

Exxon Valdez Oil Spill
Trustee Council

June 26, 2008

Womac, Cherri G (EVOSTC)

From: Boerner, Catherine W (EVOSTC)
Sent: Wednesday, June 18, 2008 9:01 AM
To: Womac, Cherri G (EVOSTC); Baffrey, Michael (DFG sponsored)
Subject: FW: June 26 TC teleconference meeting materials
Attachments: Draft TC Agenda 6-26-08.doc; Draft May 27 Trustee Council Meeting notes.doc; DRAFT - FY09 Invitation.doc; Venosa - FY08DPD.pdf; BAGOPetition.pdf; Motions for Action Items 6-26-08.doc

The Venosa proposal is not an amendment to the Boufadel project per the Craigs.

From: Womac, Cherri G (EVOSTC)
Sent: Tuesday, June 17, 2008 11:57 AM
To: Lloyd, Denby S (DFG); Jim Balsiger (jim.balsiger@noaa.gov); Joe Meade (jmeade@fs.fed.us); Hartig, Lawrence L (DEC); Randall Luthi (randall.luthi@mms.gov); Colberg, Talis J (LAW); Craig O'Connor (Craig.R.O'Connor@noaa.gov); Tillery, Craig J (LAW); Hans Neidig (Hans_Neidig@ios.doi.gov); Steve Zemke (szemke@fs.fed.us); Brookover, Thomas E (DFG); Fries, Carol A (DNR); Boerner, Catherine W (EVOSTC); Dede Bohn (Dede_Bohn@usgs.gov); Jenifer Kohout (Jenifer_Kohout@fws.gov); Carlson-Vandort, Marit K (DEC); Baffrey, Michael (DFG sponsored); Peter Hagen (Peter.Hagen@Noaa.gov); Tillery, Craig J (LAW); Dawn Germain (dawn.germain@usda.gov); Hsieh, Elise M (LAW); Gina Belt (regina.belt@usdoj.gov); Heningham (Hen) Kennedy (Heningham.Kennedy@usdoj.gov); Kathryn Macdonald (Kathryn.Macdonald@usdoj.gov); Maria Lisowski (mlisowski@fs.fed.us); Rich Myers (rich.myers@sol.doi.gov); Ronald McClain (Ronald.McClain@usda.gov)
Cc: Ann_Jurva@ios.doi.gov; Carol Schirmer (Carol.Schirmer@NOAA.gov); Fishwick, Claire (DEC); Dee Little (dlittle01@fs.fed.us); Schlosser, Mary A (DFG); Michael Barre (Michael.Barre@mms.gov); Korting, Nancy A (LAW); Womac, Cherri G (EVOSTC); douglas_mutter@ios.doi.gov; Ed Zeine (edward@ctcak.net); Gary Fandrei (gfandrei@ciaanet.org); jbrune@akrdc.org; Kurt Eilo (keilo@gci.net); Larry Evanoff (lmevanoff@yahoo.com); Mark King (marking@ctcak.net); Martha Vlasoff (unungangirl@yahoo.com); Martin Robards (m.robards@uaf.edu); Pat Lavin; Robert J. (RJ) Kopchak (ecotrust@ak.net); Ron Peck (rpeck@alaskatia.org); Stacy Studebaker (tidepoolak@ak.net); Steve Lewis (seldovia.marine@gmail.com); Torie Baker (torie@sfos.uaf.edu); Vern McCorkle (publisher@akbizmag.com); McGee, Brendan (DFG); Holba, Carrie A (EVOSTC); Boerner, Catherine W (EVOSTC); Womac, Cherri G (EVOSTC); Lottsfeldt, JoEllen (EVOSTC); Ortolano, Lynette M (EVOSTC); Schroeder, Lynette M (EVOSTC); Baffrey, Michael (DFG sponsored); Schlei, Michael S (EVOSTC); Talbott, Rebecca (DFG sponsored)
Subject: June 26 TC teleconference meeting materials

The number to participate in the Thursday, June 26, 2008 TC teleconference is 800.315.6338, the code is 8201.

Hello Council Members, attached is your briefing packet which contains the revised FY09 Invitation, lingering oil amendment request for project 070836/Boufadel - *Factors Responsible for Limiting the Degradation Rate of Exxon Valdez Oil in Prince William Sound Beaches*, Barrow's Goldeneye petition for inclusion to the Injured Resources and Services list, and Strategic Plan preparation.

The revised draft FY09 Invitation is based on comments received at the May 29 and 30 liaisons' meetings. This version revises the draft version presented at your May 27 meeting to focus on three categories—lingering oil, integrated herring program, and reduction of marine pollution. I will be providing you with a matrix highlighting the changes and the reasoning provided. I have been informed that, collectively, you concur with the proposed revision, however; I want to inform you of two issues that may be controversial from the public and potentially the scientific community's perspective. There is a perception this Invitation will continue soliciting proposals that focus on science (specifically to be conducted by Council member agency scientists) and the lack of emphasis on community involvement (specifically community-based restoration).

I will also be providing you with a draft communications plan for your funding consideration. I am

6/18/2008

aiming to provide both the matrix showing the revisions to the draft FY09 Invitation and the proposed communications plan to you by the end of the week.

Michael Baffrey
Executive Director
Exxon Valdez Oil Spill Trustee Council
Voice: (907) 265-9330
Mobile: (907) 351-1852
michael_baffrey@alaska.gov

AGENDA

Womac, Cherri G (EVOSTC)

From: Fishwick, Claire (DEC)
Sent: Monday, June 23, 2008 3:20 PM
To: Womac, Cherri G (EVOSTC)
Cc: Baffrey, Michael (DFG sponsored); Ortolano, Lynette M (EVOSTC); Hartig, Lawrence L (DEC); Easton, Dan (DEC)
Subject: EVOS Trustee Council Delegation

Good Afternoon Cherri,

Deputy Commissioner Dan Easton will be acting on behalf of Commissioner Hartig for the June 26, 2008 Trustee Council Meeting. Dan is delegated the authority to act on any matters brought before the Trustee Council members. Thank you. Claire

6/26/2008

Exxon Valdez Oil Spill Trustee Council

441 W. 5th Ave., Suite 500 • Anchorage, AK 99501-2340 • 907 278 8012 • fax 907 276 7178



DRAFT AGENDA EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL June 26, 2008 1:00 p.m. Anchorage, Alaska

DRAFT 6/16/08

Trustee Council Members:

TALIS COLBERG
Attorney General
Alaska Department of Law

LARRY HARTIG
Commissioner
Alaska Department of
Environmental Conservation

DENBY S. LLOYD
Commissioner
Alaska Department of Fish
and Game

CRAIG O'CONNOR
Special Counsel
National Oceanic & Atmospheric
Administration
U.S. Department of Commerce

RANDALL LUTHI
Director
Minerals Management Service
U.S. Department of the Interior

JOE MEADE
Forest Supervisor
Forest Service
U.S. Department of Agriculture

Meeting in Anchorage, Trustee Council Office 441 West 5th Avenue, Suite 500
Teleconference number: 800.315.6338. Code: 8201

Federal Chair

1. Call to Order – 1:00 p.m.

Federal Trustees
U.S. Department of the Interior
U.S. Department of Agriculture
National Oceanic and Atmospheric Administration

State Trustees
Alaska Department of Fish and Game
Alaska Department of Environmental Conservation
Alaska Department of Law

2. Consent Agenda
- Approval of Agenda*
- Approval of Meeting Notes*
May 27, 2008

*COCHAIR
PAT LAVIN*

3. Public Advisory Committee comments

- delete* 4. Public comment – 1:15 p.m. (3 minute per person)

5. Strategic Planning

Michael Baffrey
Executive Director

6. *4* Communication and Outreach Planning*

Rebecca Talbott
Communication and Outreach Coordinator

7. *2* FY 09 Invitation for Proposals*

Catherine Boerner
Restoration Specialist

8. *1* Lingering Oil Proposal - Microcosm Study*

Catherine Boerner

9. *3* Barrow's Goldeneye Petition*

Catherine Boerner

Adjourn

* Indicates action items

MAY 27, 2008 MTG NOTES

Exxon Valdez Oil Spill Trustee Council

441 W. 5th Ave., Suite 500 • Anchorage, AK 99501-2340 • 907 278 8012 • fax 907 276 7178



TRUSTEE COUNCIL MEETING NOTES

Anchorage, Alaska

May 27, 2008

DRAFT 05/29/08

DRAFT

Chaired by: Larry Hartig
Trustee Council Member

Trustee Council Members Present:

Steve Zemke, USFS*
Hans Neidig, USDOl***
Craig O'Connor, NOAA **

Craig Tillery, ADOL****
Denby S. Lloyd, ADF&G
•Larry Hartig, ADEC

- Chair
- * Steve Zemke alternate for Joe Meade
- ** Craig O'Connor alternate for James Balsiger
- *** Hans Neidig alternate for Randall Luthi
- **** Craig Tillery alternate for Talis Colberg

The meeting convened at 8:35 a.m., May 27, 2008 in Anchorage at the EVOS Conference Room.

1. Approval of the Agenda

APPROVED MOTION:

Motion to approve the draft agenda dated May 19, 2008 as amended with the addition of a lingering oil project discussion before the *FY 09 Invitation for Proposals* and an executive session at the end of the meeting

Motion by O'Connor, second by Zemke

2. Approval of May 1, 2008 meeting notes

APPROVED MOTION: Motion to approve the May 1, 2008 meeting notes dated May 15, 2008 as presented

Motion by Tillery, second by Lloyd

Public Advisory Committee (PAC) comments were offered by: Stacy Studebaker and RJ Kopchak

Public comment period began at 9:00 a.m.

Nine public comments were received.

Public comment closed at 9:30 a.m.

Off the record – 9:50 a.m.

On the record – 10:05 a.m.

3. Integration of Herring

APPROVED MOTION: Motion to approve additional funding of \$109,000 for the continued preparation of an Integrated Herring Restoration Program

Motion by Neidig, second by Tillery

Off the record – 12:00 p.m.

On the record – 1:20 p.m.

4. FY 09 Invitation for Proposals

APPROVE MOTION: Motion for the Trustee Council, liaisons, and EVOS staff to meet within the next two weeks to redraft the *FY 09 Invitation for Proposals*, bring the redrafted version before the Council for approval then release to the public

Motion by Tillery, second by O'Connor

4. Executive Session

APPROVED MOTION:

Motion to move into executive session to discuss personnel and legal issues no action will be taken

Motion by Tillery, second by Neidig

Off the record – 1:30 p.m.

Meeting adjourned at 2:45 p.m.

The Trustee Council returned from Executive Session, no action was taken other than to adjourn.

APPROVED MOTION:

Motion to adjourn O'Connor

FY09 INVITATION

Exxon Valdez Oil Spill Trustee Council



Federal Fiscal Year 2009

Invitation for Proposals

Draft June 2, 2008



Exxon Valdez Oil Spill Trustee Council
441 W. 5th Avenue, Suite 500
Anchorage, AK 99501
907-278-8012 / fax: 907-276-7178
www.evostc.state.ak.us

Exxon Valdez Oil Spill Trustee Council

Implementation of the *Exxon Valdez* Oil Spill Restoration Plan

**FY 2009
Invitation for Proposals**

Exxon Valdez Oil Spill Trustee Council
441 West 5th Avenue, Suite 500
Anchorage, AK 99501
907-278-8012 phone/907-276-7178 fax
1-800-478-7745
www.evostc.state.ak.us

Draft June 2, 2008

Notice

The Alaska Department of Fish and Game (ADF&G) administers all programs and activities free from discrimination based on race, color, national origin, age, sex, religion, marital status, pregnancy, parenthood, or disability. The department administers all programs and activities in compliance with Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, Title II of the Americans with Disabilities Act of 1990, the Age Discrimination Act of 1975, and Title IX of the Education Amendments of 1972.

If you believe you have been discriminated against in any program, activity, or facility please write:

- ADF&G ADA Coordinator, P.O. Box 115526, Juneau, AK 99811-5526.
- The department's ADA Coordinator can be reached via phone at the following numbers: (VOICE) 907-465-6077, (Statewide Telecommunication Device for the Deaf) 1-800-478-3648, (Juneau TDD) 907-465-3646, or (FAX) 907-465-6078.
- 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.

Eligibility Criteria

Individuals, private industry, government agencies and other interested parties, regardless of nationality or institutional affiliation, are entitled to submit a proposal in response to this Invitation. All proposals will be evaluated based on the same criteria regardless of the source of the proposal.

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VIII.	Instructions for Submitting a Proposal

I. Schedule

The schedule for the receipt, review and approval of FY09 proposals is shown below.

June 15, 2008Invitation for Proposals issued
June 22, 2008Proposer's Conference (*Please refer to website¹ for time and phone number*)
September 2, 2008FY09 Proposals Due by 5:00 PM
September 19, 2008Individual technical review completed
September 30, 2008Panel reviews completed
October 22, 2008.....Draft Work Plan available for review
November 18, 2008.....Funding decision made by Trustee Council

The *Exxon Valdez* Oil Spill Trustee Council operates on a federal fiscal year. The FY09 fiscal year begins on October 1, 2008 and ends on September 30, 2009.

II. Background and Purpose of the FY09 Invitation for Proposals

In 1989, the *T/V Exxon Valdez* spilled 11 million gallons of crude oil into Prince William Sound (PWS). In 1991, the U.S. District Court approved a civil settlement that required Exxon to pay the United States and the State of Alaska \$900 million to restore the natural resources injured by the spill and the reduced or lost services (including human uses) that those resources provide (Natural Resource Services). A Trustee Council (Council) of three federal and three state members administers this joint settlement fund.

A Restoration Plan² was adopted by the Council in 1994 that provides long-term guidance for restoring the resources and services injured by the oil spill. It contains policies for making restoration decisions, describes how restoration activities will be implemented, and includes an Injured Resources and Services (IRS) list that provides a focus for restoration. The IRS list has been updated several times since 1994. The most recent update took place in 2006³.

The Council sets restoration priorities and annually determines which projects will be funded. Restoration projects are solicited through this Invitation for Proposals (Invitation). The Invitation is open to individuals, private industry, government agencies and other interested parties interested in submitting proposals for restoration work identified in the Invitation. Proposals selected for funding will comprise a portion of the Council's annual workplan.

In March 2008, the Trustee Council for the *Exxon Valdez* Oil Spill reviewed the past performance of the restoration program and identified focus areas to address remaining restoration needs and guide the program forward with the following priorities:

- **Implement an integrated approach to restoration:** The Council recognizes the limitations of what can be learned, what is still unknown, and what may never be known about resources and services injured in the spill. The Council is committed to

¹ <http://www.evostc.state.ak.us>

² <http://www.evostc.state.ak.us/Policies/restplan.cfm>

³ <http://www.evostc.state.ak.us/Publications/InjuredResources.cfm>

implementing an integrated approach to restoration that views the ecosystem as a whole and not as individual parts. Integrated programs will emphasize PWS herring stock, lingering oil (especially as it affects the nearshore ecosystem and subsistence use), and the reduction of marine pollution. These programs will be created in consultation with researchers, local interest groups, and native community leaders and will emphasize measurable restoration goals.

- **Develop a monitoring program:** The success of any integrated program cannot be measured without a comprehensive monitoring program. The Council will continue to refine and improve its monitoring program in a way that coordinates and supplements, but does not duplicate existing programs. This program will provide the most current data available on the health of the spill-impacted ecosystems.
- **Address human service losses:** The Council will examine human service losses and identify how further actions including increased community involvement, outreach, and education can further restore injured human services. Goals and methods will be identified for responding to human service losses and criteria developed to identify a sufficient nexus between human service losses and specific restoration proposals.
- **Refine the community involvement plan:** The Council will continue to involve the community in its research, monitoring, and restoration processes. The Council will also refine its methods for gathering and including information from citizens and the community. Sources for this valuable information include citizen and community-based research, monitoring and restoration, local and traditional knowledge, environmental education, and community outreach.
- **Continue the habitat protection program:** The Council's extensive habitat acquisition program has preserved hundreds of thousands of acres that provide critical habitat for resources and services injured by the spill. The Council is committed to maintaining the program, focused on parcels of critically important habitat.

The Council is committed to the focus areas above and to moving the program forward in an effective and fiscally-responsible manner. For FY09, the Council will be focusing its efforts on three main categories: Lingering Oil, Integrated Herring Program, and Reduction of Marine Pollution.

A. Funding, Duration, and Scope

Funding - The Council established an Investment Fund and adopted an endowment approach for management of the fund. This approach establishes annual spending limit goals thus ensuring the fund's value over time. Yearly spending includes the annual work plan, continuing multi-year projects and administrative costs, including the science and data management, public information and project management. The Council is not placing a direct cap on the amount of money available for projects within the FY09 work plan. However, projects must reflect reasonable and prudent cost management and budgets should be precise and accurate. Cost effectiveness will be an important consideration for the Council as the members deliberate project funding.

Duration - Award periods for proposals commencing in 2009 may range from one year to three years. Regardless of project length, applicants must achieve an outcome and product within the requested award period, including data analysis and submission of quarterly reports, a draft final report and a peer-reviewed, final report of research results. Proposers should plan for sufficient time and funding to complete report writing, peer review, and publication of final reports.

Scope - For the categories outlined within this Invitation, the Council is seeking completed proposals using the instructions provided in Section VIII, Instructions for Submitting a Proposal. However, the Council will consider all restoration proposals and welcomes ideas from interested parties. If you have a restoration suggestion that does not fall specifically within one of the Invitation categories, please use the one-page Project Summary sheet provided in Section VIII as a format for your submission.

B. Projects Continuing from Prior Fiscal Years

A few projects currently receive funding from previous multi-year awards. **Principal investigators (PIs) who have already been authorized by the Trustee Council to continue their projects in FY09 need not submit a proposal package.** Projects that are currently underway may submit proposal amendments detailing any additional work required to complete or expand a project's scope. If needed, an amendment for an ongoing project will be considered only if a current annual report has been received and accepted by the EVOS TC office. Amendments to existing proposals may be submitted to the Restoration Specialist, and should include a reference to the previously funded project. All amendments will receive full review by a Science & Restoration Working Group, the Restoration Specialist, and the Executive Director. Recommendations for additional funding will be made to the Council for a final decision. Information on how to submit a project amendment can be found on the Trustee Council's website.

C. Community Involvement

The Trustee Council is committed to working with communities in the oil spill-affected area and encourages proposers to involve local communities to the greatest degree possible consistent with the objectives of the proposal. The Council also wishes to maximize resources by building on past and ongoing efforts and to integrate proposals being considered for funding in FY09. Proposers are encouraged to collaborate in the development of proposals and describe efforts to integrate project data collection, analysis, and findings consistent with proposal objectives.

Every successful proposal is required to develop a community involvement plan that specifies how relevant coastal communities, concerned commercial and sport fishers, subsistence users, local scientists, public schools and universities, will be informed and engaged in the project. The degree to which the activities of each proposed project allow involvement with local communities and incorporation of local knowledge will vary, but interaction with communities is required. Reviewers will give additional consideration to proposals that demonstrate meaningful community involvement and/or make use of local and traditional ecological knowledge. Any collection or use of traditional knowledge should follow the "Protocols for Including Indigenous Knowledge in the EVOS Restoration

Process”⁴. Additional guidelines to protect the sensitivity of local knowledge are included in “A History of Trustee Council Tribal and Community Involvement”⁵.

The community involvement section of the proposal should address the following questions, if applicable: How will affected communities be informed about the project and be given an opportunity to provide their input? How will research findings and other project information be communicated to local communities? To what extent will local hire be used for the acquisition of such things as vessels, technicians, and equipment? To what extent will traditional and local knowledge be incorporated into the project? Do not simply provide a statement that a proposal is expected to benefit a community without demonstrating that one or more representatives of the community have been contacted prior to proposal submission and have agreed to work with the proposers in developing the community involvement components of the proposal.

Community-based projects can also include citizen-based or community-based research - also termed “citizen science” projects. These projects involve the collection of data and direct participation of the communities in these activities in addition to other aspects such as project design, data interpretation, and information sharing. Projects can also employ media, public events, and other methods to disseminate information and foster sustained involvement of both traditional and underrepresented communities and stakeholders in the oil spill-affected area in the vision, mission, accomplishments and/or challenges of the restoration program.

If you would like assistance in developing a community involvement or traditional knowledge component for your proposal, contact Rebecca Talbot, Outreach and Communication Coordinator at the Trustee Council at 907-278-8012. For ideas as to education and outreach please refer “Education and Public Outreach: A Guide for Scientists”⁶, produced by the NSF-funded Centers for Ocean Sciences Education Excellence and published by the Oceanography Society. Additional sources of information on how to incorporate local and native communities are the Community Involvement, Environmental Education, and Community Outreach in the EVOS Restoration Process Report.⁷

III. Introduction to the FY09 Invitation for Proposal

The Council recognizes that a tremendous amount of work has been accomplished over the nineteen years of research, monitoring and restoration activities that have been directed at addressing the goals of the 1994 Restoration Plan. The Council has considered the results of previous synthesis efforts funded in 2006 and has determined that for fiscal year 2009 Council efforts will focus on:

⁴ <http://www.evostc.state.ak.us/Files.cfm?doc=/Store/AnnualReports/1997-97052B1-Annual.pdf>

⁵ http://www.evostc.state.ak.us/Universal/Documents/Publications/Trib_Comm_Inv.pdf

⁶ http://www.tos.org/epo_guide/

⁷ <http://www.evostc.state.ak.us/Files.cfm?doc=/Store/FinalReports/2008-080575-Final.pdf&>

- **Lingering Oil: Distribution and processes in the nearshore environment**
- **Restoration of Prince William Sound Pacific herring**
- **Marine pollution affecting injured resources and services**

A supplemental Invitation for Proposals will be issued at a later date to address the restoration of injured services as identified in the Injured Resources and Services List.

To be considered responsive to this Invitation, proposals must:

- a. Demonstrate a clear linkage to injured natural resources and/or natural resource services
- b. Be focused within the oil spill-affected area
- c. Respond to one or more of the categories described in this Invitation
- d. Describe community involvement

NOTE: Current PI's must comply with all reporting requirements for previously funded projects in order to receive funding for newly awarded projects.

Specific requests are outlined below and are based upon previous Council-sponsored work. Information on the status of Council-funded projects is available on the Council's website⁸ as it becomes available, or you can contact the Council office directly for more information at (907) 278-8012. The Council does not wish to duplicate efforts and encourages the use of existing materials and collaboration with other ongoing efforts. **Proposals should explicitly state how the project could lead to the restoration of injured natural resources and/or natural resource services.**

Reviewers will give additional consideration to proposals that have resource management applications. The development of tools, technologies and information that can help resource managers and regulators improve management of marine resources and address problems that may arise from human activities are a critical part of this invitation. Use this section to describe how your proposal might result in knowledge or products that would contribute to meeting this goal. Do not simply provide a statement that a proposal is expected to have resource management applications without demonstrating that one or more representatives of a resource management agency have been contacted prior to proposal submission and have agreed to work with the proposers in developing the resource management components of the proposal. Resource management agency contacts should be identified in this section.

IV. Project Invitation by Category

LINGERING OIL

The Lingering Oil Committee (LOC) summarized the current knowledge of lingering oil distribution in their Research Priorities FY07 Recommendations to the Executive Director. Since 2001, our understanding of the amount of oil remaining in PWS and its location has grown increasingly sophisticated. For instance, we now know that much of the remaining oil is found at a lower level in the intertidal zone than thought for the first 12 to 13 years after the spill.

⁸ www.evostc.state.ak.us

It is estimated that 11 – 35 acres of intertidal beaches have remnant lingering oil. However, one of the assumptions underlying the estimates is that nearly all of the remaining oil is located in beaches that were heavily or moderately oiled in 1989. Yet, because some nearshore organisms inhabiting less oiled areas of Western Prince William Sound are still being exposed to oil, it is possible that organisms are being exposed to sources of oil that have not been identified.

Because of the persistence of oil in subsurface deposits, beaches that were classified as lightly oiled in 1989 could still be harboring oil in 2008. While in 1989 this oil burden may have been relatively minor in comparison to the heavily and moderately oiled beaches, the long-term persistence of oil in many areas suggests that Prince William Sound beaches that were considered at the time to be lightly oiled should be reevaluated in order to ascertain the amounts and distribution of lingering oil.

Questions remain about the geomorphology and geochemistry of the beaches on which lingering oil deposits are found. The physical and chemical processes in beaches with remaining oil need to be understood better, as these processes will determine the potential success of any future attempts at remediation. Moreover, the distribution of oil in these beaches relative to the distribution of local fauna will also determine how accessible the oil is to organisms. Therefore, it is important to gain a better understanding of the fine-scale processes occurring in the beaches that harbor lingering oil.

Currently, the Council is funding two studies that will provide information on the distribution and processes affecting lingering oil. Project 070801 (Assessment of the Area Distribution and Amount of Lingering Oil in PWS and GOA) by Michel will provide an estimate of the amount and model the distribution of lingering oil in the spill area. Project 070836 (Factors Limiting the Degradation Rate of EVOS Oil) by Boufadel will provide information about the factors influencing the degradation of oil in PWS. The Council also has funded a number of studies aimed at determining the effects of lingering oil on the nearshore environment and the species that forage there, including sea otters, harlequin ducks and Barrow's goldeneyes.

Once there is a clearer picture from these projects of the distribution of lingering oil on spill-affected beaches, the factors inhibiting the biodegradation of lingering oil, and the effects of lingering oil on the nearshore environment, the Council will be in a better position to formulate potential means for remediating lingering oil and, ultimately, evaluating the feasibility of doing so.

While there are no other currently known needs for lingering oil projects, it is possible that the currently funded projects, or information developed by other entities, will identify information gaps that will need to be filled during the coming fiscal year. Consequently, the Trustee Council anticipates that it may be desirable to fund additional projects later in the fiscal year to "take the next steps" once the findings of funded projects are known. Therefore the Council seeks proposals related to the distribution of lingering oil, understanding the reasons behind its failure to biodegrade, its effects on the nearshore environment and the species that forage there and ways in which it can be remediated that are based on developing knowledge regarding lingering oil. The Council also will consider proposals that measure the exposure to and the effects of recovering or not recovered resources to lingering oil, particularly in the nearshore ecosystem.

Because these proposals will of necessity build upon work not yet completed, proposals may be submitted at any time during the coming fiscal year.

INTEGRATED HERRING PROGRAM

The Council has classified the Prince William Sound stock of Pacific herring (*Clupea pallasii*) as a resource that has not recovered from the effects of the spill. The PWS herring stock was increasing prior to 1989 with record harvests reported just before the spill. The 1989 year class was one of the smallest cohorts of spawning adults recorded, and by 1993, the fishery had collapsed with only 25% of the expected adults returning to spawn. The PWS herring fishery was closed from 1993 to 1996 but reopened in 1997 and 1998 based on an increasing population. Numbers again declined and the fishery has been closed since 1999. Reasons for the population collapse and failure to recover remain largely unknown.

The Council funded a PWS Herring Restoration Plan⁹ to determine what, if anything can be done to successfully recover Pacific herring in Prince William Sound from the effects of the spill. The Plan examined the reasons for the continued decline of herring in the Sound, identified and evaluated potential recovery alternatives, and established a course of action for achieving restoration. The Plan also identified knowledge gaps needed to understand the science, management and enhancement of the PWS Herring stock.

The Council is seeking projects that serve to fill the following data gaps to build on the work already underway as part of the Herring Restoration Plan:

1. Are there credible ways, other than cumulative distance (spawn miles and mile-days) that herring spawn may be quantified, or made into an index, that would be biologically realistic?
2. Can retrospective analysis of growth during the first and second years of life, estimated from analyses of archival collections of herring scales, be used to comment on inter- and intra-annual variation in growth and survival of herring in PWS? Could such retrospective analyses be used to explain more about the biological events that occurred during the last two decades?
3. What are the key competitor species of herring and how do they affect each life stage?
4. What are the key predators of herring, and how do those predators affect each life stage of herring?
5. What effects are oceanographic changes in PWS having on each life stage of herring?
6. Are there changes in the availability of plankton that adversely affect herring, either directly or indirectly?
7. What is the distribution of larvae and juveniles and the factors that are quantitatively important to determining year class strength?

⁹ http://www.evostc.state.ak.us/Projects/ProjectInfo.cfm?project_id=1569

8. What bays in Prince William Sound support significant quantities of age 0 and age 1 juvenile herring, and what is the size/condition of juvenile herring pre- and post- winter?
9. What parameters are significant to herring recruitment?
10. Is disease causal and impacting the population, or is it symptomatic and reflecting poor body condition?
11. Could there potentially be a relationship between larval release and disease effects in the general population?
12. Are the herring in PWS genetically distinct from populations in Kodiak, Sitka Sound, and Lynn Canal?
13. If the populations are genetically distinct, has each population been stable over time?

It may be possible to restore herring populations in Prince William Sound through the use of direct restoration or intervention methods such as the moving of fertilized eggs to habitats more favorable for survival or the release of juveniles reared in hatcheries. However, the efficacy of these or other direct restoration methods has not yet been proven and may be technically infeasible or too costly. Furthermore, the use of direct restoration activities may cause unintended adverse environmental outcomes such as the increase in incidence of disease to herring or other fishes.

Several key steps were identified to determine the initial feasibility of a herring enhancement program in PWS. The Council is seeking proposals that can provide answers to and guidance on the following questions:

1. Are there suitable mass marking techniques for Pacific herring eggs, larvae or juveniles in PWS that are feasible, practical and affordable?
2. What ranges of marked herring must be released in order to have sufficient recaptures to evaluate success?
3. Can criteria or reference points be established that can be used to govern potential enhancement activity of herring in Prince William Sound? Specifically, what criteria would be used to initiate, suspend or stop enhancement activities?
4. Is egg translocation a viable alternative to a hatchery program?
5. What have been the impacts of other fish enhancement programs?

The Council has fostered an integrated approach to herring research and restoration by initiating an April 2006 workshop of herring scientists and effected fishermen and three subsequent workshops (November 2006, October 2007, and May 2008) of Council-funded herring Principal Investigators (PIs). As a result, the PIs have integrated their respective study designs and shared findings. The Council is seeking proposals that address the identified needs of the herring

program. To achieve maximum benefit from these efforts, the Council is encouraging PIs to build upon previous and current efforts and collaborate in the development of proposals and implementation of projects. Inter-disciplinary teams are encouraged.

Note: Concurrent with the release of this Invitation, the Council is funding the development of an Integrated Herring Restoration Program. This program is being developed by a working group composed of herring scientists, fishermen, and community members. The proposed schedule for the program development will allow further guidance for integrating the herring-related proposals received in response to this Invitation.

REDUCTION OF MARINE POLLUTION

Most coastal communities in the spill area have a limited ability to collect and properly dispose of wastes, such as oily bilge water, used engine oil, paints, solvents, and lead-acid batteries. Improper disposal of these wastes in community landfills adversely affects the quality of nearby marine waters through runoff and leaching. In some cases, these wastes are discharged directly into marine waters. Chronic marine pollution places stress on fish and wildlife resources, possibly delaying recovery of resources injured by the oil spill. In fact, with regard to the worldwide mortality of seabirds, the effects of chronic marine pollution are believed to be at least as important as those of large-scale spills.

The Council has funded several projects to prepare waste management plans and a portion of the implementation phase of Projects 02514/Tuner - Lower Cook Inlet Waste Management Plan, 99304/Stevens - Kodiak Island Borough Master Waste Management Plan, 97115/Winchester - Sound Waste Management Plan and Restoration, and 95417/Roetman - Waste Oil Disposal Facilities. These projects resulted in the acquisition of waste oil management equipment and the construction of environmental operating stations for the drop-off of used oil, household hazardous waste and recyclable solid waste in Cordova, Valdez, Chenega Bay, Tatitlek and Whittier, Kodiak and lower Cook Inlet.

The Council is seeking proposals designed to further reduce pollution in the marine environment. Applications should describe the extent to which the proposed project will reduce marine pollution in the environment and how this reduction will contribute to the recovery of one or more injured natural resources and/or natural resource services. Proposers should refer to the Council's policy regarding normal agency management before formulating project proposals.

V. Considerations Applicable to Project Proposals

The 1994 Restoration Plan includes restoration policies, appropriate actions, goals, objectives and strategies specific to each of the injured natural resources and natural resource services previously discussed. All restoration project proposals must include methods and employ project designs consistent with the 1994 Restoration Plan. Proposals are encouraged to consider and include if possible the following elements in their proposals for injured resources and services:

A. Monitoring/Population Modeling

In some instances, new studies of specific resources may not aid in resolving questions regarding continuing injury. Nonetheless, long-term evaluation of injured species should occur to determine when populations in oiled and unoled areas could be declared recovered or until it is determined that further remediation or enhancement activities are warranted.

Monitoring is also important for resources whose recovery status is currently difficult to assess. For example, recovery status for intertidal communities is challenging because monitoring in both oiled and unoled areas has not been conducted consistently in these areas since the spill. Thus, monitoring of some resources in this habitat type could continue at an intensity designed to track changes over time and among areas.

B. Integration

Proposals that group resources and services should include the rationale and benefits of grouping injured resources or services into a single integrated project. Integrated projects are encouraged to involve aspects of multiple categories. For example, multi-species data sets from common areas (e.g., Knight Island) could be integrated with studies conducted on physical processes of lingering oil. Combining studies could provide economies of scale for logistics, chemical analyses and data analyses. Proposers may be asked to revise their proposals to integrate with other projects prior to final Trustee Council consideration or approval.

C. Data Management and Synthesis

The Council will consider proposals that facilitate recovery, utilization and/or enhancement of long-term data series within the oil spill affected areas that can assist the Trustee Council in defining restoration projects and incorporating long-term monitoring programs directly towards restoration.

All investigators are required to work with the Council's Data Management staff to identify and permanently archive datasets (data and metadata) that may be useful for future scientific analysis, and to submit metadata for such datasets to the Council's data archive. As with the acceptance of any public funding source, data collected in the course of a Council-funded project is the property of the Exxon Valdez Oil Spill Trustee Council and must be provided at the conclusion of the project. The data policy has been recently updated and a copy of the new data policy can be found at: <http://www.evostc.state.ak.us/Policies/data.cfm>

D. Reporting Policies

All projects will be required to provide quarterly, annual, and final reports. Detailed reporting procedures can be found at: <http://www.evostc.state.ak.us/Policies/reporting.cfm>

Quarterly Reports – Quarterly reports must be provided to the assigned agency Project Manager within 30 days of the end of the quarter. A quarterly report will include the tasks identified in the proposal for each quarter with a summary of the progress made on each.

Quarter 1: Oct. 1 - Dec. 31

Quarter 2: Jan. 1 - March 31

Quarter 3: April 1 - June 30

Quarter 4: July 1 - Sept. 30

Annual reports – Annual reports are due no later than September 1 of each year for which a project receives funding to determine if continuing funding is appropriate. If a project is multi-year, PIs should prepare a brief annual report each year until the project is completed. The annual report will provide a summary of the work completed over the fiscal year as well as a discussion of any preliminary findings.

Final reports – Draft final reports are due no later than April 15 of the year following the work on a funded project. A final report for a project must be a comprehensive report addressing all the objectives identified over the course of the entire study and shall address the original objectives of the study as identified in the approved proposal and account for any changes in the objectives. All draft final reports are subject to a peer review process.

Note: If a proposer is requesting funding for publication of project results in a peer-reviewed journal provide the subject/title of each manuscript, the name of the peer-reviewed journal(s) to which the manuscript will be submitted and the date when the manuscript will be submitted. The Trustee Council expects publication of project results in peer-reviewed journals as soon as scientifically appropriate and logistically possible. The Council has adopted a policy regarding an acknowledgment and disclaimer to be used in publishing results of projects it has supported. For more information, see the Procedures for the Preparation and Distribution of Reports on the EVOSTC website.

E. Project Funding Requirements

Proposals will be accepted for both single year and multi-year projects. Applicants should include project and budget information that accurately reflects the true time commitment necessary to complete their work. Funding for multi-year projects will be reviewed each fiscal year to ensure that the scope of work is progressing and that the project is still meeting the needs of the Trustee Council. **Regardless of project length, one fiscal year must be budgeted for the preparation and writing of the project's final report. Project scope cannot extend into the report writing fiscal year unless clearly defined in the project proposal timeline and milestones.** In the timeline and budget for the report writing year, please include time and resources necessary to 1) prepare data for transfer to the Council's office, 2) incorporate all peer review comments, 3) print and bind the final report, 4) attend and present findings at the Alaska Marine Science Symposium held in Anchorage, Alaska. Attendance at the Symposium can be budgeted only for the final year of the project.

VI. Evaluation of Proposals

A. Policy and Legal Review

To be eligible for funding, proposals must be designed to restore, replace, enhance or acquire the equivalent of natural resources injured as a result of the oil spill or the reduced or lost services provided by these resources. In addition, proposals must be consistent with the policies contained in the Restoration Plan adopted by the Trustee Council in November 1994 (available at <http://www.evostc.state.ak.us> or upon request from the Anchorage Restoration Office). Trustee Council staff will also review each proposal for responsiveness to this

invitation, completeness and for adherence to the format and instructions contained in this document. A legal and policy review of each proposal and Project Summary submitted pursuant to this Invitation will be conducted by the Alaska Department of Law and the U.S. Department of Justice.

B. Technical and Programmatic Review

All proposals are subject to independent scientific and/or technical review. Proposals and their technical reviews will be examined by appropriate review panels for programmatic suitability. Proposals will be evaluated according to the following criteria and each proposal will be rated on a scale of excellent to poor for each of the selection criteria.

1. **Project Design/Conceptual Soundness** - Evaluation of the applicant's understanding of the problem and the project's feasibility; how well a project builds on past or ongoing research, the extent to which the project will help achieve restoration objectives.
2. **Timeline and Milestones** - Evaluation of the project's timeline and milestones in relation to the scope submitted. Projects with detailed timelines and milestones will be rated higher than those with vague or unclear timelines and milestones.
3. **Project Management and Implementation Plan** - Evaluation of the proposed management and implementation of the project, including project team qualifications (education, experience, publications, related work efforts, proposed time commitment, past performance), and availability of facilities or other requirements necessary for project success are available to the proposers.
4. **Cost Effectiveness of the Proposal** - Evaluation of the appropriateness of the project's cost versus the scope identified. Funding from other sources will be considered.
5. **Collaboration/Coordination Efforts** - Evaluation of how well the proposal integrates with both past and ongoing work and provides an interdisciplinary approach.
6. **Community Involvement** - Determination if the proposer has demonstrated substantial progress toward appropriate consultations and collaboration with local communities.

Note: Proposers may be asked to respond to technical review comments on the proposal or to revise the proposal to address concerns of scientific, technical or programmatic reviews, or to revise the proposal to integrate with other proposals or projects.

C. Public Advisory Committee Review

The Trustee Council's Public Advisory Group representing a cross-section of interest groups affected by the oil spill will also review proposals.

D. Public Comment and Funding Decision

The Council's Executive Director will use the recommendations of the science panel, the Public Advisory Group and staff to develop a draft work plan containing proposals recommended for Trustee Council consideration as well as any recommended collaboration,

coordination and suggested modifications of proposed projects or project scope. This recommendation will be circulated for public comment as the FY09 Draft Work Plan.

E. Trustee Council Decision

All proposals will be forwarded to the Trustee Council for their consideration. The Trustee Council will take into consideration the Executive Director's recommendation, the Science Panel's recommendations and the recommendations of the Public Advisory Group in making its decision as to which proposals will be funded in FY2009. Unanimous agreement of all six Council members is required to fund a proposal. Please note that the Trustee Council is not legally bound to abide by recommendations of peer reviewers, science advisors, the Public Advisory Committee or the Executive Director. It is anticipated that funding decisions for FY09 will be made at a Trustee Council meeting in the fall of 2008.

VII. Instructions for Non-Trustee Council Agency Proposals

If you represent a private organization, a non-profit group or a university from a state other than Alaska, you should submit your proposal through the Broad Agency Announcement (BAA) process, as well as to the Trustee Council. In most instances, requirements of state and federal law preclude Council funds from being awarded directly to such organizations. Rather, a competitive solicitation process is required. This solicitation can occur before the Council approves funding for a project through a BAA issued by the National Oceanic and Atmospheric Administration (NOAA). Using the BAA approach, if the Council approves funding for your project, you can begin contract negotiations with NOAA without the further competitive solicitation that is required if you do not apply through the BAA.

As part of this invitation, NOAA is issuing a BAA on behalf of the Council, and is requesting proposals for any of the topics identified in this invitation. To submit your proposal through the BAA process, submit an electronic copy, as well as one paper copy, of your proposal to NOAA at the address below by **6:00 p.m. Pacific Daylight (Seattle) time on September 2, 2008**. This is in addition to the copies of the proposal that must be submitted to the Council. Include the words "submitted under the BAA" as part of your project's title. Faxed proposals will not be accepted.

More information is contained in the Broad Agency Announcement itself (**BAA #AB133F-08-RP-0107**), available from NOAA:

Ms. Sharon Kent
NOAA, WASC, Acquisition Management Division, WC31
7600 Sand Point Way NE
Seattle, WA 98115-6349
Telephone (207) 526-6035
Sharon.S.Kent@noaa.gov

Proposals submitted to NOAA under the BAA will be evaluated by the Trustee Council at the same time as other proposals submitted to the Council.

VIII. Instructions for Submitting a Proposal

A. What to Submit

The Council encourages electronic submission of proposals. Please upload a copy of your proposal package to the following website:

<http://www.evostc.state.ak.us/proposals/newproposal.cfm>

If you do not have access to the internet please submit one paper copy and one electronic copy of the proposal package to:

Catherine Boerner
Exxon Valdez Oil Spill Trustee Council
441 West 5th Avenue, Suite 500
Anchorage, AK 99501-2340
dfg.evostc.projects@alaska.gov
Phone: 907-278-8012 or 1-800-478-7745

Electronic versions of the narrative sections of the proposal must be composed using Microsoft Word 2002 (XP) or lower or WordPerfect 9.x or lower, with figures and tables embedded. Please submit Word or WordPerfect documents in one file, labeling them as follows:

Surname of lead PI_FY09_Proposal (e.g., Smith_FY09_Proposal)
Surname of lead PI_FY09_Proposal (e.g., Smith_FY09_Budget)

Proposal Format Specifications:

- Times Roman, 12-point
- one-inch margins on all sides
- page numbers
- footer including proposal title and name of lead PI
- summary page must be a stand alone page.
- extraneous cover sheets (i.e., often included with applications from universities) are allowed, but must not be integrated into the proposal package.

FY 09 Invitation: Proposal Application Materials

Please submit the following materials. Templates are attached and are available electronically at <http://www.evostc.state.ak.us>.

- Signature Form
- Proposal Summary Page
- Project Plan (including references and literature cited)
- CV's/Resumes
- Budget Justification
- Budget Forms

Signature Form

A signed form indicating willingness to abide by the Trustee Council's data and report requirements must be submitted with each proposal.

Proposal Summary Page (one page maximum)

The summary page includes project title, project period, proposer(s) name, affiliation, email address for all principal investigators (PIs), study location, key words, a project abstract (a summary of the proposed work in 150 words or less), the amount of EVOS funding requested (including nine percent for general administration), and the amount of non-EVOS funds contributing to the proposed project.

Project Plan

The project plan must completely describe the work to be performed, including a statement of the problem the proposal is designed to address, relevance to the restoration of injured resources and services, project objectives, procedural and statistical methods, description of the project area, coordination with other efforts, timeline and milestones, responsiveness to key Trustee Council strategies, and expected publications, reports and conference participation. **The project plan is limited to 15 consecutively numbered pages formatted as described.** The page limit includes figures and tables. References and literature cited should be attached to the project plan, but do not fall within the 15-page limit. The research plan should include a footnote with the proposal title and lead PI's name.

CV's/Resumes

The resumes of all principal investigators and other senior personnel involved in the proposal must be provided. **Each resume is limited to two consecutively numbered pages** and must include the following information:

- A list of professional and academic credentials, mailing address, and other contact information **(including e-mail address)**.
- A list of up to five of your most recent publications most closely related to the proposed project and up to five other significant publications. Do not include additional lists of publications, lectures, etc.
- A list of all persons (including their organizational affiliations) in alphabetical order with whom you have collaborated on a project or publication within the last four years. If there have been no collaborators, this should be indicated.

Budget Justification

For each fiscal year, and for each budget category (personnel, travel, contractual, commodities, and equipment), list the total amount requested and explain the basis for the request in terms of specific project objectives and activities. Funds from non-EVOS sources, including in-kind contributions, must also be described. In addition, if you are employed by a government agency that has a legislative mandate for the type of work you propose to do, you must explain why the proposed costs are not being covered by your agency's budget. If you are employed by a non-Trustee agency, you must include an explanation of how the indirect costs were calculated.

This justification must not exceed two consecutively numbered pages.

Detailed Budget Form

Submit a budget form outlining expenditures estimated to be necessary for implementing the objectives described in your proposal. This form will be reviewed in conjunction with the budget justification. You may be asked to respond to budget review questions or to revise budgets to address budgetary concerns.

Data Management and Quality Assurance/Quality Control ("QA/QC") Statement

Any project involving collecting or processing data, conducting surveys, taking environmental measurements, and/or modeling must provide a statement describing the data management and quality assurance/control processes that will be used to ensure the integrity of the data and match data types to project objectives. This statement must present the information listed below and reference the specific page and paragraph number of the research plan containing the information, or state that the item does not apply to the proposed research. If you are employed by an entity that has published its QA/QC procedures, please cite where the information may be obtained in lieu of a statement. **This statement must not exceed three consecutively numbered pages.**

1. Describe the study design, including sample type(s) and location requirements, all statistical analyses that were or will be used to estimate the types and numbers of physical samples required or equivalent information for studies using survey and interview techniques. Include a description of the metadata essential to interpretation of the results of your work. For example see 3 below.
2. Discuss criteria for determining acceptable data quality in terms of the activities to be performed or hypotheses to be tested.
3. Discuss the characteristics of the data that your project is going to be producing. This section is broken into two parts. Part (a) describes the production of a minimally compliant FGDC metadata record which needs to be submitted by all proposers. Part (b) is specific to projects producing quantitative data and provides specifications for categorizing quantitative data into one of three data groups: physical measurements, species specific measurements, and taxonomic sampling.
 - (a) Metadata about your project which meets the minimum requirements dictated by the Federal Government Data Committee (FGDC) must be provided. Free software to facilitate the creation of a minimally compliant FGDC metadata record can be downloaded at <http://edcnts11.cr.usgs.gov/metalite>. The software--titled MetaLite--requires 26 fields to be registered and then automatically generates the associated FGDC metadata record. In addition to minimal FGDC metadata requirements, proposers must submit more extensive metadata descriptor requirements for project data which have a quantitative characteristic. See (b) below.
 - (b) Quantitative datasets can generally be grouped into three categories: physical measurements, species specific measurements and taxonomic sampling. Physical measurements pertain to non-biological oceanographic readings harvested from devices. Species specific datasets are composed of biological analyses limited to a

predefined species group or inclusive hierarchical taxonomic structure. Taxonomic sampling datasets consist of information, which attempts to characterize various flora and fauna captured/observed during a sampling project. If your proposal would collect quantitative data, you must categorize, with justification, your data by one of the following types--physical measurements, species specific measurements or taxonomic sampling--and then produce a list of fields associated with your quantitative dataset.

4. Define each algorithm to be used to convert signals from sensors to observations. Examples of algorithms of interest would be the conversion of pressure to depth and the conversion of integrated voltages to biomass at depth. When conversion algorithms are lengthy (i.e., computer programs) substitute a source location, such as an ftp site, for the full text. In the case of proprietary conversion algorithms, identify the proprietor and describe how the accuracy of conversion is verified under calibration (see #6 below).
5. Describe the procedures for the handling and custody of samples, including sample collection, identification, preservation, transportation and storage.
6. Describe the procedures that will be used in the calibration and performance evaluation of all analytical instrumentation and all methods of analysis to be used during the project.
7. Discuss the procedures for data reduction and reporting, including a description of all statistical methods, with reference to any statistical software to be used, to make inferences and conclusions. Discuss any computer models to be designed or utilized with associated verification and validation techniques

Budget Instructions for Proposals

Budgets will be reviewed for consistency with proposal objectives and for adherence to the budget instructions that follow. It is the responsibility of the proposer to submit a budget that is both reasonable and justifiable. Proposers may be asked to respond to budget review questions, or to revise their budgets to address budgetary concerns. General costs may be submitted until final project negotiations are complete. The scope of the proposal may be modified during negotiations to include more than a single resource or service if applicable.

Instructions

A budget form detailing the amount of funding requested from the Trustee Council for each federal fiscal year must be submitted as part of the proposal package. The form is in addition to the budget justification that is also required as part of the proposal package.

There are two sets of budget forms. Use only the set that applies to you. One set is used for proposals submitted through Trustee agencies. A second set is for those submitted through non-Trustee organizations.

Blank forms (Excel format) are available on the EVOSTC website at http://www.evostc.state.ak.us/Proposals/Downloadables/FY09_budget_Forms.xls

For assistance completing budget forms, please contact the EVOSTC Administrative Manager via email (lynette.schroeder@alaska.gov) or phone at (907) 278-8012.

Notes:

- **Fiscal Year:** The Trustee Council operates on the federal fiscal year (FY). The FY 09 budget covers the period October 1, 2008 through September 30, 2009. Your budget must address all fiscal years for which funds are requested.
- **Project Number:** The EVOS Trustee Council office assigns numbers to proposals.
- **Rules for Numbers:** Show costs in thousands of dollars (e.g. show \$86,423 as \$86.4. When the number "5" follows the digit to be rounded, round to the higher amount. (e.g. round \$26,752 to \$26.8).
- **Positions:** Report the number of positions as full-time equivalent positions (FTE), by converting the number of months to a decimal. For example, show six months (half of a year) as .5 FTE.
- **Indirect Costs:** Indirect costs are costs incurred for common or joint purposes that cannot be specifically identified with a particular project. Examples of indirect costs are lease costs, copying, phones, faxes, internet access, equipment maintenance, vehicle leasing, training, payroll and personnel functions, clerical support, administrative supervision, accounting, auditing and mail and messenger services. These items should be budgeted for separately only if they are incurred because of a specific project and documentation of the expense is maintained.
 - Trustee Agencies (Alaska Department of Environmental Conservation, Alaska Department of Fish and Game, Alaska Department of Natural Resources, National oceanic and Atmospheric Administration, US Forest Service and US Department of the Interior) should cover these costs through the Trustee Council's general administration (GA) formula. The GA Rate is 9% of each project's total direct costs.
 - Non-Trustee organizations should cover these costs through their indirect cost rate. These rates will be reviewed on a project-by-project basis. However, proposers affiliated with the University of Alaska must use the indirect rate agreed to by the University for Trustee Council-funded projects. The agreement provides for an indirect cost rate of 25% of total direct costs (TDC). TDC includes all direct costs except (1) equipment for which ownership resides with the University and (2) subcontract costs in excess of \$25,000. Regarding subcontracts, the indirect rate is 25% of the first \$25,000 of each subcontract, plus 5% of each subcontract's costs in excess of \$25,000 and less than \$250,000, plus 2% of each subcontract's costs in excess of \$250,000.
- **Direct Costs:** Direct costs are costs specifically identified with a particular project. Examples of direct costs are compensation of employees for the time spent executing the project, acquisition of materials or equipment for purposes outlined in the research plan, project-specific travel and contractual services specified in the research plan. For most projects, the following direct costs should be included:

- **NEPA (National Environmental Policy Act) Compliance:** All projects funded by the Trustee Council must comply with NEPA. Due to the nature of many EVOS-funded projects, most projects receive a categorical exclusion (CE). However, for a few projects, an environmental assessment (EA) may be required. If a project will likely require an EA, include the costs for preparing the EA in the project budget.
- **Community Involvement:** Include funds for the PI or his/her representative to exchange information with local communities as appropriate.
- **Report Writing:** A final report is due April 15 of the final year of the project. PIs may be required to provide an oral briefing of their findings to the Trustee Council. Final reports are required upon project completion. Identify in the description field on the appropriate budget forms any funds that have been included for report writing and preparation. See the Procedures for the Preparation and Distribution of Reports on the EVOS TC website.
- **Manuscript Preparation and Publication:** The Trustee Council may contribute a maximum of \$1,000 in page costs per project and 1.5 months of personnel time per manuscript toward publication of study results in the peer reviewed literature. Specify in your research plan the subject/title of each manuscript, the name of the peer reviewed journal(s) to which you plan to submit and anticipated date of submission.

Budget Form Explanations

Download budget forms and detailed instructions from:

http://www.evostc.state.ak.us/Policies?Downloadables/budget_forms.xls

- **Trustee Agency Form, Multi Trustee Agency Summary, Form 2A**
Use this form if multiple Trustee agencies are cooperating on a project. If only one Trustee agency is involved, this form is not required.
- **Trustee Agency Form, Summary, page 1 of 4, Form 3A**
This form summarizes the proposed expenditures contained on the Trustee Agency Detail forms.
- **Trustee Agency Form, page 2 of 4, Personnel & Travel Detail, Form 3B**
“Personnel” means compensation of employees, including benefits, for the time and effort devoted to the execution of the project. “Travel” means the cost of transportation by public conveyance and per diem. All travel must be budgeted at round-trip economy rates.
- **Trustee Agency Form, pages 3 of 4, Contractual and Commodities Detail, Form 3B**
“Contractual” covers such items as vessel charters, equipment rental or lease, professional services, communications and printing. “Commodities” are expendable supplies with an estimated life of less than one year and a unit value of less than \$1,000.
- **Trustee Agency Form, page 4 of 4, Equipment Detail, Form 3B**
“Equipment” means non-expendable items having an estimated life of more than one year and a unit value greater than \$1,000. Equipment previously purchased by the Trustee Council

should be used to the maximum extent possible. Before requesting funds for new equipment, contact your Trustee Agency project manager to determine if suitable equipment is already available. Equipment items with an original per unit cost of \$5,000 or more belong to the acquiring Trustee agency on behalf of the Council. At the end of the project, the Council's Executive Director shall determine if such equipment shall be used for another Council project or if the item shall remain with the acquiring agency. For more information, download the Financial Procedures from the EVOSTC website.

- Non-Trustee Organization Form, page 1 of 4, Summary Form 4A
This form summarizes the proposed expenditures contained on the Non-Trustee Organization Detail forms.
- Non Trustee Organization Form, page 2 of 4, Personnel & Travel Detail, Form 4B
"Personnel" means compensation of employees, including benefits, for the time and effort devoted to the execution of the project and includes tuition for students. "Travel" means the cost of transportation by public conveyance and per diem. All travel must be budgeted at round-trip economy rates.
- Non-Trustee Organization Form, page 3 of 4, Contractual & Commodities Detail, Form 4B.
"Contractual" covers such items as vessel charters, equipment rental or lease, professional services, communications and printing. "Commodities" are expendable supplies with an estimated life of less than one year and a unit value of less than \$1,000.
- Non Trustee Organization Form, page 4 of 4, Equipment Detail, Form 4B
"Equipment" means non-expendable items having an estimated life of more than one year and a unit value greater than \$1,000. Equipment previously purchased by the Trustee Council should be used to the maximum extent possible. Before requesting funds for new equipment, contact your Trustee Agency project manager to determine if suitable equipment is already available. All equipment purchased remains the property of the Trustee agency until the end of the project, at which time the agency may, under certain circumstances, transfer the equipment title to the contractor. If the original per unit cost of the equipment was \$5,000 or more, the Council's Executive Director has the authority to direct that the equipment be transferred to another Council-funded project, rather than remaining with the Trustee agency or being transferred to a contractor.

PROPOSAL SIGNATURE FORM

THIS FORM MUST BE SIGNED BY THE PROPOSED PRINCIPAL INVESTIGATOR AND SUBMITTED ALONG WITH THE PROPOSAL. If the proposal has more than one investigator, this form must be signed by at least one of the investigators, and that investigator will ensure that Trustee Council requirements are followed. Proposals will not be reviewed until this signed form is received by the Trustee Council Office.

By submission of this proposal, I agree to abide by the Trustee Council's data policy (*Trustee Council Data Policy**, adopted March 17, 2008) and reporting requirements (*Procedures for the Preparation and Distribution of Reports***, adopted June 27, 2007).

PROJECT TITLE: _____

Printed Name of PI: _____

Signature of PI: _____ Date: _____

Email: _____ Phone: _____

Mailing Address _____

City, State, Zip _____

Printed Name of PI: _____

Signature of PI: _____ Date: _____

Email: _____ Phone: _____

Mailing Address _____

City, State, Zip _____

Printed Name of PI: _____

Signature of PI: _____ Date: _____

Email: _____ Phone: _____

Mailing Address _____

City, State, Zip _____

* www.evostc.state.ak.us/Policies/data.cfm

** www.evostc.state.ak.us/Policies/reporting.cfm

**FY09 INVITATION
PROPOSAL SUMMARY PAGE****Project Title:****Project Period:** (Please use the federal fiscal years of October 1 – September 30)**Primary Investigator(s):** (List each investigator and their affiliation)**Study Location:** (Be specific as possible)**Abstract:****Estimated Budget:****EVOS Funding Requested:***(breakdown by fiscal year and must include 9% GA)***Non-EVOS Funds to be used:***(breakdown by fiscal year)***Date:**

(NOT TO EXCEED ONE PAGE)

PROJECT PLAN

I. NEED FOR THE PROJECT

A. Statement of Problem

Identify the problem the project is designed to address. Describe the background and history of the problem. Include a scientific literature review that covers the most significant previous work history related to the project.

B. Relevance to 1994 Restoration Plan Goals and Scientific Priorities

Discuss how the project will evaluate the hypotheses or questions posed in the Invitation. Describe the results you expect to achieve during the project, the benefits of success as they relate to the topic under which the proposal was submitted, and the potential recipients of these benefits. Discuss the utility of the research proposed for addressing the objectives described in the invitation.

II. PROJECT DESIGN

A. Objectives

List the objectives of the proposed research, the hypotheses being tested during the project, and briefly state why the intended research is important.

B. Procedural and Scientific Methods

For each objective listed in A. above, identify the specific methods that will be used to meet the objective. In describing the methodologies for collection and analysis, identify measurements to be made and the anticipated precision and accuracy of each measurement and describe the sampling equipment in a manner that permits an assessment of the anticipated raw-data quality.

If applicable, discuss alternative methodologies considered, and explain why the proposed methods were chosen. In addition, projects that will involve the lethal collection of birds or mammals must comply with the Trustee Council's policy on collections, available at www.evostc.state.ak.us/Proposals/policies.htm.

C. Data Analysis and Statistical Methods

Describe the process for analyzing data. Discuss the means by which the measurements to be taken could be compared with historical observations or with regions that are thought to have similar ecosystems. Describe the statistical power of the proposed sampling program for detecting a significant change in numbers. To the extent that the variation to be expected in the response variable(s) is known or can be approximated, proposals should demonstrate that the sample sizes and sampling times (for dynamic processes) are of sufficient power or robustness to adequately test the hypotheses. For environmental measurements, what is the measurement error associated with the devices and approaches to be used?

D. Description of Study Area

Where will the project be undertaken? Describe the study area, including if applicable decimal-coded latitude and longitude readings of sampling locations or the bounding coordinates of the sampling region (e.g., 60.8233, -147.1029, 60.4739, -147.7309 for the north,

east, south and west bounding coordinates). The formula for converting from degree minute seconds to decimal degrees is: degrees + (minutes/60) + (seconds/3600) so $121^{\circ}8'6'' = 121. + (8/60) + (6/3600) = 121.135$

E. Coordination and Collaboration with Other Efforts

Indicate how your proposed project relates to, complements or includes collaborative efforts with other proposed or existing projects funded by the Trustee Council. Describe any coordination that has taken or will take place (with other Council funded projects, ongoing agency operations, activities funded by other marine research entities, etc.) and what form the coordination will take (shared field sites, research platforms, sample collection, data management, equipment purchases, etc.). If the proposed project requires or includes collaboration with other agencies, organizations or scientists to accomplish the work, such arrangements should be fully explained and the names of agency or organization representatives involved in the project should be provided. If your proposal is in conflict with another project, note this and explain why.

III. SCHEDULE

A. Project Milestones

For each project objective listed above (II.A.), specify when critical project tasks will be completed. Project reviewers will use this information in conjunction with annual project reports to assess whether projects are meeting their objectives and are suitable for continued funding. Please format your information like the following example.

Objective 1. Develop sediment-core chronologies in lake-productivity indicators.
To be met by September 2010

Objective 2. Compare sediment data corresponding to the past few decades to salmon population statistics.
To be met by December 2010

Objective 3. Reconstruct time-series of lake productivity, input of marine-derived nutrients, and salmon escapement.
To be met by April 2011

B. Measurable Project Tasks

Specify, by each quarter of each fiscal year, when critical project tasks (for example, sample collection, data analysis, manuscript submittal, etc.) will be completed. This information will be the basis for the quarterly project progress reports that are submitted to the Trustee Council Office. Please format your schedule like the following example.

FY 07, 1st quarter (October 1, 2009-December 31, 2009)

October: Project funding approved by Trustee Council

FY 07, 3rd quarter (April 1, 2010-June 30, 2010)

April 30: Core Upper Russian Lake

May 30: Core Delight Lake

FY 07, 4th quarter (July 1, 2010-September 30, 2010)

September 1: Core Hidden Lake

FY 08, 1st quarter (October 1, 2010-December 31, 2010)

December 15: Finish lab analyses of all three lakes

FY 08, 2nd quarter (January 1, 2011-March 31, 2011)

(dates not yet known) Annual Marine Science Symposium (applicable only to final year of project)

FY 08, 3rd quarter (April 1, 2011-June 30, 2011)

April 15 Submit final report. This will consist of a draft manuscript for publication to the Trustee Council Office.

FY 08, 4th quarter (July 1, 2011 – September 30, 2011)

June 30 Respond to peer review comments.

July 30 Secure final approval, acceptance of final report

September 30 Publication of final report complete, delivered to ARLIS

APPENDIX A – COMMUNITY CONTACT INFORMATION

The following contact information is intended to be used by applicants to find initial contacts in the communities:

Native Village of Afognak

Nancy Nelson, Chairperson
115 Upper Mill Bay Rd. Suite 201
Kodiak, AK 99615
907-486-6357
melissa@afognak.org

City of Cordova

Tim Joyce, Mayor
P.O. Box 1210
Cordova, AK 99574
907-424-6200
cityclerk@cityofcordova.net

Native Village of Akhiok

Rolin M Amodo, President
P.O. Box 5030
Akhiok, AK 99615-5030
907-836-2313

Traditional Village of Eyak

Robert Henrichs, President
P.O. Box 1388
Cordova, AK 99574-1388
907-424-7738
reception@nveyak.org

Chenega IRA Council

Larry Evanoff, President
PO Box 8079
Chenega Bay, AK 99574-8079
(907) 573-5132
chenegaira@aol.com

City of Homer

James C. Hornaday, Mayor
491 East Pioneer Ave.
Homer, AK 99603
907-235-8121
clerk@ci.homer.ak.us

Chignik Lake Village Council

Virginia Aleck, President
P.O. Box 33
Chignik Lake, AK 99548
907-845-2212
chigniklakecouncil@yahoo.com

Native Village of Karluk

Alicia Reft, President
P.O. Box 22
Karluk, AK 99608
907-241-2218

Chignik Bay Tribal Council

Roderick Carlson, President
P.O. Box 50
Chignik Bay, AK 99564
907-749-2445
cbaytc@aol.com

Kodiak Island Borough

Jerome Selby, Mayor
710 Mill Bay Road
Kodiak, AK 99615
907-486-9301
njavier@kodiakak.us

Native Village of Chignik Lagoon

Clemens Grunert, President
P.O. Box 09
Chignik Lagoon, AK 99565
907-840-2281
clvc101@aol.com

City of Kodiak

Carolyn Floyd, City Clerk
710 Mill Bay Road
Kodiak, AK 99615
907-486-8636
clerk@city.kodiak.ak.us

Larsen Bay Tribal Council

Mary Nelson, President
P.O. Box 50
Larsen Bay, AK 99624
907-847-2207/2276

City of Larsen Bay

Allen Panamaroff Sr., Mayor
P.O. Box 8
Larsen Bay, AK 99624-0008
907-847-2211
cityoflarsenbay@aol.com

Nanwalek IRA Council

Emilie Swenning, President
P.O. Box 8028
Nanwalek, AK 99603-8028
907-281-2274
nanwalek@yahoo.com

Port Lions Traditional Tribal Council

Ivan D. Lukin, President
P.O. Box 69
Port Lions, AK 99550
907-454-2234
NVOPL@starband.net

Native Village of Tatitlek

Sue Johnson, President & CEO
P.O. Box 171
Tatitlek, AK 99677
907-325-2311
suejohnson1@starband.net

Old Harbor Tribal Council

Conrad Peterson, President
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Old Harbor, AK 99643
907-286-2215
ohtribal@hotmail.com

Ouzinkie Tribal Council

Daniel Ellanak, President
P.O. Box 130
Ouzinkie, AK 99644
907-680-2259

ouzclerk@starband.net

City of Seldovia

Richard Wyland, Mayor
Drawer B
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907-234-7643
info@cityofseldovia.com

City of Seward

Clark Corbridge, Mayor
P.O. Box 167
Seward, AK 99664
907-224-4046
clerk@cityofseward.net

Seldovia Village Tribe IRA

Crystal Collier, CEO
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907-234-7898
svt@svt.org

City of Soldotna

David Carey, Mayor
177 North Birch Street
Soldotna, AK 99669
907-262-9107
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City of Valdez

Bert Cottle, Mayor
P.O. Box 307
Valdez, AK 99686
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City of Whittier

Lester Lunceford, Mayor
P.O. Box 608
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admin@ci.whittier.ak.us

LINGERING OIL PROPOSAL



Project Title: Microcosm Study on the Biodegradability of Lingering Oil in Prince William Sound 19 Years after the Exxon Valdez Oil Spill —Submitted under the BAA

Project Period: June 1, 2008 to May 31, 2009

Dr. Albert D. Venosa
U.S. Environmental Protection Agency
26 W. Martin Luther King Drive
Cincinnati, OH 45268
Tel: 513-569-7668, Email: venosa.albert@epa.gov

Abstract: This proposal will provide important information that would help evaluate the persistence 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. The likely sources of limitation include: (1) environmental limitations (such as low nutrient concentrations and/or low oxygen) that would limit biodegradation, and (2) the lack of bioavailability of the oil due to its weathering or the existence of an impenetrable "skin" on the oiled sediment. This study proposes to investigate the biodegradability of the lingering oil collected from several sites still showing signs of oil in the subsurface. It will answer important questions about the biodegradability of the oil that has undergone weathering for 19 years. The laboratory study described in this proposal will provide evidence that could support decisions on whether to bioremediate the remaining oil contaminating the subsurface at selected sites in PWS. A complementary tracer study is currently ongoing in PWS to establish and understand the hydrodynamic properties of the PWS beaches that would allow the addition of nutrients, and possibly oxygen, for biostimulating the lingering oil. Results from both studies combined will provide sufficient support to aid the Exxon Valdez Oil Spill Trustee Council in making a decision regarding the propriety of undertaking an investigation of the applicability of bioremediation in the field.

Funding for FY '08: \$166,729, excluding 9% G&A requested by Trustee Council
FY '08 Cost-Sharing by U.S. EPA: \$2,043
Total FY '08 requested including 9% G&A: \$181,735

Funding for FY '09: \$332,989, excluding 9% G&A requested by Trustee Council
FY '09 Cost Sharing by U.S. EPA: \$14,508
Total FY '09 requested including 9% G&A: 354,238

TOTAL REQUESTED: \$491,718 excluding 9% G&A and EPA Cost Share
Cost-Sharing by U.S. EPA: \$16,551
TOTAL including EPA cost share: \$491,718
TOTAL including 9% G&A (1.09 * \$491,718): \$535,973

Exxon Valdez Oil Spill Restoration Plan
Update on Injured Resources and Services
Proposed Entry

Barrow's Goldeneyes

Injury

Barrow's goldeneyes are sea ducks that winter in protected nearshore marine waters like Prince William Sound and feed in the intertidal zone, consuming mussels almost exclusively. These natural history attributes suggest that the species is at high risk relative to other birds for direct and indirect, and both acute and chronic, effects of marine oil spills.

Some acute mortality of Barrow's goldeneyes was observed in the weeks and months immediately following the Exxon Valdez oil spill in March 1989. Total acute mortality of Barrow's goldeneyes is difficult to determine, given uncertainty in carcass identification and recovery rates, but sea ducks, generally, were vulnerable to acute mortality and constituted approximately 25% of the carcasses recovered in Prince William Sound. Given the number of Barrow's goldeneyes present at the time of the spill, acute mortality was likely in the thousands.

Of more concern are longer-term effects due to either chronic exposure to oil or indirect effects of trophic web disruption. Because Barrow's goldeneyes occur exclusively in intertidal and shallow subtidal habitats, they would be particularly vulnerable to effects of lingering oil. Similarly, reliance on intertidal invertebrate prey would suggest that Barrow's goldeneyes are particularly vulnerable to disruptions of intertidal communities.

Barrow's goldeneyes have been shown to have higher levels of induction of cytochrome P4501A (CYP1A) in oiled areas compared to unoiled areas. Elevated CYP1A induction in Barrow's goldeneyes from oiled areas of Prince William Sound was documented in 1997 and 2005. While these do not necessarily demonstrate subsequent injury, the potential for individual- or population-level effects of exposure to residual oil is plausible.

Recovery Goal

A return to conditions that would have existed had the spill not occurred.

Recovery Objectives

Barrow's goldeneyes will have recovered when breeding- and nonbreeding-season demographics and biochemical indicators of hydrocarbon exposure in goldeneyes in oiled areas of Prince William Sound are similar to those of goldeneyes in unoiled areas.

Recovery Status

Within their wintering range, Prince William Sound is an important area, supporting between 20,000 and 50,000 wintering individuals. Survey data from the U.S. Fish and Wildlife Service indicated that winter numbers of goldeneyes on oiled areas were stable

from 1990-1998, in contrast to significantly increasing numbers on unoiled areas during that same time period. That was interpreted as evidence of lack of recovery, as the prediction would be that lack of continued injury would result in parallel population trajectories and that recovery would be indicated by more positive trajectories on oiled areas. In the most recent published survey (through March 2005), slopes were parallel and stable over time, although this was due primarily to a decrease in goldeneye abundance on unoiled areas.

A study of Barrow's goldeneye habitat use in oiled and unoiled portions of Prince William Sound found that densities of birds in oiled areas were at expected levels, given the habitat, suggesting that the oil spill had not led to depressed numbers at the time of the study (1996 and 1997).

Interpretation of surveys and habitat selection is constrained by lack of full understanding of Barrow's goldeneye demography, particularly rates of site fidelity and dispersal. These values have important implications for understanding the process of population recovery.

The continued induction of CYP1A through March 2005 and the only recent lack of difference in slopes between oiled and unoiled areas, suggest that the Barrow's goldeneyes have not recovered from the effects of the oil spill.

Restoration Status of Barrow's Goldeneyes

General Background

Barrow's Goldeneyes (*Bucephala islandica*) are sea ducks that occur in protected nearshore marine waters (like Prince William Sound) during winter (October through April) and breed inland on ponds and lakes (Eadie et al. 2000). Barrow's Goldeneyes are a North American endemic (with the exception of a small number in Iceland) and have a restricted continental range (Figure 1). The vast majority of the global numbers of Barrows Goldeneyes occur in western North America, breeding from central Alaska to Washington state. The extent of the wintering range is similar, with nearly all wintering Barrow's Goldeneyes occurring from Kodiak Island, Alaska through Puget Sound, Washington. Within that restricted wintering range, Prince William Sound is an important area, supporting between 20,000 and 50,000 wintering individuals (McKnight et al. 2006).



Figure 1. North American range of Barrow's Goldeneyes (from U.S. Fish and Wildlife Service; Sea Duck Joint Venture).

On wintering areas, Barrow's Goldeneyes feed in the intertidal zone, consuming mussels (*Mytilus trossulus*) almost exclusively (Koehl et al. 1982). These natural history attributes suggest that Barrow's Goldeneyes are at high risk relative to other birds for direct and indirect, and both acute and chronic, effects of marine oil spills.

Following the sea duck paradigm (Goudie et al. 1994), Barrow's Goldeneyes would be expected to be relatively long-lived and thus their populations would be sensitive to changes in adult mortality. However, detailed work on Barrow's Goldeneye demography is largely lacking. Breeding biology has been well studied at some sites in British Columbia (Eadie 1989, Savard et al. 1991, Evans et al. 2002, Thompson and Ankney

2002), Iceland (Einarsson 1988, 1990), and eastern Canada (Robert et al. 2000), but survival and dispersal rates are not well-known (Lake et al. 2006). Some aspects of wintering ecology, such as diet (Koehl et al. 1982) and habitat selection (Esler et al. 2000a), have been studied, but detailed demographic data are lacking, which constrains full understanding or prediction of effects of the Exxon Valdez oil spill (Esler 2000).

Injury

Some acute mortality of Barrow's Goldeneyes was observed in the weeks and months immediately following the Exxon Valdez oil spill in March 1989; sea ducks, generally, were vulnerable to acute mortality and constituted approximately 25% of the carcasses recovered in Prince William Sound (Piatt et al. 1990). Total acute mortality of Barrow's Goldeneyes is difficult to determine, given uncertainty in carcass identification and recovery rates, but given the number of Barrow's Goldeneyes present at the time of the spill, acute mortality was likely in the thousands.

Of more concern are longer-term effects due to either chronic exposure to oil or indirect effects of trophic web disruption. Because Barrow's Goldeneyes occur exclusively in intertidal and shallow subtidal habitats, they would be particularly vulnerable to effects of lingering oil, as these are the habitats in which oil has remained for more than 14 years (Short et al. 2006). Similarly, reliance on intertidal invertebrate prey would suggest that Barrow's Goldeneyes are particularly vulnerable to disruptions of intertidal communities.

As suggested by their habitat choice, Barrow's Goldeneyes have been shown to have higher levels of induction of cytochrome P4501A (CYP1A) in oiled areas compared to unoiled areas. CYP1A induction occurs in response to exposure to certain, specific compounds, and has been used commonly to infer exposure to residual spilled oil for many species, including in the case of the *Exxon Valdez*. Elevated CYP1A induction in Barrow's Goldeneyes from oiled areas of Prince William Sound was documented in 1997 (Trust et al. 2000) and 2005 (Esler, unpubl. data). While these do not necessarily demonstrate subsequent injury, the potential for individual- or population-level effects of exposure to residual oil is significant. Harlequin ducks (*Histrionicus histrionicus*), another intertidal-dwelling sea duck, had lower winter survival rates on oiled areas in conjunction with elevated CYP1A induction (Esler et al. 2000b).

Survey data from the U.S. Fish and Wildlife Service indicated that winter numbers of goldeneyes on oiled areas were stable from 1990-1998, in contrast to significantly increasing numbers on unoiled areas during that same time period (Lance et al. 1999). That was interpreted as evidence of lack of recovery, as the prediction would be that lack of continued injury would result in parallel population trajectories and that recovery would be indicated by more positive trajectories on oiled areas. In the most recent survey (through March 2005; McKnight et al. 2006), slopes were parallel and stable over time, although this was due primarily to a decrease in goldeneye abundance on unoiled areas.

In a study of Barrow's goldeneye habitat use in oiled and unoiled portions of Prince William Sound, Esler et al. (2000a) found that densities of birds in oiled areas were at

expected levels, given the habitat, suggesting that the oil spill had not led to depressed numbers at the time of the study (1996 and 1997).

Interpretation of surveys (McKnight et al. 2006) and habitat selection (Esler et al. 2000a) is constrained by lack of full understanding of Barrow's Goldeneye demography, particularly rates of site fidelity and dispersal (Esler 2000). These values have important implications for understanding the process of population recovery.

Recovery Status

Given continued induction of CYP1A through March 2005 and only recent lack of difference in slopes between oiled and unoled areas, there is concern about the recovery status of Barrow's Goldeneyes. Restoration activities, as described below, may be appropriate.

Restoration Recommendations and Opportunities

Continued monitoring of population numbers and trends, and CYP1A induction, are warranted under the circumstances.

Also, Barrow's Goldeneyes have some unique features that allow direct restoration with a high likelihood of success. In particular, because Barrow's Goldeneyes are almost exclusively cavity nesters, local populations can be enhanced through provision of additional nesting sites (nest boxes; Savard 1988, Evans et al. 2002). This activity would increase carrying capacity on breeding areas, which is thought to be the limiting factor for the species in general. It is likely that many of the birds wintering in Prince William Sound nest in adjacent watersheds. To benefit the Prince William Sound wintering population, connections between nearby high density breeding areas and birds wintering in the Sound would need to be confirmed. However, a pilot program using satellite telemetry could be used to define breeding areas to target for nest site enhancement. In addition, satellite telemetry could be used to confirm that juveniles produced in nest boxes recruit to the Prince William Sound population.

A satellite telemetry/nest box suite of restoration activities would have considerable side benefits, including participation by local communities and generation of data on demography (dispersal) that would enhance interpretation of survey data.

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McKnight, A., K. M. Sullivan, D. B. Irons, S. W. Stephensen, and S. Howlin. 2006. Marine bird and sea otter population abundance of Prince William Sound, Alaska: trends following the *T/V Exxon Valdez* oil spill, 1989-2005. *Exxon Valdez Oil Spill Restoration Project Final Report* (Restoration Projects 040159/050751), U.S. Fish and Wildlife Service, Anchorage, Alaska.

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Robert, M., D. Bordage, J. -P. L. Savard, G. Fitzgerald, and F. Morneau. 2000. The breeding range of the Barrow's Goldeneye in eastern North America. *Wilson Bulletin* 112:1-7.

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COMMUNICATION
PLAN

DRAFT COMMUNICATION PLAN

EVOSTC: 20 Years After the Spill

Working Document 6/13/08

GOAL

To communicate to the public the status of restoration of injured services and resources and the results of restoration activities 20 years after the Exxon Valdez Oil Spill.

To discuss the status of recovery: what we do know, what we may never know, and what the implications are for the future.

MESSAGES

The following are from the 2/28/08 briefing paper, additional are in development.

- We have contributed to the recovery of a diverse group of injured resources.
- We have also learned that for some resources, recovery has taken and will continue to take a long time.
- Our efforts to explain the slow pace of recovery have resulted in groundbreaking discoveries with huge implications for oil spill response and restoration throughout the world.

COMMUNICATION STRATEGY

1. Utilize a mix of communication channels to reach different audiences effectively. Integrate electronic communications and social media into products.
2. Partner and leverage efforts, avoid duplication and work collectively to extend reach and effectiveness where possible.
3. Solicit input from TC, liaisons, PAC, staff (past & present), communities and the general public before determining actions. Let people know how their input was used.
4. Fund expedited projects.
5. Provide small grant opportunity to support community based efforts such as bringing in outside speakers to an event.

AUDIENCE

1. National & international
2. Alaska residents
3. Spill affected communities

Detailed breakdown:

- EVOSTC members, liaisons and staff (new?)
- Elected Officials (local community, governor, to national)

- Federal Departmental & Agency leadership (and people of influence in regards to work of EVOSTC)
- State Government
- Native villages and corporations
- Communities (state wide and spill affected)
- Alaskans
- General public (National and International constituency)
- Scientific community
- Educators
- Youth

Match messenger with the message: use the most effective speaker for the message you're trying to deliver such as: talking about generational effect, use youth; talking about subsistence issues, have subsistence user convey the message.

ACTIONS

General

- Draft communication strategy 6/20/08. Keep as working document and continue to solicit input and refine over the course of the summer.
- Refine messages and update injured resource and services by 7/30/08.
- Provide media training to interested staff, TC members, liaisons and PAC members.

Formal Education

Encourage teaching about the spill and restoration, and student involvement. Build awareness and understanding with the next generation.

- Outreach to teachers: budget for mailing (investigate opportunity to leverage with partners)
- Curriculum: develop and add materials to existing efforts. Funding for review/update of existing and enhanced distribution.
- Teacher training:
 - July 2008: Partnership support to Alaska Geographic, PWSRCAC, CNF & UAA field seminar/teacher training.
 - Summer 09: Partnership support for field seminars (expand to 2 sessions, target session for teachers only).
 - Determine opportunity to host a shorter session and/or partner with other existing sessions.
 - Investigate opportunity to get teachers out with researchers such as the "Polar Trek" (teachers hosted on ice-breaker).
- Resources:
 - 2 teacher kits accompany the Darkened Waters exhibit. Determine value/need for funding for transportation to/from schools.
 - Need for additional resources such as additional and large format maps. For the 10 year, EVOSTC produced newspaper type product for kids. Funding for production and distribution.

- Use of technology including interactive media (see below)
- "For teacher and students" website sections
- Student activities
 - Encourage or incentivize student projects resulting in: social media such as podcasts (post on website), videos (YouTube & website); new technology applications; presentations in communities or at conferences; essay or art based competition; etc.
 - As Darkened Waters travels to communities, opportunity to bring classes. Need funding for transportation.
 - Distance learning program: investigate with partners (SeaLife Center markets distance learning, "Migration Mystery" another example).

Partner across agencies and organizations that are also interested in the above to leverage resources and avoid duplication of efforts, and extend our collective reach.

Media Outreach

Gain media coverage of restoration efforts. Encourage inclusion of restoration efforts: outcomes and continuing issues; results of science, habitat protection and community effects:

- Create materials in advance that are useful to media (b-roll of footage for science and habitat conservation stories, briefing papers or press release for news).
- Respond within 24 hours to media requests and track coverage.
- Determine opportunities to get reporters out with researchers in-the-field.
- Meet with editorial staffs (print, radio, tv). Discuss: column and/or Op Ed pieces (Op Ed scheduled for March 24 or Sunday prior)
- Develop or access list serve via state or federal agency for maximum outreach (includes AP wire)
- Use press release to alert media
- Develop & distribute press kit (will include: 20th year Status Report; fact sheet; contact list).
- Develop radio spots: Investigate potential with APRN and others
- Interview preparation

Target Media

Magazine

- AK Magazine
- First Alaskans (Alaska Newspapers, Inc.)

Newspaper

- AP: Alaska contacts
- Anchorage Daily News
- Anchorage Press

Local papers:

- Cordova Times
- Homer Times
- Kenai Peninsula Clarion
- Seward Phoenix Log
- Turnagain Times

On-line

- E&E Daily and Land Letter

Radio

- AK Broadcasters Association
- APRN: segments like coastal currents; post as podcasts following: no additional costs.
- Local stations

TV/Cable

- Local TV stations (Ch 2, 11 & 13 and Cable 10)
- National media: identify what major projects in the work, when/where planning to air.

International Media

- Respond to requests. Knowledge already of BBC, Australian and Korean film crews in the area spring 2008.

Publications

Produce series of high quality communication materials both published and all downloadable from the website. Create and distribute materials in advance of March 24th and 2009 summer season.

- 2009 Status Report: 20 years after the spill (as developed at 5, 10 & 15 years).
 - Full color, glossy. Funding for graphic design and production.
 - Investigate cost/benefit of reproducing in newspaper format for extended, cost effective public outreach.
 - Develop distribution plan including links to other sites.
 - Could serve as companion pieces to exhibit and/or film, etc.
 - PRWRCAC producing "Then & Now" in time for 20 year commemorations. Also produced at 10 year, annual report style, about 20 pages long.
- White papers by category:
 - Funding for graphic design and production.
 - Multiple uses: base for radio spots; local newspaper columns; as briefing papers; teaching materials, and included in above status report.
- Press kit. Funding for folder and distribution.
- "Mission Without a Map: the Politics & Policies of Restoration Following the EVOS," *Joe Hunt*.
 - Publish by Feb. AFE.
 - Provide copies to community libraries, high schools and universities in Alaska.
 - Investigate if it could be available for sale through ARLIS.
- Smaller format print/poster
- Photo calendar
- Large format maps
- Miscellaneous promotional materials

Website Update

Provide overall update of public information, recognizing that the internet is the most important communication tool. Meet expectation that the TC website is the primary source of information

for researchers, teachers, students and citizens (also state & federal agencies, native villages and communities). Website is currently generating about 5,000 hits per month.

- Overall. Funding for web-graphics design with other communication products.
 - Solicit suggestions for 20th year.
 - Coordinate with ARLIS web plans.
 - Re-create sections: for researchers, for teachers, for citizens.
 - Update injured resources & services, and lingering oil sections by July 30.
 - Add technology: use of video clips, still photos, pod casts (from researchers, students working with ...), webcams and other social media.
 - Provide links to related sites and access to resources.
 - *Create a bootable CD/DVD. Mail to remote villages in the state, or other places with limited internet (Cordova), Brendan*
- Development of interactive, user-friendly media (on-line and DVD)
 - Create a timeline series of the EOVS using existing data, GIS files, maps, charts, graphs, pictures, research, and general restoration and habitat protection information. End user will go on a virtual tour of the spill area showing the usual path of oil tankers, the grounding of the T.V Exxon Valdez, the path of the spilled oil tracked over time, the injury to resources and services, subsequent restoration efforts and knowledge gained. The user can vary the scale of areas of interest and query site-specific information. This product will be offered for display at a variety of venues such as visitor centers and museums. Ideally, the media product format would be such that distributing copies to schools and the public would not be cost prohibitive.
 - Animate geo-spatial information using bathometric model to illustrate in 3-D: oil spill spread; clean-up; lingering oil; injured species; science & restoration. Integrate social media: video clips, podcasts, photo's, text, user forums, etc.
 - Potential for on-line, virtual tour of "Darkened Waters" exhibit.

Exhibit(s)

Produce exhibit that is transportable or has transportable versions and can be used to reach audiences in a variety of venues in different geographic regions such as: AFE conference, community events planned on the 24th and then throughout the year and at visitor centers, museums and other public contact venues.

- Partner with the Cordova Historical Society to update the Darkened Waters exhibit and provide as a traveling exhibit through 2009. Funds to develop EVOSTC specific section addressing restoration, and support costs of update and transportation costs of traveling exhibit. *Note: the exhibit was produced by the Pratt Museum and now owned by the Cordova Historical Society.*
- Reproduce sections or condensed version that can be used throughout 2009 at key locations. If not cost prohibitive, adapt site specific exhibit to reflect local conditions such as habitat acquisitions.
- Develop smaller display for venues such as:
 - Libraries (develop list of recommended readings, other resources, films, etc).

- Alaska Marine Ferry system: smaller on-board space, work with BBVC.
- At 10 year, produced large format "book" attached to podium. Was set up in Tatitlek and other small communities.
- Permanent outside display: investigate opportunity/need to develop.
- Create an on-line virtual tour (could also make available on DVD).
- Review existing displays (such as SeaLife Center for needed updates).

Venues:

- The Alaska Forum on the Environment (AFE) is going to have a focus on the spill and has identified prominent space for an exhibit during the Feb. conference.
- Other larger Anchorage venues include the Anchorage Museum, Alaska Native Heritage Center, Loussac Library, APU/UAA campuses. It is likely that other communities including Juneau and Fairbanks would also want it for a period of time (as at the 10 year).
- At conferences and community events such as the Anchorage Oceans Festival.
- Federal Visitors Centers: the following have all expressed preference to host display throughout the year.
 - Begich Boggs Visitor Center, USFS
 - Alaska Islands & Oceans Visitor Center, FWS
 - Kodiak Refuge Visitor Center, FWS

Film

The TC produced short films presenting an overview and status report at 10 years and 15 years after the spill. Before committing funds for a 20 year production, we assessed possible venues and other recommendations to ensure that any product developed would have use and reach the intended audience.

Factors for consideration

- There is strong predisposition within the media not to use materials as produced by government or industry directly. In order to air a film or other program, the norm is to require that it be independently produced where the funder has given complete creative control to the producer.
- We know of several major media outlets (both national and international), that have projects in production. It is expected that this is only a fraction of the planned coverage and that these markets will be saturated. Expect that most projects are well into production (usually a 2-3 year project). So, opportunity to provide additional information is uncertain.
- PWSRCAC has already produced and is distributing a film "Then & Now: the Alaska Oil Spill at 20". The film is 29 minutes, 15 seconds. It provides an overview and then focuses on improvements in prevention and response and the work of the RCAC. It is being distributed on DVDs to classrooms and variety of venues. Funded by a citizen-led organization, it may be picked up by local TV/cable (and fill the 30 minute niche). TC product could provide a bookend to this piece, providing the restoration focus.
- Agreement from the federal visitor centers that both a short (12 minute) and a longer (22-27 minutes) version would be valuable to their visitors.

- The short version would reach the most people, but a longer, high quality film that provided more in depth discussion could have more impact and would be used in their facility programming.
- There is shared opinion that there is potential for high quality film with outstanding videography, that would have a much longer shelf life. Emphasis on high quality, cinematics and videography.
- If we produced a longer film, we could include production of shorter length segments in the contract (commonly done). Shorter pieces could be tailored to reflect local and emphasis.
- Timeframe required for production significantly affects the type and nature of a film that could be produced by March 2009 (or February AFE).

Options

- Continue to access existing films to determine need & value of longer version. Defer decision.
- Produce shorter sections primarily using existing footage and contracting for small segments of additional section as needed. This could be produced by February, would be more of the nature of the type of video produced at 15 year.
- Produce longer, high quality film with expectation that that it will have lasting value and use, potentially beyond the tenure of the TC. It is extremely unlikely that a film of this nature could be completed by February 2009.

Art/Culture

Partner with other organizations or provide financial support to initiatives that help convey the messages of EVOS restoration through art and culture. This could include:

- Writer's conference/sessions:
 - Support restoration theme at Alaska (Kachemak Bay) Writers conference or AFE session.
 - Book or poetry readings at event, local book stores (writers attending writer's conference often give book readings).
 - Sponsorship of essay or poetry contest such as Anchorage Press annual Haiku contest (themed around EVOS restoration).
- Film(s) showing: link with existing festival, during AFE, at Beartooth Theatre.
- Art
 - Art Walk/First Friday, Feb. 6 (during AFE): "The Art of Restoration."
 - Photo contest (could be used to develop 2009 calendar).
 - Photo contest exhibit at Anchorage venue (could travel also).
 - Develop print/poster (at 10 year: Debbie Duback print, \$15 at symposium or could order through ARLIS).
- Public Art
 - Partnership in creation and installation of public art in communities: example: Orca carving/sculpture installation in Whittier.
 - Mural.
- Archeological collections:

Discuss opportunities to assist in sharing this aspect of spill affects including the development of collections. Partial list includes:

 - Aleutiq Museum & Archaeological Repository, Kodiak

- Illanka Cultural Center, Cordova
- Alaska Native Heritage Museum

Special Events

Participate, encourage discussion of EVOS, and/or provide support to special events.

Commitment to organizing and hosting EVOSTC up to 10 sessions, exhibit and keynote speaker at the Alaska Forum on the Environment (AFE). This substitutes for a stand alone session as in previous years. Partnering with a well established and organized event we improve our efficiency and effectiveness and reduce potential for duplication of efforts. Significant staff work will be required for the planning and execution. Additional funding may be requested to bring in outside speakers. Costs for publications or exhibitry are covered in the respective sections.

Participation in community events can be as simple as a static display or modest financial support to EVOS related tracks. They often provide a more effective forum for reaching large numbers of Alaska residents and spill affected communities at a local, and therefore more receptive forum. The involvement of the arts is an important path for communication.

For reference:

April 22 Earth Day (Wednesday in 2009)
March 24 Date of Exxon Valdez Oil Spill

Anchorage 2008

October 23-25 Alaska Federation of Natives Conference

Anchorage 2009

January 19-23 Alaska Marine Science Symposium

February 3-6 Alaska Forum on the Environment

February 6 First Friday, Anchorage *

March 21-24 Local Community events (March 24 is a Monday)

“Day of Remembrance”, native village/corp.

June 8 Oceans Festival

June Salmon in the City

Cordova 2009

May 7-10 Copper River Delta Shorebird Festival (will be their 20th)

Homer 2009

March? Kachemak Bay Science Conference in 2009 (held every 2 years, last held March 2006)

May 6-9 Kachemak Bay Shorebird Festival (held May 7-10, 2008)

June? Kachemak Bay Writer's Conference (only writer's conference in Alaska, writers give lectures in Anchorage pre/post. Last held June 6-10, 2008)

Seward 2009

April Seward Science Symposium, held April 08?

** First Friday: Visual artists are in the spotlight the **first Friday** of each month when **Anchorage** art galleries stay open late to celebrate new works by local artists.*

APPENDIX

EVOSTC Communication Actions at 10 and 15 year commemorations

15 year:

- L.J Evans, public info (now in Fairbanks)
- Anchorage event
- RCAC hosted event in Anchorage (eve?)
 - TC brought display & video/DVD
 - Executive Director (Gail) participated, but didn't speak
- DVD
- Produced by Jolee Johnson, AK Designs
 - Sent to Jr. High and High Schools
 - Notice sent out saying was available.

10 Year:

- Joe Hunt, public info
- Symposium:
- hosted by EVOSTC, charged, printed canvas bag

Exhibit/display

- Backrop with book on podium, had handouts
- Portable, used at symposium, State Fair

Video:

- Produced by Kevin Hartwell

Photography

- By Ray Corral, came with when Kevin getting video

Print

- by Debbie Duback: \$15 at symposium or through ARLIS

COMMUNICATION PLAN
EVOSTC: 20 Years After the Spill

BUDGET ITEMS FOR DECISION:

Formal education: \$25,000

Outreach to teachers, curriculum development, teacher training, and student activities.

Media Outreach: \$10,000

Costs included with direct mailing, web and publication development.

Publications: \$50,000

Graphic artist for design & layout of materials, printing and distribution costs.

Website: \$50,000

Contracting for interactive, user-friendly media.

Exhibit(s): \$50,000

Develop exhibits including: sharing costs of shipping and updating "Darkened Water" exhibit; production of smaller sub-displays, and transportation costs to host facilities and venues.

Film: \$100,000

Develop 12 minute film (at minimum)

Art/Culture: \$10,000

Special Events or community mini grants: \$25,000

Direct Mail budget: \$10,000

Total requested: \$330,000