				
	INVENTORY TANK	NEC	\$0.00				
	START TANK ISSUES						
	CLEANING EQUIP.	NEC	\$0.00				
	FRY TROUGHS	NEC	\$4,175.00	C	\$0	0	86420
	FRY COUNTERS	MR	\$4,500.00	C	\$0		86421
	HOSE	NEC	\$0.00				
XVI	ENVIRONMENTAL / REGULATORY						
	WASTE OIL BURNER	NEC	\$0.00				
	SPECIAL USE PERMIT ISSUES		\$0.00				
	INCINERATOR ISSUES	NEC	\$975.00	A	\$975	0	86422
	SOLID WASTE HANDLING	MR	\$2,400.00	C	\$1,200	0	86423
	SAFETY						
	FIRE ALARM IN SHOP	NEC	\$0.00				
	FLAMMABLE LOCKERS	NEC	\$1,400.00	A	\$1,400	0	86424
XVIII	REMOTE RELEASE						
	OUTBOARD	MR	\$3,475.00	C	\$0		86425
	TRANSPORT TRUCK OVERHAUL	MR	GRANT FUNDING				
	UNIT COST FOR ANY ADDED	NEC					
	REMOTE RELEASE SITE						
	(ERIC TO REVISE)						
	TOTAL		\$102,802.00		\$80,087	27	
			\$34,277.00	NEC			
			\$68,525.00	MR			

INHADMCT.XLS

IN- HOUSE CONSTRUCTION ADMINISTRATION					
FY 94 BUDGET REVISIONS AND CUTS					
	ORIGINAL FY 94 CONTRACT HRS.	ORIGINAL FY 94 BUDGET BASE	REVISED FY 94 CONTRACT HRS.	FY 94 BUDGET PROPOSED CUTS	% OF SPECIFIC LINE ITEM
AFK HATCHERY					
Hrs.	52	\$1,622.40	0	\$0	-100.00
Fixed Cost		\$1,900.00		\$1,000	-47.37
WNH HATCHERY					
Hrs.	184	\$5,740.80	48	\$1,440	-74.92
Fixed Cost		\$1,900.00		\$1,400	-26.32
CAN. CR. HATCHERY					
Hrs.	64	\$1,996.80	30	\$900	-54.93
Fixed Cost		\$1,900.00		\$1,400	-26.32
MBY HATCHERY					
Hrs.	68	\$2,059.20	27	\$810	-60.66
Fixed Cost		\$1,900.00		\$1,400	-26.32
	366	\$19,019.20	106	\$8,360	-56.10
JOBS THAT REQUIRE SPECIFIC EXPERTISE, ORGANIZATION AND PLANNING TIME ABOVE WHAT CAPITAL PROJECTS OR OPERATIONAL MAINTENANCE CAN PROVIDE ARE IDENTIFIED BY JOB IN THE CONTRACT HOURS COLUMN IF A JOB IS CUT OR REDUCED THE CONTRACT HOURS ASSOCIATED WITH THAT JOB ARE ALSO REDUCED. NOT ALL JOBS REQUIRE CONTRACT HOURS FOR PLANNING. THE MAIN CUTS RESULT FROM TIME ALLOCATED FROM OPERATIONS MAINTENANCE FOR PLANNING CAPITAL PROJECTS (ROB TORELL'S TIME)					

Valdez Fisheries Development.

Exxon Trustees Council Breakdown

Administration

Staffing	\$9,874.80	
Taxes/ W/c / Benefits	1,716.24	
Fica	.0765	
FSC	.0293	.1738
W/c	.008	
Retirement	.060	
Medical	808.34	
Copier Rental	249.89	
Legal Fees current case	1,500.00	
Telephone	540.00	
Insurance	3,081.50	
Board Meetings	100.00	
Travel to Cordova	200.00	
Total	18,070.77	
time 5 months		90,853.88

Hatchery

Staffing	14,337.94	
Night shift 252 hours X \$13.90	3,402.00	
Taxes/ W/c / Benefits	4,360.48	
Fica	.0765	
FSC	.0293	
W/c	.080	
Retirement	.060	.2458
Medical	1,576.99	
Contract	180.00	
Electrical	6,000.00	
Telephone	150.00	
Fuel	900.00	
Total	30,917.41	
times 3 months		184,827.05

Non reoccurring

Repair Incubation Building Heaters	3,000.00
Recirculation Pump for coho rearing	6,200.00

Incubation

Staffing egg care 5,568 hours @ \$12.50	75,600.00
clean up 480 hours @ \$12.50	
Benefits @ .2458	18,582.48
Incubation saddles	9,000.00
Freight	3,000.00
Total	106,182.48

Tagging

Staffing	500 hours @ \$18.00	
	2,700 hours @ \$13.50	45,450.00
Benefits @ .2458		11,171.61

Materials

Tags	20,000.00
Chemicals	300.00
Tagging Machine Parts	2,000.00
Surgical scissors	60.00
Contract Housing Temporary workers	3,000.00

Total	\$1,981.61
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Remote Release

Staffing	setup/demob. 450 hours @ \$13.50	
	feeders 336 hours @ \$13.50	10,611.00
Benefits @ .2458		2,608.18

Remote Supplies	600.00
Liquid oxygen	3,000.00
Rearing supplies	500.00
Vessel Rental	Transport vessel 28,000.00
	Supply vessel 3,000.00
	Live aboard vessel 5,000.00
	Feed barge 5,000.00

Total	\$8,319.18
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Short-Term Rearing

Staffing	setup 500 hours @ \$13.50	
	incub. dumping 684 hours @ \$13.50	
	feeders 732 hours @ \$13.50	23,976.00
Benefits @ .2458		5,893.30

Fish Food	292,723.00
Freight	43,590.00
HYPER-GLUCOSE	1,000.00
MINN/100	2,444.00
Feed barge	2,000.00
Total	387,485.30

Long-Term Rearing

Staffing	feeders 400 hours @ 13.50	
	cleanup 320 hours @ 13.50	9,720.00
Benefits @ .2458		2,389.00

Fish food	19,075.00
Freight	9,760.00
Supplies & Equipment	2,295.00
Total	43,239.00

TUTKA LAGOON HATCHERY OPERATIONS, FY 1994

Approved 19 June 93

Sort broodstock, collect and incubate 85M pink eggs, short-term rear 55M fry, sample near-shore plankton, release fry.

LABOR

Hatchery Mgr.					47,989	
Assistant Mgr.					42,086	
Broodstock Sorting	(3 people x	95 \$/day x	20 days)	5,711		
Egg Take	(5 people x	95 \$/day x	25 days)	19,039		
Egg Ploking	(2 people x	95 \$/day x	25 days)	4,750		
Tutka Rearing	(4 people x	95 \$/day x	30 days)	11,423		
Hal Cove Rearing	(2 people x	95 \$/day x	30 days)	5,711		
Standby	(1 person x	95 \$/day x	90 days)	8,567	145,265	

EQUIPMENT/SUPPLIES

Groceries	(at \$11/day/person)	6,380	
General		9,000	
Egg Take		760	
Maintenance		6,000	
Incubation	(12 barrels formalin)	3,800	
Fish Food	(44 \$/box x 752 box)	33,088	
Release		1,000	
Safety		7,500	61,518

RENTALS/CONTRACTS

Supply Transport	(\$1500/mo x 12 mo + \$1500/mo x 2 mo)	4,920	
Halibut Cove Housing		1,000	
Fish Harvest, Logistics & Fry Transport		141,835	147,535

TRAVEL & PER DIEM

Pers. Vehicle	(300 \$/K mi x 2.0 thousand miles)	600	
Weekend Lodging	(200 \$/trip x 24 trips/year)	4,800	
Weekend Travel	(200 \$/trip x 24 trips/year)	4,800	10,200

UTILITIES & MISC.

Telephone	(12 mos x 110 \$/mo)	1,320	
Utilities	(12 mos x 2300 \$/mo)	27,600	
Bldg & Cont Ins		8,000	
Dues & Public		550	
Permits		500	
Bank/Service Charge		400	38,400

CONTINGENCY (10% of total costs excl labor & fish harv & lod)

TOTAL

11,604
414,542

Post-it brand fax transmittal memo 7871 # of pages 1

To: <i>Jerome Montague</i>	From: <i>Tom Means</i>
On: <i>01/06/94</i>	On: <i>0001 Feb 1994</i>
Dept: <i>ADP & Spill Prevention</i>	Phone: <i>400-4769</i>
Fax: <i>400-4769</i>	Per: <i>ADP</i>

Equipment Repair/Maintenance Replacement

Rewire substandard circuits for spawning and coho rearing area	3,000.00
Screens for short-term rearing	4,700.00
Boat repairs engines	1,200.00
Replace motor coho crowder	2,500.00
Egg pump rebuild	1,500.00
Repair weir	3,200.00
Replace valve on pump 3	575.00
Repair tail race walkway	1,500.00
Repair brood pan	1,000.00
Plumbing - salt water pump to Incubation	6,000.00
Replumb raceway 5 & 6 to increase flows	12,000.00
Net washer	5,000.00
Total	42,175.00
Payment due on new incubators purchased	40,000.00
Total	1,015,523.47

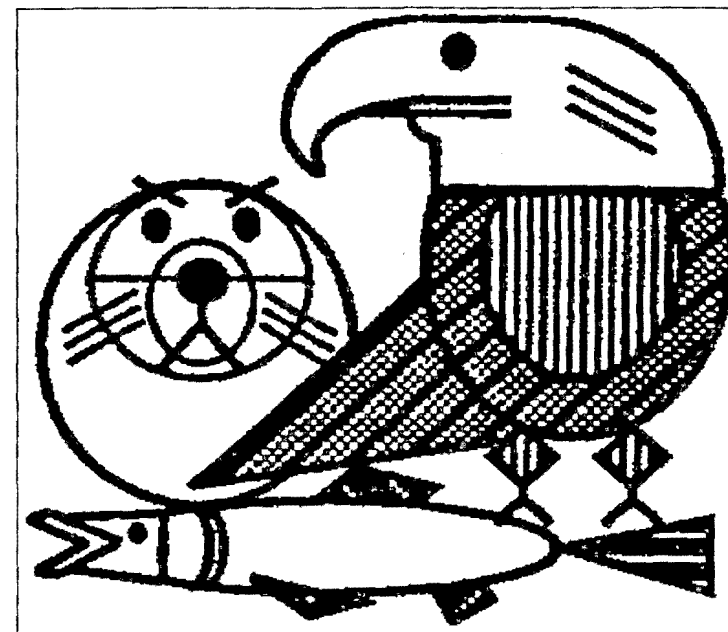
1994 WORK PLAN

RECEIVED

JAN 31 1994

EXXON VALDEZ OIL SPILL
TRUSTEE COUNCIL
ADMINISTRATIVE RECORD

**EXECUTIVE DIRECTOR'S
RECOMMENDED AUTHORIZATION
FOR THE
FFY 1994
RESTORATION WORK PLAN**



EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

DRAFT

DATE: JANUARY 31, 1994

Project#			Category			Cost	NEPA	Public Advisory Group						Public Comment		Chief Scientist's	Executive Director's	ED
Agency	Project Title	Location	G	M	H	FFY 94	Y/N	H	M	L	N	A	Support	Oppose	Recommendation	Recommended Authorization	FFY 94	
94007	Site Specific Archeological Restoration	Spill area	G			\$331.2	Y	3	3	4	1	0	7	1			\$445.1	
ADNR						Amount Approved in 1993 Court Request: \$154.4	\$0.0 EA done								24 sites already identified. Further search for injured sites; recovery of materials; site repair. If approved, review budget. Approve.	Approve. Combine with project # 94386 (Artifact Repository) to develop cost-effective plan for protection of injured resources on public lands while involving local communities in determination of appropriate strategy.		
94015	Archeological Site Stewardship	Spill area	G			\$217.7	N	3	3	2	3	0	4	1			\$0.0	
ADNR							\$0.0								Without a current status report, program effectiveness not known. No recommendation.	Disapprove. Questions concerning effectiveness of approach.		
94020	Black Oystercatcher Interaction	PWS		M		\$131.6	N	2	5	2	1	0	3	1			\$0.0	
DOI-FWS	with Intertidal					Amount Approved in 1993 Court Request: \$17.3	\$0.0								Unclear whether oystercatchers in oiled sites are accumulating significant amounts of oil from their environments. Population differences could have existed prespill. Skip a year until all reports reviewed, accepted and state of injury assessed.	Disapprove. Needs completion of 1993 report and synthesis of available information. Review as part of 1995 Work Plan.		
94039	Common Murre Population Monitoring	Kodiak		M		\$200.3	N	2	3	4	1	1	4	1			\$200.3	
DOI-FWS						Amount Approved in 1993 Court Request: \$26.9	\$0.0								Projected recovery times are long, monitoring every 3-5 years is most appropriate. Skip 1994	Approve. Evaluate further study needs in 3-5 years.		
94040	Reduce Disturbance Near Injured	Kod, Ken, AkP	G			\$44.8	N	2	0	4	5	0	4	1			\$0.0	
DOI-FWS	Murre Colonies						\$0.0								Could help speed recovery of murre at Barren Islands. Recommend funding for 1 year.	Disapprove. Consider other methods.		
94041	Introduced Predator Removal	AK Pen	G			\$146.6	Y	6	2	1	2	0	3	1			\$84.0	
DOI-FWS	from Islands						\$0 EA done in '85								This could benefit murre populations out of spill area. Fund feasibility on only 1 Island in '94.	Approve with reduction to two islands and reduce budget from \$146.6 to \$84.0 with concurrence of lead agency.		
							[Y=Yes, NEPA compliance required (either an EA or EIS needed) N=No EA or EIS needed (project eligible for categorical exclusion)]											

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(Date printed: 1/30/94 p. 1 of 11)

DRAFT

Project# Agency	Project Title	Location	Category			Cost FFY 94	NEPA Y/N	Public Advisory Group					Public Comment		Chief Scientist's Recommendation	Executive Director's Recommended Authorization	ED FFY 94
			G	M	H			H	M	L	N	A	Support	Oppose			
94043 USFS	Cutthroat & Dolly Habitat Restoration in Prince William Sound	PWS	G			\$182.7	Y	3	5	3	1	0	6	1	Improves freshwater habitat for both species. Approve.	Combine with project # 94139 and eliminate overlapping costs.	\$0.0
							\$3.5										
94064 ADF&G	Harbor Seal Habitat Use and Monitoring	PWS		M		\$0.0	N						4	1	Population may be stable in PWS; declining elsewhere. Population monitoring and developing information on movements by radio tagging still needed for restoration. Approve.	Already approved.	\$0.0
						Amount Approved in 1993 Court Request: \$270.2	\$0.0										
94066 ADF&G	Harlequin Duck Recovery Monitoring	PWS		M		\$147.6	N	1	4	4	1	0	3	1	Results of previous work needs completion and review before more work undertaken. Recovery process may be slow. Skip 1994.	Disapprove. Defer funding pending completion of 1993 report and synthesis of available information. Review as part of the 1995 Work Plan. Strongly urge federal and state agencies consider further restriction on sport hunting.	\$0.0
						Amount Approved in 1993 Court Request: \$139.3	\$0.0										
94068 ADF&G	Deposit Sand to Promote Clam Recruitment	PWS	G			\$36.4	Y	0	0	7	3	0	4	1	Success of project depends on number of assumptions. Feasibility study seems warranted if review of detailed proposal favorable. Approve pending review.	Disapprove. Even if proven feasible, not possible on large scale.	\$0.0
							\$2.0										
94070 ADF&G	Restoration of High Intertidal Fucus	PWS	G			\$285.8	Y	5	0	4	1	0	5	1	Investigators report that the upper intertidal zone is showing signs of recovery; restoration methods are probably not needed now. Disapprove.	Defer consideration to 1995 to determine rate of natural recovery.	\$0.0
							\$5.0										
94081 ADF&G	Recruitment Monitoring of Littleneck Clams	PWS		M		\$206.7	N	0	2	8	0	0	5	1	Reports of previous projects need completion; personnel qualifications will be key to evaluating proposed project. Needs further consideration. Costs appear too high to accomplish main objective. Suggest competing proposal if funded.	Disapprove. Substantial study design limitations.	\$0.0
							\$0.0										

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DRAFT

Date printed: 4/30/94 p. 2 of 11

Project#			Category			Cost	NEPA	Public Advisory Group					Public Comment		Chief Scientist's	Executive Director's	ED
Agency	Project Title	Location	G	M	H	FFY 94	Y/N	H	M	L	N	A	Support	Oppose	Recommendation	Recommended Authorization	FFY 94
94083 NOAA	Monitoring of Oiled & Treated Shorelin	PWS		M		\$616.6	N	0	1	6	6	0	5	1	Although it would be desirable to consolidate this with other intertidal projects, need for site continuity prevents this economy. Approve, if not for full amount, provide partial funding. Second alternative would be funding in 1995.	DOL and DOJ indicate this project does not meet the terms of the MOA. Due to legal concerns, consider funding using federal criminal restitution funds.	\$0.0
94086 ADF&G	Herring Bay Experimental and Monitoring Studies	PWS		M		\$531.4	N	2	0	5	3	0	4	1	Investigators have seen major change in recovery of upper intertidal zone. Skip 1994 or reduce scope and consolidate with other intertidal projects.	Approve contingent upon a revised scope of work and budget focused on intertidal resources.	\$531.4
94090 NOAA	Mussel Bed Restoration & Monitoring	PWS, AkP	G			\$616.7	Y	4	7	0	2	0	8	1	A study component should be added that measures reduction in oil under beds in order to determine when objective is met. Reduce in scope through consolidation with other intertidal projects.	Approve. Coordinate with project # 94266 (Shoreline Assessment) for additional cost savings.	\$518.0
94092 NOAA	Killer Whale Recovery Monitoring	PWS		M		\$129.4	N	0	0	2	11	0	3	4	AB pod does not have to be studied every year until recovery. Credible work proposed in 1994 by independent group. Skip 1994.	Withdrawn by agency. Defer consideration until 1995.	\$0.0
94102 DOI-FWS	Murrelet Prey & Foraging Habitat in PWS	PWS		M		\$231.5	N	1	7	3	0	0	3	1	Controlling factors for population not known. Nesting habitat addressed in 93 and study of foraging habitat proposed for 94. Coordination with forage fish study necessary. Approve pending acceptable study plan showing coordination with other studies.	Approve contingent on integration with projects 94163 (Forage Fish) and 94173 (Pigeon Guillemot), and elimination of overlapping costs.	\$231.5
94110 ADNR	Habitat Protection - Data Acquisition and Support	Spill area			H	\$405.1	N	4	1	2	5	0	8	1	Continuation of this project is necessary to develop objective criteria, to apply these criteria to land parcels in the spill area, and to rank parcels for protection. Approve.	Approve in conjunction with development of a comprehensive habitat protection plan that covers the spill area and is linked to protection of key injured resources.	\$405.1
[Y = Yes, NEPA compliance required (either an EA or EIS needed) N = No EA or EIS needed (project eligible for categorical exclusion)]																	

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DRAFT Date printed: 1/30/94 p. 3 of 11)

Project#			Category			Cost	NEPA	Public Advisory Group						Public Comment		Chief Scientist's	Executive Director's	ED
Agency	Project Title	Location	G	M	H	FFY 94	Y/N	H	M	L	N	A	Support	Oppose	Recommendation	Recommended Authorization	FFY 94	
94126	Habitat Protection & Acquisition Fund	Spill area			H	\$875.4	N	4	1	1	5	1	10	1			\$875.4	
ADNR						Amount Approved in 1993 Court Request: \$284.9	\$0.0								This provides the funds for protecting lands identified by the habitat protection group (94110). Approve.	Approve in conjunction with development of a comprehensive habitat protection plan that covers the spill area and is linked to protection of key injured resources. Work Plan and final allocation of funds will be worked out by Executive Director.		
94137	Stock ID of Chum, Sockeye, Chinook and Coho in Prince William Sound	PWS	G			\$214.9	N	3	3	3	1	0	10	1			\$214.9	
ADF&G						Amount Approved in 1993 Court Request: \$46.7	\$0.0								It may never be possible to know if these species were affected by the spill. Trustees are already carrying out a program for enhancement of sockeye salmon in Coghill Lake. Disapprove.	Approve as final expenditure to recoup previous Trustee Council investment in this project. Will only ID chum and sockeye.		
94139	Salmon Instream Habitat and Stock Restoration	PWS, Ken, Kod	G			\$572.6	Y	1	5	3	1	0	17	1			\$755.3	
USFS							\$6.0								If the Trustees wish to engage in enhancement of fish runs through habitat alteration, this is probably the best project to do it. No recommendation.	Combine with project # 94043 (Cutthroat and Dolly Restoration) and approve with two years funding. Subject to NEPA compliance (EA's) and review of benefit/cost analyses.		
94147	Comprehensive Monitoring Program	Spill area		M		\$0.0	N						6	1			\$0.0	
NOAA						Withdrawn by NOAA	\$0.0								Could provide overall umbrella for coordination of resource monitoring. New executive director will be identifying a strategy for implementation of the Restoration Plan and something like this may be valuable in that effort. To be considered later.	Withdrawn by agency. Will be integrated into management implementation structure. Monitoring program guidance will be developed under direction of Chief Scientist and peer reviewers.		
94159	Marine Bird & Sea Otter Boat Surveys	PWS		M		\$179.2	N	0	3	5	3	0	4	1			\$0.0	
DOI-FWS						Amount Approved in 1993 Court Request: \$107	\$0.0								Investigators need to be more responsive to peer review comments on earlier report. Hold for later possible approval pending acceptance of '89-'91 final report.	Spring survey already approved. Disapprove summer surveys pending review of survey frequency needs.		
94163	Forage Fish Influence on Injured Species	PWS		M		\$606.6	N	4	6	2	1	0	14	1			\$606.6	
NOAA							\$0.0								Very little is known about forage fish populations in the spill area. This project will begin to evaluate this resource that appears to be the key for the recovery of main bird and mammal species injured in the spill. Highly recommended. Approve funding.	Approve. Integrate with projects 94320 (PWS System Investigation), 94102 (Murrelet Prey), and 94173 (Pigeon Guillemot).		
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Project#	Project Title	Location	Category			Cost	NEPA	Public Advisory Group						Public Comment		Chief Scientist's	Executive Director's	ED
Agency			G	M	H	FFY 94	Y/N	H	M	L	N	A	Support	Oppose		Recommendation	Recommended Authorization	FFY 94
94165	Herring Genetic Stock Identification	PWS		M		\$62.2	N	6	2	2	0	0	10	1				\$62.2
ADF&G	in Prince William Sound						\$0.0									Completion and acceptance of final report from herring damage assessment is necessary before funding project. Hold for later possible approval pending acceptance of '89-'91 final report.	Approve contingent upon Chief Scientist/peer review acceptance of damage assessment studies.	
94166	Herring Spawn Deposition and Reproductive Impairment	PWS	G			\$0.0	N						9	1				\$0.0
ADF&G						Amount Approved in 1993 Court Request: \$466.3	\$0.0									Completion and acceptance of final report from herring damage assessment is necessary before project is funded. Hold for later possible approval pending acceptance of '89-'91 final report.	Already funded.	
94173	Pigeon Guillemot Recovery Monitoring	PWS		M		\$201.1	N	1	2	7	1	0	3	1				\$201.1
DOI-FWS							\$0.0									Species in long-term decline. Colony counts probably only needed done every several years. Other activities on feeding could go forward if closely linked with forage fish study. Hold for possible later funding.	Approve contingent on reduction in scope and integration with projects 94163 (Forage Fish) and 94102 (Murrelet Prey) and elimination of overlapping costs.	
94184	Coded Wire Tag Recoveries from Pinks	PWS	G			\$196.6	N	6	2	2	0	0	13	1				\$0.0
ADF&G	in Prince William Sound					Amount Approved in 1993 Court Request: \$47.8	\$0.0									Comprehensive review of pink salmon research needed in PWS with relationship to Trustee goals for restoration, and clear picture of integration with normal agency activities. Hold for later possible approval pending review.	Integrate with 94320 (PWS System Investigation).	
94185	Coded Wire Tagging of Wild Pinks for	PWS	G			\$251.2	N	3	2	5	0	0	12	1				\$0.0
ADF&G	Stock Identification					Amount Approved in 1993 Court Request: \$34.8	\$0.0									See comments for 94184.	Integrate with 94320 (PWS System Investigation).	
94187	Otolith Marking - Inseason Stock	PWS	G			\$179.7	N	7	1	2	0	0	12	2				\$0.0
ADF&G	Separation						\$0.0									See comments for 94184.	Integrate with 94320 (PWS System Investigation).	

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DRAFT

Project#			Category			Cost	NEPA	Public Advisory Group						Public Comment		Chief Scientist's	Executive Director's	ED
Agency	Project Title	Location	G	M	H	FFY 94	Y/N	H	M	L	N	A	Support	Oppose		Recommendation	Recommended Authorization	FFY 94
94189	Pink Salmon Stock Genetics in PWS	PWS		M		\$171.2	N	4	3	2	1	0	13	2				\$0.0
ADF&G							\$0.0									See comments for 94184.	Integrate with 94320 (PWS System Investigation).	
94191	Oil Related Egg & Alevin Mortalities	PWS		M		\$415.4	N	6	0	3	1	0	12	1				\$415.4
ADF&G						Amount Approved in 1993 Court Request: \$367.5	\$0.0									In the last year important heritable differences in egg mortality have been found between oiled and unoled streams in PWS Highly recommended. Approve.	Approve.	
94192	Evaluation of Hatchery Straying on Wild Pinks in PWS	PWS	G			\$640.5	N	1	5	3	1	0	11	1				\$0.0
ADF&G							\$0.0									See comments for 94184.	Integrate with 94320 (PWS System Investigation).	
94199	Institute of Marine Science - - Seward Improvements	Spill area		M		\$24,984.0	Y						356	17				24,984
ADF&G						EVOS-related funds (includes NEPA costs)	\$0.0									Would provide a center for coordination of long-term monitoring and research on injured species in the spill area, housing of reports and information from Trustee-sponsored projects. Highly recommended.	Approve subject to successful completion of tasks.	
94200	Public Land Access 17(b) Easement ID	PWS, Ken, Kod			H	\$38.1	N	6	7	0	0	0	8	1				\$0.0
ADNR							\$0.0									Would compile atlas showing legal public access. No recommendation.	Disapprove. Federal concerns about use of civil settlement for project. Recommend that Trustees have ADNR coordinate with the federal agencies on the development of a recreation plan for the spill area and expenditure of state criminal funds.	
94216	Gulf of Alaska Recreation Plan Development	Kod, Ken, AkP	G			\$164.6	N	3	3	1	3	0	7	1				\$0.0
DOI-NPS							\$0.0									This will describe injury, identify goals for restoration and develop projects for outside PWS. No recommendation.	Disapprove. Federal concerns about use of civil settlement for project. Recommend that Trustees have ADNR coordinate with the federal agencies on the development of a recreation plan for the spill area and expenditure of state criminal funds.	

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DRAFT

Project#	Project Title	Location	Category			Cost	NEPA	Public Advisory Group						Public Comment		Chief Scientist's	Executive Director's	ED
Agency			G	M	H	FFY 94	Y/N	H	M	L	N	A	Support	Oppose		Recommendation	Recommended Authorization	FFY 94
94217	PWS Area Recreation	PWS	G			\$14.9	N						7	1				\$0.0
USFS	Implementation Plan					Amount Approved in 1993 Court Request: \$76.3	\$0.0									This develops recreation projects inside PWS. No recommendation.	No further funding required by agencies.	
94237	River Otter Recovery Monitoring	PWS		M		\$156.7	N	1	0	5	3	1	3	1				\$0.0
ADF&G							\$0.0									There is controversy over the interpretation of the damage to this species. The investigators have been encouraged to present a more balanced discussion of their data. Disapprove.	Disapprove.	
94241	Rockfish Management Plan	PWS, Kenai		M		\$233.2	N	0	3	5	2	0	6	2				\$0.0
ADF&G	Data Development						\$0.0									This is an enhancement action since injury to this species is not certain. There was increased fishing pressure on this species after the spill. Review normal agency management obligations.	Disapprove. Review as part of the 1995 Work Plan. Questions regarding normal agency responsibility. DOL has concern about extent of injury.	
94244	Seal and Otter Cooperative	PWS, Kenai	G			\$54.5	N	0	3	2	5	0	4	1				\$54.5
ADF&G	Subsistence Harvest Assistance						\$0.0									Not clear why the summary information on these resources, which is available, can not be conveyed to subsistence users for less cost. Evaluate costs for this project.	Approve. Recommend that Council staff work with DCRA and subsistence users to examine opportunities to fund community-based implementation of this project with criminal funds.	
94246	Sea Otter Recovery Monitoring	PWS		M		\$211.3	N	1	3	5	2	0	3	1				\$0.0
DOI-FWS						Amount Approved in 1993 Court Request: \$207.4	\$0.0									Claims for injury from '93 studies based on serum chemistry not yet reviewed. Publication record of sea otter biologists could improve considering the total amount of funding provided in past. Skip '94 to provide chance to analyze and complete past work.	Defer additional funding pending synthesis of existing data. Review for consideration as part of 1995 Work Plan. Disparity in boat and aerial survey results needs to be resolved.	
94255	Kenai River Sockeye	Kenai	G			\$285.1	Y	4	2	3	1	0	16	1				\$285.1
ADF&G	Salmon Restoration					Amount Approved in 1993 Court Request: \$121.0	\$5.0									Includes genetic characterization of Kenai River fish in UCI mixed stock fishery. Suggest continuation, but normal agency management obligations should be reviewed.	Approve contingent upon further Executive Director review of project and consideration of normal agency management responsibility.	

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Project#			Category			Cost	NEPA	Public Advisory Group						Public Comment		Chief Scientist's	Executive Director's		ED
Agency	Project Title	Location	G	M	H	FFY 94	Y/N	H	M	L	N	A	Support	Oppose	Recommendation	Recommended Authorization	FFY 94		
94258	Sockeye Salmon Overescapement	Ken, Kod		M		\$475.9	N	3	2	4	1	0	18	1			\$475.9		
ADF&G						Amount Approved in 1993 Court Request: \$379.0	\$0.0								Program was favorably reviewed in '93. '94 run forecasts less gloomy than previous. Fund. Highly recommended	Approve contingent upon further Executive Director review of project and consideration of normal agency management responsibility.			
94259	Coghill Lake Sockeye	PWS	G			\$247.5	Y	1	3	5	1	0	16	1			\$247.5		
ADF&G	Salmon Restoration					Amount Approved in 1993 Court Request: \$76.6	\$0 EA done.								This is an enhancement action. Project was not peer reviewed in '93. No recommendation.	Approve. Coordinate with 94320 (PWS System Investigation) to obtain project smolts.			
94266	Shoreline Assessment & Oil Removal	PWS, Kenai	G			\$940.2	Y	8	2	1	2	0	9	1			\$365.0		
ADEC						Amount Approved in 1993 Court Request: \$33.1	\$5.0								It is not necessary to do this survey every year. It was done thoroughly in '93. Consideration should be given to either a scaled-down version of this project in 94, skipping a year, and/or combining with other intertidal work.	Project is limited to beach rehabilitation in PWS and site assessment on Alaska Peninsula. Coordinate with project # 94090 (Oiled Mussel Bed Restoration) for additional cost savings			
94272	Chenega Chinook Release Program	PWS	G			\$57.4	Y	5	4	0	0	1	5	1			\$57.4		
ADF&G							\$0.0								Trustees approved the concept last year. Implement.	Approve. Recommend that Council staff work with DCRA and subsistence users to examine opportunities to fund community-based implementation of this project with criminal funds.			
94279	Subsistence Food Safety Testing	PWS, Ken, Kod	G			\$268.3	N	5	3	1	1	0	4	1			\$268.3		
ADF&G						Amount Approved in 1993 Court Request: \$110.9	\$0.0								If the chemical analyses reported in the past did not satisfy subsistence users, this approach not likely to be successful. Thought that '93 was to be the last year. Consider only funding information distribution of project.	Approve. Recommend that Council staff work with DCRA and subsistence users to examine opportunities to fund community-based implementation of this project with criminal funds.			
94280	Spot Shrimp Survey and	PWS		M		\$232.2	N	2	4	3	1	0	7	1			\$0.0		
ADF&G	Juvenile Shrimp Habitat ID						\$0.0								No evidence of damage to this species. Disapprove.	Defer. Questions raised about adequate demonstration of injury. Consider as part of an ecosystem management approach (as part of 1995 Work Plan).			
(Y = Yes, NEPA compliance required (either an EA or EIS needed) N = No EA or EIS needed (project eligible for categorical exclusion))																			

[Y=Yes, NEPA compliance required (either an EA or EIS needed) N=No EA or EIS needed (project eligible for categorical exclusion)]

[LOCATION: PWS=Prince William Sound, KEN=Kenai, KOD=Kodiak, AkP=Alaska Pen][COST: Federal Fiscal Year 1994] [PAG: H=High, M=Medium, L=Low, N=No, A=Abstain] [CATEGORY: G=General, M=Monitoring, H=Habitat]

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Project#			Category			Cost	NEPA	Public Advisory Group						Public Comment		Chief Scientist's	Executive Director's	ED
Agency	Project Title	Location	G	M	H	FFY 94	Y/N	H	M	L	N	A	Support	Oppose		Recommendation	Recommended Authorization	FFY 94
94285	Subtidal Sediment Recovery Monitoring	Ken,Kod,AkP		M		\$178.0	N	0	5	5	3	0						\$178.0
ADF&G						Amount Approved in 1993 Court Request: \$451.2	\$0.0									Subtidal sediments in the Gulf have not been surveyed since 1990; this program will provide new information on their recovery.	Approve contingent upon Chief Scientist/peer review approval of reports from prior years.	
94290	Hydrocarbon Data Analysis	Spill area		M		\$55.5	N	10	1	0	1	1	4	2				\$55.5
NOAA	and Interpretation					Amount Approved in 1993 Court Request: \$74.7	\$0.0									This is essential to proper interpretation of study results as long as hydrocarbon data need to be interpreted Highly recommended.	Approve.	
94316	Shoreline trash Cleanup	PWS	G			\$38.6	N	1	7	3	2	0	8	1				\$0.0
ADNR							\$0.0									Uncertain how much litter was a result of spill. Disapprove.	Disapprove. Federal concerns about use of civil settlement for project. Recommend that Trustees have ADNR coordinate with the federal agencies on the development of a recreation plan for the spill area and expenditure of state criminal funds.	
94320	PWS System Investigation	PWS		M		\$4,900.0	N	7	2	1	0	0	17	1				\$6,250.0
ADF&G						Amount Approved in 1993 Court Request: \$100.0	\$0.0									Approve in concept the core scientific studies of oceanographic control of zooplankton abundance and prey switching by fish supported by reviewers and require OK of detailed study plans before release of funds. Implement study gradually.	Approve subject to successful integration of this project with project #'s 94163, 94184, 94185, 94187, 94189, 94192, 94259 and those portions of project # 94421 that involve research.	
94345	Salmon Spawning Escapement on the	Kenai	G			\$219.2	N	2	3	3	2	0	17	2				\$0.0
ADF&G	Lower Kenai River						\$0.0									It is unlikely that the proposed methods of estimating a lingering effect of the spill on the salmon runs in the Lower Kenai River will be successful. Disapprove.	Disapprove. Funds should be invested in projects that have a higher probability of restoring fisheries resources.	
94386	Artifact Repositories -Planning & Desig	Spill area	G			\$243.3	N	1	2	6	2	1	5	1				\$0.0
ADNR							\$0.0									No recommendation.	Approve. Combine with project # 94007 (Site Specific Archeological Restoration).	

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Project#	Project Title	Location	Category			Cost	NEPA	Public Advisory Group						Public Comment		Chief Scientist's	Executive Director's	ED
Agency			G	M	H	FFY 94	Y/N	H	M	L	N	A	Support	Oppose		Recommendation	Recommended Authorization	FFY 94
94417	Waste Oil Disposal Facilities	Spill area	G			\$232.2	Y	8	2	2	1	0	6	1				\$232.2
ADEC							\$0.0									Connection to spill is tenuous. Disapprove.	Approve as pilot project with understanding that future operating and maintenance costs will be assumed by communities and that a full report on the project results will be given to the Trustee Council before further funding.	
94419	Leave No Trace Educational Program	PWS	G			\$167.7	N	1	2	9	0	0	8	1				\$0.0
USFS							\$0.0									Addresses loss of public recreational use of spill area. No comment.	Disapprove. Federal concerns about use of civil settlement for project. Recommend that Trustees have ADNR coordinate with the federal agencies on the development of a recreation plan for the spill area and expenditure of state criminal funds.	
94420	Recreation Information Center	PWS, Ken	G			\$100.8	N	1	4	3	4	1	4	2				\$0.0
USFS	at Portage						\$0.0									No recommendation.	Disapprove. Federal concerns about use of civil settlement for project. Recommend that Trustees have ADNR coordinate with the federal agencies on the development of a recreation plan for the spill area and expenditure of state criminal funds.	
94421	Common Property Salmon	PWS, Ken	G			\$5,336.8	N	5	2	2	0	1	68	4				\$0.0
ADF&G	Stock Restoration						\$0.0									Delay pending review of benefits of understanding relationships of fry survival to marine conditions and contributing to proposed PWS ecosystem study versus risks that hatcheries may contribute to declines of wild stock salmon or other resources.	Executive Director will work with State and Federal representatives to develop an integrated funding strategy for the one year requested.	
94422	Environmental Impact Statement for	Spill area		M		\$323.5	Y											\$343.4
USFS	the Restoration Plan						\$0.0										Approve. Total project cost for FFY 94 and FFY 95 is \$343.4. FFY 94 cost is \$323.5.	
94504	Genetic Stock ID of Kenai River	Kenai	G			\$0.0	N	5	2	2	1	0	14	1				\$0.0
ADF&G	Sockeye					Amount Approved in 1993 Court Request: \$262.2	\$0.0									This is the closeout of a 1993 project. Costs appear high. Examine costs before approval.	Already approved.	

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Project#			Category			Cost	NEPA	Public Advisory Group						Public Comment		Chief Scientist's	Executive Director's	ED				
Agency	Project Title	Location	G	M	H	FFY 94	Y/N	H	M	L	N	A	Support	Oppose	Recommendation	Recommended Authorization	FFY 94					
94505	Information Needs for Habitat Protecti	Spill area			H	\$0.0	N	0	9	4	0	0	8	1			\$0.0					
USFS						Amount Approved in 1993 Court Request: \$406.1	\$0.0								This is a closeout of a 1993 project. Costs appear very high for closeout. Examine cost before approval.	Already approved. No further funding required.						
94506	Pigeon Guillemot Recovery	PWS		M		\$0.0	N	9	2	0	0	0	4	0			\$0.0					
DOI-FWS						Amount Approved in 1993 Court Request: \$13.9	\$0.0								Closeout costs appear to be reasonable. Approve.	Already approved.						
94507	Symposium Proceedings Publication	Spill area		M		\$0.0	N										\$0.0					
NOAA						Amount Approved in 1993 Court Request: \$69	\$0.0									Already approved.						
	Proposed 1/31/94 Project Budget Subtotal: \$49,188.1						NEPA TOTAL: \$31.5 (NOTE: NEPA costs for project# 94199 (Institute of Marine Science - Seward Improvements) are included in project total.)								Executive Director Recommended Project Budget Subtotal: \$39,343.1							
	Already funded 11/30/93 Project Budget Subtotal: \$5,007.9																					
	Project Budget Total: \$54,196.0																					
94424	Restoration Reserve	Spill area		M			N										\$12,000.0					
ADOL							\$0.0									Approve. Will provide funding needed to undertake long-term restoration activities.						
															Executive Director Recommended Restoration Reserve Subtotal: \$12,000.0							
															TOTAL Executive Director Recommendation: \$51,343.1							

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