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Exxon Valdez Oil Spill Trustee Council

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MEMORANDUM

TO: Trustee Council

FROM: James R. Ayers, Executive Director

DATE: November 1, 1994

SUBJ: IMS Resolution

Please find attached:

— the draft resolution for consideration by the Trustee Council in support of the Research Infrastructure Improvements for the Institute of Marine Science in Seward;

— the final IMS Recommendation and Findings document.

— a letter from William Brighton, Assistant Chief of the Environmental Enforcement Section with the U.S. Department of Justice, regarding the project's legal permissibility of the project;

— a copy of the Record of Decision (ROD) which completes NEPA compliance for the project;

— a resolution of support of the project from the Alaska Visitors Association; and

— a letter from the Alaska Railroad Corporation in support of the project.

EXECUTIVE DIRECTOR'S RECOMMENDATION AND FINDINGS REGARDING RESEARCH INFRASTRUCTURE IMPROVEMENTS AFFILIATED WITH THE INSTITUTE OF MARINE SCIENCE IN SEWARD, ALASKA

On January 31, 1994 the Trustee Council directed the Executive Director to develop a formal recommendation regarding improvements affiliated with the Institute of Marine Science in Seward (hereafter, "the facility"). The Trustee Council specifically directed the Executive Director to:

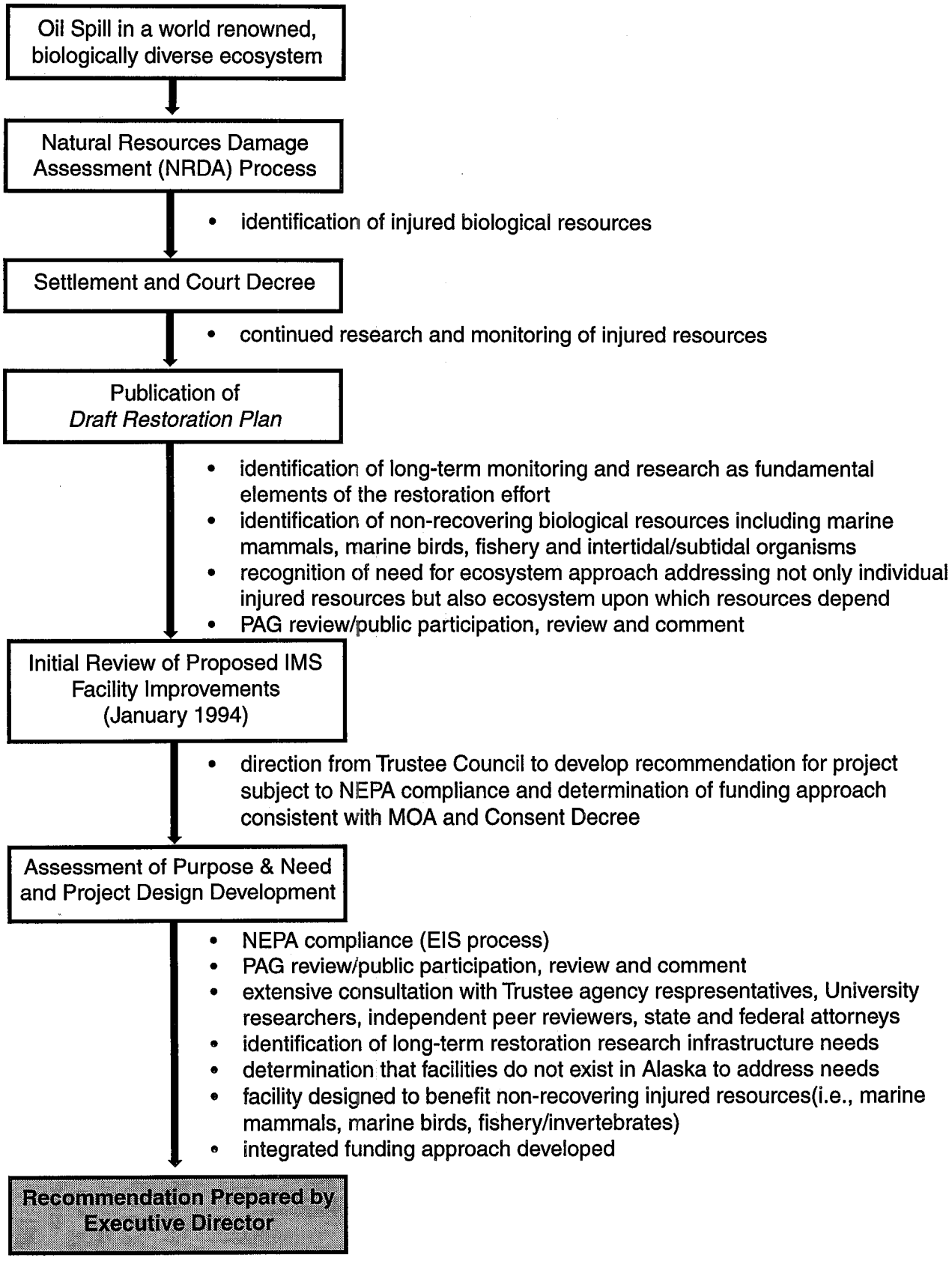
- take needed steps to secure NEPA compliance;
- consult with appropriate entities, including the University of Alaska, the City of Seward, the Seward Association for the Advancement of Marine Science and Trustee Agencies to review the assumptions relating to the proposed improvements and capital operating budgets;
- 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; and
- 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.

These findings draw heavily upon the *Draft Project Description and Supplemental Materials* (September 26, 1994) prepared for the project and should be read together with that document. The process by which the Executive Director's recommendation on the project has been developed is depicted in Figure 1.

Background

The proposed research facility improvements referenced in this document have evolved and fundamentally changed from the original Alaska SeaLife Center (ASLC) project proposed by the Seward Association for the Advancement of Marine Science (SAAMS) to the Trustee Council in June 1992. As initially presented, the Alaska SeaLife Center was proposed to serve as a facility with the *primary* mission being the rehabilitation of injured marine mammals and seabirds. A *secondary* mission of the original Alaska SeaLife Center project proposal was to provide a facility for basic biological research on marine mammals and seabirds so that the impacts of human activities such as pollution and fishing could be better understood. The original project proposal also called for a substantial tourism/visitation component. The initial funding request presented to the Trustee

Figure 1. Development of Recommendation Regarding Appropriate and Legally Permissible Funding for IMS Research Infrastructure Improvements



Council was for $45.858 million.

As discussed below (and presented in the *Project Description* in extensive detail), the proposed the facility improvements affiliated with the Institute of Marine Science in Seward have been redesigned and structured to serve, primarily, the bona fide research and monitoring needs of the Trustee Council restoration mission consistent with the purposes of the Memorandum of Agreement and Consent Decree and, secondarily, to provide a public education function.

NEPA Compliance

A final Environmental Impact Statement (EIS) for the proposed improvements was transmitted to the Environmental Protection Agency on September 16, 1994. A Record of Decision (ROD) has been prepared for the project.

Consultation Regarding Purpose and Need for the Project

The proposed research facilities have been the subject of extensive consultation and review by individual federal (USDOI, NOAA, USFS) and state (ADFG, ADEC, Department of Law) Trustee agencies, the Chief Scientist, independent peer reviewers, University of Alaska researchers, design consultants, representatives of the City of Seward, and the Seward Association for the Advancement of Marine Science (SAAMS). As a result of these consultations, the research infrastructure proposal has been substantially modified, refined and tailored to address the needs of the Trustee Council's long-term restoration mission consistent with the purposes of the Memorandum of Agreement and Consent Decree.

The need for long-term research and monitoring efforts has been explicitly recognized by the Trustee Council in the *Restoration Plan* which expressly states the need for long-term research and monitoring addressing not only individual injured resources but the ecosystem relationships upon which they depend.[1] The proposed facility improvements in Seward would provide needed infrastructure to address these long-term research and monitoring needs.

1. Purpose and Need for the Project

The purpose of the proposed facility improvements at Seward is to provide needed infrastructure for conducting long-term research and monitoring programs required to restore and enhance resources injured by the *Exxon Valdez* oil spill (EVOS). The expanded facilities would enable research and monitoring studies to be undertaken on injured resources and the spill-affected ecosystem with unique and specialized capabilities for studies on marine mammals, marine birds and fish genetics fundamentally important to the long-term restoration effort. The facility research capabilities would also substantially contribute to restoration of the spill area by

[1] See *Restoration Plan*, Chapter 3: Monitoring and Research.

providing for expanded marine fish and invertebrate studies, oceanographic research, and a library that would serve as a specialized repository for oil spill related data vital to researchers conducting restoration investigations.

In the *Restoration Plan*, the Trustee Council specifically recognizes twenty individual biological resources as injured by the spill.[2] These include a wide variety of marine mammals (sea otters, harbor seals); seabirds (common murres, harlequin ducks, marbled murrelets, pigeon guillemots); complexes of intertidal and subtidal organisms; and several fishery resources (pink salmon and Pacific herring) that the facility improvements can play a unique role in addressing. With the assistance of representatives of the University of Alaska; NOAA's National Marine Fisheries Service; the USDOI National Biological Survey; and the Alaska Department of Fish and Game, in addition to other contracted technical experts, research infrastructure needs to support restoration of injured resources and the ecosystem upon which they depend have been identified and the proposed facility designed to address those needs.[3]

The facility would provide presently unavailable laboratory capabilities for research and monitoring of the injured marine mammals (primarily pinnipeds and sea otters) and marine birds (primarily pelagic seabirds) of the spill area. Wet and dry labs would be furnished for fish genetics research to examine possible spill-caused heritable genetic damage in salmonids and potentially herring; and for live studies of bioenergetics, disease, reproduction, and neurobiology associated with fish and invertebrates in the spill area. Research on oceanography and ecological modeling would also take place at the facility, which would house a specialized library of literature and data pertaining to the northern Gulf of Alaska and spill region.[4] Research would be carried out at the facility by the University of Alaska, ADFG and other Trustee Agencies including the NBS and USFWS. Additionally, it is anticipated that visiting scientists affiliated with agency, academic, and private entities would use the facility for carrying out research in support of, or related to, the Trustee Council restoration mission.

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2 While twenty individual biological resources have been specifically identified as injured by the oil spill, the *Restoration Plan* explicitly recognizes the possibility that additional resources may be identified as injured resources on the basis of further information generated through research and monitoring (see Chapter 4, Resources and Services Injured by the Spill). In fact, additional seabird species have been proposed as injured resources. In the case of at least one species, the Chief Scientist has indicated that preliminary review of the petition to add kittiwates to the injured resources list was favorable although a formal recommendation has not yet been made to the Trustee Council. It can be anticipated that the proposed facilities would also play a significant role in addressing restoration research needs related to these other marine bird species should they be formally recognized as injured by the Trustee Council.

3 For additional information concerning identified restoration research and monitoring needs, see *Invitation to Submit Restoration Projects for Fiscal Year 1995* (May 16, 1994) and *Science for the Restoration Process: Proceedings of the Workshop held April 13 - 15, 1994.*

4 This library would become part of the integrated information management system for EVOS restoration efforts.

2. Benefit to Non-Recovering Injured Resources

Trustee Council Policy No. 4 in the *Restoration Plan* states that restoration activities will emphasize "non-recovering" resources.[5] It is these same non-recovering resources that are the focus of the research facility improvements. Nearly all of the resources identified as non-recovering by the Trustee Council are intended to benefit from the research capabilities that the facility improvements would provide. The research and monitoring programs to be carried out at the facility would contribute to the restoration of those injured, but not recovering, resources including: harbor seal, sea otter, common murre, harlequin duck, marbled murrelet, pigeon guillemot, Pacific herring, pink salmon, intertidal and subtidal resources. Studies conducted at the institute would help implement the restoration strategies for these resources as outlined in the *Restoration Plan*.

3. Anticipated Restoration Research and Monitoring Needs

A detailed *Project Description*, including an extensive statement of Purpose and Need for the facility, has been prepared.[6] Based on information gathered from University of Alaska researchers, Trustee agency representatives, contracted technical experts, and in consultation with the Chief Scientist, the following long-term restoration research needs are anticipated to exist:[7]

— **Marine Mammal Resources**: The marine mammal program would be extremely diverse and probably the largest user of the facility in terms of space and personnel. Projects in support of the restoration mission would include: captive feeding/energetics, hydrodynamics, development and testing of telemetry equipment, testing of immobilizing drugs, health status and disease studies, reproduction biology, physiology, behavior, and ecosystem modeling and data management. Anticipated future work involving UAF and ADFG personnel that is relevant to use of the proposed facility will require, among other things, specialized research tanks, animal holding and quarantine areas, research habitat with underwater viewing, wet labs with running sea water, dry labs, animal food preparation area, surgery and pharmacy, necropsy room, freezers, offices, library, and computer services. (Additional information concerning marine mammal research needs that the facility would address are provided in the *Project Description*.)

— **Marine Bird Resources**: Marine bird projects in support of the restoration

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5 See *Restoration Plan*, Chapter 2 (Policy #4).

6 *Project Description and Supplemental Materials* prepared for the *Exxon Valdez* Oil Spill Trustee Council, Institute of Marine Science Infrastructure Improvements, EVOS Trustee Council Project #94199, (September 26, 1994).

7 See *Project Description* for additional detail on projected use of the facility with respect to specific injured resources.

mission would include captive feeding/energetics, health status and disease studies, reproduction biology, physiology, behavior, development and testing of telemetry equipment. These projects require, among other things, use of specialized research tanks and pens, animal holding and quarantine areas, wet labs, dry labs, and the research habitat. The marine bird program would share the following facilities with the marine mammal program: animal food preparation areas, surgery and pharmacy, necropsy room, freezers, offices, library, and computer services. (Additional information concerning marine bird research needs that the facility would address are provided in the *Project Description.*)

— **Fish/Invertebrate Resources**: The proposed improvements would expand the capabilities of UAF and provide for fish and invertebrate restoration and monitoring studies to make use of marine laboratory facilities. At present, non-EVOS studies are currently occupying all available laboratory space at the Seward Marine Center. Additionally, a fish genetics program to examine heritable genetic damage to pink salmon, sockeye salmon, and potentially herring would be conducted by ADFG. Currently, facilities for conducting fish genetics research on spill related injuries are very scarce and current projects are being hampered by water and disease problems and logistical difficulties with conducting studies at multiple locations including Anchorage and Southeast Alaska. The proposed facility would be located near the source of the injured resources and would provide the capability to raise individual fish from eggs to maturity (freshwater through saltwater life stages), thereby allowing the analysis of gonads and gametes, along with progeny from oil exposed adults, for evidence of heritable genetic damage. Additional spill related genetics projects that would utilize the facility include inheritance studies using all salmon species to confirm the genetic origins of allozyme polymorphisms; population genetics of pink salmon in Prince William Sound; and genetic marking of hatchery pink salmon in Prince William Sound. These projects will both provide information needed to understand the nature of past and continuing injury as well as provide resource managers with needed information to better manage harvests and thereby reduce pressure on recovering wild stocks. These projects will require, among other things, wet laboratories with high quality running seawater and freshwater, tanks, incubators, raceways, dry labs, freezers, offices, library, and computer services. (Additional information concerning fish/invertebrate research needs that the facility would address are provided in the *Project Description.*)

— **Dedicated Research Vessel and Submersible**: The proposed facility could also accommodate the basing of (1) a dedicated research vessel and (2) submersible for work in the spill area. The feasibility of acquiring a research vessel and submersible as part of the project has been examined. A committee considered this issue and identified the opportunity for use of a multi-purpose research vessel/tender that could be acquired and equipped for work

in the EVOS area. The committee also examined potential costs of leasing a submersible for work on spill injury issues. The potential use of a dedicated research vessel and/or submersible in the EVOS area are issues that need further consideration. (Additional information concerning the research vessel and submersible are provided in the *Project Description.*)

Some of the specific restoration research efforts that are anticipated to be undertaken at the facility have been noted by the Chief Scientist. (Attachment A.) Additionally, three specific research projects that would take place at the facility are described. (Attachment B.)

The facility would also provide, on an opportunistic basis, for the rehabilitation and study of marine mammals and marine birds, particularly pinnipeds (harbor seal and Stellar sea lion), sea otters, and seabirds (common murre, pigeon guillemot, marbled murrelet).[8] This function would be integrated with research at the facility to gain an improved understanding of factors affecting animal health. Medical data from rehabilitation efforts would provide insight into processes affecting wild populations that are important to restoration efforts.

While recognizing that restoration research and monitoring needs will evolve as part of an adaptive management process in response to additional information regarding the health and recovery of the spill area, on the basis of available information and the experience of restoration efforts over the past five years since the spill, it can be reasonably anticipated that the additional research capability provided by the proposed facilities will be needed over the long term to address issues essential to restoration of individual injured resources and the ecosystem upon which they depend.[9]

4. No Facilities in Alaska Can Presently Address Research Needs

The proposed facility improvements would provide laboratory facilities (wet and dry labs, tanks, running seawater and freshwater, and offices) to focus the research and monitoring needs for marine mammals (primarily pinnipeds and Sea otters), marine birds (primarily pelagic seabirds), and fish genetics (primarily pink salmon and Pacific herring) in the spill area. Capabilities of other coastal research facilities in Alaska have been examined and there are no existing facilities in Alaska that address the research needs identified.[10] Information regarding existing marine research facilities conducting research in the EVOS area is summarized in Figures 3-1 through 3-4 of the *Project Description.*

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8 See *Project Description,* Chapter 3 discussion regarding Wildlife Rehabilitation Program, p. 3.12.

9 Conversely, waiting until the year 1997 to assess what facility infrastructure needs then exist would simply produce a cycle of inevitable postponement of the project since the new facilities would not then be available to support needed work.

10 See *Project Description,* Chapter 3, "Anticipated Work Program"p. 3.4 .

The determination that the needed facilities are currently lacking has been affirmed by the Trustee Council's Chief Scientist who has stated that there is at present no adequate marine research facility in the northern Gulf of Alaska spill region (see below, "Scientific Peer Review of Proposed Facilities," p. 10). As noted in the *Project Description* Natural Resource Damage Assessment (NRDA) and subsequent restoration research and monitoring efforts to date have been largely field based. The reasons for this are numerous and attributable a number of factors to various degrees, including: 1) the paucity of adequate laboratory facilities in the EVOS area has restricted the potential application of laboratory based approaches for many studies; 2) NRDA studies and subsequent restoration studies have been largely designed as field experiments to measure *in situ* effects of the oil spill; 3) the research and management budgets of resource (Trustee) agencies have historically been focused on field techniques to derive estimates of fish and wildlife populations; and that 4) Alaska's fish and wildlife resources are managed and monitored by a great variety of individual federal and state agencies (USFWS, NBS, ADFG, NMFS, USFS) which has resulted in fragmented funding for research facilities.

Development of the life support and research facilities as proposed will provide a previously unavailable capacity to both obtain information that could not otherwise be obtained (for example, the ability to observe seabird-forage fish feeding interactions underwater) as well as to obtain data that can only be obtained in a laboratory setting that can be used to complement field based studies (for example, experiments that carefully control the diet of captive animals to examine certain aspects of physiology or energetics). The proposed facilities, with the ability to contain and work with the injured species in a naturalistic setting, will provide an important means of collecting data that will complement field studies of spill injuries and ecosystem dynamics and provide researchers with a new tool to understand, interpret or confirm the results of past and on-going field-based studies. The proposed facilities would provide new opportunities that don't presently exist in such areas as marine mammal and seabird health and disease, body condition, energy assimilation, hydrodynamics, diving physiology, development and testing of telemetry equipment, testing of immobilizing drugs, diet control and stable isotope fractionation, and behavior research. With regard to fish and invertebrate research, the proposed improvements would solve existing water and disease problems that have hampered research efforts to date as well as provide a location in close proximity to damaged resources and address logistical problems that have resulted from studies at multiple locations.

The need for the proposed facilities has been reinforced by University of Alaska President Jerome Komisar: " ... there is now no facility ... within the State that can even approach accomplishing the research that must be done to ensure restoration and rehabilitation of the marine mammals and birds species damaged by the spill ... . Without the research capacity projected by the Seward project, it will be impossible

to gather the information and knowledge needed ... ."[11] In comments on the IMS Infrastructure Improvement Project DEIS, the Director of the National Biological Survey indicated: "... the IMS project will provide a needed site to facilitate research on marine mammal and bird health issues. In addition, its unique abilities to maintain marine animals because of its saltwater system will provide facilities and opportunities for research that do not presently exist."[12] As noted previously, this view is shared by the Chief Scientist. (Attachment A.)

5. Appropriate Location for the Needed Research Facilities

During the assessment of the purpose and need for the project, the potential for expansion of existing marine research facilities as an alternative to the proposed project site was examined. The specific geographic location of the facility improvements at Seward provides a unique set of benefits to the Trustee Council's restoration mission.

Development of the project included an assessment of potential alternative site locations for the needed facilities. This review included examination of existing facilities and programs conducting spill-related marine research. Only three of the Alaska facility locations have existing wet lab capabilities (Auke Bay, Homer-Kasitsna, and Seward) and none of these facilities has the capability to hold marine mammals or seabirds on a long-term basis. Important factors in the review of possible facility site locations included the following: 1) location of the site within the spill area; 2) certain availability of high quality freshwater and seawater for use in the life support system; 3) availability of the existing State of Alaska $12.5 million grant for facility development; 4) accessibility of the site to researchers and the public including quality road access and quality port and airport facilities; 5) the existence of an existing marine research program and infrastructure; 6) availability of land for development of the project; 7) availability of adequate water, sewer and power utilities; and 8) opportunity for the site to generate revenue that would offset operational costs and make the project self-supporting. A summary of the attributes of the various alternative sites examined is depicted graphically in Figure 2.

Several of the alternative site locations examined are located outside of the spill area (i.e., Cold Bay, Auke Bay, Fairbanks, Anchorage, Seattle). Certainty that the facility would have access to high quality freshwater and saltwater was an especially critical factor. Uncertain or questionable water resources and concerns regarding turbidity, biofouling, salinity and/or temperature for the facility life support system was a significant concern or limitation with all potential facility locations other than Seward (i.e., Cold Bay, Kodiak, Soldotna, Homer-Kasitsna, Cordova, Auke Bay, Anchorage, Fairbanks, Seattle). Lack or uncertain suitable coastal land available for

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11 J. Komisar to J. Ayers, letter dated September 8, 1994.

12 R. Pulliam to N. Swanton, "Draft Environmental Impact Statement (EIS) for the Proposed Infrastructure Improvements at the Institute of Marine Science (IMS), Seward, Alaska - Review Comments" (undated).

Figure 2. SITE ATTRIBUTE AND EVALUATION CRITERIA

Site Evaluation Criteria	Seward	Cold Bay	Kodiak	Soldotna	Homer	Cordova	Auke Bay	Anchorage	Fairbanks	Seattle
Location within the spill area and proximity to damaged biological resources	YES	NO	YES	YES	YES	YES	NO	NO	NO	NO
Certain availability of quality fresh and saltwater for the life support system	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO
Availability of $12.5 million state grant	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO
Accessibility of site to researchers and public including road, port and airport facilities		—								
Existing marine research program and infrastructure		—								
Land availability (coastal land available for facility expansion)				—						
Availability of adequate water, sewer and power utilities					—					
Opportunity to generate revenue to offset operating costs		—								

= high value regarding this site criteria

= moderate value regarding this site criteria

— = low value regarding this site criteria

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facility expansion was a concern in a number of locations (i.e., Cold Bay, Soldotna, Homer-Kasitsna, Cordova, Auke Bay, Anchorage, Fairbanks, Seattle). Accessibility concerns exist for some of the locations (i.e., Cold Bay, Kodiak, Cordova, Homer-Kasitsna) and in some locales there is a limited opportunity for the project to be self-supporting (i.e., Cordova, Kodiak, Homer-Kasitsna). By contrast, important positive attributes of the Seward site include:

— location within the spill area;

— close proximity to the injured marine mammal, bird, fish and invertebrate resources and habitats upon which they depend;

— a 21-year record of high quality seawater and access to high quality springwater to support research efforts;

— affiliation with the existing University of Alaska School of Fisheries and Ocean Science (SFOS) and Institute of Marine Science (IMS);

— accessibility by road transportation, together with quality port, railroad and airport facilities;

— the opportunity to become operationally self supporting with revenue derived from public visitation and education programs.

While the other potential facility sites examined may have one or more of the attributes noted above, location of the facility in Seward would provide a singular combination of attributes to best to advance the Trustee Council's restoration mission. Moreover, the availability of the $12.5 million State of Alaska grant for the facility is uniquely associated with the Seward location.

6. Contribution to Trustee Council Ecosystem Approach

Policy No. 2 in the Trustee Council's *Restoration Plan* expressly recognizes that the restoration program will take an ecosystem approach: "Restoration will take an ecosystem approach to better understand what factors control the populations of injured resources."[13] Thos policy recognizes that recovery from the oil spill involves restoring the ecosystem as well as restoring individual resources. In addition to specific marine mammal, marine bird, fishery and invertebrate restoration research needs noted above, there are many restoration research issues that the facility would play a vital role in addressing to understand the ecosystem relationships that may influence or control recovery of injured resources.

As described in the *Invitation to Submit Restoration Projects for Fiscal Year 1995*, ecosystem processes involving (1) food, competition and predation, and (2) climatic

13 *Restoration Plan*, Chapter 2, Mission and Policies.

and oceanographic processes are widely recognized as high priority areas of investigation needed to advance restoration of almost all non-recovering injured resources.[14] The proposed facility improvements would create important new capabilities to address these restoration research needs.

— **Food Web Relationships/Stable Isotopes:** With respect to food, competition and predation issues, the proposed IMS improvements would provide unique opportunities for researchers to use stable isotope fractionation as a research technique. The use of stable isotope research techniques is an important means by which ecosystem structure and food web relationships can be examined. As indicated by the Chief Scientist, "... it is anticipated that stable isotope measurements will continue to provide needed information for the ecosystem approach to restoration."[15] (The Trustee Council received sixteen project proposals for FY 95 that included use of stable isotopes to some degree.) Development of the proposed facilities and the ability to control the diet of marine mammals and seabirds would provide unique opportunities to investigate isotope transfers and develop information important to understanding food web interactions in the wild. Captive mammal and seabird isotope studies would provide information to assist in the assessment of dietary quality of prey species in terms of trophic energetics.

— **Oceanographic Research**: The facility improvements would expand the existing oceanographic program at the Seward Marine Center to allow for long-term, year round evaluations of oceanographic features of the spill region (e.g., temperature, salinity and nutrients). This would improve the understanding of food web relationships and species interactions within the physical environment of the EVOS area. The facility would also significantly enhance the efforts of other research disciplines (e.g., marine ecology) that would provide additional opportunities for restoration of injured resources.

The proposed improvements are directly responsive to the policy guidance stated in the *Restoration Plan*: "Monitoring and Research activities require more than resource-specific investigations to understand the factors affecting recovery from the oil spill. Restoration issues are complex, a research must often take a long-term approach to understand the physical and biological interactions that affect an injured resource or service, and may be constraining its recovery"[16]

7. Contribution to a Comprehensive Interdisciplinary Restoration Effort

The Mission Statement of the Trustee Council, adopted in November 1993, states

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14 See *Invitation to Submit Restoration Projects for Fiscal Year 1995*, Chapter 3, Table 3: "Summary of Priority Research Issues Concerning Why Resources Currently are Not Recovering."

15 R. Spies to J. Ayers, "Stable isotope studies in the 1995 workplan," memorandum dated August 10, 1994.

16 *Restoration Plan*, Chapter 2.

that "restoration will be accomplished through the development and implementation of a comprehensive interdisciplinary recovery and rehabilitation program."[17] The facility would substantially contribute to the comprehensive, interdisciplinary restoration effort called for by the Trustee Council.

Despite the efforts of many capable marine scientists and the expenditure of nearly $100 million dollars on NRDA studies in the EVOS region, scientists and managers are currently unable to understand significant changes occurring in the northern Gulf of Alaska and Prince William Sound ecosystem as manifested by long-term declines of pinnipeds (e.g., harbor seal) and pelagic seabirds (e.g., marbled murrelet, pigeon guillemot) and wild fluctuations and failures of pink salmon and herring stocks in Prince William Sound. In Trustee Council sponsored meetings and forums over the past year, principle investigators, agency resource managers, peer reviewers and others have often commented on the need for more interdisciplinary interaction. Fishery biologists want more access to oceanographers; seabird ornithologists want more interaction with fishery biologists; marine mammal biologists want more interaction with fishery biologists; and all want more interaction with marine ecologists and other specialists.

While the restoration effort to date has produced an enormous quantity of valuable data and information, a more collaborative and interdisciplinary approach is needed to overcome the geographic and institutional isolation of individual researchers. As stated in the *Invitation to Submit Restoration Projects for Fiscal Year 95* because ecosystem processes are complex and may involve multiple resources, restoration projects to address these questions must "involve an integrated, collaborative, multi-disciplinary approach."[18] The proposed facility improvements would not only provide specific physical research infrastructure needed for restoration efforts, it would provide a location that would concentrate activity and thereby facilitate the interdisciplinary and collaborative research efforts needed to successfully address restoration issues. Initially, the University of Alaska, School of Fisheries and Ocean Sciences; and the Alaska Department of Fish and Game, Commercial Fisheries Management and Development Division would provide the full time research personnel for the facility.

In 1997, facility personnel are expected to include three university faculty (one endowed chair, two research faculty), six fishery biologists, three students, six technicians, and two administrative personnel. Research personnel would include a mix of university and agency scientists, technicians and students. In 1997, part-time research staff are expected to include two faculty, four wildlife biologists and five technicians. Research support staff would include a veterinarian, five animal care technicians, one lab technician and administrative personnnel. Staffing is projected to increase during 1997 to 2002 to approximately 30 full-time and part-time

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17 *Mission Statement* of the *Exxon Valdez* Oil Spill Trustee Council, adopted by the Trustee Council November 30, 1994.

18 *Invitation to Submit Restoration Projects for Fiscal Year 1995*, Chapter 3, p. 23.

research personnel as programs and capabilities expand. The size of the research facilities, including the laboratories, tankage, equipment and the number and size of offices were based on requirements provided to the project team by federal and state agency scientists. Based on this agency input, together with review by the Chief Scientist and the core peer scientific reviewers, the project is of a size and scale necessary to perform EVOS restoration research on a cost-effective basis.

8. Scientific Peer Review of Proposed Facilities

The proposed facility improvements have been reviewed by the Chief Scientist and two other core scientific reviewers.[19] In written comments addressing the proposed facility, these reviewers concurred with the need for the facilities: "... there is no adequate marine research facility in the northern Gulf of Alaska spill region [and] there is a compelling demand and need for a modern marine laboratory facility for housing and promoting vital research efforts." This peer review memorandum noted the high quality and qualifications of the planning team that has developed the facility proposal and the appropriate match of the facility design to meeting research needs pertaining to the injured seabirds, marine mammals and fishes "that suffered the greatest damages and present the greatest challenges for restoration and management." (Attachment A.)

9. Public Advisory Group Review

The Trustee Council's Public Advisory Group (PAG) has reviewed the project proposal and formally expressed its support for the facility at its October 13, 1994 meeting. (Attachment C.)

Facility Ownership and Operation Structure

The facility will be owned by the City of Seward, and operated by the Seward Association for the Advancement of Marine Science (SAAMS), a non-profit corporation. SAAMS is currently administering the development of the facility and will continue in the role of "operator" of the project. The SAAMS corporation is organized for any lawful purpose including, but not limited to, educational, social and cultural purposes including marine research, public education, and providing educational and scientific programs and any other lawful purpose or endeavor permitted under the laws of the State of Alaska to non-profit corporations incorporated under AS 10.20. The SAAMS corporation is organized exclusively for charitable purposes within the meaning of Section 501(c)(3) of the Internal Revenue Code. The Corporation shall have no stock and no dividends or pecuniary profits shall be declared or paid to the directors thereof, or to any private individual, and all of its earnings shall be used to further the purpose of the corporation. The affairs of

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19 R. Spies (Chief Scientist), C. Petersen, and P. Mundy to J. Ayers, "Proposed Institute of Marine Science in Seward," memorandum dated September 24, 1994.

the SAAMS corporation are managed by its Board of Directors.[20]

Research activities at the facility will be directed and managed to serve the EVOS restoration mission. Trustee Council funded activities and restoration research needs will have the highest priority for use of the facility.

— the Facility Director (an employee of SAAMS) will establish a working relationship with the Trustee Council Executive Director and the Council's scientific review program;

— all scientific and research programs at the facility will be coordinated by the Facility's Chief Scientist (a representative of the University of Alaska) and the Facility's Director with the Trustee Council's scientific review program;

— the University of Alaska will provide quality assurance and standard operating procedures for all research to be conducted at the facility;

— the SAAMS Board will have a direct reporting relationship to the Executive Director of the Trustee Council who shall provide a direct point of contact for Trustee Council policy matters including funding for research infrastructure and research activities.

This interrelationship will ensure that the Trustee Council's restoration priorities are being met at the facility. A diagram of the Trustee Council's interrelationship with the facility operating structure is provided as an attachment.[21] (Attachment D.)

To ensure that the facility is appropriately managed to support the Trustee Council's restoration mission, an advisory group will be established to work with the current SAAMS board to modify its composition. The SAAMS Board has established an advisory group to assist them in modifying their composition to reflect:

(1) the needs of the Trustee Council to carry out restoration research;
(2) the use of public and private funds to be operationally self-supporting;
(3) the central role of the University of Alaska to integrate the facility into the statewide research infrastructure; and
(4) the harmonious co-existence of the facility with the community of Seward.

The advisory group includes representatives from the University of Alaska, the Trustee Council's Executive Director, the City of Seward, and statewide leadership of science, finance and industry.

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20 A list of current SAMMS Board members is provided as Appendix B to the *Project Description.*

21 Figure 7-1 from the *Project Description.*

Capital Costs and Funding Request

Total capital costs for the facility are estimated to be $47.456 million (including both the research and education components). Funding in the amount of $24.956 is being requested of the Trustee Council for support of the research component only of the project.

1. Capital Costs Identified for Research Component Only

The research only components of the facility have been identified separately from the other (education) components of the project. Capital cost estimates for the facility have been prepared by Estimations, Inc., a professional cost estimating consultant, reviewed by Heery International, Inc., and analyzed by HMS, Inc. another cost estimating consultant. A Construction Costs Budget Review document (dated July 26, 1994)[22] was prepared by the project team and reviewed by the Trustee Council's legal advisors. This review demonstrated the rationale that was used to identify the costs of the research component of the project. **The capital budget for the project's research only component is $36.996 million.** The capital budget for the education component only is estimated to be $10.460 million.

2. Trustee Council Funding Request: $24.956 Million

As called for by the action on January 31, 1994, the project team has prepared a recommendation of the appropriate level of funding for consideration by the Trustee Council that would be legally permissible under the terms of the Memorandum of Agreement (MOA) and Consent Decree. **The proposed request of $24.956 million would be used for the research component of the project only.** (Detailed information regarding project capital costs is provided in the *Project Description.*)

Operation Costs Projected to be Self-Supporting

On the basis of three feasibility/market studies,[23] including a detailed update of key visitation assumptions by Fox Practical Marketing in August 1994, it is projected that annual operating revenues derived from the facility will support annual operating costs. The annual facility operating expenses (personnel, facility operations, curatorial costs and administration) for the total project are projected to be $3.8 million in its first full year of operation.[24] This estimate is based on cost

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22 *Construction Cost Budget Review* prepared by Livingston Sloan, Inc. (July 1994).

23 These studies include: (1) *Feasibility Study for the Alaska Sealife Center,* prepared by The Office of Thomas J. Martin (August 1993); (2) *Alaska SeaLife Center Feasibility Study Evaluation,* prepared by Public Financial Management Inc., (September 1993); and (3) *Update and Expansion of Market Demand Analysis for the Alaska Sealife Center,* prepared by Fox Practical Marketing and Management (August 1994).

24 As indicated in the *Project Description,* annual operating costs are comprised of personnel ($1.9

information from similarly sized facilities, the nature of the research functions, anticipated visitation patterns and the unique relationship between the research and education components of the project. The facility is projected to generate approximately $3.9 million in revenues in its first full year of operation and be self-supporting.[25] Revenues will be collected primarily from the education component of the project and applied to the total operating budget. (Detailed information regarding operating costs and revenues is provided in the *Project Description*.)

Integrated Funding Approach

The integrated funding approach for the facility presents an exceptional opportunity for the Trustee Council to use civil settlement funds in a collaborative manner that will take advantage of other public and private sources of funding. Additionally, a phasing strategy has been developed to respond to potential uncertainties in the success of private fundraising efforts as part of the integrated funding approach.

1. Collaborative Public-Private Funding for the Facility

The Alaska Legislature has already appropriated $12.5 million for the project and the Trustee Council is now in the position of being able to optimize the use of civil settlement funds by combining future restoration infrastructure needs with the Legislature's prior appropriation. (Such a coordinated and collaborative effort is very similar to the Trustee Council's prior action to purchase lands in Kachemak Bay using a combination of State of Alaska funding sources together with the civil settlement funds.) In addition to funding provided by the Legislature, a private fundraising campaign has been designed[26] to: (1) raise an additional $10 million in capital funding ($5 million for the research component and $5 million for the education component); as well as (2) an additional $6 million for endowed research chairs (campaign beginning in 1996 with first chair to be funded by the year 2000).

2. Responding to Uncertainty in Private Fundraising — A Phasing Strategy

The private fundraising campaign is based on conservative projections of available funds for the construction of the project. A phasing strategy has been developed which represents three scenarios with respect to the potential success of the private fund raising efforts. These three scenarios include:

(1) a "$47.5 million scenario" (i.e., 100% of the facility is built — fundraising

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million), administration ($776,000) , facilities costs ($720,000), and curatorial costs ($375,000).

25 Projected annual revenues from the facility include: admissions ($2.35 million based on 250,500 visitors); memberships ($360,000); shop sales ($603,200); charges for research-related utility consumption not to exceed $0.55/sq. ft./month ($246,000); rehabilitation charges ($150,000); and miscellaneous ($20,000).

26 The fundraising plan was developed under a competetively awarded contract with J. Donovan Associates, a professional fund raising consulting firm. *Fund Raising Plan* prepared by J. Donovan Associates (September 1994).

efforts are fully successful: the $5 million campaign for research as well as the $5 million campaign for education);

(2) a "$42.5 million scenario" (i.e., 89% of the facility is built — fundraising efforts are not fully successful: assumes that the $5 million for the research component is secured and that component built, but only a portion of the education component would be completed); and

(3) a "$37.5 million scenario" (i.e., 78% of the facility is built — fundraising efforts are not fully successful, assumes that only the legislative appropriation and Trustee Council funds are available for the facility, leaving a portion of the visitation and education components to be completed at a future date when private funds are available).

Each of these scenarios has been examined and the extent of facility development altered to reflect reduced funding resources. (Additional information on the phasing strategy is provided in the *Project Description.*)

Proposed Fund Transfer

The Trustee Council would transfer civil settlement funds for the project to the Alaska Department of Fish and Game; in turn, ADFG would transfer capital funds to the City of Seward. The facility would be owned by the City of Seward. In accepting funds, the City of Seward would agree by contract with the State of Alaska (ADFG) that it will operate and maintain the facility for the practical life of the facility and the City of Seward will not look to the Trustee Council (apart from funding for specific research projects) to operate or maintain the facility. Language describing the fund transfer and obligations to the City of Seward will be developed between ADFG and the City of Seward. A Memorandum of Agreement (MOA) for the long term development and operations of the facility will be developed between the City of Seward and SAAMS.

Prudency and Cost-Efficiency of Facility Funding

Funding the proposed research infrastructure affiliated with the Institute of Marine Science in Seward would provide needed facilities for the Trustee Council restoration effort in a cost-efficient manner reflecting a reasonable balance between costs and benefits. As discussed above and in the *Project Description,* the proposed facilities are needed to address long term restoration research and monitoring concerns. The central and essential component of the proposed research infrastructure is the life support system that will provide the capability to support the specialized tanks, animal holding and quarantine areas, wet labs with running seawater, underwater viewing, and fish genetics capabilities among other research opportunities. It would not be prudent to attempt expansion of various existing facilities in the spill area to address the identified research needs. In particular, it would not be prudent to develop a life support system (a cost of approximately $5.6

million) at more than one location. With its specific combination of attributes, Seward is both the most suitable site as well as the most cost-efficient location for development of the needed facilities.

Capital construction funding and location of the research infrastructure at a single location rather than at multiple alternative locations within or outside the spill area is also cost-efficient by reducing and/or eliminating the possibility of duplicative furniture, fixture and equipment (FFE) purchases at various different facilities. The concentration of FFE investment (another large cost component in excess of $3.5 million) at a single location will help ensure the efficient use of this investments. Funding and location of the new research infrastructure facilities at a single location will also help reduce and/or eliminate redundant administration and overhead costs. The facility proposal also provides a unique, one-time opportunity to make cost-efficient use of joint settlement funds by taking advantage of the already appropriated $12.5 million from the State of Alaska. Further, the projected revenue from visitor patronage to support operational costs at the facility would provide long term cost-efficiencies for the Trustee Council's research and monitoring program.

Finally, there is the cost-efficiency associated with having a concentration of individual researchers of various disciplines working at a single location where they can readily interact, exchange information and learn from one another in a collaborative and interdisciplinary manner. While this cost-efficiency may be difficult to quantify, it is no less real. In fact, given the extraordinary complexity of the spill area ecosystem, this may be one of the project's most important attributes as the Trustee Council moves forward in its efforts to restore the injured resources and services of the spill area.

Executive Director's Recommendation

Based on the information available, it is evident that:

— additional research and monitoring infrastructure to support the Trustee Council's long term restoration research and monitoring efforts is needed;

— the proposed facility design, with its focus on non-recovering marine mammal, marine bird and fishery/invertebrate resources, presents a unique opportunity to address long term restoration research and monitoring needs;

— the research infrastructure proposed has been substantially modified on the basis of extensive consultation and review with representatives of the Trustee Council agencies, peer scientific reviews, other technical reviews and consultation with the Trustee Council's legal advisors so as to tailor the project to address the long-term EVOS restoration mission consistent with the purposes of the Memorandum of Agreement and Consent Decree;

— there are no facilities presently in Alaska that can adequately address the needs identified;

— location of the project at Seward provides a unique combination of values that makes the site most appropriate for the facility improvements;

— the facility would make an important contribution to the ecosystem approach called for by the Trustee Council;

— the facility would make an important contribution to the interdisciplinary research effort called for by the Trustee Council;

— an operational structure for the facility has been developed;

— the Trustee Council's Public Advisory Group (PAG) has reviewed the project proposal and formally expressed its support for the facility at its October 13, 1994 meeting; and

— an integrated funding approach for the facility has been developed that would make use of civil settlement funds in a collaborative manner that will take advantage of other public and private sources of funding in order to ensure a prudent and efficient use of settlement funds.

It is the recommendation of the Executive Director that the Trustee Council authorize funding for the project in an amount up to $24,956,000 to support development of the research components of the project subject to the provisions identified in the draft authorization resolution.

Attachment A — Peer Review Comment Letter from the Chief Scientist
Attachment B — Examples of Specific Research Projects at the Seward IMS
Attachment C — Public Advisory Group Resolution
Attachment D — Proposed Operating Structure
Attachment E — Draft Authorization Resolution

Attachment A

Peer Review Comment Letter from the Chief Scientist

APPLIED
marine
SCIENCES

September 24, 1994

To: James Ayers, Executive Director, *Exxon Valdez* Oil Spill Trustee Council

From: Dr. Robert B. Spies, Chief Scientist; Dr. Charles Peterson, Core Reviewer: and Dr. Philip Mundy, Core Reviewer

Re: Proposed Institute of Marine Science in Seward

We attended the briefing on September 17 where the plans for the proposed Institute of Marine Sciences in Seward were presented. We have several comments on this project as it is now conceived.

First, if the settlement funds are spent only to monitor recovery of damaged resources and to enhance others that are recovering too slowly by natural processes, there would in the end remain a net loss of goods and services from the ecosystem because of the spill. By only achieving an eventual return of the ecosystem to conditions that would have prevailed in the absence of the spill, the public will not have been compensated for the long period in which the goods and services are being provided at less than natural levels. Such compensation can be provided by investments made by the Trustee Council that will pay dividends in the form of enhancing ecosystem values in the future beyond those that would have occurred in the absence of the spill. One example of the implementation of this sort of approach is an investment in the Institute of Marine Science in Seward.

Investment in the Seward Marine Science Center would represent enlightened stewardship by the Trustee Council. Establishing a facility in the spill area for conducting research on Alaska's marine resources will provide long-term benefits for better management, protection and enhancement of biological resources in the spill area. Through improved scientific understanding, there will be long-term and continuing improvement of management and stewardship of the natural resources of the ecosystem, an enduring legacy to be left by the actions of today's Trustee Council. Such action would compensate the public for the many years of damage from the spill.

Second, there is no adequate marine research facility in the northern Gulf of Alaska spill region. Given the very extensive coastline in this region, the bounty of her living marine resources, and the large numbers of outstanding marine scientists in the university system, in the state and federal agencies, and in the private sector, there is compelling demand and need for a modern marine laboratory facility for housing and promoting vital research efforts.

Third, Seward is the ideal location for such a facility. Unlike Cordova (PWS Science Center), Kasitsna Bay (UAF Field Station) and Kodiak (UAF Fisheries Technology Center), Seward is accessible by road to a large majority

2155 Las Positas Court, Suite S Livermore, CA 94550 510 373 7142 FAX 510 373 7834

of Alaskans, both in the scientific community and the general public. The concept of combining a research mission and a public education function in the same facility has proven a success elsewhere. Careful economic analyses has shown this to be viable in Seaward because of its road access to most Alaskans and its location at the terminus of operations of a large cruise line. No other location can match Seward for economic promise in siting such a facility, not to mention the spectacular scenic setting of the city itself.

Fourth, the planning conducted for the Institute of Marine Science has been absolutely world-class. Sufficient thought and review has been invested by talented and experienced professionals in all necessary sub-specialties to design a state-of-the- art facility. This careful planning includes specialized engineering, architecture, education, scientific research, and animal care. The experience of both success and failures of previous projects built around the world has been used to maximize the effectiveness and success of this one. Furthermore, the planning has highlighted the most unique, attractive and important components of the coastal ecosystem of the northern Gulf of Alaska--seabirds, marine mammals and fishes. These groups also suffered the greatest damages and present the greatest challenges for restoration and management, so the match to the Trustee's mandate is excellent.

Fifth, the use of such a facility by scientists at work on spill studies will fill legitimate research needs for study of non-recovering or slowly recovering species. Also, because of the availability of a scientific facility where none existed before generates new possibilities to address real research needs, it is difficult to accurately predict what the future demands for the unique research space at the Institute of Marine Science will be. We do expect the facility to be heavily used. It is reasonable to anticipate that a number of EVOS projects now in progress or likely to begin this coming year would greatly benefit from the effective use of this facility if there are no administrative barriers. Specifically we anticipate its use by marine mammal researchers to investigate health of populations using captive animals: particularly for studies of harbor seals (K. Frost and Dr. L. Lowry); sea lions , a species in sharp decline in the northern Gulf of Alaska (Dr. Castellini); and sea otters (Dr. Ballachey and others). Researchers will also find this facility useful in assessing health, disease, reproductive biology and other aspects of bird biology (K, Kuletz and others). Finally fish and invertebrate biology studies, for example the genetic stock identification work on salmon and herring (J. Seeb and L. Seeb), will be done in this facility. This facility is also well suited for aquatic toxicology experiments with a variety of organisms that are curently being carried out elsewhere, for example the studies of injury to salmon eggs and pre-emergent fry (S. Sharr/B. Bue/ J. Rice).
This is a minimal list, based on our knowledge of ongoing projects that could logically be facilitated and enhanced by use of a marine laboratory facility that could be used for experiments with captive marine mammals, seabirds, fishes and invertebrates within the oil spill region.

Our largest remaining concern is over the administrative structure of the Institute of Marine Science. The success of this laboratory will depend to a large

extent on effective management during its early development. Some credible entity needs to be identified to operate the facility. One model would be an independent corporation, such as operates the Woods Hole Institution of Oceanography. With this model some potential financial backing would be necessary to ensure the viability of the institution until it is independent. Involvement of the University of Alaska in some way will be important in the development of the Institute in its formative years. In any case such issues of administrative organization remain to be resolved and are critical to success.

A smaller particular concern is that there should be a freshwater storage tank somewhere in the system to allow for a buffer in case of a sudden loss of the source, and to provide flexibility in the use and allocation of freshwater resources.

CC: M. McCammon

Attachment B

Examples of Specific Research Projects at the Seward IMS

EXAMPLES OF SPECIFIC RESEARCH PROJECTS AT SEWARD IMS

The following are three examples of studies that would be undertaken at the proposed research facilities in Seward, beginning in 1997. These specific examples expand upon the more comprehensive description of potential studies contained in Section 3 of the September 26, 1994 draft Project Description.

1. Feeding efficiency of harbor seals and sea lions. The EVOS caused population declines and sublethal injuries to harbor seals in Prince William Sound. Results from sea lion studies have been inconclusive concerning the effects of EVOS. Harbor seal populations in the northern Gulf of Alaska have declined precipitously since 1984 and Steller sea lions have declined up to 93% over the last 30 years in the Gulf of Alaska. Because the underlying causes of this decline are unknown, it is difficult to predict recovery from oil spill effects.

   Scientists advising the Trustee Council have identified the high priority for research to determine whether food is a limiting factor in the recovery of harbor seals and sea lions. The proposed Seward facility will be used by the University of Alaska, Alaska Department of Fish and Game and potentially other agencies for controlled studies of feeding efficiency and energy efficiency in harbor seals and Steller sea lions. Currently there are no facilities in Alaska where these studies can occur; studies of this type have occurred at facilities outside of Alaska using surrogate animals such as California sea lions in warmer water conditions that are not appropriate to the conditions occurring in the EVOS area. The proposed Seward facility will have access to animals, prey species, and physical conditions endemic to the EVOS area to carry out controlled studies on prey selection, nutrition, and energy assimilation. This should prove valuable in determining factors affecting recovery of injured resources. Additionally, the Seward facility will interface with field studies by providing laboratory support, trained personnel, and a focus for pinneped data collection and synthesis which would improve the overall results and efficiency of ecosystem studies in the EVOS area.

2. Genetic factors limiting recovery of pink salmon. The EVOS caused sublethal injuries to wild populations of pink salmon including heritable genetic damage. The genetic damage may be causing reduced size and reproductive success. Scientists advising the Trustee Council have identified the need for conducting long-term genetics studies on pink salmon and other fish to determine how genetic damage is affecting recovery of injured resources. To date, studies on the genetic damage to salmon have been conducted at production oriented fish hatcheries, a small wet lab in Anchorage, and a field station on the southern tip of Baranof Island. All of these facilities are inadequate for carrying out studies needed to determine how genetic effects are limiting recovery of salmon and potentially other fish and invertebrates. Specifically, existing hatchery facilities lack the wetlabs, tanks, and adequate running seawater and freshwater needed for the rearing of many replicates of small lots of fish and for holding salmon to maturity. Fish must be reared in net pens because

of the lack of available facilities and these are subject to uncontrolled variables such as environmental challenge and disease challenge which undermines the efficacy of the experiments. Additionally, the difficult logistics of operating at remote facilities has increased the cost and lowered the efficiency and potential output of genetics research.

The proposed Seward facility will be used by the Alaska Department of Fish and Game to carry out its genetics research associated with EVOS restoration. At a minimum, studies will include the capability to rear all life phases of pink salmon, from egg through adult. The close proximity of the proposed facility to oiled and non-oiled streams will facilitate access to injured fish, their gametes, and progeny. The facility will allow for the genetic monitoring of successive generations of fish exposed to crude oil which should improve our understanding of factors affecting recovery of wild salmon and other resources. Because of the facility's unique capabilities to support long term studies on injured resources, additional genetics research affecting the recovery of other species including sockeye salmon, herring, Dolly Varden, cutthroat trout, rockfish, and invertebrates is likely.

3. Development and testing of telemetry for common murres: The oil spill caused population declines and sublethal injuries at murre colonies in the Gulf of Alaska. It is generally estimated that between 35% to 70% of the breeding adults at the Chiswell Islands, Barren Islands, Paule Bay, and the Triplets were killed by the EVOS. Agency scientists estimate that natural recovery could take many decades and perhaps a century, before the injured murre populations return to their prespill levels. To date, research on murres has focused on estimating breeding populations and reproductive success at colonies; little is known about the activities of murres away from breeding colonies and how this may affect survival and population recruitment. Radio/satellite telemetry is a method to obtain more precise information on the movement of murres.

Recently, investigations have shown initial promise in using implanted radio transmitters and the Argos satellite system to track murres in the Gulf of Alaska. There is a great deal of development work that remains to be done to perfect the use of telemetry in murres and other seabirds. The proposed Seward facility would be used by the National Biological Survey and others to test radio transmitters on murres and other captive seabirds. This would include methods of surgical implanting, antenna placement and signal strength, effects on behavior (diving, feeding, flying), development of sensors (temperature, depth, speed, heart rate, etc.), and reducing tagging mortality. The ability to test instruments and observe the behavior of birds in a controlled environment prior to using them in the field would greatly improve telemetry techniques in EVOS research and monitoring. Additionally, it is expected that work at the Seward facility would contribute to the development of improved telemetry equipment for research on injured resources.

Attachment C

Public Advisory Group Resolution

(as adopted)

RESOLUTION

of the

Exxon Valdez Oil Spill Trustee Council
PUBLIC ADVISORY GROUP

The *Exxon Valdez* Oil Spill Trustee Council Public Advisory Group (PAG) has been presented with information concerning the proposed research infrastructure improvements proposed for development in Seward and affiliated with the Institute of Marine Science as reflected in the Project Description and Supplemental Materials (September 26, 1994).

Based on the information presented at its October 13, 1994 meeting and the prior briefings regarding the project, the PAG expresses its general support for the proposed facility with the recognition that the proposed research infrastructure would make an important contribution to the restoration mission of the Trustee Council. While recognizing that there remain a number of issues that must be addressed to ensure that the proposed project can be successfully implemented, the PAG is supportive of development of the proposed facility in Seward.

Issues of particular concern include the following:

— the management structure of the proposed facility and the need to clearly identify the role of the University of Alaska as it relates to the future use and management of the facility;

— that the membership of the governing board of the facility be constituted in a manner that includes the financial and technical expertise needed to successfully implement the project as well as to appropriately represent interests from throughout the spill area;

— the role of the University of Alaska in the project with particular concern regarding the need to ensure that the University does not incur significant new operational cost liabilities at a time of declining funding resources;

— a need to ensure that future Trustee Council project funding is appropriately balanced between on-going, field-based ecosystem research efforts and the new laboratory-based research efforts that the proposed facility would support;

— future Trustee Council projects using the proposed facility should not be given funding priority over other proposed projects based on the location of project activities;

— the need to reduce or eliminate to the extent possible the capital and operational cost risks associated with the project to ensure successful implementation and operation of the facility;

— the City of Seward ensure that adequate, affordable housing resources are available to the researchers and other individuals who would use the facility; and

— the need to name the project in a manner that accurately reflects the facility's relationship with the University of Alaska, School of Fisheries and Ocean Sciences.

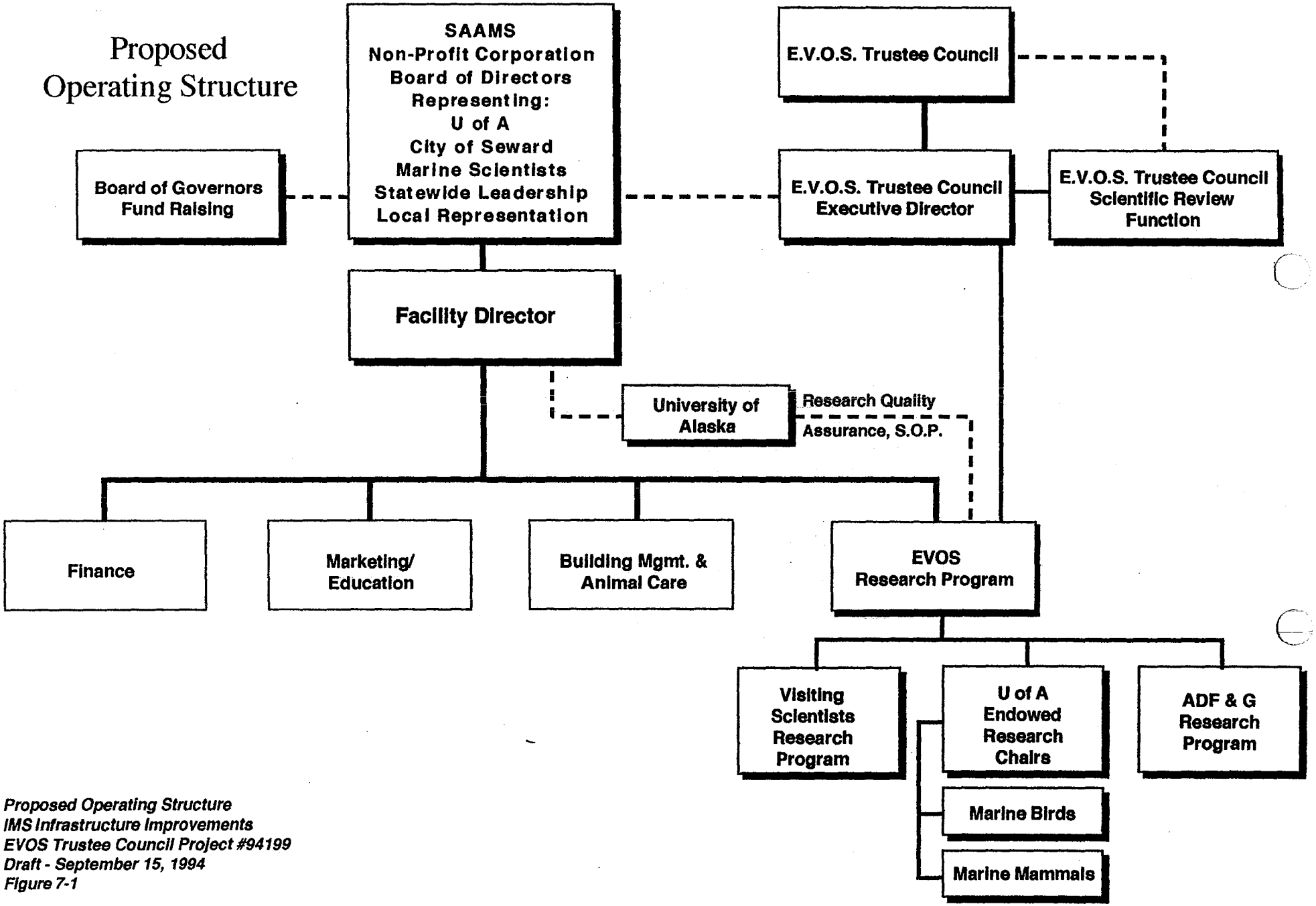
In adopting this resolution, the PAG expresses its support for this project and asks that these issues and concerns be considered and addressed as the Trustee Council moves forward with the project.

October 13, 1994

Attachment D

Proposed Operating Structure

Proposed Operating Structure



Proposed Operating Structure
IMS Infrastructure Improvements
EVOS Trustee Council Project #94199
Draft - September 15, 1994
Figure 7-1

Attachment E

Draft Authorization Resolution

U.S. Department of Justice

90-5-1-1-3343

Washington, D.C. 20530
November 1, 1994

James R. Ayers
Executive Director
Exxoin Valdez Oil Spill Restoration Office
645 G Street, Suite 401
Anchorage, Alaska 99501

RE: United States v. Exxon Corp., Civil No. A91-082 (D. Alaska); Proposed Institute for Marine Science

Dear Jim:

This confirms that, assuming the Trustee Council adopts the draft resolution concerning the Institute for Marine Science that you faxed to me today, including the Executive Director's Recommendation and Proposed Findings in essentially the form of yoru October 28, 1994 draft, I believe that the proposed project is legally defensible as consistent with the Memorandum of Agreement and Consent Decree between the United States and Alaska and with Section 311(f)(5) of the Clean Water Act. I also see no legal objection to the proposal to provide financing for construction of the Institute for Marine Science by installments of $12.5 million on September 15, 1995 and $12.456 million on September 15, 1996 -- fifteen days after the due dates of Exxon's 1995 and 1996 payments.

I really appreciate your efforts and the efforts of the trustee agencies' staffs (especially Barry Roth of the Department of the Interior and Eric Myers of your office) to redesign this project and to address the legal and prudential issues that it raises. I know that these last few weeks before the November 2-3 Trustee Council meeting have been trying, but your work has made a difference.

Sincerely,

William D. Brighton
Assistant Chief
Environmental Enforcement Section

cc: George Frampton, Jr.
Steven Pennoyer
Phil Janik
Louise Milkman
Regina Belt
Craig Tillery

17.4.12 c

RECORD OF DECISION

PROPOSED INSTITUTE OF MARINE SCIENCE (IMS) INFRASTRUCTURE IMPROVEMENT PROJECT SEWARD, ALASKA

U.S. DEPARTMENT OF THE INTERIOR

Concurring Agencies:
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
U.S. DEPARTMENT OF AGRICULTURE

OCTOBER 1994

Decision Sheet
Proposed IMS Infrastructure Improvement Project
Seward, Alaska

Alternative I--The Proposed Action
(Research/Wildlife Rehabilitation, Public Education/Visitation) ___X___

Alternative II
(Research/Wildlife Rehabilitation Only) _____

Alternative III--No Action _____

Approved:

George T. Frampton, Jr. — October 31, 1994
George T. Frampton, Jr. — Date
Assistant Secretary for Fish and Wildlife and Parks
Department of the Interior

Concur:

James R. Lyons — 10-31-94
James R. Lyons — Date
Under Secretary for Natural Resources and Environment
Department of Agriculture

Concur:

Douglas K. Hall — 10/31/94
Douglas K. Hall — Date
Assisstant Secretary for Oceans and Atmosphere
National Oceanic and Atmospheric Administration
Department of Commerce

Background Introduction

The *Exxon Valdez* Oil Spill (EVOS) Trustee Council is considering a decision to provide funds to improve the existing infrastructure at the University of Alaska's Institute of Marine Science (IMS) in Seward, Alaska, in order to enhance the Trustee Council's capabilities to study marine mammals, marine birds, and the ecosystem injured by the EVOS. The improvements are intended to help focus and carry out a long-term research and monitoring program for the EVOS area as part of an overall restoration plan. The proposed project would be constructed adjacent to the existing campus of the IMS Seward Marine Center, and would have two components: (1) a research and wildlife rehabilitation component, and (2) a public education and visitation component.

The City of Seward supports the proposed project, having identified a parcel of city-owned, waterfront property for it in downtown Seward. City zoning for the property has been modified to accommodate the project, and the city is moving forward with other support activities in hopes that the needed funds for the project will become available.

Funding for the proposed project would come, in large part, from EVOS funds. Overall, the total project capital budget is anticipated to be approximately $47.5 million, of which approximately $37.5 million would come from EVOS funds. Twelve and one-half million dollars of State EVOS restitution funds were appropriated by the Alaska Legislature in 1993 to the City of Seward for the planning, design, and construction of the proposed project. In addition, approximately $25 million of EVOS monies have been requested to fund the research and wildlife rehabilitation component of the proposed project. No EVOS joint restoration funds would be used to fund the public education and visitation component of the proposed project. The approximately $10 million envisioned to fund the public education and visitation component would be raised privately. However, revenue from public education and visitation would be used to offset the operational costs of both components.

The EVOS Trustee Council is comprised of the designees of the Secretary of the U.S. Department of the Interior (DOI), Secretary of the U.S. Department of Agriculture, Administrator for the National Oceanic and Atmospheric Administration, the Commissioner of the Alaska Department of Fish and Game, the Commissioner of the Alaska Department of Environmental Conservation, and the Alaska Attorney General. By agreement of the trustees, the Trustee Council is responsible for all decisions regarding the assessment of injuries from the *Exxon Valdez* oil spill and uses of the joint restoration funds. The planning, evaluation, and implementation of restoration activities require the unanimous agreement of Trustee Council members.

On January 31, 1994, the Trustee Council conditionally approved financial support for the Proposed IMS Infrastructure Improvement Project in Seward, Alaska, and authorized the Executive Director of the Trustee Council to:

(1) take necessary steps to secure National Environmental Policy Act (NEPA) compliance;

(2) consult appropriate entities, including the University of Alaska, the City of Seward, the Seward Association for the Advancement of Marine Science (SAAMS), 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 is appropriate and legally permissible under the terms of the Memorandum of Agreement and Consent Decree; and

(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.

The DOI agreed to be the lead Federal Agency for NEPA compliance on behalf of the Trustee Council. Pursuant to NEPA, DOI prepared a draft and final environmental impact statement (EIS) for the Proposed IMS Infrastructure Improvement Project in Seward, Alaska. The final EIS describes three alternatives, including the proposed action; presents the major issues associated with the proposed action and its alternatives as identified through the public scoping process; examines the environmental consequences of each alternative; presents measures to avoid or minimize adverse environmental effects; and presents and responds to comments made during the public review of the draft EIS.

This Record of Decision (ROD) documents DOI's decision regarding the environmental aspects of the proposed project, based on information, analysis, and public comments in the final EIS. The Department of Agriculture and the National Oceanic and Atmospheric Administration each concurs in this decision. Issues regarding project propriety and details of project financing, including the possible use of joint restoration funds to purchase a research vessel and a submersible as part of the proposed project, have been forwarded to the EVOS Trustee Council for its consideration, and are not incorporated into this ROD. These issues and the ROD will be considered by the Trustee Council in making its final decision for funding of the proposed project.

This ROD presents and discusses the decision; identifies and compares the effects of the alternatives considered in reaching the decision; specifies the environmentally preferable alternative; summarizes the views expressed by government agencies, organizations, and the general public with regard to the proposed project; and identifies the means by which potentially adverse effects would be avoided or minimized.

Decision

Based on consideration of the information, analysis, and public comments in the final EIS, DOI favors the proposed action as it is described in that document (Alternative I). For the most part, the adverse effects of this alternative would be negligible to low. The anticipated moderate adverse effects of Alternative I on traffic and transportation, recreation, and quality-of-life factors would be confined generally to summer weekends in the downtown area. The high effect on quality of life during the off-peak visitation months (October through May) could be perceived as either positive or negative. Beneficial effects on quality of life factors in Seward, such as increased local, year-round employment; local economic improvements; and increased educational opportunities could offset adverse effects, such as possible changes in the small-town atmosphere and increases in traffic congestion, litter, and crime.

Overall, the anticipated benefits of Alternative I outweigh the adverse effects. While the magnitude of adverse effects with Alternative I is greater than for the research-only alternative (Alternative II) and the no-action alternative (Alternative III), the benefits of Alternative I also are greater.

Tourism in Seward is expected to continue to increase even without the project, and the small-town atmosphere of Seward and other quality-of-life factors have changed and will continue to change even without the project, though possibly at a slower pace. The City of Seward and the citizens of Seward could, through local planning and other activities, minimize the adverse effects associated with what amounts to a strong growth trend in summer tourism regardless of whether Alternative I moves forward.

The DOI assumes that the mitigation presented as part of the proposed action in the final EIS will be implemented. Furthermore, stipulations will be implemented as agreed upon through consultation between DOI, the Alaska State Historic Preservation Officer (SHPO), and concurring parties (SAAMS and the City of Seward), as part of National Historic Preservation Act, Section 106 compliance. Any modifications to the project requested as a result of the Alaska Coastal Management Program Consistency Determination will be adopted or adjusted, as needed, after discussion and resolution with the State. The Trustee Council may place additional conditions on this project should it decide to approve funding for it, and DOI as well as the other two Federal Trustee Agencies will be party to any

such decision.

The DOI suggests that the EVOS Trustee Council includes as a condition of any funding approval a means to assure that future mitigation needs will be considered by the owner/operator of the project and implemented if practicable. This will assure that presently unforeseen mitigation needs are addressed with due consideration and action.

Prior to making a final funding decision regarding the proposed project, the EVOS Trustee Council must consider the environmental effects and findings documented in this ROD, as well as the results of tasks directed by the Trustee Council in its January 31, 1994, decision to conditionally approve financial support for the project (see p. 3 of this ROD for a list of the four tasks).

Alternatives Considered

The final EIS includes analysis of three alternatives: the proposed action, a second action alternative, and the no-action alternative. The primary purpose of both action alternatives is to provide infrastructure in Seward, Alaska, for long-term research and monitoring of the ecosystem affected by the EVOS, with the goal of benefiting the long-term health and restoration of injured resources, as part of an overall restoration plan for the EVOS area. The goal of wildlife rehabilitation services at the facility would be to restore the health of injured wildlife in order that they could be released to the natural environment. The facility would provide certain research capabilities and long-term and critical care functions not currently available in the EVOS area.

The following describes each alternative and presents a comparison of the anticipated environmental effects of the alternatives.

Description of Alternatives

Alternative I--The Proposed Action. This alternative has two components: (1) a research and wildlife rehabilitation component, and (2) a public education and visitation component. The proposed improvements to the IMS Seward Marine Center would provide a facility for the study and rehabilitation of marine mammals and birds, particularly pinnipeds (harbor seal and Steller sea lion), sea otters, and alcids (common murre, pigeon guillemot, marbled murrelet, and tufted and horned puffin). The facility also would provide for the study of fish genetics and oceanography. Proposed improvements include: tanks and pens (temporary holding, long-term habitat, and quarantine); a life support system (running seawater and disinfection); a freshwater system; pathology and water quality laboratories; x-ray, surgery, pharmacy, and necropsy facilities; and a library.

The research and wildlife rehabilitation component would consist of approximately 22,000 square feet of interior space for studies and rehabilitation of marine

mammals, marine birds, and other wildlife. It would be comprised of wet and dry laboratories, staff offices, and a library. There also would be approximately 46,000 square feet of exterior space containing outdoor research habitat, tanks, and pools for pinnipeds, sea otters, and marine bird species. A 50-space, 37,000 square foot parking lot for staff vehicles would be constructed adjacent to the existing IMS Rae Building parking lot. A research vessel and a submersible may be acquired for research purposes.

The public education and visitation component would include approximately 20,000 square feet of additional interior space to promote public awareness of the marine environment. It would function in concert with, and in support of, the research and wildlife rehabilitation component. This component would include exhibits, interpretive displays, and public areas. A 166-space, 90,000 square foot parking lot for visitors and a public plaza would be built adjacent to the education and visitor component.

A stormwater drainage system with oil/water separator would be linked with the city system. No joint EVOS restoration funds would be involved in the construction or maintenance of the public education and visitation component. However, revenue from this component would offset operational costs of the entire facility.

The two components would share approximately 27,000 square feet of interior building-support space, including the life support system and the facility's mechanical, administrative, and curatorial functions.

Approximately 250,00 to 262,000 people are projected to visit the proposed facility annually in the first 5 years. Of this number, approximately 50,000 would be new visitors to Seward. Approximately half of the anticipated 50,000 new visitors are projected to visit during the peak summer period of June 1 through September 15.

Alternative II--Research/Wildlife Rehabilitation Only. Alternative II has only one component: research and wildlife rehabilitation. The structures and facilities for this alternative generally would be the same as those described for the research and wildlife rehabilitation component in Alternative I. The "footprint" of the building would remain essentially the same; however, the facility would be a one-story building rather than a two-story. The public education and visitation component as described for Alternative I is eliminated with this alternative. The visitor parking area and public plaza adjacent to the building are eliminated as well. This land would be graded and landscaped, but otherwise unoccupied. A stormwater drainage system would be linked to the city system, but would not include an oil/water separator. Thus, the city's existing stormwater drainage system in the vicinity of the project site would continue to discharge directly into

Resurrection Bay without treatment.

Elimination of the public education and visitation component would remove an important source of revenue intended to offset the operational costs of the facility under Alternative I. Without this component, funding sources to operate the facility would have to be derived from research contracts, rehabilitation program income, grants and donations, and possibly other, as yet unidentified, sources.

Alternative III--No Action. The no-action alternative means that none of the construction and operational activities associated with Alternatives I and II would occur. There would not be a facility dedicated primarily to the research needed to support the recovery of species and the ecosystem injured as a result of the EVOS. The EVOS Trustee Council's capabilities to study fish genetics and marine mammals, marine birds, and the ecosystem injured by the EVOS would continue as they currently exist.

The proposed project site is currently owned by the City of Seward and occupied by the Northern Stevedoring Warehouse and welding shop, the Youth/Teen Center, the Municipal Dock, and a portion of Waterfront Park. The city has no plans to construct any new facilities on the site other than the proposed project. Existing uses of the property would remain in place for the short term; however, the city would discontinue the lease to Northern Stevedoring and is seeking alternative locations for Alaska Marine Highway ferry docking and the Youth/Teen Center regardless of whether the proposed project moves forward.

Current tourist visitation to Seward is approximately 440,000 people per year. Eighty-five per cent of Seward's annual visitor traffic occurs during the peak summer period of June 1 through September 15. This amounts to about 374,000 visitors during this time period.

Comparison of the Effects of the Alternatives

As evident from the descriptions above, Alternatives I and II--the action alternatives-- differ in the type of facility intended for the Seward site. Alternative I includes a research and wildlife rehabilitation component and a public education and visitation component; Alternative II eliminates the public education and visitation component. Both action alternatives would provide the infrastructure for long-term research and monitoring of resources injured by the EVOS as part of an overall restoration plan. Alternative III, the no-action alternative, would not.

Both action alternatives would result in beneficial as well as adverse effects. Any notable difference in the magnitude of effects between the two action alternatives is due to the existence of the public education and visitation component of the project in Alternative I. The no-action alternative would result in none of the benefits or adverse effects associated with the other two alternatives.

The adverse environmental effects anticipated for both action alternatives would be similar in nature and magnitude for nearly all categories analyzed in the EIS. These effects would be negligible to low, with the exception of the effect on recreation facilities, which would be moderate during summer months (June through August), and slightly more acute for Alternative I than for Alternative II. This moderate adverse effect would be due to the elimination of about two-thirds to three-quarters of the Iditarod Campground (50 to 57 RV camp sites), which is on property designated for the project for either Alternative I or II. With the no-action alternative, the campground would remain unchanged, at least for the short term. Camping facilities already are at capacity during peak periods, such as the Fourth of July weekend and during the Seward Silver Salmon Derby in August, and loss of camp sites with Alternatives I and II would further aggravate the situation during these times. The 25,000 new summer visitors to Seward associated with Alternative I would result in added pressure on existing camping facilities, which accounts for the adverse effects of Alternative I being slightly more acute than Alternative II. Nonetheless, the effect on recreation facilities with either action alternative still would be moderate, and moderate effects on camping facilities in Seward would be anticipated even without either of these alternatives due to general trends of increased visitation to Seward.

The magnitude of effects for traffic and transportation and quality of life would be different for the two action alternatives. Again, the difference in effect levels for the two alternatives is due to the presence of the public education and visitation component, which would result in a greater number of visitors to Seward and more visitors transiting through the downtown area to the proposed project. Current tourist visitation to Seward is about 440,000 people per year. About 374,000 people, or 85 percent of the total, visit Seward from June 1 through September 15. Alternative I, with the public education and visitation component, is projected to attract an additional 50,000 new visitors to Seward each year. About half of these new visitors would visit from June to mid-September. The public education and visitation component is projected to attract approximately 250,000 to 262,000 people annually in the first 5 years. In an average summer week, 14,570 people could move through the facility; this would amount to 2,914 people per day on an average high-visitation day.

With Alternative I, effects on traffic and transportation would be negligible to moderate; whereas, with Alternative II effects would be negligible. The moderate adverse effects would be confined to certain times, generally on weekends during the summer. Aspects of traffic and transporation examined include parking, traffic volumes (i.e., potential congestion), and traffic circulation. The effect of Alternative I on parking conditions in the City of Seward would be low. Alternative I would accommodate all anticipated project-related parking on site. However, either half or all of the parking spaces would be eliminated in front of the project along Railway Avenue. This accounts for the low effects as compared to the

negligible effects for Alternative II.

The effect on traffic circulation would be moderate; and the effect on traffic volumes would be moderate near the project location and low outside of the downtown area. With Alternative I, the public visitation to the facility would cause a shift in the current traffic flow to encompass the downtown area. Increased traffic into downtown Seward would create moderate effects on traffic circulation and cause occasional congestion adjacent to the project site, generally on weekends during the summer. Existing traffic congestion generally is confined to the Small Boat Harbor area, 1-1/3 miles from downtown Seward. Congestion in that area would continue to be a problem, at least in the short-term, even without the project, because visitation to Seward is expected to continue to increase.

Alternative I would have a moderate effect on Seward's quality-of-life factors during the summer months and a high effect during winter months, as compared to a low effect with Alternative II. Effect-level definitions for quality of life have to do with changes in local social conditions. Quality-of-life factors examined include changes in Seward's small-town atmosphere, changes in Seward's year-round economic opportunity, crowding, parking and traffic congestion downtown and at the Seward Small Boat Harbor, and possible increases in crime and litter. Many Seward residents value a small-town atmosphere, a relatively slow pace of life, lower congestion, and other qualities not found in more urban locations. A change in small-town atmosphere, might be perceived as negative by some and positive by others, particularly depending on the time of year the change is experienced.

With Alternative I, the increase in new visitors to Seward would amount to a 7-percent increase over current levels experienced from June through mid-September, and a 35-percent increase over current levels experienced from October through May. A seven percent increase would be defined as a low social effect; however, during the summer, Seward's small town atmosphere already is altered by the presence of a large number of visitors and there is local sensitivity to the existing summer tourist traffic, so this effect was determined to be moderate. The anticipated 35-percent increase in visitors during the off-peak months (October through May) could cause a major change in the small-town atmosphere of Seward, particularly given that the downtown and the waterfront area near downtown would be the focus of these new visitors' activities. While this is a significant change, it may not amount to a significant adverse effect. In fact, some might consider the increase in winter tourism to be a benefit to Seward's economic and social quality of life.

Tourism in Seward is expected to continue to increase even without the project, and the small-town atmosphere of Seward has been changing and will continue to change, though possibly at a slower pace.

Beneficial effects also would be anticipated with either action alternative, though the magnitude of benefits would be greater for Alternative I than for Alternative II. Again, the difference is due to the presence of the public education and visitation component in Alternative I. Benefits would include those that would accrue to marine wildlife in the EVOS area as a result of the research conducted at the facility, as well as biological monitoring and wildlife rehabilitation; intertidal habitat enhancement, with the eventual planned creation of a tide pool as part of the facility; improved visual quality of the project site; improvements to the local economy, including increased local employment and improved economic opportunity (more for Alternative I than for II); increased public revenues from use of local utilities (more for Alternative I than for II); increased public revenues from sales taxes collected from the facility's gift shop and visitor admission fees (Alternative I only); increased educational opportunities (particularly with Alternative I); possible improvements to quality of life during other-than-summer months; and enhanced visitor facilities (particularly with Alternative I).

Alternative I would provide greater economic and educational benefits than Alternative II due to the existence of the public education and visitation component of this alternative. Also, by providing an oil/water separator as part of the stormwater drainage system to be linked with the city's system, Alternative I would provide an additional environmental benefit to water quality that Alternative II would not.

Again, neither the benefits nor the adverse effects associated with Alternatives I and II would be realized with the no-action alternative.

Environmentally Preferable Alternative

Alternative I is the environmentally preferable alternative, though not by great measure over Alternative II. Both Alternatives I and II have beneficial and unavoidable adverse effects. Both Alternatives I and II would provide the infrastructure for long-term research and monitoring of the ecosystem affected by the EVOS. Thus, both would benefit the long-term health and restoration of resources injured by the EVOS. The proposed facility of either action alternative would serve as a center for the coordination and integration of an ongoing and planned comprehensive research and monitoring program of the EVOS area as part of an overall restoration plan.

The existence of the public education and visitation component in Alternative I would result in moderate adverse effects on traffic and transportation, recreation, and quality of life during the summer months and high effects on quality of life during the winter months. However, the benefits from this component would outweigh the adverse effects. In fact, on balance, for both action alternatives, the beneficial effects outweigh the adverse effects.

While Alternative I would result in a greater magnitude of adverse effects on traffic and transportation and the quality of life in Seward than Alternative II, it also would provide a greater magnitude of benefit. The moderate adverse effects of Alternative I generally would be confined to summer weekends (from June through mid-September) and, in terms of traffic impacts, would occur only at certain times on those weekends. Changes to the small-town atmosphere of Seward would be accelerated by Alternative I, and would be particularly noticeable during other-than-summer months, though they may not be perceived as adverse during that time of year. Benefits from the increased visitation to Seward and the facility would be realized year-round.

Tourism in Seward is expected to continue to increase even without the project, and the small-town atmosphere of Seward and other quality-of-life factors have changed and will continue to change even without the project, though possibly at a slower pace. The City of Seward and the citizens of Seward could, through local planning and other activities, minimize the adverse effects associated with what amounts to a strong growth trend in summer tourism regardless of whether Alternative I moves forward.

Public Involvement and Comment

Extensive coordination and consultation has taken place throughout the NEPA process with government agencies, the University of Alaska, and interested individuals and organizations. Consultations have been completed regarding endangered and threatened species and archaeological and historic resources. These consultations are discussed in this ROD under **Determinations.**

Notice of Intent to Prepare an EIS and Scoping

On March 9, 1994, DOI, as lead Federal Agency on behalf of the EVOS Trustee Council, published a Federal Register Notice of Intent to prepare an EIS on the Proposed IMS Infrastructure Improvement Project (59 FR 11082-1183). Scoping commenced on that date.

Scoping meetings for the proposed project were held on March 22 and 24, 1994, in Seward and Anchorage, Alaska, respectively. Public notices announcing these meetings and requesting comments were published in newspapers in Seward, Homer, Anchorage, Kenai, Valdez, Kodiak, and Cordova. A scoping newsletter also was distributed widely throughout the EVOS area and elsewhere. In addition to comments and suggestions received at the scoping meetings, over 300 written responses were received. These comments were evaluated by DOI in a scoping report which was distributed widely. The results of the scoping report form the basis for the topics, issues, and alternatives addressed in the EIS.

A number of those who commented questioned the use of EVOS funds for the proposed project. Some expressed concern that the money was not being used

appropriately (i.e., for the proposed project and the preparation of an EIS). Some felt that the funds would be better used for acquisition and restoration of habitat. Others suggested restoration of the lifestyles of villages damaged by the spill. A number of those who commented expressed strong opposition to any project that would include public display of animals. Issues such as these regarding project propriety and the use of EVOS funds are significant ones to be addressed with public input; however, they are not environmental issues and were not analyzed in the EIS. Rather, they were forwarded to the EVOS Trustee Council for its consideration in deciding on funding for the proposed project, as well as in making decisions on the overall restoration plan and on annual work plans.

Publication of and Public Comment on the Draft EIS

A 45-day public comment period on the draft EIS followed the June 24, 1994, publication of the Environmental Protection Agency's (EPA) Notice of Availability in the Federal Register (FR 59 32697). The public comment period ended on August 8, 1994. Public hearings on the draft EIS were held on July 26 and 28, 1994, in Seward and Anchorage, Alaska, respectively. A total of four individuals presented testimony at these hearings. Thirty-one comment letters were received on the draft EIS--eight from Federal Agencies, four from State Agencies, one from the City of Seward, three from groups or organizations, and 15 from individuals. Responses were prepared for 231 comments. Generally, comments on the draft EIS addressed: (1) traffic and transportation; (2) quality of life in and near Seward; (3) recreation resources; (4) archaeological and historic resources; (5) the possible relocation of the Alaska Marine Highway's ferry service in Seward; and (6) the feasibility and propriety of the proposed project.

Final EIS

The final EIS reflects revisions made as a result of public comments received. Again, the important issues of project propriety and funding were forwarded to the Trustee Council for its consideration, since these are not environmental issues. As such, they were not analyzed in the final EIS. The effect levels predicted in the draft EIS did not change for the final EIS.

The final EIS was filed with EPA on September 16, 1994. The EPA's Notice of Availability for the final EIS was published in the Federal Register on September 23, 1994 (FR 59 48444-48445).

Determinations

Alaska National Interest Lands Conservation Act (ANILCA)

Section 810 of ANILCA, which deals with subsistence and land use decisions, does not apply to the proposed action because the proposed project does not involve Federal public lands.

Coastal Zone Management Act

The proposed project is currently undergoing review for consistency with the Alaska Coastal Management Program. A determination is anticipated by the end of November 1994. Any modifications requested through this process will be adopted or adjusted as needed after discussion and resolution with the State.

Endangered Species Act (ESA)

To ensure conformance with the requirements of Section 7(a)(2) of the ESA, DOI requested information from the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (FWS) regarding any threatened or endangered species in the area of the proposed project. In its letter dated May 6, 1994, NMFS identified the Steller sea lion, a threatened species, as one which occurs near the offshore border of the proposed project site. However, NMFS concluded that because this species does not frequently enter the shoreline waters or haul out on terrestrial portions of the project area, it is unlikely that the species would be affected by the proposed project.

In its letter dated May 13, 1994, FWS concluded that no threatened or endangered species under its jurisdiction occur in the project area. Several "candidate species" do occur in the project area, however, and FWS encouraged agencies with information about these species to provide it to them.

Thus, ESA consultation is complete. However, should proposed plans change or new information become available that alters the basis of the conclusions of the two agencies, consultation will need to be reinitiated. Continued communication about the project with NMFS and FWS is essential.

National Historic Preservation Act (NHPA)

Section 106 of the NHPA requires the lead Federal Agency for a Federally assisted, permitted, or licensed undertaking to take into account the effect of the undertaking on properties included in or eligible for the National Register of Historic Places. Further, Section 106 requires consultation with the SHPO and provides for the Advisory Council on Historic Preservation to comment. As a result of consultation between DOI, the lead Federal Agency on behalf of the EVOS Trustee Council, the SHPO, and concurring parties (SAAMS and the City of Seward), a Memorandum of Agreement (MOA) was developed to ensure proper consideration of archaeological and historic resources. Stipulations were agreed upon to minimize potentially adverse effects on these resources. The MOA was accepted by the Advisory Council on Historic Preservation on October 11, 1994, and Section 106 compliance is now complete. As required by the MOA, continued consultation between the DOI, SHPO, and concurring parties will occur as/if the project proceeds.

Mitigation

The DOI believes that all practicable means to avoid or minimize environmental harm from this alternative will be adopted.

The project must abide by: (1) the mitigation presented as "in place" in the final EIS; (2) mitigation already agreed upon or to be developed through future required consultations with the State and Federal Government; and (3) mitigation which may be imposed by the Trustee Council when it makes its final decision on the project.

The DOI suggests that the EVOS Trustee Council include as a condition of any funding approval for the project a means to assure that future mitigation needs will be considered by the owner/operator and implemented if practicable. This will assure that presently unforeseen mitigation needs are addressed with due consideration and action.

The DOI has a continuing obligation as lead Federal Agency to assure that required consultations with the SHPO occur as agreed in the MOA for NHPA, Section 106 compliance.

17.4.12 B

ALASKA VISITORS ASSOCIATION

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Tel: (907) 561-5733 • Fax: (907) 561-5727

#94-8

A RESOLUTION IN SUPPORT OF THE ALASKA SEALIFE CENTER IN SEWARD, ALASKA

WHEREAS, Seward, Alaska, as one of the top 10 visited communities in the state, wants to educate visitors about its marine eco-system; and

WHEREAS, the Seward Association for the Advancement of Marine Sciences (SAAMS) has developed a comprehensive plan to construct and operate an extraordinary facility that will showcase the unique marine life of the area; and

WHEREAS, this world-class aquarium project, called the Alaska SeaLife Center, is designed by an international architectural firm and promises to be of unparalleled quality; and

WHEREAS, the Alaska SeaLife Center, as Alaska's premiere institution for marine research, rehabilitation of marine animals, and public education will become a "must see" attraction for Southcentral visitors and residents; and

WHEREAS, many tourism businesses, including cruise lines and tour wholesalers, have expressed support for the Alaska SeaLife Center and have stated a desire to share it with their customers; and

WHEREAS, the funding for the capital construction of this project is derived from the Exxon oil spill, a tragedy that showed the urgent need for research, rehabilitation and public education concerning Alaska's unique and fragile marine eco-system.

NOW, THEREFORE BE IT RESOLVED that the Alaska Visitors Association supports the efforts of the community of Seward, Alaska, in developing the Alaska SeaLife Center.

BE IT FURTHER RESOLVED that the Alaska Visitors Association encourages the City of Seward, the State of Alaska, and the Exxon *Valdez* Oil Spill Trustees in lending whatever assistance is possible to move this project forward.

Adopted by the AVA Membership
September 30, 1994

17.4.12.A

ALASKA RAILROAD CORPORATION

Corporate Address: P.O. Box 107500, Anchorage, Alaska 99510
327 W. Ship Creek Avenue, Anchorage, Alaska 99501

October 28, 1994

Exxon Valdez Oil Spill Trustee Council
645 G Street
Anchorage, AK 99501

Dear Trustees:

We have reviewed the information on the Seward Sea Life Center. The facility as proposed will be a new magnet to attract visitors to the Kenai Peninsula and Seward. Tourism market research indicates that more often than not the Alaska visitor is looking for an active educational experience. A large portion of the Alaska Railroad passengers come from the well-educated Baby Boom generation looking for options that appeal to their minds as well as their senses. Clearly, our passenger would appreciate the opportunity to view and learn more about the various species of life of the Alaska Gulf Coast and understand the research that is being conducted concerning the Gulf ecosystem.

In 1994 the Alaska Railroad transported over 18,000 passengers between Anchorage and Seward. Many of these passengers spent at least one day in Seward, with many extending there stay based on the availability of overnight accommodations. We strongly believe that the Sea Life Center would add greatly to the visitors' overall quality of experience while in Alaska. Once completed the Sea Life Center would be a tremendous addition to the Seward experience, one that we would market aggressively from our Anchorage Sales office.

We encourage you to support funding for the Seward Sea Life Center. Not only would it provide an education-centered visitor attraction well suited to today's visitor markets, it also will benefit Alaskan residents and school children with necessary and timely research.

Very truly yours,
ALASKA RAILROAD CORPORATION

Larry J. Houle
Manager, Passenger Services