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Exxon Valdez Oil Spill Trustee Council Meeting

August 31, 2009

Motions

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DRAFT 8/25/09

Motions for August 31, 2009 Trustee Council Meeting

Agenda Item 2, August 31 Agenda and May 29, 2009 Meeting Notes

I move that we approve the August 31, 2009 agenda as prepared.

I move to approve the May 29, 2009 Trustee Council Meeting Notes as prepared.

Agenda Item 6, Executive Director Appointment

I move that we appoint Elise Hsieh as the EVOS Executive Director, effective August 1, 2009.

Agenda Item 7, Public Advisory Committee Nominations

I move that we approve forwarding/selecting the following individuals to the US Secretary of the Interior for appointment to the remainder of the October 2008 September 2010 term to the EVOS Trustee Council's Public Advisory Committee: John Renner of Cordova to the Commercial Fishing seat, David Totemoff of Tatitlek to the Local Government seat, and Lori Polasek of Seward to the Public-at-Large seat.

Agenda Item 8, Habitat Reauthorization of Funds

I move that we approve the reauthorization of funds for the Small Parcel KAP 3002 as approved in the Council's March 17, 2008 Resolution 08-07.

I move that we approve the reauthorization of funds for the Jacobs and Mutch Anchor River Small Parcels as approved in the Council's March 17, 2009 Resolution 08-03.

Agenda Item 9, FY 10 Annual Program Development & Implementation (APDI) Budget (PJ 10100100)

I move that we approve the FY 2010 EVOS Trustee Council Annual Program Development & Implementation Budget, PJ 10100100 in the amount of \$_____.

Agenda Item 10, FY 2010 Work Plan

I move that we approve funding the projects as identified for the FY 2010 Work Plan, as detailed by Resolution 09-10 and its Attachments A and B. We also authorize the appropriate G & A and project management fees for these approved projects.

Included with the FY 2010 restoration projects is PJ 10100100, the EVOS Trustee Council Annual Program Development & Implementation Budget (APDI). Within the APDI is the authorization to continue an IPA with US Forest Service for the EVOS Communications Coordinator, provision for the ten member Science Panel (Stephen Braund, Gary Cherr, Thomas Dean, Doug Hay, Norman Meade, Ron O'Dor, Pete Peterson, Marilyn Sigman, Robert Spies, and Kimberly Trust), and three member Integrated Herring Restoration Program Review Panel (Doug Hay, Jeep Rice, and Doug Woodby). Agenda

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DRAFT 8/25/09

Exxon Valdez Oil Spill Trustee Council

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

AGENDA EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL August 31, 2009, 9:00 a.m. - 12:00 p.m. Anchorage, Alaska

Trustee Council Members:

DANIEL S. SULLIVAN 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

KIM ELTON Senior Advisor to the Secretary for Alaska Affairs Office of the Secretary 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: 8205

State Chair:

Call to Order - 9:00 a.m. 1.



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

DRAFT 8/25/09

	 Approval of Agenda* Approval of Meeting Notes* May 29, 2009 						
3.	Public Advisory Committee com (via teleconference)	Stacy Studebaker PAC Chair					
4.	Public comment – 9:15 a.m. (3 i	minutes per perso (20 minutes)	n)				
5.	Executive Director's Report Integrated Herring Restoration	<i>(10 minutes)</i> on Plan Update	Elise Hsieh Executive Director				
6.	Appoint Executive Director*	(5 minutes)	Elise Hsieh				
7.	Public Advisory Committee* Nominee selection for vacant se	(10 minutes) ats	Doug Mutter US DOI Designated Federal Officer				
8.	Habitat: reauthorization of funds	* (10 minutes)	Carol Fries Department of Natural Resources				
9.	Draft Budget FY '10*	(20 minutes)	Renee James Administrative Manager				
10.	FY 2010 Work Plan*	(1 hour)	Catherine Boerner				
11.	Executive Session, as needed						
Adjou	ım – 12:00 p.m.						

Trustees Meet with EVOSTC Staff: 12:00 – 12:15 p.m. Trustee Lunch Retreat: 12:15 - 2:30 p.m.

* Indicates action items

2. Consent Agenda

May 29 2009 TC Mtg

DRAFT 7/22/09

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 29, 2009

Chaired by: Steve Zemke Trustee Council Member

Trustee Council Members Present:

•Steve Zemke, USFS * Kim Elton, US DOI Craig O'Connor, NOAA ** Craig Tillery, ADOL *** Tom Brookover, ADF&G**** Larry Hartig, ADEC

- Chair
- * Steve Zemke alternate for Joe Meade
- ** Craig O'Connor alternate for James Balsiger
- *** Craig Tillery alternate for Richard Svobodny
- **** Tom Brookover alternate for Denby Lloyd

The meeting convened at 9:00 a.m., May 29, 2009 in Anchorage at the EVOS Conference Room.

1. Approval of the Agenda

APPROVED MOTION:

Motion to approve the May 29, 2009 agenda with the addition of Small Parcel KAP 3001 Chokwak II as item 8A

Motion by Hartig, no second

2. Approval of May 13, 2009 meeting notes



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 APPROVED MOTION:

Motion to approve the May 13, 2009 meeting notes as presented

Motion by Hartig, second by O'Connor

Public Advisory Committee (PAC) comments: Stacy Studebaker, PAC Chair, reported on the May 28, 2009 field trip to Eleanor and Knight Islands.

Public comment opened at 9:10 a.m.

No public comments were offered.

3. Investment Asset Allocation

APPROVED MOTION:

Motion to approve remaining at the current target allocation for the investment of the Council's Joint Trust Funds in Equities Broad Market of 47 percent (+/- 7 percent), Equities International of 20 percent (+/- 5 percent), and Fixed Income-Domestic of 33 percent (+/- 7 percent), as reflected in the previous Asset Allocation Resolution 09-01 dated January 16, 2009

Motion by O'Connor, second by Brookover

Off the record 10:10 a.m. On the record 10.22 a.m.

4. Small Parcel KEN 3005 - Best

APPROVED MOTION:

Motion to authorize \$45,000 for the purchase of the Best Parcel, strategically located within Safety Cove State Marine Park. This purchase will help restore lost recreational services and provide benefits to a variety of injured resources such as Pacific herring, otters, and other recovering but not recovered species as identified in the benefits report presented today

Motion by O'Connor, second by Tillery

- 5. English Bay Reauthorization of Funds
 - APPROVED MOTION: Motion approve the transfer of \$341,746 from the Research Investment subaccount of the *Exxon Valdez* Oil Spill Investment Fund administered by the Alaska Department of Revenue to the Department of the Interior for the purpose of restoring the habitat funds originally set aside for the purchase of those lands identified in the Trustee Council's February 14, 1997 resolution and in the purchase agreement between the United States Department of the Interior and the English Bay Corporation dated May 20, 1997

Motion by O'Connor, second by Elton

6. Small Parcel KAP 3001 - Chokwak II

APPROVED MOTION:

Motion to re-authorize until December 31, 2010 the amount of \$160,000 as set forth in Resolution 07-04 for the purchase of small parcel KAP 3001 – Chokwak II

Motion by Tillery, second by O'Connor

7. Project 090841 - Lingering Oil

APPROVED MOTION:

Motion to approve funding Miles Project 090841, CYP1A1 Gene Expression Verification Study – Re-Evaluation of Sea Otter Samples from the *Exxon Valdez* Oil Spill in the amount of \$205,735 with sufficient G & A, spending on different phases – phase amounts being dependent upon approval by the executive director

Motion by O'Connor, second by Elton

8. Adjourn

Motion to adjourn

Motion by O'Connor, second by Hartig

Off the record 12:09 p.m.

Jun 25 2009 PAC Mtg

Exxon Valdez Oil Spill Trustee Council Public Advisory Committee Report Stacy Studebaker, Chairperson 8/31/09

Good morning members of the Trustee Council,

I hope you all have enjoyed your summer and have had a good dose of the same sunny days we've been blessed with in Kodiak.

Since I last reported to you, the PAC has met two times. On June 25th we met in Anchorage to discuss the Restoration Workplan for FY2010. On August 26th, we met again via teleconference to review and discuss the administrative budget, as it was not completed before the June 25th meeting. I hope you have all had a chance to review the minutes of both these meetings so you have a sense of our discussions and recommendations for the FY2010 Workplan. I'll try and hit some of the highlights for you this morning and answer any questions you may have. I'll also remain on line in case you have any follow-up questions during your discussions.

At the June meeting, we were scheduled for four hours to review all the proposals and there was a consensus that the meeting was rushed and that more time should be allotted next year. Since many of the PAC members are new to this part of the process, there was little time to bring them up to speed about the budget and provide some background and guidance for our responsibilities. For instance, it would have been helpful to have some direction from the staff on the amount of money that could be spent for both the restoration and administrative budgets collectively.

In the past, both the restoration and administrative budgets have been presented at the same meeting. Since both budgets were not available at this meeting, there was confusion among the new PAC members about the total expenditures for the year and what we should be recommending. The 5% spending cap was discussed and supported by the PAC as a reasonable goal to shoot for and sustain the restoration work that still needs to be done. In addition to more time, we could have used a better framework for our discussions and more background on the proposals. Hopefully we can improve on this next year.

The PAC supports the entire suite of 10 herring proposals numbered 132. The suite builds a core monitoring program, offering a look at various approaches to information. We also recommend a 10% reduction in total costs as it was thought that more collaboration and sharing of equipment and boats should be encouraged.

The PAC also supports the funding of 9 additional projects that were responsive to the invitation and/or important for on-going monitoring: Bodkin (808), Bychkov(624), Campbell(119), Irons(751), Matkin(742), Quinn(128), Rice(804), Vollenweider(806), Weingartner(340).

Our August 26th meeting was to discuss the FY2010 administrative budget. Some of the most important questions raised and most lengthy discussions focused on the science management and program support elements of the budget. There was confusion about the difference in the roles of these and concern that there was overlap. There was also and observation made and some concern that while the restoration program in general is downsizing, why are the program support positions of the agencies remaining the same? With fewer projects to manage, the salaries haven't changed much. Elise mentioned that she wished to examine the costs of doing some of the project management in-house, rather than all through agency personnel. I encourage you to look more at that issue.

PAC members were not happy about funds being cut from our budget when agency budgets were not showing a comparable decrease. Most agreed that face-to-face meetings are preferable and the PAC provides a unique wide range of public views into the restoration process that is otherwise run by scientists.

The PAC was unanimous about the need for a joint face-to-face meeting with the Trustee Council to discuss the future direction of the restoration program. We talked about possible timing and venues and thought that early January in Anchorage would be preferable for getting the most participation. One suggestion was a dinner followed by a morning meeting to roll up our sleeves and discuss where we are today with restoration and where we want to go from here. I think the general public is very interested, especially after the 20-year anniversary events this spring where awareness of the lingering oil issue was heightened and revealed to the entire world through enormous media attention.

I wish to thank the PAC and staff for their hard work as well as the Trustee Council for your time and dedication.

I'd be happy to take any questions.

Thanks,

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Stacy Studebaker PAC Chairperson P.O. Box 970 Kodiak, AK 99615 (907) 486-6498 tidepoolak@ak.net

Meeting Summary DRAFT

A. GROUP: *Exxon Valdez* Oil Spill (EVOS) Public Advisory Committee (PAC)

B. DATE/TIME: June 25, 2009

C. LOCATION: Anchorage, Alaska

D. MEMBERS IN ATTENDANCE: (T = via teleconference)

Name	Principal Interest
Jason Brune	Public-at-Large
Gary Fandrei	Aquaculture/Mariculture
Jennifer Gibbins	Conservation/Environmental
John French	Regional Monitoring
Amanda Bauer	Commercial Tourism
Stacy Studebaker	Recreation Users
Bill Rosetti	Science/Technical
Patience Andersen Faulkner	Subsistence
Larry Evanoff	Native Landowners
JoAnn Vlasoff	Public-at-Large

E. NOT PRESENT:

Principal Interest
Marine Transportation
Sport Hunting/Fishing
Tribal Government
Commercial Fishing
Local Government

F. OTHER PARTICIPANTS:

Name	Organization
Elise Hsieh	Interim Executive Director, Trustee Council
Jen Schorr	Interim Deputy Executive Director, Trustee Council
Doug Mutter	Designated Federal Official, U.S. Dept. of the Interior
Cherri Womac	Trustee Council Staff
Catherine Boerner	Trustee Council Staff
Rebecca Talbot	Trustee Council Staff
Michael Schlei	Trustee Council Staff
JoEllen Lottsfeldt	Trustee Council Staff
Renee James	Trustee Council Staff
Barat LaPorte (T)	Patton Boggs
Steve Zemke	U.S. Forest Service
Craig Tillery	Alaska Department of Law
Nancy Bird	Prince William Sound Science Center (PWSSC)
RJ Kopchak (T)	PWSSC

Dede Bohn (T) Pete Hagen Scott Pegau (T) Rochelle Vandenberg (T) U.S. Geological Survey National Oceanic and Atmospheric Administration Oil Spill Recovery Institute Cordova District Fisherman United

G. SUMMARY:

At 10:30 a.m. Stacy Studebaker, PAC Chair, opened the session with a welcome and introductions by all in attendance. Doug Mutter took roll call and confirmed that a quorum was present. The February 4, 2009, PAC meeting summary was approved.

Studebaker provided a summary of the PAC's May 28, 2009, field trip to Prince William Sound to examine lingering oil at beaches at Northwest Bay on Eleanor Island and at Bay of Isles on Knight Island. She encouraged arrangement of a joint Trustee Council PAC meeting at a future date to discuss the ramifications of lingering oil. Jennifer Gibbins said the field trip was valuable and she appreciated the presentations by Jeep Rice and Mandy Lindeberg (both of NOAA) and the chance to visit with Trustee Council members/alternates.

Jennifer Schorr and Elise Hsieh provided the Executive Director's report. Closings on 3 parcel acquisitions, all over 1,000 acres, on Afognak Island are underway: 2 fee simple and 1 timber right. The restoration accounts lost money last year as a result of the general economic downturn: there is approximately \$83 million in the restoration/monitoring account, \$31 million in the habitat account, and \$35.7 million in the Koniag account. The 5% level for targeting annual work plan expenditures would be about \$4,100,000. The Trustee Council Investment Work Group met and reviewed the investment strategy with fund managers (the Alaska Department of Revenue manages Trustee Council funds), and decided not to make any changes in strategy. The FY2010 administrative budget is expected to be less than the FY2009 budget of \$2.5 million. No new action has taken place, or is currently planned, on hiring an Executive Director or Science Director. PAC members asked questions and discussed responses with Hsieh on the topics above.

The group discussed the merits of following the 5% cap for annual spending, given the downturn in investments. They discussed the impact of funding multi-year projects on future budgets.

Jason Brune asked about the status of the draft integrated herring restoration plan. Hsieh said that was still an evolving plan, yet to be approved by the Trustee Council Catherine Boerner noted that the invitation was based, in part, on the herring plan and that proposals on herring work have been received. The group discussed the goals of the draft herring plan--Gibbins asked if enhancement was a goal. Hsieh responded that not necessarily, lots of research still needed to be done.

Brune asked about the 2 projects approved without input from the PAC. Hsieh said that was a timing issue, not an intentional bypass of PAC input.

The meeting was opened for public comment:

Scott Pegau: As a Principal Investigator for herring proposals, he requested support for the suite of 10 interrelated herring proposals (series numbered 132) put forward for FY2010. This suite builds a core monitoring program, offering a look at various approaches to information collection and an evaluation of best practices.

Rochelle Vandenberg: Stated that the herring data portal project was important. Over 50 members of a herring permit holders group were interested in participating in the community-based project. She asked for support of this project. She also suggested the Commercial Fisheries seat on the PAC be filled as soon as possible, as that is an important stakeholder group to have involved.

RJ Kopchak: Discussed his withdrawal from the PAC seat as the Commercial Fishing representative due to his new job at PWSSC, and the fact that his appoint was not approved in Washington D.C., leaving the seat vacant. He noted that only 22% of the EVOS settlement funds have been spent on research and general restoration projects, and that not much has been spent on herring restoration. Over \$153 million has been lost to herring fisherman and their communities, and since we have as good a herring restoration plan as we can get now, he supports moving forward with it.

Nancy Bird: Thanked PAC members for spending their time on this important program. She said herring recovery objectives were important to keep in mind. One plan objective is to ensure collaborative projects with scientists and communities. The ten-project suite of proposals accomplishes this. It is unfortunate that everyone's budgets are taking hits. She assures that PIs are willing to make necessary modifications to clarify their projects.

Additional group discussion of the herring plan and recovery objectives ensued. There are many unknowns.

Boerner reviewed the list of proposals received in response to the Invitation for Proposals for the FY2010 work plan. Four topics were requested in the Invitation: Herring, Lingering Oil, Reduction of Marine Pollution, and Restoration of Injured Resources and Services. They received 40 scientific proposals and 1 for historic artifacts. There also will be an administrative budget in the annual work plan. The EVOS Science Panel consists of 10 members. They reviewed the scientific proposals at length in May and have made recommendations. All "do not fund" recommendations were unanimous. The Panel gave consideration to the draft herring plan and the 10-project herring suite, but treated them as separate proposals. The Panel's "modify" recommendation is a request for clarification or some action from the PI on a specific project before making a final funding decision. Many projects are asking for multi-year funds, which the Trustee Council can reconsider annually, if necessary. However, approval of multi-year projects is considered to commit to that project unless there is a problem. All projects respond to the Invitation.

John French asked about the level of sharing between the suite of 10 projects. Boerner said that was her question, too. Hsieh said they could adjust this if individual projects (and not the entire suite) were funded, but not all in the suite. Boerner noted that this suite includes fisherman and community involvement as well as synthesis work--all responsive to the Invitation request.

Gary Fandrei asked if any PIs still had outstanding reports due on projects. Boerner said that Seeb still had a delinquent report outstanding. Heintz had some reports behind schedule, but was now caught up. The Trustee Council now holds back 10% of project funding until all reports are completed.

Brune asked if any of the paid consultants involved in compiling the herring plan were PIs on proposed projects. Boerner said 8 were. French asked if competing projects were examined.

Boerne said this was addressed.

Gibbins asked about the sharing of vessels and budget relationships with the suite of herring projects. Pegau explained the relationships and that there was no "double billing." Gibbins said she encourages supporting the suite of 10 herring projects (numbered 132). She said she needed to leave early and believes herring are important ecologically, culturally, and commercially, so recommends funding all 10. She recognizes the importance of other resources and will be comfortable with the group's decision. Gibbins expressed support for funding the herring research suite and thanked the Trustees for their attention to the issue of herring. However, she also expressed concerned regarding the total budget and how this will impact future funding cycles and other research. Gibbins hoped that the PAC and the Trustee Council would take this into consideration in reaching a final recommendation/decision. Fandrei said that he was on the herring work group and that this suite of 10 projects does what they talked about needing to do. He is glad to see the suite here.

Boerner summarized each of the 10 numbered 132 projects that are in the suite of 10 herring projects. The group asked questions and discussed them. Boerner and the group then reviewed and discussed the additional herring projects not part of the suite of 10. They analyzed costs and discussed collaboration among projects. French moved, second by Anderson-Faulkner, that the **PAC supports funding the full suite of 10 herring projects numbered 132 with a 10% reduction in total costs. Passed unanimously.**

Studebaker outlined the project proposal to support expansion of the archeological artifact repository at the Alutiiq museum in Kodiak, a project originally supported by the Trustee Council to restore injured archeological resources. They need \$500,000 as a cost-share to purchase the building they are in to be able to expand the repository. This is a capital expenditure. French noted that this also restores cultural pride, he supports this project. Anderson-Faulkner noted that other communities in Prince William Sound received smaller amounts of funds for repositories and could also use additional help. It was also noted that archeological resources are recovered.

The group discussed the Lees and Shigenaka clam projects, suggesting they be joined or at least collaboration take place and that total costs be reduced.

Boerner identified the projects receiving strong Science Panel support for funding. The group reviewed and discussed the projects. Anderson-Faulkner moved, second by Evanoff, that **the PAC supports funding for projects:**

Bodkin (808) Bychkov (624) Campbell (119) Irons (751) Matkin (742) Quinn (128) Rice (804) Vollenweidner (806) Weingartner (340)

Passed, with Brune and Rosetti against. Both stated that cumulative costs were too high, putting recommended funding over the 5% spending "cap."

French suggested project 112, reducing marine pollution, was something to look at in the future. This needs to be done.

Brune moved, second by French, that the PAC supports funding the Carls project (290). Passed unanimously.

Brune moved, second by French, that the PAC recommends moving the Konar project (854) into the "Do Not Fund" category. Passed unanimously.

Rosetti moved, second by Brune, that the PAC recommends moving the Seeb (165) and Moffit (130) projects into the "Do Not Fund" category. Passed unanimously.

Anderson-Faulkner moved, second by Brune, that the PAC recommends moving the Seitz project (129) into the "Do Not Fund" category. Passed unanimously.

Anderson-Faulkner moved, second by French, that the PAC recommends funding a consolidated/consultation of the Lees (574) and Shigenaka (829) projects, for a total of \$150,000 for FY2010. Passed, with Brune against.

French moved, second by Anderson-Faulkner, that the PAC recommends funding the Alutiiq museum project in the amount of \$500,000. Failed by a vote of 5 to 4. Brune noted that archeological resources were "recovered" so funds should be spent on resources in more need.

The group discussed setting priorities for Trustee Council consideration when making their decision on the work plan projects. Fandrei moved, second by Anderson-Faulkner, that the PAC recommends the suite of 10 herring projects be the priority category for funding in FY2010. Passed, with Studebaker and French against. French thinks the Irons and Matkin projects are also priorities.

Hsieh asked about sending an email to the PAC members asking for their individual selections as top priority projects. Anderson-Faulkner questioned if holding to 5% for spending was really a goal?

French moved, second by Fandrei, that the PAC recommends that all other projects be moved into the "Do Not Fund" category, except those otherwise moved (e.g. Heintz (132-D) was moved from "Do Not Fund" to "Fund"). Passed unanimously.

In closing remarks, Anderson-Faulkner stated that she appreciated the work of the PAC. Steve Zemke offered thanks for the willingness of PAC members to put in the hard work it takes to make this happen.

The meeting was adjourned at 3:30 p.m.

H. FOLLOW-UP:

- 1. Womac will send to PAC members, a copy of the Joe Hunt publication "Mission without a Map"
- 2. Hsieh will send to PAC members an email requesting their individual views of priority projects.

I. NEXT MEETINGS:

--Trustee Council Meeting August 31 --PAC to be determined

J. ATTACHMENTS (handed out at the meeting):

- 1. DVD "The Exxon Valdez Oil Spill: Have We Recovered?"
- 2. Spreadsheet of FY10 Invitation for Proposals Science Panel Recommendations

K. CERTIFICATION:

PAC Chairperson

Date

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Exxon Valdez Oil Spill Trustee Council

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



MEMORANDUM

TO: Trustee Council

Elise Hsieh funniful a FROM:

DATE: August 18, 2009

SUBJECT: PAC Nominations

I recommend that the following individuals be selected by the Trustee Council and forwarded to the Secretary of the Interior for appointment to serve on the remainder of the Council's 2008-2010 Public Advisory Committee (PAC). The applicants are qualified and experienced in the indicated area of interest. Selecting these individuals will enhance the diversity of the PAC in the spill impacted area.

Commercial Fishing

John Renner, Cordova. Mr. Renner is nominated by the Cordova District Fishermen's United (CDFU). He has been a commercial fisherman for 39 years, holding pound, salmon gillnet, and salmon seine permits. He is familiar with the impacts of the oil spill on commercial fisheries. His membership on the PAC will provide additional expertise in the declining herring fishery. Mr. Renner is president of the CDFU Board of Directors and Co-Chair of its Herring Division. He also serves on the boards of ADF&G's Copper River/Prince William Sound Advisory Committee and the Cordova Community Medical Center. Mr. Renner was a plaintiff in the fishermen's case against Exxon.

Local Government

No applications for this vacancy have been received to date.



Federal Trustees U.S. Department of the Interior U.S. Department of Agriculture National Oceanic and Atmospheric Administration Trustee Council Page 2 August 18, 2009

Tribal Government

David Totemoff, Tatitlek. Mr. Totemoff is supported in his self nomination by the Tatitlek IRA Tribal Council of which he is President. In addition to his Tribal Government representation he has experience in commercial fishing, as a Native Land Owner, recreation and subsistence user, and sport hunter and fisherman. He also serves on the boards of Chugach Alaska Corporation and the Oil Spill Recovery Institute. Mr. Totemoff is employed by BP Alaska on the North Slope, and also serves as their community liaison. Mr. Totemoff answered no to the conflict of interest statements.

Public at Large

Lori Polasek, Seward. Dr. Polasek is supported in her nomination by the Alaska SeaLife Center and the City of Seward. She has a Ph.D. in Wildlife and Fisheries Sciences and a BS in Marine Biology. As a UAF Research Assistant Professor she is currently stationed at the Alaska SeaLife Center where her research focuses on marine mammal health and conditions in both wild and captive populations. Through this work she is familiar with the recovery efforts in the spill-impacted area and with EVOS-funded research. In addition to presentations at the Alaska SeaLife Center she is active in the community of Seward and interacts with the Native Alaskan Eskimo Whaling Commission, Native Harbor Seal Commission, Qayassiq Walrus Commission and Ice Seal Commission. Dr. Polasek would abstain from voting on any projects where she or other SeaLife Center PIs will directly benefit from EVOS funding.



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RESOLUTION 09-11 OF THE EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL REGARDING SMALL PARCEL KAP 3002

We, the undersigned, duly authorized members of the *Exxon Valdez* Oil Spill Trustee Council ("Trustee Council"), after extensive review and after consideration of the views of the public, find as follows:

1. On March 17, 2008, the Council resolved through Resolution 08-07 to provide funds for the State of Alaska to purchase all of the seller's rights and interests in the small parcel KAP 3002, consisting of 160 acres, subject to certain conditions. One of the conditions was that a purchase agreement had to be executed by June 30, 2009. The Seller is Ralph Capjohn represented by the Department of Interior, Bureau of Indian Affairs (BIA).

2. Although Mr. Capjohn has agreed to sell the land to the State for the price in the Council's resolution of March 17, 2008 (\$192,000) and the State expects to be able to complete the acquisition, a purchase agreement was not executed prior to June 30, 2009 as required by the Council's March 17, 2008 resolution.

3. For all of the reasons detailed in the Trustee Council's resolution of March 17, 2008, the Council continues to find that the purchase of KAP 3002 is an appropriate means to restore a portion of the injured resources and services in the spill area.

THEREFORE, we resolve to provide funds for the State of Alaska to purchase all of the seller's rights and interests in the small parcel KAP 3002 pursuant to the following conditions:

(a) the amount of funds (hereinafter referred to as the "Purchase Price") to be provided by the Trustee Council to the State of Alaska shall be one-hundred ninety-two thousand dollars (\$192,000) for small parcel KAP 3002;

(b) authorization for funding for any acquisition described in the foregoing paragraph shall terminate if a purchase agreement is not executed by June 30, 2010;

(c) filing by the United States Department of Justice and the Alaska Department of Law of a notice, as required by the Third Amended Order for Deposit and Transfer of Settlement

Resolution 09-11

Proceeds, of the proposed expenditure with the United States District Court for the District of Alaska and with the Investment Fund established by the Trustee Council within the Alaska Department of Revenue, Division of the Treasury ("Investment Fund"), and transfer of the necessary monies from the Investment Fund to the State of Alaska Department of Natural Resources;

(d) a title search satisfactory to the State of Alaska and the United States is completed, and the seller is willing and able to convey fee simple title by warranty deed;

(e) no timber harvest, road development or any alteration of the land will be initiated on the land without the express written agreement of the State of Alaska and the United States prior to purchase of this parcel;

(f) a hazardous materials survey satisfactory to the State of Alaska and United States is completed;

(g) compliance with the National Environmental Policy Act; and

(h) a conservation easement on parcel KAP 3002, satisfactory in form and substance to the United States and the State of Alaska Department of Law, shall be conveyed to the United States.

It is the intent of the Trustee Council that the above-referenced conservation easement will provide that any facilities or other development on the foregoing small parcel shall be of limited impact and in keeping with the goals of restoration, that there shall be no commercial use except as may be consistent with applicable state or federal law and the goals of restoration to pre-spill conditions of any natural resource injured, lost, or destroyed as a result of the EVOS, and the services provided by that resource or replacement or substitution for the injured, lost or destroyed resources and affected services, as described in the Memorandum of Agreement and Consent Decree between the United States and the State of Alaska entered August 28, 1991 and the Restoration Plan as approved by the Trustee Council.

Resolution 09-11

By unanimous consent, following execution of the purchase agreement between the seller and the State of Alaska and written notice from the Executive Director ("Executive Director") of the Trustee Council that the terms and conditions set forth herein and in the purchase agreement have been satisfied, we request the Alaska Department of Law and the Assistant Attorney General of the Environment and Natural Resources Division of the United States Department of Justice to take such steps as may be necessary for withdrawal of the Purchase Price for the above-referenced parcel from the appropriate account designated by the Executive Director.

Such amount represents the only amount due under this resolution to the seller by the State of Alaska to be funded from the joint settlement funds, and no additional amounts or interest are herein authorized to be paid to the sellers from such joint funds. Approved by the Council at its meeting of August 31, 2009 held in Anchorage,

Alaska, as affirmed by our signatures affixed below:

JOE L. MEADE Forest Supervisor Forest Service Alaska Region U.S. Department of Agriculture DANIEL S. SULLIVAN Attorney General State of Alaska

KIM ELTON Senior Advisor to the Secretary for Alaska Affairs U.S. Department of Interior CRAIG R. O'CONNOR Special Counsel National Oceanic & Atmospheric Administration U.S. Department of Commerce

DENBY S. LLOYD Commissioner Alaska Department of Fish and Game LARRY HARTIG Commissioner Alaska Department of Environmental Conservation

Resolution 09-11

Jacobs Mutch Small Parcel

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RESOLUTION 09-12 OF THE EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL REGARDING THE JACOBS AND MUTCH ANCHOR RIVER SMALL PARCELS

We, the undersigned, duly authorized members of the *Exxon Valdez* Oil Spill Trustee Council ("Trustee Council"), after extensive review and after consideration of the views of the public, find as follows:

1. On March 17, 2008, the Trustee Council resolved through Resolution 08-03 to provide funds for the State of Alaska to contribute matching funds toward the purchase of the seller's rights and interests in the Jacobs and Mutch Anchor River small parcels, consisting of a total of 84 acres, subject to certain conditions. One of the conditions was that a purchase agreement had to be executed by June 30, 2009. The Seller is The Nature Conservancy.

2. Although The Nature Conservancy has agreed to convey the land to the State for the price in the Trustee Council's resolution of March 17, 2008 (\$175,000) and the State expects to be able to complete the acquisition, a purchase agreement was not executed prior to June 30, 2009 as required by the Trustee Council's March 17, 2008 resolution.

3. For all of the reasons detailed in the Trustee Council's resolution of March 17, 2008, the Trustee Council continues to find that the purchase of the Jacobs and Mutch small parcels to be an appropriate means to restore a portion of the injured resources and services in the spill area.

THEREFORE, we resolve to provide matching funds for the State of Alaska to acquire all of the seller's rights and interests in the Jacobs and Mutch small parcels pursuant to the following conditions:

(a) the amount of funds to be provided by the Trustee Council to the State of Alaska shall be one hundred seventy five thousand dollars (\$175,000) for the Jacobs and Mutch small parcels;

(b) authorization for funding for any acquisition described in the foregoing paragraph shall terminate if a purchase agreement is not executed by June 30, 2010;

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Resolution 09-12

(c) filing by the United States Department of Justice and the Alaska Department of Law of a notice, as required by the Third Amended Order for Deposit and Transfer of Settlement Proceeds, of the proposed expenditure with the United States District Court for the District of Alaska and with the Investment Fund established by the Trustee Council within the Alaska Department of Revenue, Division of the Treasury ("Investment Fund"), and transfer of the necessary monies from the Investment Fund to the State of Alaska Department of Natural Resources;

(d) a title search satisfactory to the State of Alaska and the United States is completed, and the seller is willing and able to convey fee simple title by warranty deed;

(e) no timber harvest, road development or any alteration of the land will be initiated on the land without the express written agreement of the State of Alaska and the United States prior to purchase of these parcels;

(f) a hazardous materials survey satisfactory to the State of Alaska and United States is completed;

(g) compliance with the National Environmental Policy Act; and

(h) a conservation easement on the Jacobs and Mutch parcels, satisfactory in form and substance to the United States and the State of Alaska Department of Law, shall be conveyed to the United States.

It is the intent of the Trustee Council that the above-referenced conservation easement will provide that any facilities or other development on the foregoing parcels shall be of limited impact and in keeping with the goals of restoration, that there shall be no commercial use except as may be consistent with applicable state or federal law and the goals of restoration to pre-spill conditions of any natural resource injured, lost, or destroyed as a result of the EVOS, and the services provided by that resource or replacement or substitution for the injured, lost or destroyed resources and affected services, as described in the Memorandum of Agreement and

Resolution 09-12

Consent Decree between the United States and the State of Alaska entered August 28, 1991 and the Restoration Plan as approved by the Trustee Council.

By unanimous consent, following execution of the purchase agreement between the seller and the State of Alaska and written notice from the Executive Director of the Trustee Council ("Executive Director:") that the terms and conditions set forth herein and in the purchase agreement have been satisfied, we request the Alaska Department of Law and the Assistant Attorney General of the Environment and Natural Resources Division of the United States Department of Justice to take such steps as may be necessary for withdrawal of the Purchase Price for the above-referenced parcels from the appropriate account designated by the Executive Director.

Such amount represents the only amount due under this resolution to the sellers by the State of Alaska to be funded from the joint settlement funds, and no additional amounts or interest are herein authorized to be paid to the sellers from such joint funds.

Approved by the Trustee Council at its meeting of August 31, 2009, held in Anchorage,

Alaska, as affirmed by our signatures affixed below:

JOE L. MEADE Forest Supervisor Forest Service Alaska Region U.S. Department of Agriculture DANIEL S. SULLIVAN Attorney General State of Alaska

KIM ELTON Senior Advisor to the Secretary for Alaska Affairs U.S. Department of Interior CRAIG R. O'CONNOR Special Counsel National Oceanic & Atmospheric Administration U.S. Department of Commerce

DENBY S. LLOYD Commissioner Alaska Department of Fish and Game LARRY HARTIG Commissioner Alaska Department of Environmental Conservation

Resolution 09-12

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Component		09 Budget	FY	10 Request	Change		
Administration Management	\$	720,572	\$	807,336	\$	86,764	
Data Management	\$	210,771	\$	149,991	\$	(68,780)	
Science Management	\$	725,506	\$	507,651	\$	(217,855)	
Public Information & Outreach	\$	183,665	\$	82,350	\$	(101,315)	
Public Advisory Committee (PAC)	\$	48,505	s	37,605	\$	(10,900)	
Trustee Council Member Direct Expenses	\$	29,975	S	29,975	\$	0	
Habitat Protection Program	\$	109,000	\$	109,000	\$	0	
Program Support by Agencies	\$	301,409	s	284,148	\$	(17,261)	
Alaska Resource Library & Information Services	\$	177,565	\$	166,372	\$	(11,193)	
Total	\$	2,506,935	\$	2,174,428	\$	(340,540)	
Cost Type	FY09 Budget		FY10 Request		Change		
Personnel	\$	1,411,364	\$	1,312,407	\$	(98,957)	
Travel	\$	78,000	\$	69,000	S	(9,000)	
Contractual	S	795,607	\$	544,480	\$	(251,127)	
Commodities	\$	15,000	\$	34,000	S	19,000	
Equipment	\$	0	\$	35,000	\$	35,000	
Sub-Total	\$	2,299,971	\$	1,994,887	\$	(305,084)	
G&A	S	206,997	\$	179,541	\$	(27,458)	
Total	\$	2,506,968	\$	2,174,428	\$	(332,542)	

PJ 100 Budget Request Comparisons - FY09 to FY10

PJ 100 Budget Comparisons – FY10 to FY09 – Ver. E Wednesday, August 26, 2009 T:\Project Information\2010\10100100 - EVOS Administration\DPD



		То	tal FY09 PJ	090100 Bi	udget by Age	ncy	Tala	1963			
Cost Type	ADF&G	ADEC	ADNR	ADOL	NOAA	DOI USGS	DOI USFWS	DOI SEC	DOI OPEC	USFS	Total Budget
Personnel	\$1,140,435	\$27,000	\$55,047	\$0	\$54,000	\$22,500	\$55,858	\$15,400	\$7,500	\$33,624	\$1,411,364
Travel	\$56,000	\$5,500	\$0	\$5,500	\$5,500	\$0	\$0	\$5,500	\$0	\$0	\$78,000
Contractual	\$558,100	\$0	\$42,250	\$0	\$0	\$172,507	\$0	\$0	\$0	\$22,750	\$795,607
Commodities	\$15,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$15,000
Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sub-Total	\$1,769,535	\$32,500	\$97,297	\$5,500	\$59,500	\$195,007	\$55,858	\$20,900	\$7,500	\$56,374	\$2,299,971
G&A	\$159,258	\$2,925	\$8,757	\$495	\$5,355	\$17,551	\$5,027	\$1,881	\$675	\$5,074	\$206,997
Total Budget	\$1,928,793	\$35,425	\$106,054	\$5,995	\$64,855	\$212,558	\$60,885	\$22,781	\$8,175	\$61,448	\$2,506,968
FY09 TOTAL	\$1,928,793	\$35,425	\$106,054	\$5,995	\$64,855	\$212,558	\$60,885	\$22,781	\$8,175	\$61,448	\$2,506,968

Total FY10 APDI Budget by Agency											
Cost Type	ADF&G	ADEC	ADNR	ADOL	NOAA	DOI USGS	DOI USFWS	DOI SEC	DOI OPEC	USFS	Total Budget
Personnel	\$1,039,921	\$31,300	\$60,000	\$0	\$36,000	\$22,122	\$55,858	\$21,875	\$7,500	\$37,831	\$1,312,407
Travel	\$47,000	\$5,500	\$0	\$5,500	\$5,500	\$0	\$0	\$5,500	\$0	\$0	\$69,000
Contractual	\$289,820	\$0	\$42,250	\$0	\$0	\$189,660	\$0	\$0	\$0	\$22,750	\$544,480
Commodities	\$34,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$34,000
Equipment	\$35,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$35,000
Sub-Total	\$1,445,741	\$36,800	\$102,250	\$5,500	\$41,500	\$211,782	\$55,858	\$27,375	\$7,500	\$60,581	\$1,994,887
G&A - 9%	\$130,117	\$3,312	\$9,203	\$495	\$3,735	\$19,060	\$5,027	\$2,464	\$675	\$5,452	\$179,541
Total Budget	\$1,575,858	\$40,112	\$111,453	\$5,995	\$45,235	\$230,842	\$60,885	\$29,839	\$8,175	\$66,033	\$2,174,428
FY10 TOTAL	\$1,575,858	\$40,112	\$111,453	\$5,995	\$45,235	\$230,842	\$60,885	\$29,839	\$8,175	\$66,033	\$2,174,428

PJ 100 Budget Comparisons – FY10 to FY09 – Ver. E Wednesday, August 26, 2009 T:\Project Information\2010\10100100 - EVOS Administration\DPD
Exxon Valdez Oil Spill Trustee Council FY10 Annual Program Development and Implementation (APDI) Budget October 1, 2009 – September 30, 2010

Components highlighted in yellow have changed

This budget structure has been utilized over the past three federal fiscal years and is designed to provide a clearly identifiable allocation of the funds supporting Trustee Council activities. As was specifically identified in the past three annual budgets, the program components are:

- Administration Management No change
- Data Management Change due to reduction in positions
- Science Management Changed due to recalculation of salary amount and increase in contractual amounts
- Public Information & Outreach Change due to increase in contractual amount and error in personnel line
- Public Advisory Committee (PAC)
- Habitat Protection Program
- Trustee Council Member Direct Expenses
- Program Support/Project Management by Agencies Change due to recalculations
- Alaska Resources Library & Information Services

The budget estimates detailed within those specified program components are projected based upon prior year actual expenditures and include the application of estimated merit step increases, as well as payroll benefits increases. Detailed budget component items are either "continuing" or "ongoing" from program directives already approved by the Trustee Council and cover necessary day-to-day operational costs of the *Exxon Valdez* Oil Spill Restoration Office and administrative costs associated with overseeing current Trustee Council program objectives.

Exxon Valdez Oil Spill Trustee Council FY10 Annual Program Development and Implementation (APDI) Budget October 1, 2009 – September 30, 2010

This budget structure has been utilized over the past three federal fiscal years and is designed to provide a clearly identifiable allocation of the funds supporting Trustee Council activities. As was specifically identified in the past three annual budgets, the program components are:

- Administration Management
- Data Management
- Science Management
- Public Information & Outreach
- Public Advisory Committee (PAC)
- Habitat Protection Program
- Trustee Council Member Direct Expenses
- Program Support/Project Management by Agencies
- Alaska Resources Library & Information Services

The budget estimates detailed within those specified program components are projected based upon prior year actual expenditures and include the application of estimated merit step increases, as well as payroll benefits increases. Detailed budget component items are either "continuing" or "ongoing" from program directives already approved by the Trustee Council and cover necessary day-to-day operational costs of the *Exxon Valdez* Oil Spill Restoration Office and administrative costs associated with overseeing current Trustee Council program objectives.

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FY10 Annual Program Development & Implementation Budget – Ver. L Resolution 09-10 – Attachment A. Wednesday, August 26, 2009 T:\Project Information\2010\10100100 - EVOS Administration\DPD

BUDGET SUMMARY INFORMATION - \$2,174,428

The Council's FY10 APDI Budget will be funded by the *Exxon Valdez* Oil Spill Investment Fund managed by the Alaska Department of Revenue. The following summary tables show budget allocations by component, cost type and agency. The remainder of the document specifies the uses to which the monies for each component of the budget will be applied and the agency distribution for each item.

Component	Total Budget FY10
Administration Management	\$807,336
Data Management	\$ 149,991
Science Management	\$ 507,651
Public Information & Outreach	\$82,350
Public Advisory Committee (PAC)	\$37,605
Trustee Council Member Direct Expenses	\$ 29,975
Habitat Protection Program	\$109,000
Program Support by Agencies	\$284,148
Alaska Resources Library & Information Services	\$166,372
Total	\$2,174,428

Cost Type	Total Budget
Personnel	\$ 1,312,407
Travel	\$69,000
Contractual	\$544,480
Commodities	\$34,000
Equipment	\$35,000
Sub-Total	\$1,994,887
G&A	\$179,541
Total	\$2,174,428

Total FY10 APDI Budget by Agency											
Cost Type	ADF&G	ADEC	ADNR	ADOL	NOAA	DOI USGS	DOI USFWS	DOI SEC	DOI OPEC	USFS	Total Budget
Personnel	\$1,039,921	\$31,300	\$60,000	\$0	\$36,000	\$22,122	\$55,858	\$21,875	\$7,500	\$37,831	\$1,312,407
Travel	\$47,000	\$5,500	\$0	\$5,500	\$5,500	\$0	\$0	\$5,500	\$0	\$0	\$69,000
Contractual	\$289,820	\$0	\$42,250	\$0	\$0	\$189,660	\$0	\$0	\$0	\$22,750	\$544,480
Commodities	\$34,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$34,000
Equipment	\$35,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$35,000
Sub-Total	\$1,444,622	\$36,800	\$102,250	\$5,500	\$41,500	\$211,782	\$55,858	\$27,375	\$7,500	\$60,581	\$1,994,887
G&A – 9%	\$130,016	\$3,312	\$9,203	\$495	\$3,735	\$19,060	\$5,027	\$2,464	\$675	\$5,452	\$179,541
Total Budget	\$1,574,638	\$40,112	\$111,453	\$5,995	\$45,235	\$230,842	\$60,885	\$29,839	\$8,175	\$66,033	\$2,174,428
FY10 TOTAL	\$1,574,638	\$40,112	\$111,453	\$5,995	\$45,235	\$230,842	\$60,885	\$29,839	\$8,175	\$66,033	\$2,174,428

FY10 Annual Program Development & Implementation Budget – Ver. L Resolution 09-10 – Attachment A. Wednesday, August 26, 2009 T:\Project Information\2010\10100100 - EVOS Administration\DPD

ADMINISTRATION MANAGEMENT - \$807,335

	Total Budget
Personnel	\$438,495
Travel	\$6,000
Contractual	\$261,180
Commodities	\$15,000
Equipment	\$20,000
Sub-Total	\$740,675
G&A (9%)	\$66,660
Total	\$807,335

PERSONNEL - \$438,495

Position	Range/Step	Months	Mont	hly Cost	Annual Cost
Executive Director	28/A	12.		\$7,995	\$139,355
Administrative Manager	19/K	12]	\$6,160	\$109,877
Associate Coordinator	18/J	12		\$5,554	\$100,142
Administrative Assistant	15/L	12		\$4,868	\$89,121
	Personnel Total		,	\$24,577	\$438,495

Monthly cost is w/o benefits, annual is w/benefits.

TRAVEL - \$6,000

Travel support for Executive Director and Administrative staff to attend meetings and trainings.

CONTRACTUAL – \$261,180

Professional Development

Administrative funds are budgeted for training and professional meetings with state, federal and program agency representatives on administrative, program and budget issues as necessary. Funds will be utilized for in-state training opportunities.

Trustee Council's Office Space

The lease for the Trustee Council's office space is administered by the Government Services Administration (GSA) through the U.S. Geological Survey of the Department of the Interior. The Trustee Council approved a 5-year renewal option effective January 2007. This amount includes a monthly PBS fee to GSA, Mandatory Homeland Securities fee and 9% G&A.

• Annual Parking Fees for Trustee Office Staff & Parking Validator

EVOS has 9 parking permits; 3 are provided with the building lease and 6 paid directly to the Anchorage Parking Authority by EVOS (\$85/mo per space; \$4 per Visitor Validation).

• Audit Contract

These funds are used to support a contract to conduct a financial audit of the FY 09 records of the Trustee Office and all agencies receiving EVOSTC funds.

• Telephone Service

These funds are to cover telecommunications, teleconferencing meetings, and long distance phone services.

FY10 Annual Program Development & Implementation Budget – Ver. L Resolution 09-10 – Attachment A. Wednesday, August 26, 2009 T:\Project Information\2010\10100100 - EVOS Administration\DPD

\$189,660

\$3.000

\$20,000 s of the T

\$6,120

\$8,500

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These funds are to cover expenses for six Trustee Council meetings, at an estimated cost of \$500.00 per meeting.

Public Notices

These funds are to cover the cost of advertising Trustee Council public meetings and workshops in newspapers in the spill affected areas.

Postage & Courier Services

These funds are to cover cost of US Postal Service mailings, express mailings, and courier services.

Equipment Maintenance and Agreements

These funds are for the postage meter annual rental, and any unforeseen maintenance expenses on other office equipment.

Transcription

These funds are to cover the contract renewal option with Computer Matrix for transcription services.

• Interagency Contracted Services

These funds are to cover the Trustee Office's share of the Reimbursable Services Agreement Costs for the EPR Telecommunications, Computer Services, ADA, Central Mail and AKSAS & AKPAY charge-backs paid by all ADF&G divisions. These costs are based on the number of full time positions divided by the total cost.

COMMODITIES - \$15,000

Office supplies

These funds are to cover the cost of miscellaneous office supplies, paper, toner, meeting materials etc. This cost of supplies in FY09 was under estimated, and due to the unanticipated cost of increased shipping and fuel surcharges this amount has been increased. Also includes anticipated supplies needed to complete the official record.

EQUIPMENT - \$20,000

• Multifunction copier

These funds are to cover the cost of a new copier/fax/scanner and a maintenance agreement. The new machine replaces the Lanier 375 Printer/copier/scanner purchased 10/20/2006.

AGENCY DISTRIBUTION:

Admin Mgmt	ADF&G	USGS
Personnel	\$438,495	\$0
Travel	\$6,000	\$0
Contractual	\$71,520	\$189,660
Commodities	\$15,000	\$0
Equipment	\$20,000	\$0
Sub-Total	\$551,015	\$189,660
G&A (9%)	\$49,591	\$17,069
Total	\$600,606	\$206,729

FY10 Annual Program Development & Implementation Budget – Ver. L Resolution 09-10 – Attachment A. Wednesday, August 26, 2009 T:\Project Information\2010\10100100 - EVOS Administration\DPD

\$15,000

\$20,000

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\$5,000

\$3,000

£1 /00

\$2,500

\$1,400

\$6,500

\$15,500

DATA MANAGEMENT - \$149,991

Cost Category	Total Budget
Personnel	\$109,106
Travel	\$2,000
Contractual	\$1,500
Commodities	\$10,000
Equipment	\$15,000
Sub-total	\$137,606
G&A - 9%	\$12,385
Total	\$149,991

PERSONNEL - \$109,106

Position	Range/Step	Months	Monthly Cost	Annual Cost
Data Systems Manager	22/B	12	\$6,116	\$109,106
	Personnel Total	12	\$6,116	\$109,106

Monthly cost is w/o benefits, annual is w/benefits.

TRAVEL - \$2,000

Travel support for Data Management staff to attend meetings and participate in data management training.

CONTRACTUAL - \$1,500

• **Professional Development** Registration fees to participate in training.

COMMODITIES - \$10,000

• Computer Software, Hardware & Upgrades \$10,000 These funds are to cover necessary purchases and upgrades to computer hardware, software, and networking equipment for the Trustee Council Office.

\$1,500

EQUIPMENT - \$15,000

 This figure includes costs for an air conditioning unit for the server room so the door can be locked in compliance with new security regulations (\$5000), one new server to replace obsolete equipment (\$4000), three new computer systems to replace obsolete equipment (\$4500), and maintenance of existing equipment and misc. supplies (\$1500).

AGENCY DISTRIBUTION

Cost Category	ADF&G	
Personnel	\$109,106	
Travel	\$2,000	
Contractual	\$1,500	
Commodities	\$10,000	
Equipment	\$15,000	
Sub-total	\$137,606	
G&A 9%	\$12,385	
Component Total	\$149,991	
Component round	4	

FY10 Annual Program Development & Implementation Budget – Ver. L Resolution 09-10 – Attachment A. Wednesday, August 26, 2009 T:\Project Information\2010\10100100 - EVOS Administration\DPD

SCIENCE MANAGEMENT - \$507,651

Cost Category	Total Budget
Personnel	\$336,735
Travel	\$5,000
Contractual	\$124,000
Commodities	\$0
Equipment	\$0
Sub-total	\$465,735
G&A - 9%	\$41,916
Component Total	\$507,651

PERSONNEL - \$336,735

Position	Range/ Step	Months	Monthly Cost	Annual Cost
Deputy Executive Director	26/B	12	\$7,733	\$135,146
Science Coordinator	24/C	12	\$7,215	\$127,365
Project Assistant	16/A	12	\$3,922	\$74,224
Persor	nnel Total		\$18,870	\$336,735

Monthly cost is w/o benefits, annual is w/benefits.

TRAVEL - \$5,000

Travel support and registration fees for Science Management to attend a national conference, meeting or participate in scientific training.

CONTRACTUAL - \$124,000

Professional Development

\$1,500 These unds are required for the semi-annual workshops, interim meetings, and presentations at the AK Marine Science Symposium.

Annual Marine Science Symposium

These funds are to assist with the support of the Annual Marine Science Symposium.

• Herring Research and Restoration Planning

The IHRP review panel will be responsible for providing writing, editing, and review services for the FY10 update to the IHRP document. The members of the panel include Doug Hay, Jeep Rice, and Doug Woodby. Jeep Rice (NOAA) and Doug Woodby (ADFG) are not eligible for compensation, but a contract will need to be put in place for Doug Hay. The contract will cover services provided between October 1, 2009 - September 30, 2010 and will not exceed \$13,000.

0	Herring PI Workshop in Anchorage fall of 2009	\$22,000
0	IHRP Review Panel	\$13,000

FY10 Annual Program Development & Implementation Budget - Ver. L Resolution 09-10 - Attachment A. Wednesday, August 26, 2009 T:\Project Information\2010\10100100 - EVOS Administration\DPD

\$10,000

\$35,000

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Science Panel

\$60,000

The Science Panel is tasked with providing the following services to the Trustee Council for FY10:

- · Provide funding recommendations on scientific proposals to the Executive Director
- Assist in the review of the Injured Resources and Services List
- Provide assistance on special projects at the Executive Director's or Trustee Council's request

The members of the panel are as follows: Gary Cherr, Charles Peterson, Ronald O'Dor, Tom Dean, Kimberly Trust, Robert Spies, Norman Meade, Doug Hay, Marilyn Sigman, and Steve Braund. Norman Meade (NOAA) and Kimberly Trust (USFWS) are not eligible for compensation due to their status as federal employees, but contracts will be put in place for the remainder of the group. The contract will cover services provided between October 1, 2009 – September 30, 2010. Each contract will not exceed \$7,500 per member.

Peer Review Contracts

\$17,500

Reviews of final reports are coordinated by the EVOS Science Coordinator and Project Assistant. A final report is a required deliverable of most EVOS-funded scientific projects. To ensure the scientific integrity of the findings, the Trustee Council requires scientific peer review by nationally recognized experts within appropriate and respective disciplines. This contract line item provides compensation for the scientific and technical review of EVOS final reports.

AGENCY DISTRIBUTION:

Cost Category	ADF&G	
Personnel	\$336,735	
Travel	\$5,000	
Contractual	\$124,000	
Commodities	\$0	
Equipment		
Sub-total	\$465,735	
G&A - 9%	\$41,916	
Component Total	\$507,651	

PUBLIC INFORMATION & OUTREACH - \$82,350

Cost Category	Total Budget
Personnel	\$0
Travel	\$3,000
Contractual	\$63,550
Commodities	\$9,000
Equipment	\$0
Sub-total	\$75,550
G&A 9%	\$6,800
Component Total	\$82,350

TRAVEL - \$3,000

\$ 3,000

\$9,000

- In compliance with IPA, travel funds are provided for professional development: attendance at professional training.
- These funds are also provided to present and **distribute** public information documents and interpretive materials.

CONTRACTUAL - \$63,550

• IPA for Communications Coordinator \$63,550 Funds to support a public relations/communications specialist (Rebecca Talbott) 1/2 time for work associated with public information and outreach. Cost includes step increase and estimated 3% salary increase.

COMMODITIES - \$9,000

• Interpretive Information Funds will be used to produce/purchase documents for public information.

AGENCY DISTRIBUTION

Cost Category	ADF&G
Personnel	\$0
Travel	\$3,000
Contractual	\$63,550
Commodities	\$9,000
Equipment	\$0
Sub-total	\$75,550
Agency G&A 9%	\$6,800
Component Total	\$82,350

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PUBLIC ADVISORY COMMITTEE (PAC) - \$37,605

Cost Category	Total Budget	
Personnel	\$7,500	
Travel	\$24,000	
Contractual	\$3,000	
Commodities	\$0	
Equipment	\$0	
Sub-total	\$34,500	
G&A 9%	\$3,105	
Component Total	\$37,605	

PERSONNEL - \$7,500

Annual funds are provided for the designated federal officer (currently Doug Mutter) assigned to the PAC as required by the Federal Advisory Committee Act (FACA). This individual coordinates the scheduling of meetings, development of the agenda and meeting minutes, and provides assistance to the PAC Chair and the Restoration Office as needed.

TRAVEL - \$24,000

• PAC Meetings

Travel support for 15 PAC members to attend approximately two meetings for an estimated average cost of \$800 per person per trip to include: airfare, ground transportation, per diern, and lodging.

CONTRACTUAL - \$3,000

• PAC Meetings

These funds cover public announcements, meeting materials, and amenities.

AGENCY DISTRIBUTION

Cost Category	ADF&G	DOI-OPEC	Total
Personnel	\$0	\$7,500	\$7,500
Travel	\$24,000	\$0	\$24,000
Contractual	\$3,000	\$0	\$3,000
Commodities	\$0	\$0	\$0
Equipment	\$0	\$0	\$0
Sub-total	\$27,000	\$7,500	\$34,500
G&A - 9%	\$2,430	\$675	\$3,105
Component Total	\$29,430	\$8,175	\$37,605

\$24,000

\$3,000

TRUSTEE COUNCIL MEMBER EXPENSES- \$29,975

Cost Category	Total Budget	
Personnel	\$0	
Travel	\$27,500	
Contractual	\$0 \$0	
Commodities		
Equipment	\$0	
Sub-total	\$27,500	
G&A - 9%	\$2,475	
Component Total	\$29,975	

TRAVEL - \$27,500

ADFG Trustee Council Member Travel

Travel support for the Trustee Council member or Alternate's travel expenses to participate in approximately five one-day meetings in Anchorage at a cost of approximately \$1,100.00 per trip.

• DOI Trustee Council Member Travel

Travel support for the Trustee Council member or Alternate's travel expenses to participate in approximately five one-day meetings in Anchorage, at a cost of approximately \$1,100.00 per trip.

NOAA Trustee Council Member Travel

Travel support for the Trustee Council member or Alternate's travel expenses to participate in approximately five one-day meetings in Anchorage, at a cost of approximately \$1,100.00 per trip.

ADEC Trustee Council Member Travel .

Travel support for the Trustee Council member or Alternate's travel expenses to participate in approximately five one-day meetings in Anchorage, at a cost of approximately \$1,100.00 per trip.

DOL Trustee Council Member Travel

Travel support for the Trustee Council member or Alternate's travel expenses to participate in approximately five one day meetings in Anchorage, at a cost of approximately \$1,100.00 per trip

AGENCY DISTRIBUTION

Cost Category	ADF&G	DOI-SEC	NOAA	ADEC	ADOL	Total
Personnel	\$0	\$0	\$0	\$0	\$0	\$0
Travel	\$5,500	\$5,500	\$5,500	\$5,500	\$5,500	\$27,500
Contractual	\$0	\$0	\$0	\$0	\$0	\$0
Commodities	\$0	\$0	\$0	\$0	\$0	\$0
Equipment	\$0	\$0	\$0	\$0	\$0	\$0
Sub-total	\$5,500	\$5,500	\$5,500	\$5,500	\$5,500	\$27,500
G&A - 9%	\$495	\$495	\$495	\$495	\$495	\$2,475
Component Total	\$5,995	\$5,995	\$5,995	\$5,995	\$5,995	\$29,975

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\$5,500

\$5,500

\$5.500

\$5,500

\$5,500

HABITAT PROTECTION PROGRAM - \$109,000

Cost Category	Total Budget	
Personnel	\$35,000	
Travel	\$0	
Contractual	\$65,000	
Commodities	\$0	
Equipment	\$0	
Sub-total	\$100,000	
G&A - 9%	\$9,000	
Component Total	\$109,000	

PERSONNEL - \$35,000

Funds are provided in support of agency efforts to bring viable small parcel proposals to the Council for consideration. Expenses such as title review, hazmat review and survey review and similar expenses are appropriate due diligence efforts which may be undertaken by sponsoring agencies under this program. The budgeted due diligence expenditures under personnel are those to be accomplished through the use of in-house staff as most efficient and/or cost effective. The purchase of any interest in land requires additional Trustee Council review and approval.

CONTRACTUAL - \$65,000

Funds are provided in support of agency efforts to bring viable small parcel proposals to the Council for consideration. Expenses such as title review, hazmat review and survey review and similar expenses are appropriate due diligence efforts which may be undertaken by sponsoring agencies under this program. The budgeted due diligence expenditures under contractual services are those contracted out by the agency as most efficient and/occur effective. The purchase of any interest in land requires additional Trustee Council review and approval.

AGENCY DISTRIBUTION

Cost Category	ADNR	DOI-FWS	USFS	Total
Personnel	\$10,000	\$25,000	\$0	\$35,000
Travel	\$0	\$0	\$0	\$0
Contractual	\$42,250	\$0	\$22,750	\$65,000
Commodities	\$0	\$0	\$0	\$0
Equipment	\$0	\$0	\$0	\$0
Sub-total	\$52,250	\$25,000	\$22,750	\$100,000
G&A - 9%	\$4,703	\$2,250	\$2,047	\$9,000
Component Total	\$56,953	\$27,250	\$24,797	\$109,000

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Cost Category Total Budget \$260,686 Personnel Travel \$0 \$0 Contractual Commodities \$0 \$0 Equipment \$260.686 Sub-total G&A - 9% \$23,462 Component Total \$284,148

PROGRAM SUPPORT / PROJECT MANAGEMENT - \$284,148

PERSONNEL - \$260,686

Project Management - \$53,080

Project Management funds provide lead Trustee Agencies with funds necessary to manage contracts and report on the status of projects; to facilitate communication between the agencies, Principal Investigators, and the Restoration Office; to assist with the annual financial audit; and perform other administrative functions necessary for implementation of projects authorized by the Trustee Council. All agencies receive one month's salary (based on projected base they plus benefits) for project management for the first quarter in order to complete the FY09 project closures and to assist with audit processes. Project management funds are also included below for management of multi-year projects that have been previously authorized to continue in FY10. Additional funds (one month's salary per project managed – up to 12 months maximum) will be included in this approved budget to manage the new FY10 projects once they have been approved.

FY10 First quarter allocation

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(\$12,500)
(\$22,122)
(\$9,458)
(\$9,000)
(\$53,080)

TC Council Support - \$207,606

Trustee Council Support funds provide Trustee Agencies with funds necessary to cover liaison staff costs for time and expenses related to preparing for, communicating with and representing of Trustee Agency positions at EVOS sponsored meetings or when participating in EVOS program activities and providing future program direction. All agencies receive 3 month's salary (based upon projected base pay plus benefits) for Trustee Council Support for the full federal fiscal year.

ADFG – Tom Brookover	\$30,700
ADNR – Carol Fries	\$37,500
USFS – Steve Zemke	\$28,373
NOAA – Pete Hagen	\$27,000
ADEC – Marit Carlson-Van Dort	\$31,300
DOI/FWS – Jenifer Kohout	\$30,858
DOI/SEC - Federal Budget Officer - Bruce Nesslage	\$21,875
TOTAL	\$207,606

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AGENCY DISTRIBUTION:

Cost Category	ADEC	ADF&G	ADNR	DOI/USGS	USFS	NOAA	FWS	DOI/SEC	Total
Personnel	\$31,300	\$30,700	\$50,000	\$22,122	\$37,831	\$36,000	\$30,858	\$21,875	\$260,686
Travel	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Contractual	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Commodities	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sub-total	\$31,300	\$30,700	\$50,00	\$22,122	\$37,831	\$36,000	\$30,858	\$21,875	\$260,686
Agency G&A	\$2,817	\$2,763	\$4,500	\$1,991	\$3,405	\$3,240	\$2,777	\$1,969	\$23,462
Component Total	\$34,117	\$33,463	\$54,500	\$24,113	\$41,236	\$39,240	\$33,635	\$23,844	\$284,148

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ALASKA RESOURCES LIBRARY & INFORMATION SERVICES – \$166,372 (ARLIS)

Cost Category	Total Budget
Personnel	\$124,885
Travel	\$1,500
Contractual	\$26,250
Commodities	\$0
Equipment	\$0
Sub-total	\$152,635
G&A - 9%	\$13,737
Component Total	\$166,372

PERSONNEL - \$125,158

Position	Range/Step	Months	Monthly Cost	Annual Cost
Librarian III	19/N	12	\$7,117	\$124,885
	Personnel Total		\$7,117	\$124,885

Monthly cost is w/o benefits, annual is w/benefits.

Funding provides 1.0 FTE librarian to meet the ongoing information and research needs of the Trustee Council staff, Public Advisory Committee, researchers, and the general public, manage the EVOS collection at ARLIS, and represent the Trustee Council on the ARLIS Management Team.

TRAVEL - \$1,500

Funding provides for travel and training for ARLIS librarian for professional development and program advancement.

CONTRACTUAL - \$26,250

This contractual cost is a cash contribution to the ARLIS operating budget. The contribution is monitored through a reimbursable services agreement with EVOS and pays for commodities at the research library necessary in maintaining EVOS records, EVOS research assistance by library staff, and to assist with other operating expenses funded by ARLIS founding agencies.

AGENCY DISTRIBUTION:

Cost Category	ADF&G
Personnel	\$124,885
Travel	\$1,500
Contractual	\$26,250
Commodities	\$0
Equipment	\$0
Sub-total	\$152,635
G&A - 9%	\$13,737
Component Total	\$166,372

FY10 Annual Program Development & Implementation Budget – Ver. L Resolution 09-10 – Attachment A. Wednesday, August 26, 2009 T:\Project Information\2010\10100100 - EVOS Administration\DPD Pg. 16 of 16

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FY 2010 Work Plan

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A. Recommended for Funding by Executive Director

Project Number	Principal Investigator	Project Title	Total Requested	FY10 Requested	Science Panel	Science Coord.	PAC	Executive Director	Workplan Page #
HIGH FUN	DING PRIORIT	Y							
10100808	Bodkin	Evaluation of Recovery and Restoration of Injured Nearshore	\$601,500	\$166,400	Fund	Fund	Fund	Priority Fund	11
10100100	EVOS Administration	EVOS Administration	2191212 252,228,743 2174 42	\$2,224,091	Not Reviewed	Not Reviewed	Not Reviewed	Priority Fund	29
10100132-I	Hershberger	PWS Herring Survey: Herring Disease Program (HDP)	\$975,200	\$81,800	Fund	Fund	Fund Reduced	Priority Fund	38
10100839	Hollmen	Evaluating injury to harlequin ducks	\$213,200	\$213,200	Not Reviewed	Not Reviewed	Not Reviewed	Priority Fund	40
10100742	Matkin	Killer Whales in Prince William Sound/Kenai Fjords	\$390,393	\$132,309	Fund	Fund	Fund	Priority Fund	56
10100340	Weingartner	Long-Term Monitoring of the Alaska Coastal Current	\$413,800	\$141,500	Fund	Fund	Fund	Priority Fund	87

Subtotal \$4,822,836 \$2,959,300

FUND									
10100132-G	Bishop	PWS Herring Survey: Top-Down Regulation by Predatory Fish	\$678,900	\$185,500	Fund	Fund	Fund Reduced	Fund	7
10100132-F	Brown	PWS Herring Survey: Herring, Predator, and Competitor Density	\$501,254	\$160,141	Fund Reduced	Fund	Fund Reduced	Fund	15
10100624	Bychkov	Measuring Interannual Variability in the Herring's Forage Base	\$205,600	\$61,900	Fund	Fund	Fund	Fund	17
10100132-A	Campbell	PWS Herring Survey: Plankton and Oceanographic Observations	\$663,300	\$201,500	Fund	Fund	Fund Reduced	Fund	21
10100290	Carls	The Exxon Valdez Trustee Hydrocarbon Database	\$37,200	\$9,300	Fund	Fund	Fund	Fund	23
10100132-Е	Gay	PWS Herring Survey: Nursery Habitats of Juvenile Pacific Herring	\$353,000	\$88,400	Fund	Fund	Fund Reduced	Fund	31
10100751	Irons	Prince William Sound Marine Bird Surveys, Synthesis and Restoration	\$293,740	\$254,500	Fund	Fund	Fund	Fund	42
10100132-C	Kline	PWS Herring Survey: Pacific Herring Energetic Recruitment	\$998,600	\$258,700	Fund	Fund	Fund Reduced	Fund	46

FY10 SU RY OF RECOMMENDATIONS





Project Number	Principal Investigator	Project Title	Total Requested	FY10 Requested	Science Panel	Science Coord.	PAC	Executive Director	Workplan Page #
10100132	Pegau	PWS Herring Survey: Comm. Involvem., Outreach, Logistics, &	\$1,180,400	\$343,100	Fund	Fund	Fund Reduced	Fund	68
10100804	Rice	Significance of Whale Predation On Natural Mortality Rate of Pacific	\$69,100	\$69,100	Fund	Fund	Fund	Fund	72
10100132-В	Thorne	PWS Herring Survey: Assessment of Juvenile Herring Abundance	\$596,727	\$170,214	Fund	Fund	Fund Reduced	Fund	83
10100806	Vollenweider	Are Herring Energetics Limiting. Part III	\$60,700	\$60,700	Fund	Fund	Fund	Fund	85

Subtotal \$5,638,521 \$1,863,055

LOWER FUNDING PRIORITY									
10100119	Campbell	Carrying Capacity Supplementation for Herring Restoration	\$36,600	\$36,600	Fund	Fund	Fund	Could Wait	19
10100574	Lees	Re-Assessment of Bivalve Recovery	\$264,600	\$136,600	Fund	Fund	Fund Contingent	Could Wait	54
10100128	Quinn	Historical Humpback Whale Abundance	\$163,700	\$94,200	Fund	Fund	Fund	Could Wait	70
10100165A	Seeb	Pilot Project - High Density DNA Sequencing	\$71,300	\$71,300	Not Reviewed	Could Wait	Not Reviewed	Could Wait	78

Subtotal \$536,200

\$338,700

PENDING									
10100066	Haakanson	Alutiiq Museum & Archaeological Repository Expansion	\$500,000	\$500,000	Not Reviewed	Not Reviewed	Do Not Fund	Pending	35

Subtotal \$500,000 \$500,000

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FY10 SUC RY OF RECOMMENDATIONS



B. Not Recommended for Funding by Executive Director

Project Number	Principal Investigator	Project Title	Total Requested	FY10 Requested	Science Panel	Science Coord.	РАС	Executive Director	Workplan Page #
DO NOT FU	J ND								
10100111	Ammann	Community-Based Habitat Restoration	\$3,000,000	\$1,000,000	Do Not Fund	Do Not Fund	Do Not Fund	Do Not Fund	5
10100114	Bochenek	Compilation of EVOS & Regional Hydrocarbon Data and Reports	\$233,300	\$140,200	Do Not Fund	Do Not Fund	Do Not Fund	Do Not Fund	9
10100118	Boswell	Using Chemical Tracers to Define Regional-Scale Nursery Habitat	\$49,200	\$49,200	Do Not Fund	Do Not Fund	Do Not Fund	Do Not Fund	13
10100123	Collins	Aerial Surveys and Herring Egg Relocation Feasibility	\$154,671	\$60,168	Do Not Fund	Do Not Fund	Do Not Fund	Do Not Fund	25
10100125	Сох	Importance of Structured Near Shore Habitats	\$570,100	\$203,100	Do Not Fund	Do Not Fund	Do Not Fund	Do Not Fund	27
10100120	Guyon	Genetic Stock Structure of Herring	\$337,137	\$86,219	Do Not Fund	Do Not Fund	Do Not Fund	Do Not Fund	33
10100132-D	Heintz	PWS Herring Survey: Predictors of Winter Performance	\$306,600	\$99,000	Do Not Fund	Do Not Fund	Fund Reduced	Do Not Fund	36
10100810	Kiefer	An Ecosystem Model of Prince William Sound Herring	\$228,050	\$193,520	Do Not Fund	Do Not Fund	Do Not Fund	Do Not Fund	44
10100811	Kline	Pacific Herring Larval Recruitment into Nursery Bays	\$1,457,400	\$497,600	Do Not Fund	Do Not Fund	Do Not Fund	Do Not Fund	48
10100854	Konar	Recovery of Shallow Subtidal Communities	\$124,800	\$109,800	Fund	Do Not Fund	Do Not Fund	Do Not Fund	50
10100132-H	Kuletz	PWS Herring Survey: Trends in Seabird Predation	\$564,900	\$147,200	Do Not Fund	Fund	Fund Reduced	Do Not Fund	52
10100130	Moffitt	Population Structure of Pacific Herring	\$134,400	\$63,900	Modify	Do Not Fund	Do Not Fund	Do Not Fund	58
10100822	Moffitt	Herring Ecosystem Data Portal	\$591,000	\$248,200	Do Not Fund	Do Not Fund	Do Not Fund	Do Not Fund	60
10100122	Moran	Impact of Humpback Whale Predation	\$283,600	\$176,800	Do Not Fund	Do Not Fund	Do Not Fund	Do Not Fund	62
10100112	Payne	Evaluating Harbor Contaminants	\$618,000	\$550,700	Do Not Fund	Do Not Fund	Do Not Fund	Do Not Fund	64

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FY10 SUM AY OF RECOMMENDATIONS



Project Number	Principal Investigator	Project Title	Total Requested	FY10 Requested	Science Panel	Science Coord.	РАС	Executive Director	Workplan Page #
10100116	Payne	Remediation Monitoring using Microbial DNA Profiles	\$565,200	\$493,300	Do Not Fund	Do Not Fund	Do Not Fund	Do Not Fund	66
10100759	Rosenberg	Harlequin Duck Population Dynamics	\$711,700	\$211,700	Do Not Fund	Do Not Fund	Do Not Fund	Do Not Fund	74
10100165	Seeb	High Density DNA Sequencing	\$997,100	\$379,700	Fund Reduced	Modify	Do Not Fund	Do Not Fund	76
10100129	Seitz	Ecology and Migratory Movements of Pacific Herring	\$752,300	\$444,200	Fund	Fund	Do Not Fund	Do Not Fund	79
10100829	Shigenaka	Population Status of Littleneck Clams	\$346,600	\$229,300	Modify	Do Not Fund	Fund Contingent	Do Not Fund	81
10100124	Zwollo	Effects of Marine Pollution on Pacific Herring Immunity	\$307,000	\$123,600	Do Not Fund	Do Not Fund	Do Not Fund	Do Not Fund	89

Subtotal \$12,333,058 \$5,507,407

Exxon Valdez Oil Spill Trustee Council Federal Fiscal Year 2010 DRAFT Work Plan Issued July 21, 2009



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

FEDERAL FISCAL YEAR 2010

DRAFT WORK PLAN

July 21, 2009

Prepared by: Exxon Valdez Oil Spill Trustee Council

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LARRY HARTIG Commissioner Alaska Dept. of Environmental Conservation

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KIM ELTON Director of Alaska Affairs US Department of the Interior

Notice

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

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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.
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- Office of Equal Opportunity, U.S. Department of the Interior, Washington DC 20240.

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PLEASE COMMENT

You can help the Trustee Council by reviewing this draft work plan and letting us know your priorities for Fiscal Year 2010. You can comment by:

Mail:	Exxon Valdez Oil Spill Trustee Council 441 W. 5 th Avenue, Suite 500 Anchorage, AK 99501 Attn: Draft Fiscal Year 2010 Work Plan
Telephone:	1-800-478-7745 Collect calls will be accepted from fishers and boaters who call through the marine operator.
Fax:	907-276-7178
E-mail:	dfg.evos.restoration@alaska.gov

Continuing Projects in FY10

Project #	Principal Investigator	Project Title (abbr.)	FY10 Funding	First Year Funded
070819	Hershberger	PWS Herring Disease Program	\$272,800.00	FY07
FY10 Continuing	Project Funding To	ial	\$272,800.00	

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FY10 Proposal Funding Recommendations

Project	Principal	Project Title (abbr.)	Total	FY10 Descripted	Total	Science	Science	PAC	Executive	Trustee
Number	Investigator		Requested	Requested	Approved	Panel	Coord.		Director	Council
10100111	Ammann	Community-Based Habitat Restoration	\$3,000,000.00	\$1,000,000.00	\$0.00	Do Not Fund	Do Not Fund	Do Not Fund	Do Not Fund	Pending
10100132- G	Bishop	PWS Herring Survey: Top-Down Regulation by Predatory Fish	\$678,900.00	\$185,500.00	\$0.00	Fund	Fund	Fund Reduced	Fund	Pending
10100114	Bochenek	Compilation of EVOS and Regional Hydrocarbon Data and Reports	\$233,300.00	\$140,200.00	\$0.00	Do Not Fund	Do Not Fund	Do Not Fund	Do Not Fund	Pending
10100808	Bodkin	Evaluation of Recovery and Restoration of Injured Nearshore Resources	\$601,500.00	\$166,400.00	\$0.00	Fund	Fund	Fund	Priority Fund	Pending
10100118	Boswell	Using Chemical Tracers to Define Regional-Scale Nursery Habitat	\$49,200.00	\$49,200.00	\$0.00	Do Not Fund	Do Not Fund	Do Not Fund	Do Not Fund	Pending
10100132- F	Brown	PWS Herring Survey: Herring, Predator, and Competitor Density	\$501,254.00	\$160,141.00	\$0.00	Fund Reduced	Fund	Fund Reduced	Fund	Pending
10100624	Bychkov	Measuring Interannual Variability in the Herring's Forage Base	\$205,600.00	\$61,900.00	\$0.00	Fund	Fund	Fund	Fund	Pending
10100119	Campbell	Carrying Capacity Supplementation for Herring Rest	\$36,600.00	\$36,600.00	\$0.00	Fund	Fund	Fund	Could Wait	Pending
10100132- A	Campbell	PWS Herring Survey: Plankton and Oceanographic Observations	\$663,300.00	\$201,500.00	\$0.00	Fund	Fund	Fund Reduced	Fund	Pending
10100290	Carls	The Exxon Valdez Trustee Hydrocarbon Database	\$37,200.00	\$9,300.00	\$0.00	Fund	Fund	Fund	Fund	Pending
10100123	Collins	Aerial Surveys and Herring Egg Relocation Feasibility	\$154,671.00	\$60,168.00	\$0.00	Do Not Fund	Do Not Fund	Do Not Fund	Do Not Fund	Pending
10100125	Cox	Importance of Structured Near Shore Habitats	\$570,100.00	\$203,100.00	\$0.00	Do Not Fund	Do Not Fund	Do Not Fund	Do Not Fund	Pending
10100100	EVOS Administration	EVOS Administration	\$2,224,091.00	\$2,224,091.00	\$0.00	Not Reviewed	Not Reviewed	Not Reviewed	Fund	Pending
10100132- E	Gay	PWS Herring Survey: Nursery Habitats of Juvenile Pacific Herring	\$353,000.00	\$88,400.00	\$0.00	Fund	Fund	Fund Reduced	Fund	Pending
10100120	Guyon	Genetic Stock Structure of Herring	\$337,137.00	\$86,219.00	\$0.00	Do Not Fund	Do Not Fund	Do Not Fund	Do Not Fund	Pending
10100066	Haakanson	Alutiiq Museum & Archaeological Repository Expansion	\$500,000.00	\$500,000.00	\$0.00	Not Reviewed	Not Reviewed	Do Not Fund	Pending	Pending
10100132- D	Heintz	PWS Herring Survey: Predictors of Winter Performance	\$306,600.00	\$99,000.00	\$0.00	Do Not Fund	Fund	Fund Reduced	Do Not Fund	Pending
10100132- I	Hershberger	PWS Herring Survey: Herring Disease Program (HDP)	\$975,200.00	\$81,800.00	\$0.00	Fund	Fund	Fund Reduced	Priority Fund	Pending
10100839	Hollmen	Evaluating Injury to Harlequin Ducks	\$250,700.00	\$218,300.00	\$0.00	Not Reviewed	Not Reviewed	Not Reviewed	Priority Fund	Pending
10100751	Irons	Prince William Sound Marine Bird Surveys, Synthesis and Restoration	\$293,740.00	\$254,500.00	\$0.00	Fund	Fund	Fund	Fund	Pending
10100810	Kiefer	An Ecosystem Model of Prince William Sound Herring	\$228,050.00	\$193,520.00	\$0.00	Do Not Fund	Do Not Fund	Do Not Fund	Do Not Fund	Pending



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Project	Principal	Project Title (abbr.)	Total	FY10	Total	Science	Science	PAC	Executive	Trustee
Number	Investigator		Requested	Requested	Approved	Panel	Coord.		Director	Council
10100132- C	Kline	PWS Herring Survey: Pacific Herring Energetic Recruitment Factors	\$998,600.00	\$258,700.00	\$0.00	Fund	Fund	Fund Reduced	Fund	Pending
10100811	Kline	Pacific Herring Larval Recruitment into PWS Nursery Bays	\$1,457,400.00	\$497,600.00	\$0.00	Do Not Fund	Do Not Fund	Do Not Fund	Do Not Fund	Pending
10100854	Konar	Recovery of Shallow Subtidal Communities	\$124,800.00	\$109,800.00	\$0.00	Fund	Do Not Fund	Do Not Fund	Do Not Fund	Pending
10100132- H	Kuletz	PWS Herring Survey: Seasonal & Interannual Trends in Seabird Predation	\$564,900.00	\$147,200.00	\$0.00	Do Not Fund	Fund	Fund Reduced	Do Not Fund	Pending
10100574	Lees	Re-Assessment of Bivalve Recovery	\$264,600.00	\$136,600.00	\$0.00	Fund	Fund	Fund Contingent	Could Wait	Pending
10100742	Matkin	Killer Whales in Prince William Sound/Kenai Fjords	\$390,393.00	\$132,309.00	\$0.00	Fund	Fund	Fund	Priority Fund	Pending
10100130	Moffitt	Population Structure of Pacific Herring	\$134,400.00	\$63,900.00	\$0.00	Modify	Do Not Fund	Do Not Fund	Do Not Fund	Pending
10100822	Moffitt	Herring Ecosystem Data Portal	\$591,000.00	\$248,200.00	\$0.00	Do Not Fund	Do Not Fund	Do Not Fund	Do Not Fund	Pending
10100122	Moran	Impact of Humpback Whale Predation	\$283,600.00	\$176,800.00	\$0.00	Do Not Fund	Do Not Fund	Do Not Fund	Do Not Fund	Pending
10100112	Payne	Evaluating Harbor Contaminants	\$618,000.00	\$550,700.00	\$0.00	Do Not Fund	Do Not Fund	Do Not Fund	Do Not Fund	Pending
10100116	Payne	Remediation Monitoring using Microbial DNA Profiles	\$565,200.00	\$493,300.00	\$0.00	Do Not Fund	Do Not Fund	Do Not Fund	Do Not Fund	Pending
10100132	Pegau	PWS Herring Survey: Comm. Involvem., Outreach, Logistics, & Synthesis	\$1,180,400.00	\$343,100.00	\$0.00	Fund	Fund	Fund Reduced	Fund	Pending
10100128	Quinn	Historical Humpback Whale Abundance	\$163,700.00	\$94,200.00	\$0.00	Fund	Fund	Fund	Could Wait	Pending
10100804	Rice	Significance of Whale Predation On Natural Mortality Rate of Pacific Herring	\$69,100.00	\$69,100.00	\$0.00	Fund	Fund	Fund	Fund	Pending
10100759	Rosenberg	Harlequin Duck Population Dynamics	\$711,700.00	\$211,700.00	\$0.00	Do Not Fund	Do Not Fund	Do Not Fund	Do Not Fund	Pending
10100165	Seeb	High Density DNA Sequencing	\$997,100.00	\$379,700.00	\$0.00	Fund Reduced	Do Not Fund	Do Not Fund	Do Not Fund	Pending
10100165- A	Seeb	Pilot Project - High Density DNA Sequencing	\$71,300.00	\$71,300.00	\$0.00	Not Reviewed	Could Wait	Not Reviewed	Could Wait	Pending
10100129	Seitz	Ecology and Migratory Movements of Pacific Herring	\$752,300.00	\$444,200.00	\$0.00	Fund	Fund	Do Not Fund	Could Wait	Pending
10100829	Shigenaka	Population Status of Littleneck Clams	\$346,600.00	\$229,300.00	\$0.00	Do Not Fund	Do Not Fund	Fund Contingent	Do Not Fund	Pending
10100132- B	Thorne	PWS Herring Survey: Assessment of Juvenile Herring Abundance	\$596,727.00	\$170,214.00	\$0.00	Fund	Fund	Fund Reduced	Fund	Pending
10100806	Vollenweider	Are Herring Energetics Limiting. Part III	\$60,700.00	\$60,700.00	\$0.00	Fund	Fund	Fund	Fund	Pending
10100340	Weingartner	Long-Term Monitoring of the Alaska Coastal Current	\$413,800.00	\$141,500.00	\$0.00	Fund	Fund	Fund	Priority Fund	Pending

Project	Principal	Project Title (abbr.)	Total	FY10	Total	Science	Science	PAC	Executive	Trustee
Number	Investigator		Requested	Requested	Approved	Panel	Coord.		Director	Council
10100124	Zwollo	Effects of Marine Pollution on Pacific Herring Immunity	\$307,000.00	\$123,600.00	\$0.00	Do Not Fund	Do Not Fund	Do Not Fund	Do Not Fund	Pending
Total Funds Requested and Approved			\$23,863,463.00	\$11,173,562.00	\$0.00					

Descriptions of New FY10 Proposals

Project Number:	10100111				
Project Title:	Community-Based Habitat Restoration				
Principal Investigator:	Erika Ammann				
Affiliation:	NOAA Fisheries				
Co-Pis/Personnel:	Jennifer Steger, Krystyna Wolniakowski				
Project Location:	PWS				
Funding Requested by Fiscal Year:					

FY10:	\$1,000,000.00	FY11:	\$1,000,000.00	FY12:	\$1,000,000.00
FY13:	\$0.00	FY14:	\$0.00	FY15:	\$0.00

Total Funding Requested: \$3,000,000.00

Abstract:



The NOAA Restoration Center (RC) enhances living marine resources by restoring fisheries habitat. The RC is the focal point for marine and estuarine habitat restoration within NOAA. Through the Restoration Center the Community-based habitat restoration program operates. In this program ecologically sound restoration is performed that includes an element of community engagement and education. In partnership with engineers, hydrologists and scientists; community members take part in restoration and become stewards of the habitat protecting the restoration investment as well as working to prevent further degradation. The NOAA Restoration Center has been working in Alaska for the past 10 years. During this time we have completed over 63 restoration projects, restoring 4,900 acres of productive habitat with the help of 3,900 volunteers donating over 46,000 hours to perform this work. We have managed over 2 million in NOAA funds and leveraged over \$2 million in non federal funding. The National Fish and Wildlife Foundation (NFWF), a partner with NOAA in Alaska and nationally, was established and authorized by Congress in 1984 to develop public-private partnerships and leverage federal funds with non-federal contributions to increase funding available for conservation projects. NFWF has been a grantmaker in Alaska since 1986 and has funded more than 200 projects leveraging \$16,300,000 in federal funds, with \$4,500 of private donations to NFWF, and matched with \$23,750,000 from grantees.

Science Panel Comments:

This proposal requested substantial pass-through funds for re-granting to community-based restoration projects. A high percentage (20%) of the \$1 million was requested for the administration of the grant program. The level of detail was insufficient to determine that the projects that would be funded would have sufficient scientific merit or fulfill EVOS restoration goals and objectives. The programs that the P.I.s are associated with, however, appear to have good track records for tangible habitat restoration projects with some degree of community involvement so the Trustee Council should consider a pilot project in the future. The pilot project should include adequate funding for oversight of project selection by EVOS staff and a sub-group of the Science and Restoration Panel and a more reasonable percentage for administrative costs.

Science Panel Recommendation: Do Not Fund

Science Coordinator Comments:

I concur with the science panel recommendation.

Science Coordinator Recommendation: Do Not Fund



Public Advisory Committee Comments: Not Available

Public Advisory Committee Recommendation: Do Not Fund

Executive Director Comments: Not Available

Executive Director Recommendation: Do Not Fund

Trustee Council Comments: Not Available

Trustee Council Decision: Pending

Project Number:	10100132-G							
Project Title:	PWS Herring Survey: Top-Down Regulation by Predatory Fish on Juvenile Herring							
Principal Investigator:	Mary Anne Bishop							
Affiliation:	Prince William Sound Science Center							
Co-Pls/Personnel:	Sean Powers							
Project Location:	Prince William Sound							
Funding Requested by	/ Fiscal Year:							
FY10: \$185,500.00	FY11: \$183,300.00 FY1	2: \$193,400.00						
FY13: \$116,700.00	FY14: \$0.00 FY1	5: \$0.00						

Total Funding Requested: \$678,900.00

Abstract:

Based on population trends, the Prince William Sound (PWS) Pacific herring population does not show signs of recovering. Predation pressure on juvenile herring has been cited as an important factor in preventing recovery. Juvenile herring are heavily predated by multiple species of fish, including rockfish, a species group injured by the Exxon Valdez Oil spill with unknown recovery status. This proposal is for a four-year study to investigate fish predation on the 0 age class herring over winter, a critical bottleneck for recruitment. We will examine the spatial and temporal abundance of fish predators in and around juvenile herring schools, as well as the physical and biological characteristics of the herring schools on which they feed. We will also conduct laboratory experiments to determine fish predators' daily rations and prey preferences. Our project is a component of the PWS Herring Survey program and relies on predator surveys being performed on integrated November and March cruises. Our models will provide estimates of juvenile herring consumption by the most important fish predators. Ultimately, this study will improve understanding of the role of fish predation on herring recruitment, will provide protocols and recommendations for long-term fish predator monitoring and management, and will help to identify candidate sites for herring supplementation efforts.

Science Panel Comments:

Predation has been identified as a significant constraint to the recovery of herring in PWS. The Trustees have recently funded two projects investigating the impact of seabird and whale predation on herring. This study will provide a more complete picture of the role predation plays in the herring lifecycle by determining the influence of fish predators.

Science Panel Recommendation: Fund

Science Coordinator Comments:

The effects of predatory fish on herring have not been studied even though it has been identified as a potential limiting factor for the restoration of herring. The data collected in this project will further our understanding of the impact of this type of predation and will give a deeper understanding of herring's lack of recovery.

Science Coordinator Recommendation: Fund

Public Advisory Committee Comments:

Possible reduction as a function of the recommended overall 10% decrease of the 10100132 PWS Herring Survey - see 10100132.

Public Advisory Committee Recommendation: Fund Reduced

Executive Director Comments: Not Available

Executive Director Recommendation: Fund

Trustee Council Comments: Not Available

Trustee Council Decision: Pending

Project Number:	10100114							
Project Title:	Compilation of EVOS and Regional Hydrocarbon Data and Reports Submitted Under BAA #AB133F-09-RP-0059							
Principal Investigator:	Robert Bochenek							
Affiliation:	Axiom Consulting & Design							
Co-Pls/Personnel:	Bill Driskell, Jim Payne							
Project Location:	Oil Spill Affected Area							
Funding Requested by	Fiscal Year:							
FY10: \$140,200.00	FY11: \$93,100.00 FY12: \$0.00							
FY13: \$0.00	FY14: \$0.00 FY15: \$0.00							

Total Funding Requested: \$233,300.00

Abstract:

Large quantities of hydrocarbon, chemical, contaminant, and substrate data have been collected over the years in the Exxon Valdez Oil Spill affected area, and although some of these data (e.g., EVTHD) have been compiled into a database, access to these data lacks a coherent data framework. As a result, rapid access and analyses, particularly via web-based data distribution and visualization, are not possible. The user must be very technically adept to find and pull together a desired data subset of interest. We propose assembling a collection of relevant hydrocarbon data sets into a common data structure and presenting them online for facile visualization and retrieval. Furthermore, we propose to link any retrieved data to both the original metadata and a retrievable form of the original report. By implementing existing data management standards for these growing geospatial data sets, we will create an open, accessible product to visualize, filter, and retrieve data supplemented with its context, sampling details, and original investigator's interpretation.

Science Panel Comments:

This project has been ongoing for three years and the Science Panel feels that the database should now be independently peer reviewed prior to any additional funding.

Science Panel Recommendation: Do Not Fund

Science Coordinator Comments:

I concur with the science panel recommendations.

Science Coordinator Recommendation: Do Not Fund

Public Advisory Committee Comments: Not Available

Public Advisory Committee Recommendation: Do Not Fund

Executive Director Comments: Not Available

Executive Director Recommendation: Do Not Fund

Trustee Council Comments: Not Available

Trustee Council Decision: Pending
Project Number:10100808Project Title:Monitoring for Evaluation of Recovery and Restoration of Injured Nearshore ResourcesPrincipal InvestigatorJames BodkinAffiliation:US Geological SurveyCo-Pls/Personnel:Tom DeanProject Location:Western Prince William Sound

Funding Requested by Fiscal Year:

FY10:	\$166,400.00	FY11:	\$166,400.00	FY12:	\$165,300.00
FY13:	\$103,400.00	FY14:	\$0.00	FY15:	\$0.00

Total Funding Requested: \$601,500.00

Abstract:

The proposed project is designed to assist in the evaluation of recovery and restoration of injured resources in Prince William Sound. The primary objective is to initiate or continue recovery and restoration monitoring in the nearshore in Prince William Sound following the plan developed in Restoration Project 050750 and tested in Restoration Project 070750. The goal of this program is to evaluate the current status of EVOS injured resources and services (recreational, subsistence, and passive use), to determine when populations may be considered recovered, and to foster recovery of those resources by identifying and recommending actions in response to factors limiting recovery. The National Park Service and USGS began implementation of a similar nearshore monitoring plan outside of Prince William Sound (i.e., along the Katmai, Kenai Fjords, and Lake Clark National Park coasts, including both oiled and unoiled sites) in 2006. This program is collecting information similar to the data sets that have been used to assess recovery of injured resources in Prince William Sound (e.g., population abundance and survival of sea otters, population abundance of harlequin ducks and other nearshore birds, abundance estimates for mussels, clams, and other intertidal organisms). Contrasts among trends in injured resources in and outside Prince William Sound. including both oiled and unoiled areas will provide the primary means of resource evaluation. Funds for conducting some of these studies in Prince William Sound (e.g., bird and mammal surveys, D. Irons USFWS) are being sought by other proposals submitted to the Trustee Council and are not addressed herein. Our purpose is to implement a nearshore monitoring program in Western Prince William Sound related to EVOS injured resources and to make it comparable to the program being carried out by the National Park Service in the Gulf of Alaska outside of Prince William Sound. This proposed nearshore sampling in Prince William Sound, in conjunction with nearshore sampling and data management supported by NPS and USGS will provide the foundation of a comprehensive restoration monitoring program for the entire oil spill area.

Science Panel Comments:

This proposal provides a logical next step in development of a program to determine long-term health of the intertidal community and associated resources that were clearly impacted by the spill. It specifically addresses recovery status of injured intertidal communities for which little current information is available. The proposal builds on work funded by other agencies to provide an important gulf-wide perspective.

Science Panel Recommendation: Fund

Science Coordinator Comments:

I concur with the science panel recommendation.

Science Coordinator Recommendation: Fund



Public Advisory Committee Comments: Not Available

Public Advisory Committee Recommendation: Fund

Executive Director Comments: Not Available

Executive Director Recommendation: Priority Fund

Trustee Council Comments: Not Available

Project Number:	10100118				
Project Title:	Using Chemical Tracers to Define Regional-Scale Nursery Habitat Use: A Pilot Study for Pacific Herring				
Principal Investigator:	Kevin Boswell				
Affiliation:	Coastal Fisheries Institute				
Co-Pls/Personnel:	JJ Vollenweider				
Project Location:	Prince William Sound				
Funding Requested by	Fiscal Year:				
FY10: \$49,200.00	FY11: \$0.00 FY12: \$0.00				
FY13: \$0.00	FY14: \$0.00 FY15: \$0.00				

Total Funding Requested: \$49,200.00

Abstract:

The purpose of this proposal is to identify regionally-unique otolith chemical signatures in juvenile herring to ultimately estimate relative contribution to the adult population in Prince William Sound (PWS). Juveniles will be collected among ten spatially distinct nursery habitats during FY10 through collaboration with researchers and other on-going projects. Chemical analyses of otoliths will include both trace elements and stable isotope concentrations on juvenile herring using state of the art analytical techniques. The proposed work will serve as a pilot study in attempt to successfully discriminate among herring nurseries using natural chemical tracers. Upon successful discrimination, we aim to assess the relative contribution of specific nurseries to the adult herring population within PWS using otolith chemistry. This work will provide resolution on the relative importance of regional nursery areas within PWS and provide information to address future management and supplementation efforts for this highly important population.

Science Panel Comments:

The Science Panel felt that the goal of this project, i.e., to determine which larval rearing Bays contribute the most to the adult population, to be of fundamental importance to the Integrated Herring Program. As we do not have the results yet from a previously funded study (P.I.s Bickford and Norcross) with similar goals, it is difficult to fund this proposal until we see what has been learned from the earlier efforts with similar objectives.

Science Panel Recommendation: Do Not Fund

Science Coordinator Comments:

I concur with the science panel recommendation.

Science Coordinator Recommendation: Do Not Fund

Public Advisory Committee Comments:

Not Available

Public Advisory Committee Recommendation: Do Not Fund

Executive Director Comments: Not Available Executive Director Recommendation: Do Not Fund

Trustee Council Comments: Not Available

Project Number:	10100132-F					
Project Title:	PWS Herring Survey: Sound Wide Juvenile Herring, Predator, and Competitor Density via Aerial Surveys, submitted under the BAA AB133F-09-RP-0059					
Principal Investigator:	Evelyn Brown					
Affiliation:	Flying Fish Ltd.					
Co-Pls/Personnel:	None					
Project Location:	PWS					
Funding Requested by Fiscal Year:						
FY10: \$160,141.00	FY11: \$153,056.00 FY12:	\$153,056.00				
FY13: \$35,001.00	FY14: \$0.00 FY15:	\$0.00				

Total Funding Requested: \$501,254.00

Abstract:

As a component of the integrated PWS Herring Survey (Pegau, P.I.), this project provides 1) a sound-wide, spatiallyexplicit map of juvenile herring densities, 2) synoptic distributions of herring predator and competitors, and 3) builds on 5 years of previous PWS surveys. June-August surveys map age 1 overwinter survivorship, the timing, spatial extent, and density of age 0 recruiting to nursery habitat, summer mortality of age 1 herring, as well as associated changes in predator/competitor densities. Validation sampling will be provided by a shared vessel with the PWS Herring Survey monthly zooplankton cruises (Campbell, P.I.). Combined with data from other projects within and outside of the PWS Herring Survey, this project's data provides 1) inputs, outputs, and validation for overwinter survival and densitydependent models of predation, growth and disease, 2) an initial estimate of age 2 immature herring recruitment, and 3) spatial information needed to plan, initiate, and evaluate intervention actions.

Science Panel Comments:

The objectives, while good, are probably not achievable with the proposed level of effort suggested. Consequently the results could fall short of the objectives. Regardless some of the results could be very useful, even with inherent limitations. The main technical issues noted by the panel concern species identification from the air: it is not sufficient that the observer is convinced of the species identity – there must be a validation process that is transparent and convincing. Some form of ground-truthing is required. The Science panel also wondered about limitation of quantitative estimates of fish schools and why there was no explicit reference to analysis of photographic records. Although the Science panel was highly skeptical of many of the claims made in the proposal it recognized that interest and dedication of the researchers, and acknowledges that areal work could provide a valuable support for the herring Survey team. Therefore the recommendation was to fund the project for one year and re-evaluate the proposal before further support.

Science Panel Recommendation: Fund Reduced

Science Coordinator Comments:

While I concur with several of the science panel's comments on this project, I do believe that this work will provide valuable data for the Council's herring restoration efforts. The researcher is experienced in this type of data collection and will be coordinating closely with the other members of the PWS Herring Survey team to ground-truth the aerial observations.

Science Coordinator Recommendation: Fund

Public Advisory Committee Comments:

Possible reduction as a function of the recommended overall 10% decrease of the 10100132 PWS Herring Survey - see 10100132.

Public Advisory Committee Recommendation: Fund Reduced

Executive Director Comments: Not Available

Executive Director Recommendation: Fund

Trustee Council Comments: Not Available



Project Number:	10100624				
Project Title:	Measuring Interannual Variability in the Herring's Forage Base from the GOA - Submitted Under the BAA				
Principal Investigator:	Alexander Bychkov				
Affiliation:	PICES				
Co-Pls/Personnel:	Sonia Batten				
Project Location:	Shelf waters SW of PWS, Cook Inlet, northern GOA				
Funding Requested by	Fiscal Year:				
FY10: \$61,900.00	FY11:	\$63,600.00	FY12:	\$65,100.00	
FY13: \$15,000.00	FY14:	\$0.00	FY15:	\$0.00	

Total Funding Requested: \$205,600.00

Abstract:

Herring from Prince William Sound feed on zooplankton, some originating within the Sound and some from the Gulf of Alaska (GOA) introduced to PWS via a variety of processes. Additionally, adult herring almost certainly forage outside of the Sound, feeding on zooplankton over the wider Alaskan shelf. Understanding the sources of variability in the herring forage base is essential to efforts to understand the herring recovery process and to address basic resource management questions. Direct measurements inside PWS do not explain how the interannual variation in ocean food sources creates interannual variability in PWS zooplankton, nor when changes in ocean zooplankton are to be seen inside PWS. A ten-year time series of seasonal zooplankton data from the Alaskan shelf and northern oceanic GOA has been maintained through support from a variety of agencies including the EVOS TC. The Continuous Plankton Recorder (CPR) survey is a cost-effective, ship-of-opportunity based sampling program that includes community involvement and has a proven track record. The existing time series shows considerable interannual variation in GOA zooplankton abundance and is essential baseline data to underpin herring restoration efforts. EVOS TC support is now requested to maintain the sampling in this region at the current resolution while we examine the linkages between PWS and GOA zooplankton.

Science Panel Comments:

This project provides the only long-term record of plankton abundance and species composition important to understanding the inter-annual variation in herring food from the Gulf of Alaska. This information is necessary to understand herring mortality and long-term trends in herring abundance. The proposers are global leaders in the field and have successfully maintained a time series of such information for a decade using a consortium of funders, including the EVOSTC. The approach using vessels of opportunity and continuous plankton recorders has provided information of the highest quality for the lowest costs for over 50 years. This is the longest plankton time series in the Pacific.

Science Panel Recommendation: Fund

Science Coordinator Comments:

I concur with the science panel recommendation.

Science Coordinator Recommendation: Fund

Public Advisory Committee Comments:

Not Available

Public Advisory Committee Recommendation: Fund

Executive Director Comments: Not Available

Executive Director Recommendation: Fund

Trustee Council Comments: Not Available

Project Number:	10100119				
Project Title:	Assessment of the Feasibility of Carrying Capacity Supplementation for Herring Restoration in Prince William Sound, Submitted Under the BAA				
Principal Investigator:	Robert Campbell				
Affiliation:	Prince William Sound Science Center				
Co-Pls/Personnel:	None				
Project Location:	Prince William Sound				
Funding Requested by	v Fiscal Year:				
FY10: \$36,600.00	FY11: \$0.00	FY12:	\$0.00		
FY13: \$0.00	FY14: \$0.00	FY15:	\$0.00		

Total Funding Requested: \$36,600.00

Abstract:

Herring stocks collapsed in the years following the Exxon Valdez Oil Spill and have not recovered in the intervening years; they are currently considered in "unrecovered" status by the EVOS Trustee Council. The Trustee Council has supported the development of an Integrated Herring Restoration Plan which has been in progress since 2006. The current draft plan outlines a number of restoration objectives, including the supplementation of carrying capacity by feeding or nutrient additions. This proposal seeks to undertake a cost and feasibility analysis of that restoration option, and will consider the amount of food or nutrients required, associated costs, regulatory implications, and potential impacts and benefits to both the herring population and the PWS ecosystem.

Science Panel Comments:

This project is a cost-effective desk exercise that will provide needed information on the possibility of a specific herring restoration option: the potential addition of food for YOY herring to specific areas of Prince William where they overwinter. This restoration option was only identified as a potential option in the IHRP and has not been examined beyond the 'conceptual stage'. The Science Panel agreed that this work will help to frame the questions for the PWS Herring Survey package.

Science Panel Recommendation: Fund

Science Coordinator Comments:

I concur with the science panel recommendation. This project will assist the Trustee Council in their review of the restoration options that were provided in the Integrated Herring Restoration Program document.

Science Coordinator Recommendation: Fund

Public Advisory Committee Comments:

Not Available

Public Advisory Committee Recommendation: Fund

Executive Director Comments: Not Available Executive Director Recommendation: Could Wait

Trustee Council Comments: Not Available

Project Number:	10100132-A				
Project Title:	PWS Herring Survey: Plankton and Oceanographic Observations, Submitted Under the BAA				
Principal Investigator:	Robert Campbell				
Affiliation:	Prince William Sound Science Center				
Co-Pls/Personnel:	None				
Project Location:	Prince William Sound				
Funding Requested by	Fiscal Year:				
FY10: \$201,500.00	FY11: \$197,300.00 FY12	\$200,100.00			
FY13: \$64,400,00	FY14: \$0.00 FY15	: \$0.00			

Total Funding Requested: \$663,300.00

Abstract:

Herring stocks collapsed in the years following the Exxon Valdez Oil Spill. The cause of the collapse remains highly controversial, and several empirical and theoretical studies have implicated different factors, including the spill, disease outbreaks, fishing activity, and ecosystem productivity. Herring stocks have not rebounded since the collapse in the early 90's and show no signs of recovery; similarly controversial, varied, and not necessarily mutually exclusive. The work described in this proposal is part of several collaborative proposals to survey herring in PWS, and seeks to monitor the environmental and food climate experienced by herring in order to address the hypothesis that carrying capacity can be limiting the recovery of herring. Observations of environmental conditions and plankton abundance over time will be integrated with observations of herring distributions and energetics, in order to assess how the food climate in Prince William Sound may structure herring populations in space and time.

Science Panel Comments:

The science panel endorsed this project because it addressed fundamental issues related to the role of food availability and the decline or lack of recovery of herring. Food limitation over the winter is seen to be a credible explanation as a factor affecting the survival of age 0+ herring over the winter. This project will address a basic part of the hypothesis. The work also could have implications for factors affecting other species, including competitors and predators of herring. The reviews were positive and the PI appears to be productive. Also the proposal is connected and coordinated with other concurrent projects in the herring survey.

Science Panel Recommendation: Fund

Science Coordinator Comments:

I concur with the science panel recommendation.

Science Coordinator Recommendation: Fund

Public Advisory Committee Comments:

Possible reduction as a function of the recommended overall 10% decrease of the 10100132 PWS Herring Survey - see 10100132.

Public Advisory Committee Recommendation: Fund Reduced

Executive Director Comments: Not Available

Executive Director Recommendation: Fund

Trustee Council Comments: Not Available

Trustee Council Decision: Pending

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Project Number:	10100290	
Project Title:	The Exxon Valdez Trustee Hydrocarbon Database	
Principal Investigator:	Mark Carls	
Affiliation:	NOAA/NMFS Auke Bay Laboratory	
Co-Pis/Personnel:	Marie Larsen	
Project Location:	Auke Bay Laboratories – TSMRI, Juneau, AK	
Funding Requested by	/ Fiscal Year:	
FY10: \$9,300.00	FY11: \$9,300.00 FY12: \$9	,300.00
FY13: \$9,300.00	FY14: \$0.00 FY15: \$0	.00

Total Funding Requested: \$37,200.00

Abstract:

This is an on-going service project that provides data and sample archiving services for all samples collected for hydrocarbon analysis in support of Exxon Valdez Oil Spill Trustee Council projects. These data represent samples collected since the oil spill in 1989 to the present and include National Resource Damage Assessment (NRDA) studies (environmental and laboratory) and Restoration and Recovery data. This project serves as an archive for chemical analyses and sample data and storage of physical samples that have not been analyzed and provides copies of the ACCESS database to interested parties. The project also responds to several Freedom of Information Act (FOIA) requests each year for information associated with these data. Interpretative services for these data are available.

Science Panel Comments:

This proposal provides ongoing support for maintaining, updating, and serving hydrocarbon data that are critical to future evaluations of recovery and restoration.

Science Panel Recommendation: Fund

Science Coordinator Comments:

I concur with the science panel recommendation.

Science Coordinator Recommendation: Fund

Public Advisory Committee Comments: Not Available

Public Advisory Committee Recommendation: Fund

Executive Director Comments: Not Available

Executive Director Recommendation: Fund

Trustee Council Comments: Not Available



Project Number:10100123Project Title:Aerial Surveys and Herring Egg Relocation FeasibilityPrincipal Investigator:Michael CollinsAffiliation:Upper EdgeCo-Pis/Personnel:NoneProject Location:Prince William SoundFunding Requested by Fiscal Year:FY11: \$94,503.00FY12: \$0.00

FY13: \$0.00FY14: \$0.00FY15: \$0.00

Total Funding Requested: \$154,671.00

Abstract:

This proposal contains two parts.

1. Aerial surveys of herring stocks in April of each year for the purpose of monitoring and tracking the existing biomass (mature herring in Prince William Sound.

2. A feasibility study for a fertile herring egg relocation program using a low impact method to move and incubate eggs and rear herring in their natural habitat.



Science Panel Comments:

This project was presented by an interested member of the local community. The Panel did not endorse the part of the proposal related to the feasibility of egg relocation (it has been done elsewhere). Instead the Science panel recommended that this proposal should be linked to the work proposed by the PWS Herring Survey team.

Science Panel Recommendation: Do Not Fund

Science Coordinator Comments:

I concur with the science panel recommendation. I would strongly encourage the PI to offer his services to the other projects that may be funded as part of this workplan.

Science Coordinator Recommendation: Do Not Fund

Public Advisory Committee Comments: Not Available

Public Advisory Committee Recommendation: Do Not Fund

Executive Director Comments: Not Available

Executive Director Recommendation: Do Not Fund

Trustee Council Comments: Not Available

Project Number:	10100125
Project Title:	Importance of Structured Near Shore Habitats for Age-0 Herring (Clupea Pallasi) in Prince William Sound, Alaska
Principal Investigator:	Marlin Cox
Affiliation:	NOAA/NMFS Auke Bay Laboratory
Co-Pls/Personnel:	Mary Anne Bishop, Kevin Boswell, Ron Heintz
Project Location:	Simpson and St. Matthews Bays, Prince WIlliam Sound
Funding Requested by	Fiscal Year:
FY10: \$203,100.00	FY11: \$246,300.00 FY12: \$120,700.00

FY14: \$0.00

Total Funding Requested: \$570,100.00

Abstract:

FY13: \$0.00

There are few data describing the life history of post-settled herring in structured settling habitats before they enter pelagic habitats at the heads of bays in the fall. Earlier studies (SEA) focused primarily on age-0 starting in the fall, and did not measure energetics, survival success, and habitat requirements from the first settling out stages (beginning in July). This study will examine age-0 Juveniles starting in July, correlate their numbers and condition with habitat use, and challenges (growth, predation) during the summer months, as a prelude to the bay studies in Fall/Winter/Spring. We hypothesize that the near-shore offers age-0 herring cover from predators and warm water temperatures to maximize growth. The project proposed here will examine this hypothesis by comparing the growth, condition and predation risk of age-0 herring collected in near-shore and pelagic habitats between July and mid-September. It will thereby fill in the missing details of herring life history during this critical period, and will complement the late fall/winter survival studies of the bay monitoring study.

Science Panel Comments:

The proposal examines the smaller scale (largely within bay) spatial and temporal distribution of young of year (YOY) herring and tests the hypothesis that YOY herring utilize nearshore vegetated habitats as a refuge from predation during the day. The proposed design will examine abundance of YOY herring in 2 bays, over three months, in inshore (<6m) and offshore habitats, during the day and in the night. They also propose to examine condition of YOY herring, abundance of potential avian and fish predators, gut contents of fish predators, and temperature. The proposal largely failed to provide information on the size of sampling units and extent of replication in the sampling. The panel expressed concern that without extensive replication it is unlikely that the hypothesis could be tested with reasonable power given that estimates of both fish and bird abundances are notoriously variable. Also, the panel expressed concern regarding some of the proposed sampling methods. The use of sonar may not provide reasonable estimates of fish abundance in heavily vegetated habitats and the use of RNA:DNA may not be the most efficient way to assess growth. Also, the panel found overlap between this and other proposed projects (many of which included PIs for this project). As result, the panel does not recommend funding of this project. However, the PIs are encouraged to further explore the use of state of the art multi-beam bioacoustics in examining the relative abundance of herring and other forage fish, and perhaps "crosswalking" estimates made using older single beam and multi-beam technologies. The panel would also endorse the concept of simultaneous examination of the distribution and abundance of YOY herring and their predators, but only after more careful consideration of existing data and a refinement of the sampling design.

Science Panel Recommendation: Do Not Fund

Science Coordinator Comments:

I concur with the science panel recommendation.

FY15: \$0.00

Science Coordinator Recommendation: Do Not Fund

Public Advisory Committee Comments: Not Available

Public Advisory Committee Recommendation: Do Not Fund

Executive Director Comments: Not Available

Executive Director Recommendation: Do Not Fund

Trustee Council Comments: Not Available

Project Number: 10100100



Project Title: EVOS Administration

Principal Investigator: EVOS Administration

Affiliation: EVOSTC

Co-Pls/Personnel: None

Project Location: Trustee Council Office

Funding Requested by Fiscal Year:

FY10:	\$2,224,091.00	FY11:	\$0.00	FY12:	\$0.00
FY13:	\$0.00	FY14:	\$0.00	FY15:	\$0.00

Total Funding Requested: \$2,224,091.00

Abstract:

The FY10 program components are:

Administration Management

- Data Management
- Science Management
- Public Information & Outreach
- Public Advisory Committee (PAC)
- Habitat Protection Program
- Trustee Council Member Direct Expenses
- · Program Support/Project Management by Agencies
- Alaska Resources Library & Information Services

Various aspects of the components are undertaken by Trustee Council agencies providing program development and administrative support.

Although funding for liaisons, project managers, and other support staff is included in the Program Support and Project Management component, the final budget for this component cannot be accurately determined until the Trustee Council takes action on the FY 10 Work Plan. Upon adoption of the FY 10 Work Plan, additional project management funds for each agency will be requested in proportion to the number and complexity of funded projects assigned to each agency for management. At that time the budget will be revised to reflect this additional expense.

Science Panel Comments:

Not Applicable

Science Panel Recommendation: Not Reviewed

Science Coordinator Comments:

Not Applicable

Science Coordinator Recommendation: Not Reviewed

Public Advisory Committee Comments:

Not Applicable

Public Advisory Committee Recommendation: Not Reviewed

Executive Director Comments: Not Available

Executive Director Recommendation: Fund

Trustee Council Comments: Not Available

Project Number:	10100132-E				
Project Title:	PWS Herring Survey: Physical Oceanographic Characteristics of Nursery Habitats of Juvenile Pacific Herring, submitted under the BAA AB133F-09-RP-0059				
Principal Investigator:	Shelton Gay				
Affiliation:	Prince William Sound Science Center				
Co-Pls/Personnel:	None				
Project Location:	Prince Willam Sound, Alaska				
Funding Requested by	y Fiscal Year:				
FY10: \$88,400.00	FY11: \$83,100.00 FY1	2: \$90,000.00			
FY13: \$91,500.00	FY14: \$0.00 FY1	5: \$0.00			

Total Funding Requested: \$353,000.00

Abstract:



The objectives of this research are to build upon a physical oceanographic data base started during the SEA project and continued under a recent EVOS funded project: Physical Oceanographic Factors Affecting Productivity in Juvenile Pacific Herring Nursery Habitats. The rationale of this project is based upon past research of juvenile Pacific herring in PWS, which has shown that recruitment is highly influenced by conditions within nursery sites affecting survival within the first year. Important among these conditions is the pre-winter condition of juvenile (age-0) herring and the effects of water temperatures on metabolism and hence over-winter survival. Past studies of the physical oceanography of nursery fjords has indicated that each site has a unique set of hydrographic conditions that are influenced by both local processes and water exchange between the GOA and PWS. These factors vary significantly depending on geographic location, basin morphometry, watershed topography and proximity to tidewater glacial fjords. The proposed study will continue monitoring the physical properties within the four SEA nursery fjords and additional sites as determined by future herring surveys, and collect time-series data on temperature, salinity and fluorescence to determine the variation among nurseries in factors such as ocean climate, stratification, mixing, phytoplankton biomass, and energy constraints imposed on juvenile herring by seasonal changes in water temperatures. The data will also assist in evaluating potential sites for future supplementation efforts in restoring the herring population.

Science Panel Comments:

This project will continue to make key hydrographic and circulation measurements in PWS. Such measurements are critical to other studies, like that of Kline, and to constructing a synthetic population model for herring.

Science Panel Recommendation: Fund

Science Coordinator Comments:

I concur with the science panel recommendation.

Science Coordinator Recommendation: Fund

Public Advisory Committee Comments:

Possible reduction as a function of the recommended overall 10% decrease of the 10100132 PWS Herring Survey - see 10100132.

Public Advisory Committee Recommendation: Fund Reduced

Executive Director Comments: Not Available

Executive Director Recommendation: Fund

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Trustee Council Comments: Not Available

Project Number:	10100120	
Project Title:	Genetic Stock Structure of Herring in Prince William Sound	
Principal Investigator:	Jeffrey Guyon	
Affiliation:	NOAA/NMFS Auke Bay Laboratory	
Co-Pls/Personnel:	Sharon Wildes	
Project Location:	Montague Island (or western PWS) and St. Matthews Bay (or eastern PWS)	
Funding Requested by Fiscal Year:		

FY10:	\$86,219.00	FY11:	\$141,264.00	FY12:	\$109,654.00
FY13:	\$0.00	FY14:	\$0.00	FY15:	\$0.00

Total Funding Requested: \$337,137.00

Abstract:



Science Panel Comments:

This proposal proposes to use neutral microsatellite markers in an attempt to distinguish the PWS herring population structure. There is little evidence from the investigators or from other studies that the microsatellites will discriminate the fine stock structure (if there even is one) of PWS herring. The investigators refer to a manuscript that is submitted suggesting that Lynn Canal herring can be distinguished from Gulf of Alaska herring. However, preliminary data would be needed to first show that PWS herring can be distinguished from other stocks before this proposal could be funded. The proposal is very poorly written and alone this would merit a no fund recommendation, as pointed out by peer reviews. The budget is substantial and failed to account for \$40,000 of critical supplies to conduct the research.

Science Panel Recommendation: Do Not Fund

Science Coordinator Comments:

I concur with the science panel recommendation.

Science Coordinator Recommendation: Do Not Fund



Public Advisory Committee Comments: Not Available

Public Advisory Committee Recommendation: Do Not Fund

Executive Director Comments: Not Available

Executive Director Recommendation: Do Not Fund

Trustee Council Comments: Not Available

Project Number:	10100066								
Project Title:	Alutiiq Museum & Archaeological Repository Expansion								
Principal Investigator:	Sven Haakanson								
Affiliation:	Alutiiq Museum								
Co-Pls/Personnel:	None								
Project Location:	Alutiiq Museum, Kodiak								
Funding Requested by	Fiscal Year:								
FY10: \$500,000.00	FY11: \$0.00	FY12:	\$0.00						
FY13: \$0.00	FY14: \$0.00	FY15:	\$0.00						
Total Funding Request	ted: \$500,000.00								
Abstract: Not Available									
Science Panel Comments: Not Applicable									
Science Panel Recomm	nendation: Not Reviewed								
Science Coordinator Comments: Not Applicable									
Science Coordinator Recommendation: Not Reviewed									
Public Advisory Committee Comments: Not Available									
Public Advisory Comm	ittee Recommendation: Do Not Fund								
Executive Director Comments: Not Available									
Executive Director Recommendation: Pending									
Trustee Council Comments: Not Available									
Trustee Council Decisi	on: Pending								

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Project Number:	10100132-D	
Project Title:	PWS Herring Survey: Value of Growth and Energy Storage as Predic Performance in YOY Herring from PWS	ctors of Winter
Principal Investigat	itor: Ronald Heintz	
Affiliation:	NOAA/NMFS Auke Bay Laboratory	
Co-Pls/Personnel:	JJ Vollenweider	
Project Location:	Eaglek, Simpson, Whale and Zaikof and other bays	
Funding Requested	d by Fiscal Year:	
FY10: \$99,000.00	FY11: \$99,000.00 FY1	2: \$99,000.00
FY13: \$9,600.00	FY14: \$0.00 FY1	5: \$0.00

Total Funding Requested: \$306,600.00

Abstract:

This proposal examines the reliability of fall growth rates as an indicator of over-winter performance among YOY herring in Prince William Sound. The Trustee Integrated Herring Restoration Program cites the need for identifying parameters that reliably indicate condition. Parameters such as size or energy density can provide misleading results. While size is a good predictor of over-winter survival in a given year, there is no critical size that predicts survival across years. Similarly, changes in energy density may not reflect the severity of winter. We propose that fall growth rate predicts performance because herring acquire the bulk of their lipid in fall. Individuals experiencing high growth in fall are likely to obtain disproportionately large energy reserves. We propose using models relating RNA/DNA ratios to growth obtained under another Trustee study to estimate growth in field specimens collected during the survey period. In addition we will examine how energy is partitioned between structural and storage compartments. Combining these data with those of other projects being proposed under the PWS Herring Survey will allow us to test the hypothesis that growth in fall is the most consistent indicator of over winter survival because fall growth provides for the greatest provisions of stored energy

Science Panel Comments:

The science panel noted concern that ongoing work by the PI should be brought to completion before starting a new project. Further there was concern that the proposed sample size was too small and not random enough to provide convincing results.

Science Panel Recommendation: Do Not Fund

Science Coordinator Comments:

This project will provide information that will be important in understanding over winter performance of young of the year herring in PWS.

Science Coordinator Recommendation: Fund

Public Advisory Committee Comments:

Possible reduction as a function of the recommended overall 10% decrease of the 10100132 PWS Herring Survey - see 10100132.

Public Advisory Committee Recommendation: Fund Reduced

Executive Director Comments:

Not Available

Executive Director Recommendation: Do Not Fund

Trustee Council Comments: Not Available

Project Number:	10100132-I	
Project Title:	PWS Herring Survey: Herring Disease Program (HDP))
Principal Investigator:	Paul Hershberger	
Affiliation:	US Geological Survey	
Co-Pis/Personnel:	Jim Winton	
Project Location:	Prince William Sound, Sitka Sound, Puget Sound, USGS - Marrowstone Marine Field Station	

Funding Requested by Fiscal Year:

FY10:	\$81,800.00	FY11:	\$284,100.00	FY12:	\$295,800.00
FY13:	\$313,500.00	FY14:	\$0.00	FY15:	\$0.00

Total Funding Requested: \$975,200.00

Abstract:

The Herring Disease Program (HDP) is part of a larger integrated effort, the PWS herring survey: Community Involvement, Outreach, Logistics, and Synthesis submitted under the BAA (outlined in a separated proposal by Dr. Scott Pegau), that is intended to identify juvenile rearing bays, measure factors limiting the success of juvenile herring, and provide recommendations for spatial and temporal coverage of future monitoring efforts. Within this integrated effort, the HDP is intended to evaluate the impact of infectious and parasitic diseases on the failed recovery of the PWS herring population by placing special emphasis on disease processes affecting juvenile cohorts. The framework for the 2010 -2013 HDP involves a combination of field surveillance efforts and laboratory-based empirical disease process studies. Field surveillance efforts will provide continued and expanded infection and disease prevalence data for herring populations in Prince William Sound (PWS), Sitka Sound, and Puget Sound. Additionally, samples from field surveillance efforts will be processed using newly-developed disease forecasting tools to provide annual risk assessments that quantify the potential for future disease epizootics. Empirical disease process studies will provide an understanding of cause and effect epidemiological relationships between the host, pathogen, and environment; understanding of these relationships represents a first step towards developing additional disease forecasting tools. Specific emphasis will be placed on refining our understanding disease processes specific to viral hemorrhagic septicemia (VHS) and ichthyophoniasis, two primary diseases of herring in PWS.

Science Panel Comments:

This proposal describes continuation of herring disease monitoring and research into its role in combination with other interacting stressors in suppressing herring recovery in PWS. This is done in coordination with the broader Herring Survey program proposed by Scott Pegau. Although a continuation of an orgoing project, this proposal clearly identifies a set of new objectives that are appropriate and compelling. Specifically, the laboratory experiments evaluating the cause-effect epidemiology of how host, parasite, and environmental factors interact to dictate disease impacts is especially promising. The survey work also focuses on disease effects on YOY herring in ways that may lead to much improved understanding of disease impacts on herring because of the complex role of historical exposure and immunity in determining impacts later in the life history. Herschberger and colleagues have been exceptionally productive in their past EVOS work. Although this project is expensive over its 4 years, the costs are appropriate for the type of research required, involving sophisticated lab assessments of multiple diseases.

The Science Panel recommends FUND – even if the entire Herring Survey is not funded or slow to be funded because this project can stand on its own merits (although needs field ship platforms for collections of herring).

Science Panel Recommendation: Fund

Science Coordinator Comments:

I concur with the science panel recommendation.

Science Coordinator Recommendation: Fund

Public Advisory Committee Comments:

Possible reduction as a function of the recommended overall 10% decrease of the 10100132 PWS Herring Survey - see 10100132.

Public Advisory Committee Recommendation: Fund Reduced

Executive Director Comments: Not Available

Executive Director Recommendation: Priority Fund

Trustee Council Comments: Not Available





Project Number:	10100839
Project Title:	Evaluating Injury to Harlequin Ducks
Principal Investigator:	Tuula Hollmen
Affiliation:	Alaska SeaLife Center
Co-Pls/Personnel:	Kathrine Springman
Project Location:	Prince William Sound

Funding Requested by Fiscal Year:

FY10:	\$218,300.00	FY11:	\$32,400.00	FY12:	\$0.00
FY13:	\$0.00	FY14:	\$0.00	FY15:	\$0.00

Total Funding Requested: \$250,700.00

Abstract:

Evaluation of harlequin duck (Histrionicus histrionicus) population trends, survival measures, and biomarker indicators of exposure suggests that the species is recovering, but has not fully recovered from the effects of the 1989 Exxon Valdez oil spill (EVOS) in the Prince William Sound (PWS). In areas oiled by the EVOS, elevated cytochrome P4501A biomarker induction has been observed in harlequin ducks as recently as March 2007, providing evidence of continued exposure. The magnitude of injury and its implications for populations of harlequin ducks caused by chronic oil exposure and long-term induction of central enzymatic processes is unknown. This study applies a panel of in vitro harlequin duck and surrogate cell line bioassays for a species-specific toxicological assessment of site-specific hydrocarbons from PWS. A combination of bioassays that measure direct effects on cell viability and DNA damage provide a new method to assess and quantify injury. Also, a battery of laboratory bioassays provides a method to link P4501A biomarker induction with other measures of cellular injury, and a comprehensive assessment of potential short- and long-term toxicity.

Science Panel Comments:

Not Applicable

Science Panel Recommendation: Not Reviewed

Science Coordinator Comments: Not Applicable

Science Coordinator Recommendation: Not Reviewed

Public Advisory Committee Comments: Not Applicable

Public Advisory Committee Recommendation: Not Reviewed

Executive Director Comments: Not Available

Executive Director Recommendation: Priority Fund



Trustee Council Comments: Not Available



Trustee Council Decision: Pending

Project Number:	10100751			
Project Title:	Prince William Sound Marine Bird Surveys, Synthesis and R	estoration		
Principal Investigator:	David Irons			
Affiliation:	U.S. Fish and Wildlife Service			
Co-Pls/Personnel:	Kathy Kuletz			
Project Location:	Prince William Sound			
Funding Requested by	Fiscal Year:			
FY10: \$254,500.00	FY11: \$39,240.00	FY12:	\$0.00	

FY14: \$0.00

Total Funding Requested: \$293,740.00

Abstract:

FY13: \$0.00

We propose to conduct small boat surveys to monitor abundance of marine birds in Prince William Sound, Alaska, during March and July 2010. Ten previous surveys have monitored population trends for marine birds and mammals in Prince William Sound after the Exxon Valdez oil spill. We will use data collected in 2010 to examine trends from summer and from winter to determine whether populations in the oiled zone are increasing, decreasing, or stable. We will also examine overall population trends for the Sound. Continued monitoring of marine birds and synthesis of the data are needed to determine whether populations injured by the spill are recovering. Data collected from 1989 to 2007 in the oiled area indicated that common loons (Gavia immer), and cormorants (Phalacrocorax spp) are increasing. Numbers of all other injured species are either not changing or are declining in the oiled area. Populations of harleguin ducks (Histrionicus histrionicus), black oystercatchers (Haematopus bachmani), Kittlitz's Murrelets (Brachyramphus brevirostris), and common murres (Uria aalgae) are showing no trend in the oiled area; pigeon guillemots (Cepphus columba) and marbled murrelets (Brachyramphus marmoratus)) are declining in the oiled areas of Prince William Sound. We have found high inter-annual variation in numbers of some bird species and therefore recommend continuing to conduct surveys every two years. These surveys are the only ongoing means to evaluate the recovery of most of these injured marine bird species. A survey in 2010 would also benefit the ongoing Pigeon Guillemot Restoration Research Project by providing a Sound-wide pigeon guillemot population trend estimate through 2010, facilitating a comparison to the population trend on Naked Island.

Science Panel Comments:

The proposal is to continue one of the most valuable studies on long-term trends of marine populations in Prince William Sound. It includes multiple populations of sea birds as well as sea otters. The proposed work is a straightforward continuation of a well-proven and valuable survey method. Previous surveys have recently been conducted at about 3 year intervals. The P.I.s have used sophisticated statistical approaches to analyzing the data in various parts of PWS and reported their work in the scientific literature periodically. The project is cost-effective for the spatial and species extent for which data will be obtained.

Science Panel Recommendation: Fund

Science Coordinator Comments:

I concur with the science panel recommendation.

Science Coordinator Recommendation: Fund

FY15: \$0.00

Public Advisory Committee Comments: Not Available

Public Advisory Committee Recommendation: Fund

Executive Director Comments: Not Available

Executive Director Recommendation: Fund

Trustee Council Comments: Not Available

Trustee Council Decision: Pending

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Project Number:	10100810
Project Title:	An Ecosystem Model of Prince William Sound Herring
Principal Investigator:	Dale Kiefer
Affiliation:	University of Southern California
Co-Pis/Personnei:	Vince Patrick
Project Location:	Prince William Sound and Gulf of Alaska
Funding Requested by	Fiscal Year:

FY10:	\$193,520.00	FY11:	\$34,530.00	FY12:	\$0.00
FY13:	\$0.00	FY14:	\$0.00	FY15:	\$0.00

Total Funding Requested: \$228,050.00

Abstract:

During the first two years of our project to develop an information system for Prince William Sound herring, we have completed both a one dimensional model of the population dynamics during the herring's life cycle and a database that stores all information necessary to develop the model. The simulation model that we have developed provides very good predictions of the time series of the adult herring population and juvenile recruitment that are found in Fish and Game's Age Structured Analysis for both Prince William Sound and Sitka Sound. The model has helped reveal that variations in adult and juvenile populations are driven by both external, climatic factors and internal factors that are due to biological interactions of specific age classes of the herring. Specifically dramatic increases in juvenile survival within Sitka Sound were setoff by the 1976 regime shift in the Gulf of Alaska. The pattern in population dynamics that was initiated by this event continued until 1992-93 when El Nino "catalyzed" changes in the annual recruitment cycle of both Prince William and Sitka Sounds. These changes in juvenile survival reflect "internal dynamics" since they appear to be caused by the competition for food among the juvenile cohorts of differing ages. We have derived a phenomenological routine to describe the dynamics created by "cohort dominance" and incorporated into our model. When calibrated to the ASA time series of the two regions, the model tracks annual changes in adult stocks and recruitment closely, accounting for over 90% of the variability in the size of the adult stocks. We feel that this model provides not only new insight into the factors controlling the herring population in Prince William Sound but also a solid foundation for further discoveries.

We request an additional year of support to further develop the information system and to place it in the hands of those scientists and managers who will continue work under EVOS's Integrated Herring Restoration Program. During this additional year, we will advance the model by replacing the phenomenological description of juvenile dynamics with one based upon ecological principles and add a routine describing the epizootic influence of VHS upon the herring population. We will also modify the information system as needed to serve as an integration and analysis tool for the new 2010 projects that deal with tracking, genetic structure, feasibility, and the juvenile survey. This task will include workshops in which we will meet with participants, train them to use the information system, discuss the population dynamics model and how it will help to guide the design and ultimate interpretation of their field or laboratory work. Finally, we will run sensitivity analyses to determine which process in the herring's life cycle provides the most "leverage" for achieving an increase in the size of the population and run simulations to determine which intervention offers the most promise and what scale of operations will be required.

Science Panel Comments:

The proposal seeks funding to expand previously funded work on modeling of herring population dynamics. The past work sought to develop a spatially explicit, stage-based population model for herring. While the proposal provides an overview of the past work, details of the modeling effort have not been provided. The work might provide a tool helpful in describing herring population trends and guiding research and restoration activities. However, given the lack of a clear presentation of past work, and the cost of the project, we do not recommend funding at this time. We encourage the PIs to complete the currently funded program, provide a final report for that project that clearly states the accomplishments

to date. Future proposals should be more clearly coordinated with other herring projects and should provide assurances that the model will be utilized by researchers tracking herring populations and in making decisions regarding potential restoration activities.

Science Panel Recommendation: Do Not Fund

Science Coordinator Comments: I concur with the science panel recommendation.

Science Coordinator Recommendation: Do Not Fund

Public Advisory Committee Comments: Not Available

Public Advisory Committee Recommendation: Do Not Fund

Executive Director Comments:

Not Available

Executive Director Recommendation: Do Not Fund

Trustee Council Comments: Not Available



Project Number:	10100132-C		
Project Title:	PWS Herring Survey: Pacific Herring Energetic Recruitment Factor	rs	
Principal Investigator:	Thomas Kline		
Affiliation:	Prince William Sound Science Center		
Co-Pls/Personnel:	None		
Project Location:	Prince William Sound		
Funding Requested by	Fiscal Year:		
FY10: \$258,700.00	FY11: \$256,600.00 FY	12:	\$265,000.00

FY14: \$0.00

Total Funding Requested: \$998,600.00

Abstract:

FY13: \$218,300.00

This project is one component of the greater integrated study titled PWS herring survey: Community Involvement, Outreach, Logistics, and Synthesis (Pegau, P.I.). This proposed effort seeks to improve understanding of habitat utilization by juvenile herring, especially age 0, and to help identify candidate sites that could be potentially used for supplementation efforts. This particular proposal builds on 15 years of experience in assessment of juvenile herring in PWS using isotope and energetic techniques. We propose to measure energy levels of juvenile herring and other fishes in 8 juvenile herring nursery areas. Four of these areas, Simpson Bay, Eaglek Bay, Whale Bay and Zaikof Bay, were the focus of earlier investigation by the Sound Ecosystem Assessment (SEA) program in 1995-96 as well as a current Council-funded "PWS Herring Forage Contingency" project. Four additional sites will be selected based on historical data and community input and the 'blitz' sampling program. We propose to conduct surveys three times per year, preand post-winter and summer, for three years (including a planning year). The pre- and post-winter series will complement other studies that propose to examine overwinter change in energetics. The pre- and post-winter periods have been examined for the past three years. The summer period will provide a link between a more dispersed age 0 herring distribution following larvae drift and the subsequent overwintering locations. The fourth year of the project will focus on data analysis, synthesis and reporting.

Science Panel Comments:

The science panel recognized that although highly specialized, past work has made a substantial contribution to the scientific literature on herring in PWS and elsewhere. The reviews were positive and the only negative comment concerned the high costs of sample analysis. Now there is increasing recognition that herring research in PWS must be coordinated with other projects, both conceptually and operationally. The Science panel would have preferred to see how this proposal would be connected and integrated with other concurrent work.

Science Panel Recommendation: Fund

Science Coordinator Comments:

I concur with the science panel recommendation.

Science Coordinator Recommendation: Fund

Public Advisory Committee Comments:

Possible reduction as a function of the recommended overall 10% decrease of the 10100132 PWS Herring Survey - see 10100132.

Public Advisory Committee Recommendation: Fund Reduced



FY15: \$0.00


Executive Director Recommendation: Fund

Trustee Council Comments: Not Available

Project Number:	0100811			
Project Title:	acific Herring Larval Recruitment into PWS Nursery Bays			
Principal Investigator:	omas Kline			
Affiliation:	Prince William Sound Science Center	rince William Sound Science Center		
Co-Pls/Personnel:	Rob Campbell			
Project Location:	Prince William Sound			
Funding Requested by	Fiscal Year:			
FY10: \$497,600.00	FY11: \$385,500.00	FY12:	\$395,000.00	

FY14: \$0.00

Total Funding Requested: \$1,457,400.00

Abstract:

FY13: \$179,300.00

The objectives of the proposed effort are to improve understanding of recruitment (referred to as seeding) of herring larvae into juvenile rearing habitat, and to help identify candidate sites that could be potentially used for supplementation efforts. The proposal builds on recent experience in sampling larval herring in PWS. We propose to measure densities of larval herring in 8 potential juvenile herring nursery areas. Each bay will be sampled four times within a 70-day period to assess timing as well as occurrence of seeding. This will enable testing of alternate hypotheses relevant to the seeding process. We will also generate data that will enable testing whether herring larvae are an important food source for juvenile salmon to test the hypothesis that salmon predation on larvae is preventing herring population recovery. Four of these areas, Simpson Bay, Eaglek Bay, Whale Bay and Zaikof Bay, were the focus of earlier investigation by the Sound Ecosystem Assessment (SEA) program in 1995-96 as well as a current Council-funded project, "PWS Herring Forage Contingency". Four additional sites will be selected based on historical data and community input and the 'blitz' sampling program. The fourth year of the project will focus on data analysis, synthesis and reporting.

Science Panel Comments:

This was a very complex proposal, which appeared to be an add-on to the proposers' Herring Survey projects. It aimed to unravel three hypotheses about herring "seeding" to the 0+ year class, based largely on stable isotope analysis of herring and juvenile salmon in PWS. The budget was among the largest proposed, and it was not clear the extent to which the sampling required overlapped with other sampling planned for other projects. The reviewer questioned whether the technology proposed had adequate resolution to actually test the hypotheses. The questions raised were important, but there was consensus that the approaches need clarification and that they would be better defined once the Survey projects were underway.

Science Panel Recommendation: Do Not Fund

Science Coordinator Comments:

I concur with the science panel recommendation.

Science Coordinator Recommendation: Do Not Fund

Public Advisory Committee Comments:

Not Available

Public Advisory Committee Recommendation: Do Not Fund

FY15: \$0.00

Executive Director Recommendation: Do Not Fund

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Trustee Council Comments: Not Available

Project Number:	10100854		
Project Title:	Recovery of Shallow Subtidal Communities 20 Years After the Exxon Valdez Oil Spill		
Principal Investigator:	Brenda Konar		
Affiliation:	University of Alaska Fairbanks		
Co-Pls/Personnel: Katrin Iken			
Project Location: Prince William Sound			
Funding Requested by	Fiscal Year:		
FY10: \$109,800.00	FY11: \$15,000.00 FY12: \$0.00		
FY13: \$0.00	FY14: \$0.00 FY15: \$0.00		

Total Funding Requested: \$124,800.00

Abstract:

Impacts of the Exxon Valdez oil spill on nearshore subtidal habitats have been examined over the years, however the recovery and current status of these communities still remains unknown. The purpose of this proposal is to provide comprehensive information on the status of the recovery of three essential shallow subtidal habitat types (soft-sediment eelgrass beds, coarse textured substrates, and rocky substrate kelp beds) in Prince William Sound. The expected outcome of the proposed work is information that will allow classification of the various subtidal habitats as either recovered or not recovered. This proposal will accomplish its goal by surveying and comparing multiple historically oiled and non-oiled reference sites for various targeted parameters on multiple fish, invertebrate, and algal species.

Science Panel Comments:

The proposal seeks to re-examine the status of recovery of subtidal communities in Prince William Sound. The proposal is clearly written and the study design should provide a reasonable assessment of recovery status of subtidal resources. The panel expressed some concern regarding the likelihood of detecting continued injury in the subtidal given the lack of evidence for continued presence of subtidal oil. However, the proposal addresses an explicit concern of the Trustees (evaluation of resources still on the injured resource list) and is likely to provide information that will be of value in assessing potential adverse impacts of future remediation of oil in intertidal sediments. The PIs are clear leaders in their field and their involvement in future restoration and monitoring activities that are beyond the scope of the current project are encouraged.

Science Panel Recommendation: Fund

Science Coordinator Comments:

While I appreciate the cost-effectiveness of this project and the qualifications of the PI's involved, I am hesitant that any information of use to the restoration of resources or services in PWS will be provided in a single field season.

Science Coordinator Recommendation: Do Not Fund

Public Advisory Committee Comments:

Not Available

Public Advisory Committee Recommendation: Do Not Fund



Executive Director Recommendation: Do Not Fund

Trustee Council Comments: Not Available

Project Number:	10100132-H			
Project Title:	PWS Herring Survey: Seasonal & Interannual Trends in Seabird Predation on Juvenile Herring			ion on Juvenile
Principal Investigator: Katherine Kuletz				
Affiliation: US Fish & Wildlife Service				
Co-Pis/Personnel:	-Pls/Personnel: Mary Anne Bishop			
Project Location:	Prince William Sound			
Funding Requested by	Fiscal Year:			
FY10: \$147,200.00	FY11:	\$163,900.00	FY12:	\$150,900.00
FY13: \$102,900.00	FY14:	\$0.00	FY15:	\$0.00

Total Funding Requested: \$564,900.00

Abstract:

Predation pressure on juvenile Pacific herring has been identified by the 2008 Integrated Herring Restoration Plan as one of five potential factors limiting recovery of Prince William Sound herring. Juvenile herring are heavily predated by multiple species of seabirds, including six species initially injured by the Exxon Valdez oil spill and three species that have not yet recovered (Marbled Murrelet, Kittlitz's Murrelet and Pigeon Guillemot). This study will investigate the spatial and temporal abundance of seabird predators in and around juvenile herring schools during three time periods: August, November and March. We will also examine the physical and biological characteristics of the fish schools seabirds feed on. Our project is a component of the integrated, multi-project PWS Herring Survey program and relies on seabird surveys being performed on vessels associated with hydroacoustic juvenile herring surveys. Our bioenergetic models will provide estimates of juvenile herring consumption by the most important seabird predators, including inter- and intra- annual variability in consumption rates. This study will improve understanding of the role of seabird predation on herring recruitment and will help to identify candidate sites for herring supplementation efforts.

Science Panel Comments:

This study will investigate the spatial and temporal abundance of seabirds around juvenile herring schools during three time periods: August, November and March. It will also examine the physical and biological characteristics of the herring schools on which seabirds feed. This is a fairly well conceived and systematic approach to evaluating one source of predation pressure on Pacific herring. However, the project is strongly oriented towards herring as a source of nutrition for seabirds rather than as predators of herring. The most important objective of this study should be to quantify the amount of juvenile herring consumed by sea birds rather than the importance of herring to the diet of sea birds. Sea birds are likely important predators on juvenile herring, but it should not take 3 or 4 years to make a rough estimate of how important seabirds are as juvenile herring predators relative to other predators, i.e. marine mammals. A first order estimate might even be reasonably done with the data at hand.

Science Panel Recommendation: Do Not Fund

Science Coordinator Comments:

While I agree with some of the science panel's concerns, only five surveys have been completed to date and more data will be needed to make an educated estimate of the effect of seabird predation on herring. The addition of night surveys will allow the team to relate seabird densities concurrent with Dr. Richard Thorne's nighttime herring hydroacoustic surveys.

Science Coordinator Recommendation: Fund

Public Advisory Committee Comments:

Possible reduction as a function of the recommended overall 10% decrease of the 10100132 PWS Herring Survey - see 10100132.

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Public Advisory Committee Recommendation: Fund Reduced

Executive Director Comments: Not Available

Executive Director Recommendation: Do Not Fund

Trustee Council Comments: Not Available

Project Number:	10100574			
Project Title:	Re-Assessment of Bivalve Recovery on Treated Mixed-Soft Beaches in Prince William Sound – Submitted Under the BAA AB133F-09-RP-0059			
Principal Investigator:	ennis Lees			
Affiliation:	Littoral Ecological & Environmental Services			
Co-Pls/Personnel:	/Personnel: None			
Project Location: Prince William Sound, from Eleanor Island south to Latouche Island				
Funding Requested by	/ Fiscal Year:			
FY10: \$136,600.00	FY11: \$95,400.00 FY12: \$32,600.00			
FY13: \$0.00	FY14: \$0.00	FY15:	\$0.00	

Total Funding Requested: \$264,600.00

Abstract:

Studies from 1989 through 1997 suggested that bivalve assemblages on beaches in Prince William Sound (PWS) treated with high-pressure hot-water washing remain damaged. An EVOS-funded study in 2002 confirmed this hypothesis; hardshell clams were only one-third as abundant at washed sites as at unwashed sites. Considering the importance of hardshell clams to sea otters, other nearshore predators, and humans, this finding is important.

Using information from 1989, we constructed a preliminary recovery trajectory. This model predicts that clam assemblages at washed sites in PWS will require more than five decades to recover. Subsequently, a less extensive study of clam assemblages in PWS and research in other areas suggest that hardshell clams may be experiencing recruitment failures throughout the Pacific Northwest. By re-evaluating the status of clam populations at 40 sites sampled in 2002, this project will provide insights into: 1) the recovery trajectory for PWS clam assemblages by adding a third point for abundance at washed sites; and 2) the generality of the hypothesis that hardshell clams are experiencing recruitment failures throughout the Pacific Northwest.

Science Panel Comments:

This proposal was responsive to the guidance of the science panel and trustee council staff. The addition of FitzGerald provides a geomorphologist of obvious experience with a sufficient level of effort in each year to have a good chance of developing a viable means of quantifying this difficult concept of armoring. I consider the increase of 23% in the budget to be appropriately defended and necessary. This proposal is now appropriate for funding and important because it will address an injured resource (Clams), update its recovery status, and develop geomorphological methods of measuring armoring.

Science Panel Recommendation: Fund

Science Coordinator Comments:

I concur with the science panel's recommendation.

Science Coordinator Recommendation: Fund

Public Advisory Committee Comments:

The PAC recommends this project for funding if the PI satisfactorily collaborates with Project 10100829 (Shigenaka) and if their combined effort does not exceed \$150,000 in FY10.

Public Advisory Committee Recommendation: Fund Contingent



Executive Director Recommendation: Could Wait

Trustee Council Comments: Not Available

Project Number:	0100742			
Project Title:	Ionitoring, Tagging, Feeding Studies, and Restoration of Killer Whales in Prince Villiam Sound/Kenai Fjords 2010-2012 Submitted under the BAA			
Principal Investigator:	araig Matkin			
Affiliation:	North Gulf Oceanic Society			
Co-Pls/Personnel:	None			
Project Location: Prince William Sound/ Kenai Fjords				
Funding Requested by	Fiscal Year:			
FY10: \$132,309.00	FY11: \$132,309.00 FY12: \$125,775.00			
FY13: \$0.00	FY14: \$0.00 F	Y15:	\$0.00	

Total Funding Requested: \$390,393.00

Abstract:

The proposed project is a continuation of the monitoring of AB pod and the AT1 population killer whale populations in Prince William Sound. These groups of whales suffered serious losses at the time of the spill and have not recovered at projected rates. The project also extends the scope of the basic monitoring to include an innovative satellite tagging program to examine habitat preference and incorporates a more extensive examination of feeding habits using observational and chemical techniques. The project will delineate important habitat and variations in pod specific movements and feeding behavior within a temporal and geographic framework. Results will allow us to more closely examine the potential for restoration. The project will more clearly delineate the role of killer whales, both fish eating and mammal eating in the nearshore ecosystem and possible effects on the restoration recovery of harbor seals and sea otters. Community based initiatives, educational programs, and programs for tour boat operators will continue to be integrated into the work to help foster restoration by improving public understanding and reducing harassment of the whales.

Science Panel Comments:

This proposal continues the monitoring of killer whales in PWS, focusing on the injured resident AB pod and the transient AT1 population. New tagging technologies and expanded temporal sampling into the winter help expand the understanding of recovery processes that will emerge from this work. Matkin's past performance on EVOS studies has been excellent and public and scientific interest is still intense. The top apex consumer of the entire coastal ecosystem can have dramatic impacts on the entire ecosystem so this study is central to a system-wide understanding of its status.

Science Panel Recommendation: Fund

Science Coordinator Comments: I concur with the science panel recommendation.

Science Coordinator Recommendation: Fund

Public Advisory Committee Comments:

Not Available

Public Advisory Committee Recommendation: Fund

Executive Director Recommendation: Priority Fund

Trustee Council Comments: Not Available

Project Number: 10100130					
Project Title: Sampling for High Density DNA Sequencing to Detect Population Structure of F Herring.					
Principal Investigator: Steven Moffitt					
Affiliation: Alaska Department of Fish & Game					
Co-Pls/Personnel:	None				
Project Location:	Prince William Sound, Kodiak, Sitka, and Togiak				
Funding Requested by	Fiscal Year:				
FY10: \$63,900.00	FY11: \$70,500.00 FY12: \$0.00				
FY13: \$0.00	FY14: \$0.00 FY15: \$0.00				

Total Funding Requested: \$134,400.00

Abstract:

Pacific herring in Prince William Sound is one of only two resources still classified as 'not recovered'. The recovery of PWS herring depends crucially on levels of connectivity within PWS and with the Alaskan coast, determining the relative importance of immigration and recruitment in the recovery process. This project will collect herring and process for data and tissues required to investigate the genetic structure of Pacific herring in discrete spawning waves and age classes in three spatially and temporally isolated locations in PWS, within the context of Kodiak, Togiak, and SE Alaska outgroups.

Science Panel Comments:

This project is collecting samples for the Seeb (High Density DNA Sequencing) proposal. It is recommended that this proposal be merged with the Seeb proposal into one document.

Science Panel Recommendation: Modify

Science Coordinator Comments:

This project would be collecting and processing samples for another proposed project (Seeb). As I do not recommend funding the Seeb proposal at this time, I would also not recommend funding for this proposal.

Science Coordinator Recommendation: Do Not Fund

Public Advisory Committee Comments:

Not Available

Public Advisory Committee Recommendation: Do Not Fund

Executive Director Comments: Not Available

Executive Director Recommendation: Do Not Fund

Trustee Council Comments: Not Available

10100822
Herring Ecosystem Data Portal
Steven Moffitt
Alaska Department of Fish & Game
Rob Bochenek, Ted Otis, Scott Pegau, Mark Witteveen
Prince William Sound, Lower Cook Inlet, Kodiak Island

Funding Requested by Fiscal Year:

FY10:	\$248,200.00	FY11:	\$216,800.00	FY12:	\$114,600.00
FY13:	\$11,400.00	FY14:	\$0.00	FY15:	\$0.00

Total Funding Requested: \$591,000.00

Abstract:

This project will synthesize and enter data, metadata, and electronic resources into a web portal. The portal will provide access to information, data, and GIS visualizations. This project was conceived at an EVOS workshop in April 2006 tasked with identifying PWS herring data gaps and developing restoration and research projects to help herring recovery. Participants indicated that knowledge of spatial and temporal aspects of herring related data sets, e.g., herring spawn, lingering oil, predators, oceanographic conditions and shore zone habitat was necessary to understand how restoration activities might affect herring abundance. Many herring data sets not easily accessible to restoration researchers and managers have been made available through the actions of this project in FY07 - FY09. The proposed project expands the geographic scope to include ADF&G datasets in Lower Cook Inlet and Kodiak regions. Additional data for PWS will be acquired from the Prince William Sound Science Center.

Science Panel Comments:

Peer reviews were generally positive and appreciate need for data system. However, peer reviews and the Science Panel are concerned on data quality and metadata incorporated into system. Beautiful visualizations do not mean data have gone through appropriate QA/QC. Investigators need to complete and deliver the product they have received significant funding for the past three years for peer review before new funding should be considered.

Science Panel Recommendation: Do Not Fund

Science Coordinator Comments:

I concur with the science panel recommendation.

Science Coordinator Recommendation: Do Not Fund

Public Advisory Committee Comments: Not Available

Public Advisory Committee Recommendation: Do Not Fund

Executive Director Comments: Not Available

Executive Director Recommendation: Do Not Fund

Trustee Council Decision: Pending

Trustee Council Comments:

Not Available

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Project Number:	10100122		
Project Title:	mpact of Humpback Whale Predation on Young of the Year Pacific Herring in Prince Villiam Sound		
Principal Investigator:	pal Investigator: John Moran		
Affiliation:	NOAA/NMFS Auke Bay Laboratory		
Co-Pls/Personnel:	Kevin Boswell, Jan Straley		
Project Location:	Prince William Sound		
Funding Requested by	Fiscal Year:		
FY10: \$176,800.00	FY11: \$106,800.00 FY12: \$0.00		
FY13: \$0.00	FY14: \$0.00 FY15: \$0.00		

Total Funding Requested: \$283,600.00

Abstract:

The significance of humpback whale predation on juvenile recruitment is unknown. EVOSTC project PJ090804 identified humpback whales as important predators on Pacific herring during the fall through winter. The number of whales, and the significance to standing biomass was significant, suggesting that predation on recruitment life stages (Age-0 and Age-1) may be as significant or more. This proposal will attempt to sort out the significance of whale predation on age-0 and age-1 herring, and consequently this information will be relative to the core monitoring program focused on juvenile recruitment as well as possible use in evolving supplementation strategies in the future. Methods consist of two surveys, summer and late fall, using 1) direct observations of foraging whales 2) quantifying the prey field available to foraging humpback whales using active imaging sonar (DIDSON) and traditional acoustics and 3) determining depths and whale foraging patterns using bioacoustic tags, during the day and night.

Science Panel Comments:

This project would make valuable observations on the feeding habits of humpback whales on schools of juvenile herring in summer and winter and as well as at night and during the day. The actual behavior will be interpreted from Sonar work close to the fish schools. In addition suction cup tags would be put on the whales to record their movements and orientation close to the juvenile herring schools. All this will be valuable information, but to estimate the predation rate of whales on juvenile herring one needs several pieces of information that this proposal either does not mention or mentions only in passing. Specifically, how does one estimate the number of humpback whales that are feeding on juvenile schools in different time periods? And, how does one estimate the proportion of herring in the diet for whales in different situations? Presumably, when one studies whales close to herring schools, they are feeding mainly on the schools and that can be documented in some detail. But, what about whales elsewhere? It is unclear how this proposal links to the other whale predation work that has been ongoing for the past three years and how the data would help resolve the "take" of juvenile herring by humpback whales.

Science Panel Recommendation: Do Not Fund

Science Coordinator Comments:

This proposal appears to relate to humpback predation on herring project that is ongoing but it is unclear how this work relates to or adds to that work.

Science Coordinator Recommendation: Do Not Fund

Public Advisory Committee Comments:

Not Available

Public Advisory Committee Recommendation: Do Not Fund

Executive Director Comments: Not Available

Executive Director Recommendation: Do Not Fund

Trustee Council Comments: Not Available

Project Number:	10100112
Project Title:	Evaluating Harbor Contaminants
Principal Investigator:	James Payne
Affiliation:	Payne Environmental Consultants, Inc.
Co-Pls/Personnel:	Bill Driskell
Project Location:	Harbors throughout EVOS affected region from Valdez to Kodiak
Funding Requested by	Fiscal Year:

FY10:	\$550,700.00	FY11:	\$67,300.00	FY12:	\$0.00
FY13:	\$0.00	FY14:	\$0.00	FY15:	\$0.00

Total Funding Requested: \$618,000.00

Abstract:

Given that community harbors tend to have constrained circulation and are exposed to numerous terrestrial- and marinederived contaminants, they also tend to be depositional sites for pollutants (not just oil). This project will address the need for reduction of coastal marine pollution affecting EVOS-injured resources and services in these areas, but in order to effectively design such projects, we first need to know what contaminants need to be contained. We propose an initial assessment by sampling mussels (Mytilus trossulus) and sediments, both inside and nearby regional harbors, to better understand the bioavailability, types, and magnitudes of pollutants requiring management action. Samples would be screened for the full suite of analytes reported by NOAA's National Status & Trends Mussel Watch program plus a few additional compounds (e.g., S/T biomarkers) that are helpful in identifying hydrocarbon sources, and perhaps the recently targeted group of polybrominated diphenyl ether flame-retardants.

Science Panel Comments:

This project would have analyzed a suite of contaminants from eight harbors around Alaska. However, once those analyses were done, it was not stated how/if these results would be applied to restoration.

Science Panel Recommendation: Do Not Fund

Science Coordinator Comments:

I concur with the science panel recommendation.

Science Coordinator Recommendation: Do Not Fund

Public Advisory Committee Comments:

Not Available

Public Advisory Committee Recommendation: Do Not Fund

Executive Director Comments: Not Available

Executive Director Recommendation: Do Not Fund

Trustee Council Comments: Not Available



10100116
Remediation Monitoring using Microbial DNA Profiles
James Payne
Payne Environmental Consultants, Inc.
David Crowley, Bill Driskell
EVOS Trustee trial remediation sites on Eleanor and Smith Islands

Funding Requested by Fiscal Year:

FY10:	\$493,300.00	FY11:	\$71,900.00	FY12:	\$0.00
FY13:	\$0.00	FY14:	\$0.00	FY15:	\$0.00

Total Funding Requested: \$565,200.00

Abstract:

In 2010, EVOS Trustees are expected to begin developing remediation methods to remove lingering subsurface oil deposits in Prince William Sound beaches. The trials aim to accelerate oil degradation by enhancing the microbialdriven processes, more specifically by shifting them from anaerobic to aerobic conditions. During the trials, feedback information will be limited to measurements of dissolved oxygen, after which success of the treatment will be judged by examination of the before-, during- and after-treatment hydrocarbon signatures. As a means to provide real-time information for better monitoring the remediation process, we propose to evaluate the status of the microbial communities and their degradation activity with rapid DNA assays that can be used to assess the efficacy of the treatments for shifting the degrader community to aerobic conditions. Additional monitoring will include analysis of microbial community structures that are associated with differing stages of oil degradation. Lastly, a modeling effort is suggested for enabling the interpretation of biological data into decision support tools that can assist with optimization of the remediation process.

Science Panel Comments:

Much of the work proposed is basic research; adapting microbial techniques perfected in terrestrial systems to marine sediments. It is unclear how sensitive these tests will be once they are perfected, i.e., what concentrations of oil will cause changes in bacterial community structure. Also, the authors imply that they will work with another Trustee Council funded project (Boufadel) but it is not clear from the proposal how their work will be integrated. Finally, the project is expensive with a substantial proportion going to consultant contracts. The Science Panel did not believe this was a cost-effective project.

Science Panel Recommendation: Do Not Fund

Science Coordinator Comments:

I concur with the science panel recommendation.

Science Coordinator Recommendation: Do Not Fund

Public Advisory Committee Comments:

Not Available

Public Advisory Committee Recommendation: Do Not Fund

Executive Director Recommendation: Do Not Fund

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Trustee Council Comments: Not Available

Trustee Council Decision: Pending

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Project Number:	10100132					
Project Title:	PWS Herring Survey: Community Involvement, Outreach, Logistics, and Synthesis, Submitted Under the BAA					
Principal Investigator:	William Pegau					
Affiliation:	Prince William Sound Science	Center				
Co-Pls/Personnel:	None					
Project Location:	Prince William Sound					
Funding Requested by	Fiscal Year:					
FY10: \$343,100.00	FY11:	\$385,600.00	FY12:	\$354,300.00		
FY13: \$97,400,00	FY14:	\$0.00	FY15:	\$0.00		

Total Funding Requested: \$1,180,400.00

Abstract:

This proposal contains the overview of a coordinated set of ten proposals from multiple organizations that are designed to address the Herring Surveys section of the Invitation for Proposals. It describes how individual components are being integrated to provide information needed to make informed decisions on herring restoration.

The objectives of the integrated herring survey program are:

1) Identify juvenile rearing bays for use in restoration planning.

2) Measure factors that may limit the success of herring recruitment including factors of oceanographic conditions, food availability, disease, overwinter energetics of juvenile herring, and predation.

3) Provide protocols and recommendations for spatial and temporal coverage of monitoring projects for potential inclusion in the core herring restoration effort.

This proposal describes the community involvement and outreach efforts, the integration of programs, sharing of logistics, and the responsibility for developing the final synthesized report.

Science Panel Comments:

Not Available

Science Panel Recommendation: Fund

Science Coordinator Comments:

This proposal will serve as the unifying point for the entire PWS Herring Survey team and will provide appropriate outreach to the spill-effected communities. Dr. Pegau will be responsible for synthesizing the nine scientific research projects completed as part of the herring survey, which will be critical in understanding the state of herring in the Sound and assisting the Council in determining next steps for herring restoration.

Science Coordinator Recommendation: Fund

Public Advisory Committee Comments:

The PAC recommended an overall 10% decrease in funding on the entire suite of 10100132 PWS Herring Survey proposals. This decrease would be determined by the team leader/synthesizer for this effort.

Public Advisory Committee Recommendation: Fund Reduced

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Executive Director Recommendation: Fund

Trustee Council Comments: Not Available

Trustee Council Decision: Pending

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Project Number:	10100128				
Project Title:	Historical Humpback Whale Abundance in Prince William Sound in Relation to Pacific Herring Dynamics				
Principal Investigator:	Terrance Quinn				
Affiliation:	University of Alaska Fairbanks				
Co-Pls/Personnel:	John Moran, Jan Straley, Olga Von Ziegesar-Matkin				
Project Location:	Prince William Sound				
Funding Requested by	r Fiscal Year:				
FY10: \$94,200.00	FY11: \$69,500.00 FY12: \$0.00				
FY13: \$0.00	FY14: \$0.00 FY15: \$0.00				

Total Funding Requested: \$163,700.00

Abstract:

The principal objective of this study is to analyze historical data on humpback whales to develop time series of abundance for humpback whales in Prince William Sound. This historical data is currently inaccessible, and has never been analyzed. Annual high-quality surveys used photoidentification, so that numbers were counted accurately. In this proposal, a relative index will be calculated from sightings and sampling effort. Mark-recapture models will be developed from sighting histories. These data will be used in an age-structured assessment model of Pacific herring to estimate the historical effect of whale predation on herring, leading to Suzie Teerlink's Master's thesis and three journal articles. This project is an offshoot from Project 090804, Rice's Significance of Whale Predation on Natural Mortality Rates of Pacific Herring in PWS, and will give a 30 year perspective to the findings of that project. This study develops a historical perspective to provide a better framework for understanding herring recovery. No field work is required for this data salvage project.

Science Panel Comments:

This project is an outgrowth of the Rice study over the past 2-3 years on the role of whale predation on herring. This study is exciting, novel, and important to the critical goal of evaluating the temporally changing role of humpback whale feeding on herring and its potential to suppress herring recovery. The PI joins with a co-PI from the Eye of the Whale Society to mine 30 years of past photo surveys of humpback whales in PWS to determine how whale abundance in the sound have changed during this periods. Overall, the north Pacific population of humpbacks has grown at about 6-7% annually during this period of international collaboration on whale conservation. How closely whale numbers in PWS follow the regional trend can be determined from the careful records from Eye of the Whale because each whale has individual markings and all sighting were photographically documented. This permits clever use of mark-recapture methods developed from small mammal trapping to be applied to the whale re-sighting data to estimate population numbers. The surveys done over the 30-year period by the society involved careful repetition of methods and terrific documentation, allowing corrections for changing survey effort. Once this project completes the annual estimation of whale abundances in PWS, it will then combine those numbers with feeding rate information from the Rice study just ending to construct a population dynamics model for Pacific herring to evaluate the potential role of growing humpback numbers on herring dynamics and recovery potential. The Science Panel considers this a necessary part of the herring monitoring program and an important contribution to developing herring recovery strategies.

Science Panel Recommendation: Fund

Science Coordinator Comments:

I concur with the science panel recommendation.

Science Coordinator Recommendation: Fund



Public Advisory Committee Comments: Not Available

Public Advisory Committee Recommendation: Fund

Executive Director Comments: Not Available

Executive Director Recommendation: Could Wait

Trustee Council Comments: Not Available



Project Number:	10100804
Project Title:	Significance of Whale Predation On Natural Mortality Rate of Pacific Herring in Prince William Sound - Close Out
Principal Investigator:	Stanley Rice
Affiliation:	NOAA/NMFS Auke Bay Laboratory
Co-Pls/Personnel:	Ron Heintz, Kate McLaughlin, John Moran, Terry Quinn, Jan Straley
Project Location:	Prince William Sound, Sitka Sound, and southern Lynn Canal
Funding Requested by	Fiscal Year:
FY10: \$69,100.00	FY11: \$0.00 FY12: \$0.00
FY13: \$0.00	FY14: \$0.00 FY15: \$0.00

Total Funding Requested: \$69,100.00

Abstract:

Pacific herring (Clupea pallasi) in Prince William Sound (PWS) have been classified as "not-recovered" by the Exxon Valdez Oil Spill Trustee Council. Predation by marine mammals has been cited as a factor in the failure of this population to rebound. We will assess the significance of humpback whale predation on herring in PWS, particularly in winter. Specifically we will estimate the number of whales foraging in winter, determine when and if there is a prey switch to herring, and how long whales focus on herring as prey. Year one was funded, small in scale with an intense monitoring strategy; year 2 would expand the scale up in area significantly. Year 3 will verify the impact on herring of the high numbers of humpback whales we observed in PWS during year 2. These data will be combined in a bioenergetic model to determine numbers of herring consumed (and energy content consumed). Lastly, the estimated numbers of herring consumed would be included in an age-structured model so that the significance of whale predation on herring recovery can be evaluated. Year 4 (2010) will close out the project with the completion of analysis, reports, and manuscripts.

Science Panel Comments:

This proposal seeks close-out funding for its final year, as planned. The proposal gives hints of how the project has progressed to date, sufficient information along with what additionally is provided by the Quinn follow-up synthetic modeling proposal, to imply that the study is on track and has produced novel insights of true significance to understanding why herring have been unable to recover in PWS. Specifically, humpback whales are known to be seasonal residents in PWS during summer. What the field portion of this study has revealed is the presence of large numbers of humpbacks during winter also, feeding in locations where more tightly schooled herring make them efficient targets. The estimated predation rate by humpbacks on herring appears to be about equal to what the fishery historically removed. Thus, the importance of this project to quantify the role of whale predation has only grown as the data have come in. The PI has a superb track record with EVOS projects.

Science Panel Recommendation: Fund

Science Coordinator Comments:

I concur with the science panel recommendation.

Science Coordinator Recommendation: Fund

Public Advisory Committee Comments:

Not Available

Public Advisory Committee Recommendation: Fund

Executive Director Comments: Not Available

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Executive Director Recommendation: Fund

Trustee Council Comments: Not Available

Project Number:	10100759
Project Title:	Harlequin Duck Population Dynamics in PWS: Measuring Recovery
Principal Investigator:	Daniel Rosenberg
Affiliation:	Alaska Department of Fish & Game
Co-Pis/Personnel:	None
Project Location:	Prince William Sound
Funding Requested by	Fiscal Year:

FY11: \$212.000.00

FY13:	\$70,500.00	FY14: \$0.00

FY12: \$217,500.00 **FY15:** \$0.00

Total Funding Requested: \$711,700.00

Abstract:

FY10: \$211,700.00

This project will monitor the recovery of harlequin ducks and is directly linked to recovery objectives in the EVOS Restoration Plan. Harlequin ducks occur year-round in intertidal zones of PWS and they have not fully recovered from the effects of 1989 Exxon Valdez Oil Spill. The current status of harlequin duck populations in oiled areas of PWS is a result of the initial impacts from the spill, continued exposure to lingering oil, other environmental stressors, and intrinsic demographic factors. Initial high losses of adults, especially females, coupled with many years of chronic oil exposure may result in a long recovery period. Population monitoring provides the most direct approach to assess recovery because it measures changes in abundance and composition. Demographic studies have focused on post-spill comparisons of oiled and unoiled areas of PWS due to the lack of pre-spill data. Demographic studies have been designed to compare population level effects at spill-wide and smaller but still broad regional spatial scales but were not intended to assess demographic changes based on oiling history at much smaller spatial scales (i.e. individual shoreline segments or bays). However, Cytochrome P450 1A induction studies have documented exposure to EVO at these much smaller spatial scales. This biomarker has been correlated with lower female survival and is consistent with our demographic studies that until recently have identified a lower proportion of females in oiled areas. Broad scale demographic studies indicate slightly increasing or stable populations in oiled areas and not the decline in abundance expected if continued oil exposure reduces survival rates. This has generated interest in improving the ability of demographic studies to assess data at smaller spatial scales commensurate with the current status of lingering oil while still meeting current recovery objectives. The objectives of this study are to 1) improve our power to detect differences in trends at smaller spatial scales by improving our estimates of sampling variability for individual transects; 2) continue to monitor the recovery of harlequin ducks throughout oiled areas in PWS at different spatial scales 3) continue a long-term monitoring effort to track changes over time in oiled and unoiled areas to improve our knowledge of sea duck population dynamics in PWS; and 4) document sea duck population densities (including Barrow's goldeneyes) at those sites with lingering oil to prioritize sites for active remediation and establish pre-remediation baseline information to monitor remedial effectiveness.

Science Panel Comments:

The PI has a long track record of doing good work for the Trustee Council, and the Science Panel encourages the continuation of this relationship. However, data similar to that being proposed in this study has been collected over the past three years. The PI stated that the final design of this new study could not be finalized until the results of the previous three years were analyzed. The Science Panel recommends that the culmination of the 2007-2009 data be analyzed and reported: based upon these results a new survey design should be proposed to the Trustees in FY2011.

Science Panel Recommendation: Do Not Fund

Science Coordinator Comments:

I concur with the science panel recommendation.



Science Coordinator Recommendation: Do Not Fund

Public Advisory Committee Comments: Not Available

Public Advisory Committee Recommendation: Do Not Fund

Executive Director Comments: Not Available

Executive Director Recommendation: Do Not Fund

Trustee Council Comments: Not Available

Project Number:	10100165	
Project Title:	High Density DNA Sequencing to Detect Population Structure of Pacific Herring	
Principal Investigator:	James Seeb	
Affiliation:	University of Washington	
Co-Pls/Personnel:	Lorenz Hauser, Lisa Seeb, Bill Templin	
Project Location:	Prince William Sound with outgroups from Kodiak, Togiak, Sitka	
Funding Requested by	/ Fiscal Year:	

FY10:	\$379,700.00	FY11:	\$414,500.00	FY12:	\$202,900.00
FY13:	\$0.00	FY14:	\$0.00	FY15:	\$0.00

Total Funding Requested: \$997,100.00

Abstract:

Pacific herring in Prince William Sound is one of only two resources still classified as 'not recovered'. The recovery of PWS herring depends crucially on levels of connectivity within PWS and with the Alaskan coast, determining the relative importance of immigration and recruitment in the recovery process. We propose to investigate the genetic structure of Pacific herring by analyzing discrete spawning waves and age classes in three spatially and temporally isolated locations in PWS, within the context of Kodiak, Togiak, and SE Alaska outgroups. In contrast to previous studies, we will use high-density sequencing to discover many 10,000s of single nucleotide polymorphisms (SNPs) in the expressed genome of Pacific herring. We will identify discriminatory SNPs using a 1536-SNP array that will specifically incorporate genes known to be under natural selection. Highly discriminatory SNPs will be assembled in an information-rich 96-SNP array for subsequent genetic monitoring of recovery efforts.

Science Panel Comments:

This proposal focuses on developing single nucleotide polymorphism (SNP) technology for determining population structure of Pacific herring along the Pacific coast. This state-of-the-art technology would provide the strongest evidence regarding stock structure of herring not only within PWS but also in the Pacific. Furthermore, since this approach identifies highly evolving proteins common to reproductive, immune, and physiologically adaptive processes, it also holds promise in identifying genes involved in disease susceptibility/resistance as well as "health" of the PWS population. This is a very expensive, high-risk proposal with potential for high pay off in several areas beyond population structure. It is recommended that sampling frequency be cut significantly with an appropriate budget reduction.

Science Panel Recommendation: Fund Reduced

Science Coordinator Comments:

While I agree with the science panel's comments regarding the potential success of this project, I feel that the high risk and high cost outweigh any potential benefits.

Science Coordinator Recommendation: Do Not Fund

Public Advisory Committee Comments:

Not Available

Public Advisory Committee Recommendation: Do Not Fund

Executive Director Recommendation: Do Not Fund

Trustee Council Comments: Not Available

Project Number:	10100165-A
Project Title:	Pilot Project - High Density DNA Sequencing
Principal Investigator:	James Seeb
Affiliation:	University of Washington
Co-Pls/Personnel:	Lorenz Hauser, Lisa Seeb, Bill Templin
Project Location:	Prince William Sound

Funding Requested by Fiscal Year:

FY10:	\$71,300.00	FY11:	\$0.00	FY12:	\$0.00
FY13:	\$0.00	FY14:	\$0.00	FY15:	\$0.00

Total Funding Requested: \$71,300.00

Abstract:

This is a demonstration project to document the value and low risk of the high density sequencing approach for population genetics study. We propose to sequence the transcribed genome of a single reference individual, report the sequence that will include SNPs in many thousands of genes, and annotate those genes that belong to gene families known to respond to oil exposure and disease.

Science Panel Comments:

Not Applicable

Science Panel Recommendation: Not Reviewed

Science Coordinator Comments: Not Available

Science Coordinator Recommendation: Could Wait

Public Advisory Committee Comments: Not Applicable

Public Advisory Committee Recommendation: Not Reviewed

Executive Director Comments:

Not Available

Executive Director Recommendation: Could Wait

Trustee Council Comments: Not Available

Project Number:	10100129	
Project Title:	Ecology and Migratory Movements of Pacific Herring in Prince Wi Acoustic Tagging	illiam Sound Using
Principal Investigator:	Andrew Seitz	
Affiliation:	University of Alaska Fairbanks	
Co-Pis/Personnel:	John Eiler, Brenda Norcross, Peter Winsor	
Project Location:	Prince William Sound	
Funding Requested by	/ Fiscal Year:	
FY10: \$444,200.00	FY11: \$164,000.00 F	Y12: \$144,100.00

FY14: \$0.00

Total Funding Requested: \$752,300.00

Abstract:

FY13: \$0.00

Pacific herring was once abundant in Prince William Sound (PWS), but its population declined after the Exxon Valdez Oil Spill and has not recovered to pre-spill levels. This proposal seeks to fill gaps in our knowledge of the life history of herring in PWS by monitoring their migratory movements using acoustic tags. Filling these life history gaps will help identify factors preventing recovery of herring and may contribute to restoration strategies. We will: 1) conduct field trials with acoustic tags to quantify detection efficiencies of receivers in fixed positions, on moving boats and on autonomous gliders; 2) acoustically tag and release 200 wild Pacific herring in Port Gravina, PWS in both spring and fall of 2010 and monitor their migratory movements using fixed and mobile hydrophones and 3) analyze herring movement data to determine time spent within spawning areas, spawning site fidelity, and the timing of migratory movements.

Science Panel Comments:

This was a novel proposal from a highly qualified team to take advantage of an array of acoustic tracking equipment already in place in PWS as part of the Pacific Ocean Shelf Tracking (POST) project. Based on recent highly successful tests of herring tagging in Puget Sound, the team proposed to tag returning adult herring and to directly monitor their movements between bays inside PWS to answer questions about homing to natal bays and time spent in PWS. The existence of POST receivers outside PWS provides the possibility that additional information on larger scale herring migrations might be equally valuable, for example in understand the origins of GoA food identified by stable isotopes. It was pointed out that the POST system routinely provides answers that no one was expecting, so the project might provide new insights into the real problems with the herring stock. The project also proposes tests of two methods of capturing and holding herring for tag surgery that could provide useful experience for future culture operations. It was also suggested that tagging of salmon smolts from the hatcheries by the same team, might provide new information about their distribution, timing and interactions with herring in natal bays.

Science Panel Recommendation: Fund

Science Coordinator Comments:

I concur with the science panel recommendation.

Science Coordinator Recommendation: Fund

Public Advisory Committee Comments:

Not Available

Public Advisory Committee Recommendation: Do Not Fund

FY15: \$0.00

Executive Director Recommendation: Could Wait

Trustee Council Comments: Not Available

Trustee Council Decision: Pending

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Project Number:	10100829				
Project Title:	Population Status of Littleneck Clams (Protothaca Staminea)				
Principal Investigator:	Gary Shigenaka				
Affiliation:	NOAA Office of Response & Restoration				
Co-Pls/Personnel:	Douglas Coats, Allan Fukuyama				
Project Location:	Prince William Sound				
Funding Requested by	Fiscal Year:				
FY10: \$229,300.00	FY11: \$117,300.00	FY12:	\$0.00		

FY13: \$0.00 FY14: \$0.00 FY15: \$0.00

Total Funding Requested: \$346,600.00

Abstract:

As part of a 2007 EVOSTC study, NOAA/OR&R investigated the recovery status of the native littleneck clam (Protothaca staminea) in Prince William Sound (PWS). The results of that survey documented an unexpected decline in littleneck clam abundances across PWS that did not appear to have a direct link to current oiling conditions or past oiling and treatment histories. Other co-occurring bivalves did not show this pattern of decline. We later became aware of other clam surveys in Cook Inlet, British Columbia, Puget Sound, and Oregon that yielded similar abundance trend results.

While our 2007 project results did not indicate an obvious link to the Exxon Valdez spill or its cleanup, we cannot rule out subtle or indirect connections to those activities. The current recovery status of other resources like Pacific Herring or the transient AT1 orca pod suggest that indirect linkages may be important considerations in defining the forensics of recovery. Moreover, the question of how large-scale environmental changes affect our ability to discern and quantify oil spill recovery trends has important implications for PWS and the EVOSTC.

We propose to determine littleneck and butter clam status in 2010-2011 through a multi-component approach that will collect information in the field and provide interpretive context for the results. Study components will include: field collections of adult clams through quadrat excavations; core sampling for recent recruits; collection of additional samples and parameters to provide insight into potential causes for declines; expanded sampling at historically surveyed locations to increase comparative baseline data; incorporation of results from ongoing NOAA monitoring site in PWS; and interviews of PWS Native community residents to ascertain if and when subsistence harvesters noted unusual shifts in clam numbers during the post-spill period.

Science Panel Comments:

This proposal is based upon Shigenaka's observations of a regional decline by over 90% in littleneck clam abundances, independent of shoreline clean-up treatment. The proposal intends to test by sampling within a set of 12 historically sample sites (10 in western and 2 in eastern PWS) with differing oiling and clean-up histories whether the littleneck (Protothaca) clams have indeed suffered a regional crash. In addition, the proposal intends to test Lees's armoring hypothesis, but this component is flawed by failing to define armoring and to present a measure of it and failure to include shoreline geological expertise to provide professional expertise and credibility for this component. In addition, the proposal intends to make rudimentary pilot tests of hypotheses to explain the suggested regional crash, but the details of these tests of disease and water-column microbial exposure are absent and this portion of the study is not sufficiently rigorous. Shigenaka also intends to revisit the controversial paper that his group previously published that argued that convergence between oiled and unoiled systems is not required to demonstrate recovery as long as the difference between them remains constant ("Parallelism").

Science Panel Recommendation: Do Not Fund



Science Coordinator Comments:

I concur with the science panel recommendation.

Science Coordinator Recommendation: Do Not Fund

Public Advisory Committee Comments:

The PAC recommends this project for funding if the PI satisfactorily collaborates with Project 10100574 (Lees) and if their combined effort does not exceed \$150,000 in FY10.

Public Advisory Committee Recommendation: Fund Contingent

Executive Director Comments: Not Available Executive Director Recommendation: Do Not Fund

Trustee Council Comments: Not Available
Project Number:	10100132-В									
Project Title: PWS Herring Survey: Assessment of Juvenile Herring Abundance and Habitat Utilization, Submitted Under the BAA										
Principal Investigator:	ncipal Investigator: Richard Thorne									
Affiliation:	ffiliation: Prince William Sound Science Center									
Co-Pls/Personnel:	None									
Project Location:	Prince William Sound									
Funding Requested by	Funding Requested by Fiscal Year:									
FY10: \$170,214.00	FY11: \$196,723.00 F	Y12:	\$173,563.00							
FY13: \$56,227.00	FY14: \$0.00 F	Y15:	\$0.00							

Total Funding Requested: \$596,727.00

Abstract:



The objectives of the proposed effort are to improve understanding of habitat utilization by juvenile herring, especially age 0, and to help identify candidate sites that could be potentially used for supplementation efforts. The proposal builds on three years of experience in assessment of juvenile herring in PWS using hydroacoustic techniques. We proposed to measure juvenile herring and other fish abundance in several potential juvenile herring nursery areas. Four of these areas, Simpson Bay, Eaglek Bay, Whale Bay and Zaikof Bay, were the focus of earlier investigation by the SEA program in 1995-96 as well as a current Council-funded project, "Trends in adult and juvenile herring distribution and abundance in Prince William Sound". Additional sites will be selected based on historical data and community input. We propose to conduct surveys three times per year: pre- and post-winter and summer. The pre- and post-winter series will complement other studies that propose to examine overwinter mortality, including energetics. The pre- and post-winter periods have been examined for the past three years. The summer period will provide a link between a more dispersed age 0 herring distribution following larvae drift and the subsequent overwintering locations. In addition, a 4-day survey of adult herring will be conducted in conjunction with the post-winter juvenile survey. This project will provide essential data on the distribution and abundance of juvenile herring and their competitors and predators. It will also assist development of a "Core Data Collection" program. The project is one part of a collaborative program for PWS herring surveys coordinated through the Prince William Sound Science Center.

Science Panel Comments:

This proposal represents a continuation of basic acoustic survey work for herring in PWS. The reviews were positive with the only concern mentioned was that the work had developed into a monitoring exercise and not a test of hypotheses. Indeed, past work has provided support for ADFG assessment work, but there also are a number of peer-reviewed scientific papers that have developed from this work. The Science panel noted that this proposal supports several other projects in the herring survey Team proposal. The Science panel also recognized the cooperative work with the ADFG and the solid publication record from previous work.

Science Panel Recommendation: Fund

Science Coordinator Comments:

I concur with the science panel recommendation.

Science Coordinator Recommendation: Fund



Public Advisory Committee Comments:

Possible reduction as a function of the recommended overall 10% decrease of the 10100132 PWS Herring Survey - see 10100132.

Public Advisory Committee Recommendation: Fund Reduced

Executive Director Comments: Not Available

Executive Director Recommendation: Fund

Trustee Council Comments: Not Available

Trustee Council Decision: Pending

Project Number:	10100806
Project Title:	Are Herring Energetics Limiting. Part III. Disease Challenges (Close-out)
Principal Investigator:	Johanna Vollenweider
Affiliation:	NOAA/NMFS Auke Bay Laboratory
Co-Pis/Personnel:	Ron Heintz, Paul Hershberger, Jeep Rice
Project Location:	NOAA Fisheries, Auke Bay Laboratories, Juneau Alaska (Chemical analysis of samples)

Funding Requested by Fiscal Year:

FY10:	\$60,700.00	FY11:	\$0.00	FY12:	\$0.00
FY13:	\$0.00	FY14:	\$0.00	FY15:	\$0.00

Total Funding Requested: \$60,700.00

Abstract:

Pacific herring (Clupea pallasi) in PWS have not rebounded following the population crash in 1993. We propose to determine if energy availability is limiting production of PWS herring. We made field collections of Pacific herring over the course of 3 winters to examine two energetic mechanisms that could potentially inhibit herring recruitment in PWS: 1) overwinter mortality of juveniles, and 2) low reproductive energy investments by adults. These processes were compared among thriving (Sitka Sound) and depressed (Lynn Canal) herring stocks to evaluate PWS collections. Field observations were supplemented with laboratory trials in year 2 to measure how metabolic rates and other bioenergetic parameters vary with temperature, thus calibrating the field observations from various habitats. Initial results indicate that PWS herring lose energy at a higher rate over winter than populations in southeast Alaska. High rates of energy utilization may be a factor of increasing predation rates (project 080804) or elevated prevalence of disease (project 080819). In year 3, laboratory trials with disease challenges are underway at Marrowstone Marine Field Station, which will determine if exposure to Ichthyophonus increases metabolic costs and if fish in poor nutritional condition are more susceptible to Ichthyophonus. Together, these data sets will illustrate how potential energetic bottlenecks may be limiting PWS herring and how disease impacts energy costs.

In this proposal, we request funding for a 4th year (FY10) to close-out the herring energetics project. With the exception of the laboratory component of the project, all other aspects of the project are on schedule. During the first lab trial, we encountered mortality rates higher than anticipated and subsequently reran the trial, setting us behind schedule by several months. We expect the laboratory trials to be complete by the end of September, in which case chemical analysis of the laboratory-collected samples will roll-over into FY10. The requested FY10 funding is to pay for the chemical analysis of those samples, for completion of analysis, writing reports and manuscripts, and for travel to present the integrated results of this 3-year study.

Science Panel Comments:

This proposal represents a close-out to complete analyses and write up final reports and manuscripts on the previously conducted field and laboratory research. From all indications, the previous work has been conducted successfully and milestones have been met. The study was well justified and no issue emerges to suggest that the study should not be completed as planned.

Science Panel Recommendation: Fund

Science Coordinator Comments:

I concur with the science panel recommendation.

Science Coordinator Recommendation: Fund

Public Advisory Committee Comments: Not Available

Public Advisory Committee Recommendation: Fund

Executive Director Comments: Not Available

Executive Director Recommendation: Fund

Trustee Council Comments: Not Available

Trustee Council Decision: Pending



Project Number:10100340Project Title:Long-Term Monitoring of the Alaska Coastal CurrentPrincipal Investigator:Thomas WeingartnerAffiliation:University of Alaska FairbanksCo-Pls/Personnel:NoneProject Location:Gulf of AlaskaGulf of AlaskaFY11: \$138,700.00FY10: \$141,500.00FY12: \$133,600.00

FY14: \$0.00

Total Funding Requested: \$413,800.00

Abstract:

FY13: \$0.00

This program continues a 39-year time series of temperature and salinity measurements at hydrographic station GAK 1. The data set, which began in 1970, now consists of monthly CTDs and a mooring with 6 - 7 temperature/conductivity recorders throughout the water column, a fluorometer and nitrate sensor at 20 m depth and a nitrate sensor at 150 m depth. The project monitors five important Alaska Coastal Current ecosystem parameters and to quantify and understand interannual and longer period variability in:

- 1. Temperature and salinity throughout the 250 m deep water column,
- 2. Near surface stratification,
- 3. Near and subsurface nitrate supply on the inner shelf,
- 4. Fluorescence as an index of phytoplankton biomass, and
- 5. Atmosphere-ocean heat fluxes.

In aggregate these variables are basic descriptors of the Alaska Coastal Current, an important habitat and migratory corridor for organisms inhabiting the northern Gulf of Alaska, including Prince William Sound.

Science Panel Comments:

The proposal was extremely well written and clearly outlined the historical importance of the GAK1 line that has provided basic oceanographic observations (temperature and salinity) for three decades. In addition, the proposal clearly states how these data are critical to restoration. The proposal seeks continued funding for the GAK1 line and includes funds for addition of nitrate and fluorescence sensors at that site. The continued funding of GAK1 is critical to understanding the oceanographic environment, its influence on biological resources over time, recovery of injured resources, and potential restoration activities. No specific changes to the project were recommended, although access to more recent data through the website would be helpful. Currently only summaries of data obtained after 2006 are available. A more synthetic analysis of current GAK1 data and those obtained from elsewhere (e.g. as part of herring or nearshore projects) would also be welcomed in future proposals.

Science Panel Recommendation: Fund

Science Coordinator Comments:

I concur with the science panel recommendation.

Science Coordinator Recommendation: Fund



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FY15: \$0.00

Public Advisory Committee Comments: Not Available

Public Advisory Committee Recommendation: Fund

Executive Director Comments: Not Available

Executive Director Recommendation: Priority Fund

Trustee Council Comments: Not Available

Trustee Council Decision: Pending



Project Number:	10100124						
Project Title: Molecular Tools for Monitoring and Quantifying Effects of Marine Pollution on Pac Herring Immunity							
Principal Investigator:	Patty Zwollo						
Affiliation: The College of William and Mary							
Co-Pls/Personnel:	Carey Bagdassarin, John Kennish, Chris Pallister						
Project Location:	Prince William Sound						
Funding Requested by	v Fiscal Year:						
FY10: \$123,600.00	FY11: \$143,400.00 FY12: \$38,500.0)0					
FY13: \$1,500.00	FY14: \$0.00 FY15: \$0.00						

Total Funding Requested: \$307,000.00

Abstract:



Marine pollution is detrimental to ecosystem vitality. Our proposed research focuses on the immunological health of Pacific herring (Clupea pallasii) in Prince William Sound. Lingering oil from the Exxon Valdez spill likely interferes with embryonic and early life stages of herring larvae, while adult fish appear to be more susceptible to disease. Marine plastic pollutants, specifically phthalates, likely have compounding cytotoxic effects on immune cells. We hypothesize that marine pollution adversely compromises both hematopoiesis and effectiveness of antibody responses in Pacific herring. We propose to investigate the frequency of B-cell populations in juvenile Pacific herring from PWS, using a combination of flow cytometry and chemical analyses. We have developed molecular biomarkers that allow single-cell analysis of fish immune tissues. We will monitor potential changes in B-cell developmental and activation states in fish ("B cell profiles") and determine if correlations exist between such profiles and intracellular levels of selected marine pollutants. Our results can be applied to any fish species, and hence will guide future analyses on other affected species

Science Panel Comments:

The PI's demonstrate unfamiliarity with previous studies funded by the Trustee Council, as well as other relevant literature that would impact their design. There are other methods that would be more productive and would require collaboration with others who have established disease-free stocks (e.g., Hershberger). Also, the PAH and other contaminants proposed for use in this study are found in very low concentrations in PWS and in lingering oil and would likely not give the immunological signals being searched for by the researchers.

Science Panel Recommendation: Do Not Fund

Science Coordinator Comments:

I concur with the science panel recommendation.

Science Coordinator Recommendation: Do Not Fund

Public Advisory Committee Comments:

Not Available

Public Advisory Committee Recommendation: Do Not Fund

Executive Director Comments: Not Available

Executive Director Recommendation: Do Not Fund

Trustee Council Comments: Not Available

Trustee Council Decision: Pending

RESOLUTION 09-10 OF THE EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL REGARDING THE FFY 2010 WORK PLAN

We, the undersigned, duly authorized members of the *Exxon Valdez* Oil Spill Trustee Council do hereby certify that, in accordance with the Memorandum of Agreement and Consent Decree entered as settlement of <u>United States of America v. State of Alaska</u>, No. A91-081 Civil, U.S. District Court for the District of Alaska, and after public meetings, unanimous agreement has been reached to expend funds received in settlement of <u>State of Alaska v. Exxon Corporation, et al.</u>, No. A91-083 CIV, and <u>United States of America v. Exxon Corporation, et al.</u>, No. A91-083 CIV, and <u>United States of America v. Exxon Corporation, et al.</u>, No. A91-082 CIV, in U.S. District Court for the District of Alaska. This funding is for necessary natural resource damage assessment and restoration activities for the Annual Program Development and Implementation Budget (APDI), as described in Attachment A, and the FY 2010 Budget Summary All Projects - Final, as described in Attachment B. The total amount of approved funding is \$5,601,328. The monies are to be distributed according to the following schedule:

Alaska Department of Fish & Game	\$2,034,903
Alaska Department of Environmental Conservation	\$40,112
Alaska Department of Natural Resources	\$111,453
Alaska Department of Law	<u>\$5,995</u>
SUBTOTAL TO STATE OF ALASKA	\$2,192,463
U.S. Department of the Interior - USGS	\$774,796
U.S. Department of the Interior – USFWS	\$462,585
U.S. Department of the Interior – SEC	\$29,839
U.S. Department of the Interior – OEPC	\$8,175
U.S. Forest Service	\$55,724
National Oceanic & Atmospheric Administration	\$2,077,746
SUBTOTAL TO UNITED STATES OF AMERICA	\$3,408,865

TOTAL APPROVED \$5,601,328

By unanimous consent, we hereby request the Alaska Department of Law and the Assistant Attorney General of the Environmental and Natural Resources Division of the United States Department of Justice to take such steps as may be necessary to make available for the Fiscal Year 2010 Work Plan, the amount of \$5,601,328 from the appropriate accounts designated by the Executive Director. Funds must be spent in accordance with Attachments A and/or B, with the following conditions: (1) If a Principal Investigator (PI) has an overdue report or manuscript from a previous year, no funds may be expended on a project involving the PI unless the report is submitted or a schedule for submission is approved by the Executive Director; (2) a project's lead agency must demonstrate to the Executive Director that requirements of the National Environmental Policy Act (NEPA) are met before any project funds may be expended (with the exception of funds spent to prepare NEPA documentation); and (3) a PI for each project must submit a signed form to the Executive Director indicating their agreement to abide by the Trustee Council's data and report requirements before any project funds may be expended.

Resolution 09-10

Approved by the Council at its meeting of August 31, 2009, held in Anchorage, Alaska, as affirmed by our signatures affixed below:

JOE L. MEADE Forest Supervisor Forest Service Alaska Region U.S. Department of Agriculture DANIEL S. SULLIVAN Attorney General Alaska Department of Law

KIM ELTON Special Assistant to the Secretary for Alaska U.S. Department of Interior CRAIG O'CONNOR Special Counsel National Oceanic & Atmospheric Administration

DENBY S. LLOYD Commissioner Alaska Department of Fish and Game LARRY HARTIG Commissioner Alaska Department of Environmental Conservation

Attachments Attachment A: Annual Program Development and Implementation Budget Attachment B: FY 2010 Budget Summary Matrix

Resolution 09-10



Approved:Lead Agency:Number:PI:Project Title:FY10 ApprovedImage: Amplitude:Image: Amplitude: <t< th=""><th>Project</th><th></th><th>Project</th><th>-</th><th></th><th></th></t<>	Project		Project	-		
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FY10 herring proposals applicable to herring management.

This list was prepared by the Alaska Department of Fish and Game (ADF&G) in response to an informal request made by Trustee Council members. Council members requested that ADF&G identify herring projects submitted in response to the FY10 Invitation that would, if funded, provide a direct benefit to ADF&G's herring management program. Twenty-eight projects related to herring are listed in the table below with respect to three categories: high, moderate, and low management applicability. Projects highly likely to provide results useful to ADF&G from a management standpoint are included in the first category. Projects moderately likely to do so are included in the second, and those least likely are in the third category. Projects were categorized only from the standpoint of usefulness to ADF&G's herring management program. Categorizations do not reflect an ADF&G position on whether or not the project should be funded.

Following the table is a short description for each herring project, listed alphabetically by Principal Investigator last name, and a brief discussion of its applicability to ADF&G from a management standpoint.

Project Number	Principal Investigator	Project Title	Total Requested	FY10 Requested	Workplan Page #
High Managem	ent Applicability				
10100132G	Bishop	PWS Herring Survey: Top-Down Regulation by Predatory Fish	\$678,900	\$185,500	7
10100132F	Brown	PWS Herring Survey: Herring, Predator, and Competitor Density	\$501,254	\$160,141	15
101001321	Hershberger	PWS Herring Survey: Herring Disease Program (HDP)	\$975,200	\$81,800	38
10100132	Pegau	PWS Herring Survey: Comm. Involvement, Outreach, Logistics, & Synthesis	\$1,180,400	\$343,100	68
10100128	Quinn	Historical Humpback Whale Abundance	\$163,700	\$94,200	70
10100804	Rice	Significance of Whale Predation On Natural Mortality Rate of Pacific Herring	\$69,100	\$69,100	72
10100132B	Thome	PWS Herring Survey: Assessment of Juvenile Herring Abundance	\$596,727	\$170,214	83
Moderate Man	agement Applicabilit	У			
10100132A	Campbell	PWS Herring Survey: Plankton and Oceanographic Observations	\$663,300	\$201,500	21
10100132E	Gay	PWS Herring Survey: Nursery Habitats of Juvenile Pacific Herring	\$353,000	\$88,400	31

10100120	Guyon	Genetic Stock Structure of Herring	\$337,137	\$86,219	33
10100132D	Heintz	PWS Herring Survey: Predictors of Winter Performance	\$306,600	\$99,000	36
10100810	Kiefer	An Ecosystem Model of Prince William Sound Herring	\$228,050	\$193,520	44
10100132C	Kline	PWS Herring Survey: Pacific Herring Energetic Recruitment Factors	\$998,600	\$258,700	46
10100811	Kline	Pacific Herring Larval Recruitment into Nursery Bays	\$1,457,400	\$497,600	48
101001 3 2H	Kuletz	PWS Herring Survey: Trends in Seabird Predation	\$564,900	\$147,200	52
10100822	Moffitt	Herring Ecosystem Data Portal	\$591,000	\$248,200	60
10100122	Moran	Impact of Humpback Whale Predation	\$283,600	\$176,800	62
10100165A	Seeb	Pilot Project - High Density DNA Sequencing	\$71,300	\$71,300	78
10100129	Seitz	Ecology and Migratory Movements of Pacific Herring	\$752,300	\$444,200	79
10100806	Vollenweider	Are Herring Energetics Limiting. Part III	\$60,700	\$60,700	85
10100340	Weingartner	Long-Term Monitoring of the Alaska Coastal Current	\$413,800	\$141,500	87
Low Management	Applicability				
10100118	Boswell	Using Chemical Tracers to Define Regional-Scale Nursery Habitat	\$49,200	\$49,200	13
10100624	Bychkov	Measuring Interannual Variability in the Herring's Forage Base	\$205,600	\$61,900	17
10100119	Campbell	Carrying Capacity Supplementation for Herring Restoration	\$36,600	\$36,600	19
10100123	Collins	Aerial Surveys and Herring Egg Relocation Feasibility	\$154,671	\$60,168	25
10100125	Cox	Importance of Structured Near Shore Habitats	\$570,100	\$203,100	27
10100130	Moffitt	Population Structure of Pacific Herring	\$134,400	\$63,900	58
10100124	Zwollo	Effects of Marine Pollution on Pacific Herring Immunity	\$307,000	\$123,600	89

132-G Bishop: PWS Herring survey: Top Down regulation by predatory fish.

This study proposes to provide data on juvenile herring mortality due to fish predation. The results could improve model estimates of potential herring recruitment and be of direct benefit to herring management.

Ranking: High

118 Boswell: Using Chemical Tracers to Define Regional-Scale Nursery Habitat Use: A Pilot Study for Pacific Herring.

This project is not expected to provide a direct benefit for commercial fisheries management or evaluation, but may provide an indirect benefit through increasing the basic ecological understanding of herring life history in PWS.

It will be very important in the long-run to understand if and why there are differences in the productivity among nursery bays. As the Science Panel pointed out; a project was already funded for the same purpose with similar methods for which the results are pending.

Ranking: Low

132-F Brown: PWS Herring Survey: Sound Wide Juvenile Herring, Predator, and Competitor Density via Aerial Surveys.

This project may provide valuable data for management, including an index of juvenile herring abundance that may help to improve estimates of abundance by age class in the current age-structured model. It may also be valuable in mapping herring or other schooling fish concentrations so long as methods adequately provide for species, size and age confirmation. It would be helpful if the potential rigor of the proposed analysis of over winter survival (p. 18) were substantiated with a power analysis based on existing data.

Ranking: High

624 Bychkov: Measuring Interannual Variability in the Herring's Forage Base from the GOA

This project is not expected to provide a direct benefit for commercial fisheries management or evaluation, but may provide an indirect benefit through increasing the basic ecological understanding of the greater Gulf of Alaska ecosystem.

This proposal is for continued funding of the Continuous Plankton Recorder project in the Gulf that has had difficulty securing long-term support. This is a valuable project, in that the time series is worth maintaining to enable a more complete understanding of the Gulf ecosystem. Benefits to herring management are indirect.

Ranking: Low

119 Campbell: Assessment of the Feasibility of Carrying Capacity Supplementation for Herring Restoration in Prince William Sound

This is a low-cost feasibility study of feeding/nutrient addition to promote survival of juvenile herring. This project is not expected to provide a direct benefit for commercial fisheries management or evaluation.

Ranking: Low

132-A Campbell: PWS herring survey: Plankton and oceanographic observations

This project is not expected to provide a direct benefit for commercial fisheries management or evaluation, but may provide an indirect benefit through increasing the basic ecological understanding of the PWS ecosystem by improving our understanding of seasonal plankton dynamics.

Ranking: Moderate

123 Collins: Aerial survey and herring egg relocation feasibility.

The proposal did not provide many details about how data would be collected and analyzed, or how the proposed egg relocation work would be evaluated. The aerial surveys could supplement the existing ADF&G aerial survey program if sufficient direction and data collection details were outlined.

Ranking: Low

125 Cox: Importance of Structured Near Shore Habitats for Age-0 Herring (*Clupea pallasii*) in Prince William Sound, Alaska.

This project is not expected to provide a direct benefit for commercial fisheries management or evaluation. The project may provide an indirect benefit by providing information to evaluate the July through mid-September life history of age-0 herring and by providing further understanding of the factors influencing variability in abundance. However, an evaluation at a later stage (age 1 or 2) closer to the age of recruitment into the spawning population would be more correlated with adult abundance for commercial fisheries management.

Ranking: Low

132-E Gay: PWS Herring Survey: Physical Oceanographic Characteristics of Nursery Habitats of Juvenile Pacific Herring

This project would provide valuable information that will help to understand the variation in productivity regimes between nursery areas and the influence of circulation (including inflow of GOA water) on nursery areas and may provide indirect benefits to commercial fisheries management. If environmental variables collected in the study are found to be correlated to herring recruitment, it could benefit management by improving forecasts of age-3 fish for the ADF&G catch-age forecast model.

Ranking: Moderate

120 Guyon: Genetic stock structure of PWS herring

Understanding herring stock structure is a fundamental management need. Additional genetics work should be completed on Prince William Sound herring, because our understanding of the life history of PWS herring depends on possible stock structure. If successful, information on stock structure may be useful to management

Ranking: Moderate

132-D Heintz: PWS Herring Survey: Value of Growth and Energy Storage as Predictors of Winter Performance in YOY Herring from PWS.

This project would provide information to evaluate growth rates and the overwinter survival of age-0 herring. This work, in combination with project 132-C (Kline), is expected to provide information to evaluate the hypothesis that juvenile herring in bays that have good growing conditions in fall will store more lipids and have better survival through the winter. It is not clear how the relationship between energy stores and survival will be tested; also, a test of that relationship would require contrast in survival among bays or years. This project is dependent in part on collection of data on winter survival by another project, # 132-B (Thorne), for which the statistical precision of survival estimates would need to be evaluated. If successful, the project may provide indirect benefits to commercial fisheries evaluation and management.

Ranking: Moderate

132-I Hershberger: PWS herring survey: herring disease program (HDP).

This project proposes new techniques to assess risk of disease impacts (VHS, Icthyophonus, and ENV) using estimates of infection prevalence and severity as well as acquired immunity in sampled populations (for VHS). The project proposes to provide disease prevalence data that may have direct application to commercial fisheries management through the Department of Fish and Game's catch-age forecast model. Additionally, this project is developing disease forecasting tools that can assist commercial fisheries management in setting guideline harvest levels.

Ranking: High

810 Kiefer: An ecosystem model of PWS herring

This project proposes to further develop an existing model of herring population dynamics to include an improved routine for juvenile herring and to add routine to incorporate effects of disease. If successful, this model could provide a direct benefit to commercial fisheries management. The model might also serve as a tool for evaluation of hypotheses regarding recruitment failures; however, a more appropriate step at this point may be to conduct an independent evaluation of the model before additional model development is funded.

Ranking: Moderate

132-C Kline: PWS herring survey: Pacific herring energetic recruitment factors.

This project may provide indirect benefits for commercial fisheries evaluation and management by providing information on the role of energetic limitations and overwinter survival of juvenile herring. Additionally, it may provide useful information for evaluating the appropriate locations for possible restoration work.

Analysis of stable isotopes may be useful in identifying sources of food as from inside or outside PWS, as well as testing the hypothesized impact of hatchery-released pink salmon as competitors or predators of juvenile herring (Deriso et al. 2008). This work, in combination with the Heintz study, is expected to provide information to evaluate the hypothesis that juvenile herring in bays that have good growing conditions in fall will store more lipids and have better survival through the winter. It is not clear how the relationship between energy density and survival will be tested; also, a test of that relationship would require contrast in survival among bays or years. This project is dependent in part on collection of data on winter survival by another project, # 132-B (Thorne), for which the statistical precision of survival estimates would need to be evaluated.

Ranking: Moderate

811 Kline: Pacific herring larval recruitment into PWS nursery bays.

This project is not expected to provide a direct benefit for commercial fisheries management or evaluation, but may provide an indirect benefit through evaluation of the hypothesis regarding juvenile salmon predation on larval herring.

This proposal is intended to test 2 other hypotheses relating larval size, timing of seeding, and numbers of bays with larval seeding. The proposal lacks a clear method of testing the effect of these on recruitment, except for potential correlations with a major recruitment event, should one occur. In regards to the use of SIA to identify herring as salmon prey, the rejection of stomach contents (p. 6) as a viable method could be better substantiated.

Ranking: Moderate

132-H Kuletz: PWS Herring Survey: Seasonal & Interannual Trends in Seabird Predation on Juvenile Herring.

This project is not expected to provide a direct benefit for commercial fisheries management or evaluation, but may provide an indirect benefit through increasing our understanding of the potential predation on herring by marine birds in PWS during November, March, and August. The PIs have previously estimated annual herring mortality due to marine bird predation, and the newly proposed work would provide improved estimates based on more extensive and comprehensive sampling.

Ranking: Moderate

130 Moffitt: Population structure of Pacific herring

This proposal was submitted to fund the collections of samples for Project 10100165 (Seeb): High Density DNA Sequencing. A revised proposal (165A) was submitted by Seeb to document the value and risk associated of high density sequencing. The revised proposal requires only one fish to sample, obviating the need for this sampling program.

Ranking: Low

822 Moffitt: Herring ecosystem data portal

This project would expand the scope of information available to include ADF&G datasets from lower Cook Inlet and Kodiak areas. Given that ADF&G already possesses these data, this project is not seen as having additional direct benefit to management. Instead, the proposed project is designed to benefit investigators outside of the agency by making information readily available, and would be expected to have indirect benefits to management by way of improving the basis of information available to all researchers involved in increasing our understanding of the PWS ecosystem.

Ranking: Moderate

122 Moran: Impact of humpback whale predation

This project may have potential benefit to commercial fisheries resources evaluation, in that data collected by this proposal may be useful in assessing aspects of predation on juvenile herring by humpback whales; however, it is not clear from this proposal whether the information on predation will provide reliable quantitative estimates of predation as rates of mortality that can be used in an aged structured analysis.

Ranking: Moderate

132 Pegau: Herring Survey - community involvement, outreach, logistics, and synthesis.

This project may have some direct benefit to commercial fisheries evaluation and management, in that it provides vessel time to the various Herring Survey projects. Several of these related projects have been identified here as potentially providing benefits to herring management, for example, by improving our ability to predict future recruitment into the spawning biomass. The project may also contribute to evaluating possible restoration alternatives.

This project has the potential to play a key role in ensuring that the data collected will be appropriate for evaluating factors and testing hypotheses regarding recruitment failure. Ranking: High

128 Quinn: Historical Humpback Whale Abundance in Prince William Sound in Relation to Pacific Herring Dynamics.

This proposal may provide important information for management in an ecosystem context, in that the historical humpback whale indices may have direct application to herring management through ADF&G's catch-age forecast model. The proposal seeks to further develop the age-structured model for herring in PWS to evaluate the significance of whale predation on adult herring in relation to disease and low recruitment. Given the rapid annual increase in the humpback whale population in the Gulf of Alaska, and their apparent increased presence in PWS, it is important to know the potential surplus production of herring in PWS above and beyond natural mortality, including predation by humpbacks. Results of this research may be important to herring management in PWS, and potentially elsewhere in the GOA.

Ranking: High

804 Rice: Significance of Whale Predation on Natural Mortality Rate of Pacific Herring in Prince William Sound

This is a close out project, requesting a final year of funding to complete analysis of data on humpback whale foraging on herring in PWS, Sitka Sound, and southern Lynn Canal. The final year will include analysis with an age-structured population model of herring to evaluate the relative roles of whale foraging and other factors (disease, environment, spawning stock) affecting recruitment of age 3 herring. This work, coupled with the historical whale abundance project (#128 – Quinn) may be applicable to management by ADF&G and may be useful in evaluating limitations to herring recovery in PWS.

Ranking: High

165A (revised) Seeb: High density DNA sequencing, revised pilot study.

Understanding herring stock structure is a fundamental management need. Additional genetics work should be completed on Prince William Sound herring, because our understanding of the life history of PWS herring depends on possible stock structure. If successful, information on stock structure may be useful to management

The revised proposal (10100165A) was submitted to document the value and risk associated with high density sequencing by sequencing the transcribed genome of a single herring from PWS. A full scale project of this nature (assuming the successful completion of the pilot project) may be of significant value to restoration efforts.

Ranking: Moderate

129 Seitz: Ecology and Migratory Movements of Pacific Herring in Prince William Sound Using Acoustic Tagging

This project is not expected to provide direct benefits for commercial fisheries management or evaluation, but may provide an indirect benefit through increasing the basic ecological understanding of herring life history in PWS.

The proposal seeks to determine 1) if herring are summer residents in PWS bays, 2) if individuals spawn in the same bays each year, and 3) the timing of movements into and out of bays. While much of this research is experimental in terms of methods development, there may be long-term benefits to management of herring, particularly if the methods can be implemented for more broad scale determination of herring movements and the seasonal locations of adult herring in relation to spawning locations.

Ranking: Moderate

132-B Thorne: PWS Herring Survey: Assessment of Juvenile Herring Abundance and Habitat Utilization.

This project may have some direct benefit to commercial fisheries evaluation and management. The assessment of juvenile herring may provide a direct input to the department's catch-age model and the pre-spawn survey of adults will be a continuation of the collaborative surveys by the PWSSC and ADF&G. Additionally, this project should contribute to evaluating possible restoration alternatives.

The project will provide an index of juvenile herring abundance in a selection of bays; however, it is not clear how the survey data will be used to evaluate over-winter mortality or to test hypotheses regarding recruitment failures. Lacking a power analysis, it is not clear from the proposal whether it would be possible to detect (in a statistically valid manner) a reduction in abundance due to over-winter mortality. Despite these concerns, the abundance data is expected to be of direct value to ADF&G's herring management program.

Ranking: High

806 Vollenweider: Are Herring Energetics Limiting. Part III. Disease Challenges

This is a close-out request for the last year of a project. Work to be accomplished in the final year includes chemical analysis, data analysis, and reporting. So far, the study has developed comparisons of energetics of 3 populations (PWS, Sitka, and southern Lynn Canal). Work in the final year is described as providing direct tests of hypotheses for recruitment failures (p. 4), specifically due to overwinter mortality of juveniles based on energy stores and energy use in winter, increased metabolic energy costs due to disease (Icthyophonus), and reduced reproductive potential of adults. The proposed work is expected to have results useful for evaluating hypotheses regarding recruitment failures. Applications to ADF&G management are indirect.

Ranking: Moderate



340 Weingartner: Long-Term Monitoring of the Alaska Coastal Current

This project is not expected to provide direct benefits for commercial fisheries management or evaluation. However, continued sampling at GAK 1 is a high priority for our understanding of the Alaska Coastal Current ecosystem, including waters of Prince William Sound, and in this way is expected to provide indirect benefits to ADF&G's herring management program.

Ranking: Moderate

124 Zwollo: Effects of marine pollution on Pacific herring immunity

The project appears to have some value for oil spill restoration monitoring and evaluation of Pacific herring immunological status, but does not appear to have a direct or indirect benefit for commercial fisheries evaluation or management.

Ranking: Low

- FY10 Invitation for Proposals - Science Panel Recommendations

Project #	Lead PI	Title	FY10	FY11	FY12	FY13	Total	Recommendation
10100132-G	Bishop	PWS Herring Survey: Top-down regulation by predatory fish on juvenile herring	\$ 185,500	\$ 183,300	\$ 193,400	\$ 116,700	\$ 678,900	Fund
10100808	Bodkin	Monitoring for Evaluation of Recovery and Restoration of Injured Nearshore Resources	\$ 166,400	\$ 166,400	\$ 165,300	\$ 103,400	\$ 601,500	Fund
10100132-F	Brown	PWS Herring Survey: Sound Wide Juvenile Herring, Predator, and Competitor Density via Aerial Surveys	\$ 160,141	\$ 153,056	\$ 153,056	\$ 35,001	\$ 501,254	Fund
10100624	Bychkov	Measuring Interannual variability in the Herring's forage base from the GOA	\$ 61,900	\$ 63,600	\$ 65,100	\$ 15,000	\$ 205,600	Fund
10100119	Campbell	Assessment of the feasibility of carrying capacity supplementation for herring restoration in PWS	\$ 36,600	\$	\$ -	\$ -	\$ 36,600	Fund
10100132-A	Campbell	PWS herring survey: Plankton and oceanographic observations	\$ 201,500	\$ 197,300	\$ 200,100	\$ 64,400	\$ 663,300	Fund
10100290	Carls	The Exxon Valdez Trustee Hydrocarbon Database	\$ 9,300	\$ 9,300	\$ 9,300	\$ 9,300	\$ 37,200	Fund
10100132-I	Hershberger	PWS Herring Survey: Herring Disease Program	\$ 81,800	\$ 284,100	\$ 295,800	\$ 313,500	\$ 975,200	Fund
10100751	Irons	Prince William Sound Marine Bird Surveys, Synthesis and Restoration	\$ 254,500	\$ 39,240	\$ -	\$ -	\$ 293,740	Fund
10100854	Konar	Recovery of shallow subtidal communities 20 years after the Exxon Valdez oil spill	\$ 109,800	\$ 15,000	\$ -	\$ -	\$ 124,800	Fund
10100742	Matkin	Monitoring, Tagging, Feeding Studies, and Restoration of Killer Whales in Prince William Sound/Kenai Fjords	\$ 132,309	\$ 132,309	\$ 125,775	\$	\$ 390,393	Fund
10100130	Moffitt	Sampling for High Density DNA Sequencing to Detect Population Structure of Pacific Herring	\$ 63,900	\$ 70,500	\$ -	\$ -	\$ 134,400	Fund
10100128	Quinn	Historical Humpback Whale Abundance in Prince William Sound in Relation to Pacific Herring Dynamics	\$ 94,200	\$ 69,500	\$ -	\$ -	\$ 163,700	Fund
10100804	Rice	Signifigance of Whale Predation on Natural Mortality Rate of Pacific Herring in PWS	\$ 69,100	\$ -	\$ -	\$ -	\$ 69,100	Fund
10100165	Seeb	High Density DNA Sequencing to Detect Population Structure of Pacific Herring	\$ 379,700	\$ 414,500	\$ 202,900	\$ -	\$ 997,100	Fund
10100129	Seitz	Ecology and migratory movements of Pacific herring in Prince William Sound using acoustic tagging	\$ 444,200	\$ 164,000	\$ 144,100	\$ -	\$ 752,300	DNF

FY10 Invitation for Proposals - Science Panel Recommendations

Project #	Lead PI	Title	FY10	FY11	FY12	FY13	Total	Recommendation
10100806	Vollenweider	Are herring energetics limiting. Part III. Disease challenges	\$ 60,700	\$ -	\$ -	\$ -	\$ 60,700	Fund
10100340	Weingartner	Long-Term Monitoring of the Alaska Coastal Current	\$ 141,500	\$ 138,700	\$ 133,600	\$ -	\$ 413,800	Fund
			\$ 2,653,050	\$ 2,100,805	\$ 1,688,431	\$ 657,301	\$ 7,099,587	
10100132-E	Gay	PWS herring survey: Physical Oceanographic Characteristics of Nursery Habitats of Juvenile Herring	\$ 88,400	\$ 83,100	\$ 90,000	\$ 91,500	\$ 353,000	Modify
10100132-C	Kline	PWS Herring Survey: Pacific Herring Energetic Recruitment Factors	\$ 258,700	\$ 256,600	\$ 265,000	\$ 218,300	\$ 998,600	Modify
10100132-Н	Kuletz	PWS Herring Survey: Seasonal & Interannual Trends in Seabird Predation on Juvenile Herring	\$ 147,200	\$ 163,900	\$ 150,900	\$ 102,900	\$ 564,900	Modify
10100574	Lees	Re-Assessment of Bivalve Recovery on Treated Mixed-Soft Beaches in Prince William Sound	\$ 100,100	\$ 89,000	\$ 24,800	\$ -	\$ 213,900	Modify
10100132	Pegau	PWS herring survey: Community Involvement, Outreach, Logistics, and Synthesis	\$ 343,100	\$ 385,600	\$ 354,300	\$ 97,400	\$ 1,180,400	Modify
10100829	Shigenaka	Population Status of Littleneck Clams	\$ 230,400	\$ 94,300	\$ 55,200	\$ -	\$ 379,900	Modify
10100132-В	Thorne	PWS Herring Survey: Assessment of Juvenile Herring Abundance and Habitat Utilization	\$ 170,214	\$ 196,723	\$ 173,563	\$ 56,227	\$ 596,727	Modify
			\$ 1,338,114	\$ 1,269,223	\$ 1,113,763	\$ 566,327	\$ 4,287,427	
10100111	Ammann	Community-based Habitat Restoration	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ -	\$ 3,000,000	DNF
10100114	Bochenek	Compilation of EVOS and Regional Hydrocarbon Data and Reports	\$ 140,200	\$ 93,100	\$ -	\$ -	\$ 233,300	DNF
10100118	Boswell	Using chemical tracers to define regional-scale nursery habitat use: a pilot study for Pacific herring	\$ 49,200	\$ -	\$ _	\$ -	\$ 49,200	DNF
10100123	Collins	Aerial Surveys and Herring Egg Relocation Feasibility	\$ 61,476	\$ 95,811	\$ -	\$ -	\$ 157,287	DNF
10100125	Сох	Importance of structured near shore habitats for age-0 herring in PWS	\$ 203,100	\$ 246,300	\$ 120,700	\$ -	\$ 570,100	DNF

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• FY10 Invitation for Proposals - Science Panel Recommendations

Project #	Lead PI	Title	FY10		FY11	FY12	FY13	Total	Recommendation
10100120	Guyon	Genetic Stock Structure of Herring in PWS	\$ 86,2	19	\$ 141,264	\$ 109,654	\$ -	\$ 337,137	Fund
10100132-D	Heintz	PWS Herring Survey: Value of growth and energy storage as predictors of winter performance in YOY herring from PWS	\$ 99,0	00	\$ 99,000	\$ 99,000	\$ 9,600	\$ 306,600	DNF
10100810	Kiefer	An Ecosystem Model of Prince William Sound Herring: A Management & Restoration Tool,	\$ 193,5	20	\$ 34,530	\$ -	\$ -	\$ 228,050	DNF
10100811	Kline	Pacific Herring Larval Recruitment into PWS Nursery Bays	\$ 497,6	00	\$ 385,500	\$ 395,000	\$ 179,300	\$ 1,457,400	DNF
10100822	Moffitt	Herring Ecosystem Data Portal	\$ 248,2	.00	\$ 216,800	\$ 114,600	\$ 11,400	\$ 591,000	DNF
10100122	Moran	Impact of Humpback Whale Predation on Young of the Year Pacific Herring in Prince William Sound	\$ 176,8	800	\$ 106,800	\$ -	\$ -	\$ 283,600	DNF
10100112	Payne	Evaluating Harbor Contaminants	\$ 550,7	00	\$ 67,300	\$ -	\$ -	\$ 618,000	DNF
10100116	Payne	Remediation Monitoring using Microbail DNA Profiles	\$ 493,3	00	\$ 71,900	\$ -	\$ -	\$ 565,200	DNF
10100759	Rosenberg	Harlequin Duck Population Dynamics in PWS: Measuring Recovery from the Exxon Valdez Oil Spill	\$ 211,7	00	\$ 212,000	\$ 217,500	\$ 70,500	\$ 711,700	DNF
10100124	Zwollo	Molecular tools for monitoring and quantifying effects of marine pollution on Pacific herring immunity	\$ 123,6	600	\$ 143,400	\$ 38,500	\$ 1,500	\$ 307,000	Fund

\$ 4,134,615 \$ 2,913,705 \$ 2,094,954 \$ 272,300 \$ 9,415,574

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State of Alaska SUMMARY OF PERFORMANCE

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RATES OF RETURN PERIODS ENDING July 31, 2009



EVOSINVESTMENT REPORT						
	MKT VAL \$(T)	Month	QTR	1 Year	3 Years	5 Years
AY02 - EVOS RESEARCH INVESTMENT	91,431	5.70	10.88	-9.68	-0.99	3.19
EVOSINFI - EVOS INVESTMENT FUND INDEX		6.02	11.70	-9.89	-0.85	3.28
AY2H - EVOS HABITAT INVESTMENT FUND	27,625	5.68	10.66	-10.25	-1.22	3.08
EVOSINFI - EVOS INVESTMENT FUND INDEX		6.02	11.70	-9.89	-0.85	3.28
AY2J - EVOS KONIAG INVESTMENT FUND	39,557	5.53	10.64	-10.39	-1.28	3.02
EVOSINFI - EVOS INVESTMENT FUND INDEX		6.02	11.70	-9.89	-0.85	3.28
AY00A43 - EVOS BROAD MARKET FIXED INCO	52,509	1.82	3.61	7.29	5.99	5.05
XSL - BC AGGREGATE		1.61	2.93	7.85	6.52	5.14
AY00A45 - EVOS SOA INT'L EQUITY POOL	27,628	7.30	17.51	-18.89	-4.22	4.96
XCB - MSCI EAFE (NET)		9.13	21.35	-22.60	-5.57	4.80
AY00A42 - EVOS SHORT TERM POOL	2	0.23	1.23	-5.40	1.02	1.99
X11 - 91 DAY T-BILL		0.02	0.04	0.79	3.11	3.15
AY00A46 - EVOS RUSSELL 3000 INDEX	78,474	7.79	13.96	-19.87	-5.83	0.52
XF3 - RUSSELL 3000		7.78	13.92	-20.21	-6.00	0.42

Provided by State Street Investment Analytics

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STATE OF ALASKA DEPARTMENT OF REVENUE - TREASURY DIVISION

Exxon Valdez Oll Spill Investment Fund Asset Allocation Policy with Actual Investment Holdings as of July 31, 2009

Dollar	Cilasius Innus	m 300
POLICY	CINCUVE JUINT	19 200

EVOS RESEARCH INVESTMENT		Asset Allocation		Fair value	Allocation	Variance
		Policy	Range			
Cash and cash equivalents			a second s			
Short-term Fixed Income Pool		0.00%		113.84	0.00%	0.00%
Total cash and cash equivalents		0.00%		113.84	0.00%	0.00%
larketable debt and equity securities						
SOA International Equity Pool				15,355,488.63		
	Total International	20.00%	15% - 25%	15,355,488.63	16.79%	3.21%
Broad Market Fixed Income Pool	-	33.00%	26% - 40%	29,669,732.58	32,45%	0.55%
Non-retirement Domestic Equity Pool		47.00%	40% - 54%	46,405,223.80	50,75%	-3.75%
Total marketable debt securities		100.00%		91,430,445.01	100.00%	0.00%
Total baldings	2	100.00%		04 490 669 96	100.00%	0.00%
rotal notalitys		100.00%		a114301000.00	100.00%	0,00%
Income Receivable				0.26		
Total Invested Assets at Fair Value	- Research			91,430,559.11		

EVOS HABITAT INVESTMENT		Asset Allocation		Fair value	Atlocation	Variance
		Policy	Range			
Cash and cash equivalents						
Short-term Fixed Income Pool		0.00%		1,056.43	0.00%	0.00%
Total cash and cash equivalents		0.00%		1,056.43	0.00%	0.00%
Marketable debt and equity securities						
SOA International Equity Pool				5,560,841.90		
	Total International	20.00%	15% - 25%	5,560,841.90	20.13%	-0.13%
Broad Market Fixed Income Pool		33.00%	26% - 40%	8,958,137.51	32.43%	0.57%
Non-retirement Domestic Equity Pool		47.00%	40% - 54%	13,104,755.34	47.44%	-0.44%
Total marketable debt securities		100.00%		27,623,734.75	100.00%	0.00%
Total holdings		100.00%		27,624,791.18	100.00%	0.00%
Income Receivable				2.43		
Total invested Assets at Fair Value -	Habitat			27,624,793,61		

EVOS KONIAG INVESTMENT		Asset Allocation		Fair value	Allocation	Variance
		Policy	Range			101010
Cash and cash equivalents						
Short-term Fixed Income Pool		0.00%		402.93	0.00%	0.00%
Total cash and cash equivalents		0.00%		402.93	0.00%	0.00%
Marketable debt and equity securities						
SOA International Equity Pool			A	6,711,276.63		
	Total International	20.00%	15% - 25%	6,711,276.63	16.97%	3.03%
Broad Market Fixed Income Pool		33.00%	25% - 40%	13,881,357.07	35.09%	-2.09%
Non-retirement Domestic Equity Pool		47.00%	40% - 54%	18,963,780.77	47.94%	-0.94%
Total marketable debt securities		100.00%		39,556,414,47	100.00%	0.00%
Total holdings		100.00%		39,556,817.40	100.00%	0.00%
Income Receivable				0.93		
Total Invested Assets at Fair Value	Koniaa			39,556,818,33		
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STATE OF ALASKA DEPARTMENT OF REVENUE TREASURY DIVISION

Exxon Valdez Oil Spill Investment Fund

SCHEDULE OF INVESTED ASSETS

July 31, 2009 and 2008

Investments (at fair value)	2009	2008	
Research Investment			
Cash and Cash Equivalents			
Short-term Fixed Income Pool	\$ 114	\$ 196,838	
Marketable debt and equity securities			
Broad Market Fixed Income Pool	29,669,732	40,993,198	
Non-retirement Domestic Equity Pool	46,405,224	49,131,605	
SOA International Equity Pool	15,355,489	15,175,482	
EAFE International Pool		3,756,247	
Income Receivable	<u> </u>	585	
Total Research Investment	91,430,559	109,253,955	
Habitat Investment			
Cash and Cash Equivalents			
Short-term Fixed Income Pool	1,057	197	
Marketable Debt and Equity Securities			
Broad Market Fixed Income Pool	8,958,138	13,779,044	
Non-retirement Domestic Equity Pool	13,104,755	16,836,569	
SOA International Equity Pool	5,560,842	5,496,289	
EAFE International Pool		1,359,729	
Income Receivable	2	13	
Total Habitat Investment	27,624,794	37,471,841	
Koniag Investment			
Cash and cash equivalents			
Short-term Fixed Income Pool	403	2,087	
Marketable Debt and Equity Securities		* *	
Broad Market Fixed Income Pool	13,881,357	16,236,375	
Non-retirement Domestic Equity Pool	18,963,781	20,192,427	
SOA International Equity Pool	6,711,276	6,632,618	
EAFE International Pool		1,641,711	
Income Receivable	1	3	
Total Koniag Investment	39,556,818	44,705,221	
Total Invested Assets	\$158,612,171	\$ 191,431,017	

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STATE OF ALASKA DEPARTMENT OF REVENUE TREASURY DIVISION

Exxon Valdez Oil Spill Investment Fund

SCHEDULE OF INVESTMENT INCOME AND CHANGES IN INVESTED ASSETS

For the month ended July 31, 2009

anathrane Income	CURRENT	YEAR TO DATE
Research Investment	11201111	
Cash and Cash Revivalants		
Cash and Cash Equivalents	¢ -	s -
Short-term Fixed income Pool	J.	
Marketable Debt and Equity Securities	700 10 (520 126
Broad Market Fixed Income Pool	530,136	330,130
Non-retirement Domestic Equity Pool	3,352,070	3,352,070
SOA International Equity Pool	1,044,447	1,044,447
EAFE International Equity Pool	•	-
Commission Recapture		
Total Investment Income (Loss) Research Investment	4,926,653	4,926,653
Habitat Investment		
Cash and Cash Equivalents		
Short-term Fixed Income Pool	2	2
Marketable Debt and Equity Securities		
Broad Market Fixed Income Pool	160,064	160,064
Non-retirement Domestic Rouity Pool	946,619	946,619
SOA International Equity Pool	378,236	378,236
EAFE International Pool	-	-
Commission Recenture	· · · ·	-
	1 494 001	1 /8/ 021
Total Investment Income (Loss) Habitat Investment	1,404,921	1,404,921
Koniag Investment		
Cash and Cash Equivalents		
Short-term Fixed Income Pool	1	1
No. 1 (11 D. 14 J D the Consultion		
Marketable Debt and Equity Securities	248 031	248,031
Broad Market Fixed Income Pool	1 369 844	1.369.844
Non-retirement Domestic Equity Pool	456 486	456,486
SOA International Equity Pool	450,480	
EAFE Intenational Pool		-
Commission Recapture		
Total Investment Income (Loss) Koniag Investment	2,074,362	2,074,362
Total Investment Income (Loss)	8,485,936	8,485,936
	150 126 235	150,126,235
Total Invested Assets, Beginning of Period	150,120,255	10031003000
Net Contributions (Withdrawals):		
Research Investment	-	
Habitat Investment	-	
Koniag Investment	·	
Total Invested Assets, End of Period	\$ 158,612,171	\$ 158,612,171

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