



U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 10

ALASKA OPERATIONS OFFICE
ROOM 537, FEDERAL BUILDING
222 W. 7TH AVENUE, #19
ANCHORAGE, ALASKA 99513

November 7, 1989

RPWG
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REPLY TO A00/A
ATTN OF:

Mr. John Robinson
Chief Hazardous Materials Response Branch
U.S. Department of Commerce
National Oceanic and Atmospheric Administration
7600 Sand Point Way N.E.
Seattle, Washington 98115

Dear Mr. Robinson:

Thank you for the invitation to your upcoming Oil Spill Technology Conference. In addition to myself, the following individuals from my staff will be attending:

Mr. Carl Lautenberger
U.S. EPA Alaska Operations Office
Alaska Regional Response Team

Mr. Brian Ross
U.S. EPA Alaska Operations Office
PWS Restoration Team Leader

In addition, I understand that you have contacted EPA's Office of Research and Development and our Environmental Response Team. Representatives from these offices will be responding shortly.

Should you have any questions regarding our participation please contact Carl Lautenberger at (907) 271-5083.

Sincerely

A handwritten signature in black ink, appearing to read "Alvin L. Ewing".

Alvin L. Ewing
Assistant Regional Administrator

Prince William Sound Science Center

~~at~~

Brian

Incorporated as Prince William Sound Science and Technology Institute

P.O. Box 705, Cordova, Ak 99574 Ph: (907) 424-5800 FAX: (907) 424-5820

John P. Harville, Ph.D.
Interim Director

RPWG

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If you need accommodations to attend this conference, please contact the Science Center. Although the two major hotels in Cordova are currently booked, we have access to a number of rooms in private homes and the Forest Service bunkhouse.

FEB 27 1993
ENVIRONMENTAL

C O N F E R E N C E N O T I C E

Research in the 1990's for Prince William Sound
and the Copper River Delta

March 1-3, 1990 at the Masonic Hall - Cordova, Alaska

SPONSORS: Prince William Sound Science Center
Alaska Science and Engineering Advisory Commission
Prince William Sound Aquaculture Corporation
Copper River Delta Institute

The purpose of this meeting is to identify research topics important to the long-term health and biodiversity of the Prince William Sound and Copper River Delta region, with particular attention to potential long-term impacts resulting from the March 24, 1989 oil spill.

A new look at the "agenda" for scientific research in the region was needed even before the oil spill. That event re-focused attention on the importance of baseline data and long-term monitoring of this ecosystem.

Objectives for this conference include:

1. An exchange of ideas among researchers and managers familiar with the Prince William Sound and Copper River Delta region.
2. Review of several long-term oil spill impact studies elsewhere (Massachusetts, Nova Scotia and France).
3. An opportunity for Cordova residents and other interested members of the public at large to learn about the scientific issues of the region.

Tentative Schedule

Thursday, March 1, 1990 (at the Reluctant Fisherman Inn)

7:30 - 9 p.m. - Opening reception/informal introductions

Friday, March 2, 1990 (at the Masonic Hall)

8:15 a.m. - Welcome/General Introductions

8:30 a.m. - Lessons from the past (30 min. for each presentation,
plus 15 min. for questions/discussion)

1. The Woods Hole Oceanographic Institute's twenty year experience evaluating the Falmouth, Mass. oil spill. Speaker: Dr. John Teal, Senior Scientist, Woods Hole Oceanographic Institute, Woods Hole, Mass.
2. Long-term impacts from the Arrow oil spill (in 1970). Speaker: Dr. John Vandermeulen, Research Scientist, Bedford Institute of Oceanography, Dartmouth, Nova Scotia

10:00 a.m. - Break

10:15 -10:45 a.m.

3. What's happened in PWS during the winter and a forecast for the summer of 1990 (with some comparative comments related to the Arrow and Amoco Cadiz spills). Speaker: Jacqui Michel, RPI International, Columbia, S.C.

10:45 - 11:05 a.m.

4. Impacts on National Forest lands, coastal impacts on other lands, and the restoration planning effort. Speaker: Dr. Dave Gibbons, U.S. Forest Service, Juneau, Alaska

11:05-11:25 a.m.

Restoration Planning.

Speaker: Stan Senner, Alaska Dept. of Fish & Game

11:25 a.m.

5. Proposed research areas of high priority for the next 20 years. (25-30 minutes for each topic -- preferably two, maximum three speakers at 10-15 minutes each; 10 minutes following for questions.)

11:25 a.m.-12:10 p.m.

- a. Coastal habitats/beaches.

Speakers: Miles Hayes, RPI International
Dr. Glenn Juday, Institute of Marine Science
Nora Foster, Univ. of Alaska-Fairbanks

12:15 - 1:30 p.m. Lunch (at the Windsinger Restaurant)

Speaker: Dr. Bernard Fichaut, a French shoreline geomorphologist who has followed impacts from the 1978 Amoco Cadiz oil spill.

1:45 - 2:25 p.m.

- b. Physical and Biological Oceanography.

Speakers: Dr. Ted Cooney, Institute of Marine Science
Dr. Joe Niebauer, Institute of Marine Science
Dr. A.J. Paul, Institute of Marine Science

2:25 p.m.
c. Commercial Marine Species.

2:25 - 3:05 p.m.
Shellfish: Dr. A.J. Paul, IMS/Univ. of Alaska

3:05 - 4:05 p.m.
Salmon: Dr. Ole A. Mathiesen, Juneau Center for
Fisheries and Ocean Science
Dr. Stan Rice, Auke Bay Lab
Dr. Alex Wertheimer, Auke Bay Lab
John McMullen, Prince William Sound
Aquaculture Corporation

4:05 p.m. Break

4:15 - 4:35 p.m.
Herring: Evelyn Biggs, Alaska Dept. of Fish & Game

4:35 - 5:15 p.m.
e. Other Fishes and Invertebrates.
Speakers: Dr. Rick Rosenthal, Langley, Wash.
Dr. Peter McRoy, Institute of Marine Science

5:15 p.m. Meeting recess

7 p.m. No-host dinner at the Elks Lodge.

Brief remarks by Dr. Chuck Monnett, Chairman,
Prince William Sound Science Center Board of
Directors, and

Brief remarks by Dr. Harriet "Chris" Christensen,
Director, Copper River Delta Institute

Saturday, March 3

(at the Masonic Hall)

8:30 - 9:10 a.m.
f. Terrestrial Mammals.
Speakers: Herman Griese, ADF&G
Jim Faro, ADF&G

9:10 - 10:10 a.m.
g. Marine Mammals.
Speakers: Craig Matkin, North Gulf Coast Oceanic
Society
Lisa Rotterman
Tom Loughlin, Nat'l Marine Fisheries Service
Don Calkins, Alaska Dept. of Fish & Game

10:10 a.m. Break

10:20 - 11:00 a.m.

h. Birds.

Speakers: Calvin J. Lensink
Pete Isleib

11:00 - 11:45 a.m.

i. Social Impacts.

Speaker: Eric Morrison, Alaska Native Institute
Dr. Jim Payne, Alaska Pacific University
Dr. Steve Picou and Christopher Dyer,
Univ. of South Alabama

11:45 - 1 p.m. Lunch - at the Moose Lodge

Program: Report on contamination of subsistence food
resources in and outside Prince William Sound

Speaker: Dr. Simlan Chan, Northwest Fisheries
Science Center, NOAA, Seattle

1:00-1:30 p.m.

6. Research on oil spill technology and prevention.
Specifically, what research and development
projects are ongoing or planned?

a. Alyeska Pipeline Service Co.

Speaker: Mike Williams, Vice President,
Environmental Affairs
Sharon Hillman, Scientific research

1:30 - 1:50 p.m.

b. Regional Citizens Advisory Council.

Its evolution, purposes and how it relates
to scientific research on PWS.

1:50 p.m. Break

2:00 - 3:30 p.m. Small group work sessions in research areas
(as categorized above)

Discussion: What are the data base needs for a more complete
understanding of Prince William Sound and the Copper River
Delta's ecosystem? Possible identification of funding
sources? Recommendations generated in these discussions to
be presented to the general conference during the Wrap-Up
Panel at 3:45 p.m.

3:45 - 5:00 p.m. Wrap-up Panel Discussion
Significant Issues and Recommendations.

Potential panel members:

Moderator: Dr. Brian Allee, F.R.E.D. Director, ADF&G
Dr. John Teal, Woods Hole Oceanographic Institute
Dr. Steve Picou, Univ. of South Alabama
Dr. Dave Gibbons, U.S. Forest Service
Dr. John Vandermeulen, Bedford Inst. of Ocean.
Dr. Bernard Fichaut, SETNB, France

A post-conference publication will include a 10-20 page summary of major issues raised and recommendations resulting from the small group work sessions or the wrap-up panel discussion.

Plans are also being made to videotape major portions of the conference.

(2/16/90 draft agenda)

Prince William Sound Science Center

Incorporated as Prince William Sound Science and Technology Institute

John P. Harville, Ph.D.
Interim Director

RECEIVED
JAN 3 1990
EX-100-ANCHORAGE
September 30, 1989

Dear Colleague:

For several decades, scientists interested in research in Prince William Sound and its environs have urged development of a marine science center in Cordova to serve as base of operations for studies in the Sound and in the adjacent Copper River Delta area. This year, driven in part by the urgent research needs generated by the Exxon Valdez oil spill, dedicated Cordovan civic leaders have brought that proposed scientific research center into being.

The enclosed brochure provides some of the background for this effort and outlines the long-term purposes envisioned for the Prince William Sound Science Center. While oil-spill-related projects have particular immediate priority, the long-term goals can be better expressed in the stated mission of the Center:

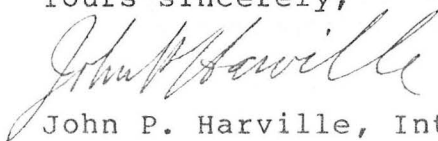
To contribute effectively to the comprehensive description, sustained monitoring, and more complete ecological understanding of Prince William Sound and its wetlands, river systems, and drainage basin, and thereby to serve as information resource for decision makers responsible for the conservation and development of these diverse and complex ecosystems.

As research funding and related support is generated over the years ahead, we anticipate significant continued growth in our logistic support capabilities from the modest beginning outlined in our brochure. Our existing facilities are available for cooperative use this coming spring and summer. In part, the purpose of this letter is to learn of scientists who might be interested in that use.

If you wish to remain on our mailing list for future information on development of the Prince William Sound Science Center, please provide us your preferred mailing address. Also we'd like to know your area of research interest, since we anticipate future opportunities for cooperative research projects and programs. Finally, since we are endeavoring to develop an on-site library of relevant publications, we would greatly appreciate copies of any reprints which you believe should be available for reference.

If you have questions or comments concerning the facilities or the goals and purposes of the Prince William Sound Science Center, please let me know them. Our capacity to serve the scientific community effectively depends on our full understanding of needs. Your comments can be most helpful.

Yours sincerely,



John P. Harville, Interim Director

Cordova's Prince William Sound Science Center, centrally located on the southeastern shores of Prince William Sound, is a research facility established to conduct and assist basic and applied research in the Prince William Sound region of Alaska. Incorporated in April, 1989, as the Prince William Sound Science and Technology Institute, the Science Center is a private, nonprofit institution that provides an environment where scientists can work, discuss and exchange ideas in a creative and cooperative atmosphere.

For the past 15 years, Cordova-based researchers have promoted the concept of a centralized research institute in the Prince William Sound and Copper River Delta region to facilitate a deeper understanding of the biological processes at work in this unique diversity of subarctic habitats. Such a facility would serve as a base of operations, help identify research needs and act as an information repository for research conducted in Prince William Sound and the Copper River Delta.

The March 24, 1989, Exxon Valdez oil spill in Prince William Sound accelerated the need for basic and applied ecological research on the effects of oil spills in subarctic regions. Recognizing this need, a group of local scientists, representatives of the fishing industry, and city officials incorporated the Center in April 1989 as a research facility where scientists may conduct both non-oil and oil-related scientific studies. A Board of Directors provides overall policy and a Scientific Advisory Board formulates the scientific direction of the Center.

The purpose of the Center is the following:

- Provide laboratory space, equipment, and logistical and administrative support for research scientists and students.
- Assist development of a long-term environmental monitoring program for the accumulation of baseline data on Prince William Sound and its environs.
- Support other institutions and agencies conducting research in Prince William Sound and the Copper River Delta region.
- Facilitate and fund research projects in Prince William Sound and its associated drainage basins.
- Serve as a repository for scientific information resulting from research



PRINCE WILLIAM SOUND SCIENCE CENTER

C O R D O V A , A L A S K A

in Prince William Sound and the Copper River Delta region.

- Act as a host institution to the Prince William Sound Oil Spill Recovery Institute.
- Develop scientific information and education programs for students and the general public.
- Serve as an interpretive center for the general public.

The present Center, located on the dock on Breakwater Avenue, has two administrative offices, bunkhouse space for five to seven researchers, a kitchen, and a lunch room-meeting area. One-third of the 3,900-square-foot building is being converted into laboratories and a teaching facility.

Long-term, the Center plans to provide:

- Fully equipped laboratory and office facility
- Living and dining quarters for 30
- Central warehouse and smaller warehouse units for member institutions or projects
- Library
- Dock facilities
- Research vessels and field research equipment
- Classroom and other educational facilities, including an interpretive center and auditorium.

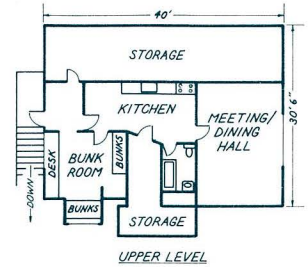
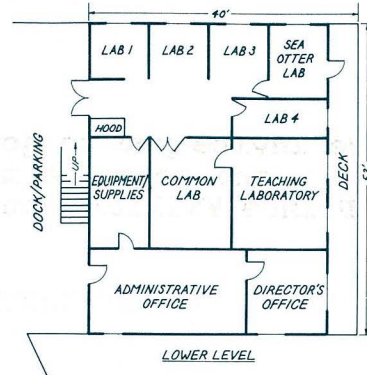
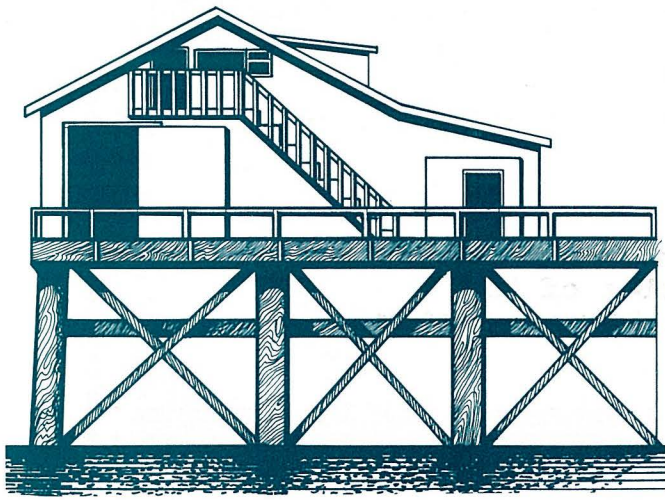
Although the Center's current emphasis is oil spill related, the original concept of creating a center to serve Prince William Sound and Copper River Delta research in perpetuity remains the pri-

mary goal, and will re-emerge as the Center's most important function as the need for oil spill-response research lessens in decades to come.

Cordova, a community of 2,650, is economically dependent on fishing which is in turn dependent upon a healthy ecosystem. The city strongly supports the Center, not only because scientific inquiry and technological development promise to help perpetuate high quality fisheries in Prince William Sound, but also because the Center itself represents diversity, and provides further economic stability to a community primarily dependent upon commercial fishing.

The Center has also received broad support from both private and public agencies, many of which are conducting post-spill research activities in Prince William Sound out of Cordova. These agencies have found Cordova to be the most logical base of operations because of its proximity to oil-impacted areas of the Sound, its proximity to the rich flats of the Copper River Delta, its role as a hub of commercial fishing activity (it is the nation's ninth largest fishing port by value), and its facilities, which include a modern airport and hospital.

The Prince William Sound area has long attracted researchers in both the basic and applied sciences because of its habitat diversity and natural resource wealth. At 15,000 square miles, Prince William Sound, a relatively deep, glacially-



Prince William Sound Science Center

carved fjord, is about 15 times the size of San Francisco Bay. In addition to being one of the world's richest herring and salmon fisheries, its waters and 3,000 miles of shoreline support tremendous numbers of sea birds and marine mammals.

In addition, PWS is adjacent to the Copper River Delta which is the largest contiguous wetland in the western United States. The two million acres of marshland, rivers, streams and ponds of the Delta are home to millions of waterfowl, shorebirds, salmon, trumpeter swans, moose, bear, wolves and many other species of wildlife. The Delta is the only known breeding area for dusky Canada geese and supports more than 11 percent of the world population of trumpeter swans. The USDA-Forest Service recognizes the need for researchers to study this rich wetland habitat and has established the Copper River Delta Institute in Cordova for that purpose. The Science Center will work closely with the Delta Institute to coordinate research and education efforts.

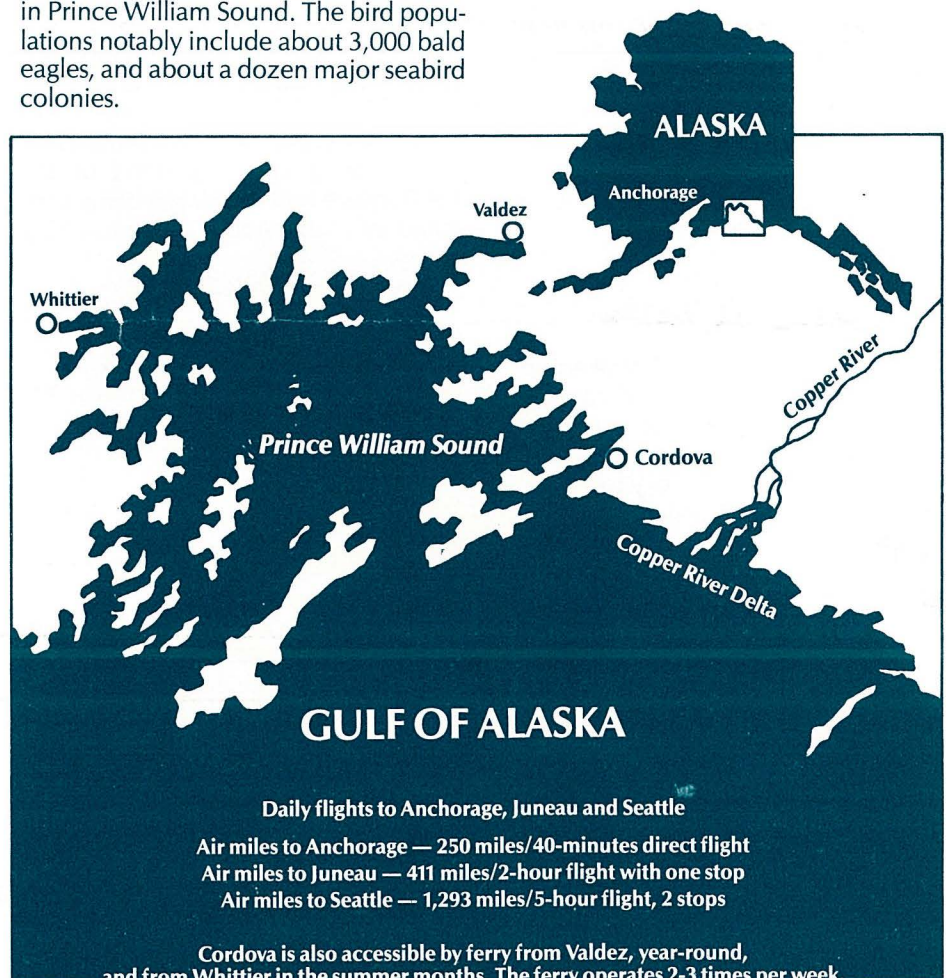
The waters of Prince William Sound support one of the nation's richest combination of salmon and herring fisheries, with an ex-vessel value of about \$85 million in 1988. Other important fisheries include dungeness crab, shrimp, halibut and other groundfish. Five major salmon hatcheries operate in the Sound. Three of

those are managed by Prince William Sound Aquaculture Corporation, including the world's largest hatchery at Esther Island.

The Sound is home water to some of the world's densest populations of sea otters and killer whales, which together with other cetaceans, seals and sea lions represent one of the more profuse populations of marine mammals anywhere.

Two hundred and forty species of birds — including waterfowl, raptors, seabirds, shorebirds and songbirds that aggregately number in the tens of millions, are found in Prince William Sound. The bird populations notably include about 3,000 bald eagles, and about a dozen major seabird colonies.

The Science Center's primary goal is to facilitate research that increases the understanding and knowledge of the biological, chemical and physical processes at work in the unique subarctic environment of southcentral Alaska. A better understanding of these processes will benefit resource managers and the general public by providing essential information for the continued health and diversity of Prince William Sound and the Copper River Delta.



Prince William Sound
Science Center
Box 705
Cordova, Alaska 99574
(907) 424-5800
FAX (907) 424-5820

Daily flights to Anchorage, Juneau and Seattle

Air miles to Anchorage — 250 miles/40-minutes direct flight

Air miles to Juneau — 411 miles/2-hour flight with one stop

Air miles to Seattle — 1,293 miles/5-hour flight, 2 stops

Cordova is also accessible by ferry from Valdez, year-round, and from Whittier in the summer months. The ferry operates 2-3 times per week.

Prince William Sound Science Center

Incorporated as Prince William Sound Science and Technology Institute

John P. Harville, Ph.D.
Interim Director

We invite you to join in our efforts
and become a member of the
Prince William Sound Science Center

CONTRIBUTE TO A BETTER UNDERSTANDING of Prince William Sound's environment and help build a strong base of scientific information that can be used by those who manage its rich and diverse resources. Support Alaska by supporting science and giving the environment a future. Become a member of the Prince William Sound Science Center.

The enclosed brochure provides background information about this effort and outlines the long-term purposes of the Prince William Sound Science Center. While oil-spill related projects have an immediate priority, the long-term goals for the Center are best expressed in the stated mission of the Center:

To contribute effectively to the comprehensive description, sustained monitoring and more complete ecological understanding of Prince William Sound and its wetlands, river systems, and drainage basin, and thereby to serve as an information resource for decision makers responsible for the conservation and development of these diverse and complex ecosystems.

AS A SCIENCE CENTER MEMBER, you will receive an enamel logo pin and our semi-annual newsletter along with other information about the Center's development and work.

MEMBERSHIP AND DONATION FORM

YES, I want to join the Prince William Sound Science Center.
Enclosed is \$ _____ for my membership for the category selected below.

The PWS Science Center is incorporated as a 501c3 non-profit corporation. All donations are tax-deductible.

_____ \$10 Student/Senior	_____ \$1,000 Supporter
_____ \$15 Regular*	_____ \$2,500 Sustainer
_____ \$25 Family	_____ \$5,000 Patron
_____ \$100 Contributor	_____ Other

Membership donations of \$1,000 or more will receive special recognition at our permanent facility.

Name _____

Address _____

City/State/Zip _____

* SPECIAL
Christmas offer
All regular
memberships
\$10

MEETING NOTICE

Research for Prince William Sound's Future

A conference concerning the investigation of long-term impacts from the Exxon Valdez oil spill on Prince William Sound's habitat and resources.

Friday and Saturday, March 2 and 3, 1990

In Cordova, Alaska

Sponsors: Prince William Sound Science Center
Alaska Science and Engineering Advisory Commission
Prince William Sound Aquaculture Corporation

The tentative agenda for this meeting includes discussion of long-term oil spill research (Speakers include Dr. John Teal, Woods Hole Oceanographic Institute, and Dr. John Vandermeulen, Bedford Institute of Oceanography, Nova Scotia) and more detailed discussion of research priorities in Prince William Sound. A prime purpose of the conference is to call attention to the need for long-term studies on the Prince William Sound ecosystem, its wildlife, marine life and waterfowl.

What scientific issues are of critical importance in the next 20 years to ensure wise decisions in managing the multitude of resources in Prince William Sound? In the year 2000, what will we want to know about the impacts on Prince William Sound's ecosystem as a result of the Exxon Valdez oil spill?

Further information on the conference agenda, speakers and travel arrangements will be publicized in late January. To be placed on the conference mailing list, please contact the Prince William Sound Science Center, P.O. Box 705, Cordova, AK 99574; phone (907) 424-5800, FAX 424-5820.