

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL



FEDERAL FISCAL YEAR

2007

DRAFT WORK PLAN ADDENDUM

Issued January 19, 2007
Revised February 26, 2007



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FISCAL YEAR 2007
DRAFT WORK PLAN
ADDENDUM

January 19, 2007
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Notice

The abstract of each proposal submitted in response to the FY07 Invitation for Proposals was written by the authors of the proposals to describe their projects. To the extent that the abstracts express opinions about the status of injured resources they do not represent the views of the Executive Director, the Science Director or other staff of the *Exxon Valdez* Oil Spill Trustee Council, nor do they reflect policies or positions of the Trustee Council.

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- ADF&G ADA Coordinator, P.O. Box 115526, Juneau, AK 99811-5526.
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- U.S. Fish and Wildlife Service, 4040 N. Fairfax Drive, Suite 300 Webb, Arlington, VA 22203
- Office of Equal Opportunity, U.S. Department of the Interior, Washington DC 20240.

Dear Reviewer,

The following draft work plan, entitled “**FY07 Draft Work Plan, Addendum**”, contains proposal information and funding recommendations for proposals that were reviewed after the Trustee Council’s funding decisions of its November 2006 meeting. The Trustee Council received proposals in response to the FY07 Invitation for Proposals, which were contained in FY07 Draft Work Plan. Check our website, www.evostc.state.ak.us, periodically for updates.

Each year, the *Exxon Valdez* Oil Spill Trustee Council funds activities to restore the resources and services injured by the 1989 *Exxon Valdez* oil spill. Public input is critical to the Council’s decision making process and this draft work plan has been prepared to solicit your comments on which projects to fund in Fiscal Year 2007.

In this FY07 Draft Work Plan Addendum, the Trustee Council has endorsed a comprehensive, balanced approach to the restoration of injured resources and services which is reflected in this draft work plan. This approach recognizes the importance of research to determine why resources are not recovering, or are recovering slowly, and recognizes the need for monitoring to track the status of recovery. It provides for cost effective general restoration activities, especially those that help the resources upon which communities and industries depend.

I am interested in your thoughts and ideas in regard to this draft work plan, as well as our restoration plan in general. Please see the “Please Comment” section prior to the Table of Contents for more information regarding how to submit comments.

Michael Baffrey
Executive Director

PLEASE COMMENT

You can help the Trustee Council by reviewing this draft work plan and letting us know your priorities for Fiscal Year 2007. You can comment by:

Mail: Exxon Valdez Oil Spill Trustee Council
441 W. 5th Avenue, Suite 500
Anchorage, AK 99501
Attn: Draft Fiscal Year 2007 Work Plan

Telephone: 1-800-478-7745 (within Alaska)
1-800-283-7745 (outside of Alaska)
Collect calls will be accepted from fishers and boaters who call through the marine operator.

Fax: 907-276-7178

E-mail: projects@evostc.state.ak.us

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Acknowledgements

We are pleased to acknowledge Trustee Council staff members Carrie Holba, Michael Schlei, Cherri Womac, Barbara Hannah, and Catherine Boerner whose hard work and dedication made the Draft Work Plan possible. Special thanks to the anonymous scientists who peer reviewed the proposals received this year and thanks also to the principal investigators and their collaborators for giving us so many fine proposals from which to choose in building our program. Many thanks to those scientists from Trustee Council agencies that provided help, and in particular we offer special thanks to Dede Bohn, Carol Fries, Pete Hagen, Hans Neidig, Heather Brandon, Jenifer Kohout, Jennifer Thomson, Larry Dietrick, and Steve Zemke. We also owe our thanks for their expert program guidance and peer review efforts to the members of the Science Panel (Steve Braund, Ron O'Dor, Gary Cherr, Tom Dean, Robert Spies, Charles (Pete) Peterson and Leslie Holland-Bartels). Finally, we appreciate the participation and comments on this plan provided to us by the Public Advisory Committee (PAC).

Michael Baffrey, Executive Director

Kimberly A. Trust, Science Director

Overview of the FY07 Work Plan Addendum

This addendum of the FY07 Draft Work Plan, enclosed here, presents proposals that focus on the restoration and monitoring of injured resources and services. The total requested funding for these projects in FY07 is \$960,700.

The Trustee Council has an open, competitive contracting process that is designed to allow proposals from any source to be considered for funding as an external project. The system works well for this purpose as demonstrated by the fairly even distribution of funding across the home institutions of the principal investigators of external projects.

Summary of Funding Recommendations for FY07

Project Number	PI	Title	Total Funding Requested	Total FY07 Funding Recommended ^a	Science Panel	PAC	Science Director	Executive Director
070836	Boufadel	Factors Responsible for Limiting the Degradation Rate of Exxon Valdez Oil in Prince William Sound	1,253,900	TBD	NOT YET REVIEWED	NOT YET REVIEWED	NOT YET REVIEWED	NOT YET REVIEWED
070852	Degeneres	Mineral Creek Restoration, Enhancement and Education Project	\$1,384,600	TBD	NOT REVIEWED	NOT YET REVIEWED	NOT YET REVIEWED	NOT YET REVIEWED
070853	Irons	Pigeon Guillemot Restoration Research in Prince William Sound	\$649,700	TBD	NOT YET REVIEWED	NOT YET REVIEWED	NOT YET REVIEWED	NOT YET REVIEWED
070854	Konar	Recovery of Shallow Subtidal Communities 18 Years After the Exxon Valdez Oil Spill	\$90,900	TBD	NOT YET REVIEWED	NOT YET REVIEWED	NOT YET REVIEWED	NOT YET REVIEWED

TOTAL FY07 FUNDING REQUESTED: \$960,700
TOTAL FY07 FUNDING RECOMMENDED: TBD
TOTAL FUNDING REQUESTED: \$3,379,100

^aThe Total Funding Recommended column reflects amended amounts being recommended to the Trustee Council for funding by the Executive Director.

Proposed Projects

Acronyms:

ADEC – Alaska Department of Environmental Conservation

ADFG – Alaska Department of Fish and Game

BAA – Broad Agency Announcement

DOI – US Department of Interior

EVOS – Exxon Valdez Oil Spill

FWS – US Fish and Wildlife Service

NOAA – National Oceanic and Atmospheric Administration

PWS – Prince William Sound

PWSFRAP- Prince William Sound Fisheries Research Application and Planning

PWSSC – Prince William Sound Science Center

UAF – University of Alaska, Fairbanks

USGS – US Geologic Survey

Project Number: 070836
Project: Boufadel – Degradation Rate of EVOS Oil in PWS
Project Title: Factors Responsible for Limiting the Degradation Rate of Exxon Valdez Oil in Prince William Sound
Location: PWS
Principal Investigator: Michel Boufadel, Albert Venosa, Brian Wrenn
Affiliation: EPA
Disbursing Agency: TBD
Funding Requested by Fiscal Year:
FY07: \$434,800 FY08: \$552,500 FY09: \$266,600 FY10: \$0

Total Funding Requested:
\$1,253,900

Abstract:

This proposal will provide important data for explaining the cause of the lingering oil in many of the Prince William Sound beaches affected by the 1989 Exxon Valdez oil spill. Because biodegradation of oil occurs at the oil-water interface, limitations occurring in the vicinity of that interface are hypothesized to be the primary reason for the lingering oil. In this study, we propose to investigate the two major sources of limitation: (1) environmental limitations, which involve nutrient concentrations (nitrogen, phosphorus, and dissolved oxygen) and their transport to the oil-water interface, and (2) the existence of an impenetrable layer or “skin” on the oiled sediment, which inhibits the bioavailability of oil. This often occurs when oil is stranded in the subsurface. The latter will be assessed by use of Scanning Electron Microscopic (SEM) examinations of oiled sediment. The effects of hydrodynamics will be assessed using tracer studies and 2-D or 3-D physics-based modeling of solute (i.e., nutrient) transport through the beach matrix. Hydrodynamics studies are important to understand the delivery (i.e., transport) of limiting nutrients to the oil-water interface. Extensive measurement of nutrient concentrations on PWS beaches will also be conducted to ascertain the extent of nutrient limitations on the biodegradation process. To our knowledge, this is the first rigorous study that addresses how the hydrodynamics of PWS beaches relate to the potential of bioremediation in relieving the aforementioned limitations. The proposed research will provide important inputs to an overall understanding of the transport and fate of oil in the PWS beaches and will provide guidance on how to accelerate the disappearance of the lingering oil present in the subsurface.

Science Panel Comments: RECOMMENDATION: NOT YET REVIEWED

Public Advisory Council Comments: RECOMMENDATION: NOT YET REVIEWED

Science Director Comments: RECOMMENDATION: NOT YET REVIEWED

Executive Director Comments: RECOMMENDATION: NOT YET REVIEWED

Project Number: 070852
Project: **Degeneres – Mineral Creek Project**
Project Title: Mineral Creek Restoration, Enhancement and Education Project
Location: Valdez, AK
Principal Investigator: Chris Degernes, Jack Sinclair, Jack Blackwell
Affiliation: ADNR
Disbursing Agency: ADNR
Funding Requested by Fiscal Year:
FY07: \$118,000 FY08: \$1,266,600 FY09: \$0 FY10: \$0

Total Funding Requested:

\$1,384,600

Abstract:

In response to the City of Valdez Resolution No. 06-09, adopted 1/17/2006, and consistent with the results of a community wide survey and community supported conceptual plan for the Mineral Creek parcel, Alaska State Parks proposes to restore filled wetlands, remove existing roads and develop a boardwalk and trail system with interpretive signage with minimal support facilities to restore habitat, to educate and direct human use, both motorized and non-motorized, away from sensitive wildlife habitat and riparian areas along and at the mouth of Mineral Creek and the Port Valdez intertidal. A monitoring project implement by local students will increase community involvement and stewardship.

The Valdez State Parks Citizens Advisory Board, City of Valdez, Valdez Parks and Recreation Commission, and Valdez City Council have approved the plan for this project and the City of Valdez requests Alaska State Parks to pursue grant funding to develop the lands at the mouth of Mineral Creek consistent with the submitted and approved plan. The Mineral Creek Parcel concept plan was developed jointly by Alaska State Parks, the City of Valdez and the local State Parks Advisory Board through an open public process.

The primary objective of this project is to restore habitat at Mineral Creek. The project will also establish public use patterns compatible with the protection of resources and services that are listed as recovering or not recovering as the result of the Exxon Valdez Oil Spill. Finally, this project will provide opportunities for students and park users to learn about the natural and cultural resources in the Prince William Sound ecosystem impacted by the Exxon Valdez Oil Spill as well as site-specific resources.

Conceptual Development Plan includes: Removal of fill in wetlands and old road beds, willow revegetation, native seeding, and approximately 1,400 linear feet of trail, boardwalk, and viewing decks, interpretive signage, park benches, and a latrine.

Science Panel Comments: RECOMMENDATION: NOT REVIEWED

Public Advisory Council Comments: RECOMMENDATION: NOT YET REVIEWED

Science Director Comments: RECOMMENDATION: NOT YET REVIEWED

Executive Director Comments: RECOMMENDATION: NOT YET REVIEWED

Project Number: 070853
Project: **Irons - Pigeon Guillemot Restoration Research**
Project Title: Pigeon Guillemot Restoration Research in Prince William Sound
Location: PWS
Principal Investigator: David Irons
Affiliation: FWS
Disbursing Agency: FWS

Funding Requested by Fiscal Year:

FY07: \$317,000 FY08: \$284,300 FY09: \$48,400 FY10: \$0

Total Funding Requested:

\$ 649,700

Abstract:

This proposed study would investigate the efficacy of direct restoration techniques for the Pigeon Guillemot population in Prince William Sound. This seabird is the only EVOS injured species that has failed to show any signs of recovery. The post-EVOS guillemot population in PWS is only 15% of the pre-EVOS population; about one-third of PWS guillemots nested on Naked Island pre-EVOS. Post-EVOS, mink predation was identified as a limiting factor for recovery of Naked Island guillemots. We propose testing the hypothesis that mink were introduced to the Naked Island Archipelago by fur trappers and, if not, determine if the mink population on the Naked Island Archipelago a distinct population segment. We also propose investigating the feasibility and efficacy of removing mink from the Naked Island Archipelago as a restoration activity for Pigeon Guillemots. In addition, we propose testing the hypotheses that (1) nest predation by mink continues to be a major limiting factor for guillemot recovery at Naked Island, and (2) the availability of key prey resources does not limit guillemot nesting success at Naked Island. A final report will be prepared upon completion of the two years of field and lab work that will propose the most effective and justifiable plan for management action to restore Pigeon Guillemots in the Naked Island Archipelago.

Science Panel Comments: RECOMMENDATION: NOT YET REVIEWED

Public Advisory Committee Comments: RECOMMENDATION: NOT YET REVIEWED

Science Director Comments: RECOMMENDATION: NOT YET REVIEWED

Executive Director Comments: RECOMMENDATION: NOT YET REVIEWED

Project Number: 070854
Project: **Konar - Recovery of Shallow Subtidal Communities**
Project Title: Recovery of Shallow Subtidal Communities 18 Years After the Exxon Valdez Oil Spill
Location: PWS
Principal Investigator: Brenda Konar, Katrin Iken, Judy Hamilton
Affiliation: TBD
Disbursing Agency: TBD
Funding Requested by Fiscal Year:
FY07: \$90,900 FY08: \$0 FY09: \$0 FY10: \$0

Total Funding Requested:
\$90,900

Abstract:
Eighteen years ago the Exxon Valdez oil spill resulted in almost 42 million liters of crude oil being discharged in Prince William Sound. Approximately half of the oil came ashore and an estimated 13% was deposited in subtidal sediments. Impacts of the spill on abundant nearshore subtidal habitats have been examined over the years (see Peterson 2001 for review), however the recovery and current status of these communities still remain unknown.

This study will examine multiple sites from three habitats (soft-sediment eelgrass beds, coarse textured substrates, and rocky substrate kelp beds) that were previously oiled and not oiled to determine if subtidal communities vary between oiled and reference sites. Parameters that will be examined include algal and invertebrate cover, kelp size and biomass, and fish composition and abundance. While it is believed that there is little remaining lingering oil, the long-term effects of oil on subtidal habitats is unknown.

Science Panel Comments: RECOMMENDATION: NOT YET REVIEWED

Public Advisory Committee Comments: RECOMMENDATION: NOT YET REVIEWED

Science Director Comments: RECOMMENDATION: NOT YET REVIEWED

Executive Director Comments: RECOMMENDATION: NOT YET REVIEWED