

11.14.05

*Exxon Valdez* Oil Spill  
Trustee Council

meeting

November 10, 2003

# Exxon Valdez Oil Spill Trustee Council

441 W. 5<sup>th</sup> Ave., Suite 500 • Anchorage, Alaska 99501-2340 • 907/278-8012 • fax 907/276-7178



## AGENDA EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL MEETING

November 10, 2003 10:00 a.m.  
441 West 5<sup>th</sup> Avenue, Suite 500, Anchorage

DRAFT

### Trustee Council Members:

GREGG RENKES  
Attorney General  
State of Alaska

JAMES BALSIGER  
Administrator, Alaska Region  
National Marine Fisheries Service

ERNESTA BALLARD  
Commissioner  
Alaska Department of  
Environmental Conservation

DRUE PEARCE  
Senior Advisor to the Secretary  
for Alaskan Affairs  
U.S. Department of the Interior

KEVIN DUFFY  
Commissioner  
Alaska Department of Fish  
and Game

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

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Meeting in Anchorage, Trustee Council Office, 441 West 5<sup>th</sup> Avenue, Suite 500  
\_\_\_\_\_ State Chair

1. Call to Order – 10:00 a.m.
  - Approval of Agenda
  - Approval of Meeting Notes  
September 3, 2003
2. Public comment – 10:05 a.m.
3. Executive Director comments – Gail Phillips
  - Investment Training Seminar
  - Investment Update
  - 15<sup>th</sup> Anniversary (March 2004)
  - ARLIS contribution percentages
  - Report on overdue projects
  - PAC comments re FY 04 Work Plan – Brett Huber, PAC Chair

- Lease paragraph for FY 05 Invitation – Phil Mundy
- Trustee Council Chair rotation

Working lunch (provided)

- 4 Introduction of proposed FY 2004 Work Plan – Phil Mundy
- 5 Discussion and approval of FY 2004 Work Plan\*
- 6 Lapsed FY 2003 funds\*
- 7 Memorandum of Agreement between Alaska Marine Highway System, Alaska Department of Transportation and the *Exxon Valdez* Oil Spill Trustee Council\*
- 8 Executive Session

Adjourn

\* Indicates action items

# Exxon Valdez Oil Spill Trustee Council

441 W 5<sup>th</sup> Ave Suite 500 Anchorage Alaska 99501 2340 • 907/278 8012 fax 907/276 7178



## TRUSTEE COUNCIL MEETING NOTES

**Anchorage, Alaska**

**September 3, 2003**

By Jim Balsiger  
Trustee Council Member

Trustee Council Members Present

Joe Meade, USFS  
Drue Pearce, DOI  
\*James Balsiger, NMFS

Kevin Duffy, ADF&G  
Ernesta Ballard, ADEC  
Gregg Renkes, ADOL

\*Chair

By teleconference Pearce, Ballard, Renkes

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Meeting convened at 11 05 a m , September 3, 2003 in Anchorage at the EVOS Conference Room

### 1 Approval of the Agenda

**APPROVED MOTION**      Approved the amended agenda for the September 3, 2003 meeting adding discussion of Chair rotation if time permits (Attachment A)

Motion by Duffy, second by Ballard

Public comment period began at 11 12 a m

**Public comment received by one individual in Anchorage**

Public comment period closed at 11 23 a m

### 2 Approval of the Meeting Notes

**APPROVED MOTION**      Approved the July 24-25, 2003 meeting notes (Attachment B)

Motion by Duffy, second by Ballard



3     Approval of NOAA/NOS Grant

APPROVED MOTION     Approved the motion to accept the NOAA/NOS grant totaling \$745,125 over the next three years (\$248,375 each year)

Motion by Meade, second by Duffy

4     Approval of Science Management Budget 040630/040630A

APPROVED MOTION     Approved the Science Management Budget 040630/040630A for \$391,600

Motion by Meade, second by Pearce

5     Approval of Administrative Budget 040100

APPROVED MOTION     Approved the Administrative Budget 040100 for \$863,300

Motion by Duffy, second by Renkes

6     Approval of ARLIS Budget 040550

APPROVED MOTION     Approved the Alaska Resources Library and Information Services' (ARLIS) Budget 040550 for \$160,900

Motion by Duffy, second by Meade

6     Approval of Data Management Budget 040455

APPROVED MOTION     Approved the Data Management Budget 040455 for \$156,800

Motion by Duffy, second by Meade

7     Executive Session

APPROVED MOTION     Approved moving to executive session to discuss personnel and litigation issues

Motion by Duffy, second by Ballard

EXECUTIVE SESSION  
Off the record 2 07 p m

On the record 2 59 p m

8 FY 04 Administrative Budgets 040100, 040455, 040550 and 040630/040630A

ADOPTED RESOLUTION

Adopted Resolution 03-05 of the *Exxon Valdez*  
Oil Spill Trustee Council regarding FY 04 Work  
Plan totaling \$1,572,600  
(Attachment C)

Motion by Meade, second by Duffy

Meeting adjourned at 3 03 p m Motion by Ballard, second by Duffy

I will keep this brief as we have a great deal to cover in a very short amount of time. On the 26<sup>th</sup> of September Michael O'Leary the Executive Vice President from Callan Associates gave a training presentation to the staff, Investment working group members and was open for Trustees to attend. His presentation was designed to give us as custodians a better understanding of Investment strategies, he touched on Capital Market Theory, Asset Allocation Concepts, Historical Perspectives, Endowment and Foundation Spending Policies, Market projections, and alternative asset allocation policies. To sum it up: buy low and sell high. All jokes aside serving as custodian for the EVOS fund is a serious responsibility and even though we have money managers to manage the fund it is very important that we the staff and the Trustee Council have a firm understanding and have a responsibility to continue our education, and keep up with the current market trends. I also recently attended an Asset Allocation Summit in San Francisco the message again was echoed, understand what your money managers are doing, and keep up with the current market trends.

## ***Exxon Valdez Oil Spill Trustee Council***

### **Outline of events and activities for the 15<sup>th</sup> Anniversary of the *Exxon Valdez* oil spill**

#### **THEN AND NOW – A MESSAGE OF HOPE**

During the month of March 2004 Gail and Phil will speak to a variety of organizations around the state, including Tribal Council meetings Chambers of Commerce RDC, Commonwealth North, municipal assemblies, and other types of organization s meetings in spill area communities to present a 15-year update on the Council s activities Topics to be discussed will include the following

- Where we are today
- A recap of all financial transactions
- A recap of all land purchases
- How the recovery has progressed
- How the focus has changed from restoration to research and monitoring
- What we have learned that can be passed on elsewhere in the world for areas inundated with a spill such as ours
- How the economy of the spill area has rebounded
- How the research we are doing now will affect the economics of the spill area
- The fact that we are actually establishing baseline data that can be used for generations in the future
- Other points that may arise

In addition, a private contractor will produce a summary CD, 2004 Annual Status Report, and update the EVOS website incorporating the above information



## Memorandum

**To** Gail Phillips  
Exxon Valdez Oil Spill Trustee Council, Executive Director

**From** Carrie Holba *CH*  
Librarian

**Subject** ARLIS contribution budget with percentages

**Date** September 9, 2003

As you requested, attached is the FY 04 ARLIS contribution budget with a column indicating the percentage of the total budget that each founding agency provides

The attached spreadsheet was distributed to the Founders Board at their last meeting June 18, 2003, but did not include the percentages. The spreadsheet contains two versions of the contribution budget, since it was unknown at that time if Forest Service and ADNR would be participating as founders in FY 04. The top version, labeled "Best Case Scenario", includes both Forest Service and ADNR. The bottom version, labeled "Worst Case Scenario", does not include these agencies. ADNR has since confirmed that they will not be participating, but there has been no decision yet from Forest Service.

Both versions of the contribution budget reflect the reduction in the UAA contribution from \$70,000 in FY 02 and FY 03 to \$50,000 in FY 04. The reduction is the result of budget cuts to the UAA budget.

Both budgets show an in-kind contribution of 6 FTE librarian from ADF&G. However, the cost of that librarian is included in the EVOS TC's total contribution in the column labeled, "Total 2004".

The percentage of the total ARLIS budget that the Trustee Council provides is 9.09% in the Best Case Scenario and 10.25% in the Worst Case Scenario.

I hope this information is helpful to you and the Trustee Council. Please let me know if you have any questions.

# **ARLIS FY 2004 Budget - Contributions (Revenues)**

## **Best Case Scenario UAA down to \$50,000 cash**

Kind Contribution Personal Services				In-Kind Contributions		In-Kind	Cash	Total		2004	2004	Agency	Total	% of ARLIS
FY-2003			2003	2003		2003	2003	2003		Personnel	WCF cash	Cash 2004	2004	budget
Agency	Description		Total	Description	Total	Total	Total	Total						
ADF&G	.6 FTE Libn		47,424	Library Materials	51,776	99,200	0	99,200	*1			50,000	50,000	3.08%
DNR												50,000	50,000	3.08%
BLM	2.0 Libn		143,510	Fedlink/xerox	68,833	212,343	363,228	575,571		143,510	431,600		575,110	35.40%
EVOS TC	1.0 Libn.		87,200	General Administr	0	87,200	0	87,200	*1	147,600			147,600	9.09%
FWS	1.0 Libn.		72,175	Communication	1,248	73,423	60,553	133,976		72,175	65,200		137,375	8.46%
NPS			0		2,500	2,500	131,476	133,976		2,500	130,300		132,800	8.17%
MMS	.2 FTE Libn.		14,966		0	14,966	61,465	76,431		14,966	57,000		71,966	4.43%
UAA+ENR	Various*3		117,755	Indirect Expense	48,044	165,799	70,000	235,799		117,755		50,000	167,755	10.33%
USGS		0	0		0	0	133,976	133,976			130,300		130,300	8.02%
FS												133,976	133,976	8.25%
ARMY		0	0	Library Materials	25,000	25,000	0	25,000				25,000	25,000	1.54%
Program Receipts							2,700	2,700				2,700	2,700	0.17%
<b>total</b>		<b>0</b>	<b>0</b>	<b>483,030</b>		<b>197,401</b>	<b>680,431</b>	<b>823,398</b>	<b>1,503,829</b>	<b>498,506</b>	<b>814,400</b>	<b>311,676</b>	<b>1,624,582</b>	<b>100.00%</b>

## **Worst Case Scenario UAA down to \$50,000 cash**

Kind Contribution Personal Services				In-Kind Contributions		In-Kind	Cash	Total		2004	2004	Agency	Total	% of ARLIS
FY-2003			2003	2003		2003	2003	2003		Personnel	WCF cash	Cash 2004	2004	budget
Agency	Description		Total	Description	Total	Total	Total	Total						
ADF&G	.6 FTE Libn		47,424	Library Materials	51,776	99,200	0	99,200	*1			50,000	50,000	3.47%
DNR													0	
BLM	2.0 Libn		143,510	Fedlink/xerox	68,833	212,343	363,228	575,571		143,510	431,600		575,110	39.92%
EVOS TC	1.0 Libn.		87,200	General Administr	0	87,200	0	87,200	*1	147,600			147,600	10.25%
FWS	1.0 Libn.		72,175	Communication	1,248	73,423	60,553	133,976		72,175	65,200		137,375	9.54%
NPS			0		2,500	2,500	131,476	133,976		2,500	130,300		132,800	9.22%
MMS	.2 FTE Libn.		14,966		0	14,966	61,465	76,431		14,966	57,000		71,966	5.00%
UAA+ENR	Various*3		117,755	Indirect Expense	48,044	165,799	70,000	235,799		117,755		50,000	167,755	11.64%
USGS		0	0		0	0	133,976	133,976			130,300		130,300	9.04%
FS													0	
ARMY		0	0	Library Materials	25,000	25,000	0	25,000				25,000	25,000	1.74%
Program Receipts							2,700	2,700				2,700	2,700	0.19%
<b>total</b>		<b>0</b>	<b>0</b>	<b>483,030</b>		<b>197,401</b>	<b>680,431</b>	<b>823,398</b>	<b>1,503,829</b>	<b>498,506</b>	<b>814,400</b>	<b>127,700</b>	<b>1,440,606</b>	<b>100.00%</b>

ADF&G librarian paid for in EVOS-TC budget

UAA reported that due to budget cuts they could only contribute \$50,000 cash

### ARLIS FY 2004 Budget - Contributions (Revenues)

#### Best Case Scenario

Kind Contribution Personal Services				In-Kind Contributions		In-Kind	Cash	Total		2004	2004	Agency	Total
FY-2003				2003	2003	2003	2003	2003		Personnel	WCF cash	Cash 2004	2004
Agency	Description			Total	Description	Total	Total	Total					
ADF&G	.6 FTE Libn			47,424	Library Materials	51,776	99,200	0	99,200	*1		50,000	50,000
DNR												50,000	50,000
BLM	2.0 Libn			143,510	Fedlink/xerox	68,833	212,343	363,228	575,571		143,510	431,600	575,110
EVOS TC	1.0 Libn.			87,200	General Administr	0	87,200	0	87,200	*1	147,600		147,600
FWS	1.0 Libn.			72,175	Communication	1,248	73,423	60,553	133,976		72,175	65,200	137,375
NPS				0		2,500	2,500	131,476	133,976		2,500	130,300	132,800
MMS	.2 FTE Libn.			14,966		0	14,966	61,465	76,431		14,966	57,000	71,966
UAA+ENR	Various*3			117,755	Indirect Expense	48,044	165,799	70,000	235,799		117,755		187,755
USGS		0	0	0		0	0	133,976	133,976			130,300	130,300
FS												133,976	133,976
ARMY		0	0	0	Library Materials	25,000	25,000	0	25,000			25,000	25,000
Program Receipts								2,700	2,700			2,700	2,700
<b>total</b>		<b>0</b>	<b>0</b>	<b>483,030</b>		<b>197,401</b>	<b>680,431</b>	<b>823,398</b>	<b>1,503,829</b>		<b>498,506</b>	<b>814,400</b>	<b>331,676</b>

#### Worst Case Scenario

Kind Contribution Personal Services				In-Kind Contributions		In-Kind	Cash	Total		2004	2004	Agency	Total
FY-2003				2003	2003	2003	2003	2003		Personnel	WCF cash	Cash 2004	2004
Agency	Description			Total	Description	Total	Total	Total					
ADF&G	.6 FTE Libn			47,424	Library Materials	51,776	99,200	0	99,200	*1		50,000	50,000
DNR													0
BLM	2.0 Libn			143,510	Fedlink/xerox	68,833	212,343	363,228	575,571		143,510	431,600	575,110
EVOS TC	1.0 Libn.			87,200	General Administr	0	87,200	0	87,200	*1	147,600		147,600
FWS	1.0 Libn.			72,175	Communication	1,248	73,423	60,553	133,976		72,175	65,200	137,375
NPS				0		2,500	2,500	131,476	133,976		2,500	130,300	132,800
MMS	.2 FTE Libn.			14,966		0	14,966	61,465	76,431		14,966	57,000	71,966
UAA+ENR	Various*3			117,755	Indirect Expense	48,044	165,799	70,000	235,799		117,755		187,755
USGS		0	0	0		0	0	133,976	133,976			130,300	130,300
FS													0
ARMY		0	0	0	Library Materials	25,000	25,000	0	25,000			25,000	25,000
Program Receipts								2,700	2,700			2,700	2,700
<b>total</b>		<b>0</b>	<b>0</b>	<b>483,030</b>		<b>197,401</b>	<b>680,431</b>	<b>823,398</b>	<b>1,503,829</b>		<b>498,506</b>	<b>814,400</b>	<b>147,700</b>

ADF&G librarian paid for in EVOS-TC budget

## Overdue Project Reports (as of 11/9/2003)

	A	B	C	D	E	F	G
	Lead Agency	Project Number	PI	Final or Annual	Project Title	Status of Report	Current Status
1	ADEC	98291	See	Final	Chenega shoreline oiling	Peer reviewed returned to PI for revision 2/18/00	
2	ADEC	00530	See	Final	Lessons learned	Peer reviewed returned to PI for revision 12/10/01	
3	ADFG	93033 2	Rothe	Final	Harlequin restoration	Never submitted was due in 1994	
4	ADFG	99139A2	Dickson	Final	Port Dick restoration	Peer reviewed returned to PI for revision 12/15/00	
5	ADFG	99162B	Kennedy	Ms	Herring disease	4 manuscripts were due 9/30/00 3 not submitted	
6	ADFG	99252 2	L Seeb	Final	Genetics project black rockfish component	Never submitted was due 1/31/00	
7	ADFG	00245	V Vanek	Annual	Harbor seal biosampling	Peer reviewed returned to PI for revision 7/23/02	
8	ADFG	00273	Rosenberg	Annual	Surf scoters	Never submitted was due 9/30/01	P Mundy accepted annual report in lieu of final report, final report now due 12/15/03
9	ADFG	00371	Schell	Final	Harbor seal isotopes	Never submitted was due 11/15/01 (extended from 9/30/01)	no longer with University looking for new contact information
10	ADFG	01064	Frost	Final	Harbor seals	Report (consists of several ms ) was due 3/02	
11	ADFG	01163	E Brown	Ms	APEX synthesis ms (A/T)	Never submitted was due 9/30/01 Then expected 6/30/02 then expected 11/25/02	Now expected 12/1/03
12	ADFG	030584	E Brown	Final	Evaluation of Airborne Remote Sensing Tools for GEM Monitoring	Final report due 5/31/03	asked to submit an annual report due to her final report being overdue, plans to submit final report 12/1/03
13	ADFG	030190	F Allendorf	Final	Construction of a Linkage Map for the Pink Salmon Genome	Final report due 9/30/03	
14	ADFG	030558	S Atkinson	Final	Harbor Seal Recovery Application of New Technologies for Monitoring Health	Final report due 9/30/03	
15	ADFG	030684	A Muzumder	Final	Toward Sustainable Management in the Kenai River Watershed	Final report due 9/30/03	
16							



### Overdue Project Reports (as of 11/9/2003)

	A	B	C	D	E	F	G
	Lead Agency	Project Number	PI	Final or Annual	Project Title	Status of Report	Current Status
1							
17	ADFG	030685	S. Pegau	Final	Visible Remote Sensing of the Gulf of Alaska	Final report due 9/30/03	Submitted annual report 9/15/03 - extension on final report until 12/15/03 per Phil Mundy
18	ADFG	030642	N. Foster	Final	Database on the Marine Invertebrate Macrofauna of PWS	Final report due 9/30/03 (web-based database)	
19	DOI	00169	Friesen	Final	Seabird genetics	Never submitted; was due 3/31/02; then expected 5/31/02; THEN expected 7/31/02. submitted to J. Piatt, co-PI, for his review, July 2003.	paper and digital copies are being sent to Bob Spies and Phil Mundy, D. Bohn received copies of final report, in route to ARLIS 11/6/03
20	DOI	00501	Piatt	Final	Seabird monitoring protocols	Never submitted; was due 9/30/00; due date extended to 10/31/00; then expected 3/31/02; now expect 9/30/03	Email dated 9/29/03 from Piatt stating he is waiting for comments back from co-authors
21	DOI	01327-2	Divoky	Final	Pigeon guillemots	Never submitted; was due 9/30/01.	
22	DOI	01338	Piatt	Final	Murre/kittiwake survival	Never submitted; was due 9/15/01; then expected 9/15/02; now expect 9/30/03	Email dated 9/29/03 from Piatt stating that he has to do one last analysis; report written; needs final analysis incorporated
23	DOI	02479	Piatt	Final	Effects of Food Stress on Survival and Reproductive Performance of Seabirds	Due 4/30/03	
24	DOI	030561	Roseneau	Final	Evaluating the Feasibility of Developing a Community-Based Forage Fish Sampling	Final report due 4/15/03	
25	DOI	030656	G. Irvine	Final	Retrospective Analysis of Nearshore Marine Communities Based on Analysis of Archaeological Material and Isotopes	Final report due 9/30/03	4 copies are being hand-carried by Bodkin to the Lingering Oil meeting. I will submit other copies (hard and digital) D. Bohn received copies of final report, in route to ARLIS 11/6/03

## Overdue Project Reports (as of 11/9/2003)

	A	B	C	D	E	F	G
	Lead Agency	Project Number	PI	Final or Annual	Project Title	Status of Report	Current Status
1							
26	DOI	030585	J. Bodkin/B. Ballachey	Final	Lingering Oil: Bioavailability and Effects to Prey and Predators	Final report due 9/30/03	submitted annual report 9/19/03 - paper copies are being hand-carried by Bodkin to the Lingering Oil meeting. D. Bohn received copies of final report, in route to ARLIS 11/6/03
27	NOAA	99090	Carls	Final	Mussel bed monitoring	Never submitted due to loss of 2 ABL personnel; was due 4/15/00; due date was extended to 8/25/00; then expected 1/1/01; then expected 4/02; now expected 4/03. (ms. also not submitted)	Final report now expected 3/1/04 - per P. Hagen
28	NOAA	00330	Pauly & Okey	Ms.	Remaining oil - intertidal	4 manuscripts were due 9/30/00; 1 not submitted. 9/30/03 no response to inquiries - PENDING per Pete Hagen	No response to inquiries - Pending (per P. Hagen)
29	NOAA	00454	Rice	Final	Salmon natal habitats	Never submitted; was due 9/30/01; then expected 3/31/03; now expect 6/10/03 -Final Report (four chapters) will be submitted 11/1/03 - last manuscript now due 10/15/03 -	Final report expected 12/1/03 (per P. Hagen)
30	NOAA	00482	Jellett	Final	PSP	Peer reviewed and returned to PI for revision 1/7/02.	PI claims due to change of business has no copy, may need to use what we have as final (per Sandra's email to Pete 5-9-03) PENDING per Pete Hagen 9/30/03
31	NOAA	00510	McDonald	Ms.	Intertidal monitoring recommendations	Two manuscripts were due 4/15/00; 1 not submitted.	Pending per P. Hagen's email 9/29/03
32	NOAA	00598	Short	Ms.	EVO vs. regional background hydrocarbons	Never submitted; was due 8/00; was expected 7/1/01; then 5/02; then 8/02; then 12/02; now 5/1/03; now due 7/1/03;	subject to FOIA, will submit 1/1/04 (per P. Hagen)
33	NOAA	01163	Duffy, et al	14 ms.	APEX synthesis ms.	Never submitted; were due 9/30/01.	Pending per P. Hagen's email 9/29/03
34	NOAA	01599	Short	Final	Yakataga oil seeps	Never submitted; was due 4/15/02; now expect 6/1/03; now due 7/1/03	subject to FOIA, will submit 1/1/04 (per P. Hagen)
35	NOAA	02195	Short	Final	Pristane	Never submitted; was due 9/30/02.	subject to FOIA, will submit 12/01/03 (per P. Hagen)
36	NOAA	030641	Harper	Final	ShoreZone Mapping for GEM	Final report due 4/30/03 (workshop report and protocol)	Final report expected Dec 1. (email Oct 13, '03)

## Overdue Project Reports (as of 11/9/2003)

	A	B	C	D	E	F	G
	Lead Agency	Project Number	PI	Final or Annual	Project Title	Status of Report	Current Status
1							
37	NOAA	030623	J. Devens	Final	PWSRCAC-EVOS Long Term Environmental Monitoring Program	Annual report due 9/30/03	Report expected 11-15-03
38	NOAA	030585	J. Rice/ J. Short	Final	Lingering Oil: Bioavailability and Effects to Prey and Predators	Final report due 9/30/03	submitted annual report 9/19/03 - Now due 11/7/03 per B. Ballachey's email
39	NOAA	030574	D. Lees	Final	Assessment of Bvalve Recovery on Treated Mixed-Soft Beaches in Prince William Sound	Final report due 9/30/03	submitted annual report 9/2/03 - P. Hagen is working out another due date.
40	NOAA	03476	Heintz	Final	Oiled incubation	Final report due 9/15/03 - not submitted	Report will be in 12/1/03 (per P. Hagen)
41	USFS	02256B	Gillikin	Final	Solf Lake	Never submitted; was due 9/30/02.	
42	<b>Reports Submitted for review</b>						
43	NOAA	01552	S.Vaughan	Annual	PWS/GOA exchange	Submitted 5/7/02 - Spies	
44	ADF&G	96258-2	Swanton	Final	Sockeye Salmon Overescapement Project	Submitted 5/8/02 - Spies	
45	NOAA	99347	R. Heintz	Final	Fatty acids & lipids	Submitted 7/29/02 - Spies	
46	ADF&G	00341	M. Castellini	Final	Harbor seal health & diet	Submitted 7/31/02 - Spies	
47	ADF&G	01210	R. Delorenzo	Annual	PWS Youth Area Watch	Submitted 8/15/02 - Spies	
48	NOAA	99163	D. Duffy	Final	APEX	Submitted 8/19/02 - Spies	
49	NOAA	01452	R. Thorne/G. Thomas	Final	Pink fry - prey & predators	Submitted 9/10/02 -Spies	
50	NOAA	01163	APEX synthesis ms (M/E/I)	Ms.	APEX synthesis ms (M/E/I)	submitted 8/31/03 - Spies	Piatt says in email 9/29/03, they went to the printers that day. - C. Holba states the format has not been sent in for her review. 10/27/03
51	ADFG	02407	D. Rosenberg	Final	Harlequin ducks	Never submitted; was due 9/30/02.	Submitted DRAFT final report, peer review revisions now due 12/15/03 (per P. Mundy)
52	ADFG	02538	Otis	Final	Discrimination of herring stocks	Never submitted; was due 9/30/02; email 9/29/03, states they can not submit report until December 03, see ED's reply -	Next due Oct 31, 2003 - being reviewed by Phil M.
53	ADFG	02247	McCullough	Final	Kametolook River	Never submitted; was due 9/30/02; then expected 2/15/03; now expected 5/5/03.	Received draft final report; Spies is peer reviewing 10/03
54	NOAA	01393	Kline	Final	PWS food webs	Peer reviewed; returned to PI for revision 9/5/02. -	Revised and sent to Bob Spies 8/6/03 per Pete Hagen.



## Overdue Project Reports (as of 11/9/2003)

	A	B	C	D	E	F	G
	Lead Agency	Project Number	PI	Final or Annual	Project Title	Status of Report	Current Status
1							
55	DOI	01144	Roseneau	Final	Common murre monitoring	Peer reviewed; returned to PI for revision 8/19/02. PI revised report per peer review comments submitted to Bob Spies's office May 2003.	
56	DOI	01534	Ballachey	Final	P4501A in sea otters	Peer reviewed; returned to PI for revision 5/28/02;	The PI revised this Final Report with respect to peer review comments, and we submitted it to Dr. Spies for approval on 8/4/03.
57	DOI	01555	Lanctot	Final			
58	NOAA	02552	Vaughan	Final	Exchange Between Prince William Sound and the Gulf of Alaska	Final report due April 15, 2003. - In review 9/16/03 - Phil gave to Cherri to send out for review 9/16/03 - Vernon Byrd will review this report before Nov. 1, 2003 (see email)	Out for peer review 10/1/03 (S. Pegau [complete 11/8/03], T. Weingartner, V. Byrd [complete 11/3/03]) 10/1/03
59	NOAA	02543	Short	Final	Remaining oil - intertidal	Never submitted; was due 9/30/02; then expected 1/15/03; then 3/15/03. Final report, comprising primarily of the accepted ms. Will be submitted 10/15/03 (per P. Hagen)	Draft Final report emailed to B. Spies 10/28/03 for peer review (email from M. Lindeberg 10/28/03)
60	Undergoing ARLIS Format Review						
61	NOAA	00493	Anderson	Final	Trawl survey	Peer reviewed; returned to PI for revision 7/12/01.	Undergoing format revision - per C. Holba - on hold until peer review approval is confirmed 11/4/03
62	ADFG	02671	D. Stram	Final	Coordinating Volunteer Vessels of Opportunity to Collect Oceanographic Data in Kachemak Bay and Lower Cook Inlet	Reviewed and approve by Phil - sent to Carrie for final formatting 9/16/03	revisions on hold until report number is confirmed
63	ADFG	02613	Harper	Final	Mapping marine habitats - PWS/Kenai	Never submitted; was due 12/31/02 (received CDs and tapes but not report).- have a copy of the final report for peer review, Phil has looked it over and passed it on to Cherri - Has PI ben notified re: approval of final report for submission to Carrie for her approval on format? - Cherri has emailed Carrie asking her status on this report 9/16/03	
64	NOAA	02622	Whitney	Maps	ESI maps Cook Inlet/Kenai	Never submitted; were due 7/31/02.	CD ROM's - no format review 11/4/03

### Overdue Project Reports (as of 11/9/2003)

	A	B	C	D	E	F	G
	Lead Agency	Project Number	PI	Final or Annual	Project Title	Status of Report	Current Status
1							
65	ADFG	02593	Jewett	Ms.	Forageing and Communication in River Otters	approved by Phil - With Carrie for final formatting 10/16/03	Contacting PI to request submittal of format review pages 11/4/03
66	USFS	01256B	Fox	Annual	Solf Lake	PI also submitted an annual report September 15, 2002; annual report peer reviewed but C. Holba has not seen at ARLIS.	copies being made for ARLIS.
67	DOI	01327-1	Roby	Final	Pigeon Guillemot	report accepted by Chief Scientist May 5, 2003; not yet at ARLIS.	Undergoing format review at ARLIS 9/4/03
68	USFS	99339-2	Suring	Final	Human use model & recommendations	Never submitted; was due 12/31/99, then expected 4/1/02. PI transferred out of state and is completing on own time.	
69	USFS	98145	Reeves	Final	Cutts & dollys: anadromous forms	Peer reviewed; returned to PI for revision 12/15/00; was expected 1/02; then 4/02 - 9/16/03 Received a copy of final report for peer review, gave to Phil Mundy	Undergoing format revision - per C. Holba -Approved by ARLIS and being copied 11/4/03
70	DOI	99306	M. Robards/ J. Piatt	Final	Ecology and Demographics of Pacific Sand Lance	Final report accepted by Chief Scientist June 25, 2001; reproduction of final copies is pending receipt of copyright approval from journals. [NOTE: FY 00 is report writing funds only.] - Format approved, no copies received at ARLIS as of 9/29/03 -Carrie needs to work with Bob, manuscripts need copy right permission - See email from C. Holba 10/28/03 - may substitute them citation page with the ms itself. Still awaiting approval from Gail and Phil - 10/28/03	Dede received copyright release and is being copied 11/4/03 -D. Bohn received copies of final report, in route to ARLIS 11/6/03
71	NOAA	01468	Thomas	Final	FEATS	Peer reviewed; returned to PI for revision 1/2/02.	Complete but not at ARLIS? - Published as manuscript - converting draft final report in to final report with indication that peer review comments have not been addressed. PER PHIL MUNDY EMIAL 10/27/03
72	DOI	99327	D. Roby	Annual	Pigeon Guillemot Restoration Research at the Alaska SeaLife Center	Annual report peer reviewed January 7, 2002; not yet at ARLIS.	undergoing format revisions 11/4/03

### Overdue Project Reports (as of 11/9/2003)

	A	B	C	D	E	F	G
	Lead Agency	Project Number	PI	Final or Annual	Project Title	Status of Report	Current Status
1							
73	ADFG	00509	Small, Frost	Final	Harbor seal long-term monitoring	Peer reviewed; returned to PI for revision 6/18/01.	In press (per K. Buckland) - Being published in journal C. Holba taking over. Per Phil Mundy 10/27/03
74	NOAA	00476	R. Heintz	Annual	Oiled incubation	Annual report peer reviewed March 22, 2002; not yet at ARLIS - Pete checking to see if it's available at ARLIS. 10/27/03	11/03/03 - P. Hagen emailed report to C. Holba for formatting comments.
75	ADFG	02619	R. Foy	Final	Mapping marine habitats Kodiak		Approved by ARLIS - being copied 11/4/03
76	DOI	02163M	J. Piatt	Ms.	APEX: Numerical and Functional Response of Seabirds to Fluctuations in Forage Fish Density		Undergoing formatting with ARLIS
77		96258-1	J. Edmundson	Final	Sockeye Salmon Overescapement Project		The results of this project will be presented in two reports: (1) Final report (Edmundson) accepted by Chief Scientist May 5, 2003; not yet at ARLIS. Approved by ARLIS 10/30/03 awaiting copies, see email from C. holba 10/5/03
78	USFS	93065 / 94217	S. Hennig	Final		Spoke to Ken and he states the final report is at printers 9/19/03 - Carrie states that she sent to Sandra for revisions. Undergoing format revision- C. Holba states a 3 ring binder was sent to her in 1995. C. Holba sent a letter to PI w/ list of revisions, no response back. S. Schubert asked to binder be sent to her, for K. Holbrook and S. Schubert to work on getting report. Per C. Holba's email 10/28/03	Undergoing format revisions by FS 11/4/03

Dear Members of the EVOS Trustee Council, EVOS Staff and general public,

Thank you for the opportunity to speak to you today

I have been a member of the EXXON Valdez Oil Spill Trustee Council Public Advisory Group for the last 8 years representing Recreational Users. It has been an honor and privilege to serve my community of Kodiak and the interests of my constituency.

When the public was surveyed in the early 90's following the settlement, by far the majority favored spending the money on three things in the following order of priority: RESTORATION of the affected area and species, permanent HABITAT PROTECTION of some lands affected by the oil spill to permanently protect their natural resources, and SCIENTIFIC RESEARCH to study the effects of the oil on the injured species and ecosystem in the spill area. That was the clear public mandate and one which I sincerely hope you will honor as we move into the future.

But, I noticed in the EVOS Work Plan for 2004 that zero funds have been allocated for the Habitat Protection program and that at a Trustee Council meeting this summer there was a vote to abolish the program, that fortunately failed. Both these decisions were made without any prior notice to the general public or debate among the members of the Public Advisory Committee. It seems to me that if you anticipate this great of a change in the established policy of the allocation of EVOS funds that the public or at least the Public Advisory Committee should be notified and have time to discuss it and decide if that change is in the best interest of the public and the resources we are charged to be stewards of.

The habitat protection program was implemented to acquire through purchase, private lands affected by the oil spill. Many of these choice parcels are now public lands and managed for habitat protection of natural resources for the use and enjoyment of all Alaskans, tourists and future generations. This has been an enormously popular program, especially the small parcel acquisition program which uses funds each year to buy parcels of land less than 1000 acres in the oil spilled area that are of particular recreational and/or ecological importance to coastal communities.

Two small parcels on Kodiak Island that were affected by the oil spill and nominated for the small parcel acquisition program in 1995 have high recreational and resource value to the people of Kodiak because they are accessible from our limited road system. These two parcels are TERMINATION POINT and LONG ISLAND. The former trustees and EVOS staff evaluated these lands, ranked them at the top of the list, and promised Kodiak that they would purchase them. Unfortunately, the owner of both parcels, Lesnoi Native Corporation, has been involved in on-going litigation with rancher Omar Strattman and the title hasn't been clear to make a purchase. Someday the title will be clear for Termination Point and Long Island and I hope you will honor the wish of the former trustees and the people of Kodiak to purchase these recreational lands that are so important to our community.

As you know, the former trustees have purchased many important lands in the Kodiak Archipelago over the last 10 years that are crucial for the permanent protection of old growth Sitka Spruce habitat that is home to brown bear, elk, salmon and many bird species affected by the oil spill. Through years of coordinated negotiations with local government, resource agencies, Native Corporations, local, state and national conservation groups, the EVOS Trustee Council has been working to protect prime habitat on North Afognak Island. We thank the former trustees deeply for the work that they have done and encourage the new trustees to honor their predecessors by convincing the governor to reverse his decision to block the sale of the North Afognak Lands. His unanticipated decision was a terrible blow to our community who backed the sale 100%. It was the fore-sighted decision of the various Kodiak native corporations who own the land to sell it and "develop" it in this way thereby protecting the resources for future generations of hunters, fishermen, subsistence users, tourists, bears, elk, eagles, salmon, and marbled murrelets.

Thanks again, and I urge you to openly discuss with the Public Advisory Committee and inform the general public of any plans you may have for changing the allocation of EVOS funds.

Sincerely,

Stacy Studebaker  
P O Box 970  
Kodiak, AK 99615

(907) 486-6498  
tidepool@ptialaska.net

## GEM DETAILED BUDGET INSTRUCTIONS (page 1)

### Rules for Numbers

Lease and fee negotiations It is the responsibility of the principal investigator to negotiate lease space and service fees, and make all necessary arrangements with the laboratory they propose to use during their project. In the past the *Exxon Valdez* Oil Spill Trustee Council served as a contact with the Alaska SeaLife Center and other facilities and assisted in lease negotiations. The *Exxon Valdez* Oil Spill Trustee Council will no longer serve in this role.

### Indirect Costs



## GEM DETAILED BUDGET INSTRUCTIONS (page 1)

The required budget form, detailing the amount of funding requested from the Trustee Council for each federal fiscal year, must be submitted as part of the proposal package. The form is in addition to the budget justification that is also required as part of the proposal package. An electronic copy of the budget form (created in Excel) is available at [http://www.oilspill.state.ak.us/admin/invitation/budgetform\\_instruction\\_page.html](http://www.oilspill.state.ak.us/admin/invitation/budgetform_instruction_page.html).

Funds may be requested for use up to three years (FY 04, FY 05 and FY 06). Proposers are encouraged to be thoughtful and thorough in their budget development, as the Trustee Council expects to consider revisions to future-year budgets only in the case of unforeseen or unanticipated events or in response to ongoing scientific/technical review. Be advised that projects will be allowed to "carry forward" any unspent funds from one fiscal year into the next.

Each budget will be reviewed for consistency with the objectives contained in the proposal and for adherence to the budget instructions that follow. Proposers may be asked to respond to budget review questions, or to revise their budgets to address budgetary concerns.

Fiscal Year. The Trustee Council awards funds on the federal fiscal year (October 1-September 30). As noted above, your budget must address all fiscal years for which funds are requested.

Project Number. For projects that received funding in FY 03, use the last three digits of the FY 03 project number preceded by "040" (for example, project 030290 would become 040290). For new projects, leave the number blank.

Rules for Numbers. Show costs in thousands of dollars. For example, show \$86,423 as \$86.4. When the number "5" follows the digit to be rounded, round to the higher amount. For example, round \$26,752 to \$26.8.

Lease and fee negotiations. It is the responsibility of the principal investigator to negotiate lease space and service fees, and make all necessary arrangements with the laboratory they propose to use during their project. In the past the *Exxon Valdez* Oil Spill Trustee Council served as a contact with the Alaska SeaLife Center and other facilities and assisted in lease negotiations. The *Exxon Valdez* Oil Spill Trustee Council will no longer serve in this role.

Indirect Costs. Indirect costs are costs incurred for common or joint purposes that cannot be specifically identified with a particular project. Examples of indirect costs are lease costs, copying, phones, faxes, internet access, equipment maintenance, vehicle leasing, training, payroll and personnel functions, clerical support, administrative supervision, accounting, auditing, and mail and messenger services. These items should be budgeted for separately only if they are incurred because of a specific project and documentation of the expense is maintained.

Motion to apply funds approved for the FY 03 Work Plan but not expended to the FY 04 Work Plan with emphasis to be used for deferred FY 04 projects

# **ATTACHMENT I**

## **EVOSTC Workplan Project Recommendations**

**State of Alaska Trustees**

**November 10, 2003**

### **Bishop – Top-down and Bottom-up Processes**

This project will increase the understanding of soft sediment nearshore habitats and will provide baseline information regarding biodiversity in the habitat. It therefore directly supports State resource management decisions affecting this critical environment through applied research, including the determination of natural trends or cyclical patterns. The National Oceanic and Atmospheric Administration (NOAA) is the lead agency for this project.

### **Bodkin - Lingering Oil and Sea Otters Pathways of Exposure and Recovery Status**

This project is directed toward the study and characterization of the long-term effects of the Exxon Valdez oil spill and the status of injured species, and directly contributes to both defining the spill's currently unknown or recently discovered impacts and measuring its ongoing direct impacts. The fate and effects of the remaining oil on injured resources and services in Prince William Sound is a primary focus of effort in support of this goal, which this proposal addresses. The U.S. Department of the Interior (DOI) is the lead agency for this project.

### **Eckert – Natural Variability in the Nearshore**

This project will build on previous research efforts by synthesizing existing data to identify environments and species that have less natural variability within the nearshore habitat. This will allow better monitoring of the nearshore environment and allow State resource managers to make decisions based on applied research, including the determination of natural trends or cyclical patterns. The Alaska Department of Fish and Game (ADFG) is the lead agency for this project.

### **EVOS-TC-Project Management**

This project supports those Trustee agencies that administer and/or implement EVOS projects on behalf of the Trustee Council. The state recognizes and supports this operational need to support the work of the Trustee Council. This is a close out for this

project as program management needs will be met from other sources in FY 2005. The EVOS TC is the lead entity for this project.

#### **Fall - Update of the Status of Subsistence Uses in Exxon Valdez Oil Spill Area Communities**

This project updates the status of recovery by focusing on subsistence users and aids in the study and characterization of the long-term effects of the Exxon Valdez oil spill, and directly contributes to both defining the spill's currently unknown or recently discovered impacts and measuring its ongoing direct impacts. The fate and effects of the remaining oil on injured resources and services in Prince William Sound is a primary focus of effort in support of this goal, which this proposal addresses. ADFG is the lead agency for this project.

#### **Honnold - Marine-Derived Nutrients on Sockeye Salmon**

This project will provide a framework for designing monitoring projects to detect changes in marine-terrestrial linkages in Gulf of Alaska sockeye watersheds. This will allow better data collection regarding this important resource in support of State resource management decisions. ADFG is the lead agency for this project.

#### **Irons - Bird Abundance in Prince William Sound**

This project will examine long-term trends in the abundance of marine birds and sea otters in Prince William Sound to determine whether populations in the oiled zone have changed at the same rate as populations in the unoiled zone. This comparison will contribute to defining the spill's currently unknown or recently discovered impacts and measuring its ongoing direct impacts. The U.S. Department of the Interior (DOI) is the lead agency for this project.

#### **Nelson - The Exxon Valdez Trustee Hydrocarbon Database and Interpretation Service**

This is an on-going project directed toward providing data and sample archiving services for all samples in support of EVOSTC projects, and directly contributes to both defining the spill's currently unknown or recently discovered impacts and measuring its ongoing direct impacts. Management of information collected on the fate and effects of the remaining oil on injured resources and services in Prince William Sound is important in determining quantifiable impacts. NOAA is the lead agency for this project.

#### **Rice - Lingering Oil Pathways of Exposure and Population Status**

This project is directed toward the study and characterization of the long-term effects of the Exxon Valdez oil spill and the status of injured species, and directly contributes to both defining the spill's currently unknown or recently discovered impacts and measuring its ongoing direct impacts. The fate and effects of the remaining oil on injured resources and services in Prince William Sound is a primary focus of effort in support of this goal, which this proposal addresses. NOAA is the lead agency for this project.

#### **Rosenberg - Harlequin Duck Population Dynamics in Prince William Sound Measuring Recovery**

This project is directed toward the study and characterization of the long-term effects of the Exxon Valdez oil spill and the status of injured species, and directly contributes to both defining the spill's currently unknown or recently discovered impacts and measuring its ongoing direct impacts. The fate and effects of the remaining oil on injured resources and services in Prince William Sound is a primary focus of effort in support of this goal, which this proposal addresses. ADFG is the lead agency for this project.

#### **Short - Monitoring Exxon Valdez Oil and Prince William Sound**

This project will evaluate alternative sampling designs and strategies for monitoring oil from the Exxon Valdez spill that remains on beaches in Prince William Sound and will make recommendations regarding design, duration and frequency of sampling. The project will enhance the study of the long-term effects of the Exxon Valdez oil spill and the status of injured species, and will directly contribute to both defining the spill's currently unknown or recently discovered impacts and measuring its ongoing direct impacts. NOAA is the lead agency for this project.

#### **Spies - A Synthesis of the Ecological Findings from the EVOS Damage Assessment and Restoration Programs, 1989-2001**

This project is directed toward synthesizing data collected over 12 years of studies relating the Exxon Valdez spill, and directly contributes to both defining the spill's currently unknown or recently discovered impacts and measuring its ongoing direct impacts. Synthesis of this information is critical to determining quantifiable impacts and ensuring that data gaps are addressed. NOAA is the lead agency for this project.

#### **Thorne - Seafood Waste Discharge**

This project will investigate the possible impacts of seafood waste discharge and aid in the understanding of historic impacts. The results will allow a more healthy and productive approach to seafood waste recycling and deal with an important pollution

concern for coastal communities while providing needed information to support sound resource management decisions. The Alaska Department of Environmental Conservation (ADEC) and ADFG are collaborators in this project. NOAA is the lead agency for this project.

#### **Walker – Marine-Derived Nutrients**

This project will track and measure marine-derived nutrient effects in stream, riparian and nearshore environments to develop a better understanding of natural processes. The results will provide needed information to support sound State resource management decisions. ADFG is the lead agency for this project.

**FY 04 FY06 Attachment A Numbers Spreadsheet  
Court Notice  
FY 04**

<b>NOAA</b>	<b>1 101 421</b>
<b>DOI</b>	<b>581 534</b>
<b>Total to United States to NRDA</b>	<b>1 682 955</b>

<b>DNR Total</b>	<b>211 600</b>
<b>ADFG</b>	<b>1 292 847</b>
<b>Total to State to GeFONSI</b>	<b>1 504 447</b>

<b>Agency</b>	<b>Cooperating Agency</b>	<b>Listing</b>	<b>Project Number</b>	<b>FY04</b>	<b>FY05</b>	<b>FY06</b>	<b>Decision</b>	<b>Comments</b>
ADFG		DeLorenzo-FY04 Youth Area Watch	40210	\$ 121 100	\$ 126 400	\$ 133 200	Fund	
ADFG		Eckert FY04-Natural Variability in the Nearshore	40702	\$ 36 300	\$ 17 500		Fund	
ADFG		Fall FY04 Status of Subsistence Uses	40471	\$ 298 700	\$ 25 600		Fund	
ADFG		Finney FY04 Marine Terrestrial Linkages	40703	\$ 79 197	\$ 80 154	\$ 81 117	Fund	
ADFG		Honnold FY04-Marine Derived Nutrients on Sockeye Salmon	040703-A	\$ 83 200	\$ 82 400	\$ 86 800	Fund	
ADFG		Konar FY04 Natural Geography in Shore Areas	40666	\$ 248 729			Fund	
ADFG		Okkonen FY04 Monitoring Program in the NE Pacific Ocean	40614	\$ 27 289	\$ 30 366	\$ 31 455	Fund	
ADFG		Rosenberg FY04 Harlequin Duck Population	40407	\$ 37 100			Fund	
ADFG		Schneider FY04 Kodiak Archipelago	40610	\$ 63 000	\$ 63 000	\$ 63 000	Fund	
ADFG		Walker FY04 Marine Derived Nutrients	40726	\$ 150 200	\$ 153 400	\$ 149 700	Fund	
ADFG	NOAA	Cokelet FY04-AK Marine Highway System Femes	40699	\$ 15 300	\$ 22 700	\$ 23 200		
ADFG		Weingartner FY04 Alaska Coastal Current	40340	\$ 75 482	\$ 75 482	\$ 75 482	Fund	
ADFG	DNR DOI NOAA	Project Management	40250	\$ 57 250			Fund	
		<b>Total ADFG Funding for FY04 06</b>		<b>\$ 1 292 847</b>	<b>\$ 677 002</b>	<b>\$ 643 954</b>		
ADNR		Spies FY04 EVOS Damage Assessment & Restoration	40600	\$ 201 700			Fund Contingent	TC re-evaluation of contract
ADNR	ADFG DOI NOAA	Project Management	40250	\$ 9 900			Fund	
		<b>Total DNR Funding for FY 04 06</b>		<b>\$ 211 600</b>	<b>\$</b>	<b>\$</b>		
DOI		Bodkin FY04-Lingenng Oil and Sea Otters	040620 2	\$ 134 300	\$ 26 200	\$ 6 500	Fund Contingent	Submittal of overdue reports
DOI		Bodkin FY04 Nearshore Monitoring Decision Process	40687	\$ 10 000			Fund	
DOI		Irons FY04 Bird Abundance in PWS	40159	\$ 175 518			Fund	
DOI	NOAA	Irvine FY04 Lingenng Oil on Boulder Armored Beaches	40708	\$ 60 600	\$ 14 400		Fund Contingent	Submittal of overdue reports
DOI		Knudsen FY04-Nutrient Based Resource Management	40712	\$ 173 216	\$ 177 002	\$ 152 632	Fund	
DOI	ADNR NOAA ADFG	Project Management	40250	\$ 27 900			Fund	
		<b>Total DOI Funding for FY 04 06</b>		<b>\$ 581 534</b>	<b>\$ 217 602</b>	<b>\$ 159 132</b>		
NOAA	DOI	Irvine FY04 Lingenng Oil on Boulder Armored Beaches	40708	\$ 11 100	\$ 2 800		Fund Contingent	Submittal of overdue reports

**FY 04 FY06 Attachment A Numbers Spreadsheet  
Court Notice  
FY 04**

Agency	Cooperating Agency	Listing	Project Number	FY04	FY05	FY06	Decision	Comments
NOAA		Adams FY04 Fishenes Management	40636	\$ 46 760	\$	\$	Fund	
NOAA		Batten FY04-CPR data	40624	\$ 135 200	\$ 135 200	\$ 135 200	Fund	
NOAA		Bishop-FY04 Top-down and Bottom up Processes	40635	\$ 149 529	\$ 164 030	\$ 151 390	Fund	
NOAA	ADFG	Cokelet FY04 AK Marine Highway System Fernes	40699	\$ 156 200	\$ 163 200	\$ 122 700	Fund	
NOAA		Heintz FY04 Energy Allocation	40706	\$ 48 400	\$ 42 300	\$ 14 100	Fund Contingent	Submittal of overdue reports
NOAA		Kiefer FY04 Alaskan Groundfish Feeding Ecology	40710	\$ 80 900	\$	\$	Fund	
NOAA		Macklin FY04 NGOA Metadatabase	40716	\$ 100 600	\$	\$	Fund	
NOAA		Matkin FY04 Killer Whales in PWS/Kenai Fjords	40012	\$ 19 502	\$	\$	Fund	
NOAA		Nelson FY04 Hydrocarbon Database	40290	\$ 22 200	\$ 22 200	\$ 22 200	Fund	
NOAA		Rice-FY04 Lingering Population Status	40620-1	\$ 60 000	\$ 61 000	\$ 29 100	Fund Contingent	Submittal of overdue reports
NOAA		Ruesink FY04 Altering the Community Structure	40647	\$ 81 600	\$	\$	Fund	
NOAA		Saupe-FY04-Habitat Web Site	40721	\$ 21 100	\$	\$	Fund	
NOAA		Short FY04 Monitoring Exxon Valdez Oil & PWS	40724	\$ 45 900	\$	\$	Fund Contingent	Submittal of overdue reports
NOAA		Thorne-FY04 Seafood Waste Discharge	40725	\$ 72 680	\$ 111 692	\$ 108 943	Fund	
NOAA	DNR DOI ADFG	Project Management	40250	\$ 49 750	\$	\$	Fund	
		Total NOAA Funding for FY 04-06		\$ 1 101 421	\$ 699 622	\$ 583 633		

Total Funding for FY 04 FY 06		FY04	FY 05	FY 06
		\$ 3 187 402	\$ 1 594 226	\$ 2 211 458
FY 04 EVOS FUNDING RECOMMENDATIONS	Total Funding by Agency			
NOAA	1 101 421			
DNR Total	211 600			
ADFG	1 292 847			
DOI	581 534			
Total	3 187 402			

Trustee Council Approved EVOS Admin Funds at the October Trustee Council Meeting



Motion to approved the FY 04 Work Plan as presented

# Gulf of Alaska Ecosystem Monitoring and Research Program

## *Work Plan*

*FY 2004*

September 24, 2003



Exxon Valdez Oil Spill Trustee Council  
441 West 5<sup>th</sup> Avenue, Suite 500  
Anchorage, AK 99501  
907-278-8012  
[www.oilspill.state.ak.us](http://www.oilspill.state.ak.us)

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## Notes to Reader

The draft work plan is for consideration for adoption by the Trustee Council. It has been prepared in consideration of all comments received as of September 24, 2003. It contains a complete summary of the record of the decision for each draft recommendation.

Please note that the abstracts in Appendix A were 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 or priorities for the GEM program they do not represent the views of the Executive Director, the Science Director or other staff of the *Exxon Valdez* Oil Spill Trustee Council, nor do they reflect policies or positions of the Trustee Council.

There are four categories of recommendations, Fund, fund contingent, defer, and do not fund. The first three categories have been determined to meet near-term needs identified by the Trustee Council, while the “do not fund” recommendation indicates that the proposal would not provide for near-term needs. Funding recommendation categories are defined as follows: 1) **Fund** Proposal meets important near-term needs identified by the Trustee Council and it is clearly ready to move forward. 2) **Fund contingent** Proposal meets important near-term needs identified by the Trustee Council but it has easily resolvable deficiencies in content or some project personnel have overdue reports, so that it cannot move forward until the contingencies have been removed. 3) **Defer** Proposal meets near-term needs identified by the Trustee Council but project has a lower priority than projects in the fund and fund contingent category, or it may have substantial deficiencies in content, or some project personnel have overdue reports, or some combination of these, so that it may not be possible to move forward in the current funding cycle. 4) **Do not fund** Proposal does not meet near-term needs identified by the Trustee Council, or the needs identified are not appropriate at this time, or deficiencies in content cannot be readily resolved, or some combination of these circumstances exist, so that it is not possible to move forward in the current funding cycle.

Full scientific references for the literature cited may be found in the GEM Program document on the Trustee Council’s web site (see reference above), as they are not included here for the sake of brevity.

## Executive Summary

Total FY 2004 amount recommended for October 3, 2003 action	\$ 3,191,714
Total FY 2004 amount so far approved by Trustee Council	\$ 1,572,600
Total FY 2004 amount approved and recommended	<b>\$ 4,764,314</b>

Total FY 2005 amount recommended	<b>\$ 1,678,442</b>
Total FY 2006 amount recommended	<b>\$ 1,504,099</b>

<b>Total FY 2004 – 2006 recommended</b>	<b>\$ 6,374,255</b>
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Total amount deferred FY 2004	\$ 1,339,434
Total amount deferred FY 2005	\$ 665,942
Total amount deferred FY 2006	\$ 778,965

<b>Total FY 2004 – 2006 deferred</b>	<b>\$ 2,784,341</b>
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<b>Summary</b>	<b>FY 04</b>	<b>FY 05</b>	<b>FY 06</b>
Funding Authorized + Fund + Fund Contingent	\$4,764,314	\$1,678,442	\$1,504,099
Funding Authorized + Fund + Fund Contingent + Deferred	\$6,103,748	\$2,457,407	\$2,170,041

This Work Plan draft describes 34 projects in the amount of \$3 192 million for FY 2004, \$1 678 million for FY 2005, and \$1 504 million for FY 2006, for a total of **\$ 6,374,255 for FY 2004 – 2006** for which the Trustee Council is asked to authorize funding at its meeting of October 3, 2003. In addition, the draft Work Plan describes 14 projects in the amount of \$1 339 million for FY 2004, \$0 779 million for FY 2005, and \$0 666 million for FY 2006, for a total of **\$2 784 million for FY 2004 – 2006** for which the Trustee Council is asked to defer action until later in FY 2004. Finally the Work Plan presents an additional 14 projects for which the Trustee Council is advised to deny funding.

Of the 34 projects recommended for funding, 33 are peer reviewed proposals and one is an EVOSTC staff-originated proposal in the amount of \$140K for funding of program managers within individual Trustee Council agencies that was inadvertently omitted from the funding package considered on September 3, 2003. Four staff-originated proposals

that were approved by the Trustee Council on September 3 bring *the total number of all projects in FY 2004 to 38 in the amount of \$4.764 million.*

Executive Summary Table of Proposals received for consideration to start in FY 2004, the amounts recommended for funding in fiscal years FY 2004 – 2006, and the Executive Director's recommendation.

Listing	FY04	FY05	FY06	Rec
Adams-FY04-Fisheries Management	\$46,760.00	\$0.00	\$0.00	Fund
Baird-FY04-Shoreline Habitat Mapping and Community-Based Monitoring	\$20,100.00	\$19,900.00	\$0.00	Fund
Batten-FY04-CPR data	\$135,200.00	\$135,200.00	\$135,200.00	Fund
Bechtol-FY04-Parameters in the N. Gulf of AK	\$50,900.00	\$54,000.00	\$56,000.00	Fund
Bishop-FY04-Top-down and Bottom-up Processes	\$149,529.00	\$164,030.00	\$151,390.00	Fund
Bodkin-FY04-Nearshore Monitoring Decision Process	\$10,000.00	\$0.00	\$0.00	Fund
Cokelet-FY04-AK Marine Highway System Ferries	\$171,500.00	\$185,900.00	\$145,900.00	Fund
Cooper-FY04-Community-Based Sampling	\$102,512.00	\$85,958.00	\$96,942.00	Fund
Eckert-FY04-Natural Variability in the Nearshore	\$36,300.00	\$17,500.00	\$0.00	Fund
EVOS TC-FY04-Project Management	\$140,000.00	\$0.00	\$0.00	Fund
Fall-FY04-Status of Subsistence Uses	\$298,700.00	\$25,600.00	\$0.00	Fund
Finney-FY04-Marine-terrestrial Linkages	\$79,197.00	\$80,154.00	\$81,117.00	Fund
Honnold-FY04-Marine-derived Nutrients on Sockeye Salmon	\$83,200.00	\$82,400.00	\$86,800.00	Fund
Irons-FY04-Bird Abundance in PWS	\$175,518.00	\$0.00	\$0.00	Fund
Kiefer-FY04-Alaskan Groundfish Feeding Ecology	\$80,900.00	\$0.00	\$0.00	Fund
Knudsen-FY04-Nutrient-Based Resource Management	\$173,216.00	\$157,002.00	\$152,632.00	Fund
Konar-FY04-Natural Geography in Shore Areas	\$248,729.00	\$0.00	\$0.00	Fund
Macklin-FY04-NGOA Metadatabase	\$100,600.00	\$0.00	\$0.00	Fund
McNutt-FY04-GEM Infrastructure - Lyn McNut	\$80,835.00	\$80,713.00	\$83,271.00	Fund
Nelson-FY04-Hydrocarbon Database	\$22,200.00	\$22,200.00	\$22,200.00	Fund
Okkonen-FY04-Monitoring Program in the NE Pacific Ocean	\$27,289.00	\$30,366.00	\$31,455.00	Fund
Ruesink-FY04-Altering the Community Structure	\$81,600.00	\$0.00	\$0.00	Fund
Saupe-FY04-Habitat Web Site	\$21,100.00	\$0.00	\$0.00	Fund
Schneider-FY04-Kodiak Archipelago	\$63,000.00	\$63,000.00	\$63,000.00	Fund
Schumacher-FY04-GEM Infrastructure	\$22,067.00	\$23,645.00	\$22,067.00	Fund
Stabeno-FY04-Bottom Control	\$49,500.00	\$0.00	\$0.00	Fund
Thorne-FY04-Seafood Waste Discharge	\$72,680.00	\$111,692.00	\$108,943.00	Fund
Walker-FY04-Marine Derived Nutrients	\$150,200.00	\$153,400.00	\$149,700.00	Fund
Weingartner-FY04-Alaska Coastal Current	\$75,482.00	\$75,482.00	\$75,482.00	Fund
Willette-FY04-Monitoring ACC Dynamics	\$89,800.00	\$68,000.00	\$27,900.00	Fund
<b>Total</b>	<b>\$2,858,614.00</b>	<b>\$1,636,142.00</b>	<b>\$1,489,999.00</b>	
Heintz-FY04-Energy Allocation	\$48,400.00	\$42,300.00	\$14,100.00	Fund Contingent
Rosenberg-FY04-Harlequin Duck Population	\$37,100.00	\$0.00	\$0.00	Fund Contingent
Short-FY04-Monitoring Exxon Valdez Oil & PWS	\$45,900.00	\$0.00	\$0.00	Fund Contingent
Spies-FY04-EVOS Damage Assessment & Restoration	\$201,700.00	\$0.00	\$0.00	Fund Contingent
<b>Total</b>	<b>\$333,100.00</b>	<b>\$42,300.00</b>	<b>\$14,100.00</b>	

	FY04	FY05	FY06	Rec
Bird-FY04-Mobile Data Network-Vessels	\$140,900.00	\$129,200.00	\$130,700.00	Defer Funding
Bodkin-FY04-Lingering Oil and Sea Otters	\$134,300.00	\$26,200.00	\$6,500.00	Defer Funding
Brown-Schwalenberg-FY04-Subsistence & Stewardship Gathering	\$31,250.00	\$0.00	\$0.00	Defer Funding
Couvillion-FY04-Coordinated Coastal Mapping	\$98,500.00	\$0.00	\$0.00	Defer Funding
DeLorenzo-FY04-Youth Area Watch	\$121,100.00	\$126,400.00	\$133,200.00	Defer Funding
Devens-FY04-PWSRCAC-EVOS long term program	\$141,700.00	\$0.00	\$0.00	Defer Funding
Irvine-FY04-Lingering Oil on Boulder-Armored Beaches	\$71,700.00	\$17,200.00	\$0.00	Defer Funding
Kline-FY04-Exchange between GOA and PWS	\$142,800.00	\$189,300.00	\$193,500.00	Defer Funding
Mann-FY04-Reconstructing Sockeye Populations	\$91,500.00	\$42,500.00	\$40,000.00	Defer Funding
Matkin-FY04-Killer Whales in PWS/Kenai Fjords	\$19,502.00	\$0.00	\$0.00	Defer Funding
Mazumder-FY04-Marine-Derived Nutrients	\$146,292.00	\$147,414.00	\$132,942.00	Defer Funding
Merritt-FY04-GEM Watershed Synthesis	\$58,091.00	\$39,751.00	\$0.00	Defer Funding
Rice-FY04-Lingering Population Status	\$60,000.00	\$61,000.00	\$29,100.00	Defer Funding
Vaughan-FY04-Hinchinbrook Entrance	\$81,799.00	\$0.00	\$0.00	Defer Funding
<b>Total</b>	<b>\$1,339,434.00</b>	<b>\$778,965.00</b>	<b>\$665,942.00</b>	
Ben-David-FY04-Transfer of Nutrients from Sea	\$0.00	\$0.00	\$0.00	Do not Fund
Berenstein-FY04-Pink Salmon Fry Survival	\$0.00	\$0.00	\$0.00	Do not Fund
Bird-FY04-Mobile Data Network-Marine Hwy	\$0.00	\$0.00	\$0.00	Do not Fund
Brown-Schwalenberg-FY04-Tribal Involvement in the GEM Program	\$0.00	\$0.00	\$0.00	Do not Fund
Foster-FY04-Community Science Dialogues	\$0.00	\$0.00	\$0.00	Do not Fund
Guay-FY04-Assessing Watershed	\$0.00	\$0.00	\$0.00	Do not Fund
Jack-FY04-Sea Otter Abundance	\$0.00	\$0.00	\$0.00	Do not Fund
Kopchak-FY04-Resource Mapping	\$0.00	\$0.00	\$0.00	Do not Fund
Kulkarni-FY04-Design for Data Management	\$0.00	\$0.00	\$0.00	Do not Fund
Lilly-FY04-Fate and Transport Modeling	\$0.00	\$0.00	\$0.00	Do not Fund
Pegau-FY04-Studying the ACC	\$0.00	\$0.00	\$0.00	Do not Fund
Renner-FY04-Population Modeling	\$0.00	\$0.00	\$0.00	Do not Fund
Schoch-FY04-Oceanographic & Ecological Process	\$0.00	\$0.00	\$0.00	Do not Fund
Wang-FY04-Building the GEM Infrastructure - Jia Wang	\$0.00	\$0.00	\$0.00	Do not Fund
EVOS TC-FY04- Data System	\$156,800.00	\$0.00	\$0.00	Funding Authorized
EVOS TC-FY04-ARLIS	\$160,900.00	\$0.00	\$0.00	Funding Authorized
EVOS TC-FY04-Public Information and Administration	\$863,300.00	\$0.00	\$0.00	Funding Authorized
EVOS TC-FY04-Scientific Management	\$391,600.00	\$0.00	\$0.00	Funding Authorized
<b>Total</b>	<b>\$1,572,600.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	
Funding Authorized + Fund	4,431,214.00	1,636,142.00	1,489,999.00	
Funding Authorized + Fund + Contingent	4,764,314.00	1,678,442.00	1,504,099.00	
Funding Authorized + Fund + Contingent + Defer	6,103,748.00	2,457,407.00	2,170,041.00	

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## Introduction

After exactly four years of intensive study and planning, August 1999 through August 2003, The FY 2004 Work Plan represents the first full fiscal year of the Gulf of Alaska Ecosystem Monitoring and Research Program, GEM. GEM is a truly unique opportunity to build the environmental baseline data that was generally lacking at the time of the *Exxon Valdez* oil spill, while starting a tradition of converting monitoring data into information products that serve the needs of government regulators and the public.

In establishing the GEM Program, the Trustee Council explicitly recognized that complete recovery from the oil spill may not occur for decades and that full restoration of injured resources will most likely be achieved through long-term observation and, as needed, restoration activities. The Council further recognized that conservation and improved management of injured resources and services will require substantial ongoing investment to improve understanding of the marine and coastal ecosystem that supports the resources, as well as the people, of the spill region. In addition, prudent use of the natural resources of the spill area without compromising their health and recovery requires increased knowledge of critical ecological information about the northern Gulf of Alaska. This knowledge can only be provided through a long-term monitoring and research program that may span decades.

As a brief overview of what GEM is trying to learn, the largest information gaps in the northern Gulf of Alaska relate to how food and energy originating in the offshore marine environments are transported through the Alaska Coastal Current and nearshore areas to the watersheds. Accordingly, detecting changes in the variables that characterize the transfer of food and energy through the northern Gulf of Alaska is a top priority for the GEM Program. The GEM Program calls for building upward from oceanography through food and energy toward the large body of information that has accumulated within the management agencies over the past century on the abundance and biology of single species of large vertebrates such as seabirds, pelagic and anadromous fish, and marine and coastal mammals. In watershed and nearshore habitats where human activities are most prominent, it is important to find measures of how anthropogenic factors combine with human factors to influence these ecosystems. By filling gaps in how physical and human forces alter the transport of food and energy, changes in the large vertebrate species and prominent invertebrates, such as birds, shellfish, fish and mammals, can be understood in relation to a broad array of biological and physical observations throughout the region. In the long run, this comprehensive understanding of the ecosystems of the Gulf of Alaska is intended to lead to predictions of use to resource managers. In terms of types of long time series in these habitat types, observations on smaller to microscopic species of marine plants and animals, and physical and chemical observations from below the sea surface are widely lacking (GEM Program Document, Appendix D).

Starting in this fiscal year, 2004, efforts will focus on development of long-term moorings, stations, transects, and surveys in the nearshore and Alaska Coastal Current habitats, recognizing that the most expensive sampling zones to reach on a frequently recurring basis are the ACC and, at some point in the future, the offshore Gulf of Alaska. The limits on GEM fiscal resources likely will require maximum use of volunteer observing ships (VOS), which are commercial vessels that carry various monitoring



instruments. Preparing for instrumentation of VOS and establishing the necessary relationships with ship operators and crews should be a priority in FY 2004 - 2006.

In addition, a whole ecosystem (natural resource) model, as recommended by the National Research Council (NRC 2002) that links biological and physical observations across the habitat types, as well as the North Pacific, in order to understand changes in single species of interest to managers and concerned others. The GEM ecosystem model must be developed with a global perspective given the large spatial scales over which biological and physical phenomena operate. Identification and prioritization of the variables for the GEM program depend in large part on what is needed to operate the GEM ecosystem model. High priority variables needed in the GEM program are a composite of the variables essential to the workings of the GEM ecosystem model and its components: the ocean current model, the nutrient-phytoplankton-zooplankton (NPZ) models, and the Sound Ecosystem Assessment (SEA) pink salmon model (Willette et al. 2001, Patrick et al. 2003) (see Appendix F of the GEM Program Document). In assembling the GEM ecosystem model, emphasis will be placed on detecting changes in the variables that characterize the currents and the transfer of food and energy throughout the north Gulf of Alaska. In this way, changes in the large vertebrate species that are routinely monitored by state and federal government agencies can be better understood in relation to a broad array of biological and physical observations throughout the region.

### ***Overview of the Response to the FY 2004 Invitation***

Sixty-one proposals were received in response to the Invitation (Table 1). The proposals were not evenly distributed across the areas of the Invitation (Table 2), with the Alaska Coastal current receiving the largest response (12), followed by Lingering Oil Effects (11), Community Involvement (9), Watersheds (8), and Nearshore (9). Invitation areas Data Management (4), Modeling (4), and Synthesis (4) had relatively light responses, with only four proposals being received per area. Overall most proposals received were directly responsive to the invitation. Projects funded in FY 2003 that were invited to be considered for further continuation were each assigned to one of the eight areas of the Invitation.

Each proposal received a thorough and independent peer review in a two stage process (Table 3). In the first stage the proposals received 100 reviews from volunteers drawn from a world wide pool of scientists and other professionals who have volunteered to help the GEM Program by submitting their credentials through an automated web-based process to a database of peer review services. In the second stage each of the proposals received 122 reviews for the quality and relevance of the scientific or other professional content to the GEM Program by the Scientific Advisory Committee with the assistance of Dr. Robert Spies, Chair, Lingering Oil Subcommittee, Mr. Rob Bochenek, EVOSTC Data Systems Manager, and Mr. Brett Huber, Chair, GEM Public Advisory Committee. In total each proposal was read by an average of just less than four qualified individuals (Table 3).

The results of the peer review were distilled into recommendations from the STAC for each proposal, and the results of the peer review were distributed to the full Public Advisory Committee within one day after the conclusion of the deliberations. The PAC subsequently met at EVOSTC offices with the Executive Director, the Science Director, Data Systems Manager and Dr. Brenda Norcross, Co-Chair of the STAC, to discuss the proposals, the STAC recommendations, and to provide their own opinions on the proposals.



The Executive Director's first draft recommendations were circulated August 22, 2003 for public comment via e-mail to the approximately 1,000 people who have requested to receive Trustee Council information. The Executive Director's first recommendations were prepared in close consultation with the Science Director following the PAC meeting, and they were based on information developed by staff during review of the proposals, STAC comments and recommendations, PAC comments and recommendations, Science Plan priorities and available funding, among other considerations.

In addition to the findings developed for each project during the initial proposal review period ending 8/21/03, the final funding recommendations from the Executive Director (Table 1, Appendix A) are based on additional information that became available during the public review of the first draft recommendations (8/22/2003).

Table 1. Proposals submitted in alphabetical order by author and abbreviated title, funding recommended by fiscal year, FY 04 – FY 06, and Executive Director's funding recommendation as of 9/24/2003.

<u>Project Title</u>	<u>Funding Information</u>			<u>ED Recommendation</u>
<u>Fiscal year</u>	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>	
Adams-FY04-Fisheries Management	\$46,760.00	\$0.00	\$0.00	Fund
Baird-FY04-Shoreline Habitat Mapping and Community-Based Monitoring	\$20,100.00	\$19,900.00	\$0.00	Fund
Batten-FY04-CPR data	\$135,200.00	\$135,200.00	\$135,200.00	Fund
Bechtol-FY04-Parameters in the N. Gulf of AK	\$50,900.00	\$54,000.00	\$56,000.00	Fund
Ben-David-FY04-Transfer of Nutrients from Sea	\$0.00	\$0.00	\$0.00	Do not Fund
Berenstein-FY04-Pink Salmon Fry Survival	\$0.00	\$0.00	\$0.00	Do not Fund
Bird-FY04-Mobile Data Network-Marine Hwy	\$0.00	\$0.00	\$0.00	Do not Fund
Bird-FY04-Mobile Data Network-Vessels	\$140,900.00	\$129,200.00	\$130,700.00	Defer Funding
Bishop-FY04-Top-down and Bottom-up Processes	\$149,529.00	\$164,030.00	\$151,390.00	Fund
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Bodkin-FY04-Nearshore Monitoring Decision Process	\$10,000.00	\$0.00	\$0.00	Fund
Brown-Schwalenberg-FY04-Subsistence & Stewardship Gathering	\$31,250.00	\$0.00	\$0.00	Defer Funding
Brown-Schwalenberg-FY04-Tribal Involvement in the GEM Program	\$0.00	\$0.00	\$0.00	Do not Fund
Cokelet-FY04-AK Marine Highway System Ferries	\$171,500.00	\$185,900.00	\$145,900.00	Fund
Cooper-FY04-Community-Based Sampling	\$102,512.00	\$85,958.00	\$96,942.00	Fund
Couvillion-FY04-Coordinated Coastal Mapping	\$98,500.00			Defer Funding
DeLorenzo-FY04-Youth Area Watch	\$121,100.00	\$126,400.00	\$133,200.00	Defer Funding

<u>Project Title</u>	<u>Funding Information</u>			<u>ED Recommendation</u>
<u>Fiscal year</u>	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>	
Devens-FY04-PWSRCAC-EVOS long term program	\$141,700.00	\$0.00	\$0.00	Defer Funding
Eckert-FY04-Natural Variability in the Nearshore	\$36,300.00	\$17,500.00	\$0.00	Fund
EVOS TC-FY04- Data System	\$156,800.00			Fund
EVOS TC-FY04-ARLIS	\$160,900.00	\$0.00	\$0.00	Fund
EVOS TC-FY04-Project Management	\$140,000.00			Fund
EVOS TC-FY04-Public Information and Administration	\$863,300.00			Fund
EVOS TC-FY04-Scientific Management	\$391,600.00			Fund
Fall-FY04-Status of Subsistence Uses	\$298,700.00	\$25,600.00	\$0.00	Fund
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Heintz-FY04-Energy Allocation	\$48,400.00	\$42,300.00	\$14,100.00	Fund Contingent
Honnold-FY04-Marine-derived Nutrients on Sockeye Salmon	\$83,200.00	\$82,400.00	\$86,800.00	Fund
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Irvine-FY04-Lingering Oil on Boulder-Armored Beaches	\$71,700.00	\$17,200.00	\$0.00	Defer Funding
Jack-FY04-Sea Otter Abundance	\$0.00	\$0.00	\$0.00	Do not Fund
Kiefer-FY04-Alaskan Groundfish Feeding Ecology	\$80,900.00	\$0.00	\$0.00	Fund
Kline-FY04-Exchange between GOA and PWS	\$142,800.00	\$189,300.00	\$193,500.00	Defer Funding
Knudsen-FY04-Nutrient-Based Resource Management	\$173,216.00	\$157,002.00	\$152,632.00	Fund
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Kopchak-FY04-Resource Mapping	\$0.00	\$0.00	\$0.00	Do not Fund
Kulkarni-FY04-Design for Data Management	\$0.00	\$0.00	\$0.00	Do not Fund
Lilly-FY04-Fate and Transport Modeling	\$0.00	\$0.00	\$0.00	Do not Fund
Macklin-FY04-NGOA Metadatabase	\$100,600.00	\$0.00	\$0.00	Fund
Mann-FY04-Reconstructing Sockeye Populations	\$91,500.00	\$42,500.00	\$40,000.00	Defer Funding
Matkin-FY04-Killer Whales in PWS/Kenai Fjords	\$19,502.00	\$0.00	\$0.00	Defer Funding
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Merritt-FY04-GEM Watershed Synthesis	\$58,091.00	\$39,751.00	\$0.00	Defer Funding
Nelson-FY04-Hydrocarbon Database	\$22,200.00	\$22,200.00	\$22,200.00	Fund

<u>Project Title</u>	<u>Funding Information</u>			<u>ED Recommendation</u>
<u>Fiscal year</u>	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>	
Okkonen-FY04-Monitoring Program in the NE Pacific Ocean	\$27,289.00	\$30,366.00	\$31,455.00	Fund
Pégau-FY04-Studying the ACC	\$0.00	\$0.00	\$0.00	Do not Fund
Renner-FY04-Population Modeling	\$0.00	\$0.00	\$0.00	Do not Fund
Rice-FY04-Lingering Population Status	\$60,000.00	\$61,000.00	\$29,100.00	Defer Funding
Rosenberg-FY04-Harlequin Duck Population	\$37,100.00	\$0.00	\$0.00	Fund Contingent
Ruesink-FY04-Altering the Community Structure	\$81,600.00	\$0.00	\$0.00	Fund
Saupe-FY04-Habitat Web Site	\$21,100.00	\$0.00	\$0.00	Fund
Schneider-FY04-Kodiak Archipelago	\$63,000.00	\$63,000.00	\$63,000.00	Fund
Schoch-FY04-Oceanographic & Ecological Process	\$0.00	\$0.00	\$0.00	Do not Fund
Schumacher-FY04-GEM Infrastructure	\$22,067.00	\$23,645.00	\$22,067.00	Fund
Short-FY04-Monitoring Exxon Valdez Oil & PWS	\$45,900.00	\$0.00	\$0.00	Fund Contingent
Spies-FY04-EVOS Damage Assessment & Restoration	\$201,700.00	\$0.00	\$0.00	Fund Contingent
Stabeno-FY04-Bottom Control	\$49,500.00	\$0.00	\$0.00	Fund
Thorne-FY04-Seafood Waste Discharge	\$72,680.00	\$111,692.00	\$108,943.00	Fund
Vaughan-FY04-Hinchinbrook Entrance	\$81,799.00	\$0.00	\$0.00	Defer Funding
Walker-FY04-Marine Derived Nutrients	\$150,200.00	\$153,400.00	\$149,700.00	Fund
Wang-FY04-Building the GEM Infrastructure - Jia Wang	\$0.00	\$0.00	\$0.00	Do not Fund
Weingartner-FY04-Alaska Coastal Current	\$75,482.00	\$75,482.00	\$75,482.00	Fund
Willette-FY04-Monitoring ACC Dynamics	\$89,800.00	\$68,000.00	\$27,900.00	Fund

### *Fiscal Summary*

	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>
<i>Fund +Contingent:*</i>	\$4,764,314	\$1,678,442	\$1,504,099
<i>Defer</i>	\$1,339,434\$	\$ 778,965	\$ 665,942
<i>Grand Total</i>	<i>TBD</i>	<i>TBD</i>	<i>TBD</i>

\* In FY 04 ONLY this includes funds for Data Management, Administration, Science Management and ARLIS combined. Amounts for EVOS Office in FY 05 and 06, as well as amount of funds allocated to deferred projects are to be determined.



## Fiscal Graphics

The following figures provide graphical representation of pertinent statistics concerning various funding, invitation category, PI professional affiliation, and funding agency distributions for proposals requesting funding. Projects which are affiliated with EVOSTC administration are not represented in the figures below; only those projects replying to the invitation were taken into consideration during the generation of statistics. In addition, projects listed with the recommendation “Fund” or “Fund Contingent” were analyzed for the generation of fiscal graphics (Figures 1, 3, 4 and 5). Figure 2 concerns response to the invitation and takes into account all proposals disregarding what their recommendation status may be.

### Yearly Recommended Funding (Fund + Fund Contingent) per Invitation Category

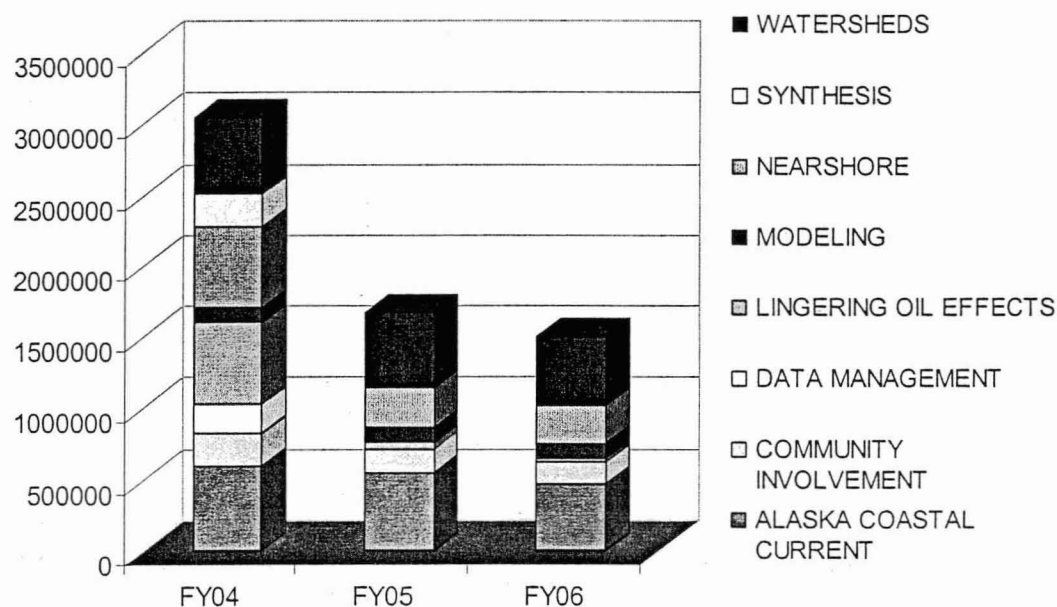


Figure 1. Recommended funding by fiscal year FY 04 – FY 06 per invitation category.

Notice the decreasing funding support for lingering oil effects as fiscal years progress. Other invitation categories persist at approximate consistent funding levels through fiscal iterations. This relationship points to the shift from restoration based funding towards GEM monitoring efforts.

### Number of Proposals Received per Invitation Category

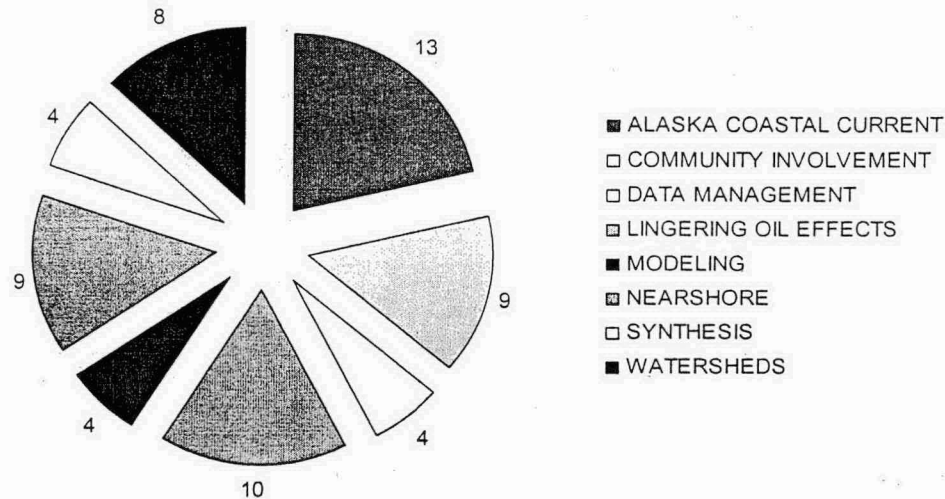


Figure 2. Number of proposals by area of the invitation received in response to the invitation

The overall response to the invitation broken down by invitation category shows that some categories generated little interest; while others attracted a substantial number of responses (Fig. 4). Among proposals selected to be recommended for funding (fund or fund contingent) the Alaska Coastal Current habitat type had the most positive recommendations at seven, but the recommendations were fairly evenly distributed across Invitation categories, from a low of 2 to a high of 7 (Fig. 3).

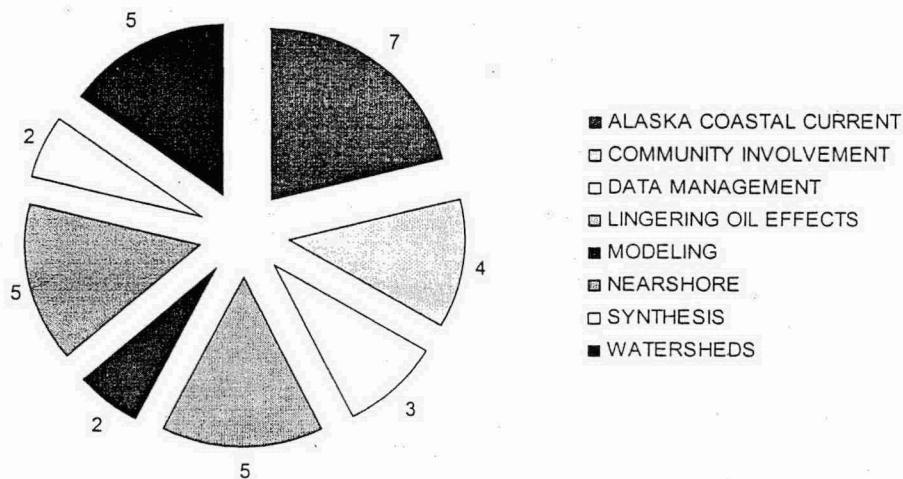
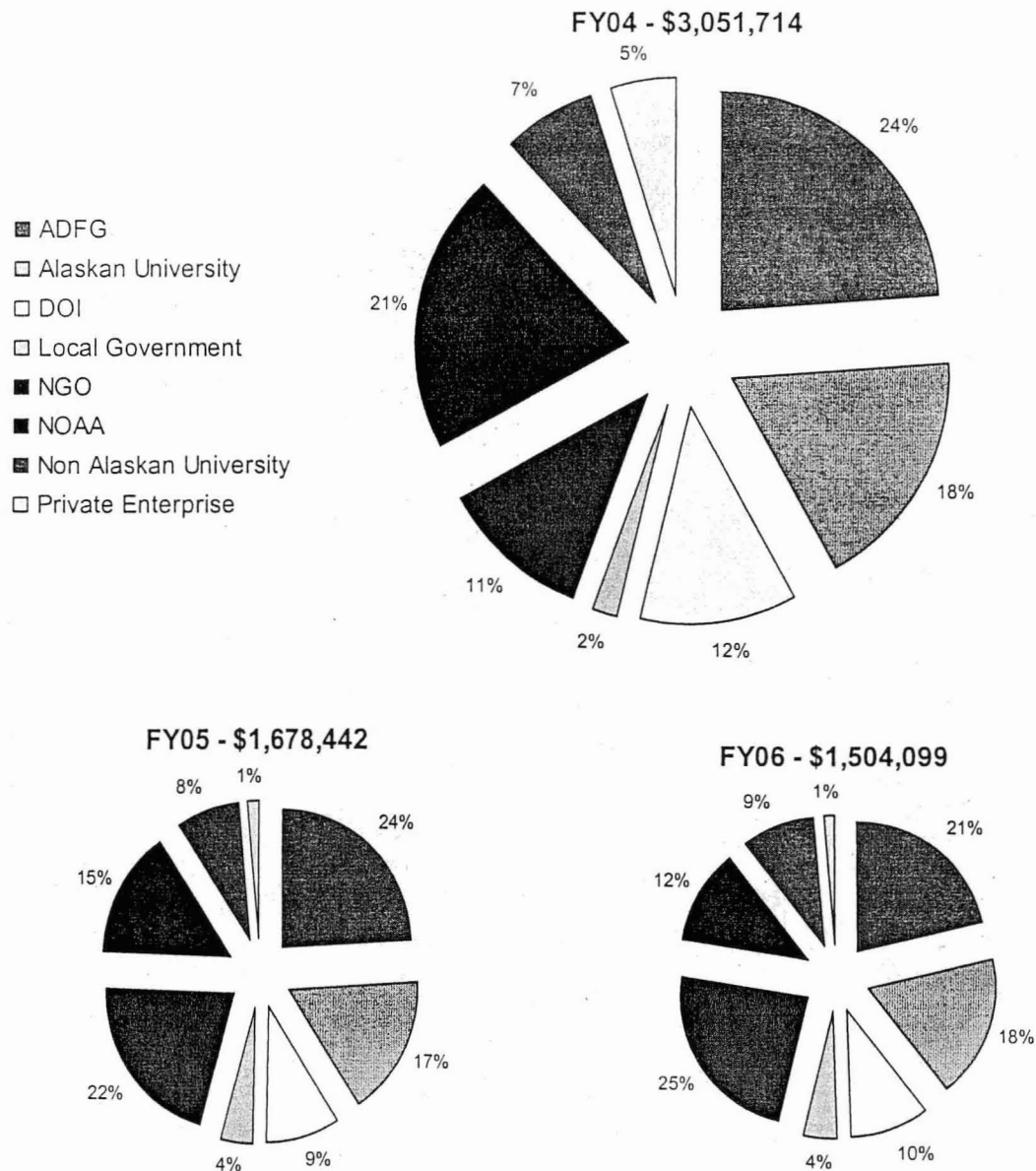


Figure 3. Number of proposals recommended for funding (Fund or Fund Contingent) by area of the Invitation.

### Project Funding Distribution per PI Affiliation per Year

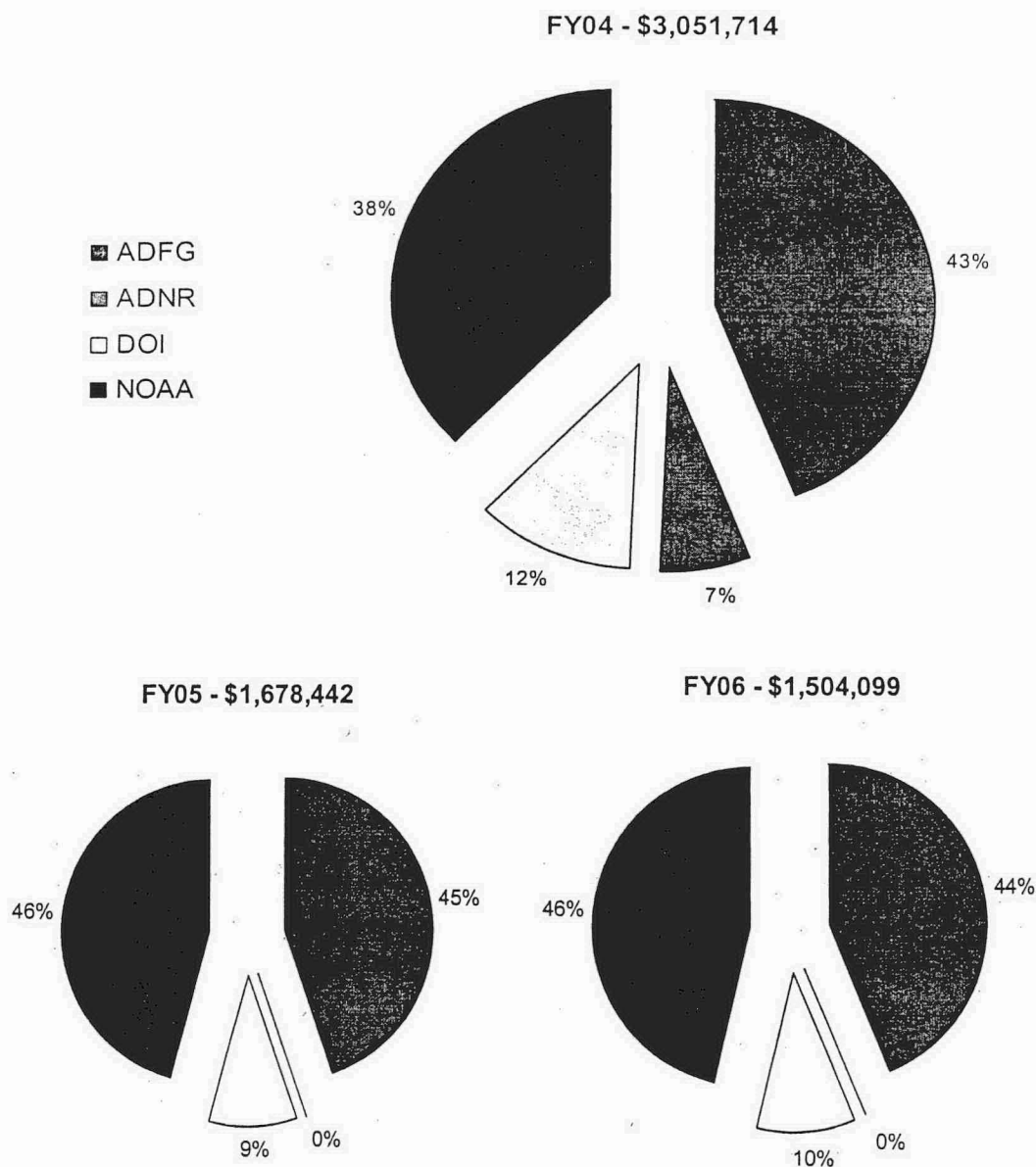


**Figure 4.** Recommended funding (Fund and Fund Contingent) amounts per PI professional affiliation broken down per fiscal year.

Institutional and agency affiliations of PI's show a fairly even distribution of positive recommendations for funding (fund and fund contingent). This figure does not describe agency funding channels for the movement of funds from EVOSTC to the projects, but provides statistics concerning what agencies and institutions received the funding for implementing projects.



### Project Funding Distribution per Agency per Year



**Figure 5.** Recommended funding (Fund and Contingent) amounts administered by EVOS TC agency by fiscal year.

The above figure provides a distribution which describes agency funding channels for movement of funds to PIs broken down per fiscal year. The table below shows the amounts and number of projects per agency in FY 2004 only.

Trustee Agency	Number of projects	Proportion of funding	Amt disbursed	GA @ 9%
ADFG	14	0.43	\$1,312,237	\$118,101
NOAA	15	0.38	\$1,159,651	\$104,369
DOI	3	0.12	\$366,206	\$32,959
DNR	1	0.07	\$213,620	\$19,226
Totals	33		\$3,051,714	\$274,654

Table 3 Summary statistics for peer review results, number of non-STAC peer reviews received, range of non-STAC peer reviews received for each proposal, range of total (non-STAC + STAC) peer reviews for each proposal, average non-STAC peer reviews per proposal, and average total peer reviews per proposal

Number of Non-STAC Peer reviews Received	100
Number of STAC Reviews	122
Range of Non-STAC Peer Reviews per proposal	0-4
Range of Non-STAC + STAC Peer Reviews per proposal	2-6
Average Number of Non-STAC Peer Reviews per proposal	1.64
Average Number of Total Peer Reviews per proposal	3.64

### ***Summary of Recommendations***

The Executive Director recommends that the Trustee Council fund 34 projects (33 proposals plus one EVOSTC Program Management project, 040250) at this time for a total \$3.2M in FY 2004, \$1.7M in FY 2005, \$1.5M in FY 2006, for a total of \$6.4M in FY 2004 – 2006. In addition the Executive Director recommends that the Trustee Council defer action on 14 projects that total \$1.3M in FY 2004, \$0.67M in FY 2005, \$0.78M in FY 2006 for a total of \$2.8M in FY 2004 – FY 2006. Deferred projects may be brought before the Trustee Council for action later during FY 2004, based on availability of funding and other considerations explained in the definitions of deferred projects contained in the Notes to Reader (above). The Executive Director also recommends that another 14 projects be rejected for funding.

On approval of the 34 projects recommended for funding in this Work Plan, together with the budgets approved by the Trustee Council on September 3, 2003 the total authorized by the Council for FY 2004 would be \$4.8M in FY 2004, which is \$0.2M less than the FY 2004 funding cap of \$5M established by the Trustee Council. On adoption of the draft Work Plan the total of all funds approved by the Trustee Council for FY 2004 – FY 2006 would be \$8.0M, which is slightly more than half the \$15M now planned to be available during that time period.

By area of the Invitation for FY 2004 (Table 1.1 on page following) the largest dollar value of recommendations is in the Alaska Coastal Current (\$600K), followed by Lingering Oil Investigations (\$579K), Nearshore (\$562K), Watersheds (\$534K), Synthesis (\$238K), Community Involvement (\$232K), Data Management (\$203K) and Modeling (\$103K) (See also Fig. 4).

Table 1 1 Funding Recommended by Area of the Invitation (Fund and Fund Contingent)

	<i><b>FY 2004</b></i>	<i><b>FY 2005</b></i>	<i><b>FY 2006</b></i>
<i><b>ACC</b></i>	\$599,671	\$548,948	\$471,937
<i><b>COI</b></i>	\$232,372	\$168,858	\$159,942
<i><b>DM</b></i>	\$202,600	\$0	\$0
<i><b>LO</b></i>	\$579,418	\$47,800	\$22,200
<i><b>MOD</b></i>	\$102,902	\$104,358	\$105,338
<i><b>NRS</b></i>	\$562,538	\$275,722	\$260,333
<i><b>SYN</b></i>	\$238,000	\$17,500	\$0
<i><b>WSH</b></i>	\$534,213	\$515,256	\$484,349
<i><b>Total</b></i>	\$3,051,714	\$1,678,442	\$1,504,099

***Table 2 FY 2004 Proposal Recommendations by Area of the Invitation starts on page following***

**Table 2 FY 2004 Proposal Recommendations by Area of the Invitation**

***ALASKA COASTAL CURRENT***

Batten FY04 CPR data  
Bechtol FY04 Parameters in the N Gulf of AK  
Bird FY04 Mobile Data Network Marine Hwy  
Bird FY04 Mobile Data Network-Vessels  
Cokelet FY04 AK Marine Highway System Ferries  
Kline FY04 Exchange between GOA and PWS  
Matkin FY04 Killer Whales in PWS/Kenai Fjords  
Okkonen FY04 Monitoring Program in the NE Pacific Ocean  
Pegau FY04 Studying the ACC  
Stabeno FY04 Bottom Control  
Vaughan FY04 Hinchinbrook Entrance  
Weingartner FY04 Alaska Coastal Current  
Willette FY04 Monitoring ACC Dynamics

***ED RECOMMENDATIONS***

Fund  
Fund  
Do not Fund  
Defer Funding  
Fund  
Defer Funding  
Defer Funding  
Fund  
Do not Fund  
Fund  
Defer Funding  
Fund  
Fund

***COMMUNITY INVOLVEMENT***

Adams FY04 Fisheries Management  
Baird FY04 Shoreline Habitat Mapping and Community-Based Monitoring  
Brown Schwalenberg FY04 Subsistence & Stewardship Gathering  
Brown Schwalenberg FY04 Tribal Involvement in the GEM Program  
Cooper FY04 Community Based Sampling  
DeLorenzo FY04 Youth Area Watch  
Foster FY04-Community Science Dialogues  
Kopchak FY04 Resource Mapping  
Schneider FY04 Kodiak Archipelago

***ED RECOMMENDATIONS***

Fund  
Fund  
Defer Funding  
Do not Fund  
Fund  
Defer Funding  
Do not Fund  
Do not Fund  
Fund

***DATA MANAGEMENT***

Kiefer FY04 Alaskan Groundfish Feeding Ecology  
Kulkarni FY04 Design for Data Management  
Macklin FY04 NGOA Metadatabase  
Saupe FY04 Habitat Web Site

***ED RECOMMENDATIONS***

Fund  
Do not Fund  
Fund  
Fund

***LINGERING OIL EFFECTS***

Bodkin FY04 Lingerig Oil and Sea Otters  
Fall FY04 Status of Subsistence Uses  
Irons FY04 Bird Abundance in PWS  
Irvine FY04 Lingerig Oil on Boulder Armored Beaches  
Lilly FY04 Fate and Transport Modeling  
Nelson FY04 Hydrocarbon Database  
Renner FY04 Population Modeling  
Rice FY04 Lingerig Population Status  
Rosenberg FY04 Harlequin Duck Population  
Short FY04 Monitoring Exxon Valdez Oil & PWS

***ED RECOMMENDATIONS***

Defer Funding  
Fund  
Fund  
Defer Funding  
Do not Fund  
Fund  
Do not Fund  
Defer Funding  
Fund Contingent  
Fund Contingent

***MODELING***

Berenstein FY04 Pink Salmon Fry Survival  
McNutt FY04 GEM Infrastructure  
Schumacher FY04 GEM Infrastructure  
Wang FY04 Building the GEM Infrastructure Jia Wang

***ED RECOMMENDATIONS***

Do not Fund  
Fund  
Fund  
Do not Fund

***NEARSHORE***

Bishop FY04 Top down and Bottom up Processes  
Bodkin FY04 Nearshore Monitoring Decision Process  
Couvillion FY04 Coordinated Coastal Mapping  
Devens FY04 PWSRCAC EVOS long term program  
Jack FY04 Sea Otter Abundance  
Konar-FY04 Natural Geography in Shore Areas  
Ruesink FY04 Altering the Community Structure  
Schoch FY04 Oceanographic & Ecological Process  
Thorne FY04 Seafood Waste Discharge

***ED RECOMMENDATIONS***

Fund  
Fund  
Defer Funding  
Defer Funding  
Do not Fund  
Fund  
Fund  
Do not Fund  
Fund

***SYNTHESIS***

Eckert FY04 Natural Variability in the Nearshore  
Mann FY04 Reconstructing Sockeye Populations  
Merritt FY04 GEM Watershed Synthesis  
Spies FY04 EVOS Damage Assessment & Restoration

***ED RECOMMENDATIONS***

Fund  
Defer Funding  
Defer Funding  
Fund Contingent

***WATERSHEDS***

Ben David FY04 Transfer of Nutrients from Sea  
Finney FY04 Marine terrestrial Linkages  
Guay FY04 Assessing Watershed  
Heintz FY04 Energy Allocation  
Honnold FY04-Marine derived Nutrients on Sockeye Salmon  
Knudsen FY04 Nutrient Based Resource Management  
Mazumder FY04 Marine Derived Nutrients  
Walker FY04 Marine Derived Nutrients

***ED RECOMMENDATIONS***

Do not Fund  
Fund  
Do not Fund  
Fund Contingent  
Fund  
Fund  
Defer Funding  
Fund

## *Discussion of Proposals by Area of Invitation*

### *Alaska Coastal Current*

#### *Introduction*

Much of the Gulf of Alaska is a very deep (circa 4000m) reservoir of salty water bearing carbon and nutrients that would fuel biological production if transported to the surface waters of the GEM habitat types. Paradoxically, the ocean processes such as thermohaline circulation and upwelling that transport deeper waters toward the relatively shallow depths appear to be absent or short-lived in the northern Gulf. The opposite condition from upwelling, coastal downwelling is usually the case in the Gulf, particularly in winter. It is known that cross-shelf, surface Ekman transport in winter cannot account for the high nutrient concentrations observed on the inner shelf in spring (Childers 2000, Whitledge 2000). Other mechanisms are possible. In summer, when downwelling relaxes, salty, nutrient-rich water from offshore invades the inner shelf (Royer 1975), but the annual extent of the invasion varies and may be controlled by forces with periods of approximately two decades (Parker et al 1995). Vertical mixing is strong through the winter and redistributes fresh water, salt and possibly nutrients throughout the water column, so a combination of mechanisms possibly is involved in the annual nutrient re-supply to the inner shelf (GEM Program Document, Chapter 7.6.4).

Even though upwelling appears to occur only briefly in the Gulf (GEM Program Document, Chapter 7.6.2, Royer 1982, 2000, Reed and Schumacher 1986), the northern and western Gulf and adjacent waters are nonetheless highly productive of benthic, pelagic and littoral vertebrates (fish, birds and mammals) and benthic invertebrates such as crustaceans and mollusks (i.e. Feder and Jewett 1986, Cooney 1986, Martin 1997, Witherell 1999, Kruse et al 2000, Rogers et al 1986, Highsmith et al 1994, Purcell et al 2000, Rooper and Halderson 2000). Solving the mystery of the missing ecological mechanisms is essential to explain how the ingredients necessary for biological production of plants and animals (nutrients and food) are transported to be converted into the populations of fish, shellfish, birds, and mammals that are the centers of attention for natural resource management agencies and coastal economies.

A reasonable working solution to the mystery of the missing ecological mechanisms starts with the processes that change the strength of the factors driving the currents of the region (GEM Program Document, Chapter 7.6.4). Both the area of the ACC and adjacent shelf and slope are strongly affected by advection (mostly horizontal transport of momentum, energy, and dissolved and suspended materials by ocean currents), implying that climate perturbations, even those occurring far from the GEM study area, can be efficiently communicated into the northwestern GOA by ocean circulation (GEM Program Document, Chapter 7.6.2, p. 130). The strong advection also implies that processes occurring as far upstream as the northwestern contiguous United States might substantially influence biological production within the GEM habitat types.

#### *Invitation Requirements*

The top priority for GEM in the ACC starting in FY 04 is to initiate the process that leads to collecting basic physical (temperature and salinity) and biological observations (optical

measures, such as fluorescence) from a vessel of the Alaska Marine Highway System (AMHS) or other ship of opportunity operating in the waters of Prince William Sound, outer Kenai Peninsula, lower Cook Inlet, Kodiak and the Alaska Peninsula. Observations on these basic variables will be of use to a range of scientists, resource managers, and public members for multiple purposes and are fundamental to the future GEM modeling program. As part of this objective, continued development of the vessel-of-opportunity projects deploying the continuous plankton recorder and thermosalinograph into long-term projects is desirable. Another priority is to begin applying monitoring results to management of development activities in the ACC.

### *Synopsis of ACC Recommendations*

Six of the seven proposals recommended for commitment of funding in the Alaska Coastal Current respond directly to the top priority of the Science Plan, which is to use ships of opportunity to acquire basic physical and biological observations (Batten, Bechtol, Cokelet, Okkonen, Stabenro and Willette). The seventh (Weingartner) is acquiring basic physical and biological observations from a mooring, GAK1, which is the second oldest continuous set of subsurface observations in the North Pacific.

Taken as a whole, the seven ACC projects recommended for funding provide the starting point for the backbone of long-term biological and physical observations to drive the GEM biophysical modeling effort recommended for funding below. The backbone to be provided by the GEM VOS is as yet incomplete, lacking coverage in Prince William Sound. The full implementation of the GEM ACC monitoring program must go hand in glove with the development of the GEM Model (see Modeling section below), since the exact placement of moorings, cruise transects and other monitoring platforms depends on the questions to be answered and the precision desired in the answers, which can only be understood through modeling. The data provided by these seven projects will be invaluable in getting the models to the point where they can be used to advise and inform the implementation of the full GEM ACC monitoring program, perhaps in FY 2010, depending on the support provided by the Integrated and Sustained Ocean Observing System (IOOS).

Of the four projects recommended to be deferred, two are directed at one of the top priorities in the Science Plan, understanding the exchange of water, nutrients and carbon between the Alaska Coastal Current and Prince William Sound (Vaughan and Kline). Voluntary observing ships would be developed inside Prince William Sound by the third deferred proposal (Bird), which is a geographic area not yet addressed by the other six VOS proposals now recommended for funding. The fourth deferred project would continue a long time series on killer whales (Matkin). Although the Matkin project was found not appropriate to the purposes of the lingering oil investigations, it would be desirable under the ACC Science Plan, as a low cost, highly leveraged project providing a record of the abundance and social structure of the penultimate apex predator.

The addition of the deferred ACC projects would complete the basic geographic coverage of the VOS program for the spill affected area, and provide the start on a data set that is essential to understanding changes in salmon and herring resources in Prince William Sound, as well as fluctuations of bird and mammal populations in the northern Gulf. Continuation of the killer whale time series at the proposed price is a bargain.

### ACC Proposals Recommended for Funding and Deferral

✓ Batten-FY04-CPR data	\$135,200	\$135,200	\$135,200	Fund
Bechtol-FY04-Parameters in the N. Gulf of AK	\$50,900	\$54,000	\$56,000	Fund
✓ Cokelet-FY04-AK Marine Highway System Ferries	\$171,500	\$185,900	\$145,900	Fund
Okkonen-FY04-Monitoring Program in the NE Pacific Ocean	\$27,289	\$30,366	\$31,455	Fund
Stabeno-FY04-Bottom Control	\$49,500	\$0	\$0	Fund
✓ Weingartner-FY04-Alaska Coastal Current	\$75,482	\$75,482	\$75,482	Fund
Willette-FY04-Monitoring ACC Dynamics	\$89,800	\$68,000	\$27,900	Fund
<b>Fund + Contingent Totals</b>	<b>\$599,671</b>	<b>\$548,948</b>	<b>\$471,937</b>	
Matkin-FY04-Killer Whales in PWS/Kenai Fjords	\$19,502	\$0	\$0	Defer
Vaughan-FY04-Hinchinbrook Entrance	\$81,799	\$0	\$0	Defer
Kline-FY04-Exchange between GOA and PWS	\$142,800	\$189,300	\$193,500	Defer
Bird-FY04-Mobile Data Network-Vessels	\$140,900	\$129,200	\$130,700	Defer
<b>Defer Totals</b>	<b>\$385,001</b>	<b>\$318,500</b>	<b>\$324,200</b>	
<b>Grand Total</b>	<b>\$984,672</b>	<b>\$867,448</b>	<b>\$796,137</b>	

## Community Involvement

### Introduction

Meaningful public and community participation has long been an essential part of the Trustee Council's process and an essential strategy for implementing the GEM Program (GEM Program Document, Chapters 1 and 3; NRC 2002). Current and future GEM monitoring projects are encouraged to have a strong community involvement component whenever possible. Comprehensive strategies for incorporating community involvement in GEM projects are being developed now under GEM Project 030575 (GEM Program Community Involvement/Community-Based Monitoring Plan) for the Council's consideration in the fall of 2003. The report is expected to provide the basis for a thorough examination of the role of community involvement in the GEM program to be conducted by the executive Director during FY 2004. Until that examination is completed and the recommended community involvement approach reviewed, and adopted by the Council, only three specific community involvement projects are being recommended.



### ***Invitation Requirements***

Proposals were invited to develop specific products such as targeted workshops, databases, maps, publications, and community science symposia that provide services to communities and stakeholders in the GEM region related to marine ecosystem health and sustainability. Proposals were expected to establish their relevance to community needs, potential to develop community resources of potential use to other GEM projects, and their link to the goals of the GEM Program. The report on approaches to community involvement commissioned by the Trustee Council in FY 2003 will not be available until the end of September 2003. The report is expected to provide the basis for a thorough examination of the role of community involvement in the GEM program to be conducted by the Executive Director during FY 2004. Until that examination is complete funding of community involvement projects will be based on responsiveness to the criteria in the FY 04 Invitation, past performance and future utility for implementing the GEM program.

### ***Synopsis of Community Involvement Recommendations***

The four community involvement proposals recommended for funding contribute directly to the Trustee Council objectives of 1) involving communities in the oil spill affected area in decisions on the questions addressed and the projects implemented (Adams), 2) converting data into products useful to communities and governments (Baird), and 3) involving members of the community in collecting long-term data sets relevant to the Science Plan (Cooper and Schneider).

Taken as a whole, the four community involvement proposals meet the criteria in the FY 04 Invitation for targeted workshops, information products, and community science meetings that provide services to communities and stakeholders in the GEM region related to marine ecosystem health and sustainability. Three of the four projects' principal investigators have excellent records of contributing to the development of the GEM program (Adams, Cooper, and Schneider) and all four projects show substantial future utility for implementing the GEM program. In addition the four projects are expected to complement and support the efforts of the Executive Director to thoroughly examine the role of community involvement in the GEM program during FY 2004.

Addition of the two deferred projects would provide options for the Executive Director in working with the Chugach School District on developing a Youth Area Watch proposal that is compatible with the GEM program (DeLorenzo) and in working with the Chugach Regional Resources Commission on items of mutual interest in regard to the commemoration of the fifteenth anniversary of the oil spill (Brown-Schwalenberg).

***Table of Community Involvement Recommendations on page following***

**Community Involvement Proposals Recommended for Fund and Defer**

	FY 2002	FY 2003	FY 2004	Fund/Defer
Adams-FY04-Fisheries Management	\$46,760	\$0	\$0	Fund
Baird-FY04-Shoreline Habitat Mapping and Community-Based Monitoring	\$20,100	\$19,900	\$0	Fund
Cooper-FY04-Community-Based Sampling	\$102,512	\$85,958	\$96,942	Fund
Schneider-FY04-Kodiak Archipelago	\$63,000	\$63,000	\$63,000	Fund
DeLorenzo-FY04-Youth Area Watch	\$121,100	\$126,400	\$133,200	Defer
Brown-Schwalenberg-FY04-Subsistence & Stewardship Gathering	\$31,250	\$0	\$0	Defer
<b>Fund + Contingent Totals</b>	<b>\$232,372</b>	<b>\$168,858</b>	<b>\$159,942</b>	
<b>Defer Totals</b>	<b>\$152,350</b>	<b>\$126,400</b>	<b>\$133,200</b>	
<b>Grand Total</b>	<b>\$384,722</b>	<b>\$295,258</b>	<b>\$293,142</b>	

*water shed piece*

**Data Management**

**Introduction**

The Data Management and Information Transfer component of GEM includes the following functions: data receipt, quality control (QC), storage and maintenance, archiving and retrieval, administrative support, and the systems necessary to automate as many of these procedures as possible. This component also includes programs needed to create the custom data and information products that will be provided to the modeling and applications components, and to the users of this information. Data Management and Information Transfer provides the essential function of extracting the full scientific and societal benefits from GEM projects (NRC 2002; GEM Program Document, Chapter 9). Data generated by GEM projects need to be converted into useful information that is readily available in a timely fashion to the scientific communities, resource managers, resource dependent people and their communities, policy makers, and other members of the public. In addition, data sets and information regarding other research and monitoring activities in the GEM region must be readily accessible to EVOS staff and contractors, GEM committees and working groups (if any), state and federal resource agencies, and concerned members of the public in order to facilitate gap analysis during project selection and implementation, and maximize the use of all data collected (GEM Program Document, Chapter 3).

**Invitation Requirements**

Proposals were invited to construct a database of metadata describing marine related databases from the northern Gulf of Alaska relevant to GEM. Working from past and present efforts of GEM, PICES, NPRB, UAF/IMS, PMEL and others, projects would compile a list of databases related to the physical and biological features of the northern Gulf of Alaska and assess and analyze their potential relevance to GEM. Metadata descriptions of existing datasets would include thematic and semantic descriptors (i.e.,

study context such as PI, funding source and locality, species study association, listing of physical/biological measurements performed by study, and quantity and quality of measurements performed) In addition, a syntactic metadata description will be required which would include, but may not be limited to, file format, file size, and storage mechanism and location

The GEM objective is to create a comprehensive, web accessible georeferenced database of the marine-related physical and biological databases of the northern Gulf of Alaska, building on standards and systems already in place, such as the State of Alaska's Cooperatively Implemented Information Management System (CIIMMS) and the STORET database The successful proposals were expected to describe an approach that assigns priorities for inclusion of databases based on a combination of factors such as length of time series, use in existing physical or biological models, and relevance to GEM PIs of the successful proposal will be expected to work with GEM staff to create a list of predefined criteria which assigns a quantitative value summarizing the importance of the dataset to specific GEM efforts Cost efficiencies through cooperation, coordination, and integration with similar efforts covering related geographic areas are expected Ways and means of insuring close coordination with GEM modeling efforts should be described Essential requirements are ease of web access and export of information to other systems Consult GEM Program Document Chapters 8 and 9 and NRC Chapter 7 for further background

In addition to the metadatabase solicitation, the Invitation also asked for a pilot project to apply the Ocean Biological Information System (OBIS) within the GEM Region The proposals were expected to show how to set up a regional OBIS node by deploying an instance of the OBIS database structure In addition, the proposal would create a plan to facilitate the absorption into the regional OBIS node of past, present and future marine taxonomic data collection efforts Information on OBIS can be accessed via the web at <http://marine.rutgers.edu/OBIS/> Working with a resource management agency, the proposal would identify a manageable data and information system to host the pilot demonstration and provide an implementation schedule and plan for the OBIS software A successful proposal would define a method to isolate candidate historic datasets which have characteristics which lend themselves to be easily absorbed into the OBIS database structure Preference should be given to datasets that span multiple agencies The data system chosen for the pilot project is expected to have scientific relevance to themes presented in the GEM Program Document and GEM Science Plan

### ***Synopsis of Data Management Recommendations***

Two of the three data management proposals recommended for funding directly further GEM objectives by building a database of metadata describing marine related databases from the northern Gulf of Alaska relevant to GEM (Macklin) and by implementing a pilot project to apply the Ocean Biological Information System (OBIS) within the GEM Region (Kiefer) Both the metadatabase and OBIS projects are designed to make GEM data and the data of other sources needed by the GEM model and other projects readily and cheaply accessible OBIS is a national standard for making primarily biological data collected by agencies available, and the metadatabase project builds on a companion effort already funded by NOAA and the NPRB

The third data management proposal brings together and makes accessible much of the shoreline mapping data sets that have been gathered by GEM, Cook Inlet Regional Citizens Advisory Council, and others (Saupe). Developing coordination among shoreline mapping efforts and making information about all the data accessible in one place on the web was recommended by a GEM sponsored workshop earlier this year.

*Data Management*

**Community Involvement Proposals Recommended for Funding**

Proposal	FY 2004	FY 2005	FY 2006	Fund Rec.
Kiefer-FY04-Alaskan Groundfish Feeding Ecology	\$80,900	\$0	\$0	Fund
Macklin-FY04-NGOA Metadatabase	\$100,600	\$0	\$0	Fund
Saupe-FY04-Habitat Web Site	\$21,100	\$0	\$0	Fund
<b>Fund + Contingent Totals</b>	<b>\$202,600</b>	<b>\$0</b>	<b>\$0</b>	
<b>Grand Total</b>	<b>\$202,600</b>	<b>\$0</b>	<b>\$0</b>	

## ***Lingering Oil Effects***

### ***Introduction***

The Trustee Council continues to be concerned about *Exxon Valdez* oil remaining in the marine environment and any effects it may be having on injured resources. Injured resources are identified and their current status described on the Trustee Council's web site at <http://www.oilspill.state.ak.us/facts/status.html>. Current objectives for the Lingering Oil Effects component of the Council's program are focused on examining the fate and effects of the remaining oil on injured resources and services and especially populations of two species in western Prince William Sound, harlequin ducks and sea otters. These populations have shown continuing exposure to hydrocarbons in localities where potentially toxic forms of oil from the *Exxon Valdez* are known to persist. Objectives for FY 04 also include learning about the status of subsistence uses of the injured resources in the spill affected areas for comparison to an earlier survey in 1998.

The reasons that some populations of injured species in Prince William Sound have not met the criteria established for their recovery in the nearly 14 years since the oil spill are still not clear. For some species it has not been possible to clearly separate the possible toxic effects of oiling from the possible effects of natural causes such as climate change and predation. For this reason, GEM projects that address injured species and ecosystems are designed to understand the effects of natural forces on populations and their productivity. The knowledge gained may permit at least a retrospective understanding of oil injury versus other impacts for species injured by *Exxon Valdez* oil, and provide the background on natural forces necessary to understand effects of oiling in future oil spills.



### ***Invitation Requirements***

Proposals were invited to examine the fate and effects of *Exxon Valdez* oil in western Prince William Sound. Proposals specifically addressing these effects on populations of sea otters and harlequin ducks were of interest. Proposals were also requested to examine the status of subsistence activities in the spill affected areas. In addition to the objectives and examples described here, proposers may use this invitation to suggest other approaches to aid the recovery of other resources and services that were identified by the Trustee Council as having been injured by the oil spill. However, the Trustee Council's emphasis in FY 04 will be on development of the GEM Program as its primary restoration activity.

Studies were invited on bioavailability of lingering Oil in Prince William Sound. Research conducted in Prince William Sound in 2001 estimated that about 28 acres of intertidal beach remain contaminated from spilled *Exxon Valdez* oil. The Trustee Council is interested in evaluating the bioavailability of this oil to sea otters and harlequin ducks in the Prince William Sound area. Proposals were invited to evaluate foraging activities of sea otters in oiled areas, collect sea otter mortality, emigration and population data, and monitor harlequin duck recovery. Studies were also invited on monitoring of presence of lingering oil. The Trustee Council is interested in establishing a strategy for monitoring persistence of *Exxon Valdez* oil, and its relationship to other sources of contamination in Prince William Sound.

A follow-up study to the 1998 survey of subsistence uses in spill affected Areas was invited. The last complete survey of the status of subsistence uses in spill-impacted communities was conducted in 1998. FY 04 is six years later, and the Trustee Council will consider proposals to evaluate the status of subsistence uses by collecting, analyzing, and reporting information about current subsistence uses in a subset of oil spill area communities using methodology that is comparable with previous research results. The evaluation is expected to be a collaborative effort in which the study communities are partners in each phase of the study.

### ***Synopsis of Lingering Oil Recommendations***

Four of the five lingering oil proposals recommended for funding relate directly to the Trustee Council's basic responsibilities to monitor the long-term effects of the oil spill and the status of injured species (Fall, Irons, Rosenberg) or to maintain evidence of oiling (Nelson). The fifth (Short) offers to address the tasks necessary to integrate long-term monitoring of lingering oil effects into GEM projects. Taken together the five proposals address the most pressing needs of the Trustee Council for linking the investigations of the Restoration program on injured species to the GEM Program, and to meeting basic legal requirements for maintenance of physical data.

The three deferred projects would look at fate of the *Exxon Valdez* oil outside Prince William Sound (Irvine) and at the fate and effects of oil inside Prince William Sound (Bodkin-Lingering and Rice). In addition, two of the three (Rice and Bodkin-Lingering) may also provide information on damages that could not have been foreseen at the time of the settlement of the governments' civil claims against what was then Exxon Corporation. Outstanding questions relating to the deferral are what was learned

during the 2003 field season, and what could be learned in the 2004 field season that is essential to the interests of the Trustee Council. Such information will not be available until after November 7, 2003, so the recommendations on the projects could not be formulated beyond deferral.

### *Lingering Oil Proposals Recommended for Funding and Deferral*

<i>Proposal</i>	<i>FY 2004</i>	<i>FY 2005</i>	<i>FY 2006</i>	<i>ED REC</i>
Fall-FY04-Status of Subsistence Uses	\$298,700	\$25,600	\$0	Fund
Irons-FY04-Bird Abundance in PWS	\$175,518	\$0	\$0	Fund
Nelson-FY04-Hydrocarbon Database	\$22,200	\$22,200	\$22,200	Fund
Rosenberg-FY04-Harlequin Duck Population	\$37,100	\$0	\$0	Fund Contingent
✓ Short-FY04-Monitoring Exxon Valdez Oil & PWS	\$45,900	\$0	\$0	Fund Contingent
✓ Rice-FY04-Lingering Population Status	\$60,000	\$61,000	\$29,100	Defer
Irvine-FY04-Lingering Oil on Boulder-Armored Beaches	\$71,700	\$17,200	\$0	Defer
✓ Bodkin-FY04-Lingering Oil and Sea Otters	\$134,300	\$26,200	\$6,500	Defer
<i>Fund + Contingent Totals</i>	\$579,418	\$47,800	\$22,200	
<i>Defer Totals</i>	\$266,000	\$104,400	\$35,600	
<i>Grand Total</i>	\$845,418	\$152,200	\$57,800	

## *Modeling*

### *Introduction*

One of the top overall priorities for the GEM Program is to develop a whole-ecosystem natural resource model as an adaptive management tool for guiding the GEM monitoring program (see GEM Program Document, Chapter 8, and NRC 2002, Chapter 7). An interdisciplinary biophysical modeling effort is essential to developing monitoring efforts in all of the habitat types, as well as the data management and information transfer component of the program. Modeling helps to understand the limitations on what can be learned from sampling in different time and space scales through simulations based on data from the projects. The ultimate long-term purpose of the model is to describe, in relation to biological and physical variables, the abundance through time of seabird, marine mammal and fish species that are selected for relevance to management interests. Modeling is also used to identify and refine measures, such as time series of biological or physical measurements that are best suited to communicate publicly the current status of the ecosystem for the GEM contribution to a Gulf of Alaska section in a North Pacific Ecosystem Status Report now under development by PICES and others.

### *Invitation Requirements*

Proposals were invited that address how an interdisciplinary biophysical model of the northern Gulf of Alaska would be developed in the short-term. As envisioned, building the model would start from existing physical and biological models; hence, the means of cooperation, coordination, integration, and achieving cost efficiencies with existing modeling efforts must be emphasized in a successful proposal. Ways and means of communicating the contents, functions and outputs from the model to a variety of different disciplines and across a variety of common operating systems should also be carefully described, as well as data assimilation strategies for selecting time and space scales for biological and physical monitoring.

### *Synopsis of Modeling Recommendations*

The two proposals recommended for funding (McNutt and Schumacher) are related and complementary activities designed to assemble the team necessary to produce the GEM biophysical model, and to conduct the workshops necessary to begin the consensus building process in the scientific and other types of communities. It is expected that the community assembled by McNutt and Schumacher will be able to provide guidance to the EVOSTC STAC and staff on how to craft future Invitations for Proposals in support of the modeling effort, as well as contribute to the development of invitations for proposals for the monitoring programs for the four habitat types.

### *Modeling Proposals Recommended for Funding*

<i>Proposal</i>	<i>FY 2004</i>	<i>FY 2005</i>	<i>FY 2006</i>	<i>ED REC.</i>
McNutt-FY04-GEM Infrastructure	\$80,835	\$80,713	\$83,271	Fund
Schumacher-FY04-GEM Infrastructure	\$22,067	\$23,645	\$22,067	Fund
<i>Fund + Contingent Totals</i>	\$102,902	\$104,358	\$105,338	
<i>Grand Total</i>	\$102,902	\$104,358	\$105,338	

### *Nearshore*

#### *Introduction*

Most of the objectives for the nearshore in FY 04 will be met by projects underway in FY 2003 and expected to continue in FY 2004. Continuing projects are expected to receive the bulk of the funding. However, an additional objective to increase the incorporation of human effects into the research on nearshore monitoring, in order to begin applying monitoring results to management of human activities in the nearshore, was invited.

#### *Invitation Requirements*

Proposals were invited to analyze the information needed to support resource and environmental management decisions for human activities in the nearshore. Building on

the GEM Program Document (see especially Chapter 7 14-15), the proposals were expected to analyze the information needed to support resource and environmental management decisions for a range of human activities (oil and gas development, seafood processing, tourism and recreation, etc ) in the nearshore in one of the major geographic regions of the GEM area (Prince William Sound, Cook Inlet or Kodiak-Afognak) Working in close cooperation with state and federal agencies actively engaged in resource and environmental management activities and reviewing the current scientific literature, the analysis was expected to identify gaps by comparing information needed by managers to that actually available The analysis was to address all aspects of the suitability of past, current and future data and information products needed to support resource and environmental management decisions

### ***Synopsis of Nearshore Recommendations***

Of the five nearshore proposals recommended for funding, three are to continue efforts underway in FY 2003 that are expected to lead to designs for nearshore monitoring stations and strengthened community involvement in nearshore investigations (Bishop, Konar, Ruesink) in FY 2005 or FY 2006 One project (Bodkin-Nearshore) is the conclusion of an effort to build a geographically referenced database of past nearshore investigations to guide site selection and design of nearshore monitoring stations The fifth project recommended for funding (Thorne) adds the dimensions of seafood waste discharge monitoring to research into the design of nearshore monitoring stations not present in any of the other nearshore projects

Taken together, the five nearshore proposals recommended for funding provide a strong start to implementing the nearshore monitoring program, making it likely that the nearshore will be the first of the habitat types to enter the monitoring phase envisioned in the Science Plan The presence of a nearshore synthesis effort in FY 2004 (Eckert, see Synthesis section below) combined with earlier planning efforts funded by EVOSTC that were led by Carl Schoch, Ginny Eckert and Tom Dean, makes the nearshore habitat type the most advanced As a result of these five projects, the Synthesis project, and their precursors, the call for nearshore monitoring implementation proposals could be part of the FY 2006 Invitation for Proposals

Addition of one of the two deferred projects would initiate the much needed formal coordination of nearshore mapping efforts (Couvillion) that goes well beyond that provided by the low cost website (Saupe) recommended under the Data Management area of the Invitation The coordination effort was originally recommended for funding because it was endorsed by the EVOS sponsored workshop on mapping of coastal habitats earlier this year, and it would contribute valuable resources to the process of site selection and implementation of nearshore monitoring stations However fiscal constraints not foreseen at the time of the fund recommendation have changed the recommendation on this project to deferral

Addition of the other deferred project (Devens) would allow the Science Director and the Executive Director to develop a partnership with the Prince William Sound Regional Citizen's Advisory Council to incorporate an existing time series of data on contaminants into nearshore monitoring (the PWSRCAC's LTEMP project) Building on the results of the joint PWSRCAC-GEM project in FY 2003 that have not yet been evaluated, the Devens proposal would be adapted to make LTEMP responsive to the needs of GEM nearshore monitoring



**Nearshore Proposals Recommended for Funding and Deferral**

	FY 2004	FY 2005	FY 2006	Funding
✓ Bishop-FY04-Top-down and Bottom-up Processes	\$149,529	\$164,030	\$151,390	Fund
✓ Bodkin-FY04-Nearshore Monitoring Decision Process	\$10,000	\$0	\$0	Fund
✓ Konar-FY04-Natural Geography in Shore Areas	\$248,729	\$0	\$0	Fund
✓ Ruesink-FY04-Altering the Community Structure	\$81,600	\$0	\$0	Fund
✓ Thorne-FY04-Seafood Waste Discharge	\$72,680	\$111,692	\$108,943	Fund
Couvillion-FY04-Coordinated Coastal Mapping	\$98,500	\$0	\$0	Defer Funding
Devens-FY04-PWSRCAC-EVOS long-term program	\$141,700	\$0	\$0	Defer Funding
<b>Fund + Contingent Totals</b>	<b>\$562,538</b>	<b>\$275,722</b>	<b>\$260,333</b>	
<b>Defer Totals</b>	<b>\$240,200</b>	<b>\$0</b>	<b>\$0</b>	
<b>Grand Total</b>	<b>\$802,738</b>	<b>\$275,722</b>	<b>\$260,3</b>	

## Synthesis

### Introduction

The required scientific guidance for implementing the GEM program is based on putting together ideas, pieces of information from the scientific literature, and the potential relations among existing data gathering programs, including GEM (see Chapter 3 of the GEM Program Document for further information), to form a larger picture. Synthesis is the entry point to the cycle of monitoring and research. Synthesis builds on past experience to update the current understanding of the northern Gulf of Alaska marine ecosystems. It brings together existing data and information from any number of disciplines, times and regions to evaluate different aspects of the GEM Program's conceptual foundation, central hypotheses and related ideas, working from the perspective of a habitat type.

The primary purposes of the synthesis activities in FY 2004 are to (1) fully develop the introduction to the habitat types in the GEM Science Plan and (2) point out options for projects that might be implemented in FY 06 and beyond.

### Invitation Requirements

Proposals were invited to provide a synthesis of scientific literature and existing data gathering programs to serve as the introduction to the GEM Science Plan sections for three of the four GEM habitat types: Alaska Coastal Current, nearshore and watersheds. Bearing in mind that the boundaries of habitats are not rigidly drawn (Chapter 2, GEM Program Document), proposals were expected to concentrate on one habitat type. However, each proposal was also expected to address linkages of its habitat type with the other habitat types. In addition, proposals were to demonstrate how the synthesis would proceed from the primary source documents for GEM--the GEM

Program Document, the GEM Science Plan, and the National Research Council's GEM review book (A Century of Ecosystem Science, 2002), and Exxon Valdez Oil Spill Restoration Plan - Update on Injured Resources and Services (August 2002), all found at <http://www.oilspill.state.ak.us/gem/documents.html>) -- to incorporate scientific literature and data gathering activities not addressed in the source documents. In addition, synthesis documents were to be designed incorporate, to the extent they are available, the results of Restoration Program research, as developed in the three- year EVOS Restoration Project /600 (Synthesis of the Ecological Findings from the EVOS Damage Assessment and Restoration Program). Methods were to include consultation with EVOS staff and contractors, GEM committees and relevant working groups (if any), state and federal resource agencies and concerned members of the public. At a minimum, the results of the synthesis were to be presented orally at a public meeting and should be suitable for publication as a review article, as well as incorporation into the relevant sections of the GEM Science Plan and the Gulf of Alaska section of a North Pacific Ecosystem Status Report now under development by the North Pacific Science Organization (PICES; see EVOSTC-Science Management Project).

### ***Synopsis of Synthesis Recommendations***

The two proposals recommended for funding are essential to guiding the development of the Science Plan and the implementation of the GEM program (Eckert and Spies). The offer of synthesis for the nearshore habitat type (Eckert) comes at critical time in program development (see Nearshore section above). Thanks to the early start for GEM nearshore projects in Phase II of FY 2003 (see FY 2003 Work Plan), enough progress has been made in the nearshore to issue a call for implementation of monitoring in FY 2006. The synthesis of Restoration work, and particularly of the ecologically oriented projects (Spies) is critical because the scientific background of the GEM Program document is largely lacking in these results. The results of most of the ecological study programs undertaken during Restoration (SEA, APEX, NVP) were not available when the scientific background was written in FY 2001. As a result, the scientific background needs to be updated with the synthesis of Restoration work provided by the Spies synthesis effort, and the Science Plan needs the benefit of this work as well.

One of the synthesis proposals recommended for deferral was a promising offer to develop a watershed synthesis (Merritt) that was lacking in a number of specific aspects requested by the Invitation for Proposals, as envisioned in the Science Plan. A deferral in this case would offer the Science Director the flexibility to work with the author to develop a project to deliver this badly needed synthesis. The Trustee Council is being asked by this draft Work Plan to make a major investment during FY 2004 – FY 2006 in research leading to a watershed monitoring program. As explained above, the synthesis is essential to coordinate the information produced by that investment, and to guide the STAC and Science Director in developing the FY 2007 Invitation for Proposals for implementation of the GEM watershed monitoring program. The other deferred project (Mann), was recommended by the Public Advisory Committee for re-consideration. It would guide development of the watershed monitoring program, and needs to be done, however fiscal constraints preclude a fund recommendation.

### ***Synthesis Proposals Recommended for Funding and Deferral***

Eckert-FY04-Natural Variability in the Nearshore	\$36,300	\$17,500	\$0	Fund
Spies-FY04-EVOS Damage Assessment & Restoration	\$201,700	\$0	\$0	Fund Contingent
Merritt-FY04-GEM Watershed Synthesis	\$58,091	\$39,751	\$0	Defer
Mann-FY04-Reconstructing Sockeye Populations	\$91,500	\$42,500	\$40,000	Defer
<b>Fund + Contingent Totals</b>	<b>\$238,000</b>	<b>\$17,500</b>	<b>\$0</b>	
<b>Defer Totals</b>	<b>\$149,591</b>	<b>\$82,251</b>	<b>\$40,000</b>	
<b>Grand Total</b>	<b>\$387,591</b>	<b>\$99,751</b>	<b>\$40,000</b>	

## ***Watersheds***

### ***Introduction***

Most coastal watersheds in southcentral Alaska and elsewhere in the North Pacific are thought to be heavily influenced by marine nutrients (MDN) and carbon carried inland by animals such as salmon, river otters, bald eagles, and harlequin ducks, yet very little is actually known about the extent of this influence, and no monitoring programs currently measure marine effects. Without MDN information, human non-point source pollution cannot be distinguished from natural events such as the effects of salmon spawning. Commercial and recreational fisheries for salmon are at risk of curtailment without MDN information, since the actual degree of dependence of potentially threatened or endangered terrestrial mammals, such as brown bear, on marine sources is not known, but is now presumed to be high. Without adequate measures and routine monitoring of MDN, regulations to reduce pollution and lower risks to listed species may be unnecessarily injurious to the economy, ineffectual, or both. Understanding of past oil spill injuries would be enabled and future oil related injuries would be more readily diagnosed.

The initial focus of the GEM watershed program is to conduct research on how to measure the known marine related indicators: stable isotopes of carbon, nitrogen and sulfur (C, N, S) and proxies for marine related sources of nutrients and food, such as standard water quality indicators (nitrates, ammonium). Answers are needed to the following questions: What are the best indicators? Are C, N, and S equally useful as indicators of marine linkages in all types of watersheds? Are concentrations of nitrates and ammonium in freshwater suitable proxies for stable isotopes? Are there other suitable proxies for marine-related indicators? What is the variability of marine related indicators in bodily tissues among species within watersheds? Which species or species guilds are best suited to measuring marine linkages? How do suitable species vary among different types of watersheds, i.e., heavily forested, anadromous, non-anadromous, recently glaciated, heavy human development, pristine, and so forth? What are the indicators of terrestrial influences in nearshore marine environments?



### ***Invitation Requirements***

Proposals were supposed to identify and show how and where to measure the best indicators of marine-related biological production in watersheds, including within an existing water quality monitoring program. Three areas were emphasized in the Invitation:

- Detection of Marine-Related Indicators
- Community Based Sampling Strategies for Sampling Marine-Related Indicators
- Including Marine Related Variables in an Existing Water Quality Monitoring Program

### ***Synopsis of Watershed Recommendations***

The five watershed proposals recommended for funding represent a well coordinated and integrated package of research to be conducted throughout the spill affected areas that will lead to the implementation of at least a rudimentary GEM watershed monitoring program in FY 2007 (Finney, Heintz, Honnold, Knudsen, and Walker, see also Cooper under Community Involvement section). Geographic coverage is provided for a broad variety of coastal watersheds adjacent to Prince William Sound (Knudsen), Cook Inlet (Walker and Heintz), and Kodiak (Finney and Honnold). All recommended projects except Heintz offer to study stable isotopes as indicators of terrestrial-marine linkages, however the studies offer complementary coverage of different types of watersheds (lake-bearing, peat wetlands, glacial runoff), localities within and nearby watersheds (headwaters, mid-reaches, mouth, delta and nearshore), resident and anadromous fish species, measures of water quality, limnological observations and primary productivity. Four of the five proposals recommended responded to the requests for Community Based Sampling Strategies for Sampling Marine-Related Indicators, and Including Marine Related Variables in an Existing Water Quality Monitoring Program (Finney, Honnold, Walker and Heintz). The Heintz project alone offers immediate management applications through measures of the allocation of marine derived resources among growth and bodily structures of fish that can be used to understand survival. Survival of species is basic information for fishery managers.

Taken together, the five recommended projects would provide enough information in three years (FY 2004 – FY 2006) to design sampling for terrestrial-marine linkages that would lead to a call for proposals for a GEM watershed monitoring program in FY 2007. As pointed out in the Science Plan, the current understanding of terrestrial-marine linkages and how to measure them is not well developed enough to expect that the final monitoring program would be initiated in FY 2007, but at least enough should be known that a useful body of systematic observations could be identified. Research and modeling may be needed for an additional decade before the final GEM watershed monitoring program can be identified.

The deferred project (Mazumder) would make an excellent addition to the package of watershed proposals, however the budget submitted in the revised proposal, co-mingled matching and EVOSTC funds so that it was unclear what objectives could be accomplished in the absence of the matching funds, which have not been committed.

***Watershed Proposals Recommended for Funding and Deferral***

<i>Proposal</i>	<i>FY 2004</i>	<i>FY 2005</i>	<i>FY 2006</i>	<i>FUNDING</i>
Finney-FY04-Marine-terrestrial Linkages	\$79,197	\$80,154	\$81,117	Fund
Honnold-FY04-Marine-derived Nutrients on Sockeye Salmon	\$83,200	\$82,400	\$86,800	Fund
<i>Proposal</i>	<i>FY 2004</i>	<i>FY 2005</i>	<i>FY 2006</i>	<i>FUNDING</i>
Knudsen-FY04-Nutrient-Based Resource Management	\$173,216	\$157,002	\$152,632	Fund
Walker-FY04-Marine Derived Nutrients	\$150,200	\$153,400	\$149,700	Fund
Heintz-FY04-Energy Allocation	\$48,400	\$42,300	\$14,100	Fund Contingent
Mazumder-FY04-Marine-Derived Nutrients	\$146,292	\$147,414	\$132,942	Defer
<b><i>Fund + Contingent Totals</i></b>	<b>\$534,213</b>	<b>\$515,256</b>	<b>\$484,349</b>	
<b><i>Defer Totals</i></b>	<b>\$146,292</b>	<b>\$147,414</b>	<b>\$132,942</b>	
<b><i>Grand Total</i></b>	<b>\$680,505</b>	<b>\$662,670</b>	<b>\$617,291</b>	

## ***Appendix of Abstracts, and Recommendations of STAC & ED***

Please note that the abstracts in Appendix A were 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 or priorities for the GEM program they do not represent the views of the Executive Director, the Science Director or other staff of the Exxon Valdez Oil Spill Trustee Council, nor do they reflect policies or positions of the Trustee Council.

### ***Project Adams-FY04-Fisheries Management***

***Project Title*** Fisheries Management Applications - Submitted under the BAA

***Location*** Prince William Sound

***Proposer*** Kenneth Adams

***Proposer Affiliation*** Private Enterprise

***Lead Agency*** NOAA

#### ***Funding Recommendations***

***FY04*** \$46,760 00

***FY05*** \$0 00

***FY06*** \$0 00

#### ***Abstract***

The proposal is submitted under the category of Community Involvement. The project, begun in March of FY-02, will continue to build bridges between the scientific community and resource managers, enhancement programs, subsistence and other stakeholder user groups. The scientific community is describing and attempting to predict variation in biological production whereas, the commercial fishing community desires application for this new information. We will develop a Mini-Symposium of the annual GEM workshop for presentation in small communities. We will also continue the successful series of workshops created in Cordova for identification of PWS fishery community issues and needs and will seek resolution of the identified issues and needs by application of EVOSTC supported research. The results contained in the Sound Ecosystem Assessment (SEA) program are especially valuable to this process. This project provides clear and positive opportunities for the resource dependent community to become involved in GEM and can also help identify how products of GEM can be made meaningful to the community.

#### ***STAC Recommendation***

This proposal is for three additional years of funding for Prince William Sound Fisheries Research Applications and Planning (PWSFRAP). This was originally funded as a pilot project for 1.5 years. It has been highly successful in that the proposers have used this venue to inform and involve the Cordova community in issues of fisheries, especially those that were examined as part of SEA research. The PIs have been extremely involved in GEM; Adams has attended all the public components of the GEM process and has relayed the knowledge to an interested Cordova community. These PIs made a presentation to the GEM PAC in Cordova in June. Their project was very well received by the PAC. The proposal is well written and includes lots of objectives to get scientific information to the public and to get information back from them. Unfortunately the proposal is rather weak on the methods of how these objectives will be accomplished. This proposal specifically fulfills the invitation in that it proposes to conduct "mini-symposia" that are synopsis of the annual EVOS meeting. It is disconcerting that the proposal does not give any details about how the mini-symposia are expected to be done. Past community workshops have

been highly successful and these should be continued. Objective to bring symposium events to villages is important, but it is not clear that current technology is adequate. The budget is well above the \$10-20 K limit suggested in the Invitation. The STAC recommends the proposal be revised to provide some specific methods for extending the successful workshop approach employed in Cordova to other communities in the spill area for an amount not to exceed \$20K. Fund reduced for one year, amount contingent upon receipt of revised proposal.

***Executive Director's Recommendation***

The project has proven effective in working with the fishing community in Cordova to identify projects for GEM that are important to the long-term economic development of Prince William Sound. It has also been effective in communicating the potential benefits of the GEM program to the Cordova fishing community. The revised proposal identifies how the project is expected to continue its excellent record of success in building community involvement by extending its work to other communities in the spill region. Fund

**Project**     ***Baird-FY04-Shoreline Habitat Mapping and Community-Based Monitoring***

**Project Title**   Connecting with Coastwalk   Linking Shoreline Habitat Mapping with Community-based Nearshore Monitoring in Kachemak Bay

**Location**       Kachemak Bay

**Proposer**       Steve Baird

**Proposer Affiliation**     ADFG

**Lead Agency**   ADFG

***Funding Recommendations***

**FY04**   \$20,100 00

**FY05**   \$19,900 00

**FY06**   \$0 00

***Abstract***

The project will merge high-resolution mapping of the physical structure of the nearshore environment in Kachemak Bay with a citizen-generated biological and human impact data collected over 18 years of an annual Kachemak Bay Coastwalk shoreline survey into a GIS. The integration of data, refinement of data collection protocols, and piloting of revised protocols will occur during Year 1. During Year 2, the potential for use of the combined methodology for long-term GEM community-based nearshore monitoring will be assessed. The project will culminate in a Kachemak Bay community/scientist workshop to integrate and synthesize information and apply the GIS results to the selection of nearshore monitoring sites for community-based monitoring. This project will advance the development of a community-based nearshore monitoring program for the GEM program.

***STAC Recommendation***

The proposal is responsive to the invitation (nearshore, community involvement) and is consistent with GEM strategies (incorporate community involvement and local knowledge) and goals (detect change, provide information to facilitate understanding of causes of change). KBRR is completing EVOS project 030556 mapping project (to be used to overlay biological or human impact data). The project concludes with a Kachemak Bay community/scientist workshop to present results, introduce GEM monitoring strategies, and develop opportunities for community involvement in nearshore monitoring. The project provides a link between nearshore community-based information and long-term monitoring applicable to GEM. In short, the project will build on an existing (18 year) citizen-based, volunteer monitoring program (that is presumably responsive to community concerns) and combine it with a GEM-funded GIS mapping project to assess the utility of this method for future GEM monitoring. There needs to be more discussion of the compatibility of the 18-year data set with the more recent mapping project (030556), and how the two will be linked. The proposal needs to provide the missing CV for Sigman and a definition of role of Schoch. Methods need elaboration and more rigor in the explanations. Revision needs to provide an example of a problem that can be addressed using the data set and particularly the utility of the data set to the long-term monitoring activities in GEM. Recommendation: Fund contingent on receipt of revised proposal responsive to peer reviewer concerns.

***Executive Director's Recommendation***

The proposal presents an excellent opportunity to build two-way communication between GEM and the public regarding nearshore monitoring needs. Deficiencies identified by the staff and the peer reviewers have been addressed in the revised proposal. Fund.



**Project      *Batten-FY04-CPR data***

**Project Title**    Acquisition and Application of CPR data in the Gulf of Alaska - Submitted under the BAA

**Location**        Alaskan shelf and Gulf of Alaska

**Proposer**        Sonia Batten

**Proposer Affiliation**    Non Alaskan University

**Lead Agency**    NOAA

***Funding Recommendations***

**FY04** \$135,200 00

**FY05** \$135,200 00

**FY06** \$135,200 00

***Abstract***

Plankton are a critical link in the marine food chain that respond rapidly to climate change and form the link between the atmosphere and upper trophic levels. Many important marine resources in the GoA are strongly influenced by changes in ocean climate. Recent CPR data have shown significant changes occurring in all plankton communities in the GoA, associated with the recent climate shift. We will continue the acquisition of CPR data in the Gulf of Alaska on the current transect that crosses the ACC and add an additional transect in FY05 that will sample the ACC further 'downstream' and provide baseline, seasonal plankton data for the lower Cook Inlet and its transition to the Gulf of Alaska. We also propose analysis of data already collected to investigate the links between plankton and juvenile salmon migrations, and the larval distribution of commercially important decapods sampled by the CPR.

***STAC Recommendation***

Batten and Welch, using resources of the Sir Alister Hardy Foundation for Ocean Science (SAHFOS), GEM and NPRB, have been conducting continuous plankton recorder (CPR) studies in the Gulf of Alaska since 1998. Those were initially exploratory, but have been run consistently in a time-series monitoring mode since March 2000. Roughly monthly transects are run through the spring each year from Hinchinbrook Entrance to Long Beach by CPRs towed by oil tankers. In addition, a transect has been run several times in recent years from Vancouver, B.C. to Yokohama. Among other things, the results show (1) the north-south seasonality gradient of the large, particle grazing copepods of the GOA (earlier south, later north), (2) evidence of transport into oceanic waters of coastal zooplankton by recurring (or persistent) eddies along the BC coast, and (3) clear evidence correlating with more coast-bound studies of faunal changes occurring at the apparent pelagic regime shift at the end of the 1990's. Three strong publications have resulted from the work so far, covering those results, and Dr. Batten also has been active in studies and publications on the statistical validity of CPR work generally. Community involvement includes the volunteer observing ship activity itself, and preparation and loading of CPRs by community college personnel in Valdez. The proposal emphasizes the value of zooplankton time series for early identification of regime shifts and other responses of the pelagic ecosystem to climate change. Present funds available to GEM do not justify committing to the expanded transects in FY 05 and 06 in light of need to establish other vessels of opportunity programs. Fund project as written for FY 04 through FY 06 at funding level of FY 04.

***Executive Director's Recommendation***

Past performance of investigators has been exemplary in all respects, and the project is producing information on long-term changes in conditions that affect production of birds, fish and mammals in the Gulf. Responsiveness of investigators to requests for information and reporting deadlines is very good. Present funds available to GEM do not justify committing to the expanded transects in FY 05 and 06 in light of need to establish other vessels of opportunity programs. Possibility is recognized that changes in vessels may occur, and that some changes in routing may be expected as a result. Project is to be conducted with FY 04 objectives and funding levels from FY 04 through FY 06. Fund

**Project**      **Bechtol-FY04-Parameters in the N Gulf of AK**

**Project Title**    Monitoring Ecosystem Parameters in the Northern Gulf of Alaska

**Location**        Kachemak Bay, Cook Inlet

**Proposer**        William Bechtol

**Proposer Affiliation**    ADFG

**Lead Agency**    ADFG

**Funding Recommendations**

**FY04** \$50,900 00

**FY05** \$54,000 00

**FY06** \$56,000 00

**Abstract**

This project will refine long-term monitoring of forage species populations in Cook Inlet, an area representative of ecosystem conditions and changes in the northern Gulf of Alaska. Finfish and shellfish will be sampled annually in May with a small-mesh, bottom trawl to determine whether competitive and predatory interactions or different responses to the environment may be favoring the abundance of one species over another. Project funding includes mounting a thermosalinograph on the survey platform to collect surface temperature and salinity data during all fieldwork conducted by the survey vessel throughout the calendar year. Products will include annual reports, presentations at scientific meetings, and a manuscript submission to a peer-reviewed journal. Project data will be also made available to other researchers to facilitate broader ecosystem modeling for the Gulf of Alaska. The study will incorporate community outreach and education involving local science classes in the collection of field data.

**STAC Recommendation**

GEM has an actual monitoring project here to support. There's an old and excellent time series to continue and upgrade. It concerns once commercially important animals (pink shrimp, bottom fish) in a coastal inlet (Kachemak Bay) with well populated (by Alaska standards) shores. The time series shows interannual or, just as likely, interdecadal change in the bottom fauna. Probably the once per year schedule is enough to show interannual changes. The trawling involved does no more habitat harm than a) has long since been done and b) possibly is sustained by current fishing activity, although these points deserve informed review. Station numbers are large enough to generate some statistics and stations are well enough distributed to show aerial variability. The agency that originated the survey cannot justify the resources to sustain it solely as a normal management agency function since stocks of the initial target species, pink shrimp, has declined well below the point of commercial interest. However, providing coastal fishing communities and scientists at management agencies with an early warning of the return of pink shrimp (the possible 'crustacean mode' of the ecosystem) would be of considerable value, value that can accrue to GEM's credit. Agency should be encouraged to do anything practical with the samples to generate better insight as to what drives the shrimp-fish switching. Replace the thermosalinograph with station profiling by means of a SeaCat or similar device, such as a simple, self-contained CTD (e.g., the Seabird model is ca. \$8K) lowered at each of the many stations before the trawl is shot. If a weight (30# downrigger ball) is suspended 2 m below the CTD, it can be lowered until the weight hits, giving data from very close to the bottom. Over the station grid as a whole this would give a strong characterization of the system hydrography, much better than any number of surface values. Fund contingent on receipt of revised proposal implementing above recommendations.

***Executive Director's Recommendation***

The project meets GEM needs for data that can be used to detect changes in natural resources in the Gulf of Alaska and to develop an understanding of the factors responsible for that change. It also responds to a GEM mandate to leverage funding through partnerships with existing programs and projects, and represents a reasonable division of financial responsibilities between EVOSTC and ADF&G. It will add value to a long-term trawl survey by providing oceanographic data that can be used to understand changes in the trawl catches due to natural forcing. Revised proposal incorporated peer review comments to substantially improve the value and quality of the oceanographic data to be collected. Fund

***Project Ben-David-FY04-Transfer of Nutrients from Sea***

***Project Title*** Forecasting Climatic Effects on the Transfer of Nutrients from Sea to Land by Coastal River Otter

***Location*** Prince William Sound (no field work)

***Proposer*** Merav Ben-David

***Proposer Affiliation*** Non-Alaskan University

***Lead Agency*** NOAA

***Funding Recommendations***

***FY04*** \$0 00

***FY05*** \$0 00

***FY06*** \$0 00

***Abstract***

Gradual (climatic) or catastrophic (oil spills) events that could change the abundance and distribution of spawning pelagic fishes in the nearshore environment of the Gulf of Alaska (GOA) will likely affect the abundance and behavior of coastal river otters. These changes will reduce transfer of nutrients by otters from sea to land and change landscape heterogeneity and biodiversity of the terrestrial ecosystem. Using the relation between abundance and distribution of fishes and otter abundance and behavior, we propose to develop a model that will forecast changes in landscape heterogeneity of coastal forests along the GOA with projected climate change. Input data will be based on output from climate-ocean-fish interaction models developed through GEM. Output data will be in the form of digital maps describing deposition of N and P along the coast based on the relations between fish and river otters.

***STAC Recommendation***

This is a well crafted and thoroughly professional proposal that is unfortunately well ahead of the developmental path established in the Science Plan. In contrast to the Science Plan, the proposal assumes that measures of marine linkages in coastal watersheds are well established and can be used to model the role of MDN in shaping species diversity coastal forests. Although the authors presented a strong case for control of species composition and productivity by the input of marine nutrients to coastal Alaskan watersheds, it assumes that the measures necessary are well established (C and N) and it does not fully address the fundamental sampling variability issues for measures of marine influences identified in the Invitation. The proposal shows promise of eventually being successful in the area of modeling within the GEM program, however that program area is just being initiated in FY 04 and is not ready to receive this proposal. Do not fund.

***Executive Director's Recommendation***

The proposal is promising but premature with respect to GEM modeling needs. The authors are encouraged to get in touch with the GEM Model group in order to understand when such a proposal would be needed in the future. Do not fund.

**Project**      **Berenstein-FY04-Pink Salmon Fry Survival**

**Project Title**    Community Assessment and Implementation Planning Regarding the SEA Model for Pink Salmon Fry Survival

**Location**        Prince William Sound, Alaska

**Proposer**        C A Berenstein

**Proposer Affiliation** Non-Alaskan University

**Lead Agency**    NOAA

**Funding Recommendations**

**FY04** \$0 00

**FY05** \$0 00

**FY06** \$0 00

**Abstract**

Early implementation of research has been used by Alaskan fishing communities to turn troubled times into ones of renewal and growth. For Prince William Sound, one counts the revitalization of optimum escapement management at statehood, the engineering development of Bams' experiments with Turfgrass in incubators, and the use of technology and a systems perspective in the SEA Science Plan. In each case, the resource at the center was pink salmon. Ten years ago, diverse communities focused on pinks; the resource looked to be in trouble. Today, the resource and the communities are in trouble if reduced to indistinguishable commodities. This project responds to the call for an implementation plan for research that protects the resource. The approach draws upon the community resources and traditions that produced past successes. The goal is a plan that will produce a broadly based distinguishing contribution.

**STAC Recommendation**

Berenstein et al. propose to establish an infrastructure to address the survival of pink salmon in Prince William Sound. The sampling tool is coded wire tags and it will depend on concurrent physical measurements. Much of the proposal is based on yet to be published results and findings so the veracity of this proposal is questionable. For example, on page 3, it is stated that the connection between fry survival is water temperature for fish and advection for zooplankton but there is no reference for this statement. They will need zooplankton densities and physical parameters but will not be gathering them themselves. High resolution data would be required especially in the spring to address the effects of the fry releases. Their assumption that oceanographers and meteorologists are gaining an understanding of the system and making useable forecasts is not justified. They also ignore the ocean conditions and carrying capacities. The proposal does not contain certain required elements such as bios of the investigators. The budget was not well justified. The Gantt chart is not sufficient. Roles of the PIs are poorly delineated. Funding of this proposal is not recommended.

**Executive Director's Recommendation**

A model of pink salmon fry survival that meets the information needs of the fishing and aquaculture industries in Prince William Sound is in the interest of understanding recovery from the oil spill, and for supporting economic development activities. Unfortunately the proposal did not meet the needs and standards established in the Invitation for Proposals for this modeling activity. Do not fund.



**Project**      ***Bud-FY04-Mobile Data Network-Marine Hwy***

**Project Title**    Alaska Marine Highway System Marine Weather and Conditions Mobile Data Network

**Location**        Prince William Sound and Gulf of Alaska

**Proposer**        Nancy Bird

**Proposer Affiliation**    NGO

**Lead Agency**    NOAA

***Funding Recommendations***

***FY04*** \$0 00

***FY05*** \$0 00

***FY06*** \$0 00

***Abstract***

Marine weather and sea conditions have been identified as important elements in the GEM program for processes controlling ecosystem interactions, marine-traveler safety, resource agencies, marine-resource industries, and emergency spill-response activities. This project brings together communities, stakeholders, agencies, and technology specialists to expand an existing data and telemetry network in Prince William Sound and the Northern Gulf of Alaska. The Alaska Marine Highway System (AMHS) provides a platform for contributing data to the GEM program, local communities, and industry. We will integrate data-collection systems on AMHS vessels working in Prince William Sound and North Gulf of Alaska, incorporating one vessel each year over a three-year period. We will use varied telemetry methods to maximize data access to AMHS vessels and public in near-real-time reporting systems. The system design has been structured to provide valued information to AMHS operations and end-users through a group effort aimed at building a sustainable network.

***STAC Recommendation***

It is proposed to instrument one Alaska Marine Highway ferry in each of three project years to gather weather data on a continuous basis. The proposal fails to say specifically what will be done with this data although the proposal does indicate that the data will be used somehow to improve both short term weather knowledge around PWS and to generate a long-term data set for the variables measured. The short-term products will be made available on the internet. No explicit details of data archiving are offered. Since in reasonably short order gigabytes of data will be accumulating, some serious plan is in order. No meteorologist or oceanographer is associated with the project. For GEM's purposes, careful archival work with products of the present PWS weather network would be more valuable than records from wandering ships. Do not fund.

***Executive Director's Recommendation***

See the Executive Director's recommendation on the other proposal from this author. A partnership with OSRI/PWSSC serving the same purposes proposed will be explored through the deferral of the other Bird proposal. The number of substantial technical issues identified during peer review prevent pursuing this proposal at this time. Do not fund.

**Project**      ***Bird-FY04-Mobile Data Network-Vessels***

**Project Title**    Alaska Vessels of Opportunity Marine Weather and Conditions Mobile Data Network

**Location**        Prince William Sound

**Proposer**        Nancy Bird

**Proposer Affiliation**    NGO

**Lead Agency**    NOAA

***Funding Recommendations***

**FY04** \$140,900

**FY05** \$129,200 00

**FY06** \$130,700 00

***Abstract***

We are bringing together communities, stakeholders, agencies, and technology specialists to expand an existing weather network in Prince William Sound (PWS) by incorporating Vessels of Opportunity (VOO) Marine weather and sea conditions are identified as important elements for GEM, marine-traveler safety, resource agencies, marine-resource industries, and emergency spill-response activities VOO provide a means for contributing data to GEM and PWSSC programs, local communities, and industry We will integrate data-collection systems on three types of vessels working in PWS, they include small day-cruise vessels in North PWS, a SERVUS escort vessel, and a charter vessel operating throughout PWS These vessels represent different types of operations, travel patterns and user groups Telemetry methods will be employed to provide near-real-time weather and water-conditions data reporting System design is focused on providing valued information to vessel operations and end-users and will be coordinated with equivalent efforts on Alaska Marine Highway Vessels

***STAC Recommendation***

This proposal parallels and supplements Bird's Alaska Marine Highway (AMH) proposal It is proposed to use ~\$110 per year in each project year to prepare four boats operating locally in PWS with mobile weather stations reporting by automated radio As was the case with the AMHS proposal, this proposal fails to say specifically what will be done with this data although the proposal does indicate that the data will be used somehow to improve both short term weather knowledge around PWS and to generate a long-term data set for the variables measured No explicit details of data archiving are offered Since in reasonably short order gigabytes of data will be accumulating, some serious plan is in order No meteorologist or oceanographer is associated with the project For GEM's purposes, careful archival work with products of the present PWS weather network would be more valuable than records from wandering ships Do not fund

***Executive Director's Recommendation***

Collecting oceanographic data from vessels of opportunity from a base of operations within Prince William Sound is expected to be a highly cost effective means of detecting changes in the environment that change populations of birds, fish and mammals impacted by the oil spill A partnership with OSRI/PWSSC appears to offer a promising means of pursuing this low cost data collection method A number of substantial technical issues identified during peer review need to be resolved before the proposal can proceed Defer

**Project**      ***Bishop-FY04-Top-down and Bottom-up Processes***

**Project Title**    Trophic Dynamics of Intertidal Soft-Sediment Communities Interaction between Top-down and Bottom-up Processes (Renewal, Submitted under the BAA)

**Location**        Southeast Prince William Sound (Orca Inlet) and the Copper River Delta

**Proposer**        Mary Anne Bishop                      **Proposer Affiliation**    NGO

**Lead Agency**    NOAA

***Funding Recommendations***

**FY04** \$149,529 00                      **FY05** \$164,030 00                      **FY06** \$151,390 00

***Abstract***

Vast expanses of intertidal sand/mudflats serve as a critical link in the food web of nearshore communities along the southcentral Alaska coastline. The rich abundance of benthic invertebrates residing within the sediments of intertidal flats and the large network of subtidal channels that bisect these flats provide a significant prey resource for numerous species of fish, crabs, birds, and marine mammals. One of the largest expanses of intertidal mud/sand flats occurs in the Copper River Delta and southeastern Prince William Sound (Orca Inlet). Here we propose a large-scale field study that examines the physical/chemical and biological factors that limit and/or regulate invertebrate community dynamics. The largely “bottom-up” approach we propose (physical/chemical parameters – phytoplankton/epibenthic production – invertebrate production) is balanced by the largely “top-down” focus of a companion project funded by the Prince William Sound Oil Spill Recovery Institute that examines predator dynamics and assesses their role in invertebrate community dynamics. At the completion of this project (FY 06), the results of both projects will be synthesized and a subset of key physical/chemical parameters will be identified for long-term monitoring.

***STAC Recommendation***

This proposal takes advantage of the PWSSC location and complementary funding to develop the ‘bottom-up’ sampling program to match a ‘top-down’ project already in place. The proposed sampling is intensive and reasonably extensive in space and time, and it is therefore comparatively expensive. The concept of understanding trophic dynamics from both ends is certainly attractive, if, in fact, they meet in the middle. The project will establish a baseline of biodiversity in the habitat. Long-term the project will need to address the sustainability of a monitoring program built around helicopter sampling. Fund.

***Executive Director’s Recommendation***

The proposal meets an essential GEM objective by continuing research into understanding how to monitor soft sediment nearshore habitats nearby the oil spill affected areas. It is highly leveraged with outside funding and helps develop a desirable partnership with a regional marine lab, PWSSC. Fund.

**Project**      ***Bodkin-FY04-Lingering Oil and Sea Otters***

**Project Title**   Lingering Oil and Sea Otters Pathways of Exposure and Recovery Status  
(continuation of project 030620)

**Location**      Prince William Sound

**Proposer**      James Bodkin

**Proposer Affiliation**      DOI

**Lead Agency**   DOI

***Funding Recommendations***

**FY04** \$134,300 00

**FY05** \$26,200 00

**FY06** \$6,500 00

***Abstract***

Some of the strongest evidence of continuing effects of lingering oil from the Exxon Valdez oil spill comes from long term monitoring of sea otter populations and their exposure to hydrocarbons. Population recovery remained incomplete as of 2002, and individual sea otters continue to exhibit elevated levels of the Cytochrome P450 1A biomarker in areas where lingering oil deposits are most prominent. Work in progress is quantifying home ranges of sea otters at northern Knight Island relative to known intertidal lingering oil deposits, but relocation sampling limits our ability to link foraging behaviors to oiled shorelines. To address the question of where individuals are foraging relative to lingering oil requires data on foraging depths. In 2003 USGS will be instrumenting 20 of the radio-instrumented sea otters at Knight Island with time-depth-recorders. These instruments will provide accurate information on the proportion of each individual's foraging that occurs in intertidal habitats, the area where known oil deposits remain, for one full year. Surveys of population size and individual P450 measures will provide continuing information on population trend and individual exposure to lingering oil.

***STAC Recommendation***

This is a well thought out proposal for further work on the sea otters around northern Knight Island, Prince William Sound, which are clearly not recovering to their pre-spill numbers. The research plan maps out a clear strategy that will attempt to link biomarker of contaminant exposure, P4501A, with individual behavior, particularly foraging, in contaminated areas of Northern Knight Island. Of particular interest will be the outcome of attempts to link biomarker response in individual animals to their foraging in patches of contaminated prey. This proposal conforms to the strategy of determining if there is a close link between remaining deposits of oil in PWS and population problems of species in the area. While this is a challenging undertaking the investigators have a proven track record with this sort of approach and have shown that they can take the measurements necessary to test the hypotheses. The results are to be prepared for publication in a peer reviewed journal before attendance at the meeting in FY 06. 1. The proposed work is highly relevant to further work on species not recovered from the spill. Therefore, it is responsive to the invitation for FY 04. 2. Technical merit: high. 3. Relevance to management and community involvement is moderate. 4. Qualifications and past performance are both excellent. 5. Recommendation: Deferral pending outcome of November workshop.

***Executive Director's Recommendation***

The specific requirements for further work on lingering oil need to be further developed during a workshop to be conducted in November 2003. As identified by the STAC, it is important for the preliminary results of the FY 2003 field season to be considered by legal counsel, EVOS staff,

advising scientists and the Trustee Council before decisions on funding are made. The exchange between legal, policy and science people will be reported to the Trustee Council before making decisions on what to do in the summer of 2004, which is the last full field season of data that could be fully analyzed before deciding the path to the re-opener. Defer funding decisions pending the outcome of the November workshop.

2

**Project**      ***Bodkin-FY04-Nearshore Monitoring Decision Process***

**Project Title**    Monitoring in the Nearshore    A Process for Making Reasoned Decisions (close-out of Project 030687)

**Location**        No field work    Study areas in the Gulf of Alaska

**Proposer**        James Bodkin

**Proposer Affiliation**    DOI

**Lead Agency**    DOI

***Funding Recommendations***

**FY04** \$10,000 00

**FY05** \$0 00

**FY06** \$0 00

***Abstract***

Over the past several years, a conceptual framework for the GEM nearshore monitoring program has been developed through a series of workshops. However, details of the proposed monitoring program, e.g. what to sample, where to sample, when to sample and at how many sites, have yet to be determined. In FY 03 we were funded under Project 03687 to outline a process whereby specific alternatives to monitoring are developed and presented to the EVOS Trustee Council for consideration. As part of this process, two key elements are required before reasoned decisions can be made. These are: 1) a comprehensive historical perspective of locations and types of past studies conducted in the nearshore marine communities within Gulf of Alaska, and 2) estimates of costs for each element of a proposed monitoring program. We have developed a GIS database that details available information from past studies of selected nearshore habitats and species in the Gulf of Alaska and provide a visual means of selecting sites based (in part) on the locations for which historical data of interest are available. We also provide cost estimates for specific monitoring plan alternatives and outline several alternative plans that can be accomplished within reasonable budgetary constraints. The products that we will provide are: 1) A GIS database and maps showing the location and types of information available from the nearshore in the Gulf of Alaska, 2) A list of several specific monitoring alternatives that can be conducted within reasonable budgetary constraints, and 3) Cost estimates for proposed tasks to be conducted as part of the nearshore program. Because data compilation and management will not be completed until late in FY03 we are requesting support for close-out of this project in FY 04.

***STAC Recommendation***

The proposal completes the process of understanding the data available to guide planning for nearshore monitoring under GEM by providing a report on the activities concluded in FY 03 Fund.

***Executive Director's Recommendation***

The proposal provides funding for close-out and reporting of project begun in FY 03 Fund.



***Project      Brown-Schwalenberg-FY04-Subsistence & Stewardship  
Gathering***

***Project Title***    Subsistence and Stewardship Gathering Fifteen Years After the Spill

***Location***        Village participants from PWS and Lower Cook Inlet will gather in Anchorage  
for GEM

***Proposer***        Patty Brown-Schwalenberg        ***Proposer Affiliation***    NGO

***Lead Agency***    NOAA

***Funding Recommendations***

***FY04*** \$31,250 00

***FY05*** \$0 00

***FY06*** \$0 00

***Abstract***

This project will support a GEM science symposium in commemoration of the 15th anniversary of the Exxon Valdez oil spill. The symposium will be held in Anchorage during the annual Gathering of Chugach region Tribes but it will include participants from all communities in the oil spill area. The goal of the symposium is to share information and improve communication between holders of traditional and scientific knowledge.

***STAC Recommendation***

The proposal is weak in providing any specifics of which scientists will attend, and how they are related to what projects or issues and how the symposium relates to GEM (other than community residents sharing information and communicating with scientists). The proposal does provide for a planning committee that will identify a “well-defined topic (related to subsistence use, TK, and GEM science projects)” as the focus of the agenda. The proposal is weak in its explanation of linkages between the gathering and “GEM studies” (long-term monitoring and ecosystem-based research). PAC should be involved in setting the topic for the symposium, which should not be the 15th anniversary of the oil spill. Proposal should be revised to provide more specifics of how the symposium will be related to GEM. Recommendation: Revised proposal providing more specific focus on GEM is needed. Fund contingent on receipt of revised proposal addressing reviewers concerns.

***Executive Director’s Recommendation***

The extent to which the Trustee Council may want to commemorate the fifteenth anniversary of the oil spill has not been determined. Proposal cannot move forward without this determination and a revision that focuses the content more clearly on the GEM program. Defer.

**Project**      ***Brown-Schwalenberg-FY04-Tribal Involvement in the GEM Program***

**Project Title**    Tribal Natural Resource Stewardship and Tribal Involvement in the GEM Program

**Location**        N Gulf of Alaska, including PWS, Cook Inlet, Kodiak Island, and the Alaska Peninsula

**Proposer**        Patty Brown-Schwalenberg      **Proposer Affiliation**    NGO

**Lead Agency**    NOAA

***Funding Recommendations***

**FY04** \$0 00

**FY05** \$0 00

**FY06** \$0 00

***Abstract***

In FY 04, this project will focus on three objectives (a) continuing coordination between the GEM program and tribal communities, ensuring that scientific goals and traditional/local knowledge is shared, (b) conducting a WisdomKeeper Series for discussing and sharing research and monitoring issues with selected biologists, scientists, elders, and traditional knowledge experts, and (c) providing training opportunities for resource specialists in oil spill communities through development of a training curriculum and providing travel to GEM workshops and scientific symposiums

***STAC Recommendation***

EVOSTC has funded this program for seven years and the proposal is seeking FY04 funds. The solicitation indicated “no new specific community involvement projects are being solicited with the exception noted below.” Exceptions: Small-scale science symposiums for smaller communities and coastal mapping. This proposal seems non-responsive to the solicitation (unless continuing projects are exempt) as it is neither a small-scale science symposium nor a coastal mapping project training curriculum to build technical capabilities of tribal specialists, and joins a larger capacity building grant. At one level, this proposal is responsive and provides assurances that its community involvement recipe is working well. On another level, the proposal does not provide any details on how it relates to long-term monitoring of specific variables associated with GEM. What have we learned from the ongoing tribal natural resource programs that can be used in GEM? What has been produced from the WisdomKeeper Series that can be applied to long-term monitoring? The community involvement represented in this proposal is not focused on developing long-term monitoring, but is centered on coordination, communication, and training. This may be very appropriate, but it should not be confused with community involvement with specific GEM monitoring projects. There was no formula in the proposal on how this project would work toward identifying community-based monitoring projects that respond to community concerns and work to implement long-term GEM monitoring. However, one-third of the budget (\$60,000) is for a Tribal Natural Resource Program Planner who oversees the EVOS Natural Resource Management and Stewardship Capacity Building Project and works with “tribes to develop means by which western science and TK can be jointly utilized in conducting research and monitoring activities and increase tribal involvement in all aspects of GEM.” \$180,000 represents over 7% of annual funding capacity for FY04 (based on \$2.5 M funding). Recommendation: Do Not Fund with suggestion that any future proposals need to be more specific toward GEM long-term monitoring goals.

***Executive Director's Recommendation***

The report on approaches to community involvement commissioned by the Trustee Council in FY 2003 will not be available until the end of September 2003. The report is expected to provide the basis for a thorough examination of the role of community involvement in the GEM program to be conducted by the Executive Director during FY 2004. Until that examination is complete, funding of community involvement projects will be based on responsiveness to the criteria in the FY 04 Invitation and past and future utility for implementing the GEM program. Based on an evaluation of the Tribal Natural Resource Management Plans produced under past years funding of this project, the lack of community-originated GEM projects resulting from past efforts of this project, the lack of connection to the GEM Science Plan, and the recommendations of the STAC, I cannot support this project. Do not fund.

**Project**      **Cokelet-FY04-AK Marine Highway System Ferries**

**Project Title**    Biophysical Observation aboard Alaska Marine Highway Systems Ferries

**Location**        Alaska Coastal Current, Prince William Sound

**Proposer**        Edward Cokelet

**Proposer Affiliation**    NOAA

**Lead Agency**    NOAA-

**Funding Recommendations**

**FY04** \$171,500 00

**FY05** \$185,900 00

**FY06** \$155,900 00

**Abstract**

The Alaska Coastal Current flows counterclockwise along the edge of the Gulf of Alaska carrying the river runoff, nutrients and plankton that fuel the productive coastal-marine ecosystem. As seen in satellite images, a strong "chlorophyll front" develops in summer between the nutrient-poor region to seaward and a productive region around Kodiak Island that extends northward to the Kenai Peninsula. Conventional wisdom predicts that the Gulf ecosystem should not be productive because the average wind pattern favors downwelling oceanic conditions that fail to restore nutrients to the sunlit upper layers. The chlorophyll front presents a natural study area over which low- and high-productivity regions lie in close proximity. The Alaska Marine Highway System ferry M/V *Tustamena* crosses this front over 280 times each year. We propose to instrument the *Tustamena* to measure physical and biological oceanographic parameters across the Alaska Coastal Current and in Prince William Sound. This will begin a GEM oceanographic monitoring program in the Gulf that will lead to understanding nutrient replenishment and document ecosystem trends for years to come.

**STAC Recommendation**

This is an excellent response to the GEM request for proposals to use State of Alaska ferries as platforms for collecting environmental observations. It requests a major commitment of funds, however the returns are commensurate with the costs. It should generate a working, robust system and a suite of data from tracks of maximum interest in the GEM target region, the oil spill trajectory. The M/V *Tustamena* is selected because it makes the maximum number of crossings each year of the ACC. The routes (mostly Kodiak-Homer and Kodiak-Seward) will cross the coastal to oceanic chlorophyll front and salinity gradient. It is proposed to follow, by and large, the recommendations of the PICES 2002 report on engine room instrumentation for VOS. A rather full installation is proposed for the ship's April yard period in 2004. A thermosalinograph to sample at the ship's sea chest is to be purchased and installed and backed up by hull conductance thermometry. Cokelet et al propose to loan the project fluorometry, transmissometry, colored dissolved matter spectrometry (CDOM) and automated nitrate analysis facilities in the first year, replacing them with project-purchased sensors in later years. Cokelet et al give evidence of experience dealing with ship operators concerning such installations, a key aspect of such projects worldwide. The STAC recommends that the investigators must accommodate the needs of the AMHS regarding in-ship communication. The proposers need to investigate the status of the meteorologic observations collected by the vessel. A wireless remote system is needed to collect these data. Two revisions are required, the real-time communication and costs should be eliminated from the proposal. The ADCP should be eliminated from this proposal because the information received is not proportional to the cost required. Fund contingent upon revised proposal with reduced instrumentation described above.

***Executive Director's Recommendation***

Agreement in principle has been reached with the AMHS engineering and operations staff concerned and a memorandum of agreement on the specifics of the project is in process. This agreement and project are historic milestones that provide for highly cost effective monitoring of the coastal environment of Alaska. Revised proposal addressed STAC recommendations. Fund

*Project Cooper-FY04-Community-Based Sampling*

**Project Title** Community-Based Sampling of Watershed-Based and Marine-Derived Nutrients,  
Submitted under the BAA

**Location** Kachemak Bay and Anchor, Kasilof and Kenai River watersheds

<i>Proposer</i>	Joel Cooper	<i>Proposer Affiliation</i>	NGO
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*Lead Agency* NOAA

### *Funding Recommendations*

*FY04* \$102,512 00                      *FY05* \$85,958 00                      *FY06* \$96,942 00

## Abstract

In Southcentral Alaska, healthy watersheds support the region's economic, social and cultural well-being. Cook Inlet Keeper's community-based water quality monitoring program has proved to be an efficient and cost-effective way to collect important baseline data and increase public involvement in natural resource management. Keeper will coordinate with other groups conducting nutrient sampling throughout Southcentral Alaska and expand its community-based monitoring program to include watershed-based and marine-derived nutrient sampling to test the following hypotheses:

1) Certain nutrients, like ammonium, are useful proxies for determining levels of marine-derived nutrients in coastal watersheds, 2) Marine-derived nutrient levels in aquatic and riparian food webs vary seasonally related to salmon influx, 3) Community-based sampling of watershed-based and marine-derived nutrients is an efficient and cost-effective way to meet GEM research goals, increase public understanding of public resources, and promote sound resource management

### STAC Recommendation

This proposal is highly responsive to the Invitation. It proposes to expand a well established volunteer, community-based monitoring program (dating from 1996) to include watershed-based and marine-derived nutrient sampling to test three important but simple hypotheses. The proposal is well coordinated with other watershed projects and GEM proposals in the area (Mazumder, Walker-Heintz, EPA/DEC Citizens Environmental Monitoring Program). The program is nearly one-half funded from other sources. The program incorporates an ongoing community-based monitoring program that presumably reduces costs and strives to collect data toward GEM program hypotheses and questions. STAC recommends that authors submit a letter agreeing to implement recommendations of peer reviewers regarding sampling. The proposers should add a no-cost objective (in the letter) that expands the role of this project in coordinating other watershed projects. A watershed workshop will be held at the January 2005 GEM meeting. At that time the PIs on all watershed projects will present an up-to-date report and participate in comparison and evaluation of methods. Under the added role of coordinator, the PI will organize and facilitate the workshop. Expenses for the workshop, except PI's salary, will be paid separately by the GEM program. Fund contingent upon receipt of letter accepting these conditions.

### *Executive Director's Recommendation*

The project is a good beginning for establishing a watershed sampling program for GEM that should be highly cost effective. It is community-based and well organized as a network of volunteers backed by scientists and a well equipped laboratory. Author provided letter addressing STAC recommendations. Fund.



**Project**      **Couvillion-FY04-Coordinated Coastal Mapping**

**Project Title**    Coordinated Coastal Mapping

**Location**        Entire GEM study area

**Proposer**        Amalie Couvillion

**Proposer Affiliation**    NGO

**Lead Agency**    NOAA

**Funding Recommendations**

**FY04** \$98,500 00

**FY05** \$0 00

**FY06** \$0 00

**Abstract**

Interest in shoreline mapping within the oil spill area has increased in recent years, with the result that several shoreline mapping projects have been developed as pilot projects. In March, 2003, the EVOS Trustee Council convened a workshop with over twenty groups involved in shoreline mapping. The groups agreed to coordinate mapping efforts. This proposal evolved from the recommendations of that workshop. It solicits support for coordinating shoreline mapping efforts throughout the oil spill area. This proposal addresses the need for coordination in coastal mapping, rather than for collecting and ground-truthing new information (those specific work tasks will be developed and submitted by others). The key expected result from a well coordinated coastal mapping effort is a unified, seamless, ShoreZone map covering the entire GEM study area that will be electronically available to researchers, local governments, industry, and the general public.

**STAC Recommendation**

This project proposes to hire a Coordinator for Coastal Mapping that would be housed at The Nature Conservancy. The proposal is extremely well written and clearly spells out what the coordinator would do. This proposal is in direct response to a strong recommendation from the EVOS-sponsored Shoreline Mapping Workshop that was held in Anchorage in March 2003. I facilitated that workshop as a representative of EVOS. This proposal is not to do any shoreline mapping or to collect data, but rather it is to have one person who will coordinate all the projects that are collecting data. The problems and gaps that were discovered in the current process include the need for compatibility among projects, need for standard sampling protocol, need for development of strategy to fill physical gaps in coverage, plan for data management, and produce a unified ShoreZone map of the GEM area. The workshop strongly recommended that a Coordinator be hired to oversee these vital components. There was much discussion and concern that several projects are using a form of shoreline mapping, but that the results would not be compatible. The Shoreline Workshop specifically recommended that the coordinator position be housed in TNC. This position and proposal were not the idea or suggestion of TNC, but rather of the other workshop components. However, I am impressed with the PI's credentials and she would oversee the project and the Coordinator.

This project specifically addresses the Invitation Part A2 – Nearshore Synthesis and B – Data Management and IT. The technical merits of this proposal are excellent as it specifically addresses the needs, objectives and methods. The position would not be totally funded by EVOS, but rather TNC identifies matching funds for part of the salary for each of three years. Of course, the Workshop recommendation was that EVOS help support this project for the first year and

other funding to pay for it in the remaining years Fund

***Executive Director's Recommendation***

In March, 2003, the EVOS Trustee Council convened a workshop with over twenty groups involved in shoreline mapping. The groups agreed to coordinate mapping efforts. While this proposal is responsive to the recommendations of that workshop, more matching funding from other participants was expected. Even though it is important to GEM objectives to move forward on this project, fiscal constraints not foreseen at the time of the earlier fund recommendation have changed the recommendation on this project to deferral. Defer for FY 04 and invite a proposal next year for FY 05 and FY 06 that increases the financial contributions of other participants.

**Project      DeLorenzo-FY04-Youth Area Watch**

**Project Title**    Youth Area Watch

**Location**        PWS, Kenai Peninsula

**Proposer**        Richard DeLorenzo

**Proposer Affiliation**    Local Government

**Lead Agency**    ADFG

**Funding Recommendations**

**FY04**    \$121,100 00

**FY05** \$126,400 00

**FY06** \$133,200 00

**Abstract**

This project links students in the oil spill impacted area with research and monitoring projects funded by the Trustee Council and outside agencies. Youth conduct research identified and delegated by principal investigators who have indicated interest in working with students. The project involves students in the acquisition and monitoring of oceanographic and meteorological data over time. Students also develop a local restoration project, which provides them the skills to participate in community-based science. Youth Area Watch fosters long-term commitment to the goals set out in the restoration plan and is a positive community investment in that process. Participating communities in FY 04-06 will be Chenega Bay, Cordova, Seward, Tatitlek, Valdez and Whittier.

**STAC Recommendation**

The proposal is not responsive to the invitation even though it does seek community involvement. The proposal is weak in providing any linkages to GEM long-term-monitoring program. This past restoration projects may or may not be appropriate for GEM monitoring. The proposal seems to contain a large amount of text from the previous restoration-oriented youth area watch proposals with occasional insertions of “GEM.” In part, the program is dependent on principal investigators who are interested in working with students rather than focused on GEM goals. Furthermore, there is no indication of whether the student developed projects will relate to GEM. In fact, the proposal states that “students also develop a local restoration project,”. It may be time to rework this Youth Area Watch project to make it more responsive to GEM goals and objectives. Recommendation: Do Not Fund.

**Executive Director’s Recommendation**

The report on approaches to community involvement commissioned by the Trustee Council in FY 2003 will not be available until the end of September 2003. The report is expected to provide the basis for a thorough examination of the role of community involvement in the GEM program to be conducted by the Executive Director during FY 2004. Until that examination is complete, funding of community involvement projects will be based on responsiveness to the criteria in the FY 04 Invitation and past and future utility for implementing the GEM program. Unlike the Kodiak Youth Area Watch proposal, the PWS YAW proposal is not well grounded in the principles of the GEM program and shows a lack of understanding of the concepts of the need for community involvement in long-term monitoring programs. Based on the lack of connection to the GEM Science Plan, and the recommendations of the STAC, I cannot support this project. Following a recommendation of the PAC, the PI is invited to join the Executive Director during FY 2004 in exploring ways to re-constitute the PWS YAW program to be responsive to the GEM program, consistent with emerging community involvement guidelines. Defer.

**Project      *Devens-FY04-PWSRCAC-EVOS long term program***

**Project Title**    PWSRCAC - EVOS Long Term Environmental Monitoring Program - Submitted under BAA

**Location**        Prince William Sound, Kodiak, Kenai Peninsula

**Proposer**        John Devens

**Proposer Affiliation**    NGO

**Lead Agency**    NOAA

***Funding Recommendations***

**FY04** \$141,700 00

**FY05** \$0 00

**FY06** \$0 00

***Abstract***

The Prince William Sound Regional Citizens' Advisory Council/Exxon Valdez Oil Spill Trustee Council Long Term Environmental Monitoring Program provides essential long term baseline measurements of hydrocarbon levels and sources at program sites within areas of the Prince William Sound, Kenai Peninsula, Kodiak, and Gulf of Alaska. The program objective is to provide a program for the collection of baseline data in mussel tissue and subtidal sediments that can be used to determine impacts of oil sources on the ecosystem. This program will provide an improved link to recovery status and greater efficiency in hydrocarbon sampling and analysis that has been on going since 1993 under the auspices of PWSRCAC.

***STAC Recommendation***

Project was funded in FY 03 to evaluate potential of incorporation of existing PWS RCAC monitoring sites into the GEM program. Partnership with RCAC for nearshore sampling is highly desirable and advantageous to both organizations. Future funding is based on evaluation of FY 03 results in terms of the number and location of sites relevant to the GEM program. Do not fund.

***Executive Director's Recommendation***

An evaluation of the work conducted during FY 03 is needed in order to fully define how PWSRCAC and GEM can best collaborate on developing a long term nearshore monitoring program. PWSRCAC staff is invited to join with EVOSTC staff and subcommittees to develop this relation during FY 2004. Defer.

**Project**      ***Eckert-FY04-Natural Variability in the Nearshore***

**Project Title**    A Synthesis of Natural Variability in the Nearshore    Can We Detect Change?

**Location**        Alaska (Synthesis)

**Proposer**        Ginney Eckert

**Proposer Affiliation**    Alaskan University

**Lead Agency**    ADFG

***Funding Recommendations***

**FY04**   \$36,300 00

**FY05**   \$17,500 00

**FY06**   \$0 00

***Abstract***

One of the primary goals of the GEM program is to detect anthropogenic changes within the four focal habitats in the Gulf of Alaska, however natural variability in these systems can be so high that it prevents detection of human-induced effects. The goal of this proposal is to synthesize existing data to identify, within the nearshore habitat, environments and species that have less natural variability so that these variables can be included in the GEM monitoring plan. Data will be synthesized from the Gulf of Alaska and across a broad range of geographic areas to identify general characteristics that predict lower levels of natural variability in nearshore marine populations. The principal investigator is well suited to conduct this analysis because she was a coauthor of the current GEM nearshore monitoring plan, and she has conducted extensive analyses of natural population variability in nearshore organisms.

***STAC Recommendation***

This proposal provides a badly needed integrative service. The right person doing the right thing. Fund.

***Executive Director's Recommendation***

The project provides synthesis in an important habitat type, the nearshore, at a critical time. The nearshore is closer to establishing a comprehensive monitoring program than other habitat types, so synthesis is particularly important in the nearshore habitat type. Fund.

***Project EVOS TC-FY04- Data System***

***Project Title*** Gulf Ecosystem Monitoring and Research Program Data System

***Location***

***Proposer*** EVOS TC EVOS TC ***Proposer Affiliation***

***Lead Agency***

***Funding Recommendations***

***FY04*** \$156,800 00 ***FY05*** \$0 00 ***FY06*** \$0 00

***Abstract***

This project will provide continuing funding for ongoing development of the data management and information transfer system for the Gulf of Alaska Ecosystem Monitoring and Research (GEM) program. GEM is designed to monitor the ecosystems of the northern Gulf of Alaska and adjacent coastal regions for a very long time period (more than 100 years). Data collection, quality control and documentation, archiving, transfer, delivery, and presentation are critical components of GEM. Project funding will allow the GEM Data Systems Manager to provide the leadership and expertise necessary for this essential part of the GEM program, and hire support staff to make initial aspects of the program operational.

***STAC Recommendation*** NA

***Executive Director's Recommendations*** NA



***Project***      ***EVOS TC-FY04-ARLIS***

***Project Title***    Alaska Resources Library & Information Services (ARLIS)

***Location***

***Proposer***        EVOS TC

***Proposer Affiliation***

***Lead Agency***

***Funding Recommendations***

***FY04***      \$160,900 00

***FY05*** \$0 00

***FY06*** \$0 00

***Abstract***

Project 040550 represents the Trustee Council's contribution to Alaska Resources Library and Information Services (ARLIS) ARLIS serves as the central access point for information generated through the Trustee Council restoration process and the GEM program In addition, ARLIS is the public repository for reports and other materials generated from and related to the cleanup, damage assessment, and restoration efforts following the Exxon Valdez oil spill (EVOS) ARLIS supports the research efforts and information needs of the Trustee Council Office, principal investigators, natural resources professionals, and the general public The Council has contributed budgetary support for ARLIS since the library was established in 1997 ARLIS is providing services that were previously provided through the Oil Spill Public Information Center (OSPIC) With the exception of Fiscal Year 1994, this activity has historically been funded under the Public Information, Science Management and Administration Budget (Project /100) Funding as a separate project began in Fiscal Year 2001, as Project 01550

***STAC Recommendation***    *NA*

***Executive Director's Recommendations***    *NA*

**Project**     **EVOS TC-FY04-Project Management**

**Project Title**   EVOS TC Project Management

**Location**

**Proposer**        EVOS TC

**Proposer Affiliation**

**Lead Agency**

**Funding Recommendations**

**FY04**     \$140,000 00

**FY05** \$0 00

**FY06** \$0 00

**Abstract**

Project management supports those Trustee agencies that administer and/or implement EVOS projects on behalf of the Trustee Council. Tasks performed by project managers include coordinating activities between principal investigators and the Trustee Council Office, reviewing project expenditure activity, assisting in the development of project proposals, and tracking project reports. This is a close out for this project as program management needs will be met from other sources in FY 2005.

**STAC Recommendation**   *NA*

**Executive Director's Recommendations**   *NA*

***Project EVOS TC-FY04-Public Information and Administration***

***Project Title*** Public Information and Administration

***Location***

***Proposer*** EVOS TC

***Proposer Affiliation***

***Lead Agency***

***Funding Recommendations***

***FY04*** \$863,300 00

***FY05*** \$0 00

***FY06*** \$0 00

***Abstract***

Project 040100 provides overall support for public and community involvement and administration of the Trustee Council programs through the Trustee Council office. This includes funding support for the staff working at the direction of the Trustee Council through the Executive Director, as well as public involvement efforts including the participation of the 20 member Public Advisory Committee (PAC).

***STAC Recommendation NA'***

***Executive Director's Recommendations NA***

**Project**      **EVOS TC-FY04- Scientific Management**

**Project Title**    Scientific Management under GEM and Lingering Oil Program

**Location**

**Proposer**        EVOS TC

**Proposer Affiliation**

**Lead Agency**

**Funding Recommendations**

**FY04**      \$391,600 00

**FY05** \$0 00

**FY06** \$0 00

**Abstract**

This project will provide scientific oversight of the Gulf of Alaska Ecosystem Monitoring and Research (GEM) program and of lingering effects of oil on injured resources. Implementation will be based on the GEM Program Document (GPD), which describes how a network of monitoring and supporting activities will be implemented over a five-year period that started in FY 03 using synthesis, research, and modeling, and how the results will be captured and communicated through data management and information transfer. In FY 04, the project will support the Scientific and Technical Advisory Committee (STAC), three GEM subcommittees (habitat, data management and lingering oil), four workshops for developing GEM and other aspects of the scientific review process, provide peer review recommendations and scientific support for the existing Work Plan, Annual Reports and Final Reports, develop the FY05 Invitation to Submit Proposals, continue developing a "State of the Gulf Report" and provide regional input to a status report on North Pacific resources now being developed by PICES.

**STAC Recommendation**    *NA*

**Executive Director's Recommendations**    *NA*

**Project**      **Fall-FY04-Status of Subsistence Uses**

**Project Title**    Update of the Status of Subsistence Uses in Exxon Valdez Oil Spill Area Communities

**Location**        Prince William Sound, Kodiak, Kenai Peninsula, and Alaska Peninsula

**Proposer**        James Fall

**Proposer Affiliation**    ADFG

**Lead Agency**    ADFG

**Funding Recommendations**

**FY04** \$298,700 00

**FY05** \$25,600 00

**FY06** \$0 00

**Abstract**

The project will provide information for an update of the status of subsistence uses in the Exxon Valdez oil spill area. Subsistence uses are a vital natural resource service that was injured by the spill and has not recovered. The project will be a partnership between the Alaska Department of Fish and Game, the Chugach Regional Resources Commission, the Kodiak Area Native Association, and the Bristol Bay Native Association. In early 2004 local research assistants and department researchers will interview face-to-face approximately 760 households in 14 communities about their subsistence activities in 2003. The questionnaire will be similar to that used in previous rounds of interviews. A planning workshop and data review workshop will be held involving study community representatives. A database with study findings and a final report will be produced. Training of local researchers and capacity building are key goals of the project.

**STAC Recommendation**

The last subsistence survey in spill affected communities was 1998. The project proposes to survey 760 HH in 15 communities related to 2003 subsistence activities. The project would be a collaborative effort between ADF&G, Division of Subsistence, CRRC, KANA, BBNA, and the communities. A key project goal is training local researchers in survey administration and data entry and review. The project design, including goals, sampling and survey methods, data analysis and statistical methods, are sound. The proposal incorporates community involvement in most stages of the project (except data analysis). The schedule is reasonable and the qualifications of the ADF&G Division of Subsistence are high. The proposal is responsive to the invitation (community involvement) and specifically responds to invited proposals under Lingering Oil Effects (collect, analyze and report information about current subsistence uses in a subset of oil spill area communities using methodology that is comparable with previous research results). Fall (ADF&G Division of Subsistence) was the PI for most of the previous research. The proposal is consistent with GEM strategies (incorporate community involvement and local knowledge) and goals (detect change, provide information to facilitate understanding of causes of change). The proposed project is part of a long-term monitoring of subsistence activities in the communities affected by the oil spill and includes both restoration and monitoring goals. Fund

**Executive Director's Recommendation**

In the last survey of subsistence uses in 1998 it was found that this injured service had not recovered to pre-spill levels. A follow-up survey to assess the status of recovery is needed. Fund

**Project**      ***Finney-FY04-Marine-terrestrial Linkages***

**Project Title**    Marine-terrestrial Linkages in northern GOA Watersheds Towards Monitoring the effects of Anadromous Marine-derived Nutrients on Biological Production

**Location**        Karluk Lake, Spiridon Lake, Kodiak, Alaska

**Proposer**        Bruce Finney

**Proposer Affiliation**    Alaskan University

**Lead Agency**    ADFG

***Funding Recommendations***

**FY04** \$79,197 00

**FY05** \$80,154 00

**FY06** \$81,117 00

***Abstract***

The proposed project is a comprehensive study examining the role of marine-derived nutrients (MDNs) in the productivity of a sockeye nursery lake ecosystem. The research plan integrates studies of nutrient cycling, primary productivity, zooplankton dynamics, and juvenile sockeye abundance and growth, within a framework of stable isotope natural abundance. The study sites are an ideal pair, very similar in characteristics except for access by spawning salmon (anadromous Karluk Lake and control Spiridon Lake). The project will take advantage of the wealth of previous research including relatively long-term limnological data for both sites. Based on previous work, signals from MDNs are anticipated to be relatively strong, which will help elucidate nutrient pathways. The research design is the first to utilize detailed vertical and temporal sampling of the water column, coupled with measurements of rates of primary productivity, and fully integrated stable isotope analyses, with contemporaneous sampling in a well-matched pair of salmon and control lakes. The overall goal of this project is to provide the framework for designing monitoring projects to detect changes in marine terrestrial linkages in Gulf of Alaska sockeye.

***STAC Recommendation***

This is a proposal to partner with a resource management agency (see Honnold) to understand the influence of marine derived nutrients in a comparison of two watersheds. This proposal covers project design, stable isotope measures and nitrate chemistry, and the partner proposal covers limnology, logistics, and sampling personnel. The proposals together evaluate several indicators of marine linkages across species and two distinct watersheds in close cooperation with a natural resource management agency. The proposal has several unique advantages, 1) a pair of similar lakes with and without apparent marine connections, 2) one lake has very long time series of data on fish abundance and stable isotope levels, 3) both lakes have good baseline data on limnological properties such as nutrients, primary productivity and euphotic volume, and 4) one lake has authoritative peer reviewed publications by one of the PI's that support the basic concepts of the proposal. The proposal would develop a strong partnership between university based researchers and a state agency (ADF&G) that would provide information useful to natural resource managers. State agency has close links to the local community and other government agencies. Prospects are good for learning how to measure and interpret linkages of coastal (oligotrophic) lake systems to the marine environment in the Gulf of Alaska in ways that will have practical applications of very large potential significance. Fund

***Executive Director's Recommendation***

Proposal provides an important comparison between salmon and non-salmon bearing lakes in the oil spill affected area that is important to establishing GEM watershed monitoring. PI's submitted an e-mail agreeing to participate in a watershed workshop will be held at the January 2005 GEM meeting, and to present an up-to-date report on progress and participate in comparison and evaluation of methods. Fund



**Project Foster-FY04-Community Science Dialogues**

**Project Title** Community Science Dialogues

**Location** Lower Cook Inlet and Kachemak Bay

**Proposer** Rick Foster

**Proposer Affiliation** ADFG

**Lead Agency** ADFG

**Funding Recommendations**

**FY04** \$0 00

**FY05** \$0 00

**FY06** \$0 00

**Abstract**

Effective stewardship of resources requires access to reliable information. The communities of Port Graham and Seldovia have demonstrated a desire to learn more about research occurring in their region. Kachemak Bay Research Reserve (KBRR) will partner with these villages to provide Community Science Dialogues (Dialogues). The Dialogues will be based on interests of the Villages and work of scientists researching various aspects of the oceanic, benthic, atmospheric, and watersheds of Kachemak Bay, Lower Cook Inlet, and Gulf of Alaska. Dialogues will build on the successful KBRR Science Seminar Series. Dialogues will feature a scientist and a local holder of traditional ecological knowledge on the subject, will introduce Port Graham's Community Research Protocols & Guidelines, and include opportunity for proposing and planning related community-based research projects. Three different formats will be evaluated with design and presentation protocols developed to aid scientists "inform and involve" communities in dialogue and project planning.

**STAC Recommendation**

Although the proposal is responsive to the invitation (small-scale science symposium/community involvement) and is consistent with one of the GEM strategies (incorporate community involvement and local knowledge), it falls short in a number of key areas. Methods are too narrow, and would need to be revised to expand the independent variable(s) beyond the process by which the scientists are chosen and prepared, to evaluate how variation in the dialogue process itself. Although the "Community Science Dialogues" method has been ongoing for a decade, the revision needs to present information on what has or what has not been effective. Recommendation: Do not fund.

**Executive Director's Recommendation**

The proposal did not establish the need for its activities in a compelling way, and the methodological difficulties identified by the peer review are substantial. Do not fund.

**Project**      **Guay-FY04-Assessing Watershed**

**Project Title**    Assessing Watershed Source of Metals to Coastal Environments in the vicinity of Kachemak Bay

**Location**        Kachemak Bay, southern Kenai Peninsula

**Proposer**        Christopher Guay                      **Proposer Affiliation**    ADFG

**Lead Agency**    ADFG

**Funding Recommendations**

**FY04** \$0 00

**FY05** \$0 00

**FY06** \$0 00

**Abstract**

Samples of water, suspended particulates, surface sediments, and benthic organisms will be collected from watershed/estuary systems on the southern Kenai Peninsula in the vicinity of Kachemak Bay. Samples will be collected over a two-year period starting in December 2003. Much of the sampling will be conducted by residents of Seldovia, Port Graham, and Nanwalek after training at the beginning of the project in October 2003. The samples will be analyzed for a suite of metals (As, Cd, Co, Cr, Cu, Mn, Ni, Pb, Zn) by ICPMS, and the data will be used to address the following hypotheses related to the cycling of metals in these environments:

1. The watersheds are a significant source of metals to adjacent coastal areas
2. Contributions of metals by marine source waters are small relative to inputs of metals from the watersheds
3. Metals accumulate in sediments and biota in the coastal areas adjacent to the watersheds

**STAC Recommendation**

This proposal to sample for naturally occurring metals in water and sediments in Kachemak Bay and the Kenai Peninsula. There are indications that metals may be accumulating in seafood consumed in this region. This is a well-written proposal that has methods clearly laid out and has a good field sampling plan covering time and space. Additionally, this proposal directly involves local communities with collecting the samples and would work closely with other separately funded programs. The measurement of terrestrial-marine linkages is ultimately of interest to the GEM program because of the need to understand the basis for changes in production of birds, fish and mammals in the oil spill affected areas. The proposal does not address terrestrial marine linkages that in the long-term shed light on production or productivity in the GEM area. As such the proposal is not responsive to the Invitation for FY04. The Invitation (pp 11-12) specifically asked for programs to identify, evaluate and implement sampling strategies for marine signals. This proposal is for a specific sampling strategy for specific freshwater signals (metals) that have not yet been identified as something that needs to be monitored. While the sample design of the project is good, it makes the project extremely expensive. The proposed project is further ahead than GEM is at this moment and GEM is not yet prepared to fund a full-scale sample plan without more investigation into the design of the plan on a GEM region-wide scale. This is not something that would lead to a long-term monitoring project for GEM. This aspect makes the proposal unfundable at this time. Do not fund.

**Executive Director's Recommendation**

Although the topic of heavy metal contamination in coastal sea foods is of interest to coastal communities, the proposal did not establish a compelling need for this investigation in relation to the Invitation for Proposals. Do not fund.

**Project      Heintz-FY04-Energy Allocation**

**Project Title**    The Influence of Adult Salmon Carcasses on Energy Allocation in Juvenile Salmonids

**Location**        Kenai Peninsula

**Proposer**        Ron Heintz

**Proposer Affiliation**    NOAA

**Lead Agency**    NOAA

**Funding Recommendations**

**FY04** \$48,400 00

**FY05** \$42,300 00

**FY06** \$14,100 00

**Abstract**

This proposal seeks to examine the effect of adult salmon carcasses on the energy allocation in juvenile salmon. Juvenile salmon allocate energy between the competing demands of growth and energy storage to minimize exposure to predation while forestalling starvation over winter. This proposal will contrast annual energy dynamics in age-0 Dolly Varden from Kenai Peninsula streams with and without salmon carcasses present. Fatty acid analysis will be used to identify marine signal strength and persistence in the lipids of the juveniles. The investigators will combine proximate and lipid class analyses to determine the proportions of their total energy allocated to storage versus structure, and examine how seasonal variation in allocation differs among streams and carcass densities. They also will examine the influence of carcasses on growth rate and the relation between growth and energy allocation.

**STAC Recommendation**

Responds to watershed invitation. Provides novel approach to measuring the effects of MDN on resident freshwater species and juvenile salmon in partnership with other proposal (Walker). The GEM program identifies a need for indicators that show how and when to measure marine-related biological production in watersheds. Results from this study will provide additional information about the efficacy of changes in the intensity of the marine signal and lipid reserves between fall and spring as a tool for monitoring the impacts of marine nutrients on the production and survival of juvenile. Potential direct application to fishery management through understanding of factors contributing to year class strength in resident species (growth and over winter survival). Such a tool would have wide application for management of salmon and salmon spawning habitat in the state. Fund contingent.

**Executive Director's Recommendation**

Proposal provides a desirable resource management dimension to the watershed study of Walker, however outstanding reports from the PI need to be submitted. PI agreed to participate in a watershed workshop will be held at the January 2005 GEM meeting, and to present an up-to-date report on progress and participate in comparison and evaluation of methods. Fund contingent on receipt of review drafts of all outstanding reports.

**Project**      ***Honnold-FY04-Marine-derived Nutrients on Sockeye Salmon***

**Project Title**   Monitoring the Effects of Anadromous Marine-derived Nutrients on Sockeye Salmon

**Location**       Kodiak Island, Alaska

**Proposer**        Steve Honnold

**Proposer Affiliation**    ADFG

**Lead Agency**    ADFG

***Funding Recommendations***

**FY04** \$83,200 00

**FY05** \$82,400 00

**FY06** \$86,800 00

***Abstract***

We propose to comprehensively examine the role of MDN in sockeye salmon nursery lake ecosystem productivity by integrating studies of nutrient cycling, primary productivity, zooplankton dynamics, and juvenile sockeye abundance and growth, within a framework of stable isotope natural abundance. The project will take advantage of previous research including relatively long-term limnological data for Karluk Lake on Kodiak Island. We will utilize detailed vertical and temporal sampling of the water column, coupled with measurements of rates of primary productivity, and fully integrated stable isotope analyses, with contemporaneous sampling in a well matched pair of salmon (Karluk) and control (Spiridon) lakes. We propose to determine the extent to which the functioning and productivity of watersheds depends on marine-nutrient inputs and how this marine-terrestrial linkage can be better detected and understood. The overall goal of this project is to provide the framework for designing monitoring projects to detect changes in marine terrestrial linkages in Gulf of Alaska sockeye watersheds.

***STAC Recommendation***

This proposal is from a state agency to partner with university based expertise (see Finney) to understand the influence of marine derived nutrients in a comparison of two watersheds. This proposal covers limnology, logistics, and sampling personnel and the university proposal covers overall project design, stable isotope measures and nitrate chemistry. The proposals together evaluate several indicators of marine linkages across species and two distinct watersheds in close cooperation with a natural resource management agency. The proposal has several unique advantages, 1) a pair of similar lakes with and without apparent marine connections, 2) one lake has very long time series of data on fish abundance and stable isotope levels, 3) both lakes have good baseline data on limnological properties such as nutrients, primary productivity and euphotic volume, and 4) one lake has authoritative peer reviewed publications by one of the PI's that support the basic concepts of the proposal. The proposal would develop a strong partnership between university based researchers and a state agency (ADF&G) that would provide information useful to natural resource managers. State agency has close links to the local community and other government agencies. Prospects are good for learning how to measure and interpret linkages of coastal (oligotrophic) lake systems to the marine environment in the Gulf of Alaska in ways that will have practical applications of very large potential significance. Fund

***Executive Director's Recommendation***

Proposal provides an important comparison between salmon and non-salmon bearing lakes in the oil spill affected area that is important to establishing GEM watershed monitoring. PI agreed to participate in a watershed workshop, which will be held at the January 2005 GEM meeting, and to present an up-to-date report on progress and participate in comparison and evaluation of methods. Fund

**Project      *Irons-FY 04-Bird Abundance in PWS***

**Project Title**    Surveys to Monitor Marine Bird Abundance in Prince William Sound during Winter and Summer 2004

**Location**        Prince William Sound, Alaska

**Proposer**        David Irons

**Proposer Affiliation**    DOI

**Lead Agency**    DOI

***Funding Recommendations***

**FY04** \$175,518 00

**FY05** \$0 00

**FY06** \$0 00

***Abstract***

We propose to conduct small boat surveys to monitor abundance of marine birds and sea otters (*Enhydra lutris*) in Prince William Sound, Alaska during March and July 2004. Seven previous surveys have monitored population trends for >65 bird and 8 marine mammal species in Prince William Sound after the Exxon Valdez oil spill. We will use data collected in 2004 to examine trends from summer 1989-2004 and from winter 1990-2004 by determining whether populations in the oiled zone changed at the same rate as those in the unoiled zone. We will also examine overall population trends for the Sound from 1989-2004. Due to the lack of data prior to the Exxon Valdez oil spill, continued monitoring of marine birds and sea otters is needed to determine whether populations injured by the spill are recovering. Data collected in 2000 indicated that bald eagles (*Haliaeetus leucocephalus*) are increasing in winter and summer throughout Prince William Sound, harlequin ducks (*Histrionicus histrionicus*) are increasing in the oiled area in winter, and black oystercatchers are increasing throughout Prince William Sound in summer. Numbers of all other injured species are either not changing or are declining in the oiled area. Common loons (*Gavia immer*), cormorants (*Phalacrocorax* spp.), and common murrelets (*Uria lomvia*) 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 and Kittlitz's Murrelet (*Brachyramphus brevirostris*) is declining throughout Prince William Sound. Results of these surveys up through 1998 have been published by Irons et al. (2000) and Lance et al. (2001). Analyses of these survey data are the only ongoing means to evaluate the recovery of most of these injured species. A Final Report will be written upon completion of the project that will address population status of species observed during the survey.

***STAC Recommendation***

This proposal would continue a systematic survey by boat of birds and sea otters in PWS. There is an established standard methodology for these surveys. These surveys go back to the mid-1970s and provide some of the few quantitative data sets for animal populations from before the spill. Starting in the mid-1990s these surveys were carried out every 3 years and the present proposal is for continuation of this series. Aside from their value in understanding whether post-spill populations of sea birds in PWS are attaining pre-spill levels, the survey results now constitute one of the few long-term data sets for sea birds in the northern GOA. It also includes many species that are not otherwise measured in other censuses of sea birds. The proposed work therefore constitutes a valuable addition to the FY04 work plan both as follow up on the spill injury to birds, which was extensive, but also as a valuable data set for addressing GEM goals relative to shifting animal populations. Fund

***Executive Director's Recommendation***

The project adds another point in an increasingly valuable time series of sea bird population abundance in the areas of the spill. The need to survey bird populations to assess recovery status is well justified, as several injured bird species have not shown signs of recovery since the spill. Fund

***Project      Irvine-FY04-Lingering Oil on Boulder-Armored Beaches***

***Project Title***    Monitoring Lingering Oil on Boulder-Armored Beaches in the Gulf of Alaska

***Location***        Kenai Peninsula, Alaska Peninsula

***Proposer***        Gail Irvine

***Proposer Affiliation***    DOI

***Lead Agency***    DOI

***Funding Recommendations***

***FY04*** \$71,700 00

***FY05*** \$17,200 00

***FY06*** \$0 00

***Abstract***

We propose to continue monitoring the persistence and degradation of oil at boulder-armored Gulf of Alaska beaches that have been studied since 1992 and investigate how stability of the boulder armors affects both persistence and weathering. These sites were re-sampled in 1994 and 1999, 2004 would be the next targeted study date. The continued contamination of these sites, arrayed along the Katmai and Kenai Fjords National Park coasts, compromises the aesthetics and wilderness values of some of the most pristine wilderness-coast parklands in the world. The lack of weathering of much of the oil means that the oil, if released, could pose a risk to biota. Subsurface oil persisted at these sites in 1999 with little change in extent or chemical weathering since 1994. Data also suggests that the boulder armors are largely stable. We propose to assess changes in surface and subsurface oiling, chemical weathering of the oil, and stability of the boulder armors. Results will be published.

***STAC Recommendation***

This proposal directly addresses the question of the persistence of oil on armored gravel beaches outside of PWS 15 years after the spill. This survey has been carried out several times at various intervals after the spill. It is important to extend this study one more time to understand the larger geographic picture of oil persistence subsurface in beaches long after the floating oil and oil on beaches has disappeared from view. The extent and degree of oil weathering are both addressed. The reviewer had some suggestions for changes in the proposed work, particularly in the area of geomorphology, which should be addressed before the work is carried out in FY 04. The work also needs to be coordinated with and made consistent with shoreline mapping efforts. Defer contingent on publication of results of past studies and receipt of revised proposal addressing peer reviewer concerns and the recommendation of the November 2003 work shop on lingering oil.

***Executive Director's Recommendation***

The specific requirements for further work on lingering oil need to be further developed during a workshop to be conducted in November 2003, and publication of results of past work in this area are needed before this project can proceed. Defer.



**Project**      **Jack-FY04-Sea Otter Abundance**

**Project Title**    Unalaska, Ouzinkie, Kamishak Bay and Kachemak Bay Local Sea Otter Abundance Trend Survey Project

**Location**

**Proposer**        Lianna Jack

**Proposer Affiliation**    NGO

**Lead Agency**    NOAA

**Funding Recommendations**

**FY04** \$0 00

**FY05** \$0 00

**FY06** \$0 00

**Abstract**

Sea otters (*Enhydra lutis*) west of Cook Inlet, including the Barren Islands, have been designated as a candidate species under the Endangered Species Act. This determination is based on a limited number of aerial surveys. This limited data provides no indication of current sea otter population trend, whether sea otter populations have stabilized, are increasing or are decreasing. The Alaska Sea Otter and Steller Sea Lion Commission (TASSC) proposes annual sea otter trend surveys for three years to be conducted in four areas within Southwest Alaska. Specifically, we propose to work with the Tribal Governments of Unalaska and Ouzinkie, and to monitor Kamishak and Kachemak Bays to determine sea otter population trend.

**STAC Recommendation**

This proposal seeks funding to conduct annual sea otter trend surveys for three years in four areas within southwest Alaska: Unalaska, Ouzinkie, Kamishak Bay, and Kachemak Bay. Sea otters west of Cook Inlet, including the Barren Islands, have been designated as a candidate species under the Endangered Species Act. The determination was based on a limited number of aerial surveys by the U.S. Fish and Wildlife Service (USFWS). The project is a collaboration of Alaska Native communities under the direction of the Alaska Sea Otter and Steller Sea Lion Commission. The proposed monitoring will utilize local expertise through implementation of skiff surveys in four areas. The proposal is not clear on how the monitoring work will complement ongoing and future surveys conducted by the USFWS. The proposal needs to be enhanced to reflect cooperation with the federal management agency. Also, the proposal needs to reflect what, if any, cost sharing the USFWS may provide to help complete the project. The project is non-responsive to the Invitation, is largely out of the GEM area and does not coordinate with the federal agencies. Do not fund.

**Executive Director's Recommendation**

The proposal calls for work in areas well outside the oil spill affected area, and on an injured species, the sea otter, in areas that are well outside the locales now demonstrating lingering oil effects. Such a survey in the oil spill affected areas may be indicated once long-term monitoring objectives have been established for the nearshore habitat type, however it is not responsive to our needs at this time. Do not fund.

**Project**      **Kiefer-FY04-Alaskan Groundfish Feeding Ecology**

**Project Title**    Alaskan Groundfish feeding Ecology    An OBIS Information System

**Location**        GOA, Aleutian Islands, Bering Sea

**Proposer**        Dale Kiefer

**Proposer Affiliation**    Private Enterprise

**Lead Agency**    NOAA

**Funding Recommendations**

**FY04** \$80,900 00

**FY05** \$0 00

**FY06** \$0 00

**Abstract**

We propose to develop an OBIS data server node containing information characterizing the distribution and feeding ecology of Alaskan groundfish in relation to environmental parameters. Capitalizing upon our experience as participants in several OBIS projects and using established OBIS tools and protocols for Web-based access to biogeographic datasets, this information system will archive, analyze, and provide a means to distribute via the Internet information on the spatial and temporal distribution of a large number of groundfish and associated prey species sampled in the Gulf of Alaska, Aleutian Island waters, and the Bering Sea by NMFS Alaska Fisheries Science Center (AFSC). This biogeographic information system will include data on the gut contents of specimens as well as environmental information characterizing the habitats of the species. These datasets provide a biogeographic description of groundfish distribution and dynamics in relation to habitat structure and environmental variability. They also provide a detailed account of interspecific and environmental interactions that are integral to ecosystem-based fisheries assessment and management approaches. Biological databases used in this project will derive from AFSC, while environmental information will come from databases at the Pacific Marine Ecological Laboratory, AFSC and other sources such as the Institute of Marine Science, University of Alaska Fairbanks. Datasets employed are diverse in nature, and will include satellite imagery, hydrographic and fishery surveys data. The information system will address the problem of integrating multivariate data that has been collected on differing spatial and temporal scales. It will also provide GIS tools to analyze, visualize, and disseminate information according to OBIS technical protocols. Our goal is to develop a pilot system that will not only augment OBIS, but also characterize the habitat and behavior of Alaskan groundfish, and provide a model of how the integration of environmental information can aid in the assessment of marine resources.

**STAC Recommendation**

This proposal provides a structured proven approach to the implementation of an OBIS (Oceanographic Biological Information System) node in the Alaskan region in addition to addressing the invitation very well. Kiefer has chosen the Alaska Fisheries Science Center Groundfish Databases as a candidate series of datasets to be upscaled into the Census of Marine Life's (CoML) bio-geographic database schema known as OBIS. Four dimensional (x,y,z,t) visualization tools will be accessible through the web or client connection using EASy WEB Server or EASy client respectively. EASy is a product which has been developed by Kiefer and has been integrated with many regional observing systems such as the Gulf of Maine Biological Information System (GIMBIS) and has been ported to the DODS server (a product of the OPeNDAP Group). In addition to providing GEM with a regional OBIS node, this proposal will

also assist in the initialization of the Alaskan Oceanographic Observing System (AOOS) by providing a data node which will pipe information to the national level (IOOS). Focus the demonstration on the geographic region of the GEM Program. The Alaska Groundfish data set is only a starting point for implementation, and the extension to more GEM-relevant data sets such as SEA, APEX, NVP, is recommended for the future. Interactions with potential users, such as the GEM modeling group, the authors of GEM synthesis sections, and interested members of the public. Fund

***Executive Director's Recommendation***

The proposal takes a big step toward meeting GEM needs for database standards, and for improving access of scientists and the public to GEM data, as well as to GEM related data. The use of the groundfish database is justified because it saves development costs by providing a well known standard against which results may be judged. Once the proof of concept is established, the products from the project are extensible to many different types of data at small marginal cost. Fund

**Project**      ***Kline-FY04-Exchange between GOA and PWS***

**Project Title**    Detecting the Exchange between Gulf of Alaska and Prince William Sound,  
Submitted under the BAA

**Location**        Prince William Sound

**Proposer**        Thomas Kline

**Proposer Affiliation**    NGO

**Lead Agency**    NOAA

***Funding Recommendations***

**FY04** \$142,800 00

**FY05** \$189,300 00

**FY06** \$193,500 00

***Abstract***

This project will use stable isotope analysis to understand how exchange between the Gulf of Alaska (GOA) and Prince William Sound (PWS) via the Alaska Coastal Current affects the biology of PWS through assessment of the influx of diapausing *Neocalanus* copepods, the keystone zooplankton taxon of the subarctic Pacific, from the GOA in the Black Hole of PWS. The project will first resolve the hypothesized summer timing of the *Neocalanus* inflow using MOCNESS samples from the P I 's GLOBEC project during cruises in 2001 to 2004. During the fall-winter of 2004-2005 the project will determine how best to assess net inflow with the minimal number of sampling stations. During the fall-winter 2005-2006 the project will begin to assess stage timing and population dynamics of diapausing and reproducing *Neocalanus* so as to lead to monitoring and predictive modeling. The project will recommend a sampling strategy for long-term sampling to monitor changes in the nature of the GOA inflow through impacts on this key taxon.

***STAC Recommendation***

Understanding exchanges between PWS and the Gulf of Alaska is surely important to GEM, however the proposal does not clearly explain *Neocalanus* life histories and the theory of stocking of the PWS "Black Hole" with diapausing individuals from the GOA. The text is not clearly written. The sampling methods are not the best for the species in question. Zooplankton sampling in the Black Hole is ideally suited to the simplest sorts of messenger activated vertical nets. A cast to 800 m can be made in half an hour or less, a complete vertical series in 2 to 3 hours. Therefore the proposal to acquire and use a HydroBios Multnet is wasteful and likely to reduce the overall reliability of the sampling scheme. For purposes of knowing how many diapause stage *Neocalanus* are in the Black Hole on a given date, no closing nets are needed, but rather a vertical haul from just over the bottom to the surface and report the result as number m<sup>-2</sup>. It will take a modest boat with a davit or A-frame, and a powered winch with 1000 m of wire rope, as opposed to the more expensive platform proposed here. It is not explained why GEM should bear the cost of working up GLOBEC samples, although this may be justified under certain circumstances. Do not fund.

***Executive Director's Recommendation***

The proposal identifies a very important area of information for the GEM program. Correspondence with the author indicates that methodological problems identified in the peer review may be resolved during the current funding cycle. Defei

**Project      Knudsen-FY04-Nutrient-Based Resource Management**

**Project Title**    Research for Nutrient-Based Resource Management in Watersheds and Estuaries

**Location**        Prince William Sound

**Proposer**        Eric Knudsen

**Proposer Affiliation**    DOI

**Lead Agency**    DOI

**Funding Recommendations**

**FY04** \$153,216 00

**FY05** \$177,002 00

**FY06** \$152,632 00

**Abstract**

Proposal offers a strategy for developing a monitoring program for watersheds that would form the basis for a comprehensive understanding of water quality and biological production in relation to natural and human induced variability. Sampling strategy effectively leverages existing funding from Oil Spill Recovery Institute and North Pacific Research Board to minimize costs. Data derived on isotopic signatures of C, N, and S will be invaluable in designing monitoring throughout the GEM area. Important new information would be produced on effects of watersheds on productivities of nearshore environments, the feasibility of using sulfur as indicator of marine related effects, and the relation of MDN to freshwater residence time in juvenile salmon.

**STAC Recommendation**

Proposal offers a clear strategy for developing a monitoring program for watersheds that would form the basis for a comprehensive understanding of water quality and biological production in relation to natural and human induced variability. Sampling strategy effectively leverages existing funding from Oil Spill Recovery Institute and North Pacific Research Board to minimize costs. Data derived on isotopic signatures of C, N, and S will be invaluable in designing monitoring throughout the GEM area. Important new information would be produced on effects of watersheds on productivities of nearshore environments, the feasibility of using sulfur as indicator of marine related effects, and the relation of MDN to freshwater residence time in juvenile salmon. Proposal makes good case that the management implications of information for salmon and salmon-dependent economies and wildlife are very strong for ADF&G, NMFS, and USFWS. On the negative side the proposal has some serious shortcomings in the presentation of hypotheses and methods. Hypotheses need to be re-written to remove tautologies, maps of sampling localities need to be provided, and field methods for sampling and estimation of abundance need to be clearly explained. Fund contingent on receipt of revised proposal addressing peer reviewer concerns.

**Executive Director's Recommendation**

The project provides information on terrestrial-marine linkages in the nearshore and riverine environments that is essential to planning watershed monitoring. Revised proposal addressed peer reviewer concerns. The Principal Investigators agreed to participate in a watershed workshop will be held at the January 2005 GEM meeting, and to present an up-to-date report on progress and participate in comparison and evaluation of methods. Fund.

**Project**      **Konar-FY04-Natural Geography in Shore Areas**

**Project Title**    Alaska Natural Geography in Shore Areas    Year 2 of a Census of Marine Life Initial Field Project

**Location**        Kodiak Island, PWS and Kachemak Bay

**Proposer**        Brenda Konar

**Proposer Affiliation**    Alaskan University

**Lead Agency**    ADFG

**Funding Recommendations**

**FY04** \$248,729 00

**FY05** \$0 00

**FY06** \$0 00

**Abstract**

This proposal seeks funding to complete the initial nearshore biodiversity surveys that were started in the summer of 2003 in Kodiak Island, Prince William Sound and Kachemak Bay. These surveys are part of a pole-to-pole latitudinal gradient in macroalgal rocky bottom and seagrass soft bottom habitats that is applying standardized protocols developed under the Census of Marine Life program. In our second year of funding we will resurvey all sites that were sampled in 2003 for temporal resolution and will retrieve the temperature data loggers that were deployed at all sites in 2003 so that physical data can be incorporated for each study site. The project is heavily based on local community involvement for sampling. Expected outcomes are establishment of a biodiversity database for current regional and global comparisons and future long-term monitoring programs, capacity building, and a broad outreach to the public.

**STAC Recommendation**

This proposal seeks funds to complete the initial nearshore biodiversity surveys started in the summer of 2003 in Kodiak Island, Prince William Sound and Kachemak Bay. The surveys were funded using EVOS funds. The surveys are part of a pole-to-pole latitudinal gradient in macroalgal rocky bottom and seagrass soft bottom habitats that is applying standardized protocols developed under the Census of Marine Life Program. Funding in second year will allow resurvey of all sites sampled in 2003 and incorporate physical data for each study site. The sampling aspects of the surveys have strong local community involvement. The results of this project will establish a biodiversity database for current regional and global comparisons and future long-term monitoring programs, capacity building, and a broad outreach to the public. Fund at level requested originally.

**Executive Director's Recommendation**

The proposal continues a process started in FY 03 for exploring possibilities for nearshore monitoring sites that are conducive to community involvement in terms of the questions addressed and the data collected. Sites were explored and samples collected in FY 03 and analysis and recommendations are expected during FY 04. Fund.

***Project      Kopchak-FY04-Resource Mapping***

***Project Title***    Cordova Community Resource Mapping

***Location***        Prince William Sound and the Copper River Drainage

***Proposer***        Robert Kopchak                      ***Proposer Affiliation***    NGO

***Lead Agency***    NOAA

***Funding Recommendations***

***FY04*** \$0 00                              ***FY05*** \$0 00                              ***FY06*** \$0 00

***Abstract***

This project would utilize an integrated GIS database and produce maps of resources that the people of Cordova and the surrounding area are dependent on. The effort would build upon existing projects either completed or under development by Alyeska Pipeline Service Co., US Forest Service, NMFS, Alaska Departments of Fish and Game, Environmental Conservation, and Dept. of Natural Resources, BLM, PWSRCAC, Ecotrust, and others. The effort would be an integral part of, and a complement to a three-year Copper River drainage resource assessment, currently being undertaken by Ecotrust. The GIS maps would be made available to institutional users and the general public through web site access (PWS Science Center, Ecotrust, and GEM/EVOS) for research and educational purposes.

***STAC Recommendation***

This is an interesting project that proposes to synthesize data for the Cordova Resources Area in an integrated GIS database; however, there are still some major questions that need to be addressed before the project could be recommended for funding. First, the "Cordova Resource Area" is not defined in the proposal. There is no map and at times it refers to the Copper River and other times refers to the Cordova area and then in FY06 to "integrate where possible PWS data into GIS system." Additionally, it is difficult to determine exactly what is proposed. The proposed objectives (II A) are vague. What exactly is going to be produced? How are "all sensitive areas" defined? Why are only critical salmon habitats to be profiled and not habitats for other species like herring? The methods (II B) are the same as the milestones. Furthermore, (II C) "GEM QA/QC requirements" need to be specifically defined. The qualifications of the PI need to be established by providing a CV. The proposal was not coordinated with the other projects in the GEM region that are using some kind of mapping. Do not fund.

***Executive Director's Recommendation***

Methodological problems identified in the peer review process are not surmountable during the present funding cycle. Do not fund.





**Project**      **Lilly-FY04-Fate and Transport Modeling**

**Project Title**    Intertidal Contaminant Fate and Transport Modeling

**Location**        Prince William Sound

**Proposer**        Michael Lilly

**Proposer Affiliation**    Private Enterprise

**Lead Agency**    NOAA

**Funding Recommendations**

**FY04** \$0 00

**FY05** \$0 00

**FY06** \$0 00

**Abstract**

The fate and transport of oil and dissolved hydrocarbons in the beach environment is a critical process to characterize for development of monitoring programs under the GEM plan. The intertidal zone is the boundary zone between highly productive ecosystems and the flux of hydrocarbons in beach ground-water systems. The amount and duration of hydrocarbon loading across the intertidal zone is important for understanding how biological systems respond to hydrocarbons acting as long-term sources. We will synthesize existing data on beaches containing hydrocarbons, and identify the biogeochemical processes and nearshore ground-water dynamics of typical beaches still bearing impacts of the oil spill. Numerical modeling will be used to understand and demonstrate how these processes work. This effort will help GEM program planners evaluate what data-collection needs exist for long-term monitoring of hydrocarbons and what information is needed to better understand and model fate and transport processes in impacted beach environments.

**STAC Recommendation**

This proposal will produce a literature summary and conceptual model of the fate and transport of oil in intertidal habitats in Prince William Sound. There is no link between the proposed study plan and the ability to assess the impacts of lingering oil in intertidal habitats. The proposal did not specify any time-period for which contaminant transport would be modeled. There was no discussion or apparent understanding of the extent of oil loading or degree of weathering of oil residues as of 2003. It seems as though the proposers have little knowledge of the composition of crude oil as a complex mixture, the weathering processes that affect water-soluble components over 13 years, which compounds have ecological significance, etc. Their example figures had little application to the actual intertidal settings or oil distributions. They propose to create conceptual and contaminant transport models for “index” or “type-beaches” in PWS without any effort to validate the results. I would have at least expected to have some field data to validate the simplest of model outputs, such as ground-water salinity. Recommendation: Do not fund.

**Executive Director's Recommendation**

The proposal is not responsive to the needs of the program at this time. Do not fund.

**Project**      **Macklin-FY04-NGOA Metadatabase**

**Project Title**    A Comprehensive, Web-accessible, Geo-referenced Metadatabase of Marine-related Physical and Biological Databases of the Northern Gulf of Alaska

**Location**        Seattle, WA

**Proposer**        S Allen Macklin

**Proposer Affiliation**    NOAA

**Lead Agency**    NOAA

**Funding Recommendations**

**FY04** \$100,600 00

**FY05** \$0 00

**FY06** \$0 00

**Abstract**

This project will adapt for GEM purposes the North Pacific Ecosystem Metadatabase (NPEM, <http://www.pmel.noaa.gov/np/mdb/>) that has served information via the World-Wide Web since 1998. The adaptation will be a web-accessible metadatabase of marine science databases of the northern Gulf of Alaska. Appropriate records from the NPEM will be transferred to the GEM metadatabase, and additional records pertaining to GEM, PICES, NPRB, UAF/IMS, GLOBEC, FOCI, and similar research efforts will be added. Metadata will be coded to the FGDC standard using the 26 elements specified by MetaLite. As possible, metadata will include thematic, semantic and syntactic descriptors. This utility will include filtering capabilities to extract from existing metadata records those specific to the regions, habitat types, and subject areas defined by the working concepts of the GEM Science Plan. Compound searches of the metadatabase will allow selection of records by time, space, keyword, text string, etc., and results will be ranked according to their agreement with the search criteria. Work will be accomplished over a three-year period in Seattle, Washington.

**STAC Recommendation**

This proposal responds to data management needs identified in the invitation, however it goes beyond the needs identified and needs to be modified and reduced in order to be useful to the GEM program. Reduce the amount of effort outside the GEM program, apply additional effort to build expertise inside the GEM program. Scale down proposal to exclude Objective 2. Change proposal to focus on Objectives 1, 4 and 5, with emphasis on the GEM region and the nearshore areas in Objective 5. Remove the first part of Objective 3 which is to establish a web site as FGDC node, which is a NOAA responsibility. Clarify the need for remaining part of Objective 3 with respect to the FGDC NSDI and include in Objective 1 if possible. Fund the project for two years at amount not to exceed \$90K total over two years contingent on receipt of revised proposal addressing points above.

**Executive Director's Recommendation**

The proposal provides a workable solution to the metadatabase requirements of the GEM program, however its scope is well beyond that envisioned in the Invitation for Proposals. The proposal has been re-written and the budgets formulated to accommodate the recommendations of the STAC. Fund.

***Project Mann-FY04-Reconstructing Sockeye Populations***

***Project Title*** Reconstructing Sockeye Populations in the Gulf of Alaska over the Last Several Thousand Years The Natural Background to Future Changes

***Location*** Prince William Sound, Kodiak, Kenai Peninsula

***Proposer*** Daniel Mann

***Proposer Affiliation*** Alaskan University

***Lead Agency*** ADFG

***Funding Recommendations***

***FY04*** \$91,500 00

***FY05*** \$42,500 00

***FY06*** \$40,000 00

***Abstract***

We are reconstructing changes in sockeye salmon abundance over the last 10,000 years using the 15N record left by salmon carcasses in the sediments of spawning lakes. Our research question is: What is the normal variability in sockeye salmon populations in the Gulf of Alaska and how does it relate to climatic changes in the Gulf of Alaska region? Our results provide a much-needed background to monitoring studies within the GEM program and to fisheries managers who are working to preserve and restore natural salmon runs. Results from 2002 and 2003 include two, new and unexpectedly complete records of salmon abundance in lakes on the Kenai Peninsula. Both records extend back to the time of regional deglaciation around 10,000 years ago. These new cores provide records of changing 15N that are five times longer than any previous record of salmon-run history. The unexpected length and richness of these new lake-core records have motivated us to request additional funds from EVOS to cover an additional year of full funding followed by a final year of analysis and synthesis.

***STAC Recommendation***

Mann and Finney propose to continue their studies of 15N in sediments in the spawning lakes. They are able to extend the record back 10,000 years. A goal is to establish what is normal salmon abundance and its variability. They propose to compare these sediments with other climate records in an attempt to explain causes of this variability. However, their assumption that the 15N post 1900 reflect the population size is incorrect. Since commercial fishing harvests began, it only reflects changes in salmon escapement. There is concern that because of limited other types of data, the investigators might develop simplified ideas regarding population changes. Since the sediments will remain viable for future analysis it was felt that this work did not require immediate funding.

***Executive Director's Recommendation***

Although this proposal is in an area of work that was not invited, it would provide comparative historical data on salmon abundance or salmon escapement levels of use in planning GEM watershed and nearshore studies. Based on the strength of the peer reviews, and the recommendation of the Public Advisory Committee, this study should be done if funds can be found. Issues remain with respect to the budget. Defer.

**Project**      ***Matkin-FY04-Killer Whales in PWS/Kenai Fjords***

**Project Title**    Monitoring of Killer Whales in Prince William Sound/Kenai Fjords in 2004 -  
Submitted under the BAA

**Location**        PWS, Kenai Fjords Alaska

**Proposer**        Craig Matkin

**Proposer Affiliation**    NGO

**Lead Agency**    NOAA

***Funding Recommendations***

**FY04** \$19,502 00

**FY05** \$0 00

**FY06** \$0 00

***Abstract***

This project transitions monitoring of the damaged resident AB pod and other resident pods and the petitioned as depleted AT1 transient population into a cooperative program with additional collaborative support from the Alaska Sea Life Center, NMFS and various foundations. Monitoring has occurred on a yearly basis since 1984 and was crucial in evaluating the continuing effects from the oil spill. In addition, the role of killer whales in the nearshore ecosystem and possible effects on sea otters will be examined. Community based initiatives such as Youth Area Watch and tour operator educational programs will be integrated. The proposed work will augment current research directed at transient killer whales (ASLC) and provide for annual monitoring of AB pod and other resident pods and includes analysis and reporting of results. In future years the project will be integrated with oceanographic monitoring.

***STAC Recommendation***

This proposal is by a hard-working, dedicated researcher who has followed these whales in Prince William Sound over many years. It is clear that killer whales in general are enjoying good growth of their populations. Some of the pods, such as AB and AT 1 have experienced problems and in the case of the AT 1 pod may be headed for extinction. The paradigms of killer whale social structure and what we wish to see happen are open to challenge, as for example "members" of AB pod are usually seen with another pod when they are sighted. It is clear that if AB pod was injured by the spill that it is on its way to recovery. There is little or no evidence that the problems of AT 1 pod, if they are as the investigator asserts related to the oil spill, as beaching of individual animals in 2000 and 2001 are eleven and twelve years after the spill. If the Trustee Council wishes to follow killer whale pod AB to recovery of pre-spill numbers, which is projected to occur in 2015, then monitoring need only be occasional. Recommendation: Do not fund.

***Executive Director's Recommendation***

Although the proposal does not provide a compelling case that the information gathered is essential for determining the status of an injured species, and the STAC raises serious concerns regarding the link to the presumed effects on killer whales to oiling, this is a very cost effective and highly leveraged proposal to extend a long time series of interest to many in the GEM region. As a highly leveraged project with multiple partners it has potential as a monitoring project in the GEM program, however fiscal constraints preclude a fund recommendation on this project. Defer

**Project**      **Mazumder-FY04-Marine-Derived Nutrients**

**Project Title**    Marine-Derived Nutrients in the Kenai and Adjacent Watersheds Methods for Detecting Change

**Location**        Cook Inlet drainage basin, Kenai Peninsula, Kenai River watershed

**Proposer**        Asit Mazumder

**Proposer Affiliation**    Alaskan University

**Lead Agency**    ADFG

**Funding Recommendations**

**FY04** \$146,292 00

**FY05** \$147,414 00

**FY06** \$132,942 00

**Abstract**

Kenai River Watershed (KenaiRW) is recognized for its abundant fish, wildlife and diversity of landscapes. Extensive consultation among stakeholders, communities and agencies has led to this proposal on the role of marine-derived nutrients (MDN) in sustaining the productivity of Kenai RW. We propose to develop robust methods and monitoring protocols to detect, understand and predict changes in MDN and its linkage to productivity and resources. We will test the robustness of several indicators (nutrients, stable isotopes, fatty acids, contaminants, foodwebs) of MDN in different ecosystem components of KenaiRW and seven other watersheds around Cook Inlet. In the 3rd year, we will begin testing the validity of these indicators to quantify the fate/transport of MDN linking various components of the watershed and their implications for the productivity of KenaiRW. We will also develop a platform for networking and communication among various research groups looking at watershed level changes in MDN and resource productivity.

**STAC Recommendation**

The proposal is well beyond the scope of the Invitation with regard to annual cost and the types of activities that are appropriate to GEM watersheds at this time. The proposal addresses the fundamental measurement questions posed in the Science Plan and the Invitation in objectives 1 – 3 and 8. Objectives 1 – 3 require thoroughly sampling one relatively large and complex watershed, when basic questions of how to measure marine influences in watersheds may best be answered at lower cost by sampling smaller, less complex watersheds that provide more geographic contrast. Objective 8 effects coordination among cooperating parties. Objectives 4 – 7 presume to make choices regarding modeling and selection of MDN measures and indicator species that are not envisioned in GEM planning until late FY 06 to early FY 07 when the results of the current phase of GEM watershed work becomes available. The GEM modeling program that will link the habitat types and guide investment in research is not prepared to handle the output from this ambitious sampling program. It is also not clear present knowledge of the variability in proposed measures of MDN and proxies is sufficient to design sampling of the scale of the proposal. Addition of matching funds would take the three year cost of this project to US\$ 1.2M which is well beyond the level of funding justified by the current state of knowledge of marine-terrestrial linkages in GEM watersheds. Recommend that proposal be revised to eliminate sampling sites outside the Kenai River watershed, and reduced within the watershed to a representative of each habitat type, and to focus on achieving objectives 1, 2, 3, and 8 over a three year period. Fund reduced.

***Executive Director's Recommendation***

The proposal provides needed measures of marine linkages in a watershed that is at high risk of degradation due to human activities, however its scope is far broader than envisioned in the Invitation for Proposals. The PI's provided a revised proposal incorporating the recommendations of the STAC and a letter agreeing to participate in a watershed workshop will be held at the January 2005 GEM meeting, and to present an up-to-date report on progress and participate in comparison and evaluation of methods. Revised proposal relies on \$100K in matching funds that have not been secured. The budget submitted in the revised proposal co-mingled matching and EVOSTC funds so that it was unclear what objectives could be accomplished in the absence of the matching funds, which have not been committed. Defer dependent on confirmation from matching fund sources and clarification of division of funding of objectives among funding sources.



**Project**      **McNutt-FY04-GEM Infrastructure - Lyn McNutt**

**Project Title**    Building the Infrastructure for the Gulf Ecosystem Monitoring (GEM) Program

**Location**        GEM Monitoring Region

**Proposer**        Lyn McNutt

**Proposer Affiliation**    Alaskan University

**Lead Agency**    ADFG

**Funding Recommendations**

**FY04** \$80,835 00

**FY05** \$80,713 00

**FY06** \$83,271 00

**Abstract**

This proposal addresses modeling within the GEM Program, and the infrastructure necessary to implement and maintain a monitoring and data dissemination system for the northern Gulf of Alaska (GOA). Agreement on an interdisciplinary strategy is critical to effective resource management and problem solving in the northern GOA. Use of the GEM infrastructure in support of models and observations will identify and refine measures to describe, manage and predict the status and health of the ecosystem, provide data as information to managers and coastal communities, and communicate publicly the current state of the ecosystem.

Our goal is to provide consensus recommendations to EVOS on

1. Creation of an integrated ecosystem model for the northern GOA,
2. Understanding spatial and temporal scales for implementing a biophysical monitoring program, and,
3. Implementing the GEM infrastructure, including identification of strategies for cooperation, coordination, integration, and cost efficiency.

**STAC Recommendation**

This is part of two separate proposals (McNutt's and Schumacher's) because budgets are from two separate institutions. The proposals must be considered together. This is an effective proposal to establish a framework and infrastructure for a modeling base for GEM. This proposal directly addresses the Invitation part C Modeling, and in particular it is in direct response to example #1 (p. 6) "Building the Infrastructure Necessary to Create, Develop and Maintain the GEM Model." The proposal will do three things essential to the success of GEM: (1) create an integrated ecosystem model for the NGOA, (2) understand spatial and temporal scales for implementing a biophysical monitoring program, and (3) implement the GEM infrastructure, including identification of strategies for cooperation, coordination, integration and cost efficiency. This would provide GEM with an overall structure for modeling. STAC recommends that an objective be added for resource users to actively participate in the workshop along with the scientists. In addition, STAC questions role of the student in the proposed work and asks that it be clarified. Finally, STAC recommends that activities be focused from the start on the crux of the modeling problem, which is how to provide information of use to managers from the GEM monitoring program. Fund both proposals contingent on receipt of revised proposals addressing STAC recommendations and questions.

**Executive Director's Recommendation**

This proposal is an essential part of building the GEM Model. The GEM Model is the primary means of organizing the GEM information so that it can be used in understanding the status of

injured species, allowing natural resource dependent communities to anticipate change and helping managers anticipate changes in populations of birds, fish and mammals. Proposal provides comprehensive solutions to the need to bring together a team of professionals who can guide the development of the GEM Model. Revised proposal was submitted that incorporated the recommendations of the STAC Fund.

**Project**      ***Merritt-FY04-GEM Watershed Synthesis***

**Project Title**    GEM Watershed Synthesis for Evaluation, Planning and Prioritization of Options

**Location**        Watersheds of the GEM Area    Majority of synthesis will occur in Fairbanks

**Proposer**        Margaret Merritt                      **Proposer Affiliation**    Alaskan University

**Lead Agency**    ADFG

***Funding Recommendations***

**FY04** \$58,091 00

**FY05** \$39,751 00

**FY06** \$0 00

***Abstract***

There is a need to synthesize relevant information into a published reference to guide policy makers and resource managers in implementing the watershed component of the GEM Program through identification of goals, objectives and issues, as well as the evaluation and prioritization of options. This project will evaluate aspects of the GEM Program's conceptual foundation, hypotheses and ideas relative to the state of current knowledge of watershed-marine linkages in the GEM area. In addition to scientific information, relationships between resource management and socioeconomic and political issues will be identified. A systems approach using accompanying software will be used to assist in structuring the problem. The resulting synthesis of information will be framed into a clear and easily communicable tool that can serve as a teaching aid.

***STAC Recommendation***

This proposal for watershed synthesis focuses on the pathway to the decision making framework, without clearly describing how the literature synthesis would be built from the foundation of GEM's primary source documents, as specified in the Invitation. On the positive side, the proposal provides a reasonable approach for identifying and selecting options for projects that might be implemented in the GEM watershed habitat type in FY 06, and a further positive is that it would do so by incorporating information and opinions of people from multiple watershed-related communities, including managers and scientists. On the negative side it does not clearly articulate as a top priority the primary need to fully develop the introduction of the watershed habitat type in the GEM Science Plan. The Invitation calls for "a synthesis of scientific literature and existing data gathering programs." In addition, the proposed schedule is partly out of synchrony with the annual funding cycle. For example, in order to contribute to the development of the FY 06 Invitation, an additional milestone of a draft literature synthesis accompanied by ProCite bibliography by Sept 30, 2004 would have been necessary. Do not fund.

***Executive Director's Recommendation***

Agreement with the author to identify the literature survey and supporting staff necessary to the synthesis, and to address reporting requirements should be attainable within the present funding cycle. Defer.

**Project Nelson-FY04-Hydrocarbon Database**

**Project Title** The Exxon Valdez Trustee Hydrocarbon Database and Interpretation Service

**Location** entire spill area

**Proposer** Bonita Nelson

**Proposer Affiliation** NOAA

**Lead Agency** NOAA

**Funding Recommendations**

**FY04** \$22,200 00

**FY05** \$22,200 00

**FY06** \$22,200 00

**Abstract**

This project is an on-going service project providing 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 environmental and laboratory Response (National Resource Damage Assessment - NRDA) and Restoration data. Additionally, we provide interpretive services for the hydrocarbon analysis, provide public releases of the database (including FOIA requests) and maintain the hydrocarbon sample archives.

**STAC Recommendation**

This proposal would extend the management of the data base that is used to track samples for hydrocarbon analyses and continue to make available interpretive services related to origin of oil and its composition, including the likelihood of toxicity. This project is modest in cost and is needed if the Trustee Council is to continue to investigate possible links between oil remaining in the environment and species that apparently have not recovered from the spill. Recommendation Fund

**Executive Director's Recommendation**

Proposal provides an essential service required while the possibility of litigation exists. Fund

**Project**      **Okkonen-FY04-Monitoring Program in the NE Pacific Ocean**

**Project Title**    A Monitoring Program for Near-Surface Temp, Salinity, and Fluorescence Fields in the northeast Pacific Ocean    Transition to an Operational Program

**Location**        N Gulf of Alaska

**Proposer**        Stephen Okkonen

**Proposer Affiliation**    Alaskan University

**Lead Agency**    ADFG

**Funding Recommendations**

**FY04** \$27,289 00

**FY05** \$30,366 00

**FY06** \$31,455 00

**Abstract**

This proposed project responds to the Gulf Ecosystem Monitoring and Research Program invitation category F 2 (Alaska Coastal Current / Collecting physical and biological observations from non-AMHS ships-of-opportunity) Funds are requested to continue (1) the maintenance and operation of a thermosalinograph (TSG) that was installed on the tanker vessel Polar Alaska in July 2002 and (2) the analyses of the collected data The TSG was originally funded as a pilot project by the EVOS Trustee Council in FY02

**STAC Recommendation**

Dr Okkonen and subcontractor Dave Cutchin of Scripps maintain and collect data from a thermosalinograph operating continuously during sea runs on the tanker T/V Polar Alaska transiting from Valdez to alternately San Francisco and Long Beach Cutchin meets the ships at the south end, consults with the chief and second engineers about concerns regarding the system, copies the data from the hard drive of the dedicated computer and services the system (6 times per year) Okkonen reviews, quality checks and archives the data, updating it on a public web site each operation cycle Okkonen is also using the data to identify the locations on each passage of specific current features (ACC is discerned as drops in S and T, the shelf-break jet or Alaska stream similarly, and oceanic eddies as extended drops in just salinity) He is comparing these features to sea surface topography from TOPEX-POSEIDON altimetry Data are transferred to the Batten-Welch CPR project that also operates from the Polar Alaska An initial fluorometer installation failed, but fluorometry should be available by mid-summer 2003 Sustaining fluorometry is anticipated Fund

**Executive Director's Recommendation**

Past performance of the investigators and the results to date, have established this project as a low cost means of collecting basic physical data in the nearshore and offshore areas that should be of use to the GEM Model when it is operational Fund

**Project**      **Pegau-FY04-Studying the ACC**

**Project Title**    Studying the ACC within Cook Inlet using Volunteer Observing Ships

**Location**        Lower Cook Inlet and Kachemak Bay

**Proposer**        Scott Pegau

**Proposer Affiliation**    ADFG

**Lead Agency**    ADFG

**Funding Recommendations**

**FY04** \$0 00

**FY05** \$0 00

**FY06** \$0 00

**Abstract**

This project is designed to monitor changes in the coastal oceans using instruments on vessels of opportunity. The scientific goal is to observe the variations in the flow of the Alaska Coastal Current (ACC) in order to better understand the natural and anthropogenic influences on lower Cook Inlet. In particular, we are interested in understanding how the flow of the ACC interacts with Kachemak Bay. If the ACC enters Kachemak Bay it can carry larvae that can replenish fish and intertidal organisms. The project will produce a basic instrument suite appropriate for installing on all sizes of vessels that regularly operate in the coastal waters of the Gulf of Alaska. The measurements will include temperature, salinity, chlorophyll and CDOM fluorescence, and turbidity. The work will be done in Homer, Alaska at the Kachemak Bay Research Reserve, but techniques will be transferable to other regions in the Gulf and Prince William Sound.

**STAC Recommendation**

Although the goal of quantifying ACC penetration into lower Cook Inlet and, particularly, into Kachemak Bay is important to understanding lower Cook Inlet, the applications of the proposed data and the intervals over which it will be of value to monitor them have not been fully thought out. They need to resolve the sampling problem and the tidal model necessary to de-tide the data. The ferry monitoring would cover a significant part of this area. Do not fund.

**Executive Director's Recommendation**

The proposal correctly identifies sampling opportunities that could be important in understanding changes in populations of birds, fish and mammals in the northern Gulf of Alaska, however substantial issues were identified in the peer review process. Technical issues are not resolvable within the current funding cycle. Do not fund.

**Project      *Renner-FY04-Population Modeling***

**Project Title**    Population Modeling of Kittlitz's Murrelet (*Brachyramphus brevirostris*)

**Location**        PWS, Kachemak Bay, Adak

**Proposer**        Martin Renner

**Proposer Affiliation**    Alaskan University

**Lead Agency**    ADFG

***Funding Recommendations***

**FY04** \$0 00

**FY05** \$0 00

**FY06** \$0 00

***Abstract***

Kittlitz's Murrelet were seriously impacted by the Exxon Valdez Oil Spill and have not recovered but continued to decline alarmingly (listing under Endangered Species Act has been petitioned). We propose to catch and radio tag Kittlitz's Murrelet to find nests, monitor habitat use and estimate survival by mark-recapture. Field work will be conducted at three sites (Prince William Sound, Kachemak Bay, Adak) over three years. Sites are selected to reflect a gradient from heavily glaciated to near glacier, to no glacier. All data will be gathered to build a comprehensive population model used for a Population Viability Analysis. All data will be made openly available on the web.

***STAC Recommendation***

A large number of marbled murrelets, the predominant murrelet in PWS, were killed by the spill, and it is not known for sure how many Kittlitz's murrelets may have been included in the "unidentified murrelet" category among the carcasses recovered after the spill. This species is found predominantly in glacial fjords and none of these environments were oiled significantly. None-the-less, this species is in danger of extirpation and PWS is a major population center for this species. A large number of marbled murrelets, the predominant murrelet in PWS, were killed by the spill, and it is not known for sure how many Kittlitz's Murrelets may have been included in the "unidentified murrelet" category among the carcasses recovered after the spill. This species is found predominantly in glacial fjords and none of these environments were oiled significantly. None-the-less, this species is in danger of extirpation and PWS is a major population center for this species. The methods of achieving the project goals are appropriate and the personnel are experienced in this sort of work. However, the budget is too modest to support the kind of effort needed to locate and verify nests and marked individuals. The connection between lingering oil and populations of this species in the spill area are weakly made, as in fact they are weak. From the standpoint of concern for ongoing spill effects, this project is weakly justified, but it may have value for what the population indicates for the shrinking habitat of the tidewater glacial fjord, if this is a concern in the GEM program. Do not fund.

***Executive Director's Recommendation***

The project is not well justified in terms of the Restoration objective of understanding the status of an injured species in relation to the past and present effects of oiling. Developing the background for federal listing under the Endangered Species Act is not an appropriate task for this funding source. Do not fund.

**Project**      **Rice-FY04-Lingering Population Status**

**Project Title**    Lingering Oil Pathways of Exposure and Population Status (ABL)

**Location**        Prince William Sound

**Proposer**        Stanley Rice

**Proposer Affiliation**    NOAA

**Lead Agency**    NOAA

**Funding Recommendations**

**FY04** \$60,000 00

**FY05** \$61,000 00

**FY06** \$29,100 00

**Abstract**

Lingering oil from the Exxon Valdez oil spill remains throughout Western Prince William Sound and appears to have chronic effects on sea otter and sea duck populations in these areas. Studies conducted in 2001-02 have documented the extent of oiling throughout the sound, and as of this writing, we have determined that oil is bioavailable to predators. Bioavailability defines potential for exposure, but is not equal to exposure or significance. In 2003 and 2004, we are determining the significance of lingering oil by quantifying the probability of oil encounters in areas where sea otters and sea ducks have not recovered. Prey and passive samplers collected in 2003 will be analyzed in 2004, and will be supplemented with additional samples in 2004 to meet the needs of the on-going tagging studies of otters and ducks by USGS. With the mechanism of exposure from lower intertidal oil deposits determined, the research theme will move toward the goal of determining the extent and probability of oil exposure in three restricted areas: Herring Bay, Lower Passage, and Bay of Isles. Information gained in this project could aid in the decision process regarding future mitigation, litigation, or clean-up actions.

**STAC Recommendation**

Lingering oil from the Exxon Valdez oil spill remains throughout Western Prince William Sound and may be having chronic effects on sea otter and sea duck populations in these areas. Studies conducted in 2001-02 have documented the extent of oiling throughout the sound, and the subsurface oil is bioavailable to predators. Bioavailability defines potential for exposure, but the extent to which oil exposure is occurring and whether such exposure may be deleterious is uncertain. In 2003 and 2004, this project will determine the significance of lingering oil by quantifying the probability of oil encounters in areas where sea otters and sea ducks have not recovered. Prey and passive samplers collected in 2003 will be analyzed in 2004, and will be supplemented with additional samples in 2004 to meet the needs of the on-going tagging studies of otters and ducks by USGS. With the mechanism of exposure from lower intertidal oil deposits determined, the research theme will move toward the goal of determining the extent and probability of oil exposure in three restricted areas: Herring Bay, Lower Passage, and Bay of Isles. Information gained in this project could aid in the decision process regarding future mitigation, litigation, or clean-up actions. This project is well designed and complementary to the sea otter/sea duck project by Bodkin et al. It is a key component of the strategy the Trustee Council undertook in FY2002 to determine if remaining oil is a significant factor in lack of recovery of some species such as sea otter and sea ducks. The technical merits are high. The proposal is responsive to the invitation with relevance to management and community involvement. The management application is moderate. The qualifications of the PIs are excellent as is their past performance on other EVOS funded projects. Deferring funding decision pending outcome of November workshop and disposition of the matter of reports for projects 00396 and 00454.



***Executive Director's Recommendation***

The specific requirements for further work on lingering oil need to be further developed during a workshop to be conducted in November 2003. As identified by the STAC, it is important for the preliminary results of the FY 2003 field season to be considered by legal counsel, EVOS staff, advising scientists and the Trustee Council before decisions on funding are made. The exchange between legal, policy and science people will be reported to the Trustee Council before making decisions on what to do in the summer of 2004, which is the last full field season of data that could be fully analyzed before deciding the path to the re-opener. Defer funding decisions pending the outcome of the November workshop.

**Project      Rosenberg-FY04-Harlequin Duck Population**

**Project Title**   Harlequin Duck Population Dynamics in Prince William Sound   Measuring Recovery

**Location**        Prince William Sound

**Proposer**        Dan Rosenberg

**Proposer Affiliation**    ADFG

**Lead Agency**    ADFG

**Funding Recommendations**

**FY04** \$37,100 00

**FY05** \$0 00

**FY06** \$0 00

**Abstract**

This project will address the effects of lingering oil in nearshore habitats of Prince William Sound on populations of harlequin ducks. We will conduct winter boat surveys to test if harlequin ducks have recovered from the effects of the EVOS by comparing population structure and trends between oiled and unoiled treatments in four areas (2 oiled, 2 unoiled) of PWS. Similar structure and trends between oiled and unoiled areas will indicate populations have recovered or are in a position to recover. Work will be complimentary to studies addressing cytochrome P450 induction and over winter survival of female harlequin ducks to give a complete picture of the effects of lingering oil. We will also test for geographic differences in population structure and trend for oiled and unoiled treatments. This is a continuation of surveys begun in 1997. Up to 3 years of surveys are proposed with the results of each year determining the need for continuation.

**STAC Recommendation**

The proposal was well reviewed and is relevant to the Trustee Council's strategy for investigating the links between oil and the recovery of affected populations. Fund contingent on resolution of outstanding reports 00273 and 02407.

**Executive Director's Recommendation**

This is a reasonably priced survey to estimate the abundance of a species, the harlequin duck, which is known to have continuing exposure to Exxon Valdez in the oil spill affected areas of Prince William Sound. Unfortunately there are overdue reports associated with project personnel, so the proposal cannot move forward until conclusion of matter of outstanding reports on scoters. Fund contingent.

**Project**      **Ruesink-FY04-Altering the Community Structure**

**Project Title**    Investigating the Relative Roles of Natural Factors & Shoreline Harvest in Altering the Community Structure, Dynamics & Diversity of the Kenai Peninsula

**Location**        Kenai Peninsula

**Proposer**        Jennifer Ruesink

**Proposer Affiliation**    Non Alaskan University

**Lead Agency**    NOAA

**Funding Recommendations**

**FY04** \$81,600 00

**FY05** \$0 00

**FY06** \$0 00

**Abstract**

The surf swept rocky shores of the outer Kenai Peninsula are the home of three Sugpiaq native villages where the black chiton, *Katharina tunicata*, remains an important traditional subsistence food source. This benthic invertebrate is also a competitively dominant herbivore known to have dramatic impacts on the structure, dynamics and diversity of the rocky intertidal. In collaboration with tribal members, we will evaluate the relative roles of natural factors (predation/grazing & natural variability) and anthropogenic impacts (*Katharina* harvest) in altering intertidal community structure. The project addresses the core GEM hypothesis of human versus natural impacts on the structure and productivity of coastal ecosystems. It will also provide an additional field season (2004) of valuable baseline monitoring in the intertidal zone that could be continued in the future as part of a long-term time series. Local tribes will be involved in both developing and carrying out research which will match the GEM commitment to community based science.

**STAC Recommendation**

This proposal has strong community involvement. It is probably as well designed as it can be in this context, although it is not absolutely certain it can resolve the fundamental questions asked. It does have long term monitoring potential and is probably good value in terms of baseline information, even if the scientific question remains unresolved. Fund at level originally requested in FY 2003.

**Executive Director's Recommendation**

The proposal has a strong community involvement component, having been originated by the village of Port Graham as an investigation targeting an important subsistence resource (the black chiton also known as the Bidarku or black gumboot) that is not studied by other agencies. It is also likely to make a substantial contribution to the development of the nearshore monitoring program. Fund.

**Project     Saupe-FY04-Habitat Web Site**

**Project Title**    Alaska Coastal Habitat Web Site

**Location**        Kenai Peninsula including Kachemak Bay and outer coast

**Proposer**        Susan Saupe

**Proposer Affiliation**    NGO

**Lead Agency**    NOAA

**Funding Recommendations**

**FY04** \$21,100 00

**FY05** \$0 00

**FY06** \$0 00

**Abstract**

This proposal is to develop an Alaska Coastal Habitat Web Site based on several products currently being produced using ShoreZone Mapping techniques. This proposal will tie together several components in a user-friendly, web-accessible format. In a recent workshop hosted by EVOS and attended by personnel from local, state, and federal agencies, universities, and not-for-profit organizations, participants strongly endorsed a coordinated process for continuing coastal mapping and the wide-spread distribution of data through web accessibility. The group also emphasized that the data should be provided in a user-friendly way that will facilitate use by the general public.

This proposal outlines a plan to (a) make recently collected ShoreZone data immediately web-accessible, (b) combine ShoreZone mapping data with the existing Gulf of Alaska Coastal Imagery web site, and (c) combine ShoreZone mapping data with detailed site-specific data for various habitats and descriptions of biological assemblages and species.

The project will be coordinated by the Cook Inlet RCAC through a subcontract to Coastal and Ocean Resources, Inc. (CORI) who developed the ShoreZone techniques and who is currently conducting various ShoreZone mapping projects in the GEM area. CORI is located in Sidney, British Columbia, where much of the work will be conducted. The Public Outreach development portion will be conducted in Kenai at the Cook Inlet RCAC offices and community visits will take place at various places on the Kenai Peninsula as well as to resources agencies in Anchorage.

**STAC Recommendation**

This proposal provides a mechanism for the dissemination of biological coastal information through the web which is cost efficient and practical. Drawing upon methodologies previously implemented in past years, Saupe and Harper plan to expand their coastal web site technology to include more Alaskan coastline in addition to more specific site data (e.g., "data for various habitats and descriptions of biological assemblages and species"). Saupe and Harper will use an ArcIMS mapping engine to facilitate their electronic mapping which is a robust solution but has its drawback due to it being proprietary to ESRI. The project will need to be vigilant in identifying clients using MAPInfo who have a difficult time downloading data from the website and using it on their systems. Overall, this proposal delivers a high degree of data visualization for the small amount requested. Fund.

**Executive Director's Recommendation**

The project provides and adds value to coastal habitat mapping information collected by GEM and other agencies by making the information more readily available. The information is expected to have a high potential for use in planning research and to local governments in understanding and managing coastal development. Fund.

**Project**      **Schneider-FY04-Kodiak Archipelago**

**Project Title**   Kodiak Archipelago Youth Area Watch

**Location**        Kodiak Archipelago

**Proposer**        Teri Schneider

**Proposer Affiliation**    Local Government

**Lead Agency**    ADFG

**Funding Recommendations**

**FY04** \$63,000 00

**FY05** \$63,000 00

**FY06** \$63,000 00

**Abstract**

The Kodiak Archipelago Youth Area Watch is an ongoing community involvement project designed to engage students in projects with goals aligned with the general restoration efforts of the Trustee Council. Students and site coordinators will conduct interviews with local experts and document TEK, publishing it in a District oral history magazine. Participation of KAYAW adults and students in the annual Academy of Elders/Science Camp will be strongly encouraged. Participants will share their research during annual gatherings. Such participation will serve as another avenue for more tribal members to learn about restoration efforts, scientific monitoring techniques, and occupations related to such work. Students will explore local knowledge as it relates to marine mammal populations, inter-tidal environment, impact of humans on the coastal environment, human use overtime and intergenerational changes and cultural beliefs and practices that may provide insight in scientific studies. The value and implications of TEK will be strongly emphasized throughout the implementation of the KAYAW project.

**STAC Recommendation**

This is a very competent proposal that creates its own activities based on addressing local interests and concerns as they relate to GEM. The types of activities described in the proposal (resource inventory, habitat mapping, ecology, human effects on resources (page 1) are consistent with information needed to be able to design a local monitoring program. The KAYAW has expanded slowly and the proposed work areas (continuing harbor seal data gathering, continuing focus archaeological and natural resources, and working with the nearshore monitoring project conducted by UAF [Dr. Robert Foy]) are a form of monitoring. Furthermore, the project design has monitoring objectives and study procedures. The proposal is responsive to the invitation (continuing community involvement project), is consistent with one of two GEM strategies (incorporate community involvement), and is proactive in moving toward a GEM-style monitoring youth area watch program. Fund.

**Executive Director's Recommendation**

The report on approaches to community involvement commissioned by the Trustee Council in FY 2003 will not be available until the end of September 2003. The report is expected to provide the basis for a thorough examination of the role of community involvement in the GEM program to be conducted by the Executive Director during FY 2004. Until that examination is complete, funding of community involvement projects will be based on responsiveness to the criteria in the FY 04 Invitation and past and future utility for implementing the GEM program. The Kodiak Youth Area Watch proposal is well grounded in the principles of the GEM program and shows a keen understanding of the concepts of the roles and needs for community involvement in long-term monitoring programs. The connection to the GEM Science Plan is clear, and the recommendations of the STAC are very positive. Fund.

**Project Schoch-FY04-Oceanographic & Ecological Process**

**Project Title** Linkage Oceanographic and Ecological Process in Nearshore Environments

**Location** Lower Cook Inlet and Kachemak Bay

**Proposer** Carl Schoch

**Proposer Affiliation** ADFG

**Lead Agency** ADFG

**Funding Recommendations**

**FY04** \$0 00

**FY05** \$0 00

**FY06** \$0 00

**Abstract**

Our goal is to investigate the processes that generate conspicuous patterns of diversity and species composition in the nearshore of Kachemak Bay and how ecological communities respond to variation or modification of these processes. We hypothesize that there are two principal physical forces driving community structure and spatial distribution of kelp forests in Kachemak Bay: 1) the behavior of tidal and density driven coastal currents including the ACC, and 2) the nearshore wave and sediment dynamics. We will: 1) Evaluate the effects of seasonal to interannual variability of the ACC in Kachemak Bay, 2) Quantify habitat change as a function of wave energy and sediment transport and how these are modified by anthropogenic processes such as coastal development and human use, and 3) investigate the role of coastal currents and habitat change on kelp forests, and the spatial and temporal variability of selected populations of fishes, invertebrates, and plants.

**STAC Recommendation**

This is a promising proposal, but nearshore monitoring proposals were not invited. The opportunity to invite nearshore proposals awaits the analysis of the Bodkin and Dean report, and results of other nearshore projects funded in FY 03. This proposal focuses on the influence of hydrodynamics on kelp communities. An interesting set of questions, but, if that were all it did, it would be very expensive. Tidal corrections need to be considered when proposal is resubmitted in the future. However, it has good matching funds and talent commitment from federal sources and it establishes an interface between long-term physical and biological monitoring that has great promise. Do not fund.

**Executive Director's Recommendation**

Although the proposal addresses needs established in the GEM Science Plan for the nearshore, it is premature with respect to the GEM process, which does not envision establishing projects like this one until the information on nearshore monitoring gathered in FY 2002 – FY 2004 can be assimilated into a nearshore synthesis. Do not fund.

**Project**      **Schumacher-FY04-GEM Infrastructure**

**Project Title**    Building the Infrastructure for the Gulf Ecosystem Monitoring (GEM) Program - Submitted Under the BAA

**Location**        GEM Monitoring Region-northern Gulf of Alaska

**Proposer**        James Schumacher                      **Proposer Affiliation**    Private Enterprise

**Lead Agency**    NOAA

**Funding Recommendations**

**FY04** \$22,067 00                      **FY05** \$23,645 00                      **FY06** \$22,067 00

**Abstract**

This proposal addresses modeling within the GEM Program, and the infrastructure necessary to implement and maintain a monitoring and data dissemination system for the northern Gulf of Alaska (NGOA). Agreement on an interdisciplinary strategy is critical to effective resource management and problem solving in the NGOA. Use of the GEM infrastructure in support of models and observations will identify and refine measures to describe, manage and predict the status and health of the ecosystem, provide data as information to managers and coastal communities, and communicate publicly the current state of the ecosystem.

Our goal is to provide consensus recommendations to EVOS on

1. Creation of an integrated ecosystem model for the NGOA,
2. Understanding spatial and temporal scales for implementing an ecosystem monitoring program, and,
3. Implementing the GEM infrastructure, including identification of strategies for cooperation, coordination, integration, and cost efficiency.

**STAC Recommendation**

This is part of two separate proposals (McNutt's and Schumacher's) because budgets are from two separate institutions. The proposals must be considered together. This is an effective proposal to establish a framework and infrastructure for a modeling base for GEM. This proposal directly addresses the Invitation Part C Modeling, and in particular it is in direct response to example #1 (p. 6) "Building the Infrastructure Necessary to Create, Develop and Maintain the GEM Model." The proposal will do three things essential to the success of GEM: (1) create an integrated ecosystem model for the NGOA, (2) understand spatial and temporal scales for implementing a biophysical monitoring program, and (3) implement the GEM infrastructure, including identification of strategies for cooperation, coordination, integration and cost efficiency. This would provide GEM with an overall structure for modeling. STAC recommends that an objective be added for resource users to actively participate in the workshop along with the scientists. In addition, STAC questions the role of the student in the proposed work and asks that it be clarified. Finally, STAC recommends that activities be focused from the start on the crux of the modeling problem, which is how to provide information of use to managers from the GEM monitoring program. Fund contingent on receipt of revised proposals addressing STAC recommendations and question.

**Executive Director's Recommendation**

This proposal is an essential part of building the GEM Model. The GEM Model is the primary means of organizing GEM information so that it can be used in understanding the status of

injured species, allowing natural resource dependent communities to anticipate change, and helping managers anticipate changes in populations of birds, fish and mammals. Proposal provides a comprehensive solution to the need to bring together a team of professionals who can guide the development of the GEM Model. Revised proposal was submitted that incorporated the recommendations of the STAC Fund.



**Project      *Short-FY04-Monitoring Exxon Valdez Oil & PWS***

**Project Title**    Development of a Strategy for Monitoring Exxon Valdez Oil and other Contamination in PWS

**Location**        Prince William Sound

**Proposer**        Jeff Short

**Proposer Affiliation**    NOAA

**Lead Agency**    NOAA

***Funding Recommendations***

**FY04** \$45,900 00

**FY05** \$0 00

**FY06** \$0 00

***Abstract***

This project will evaluate alternative sampling designs and strategies for monitoring oil from the T/V Exxon Valdez remaining on beaches in Prince William Sound, along with other hydrocarbon contaminants from anthropogenic and natural sources, and will make recommendations regarding overall sampling design, duration and frequency. The recommended strategy will be optimized for statistical power based on existing knowledge of the distributions of hydrocarbons from known sources, and will include a means of increasing power as more knowledge is gained through sampling as monitoring proceeds. The recommended strategy will incorporate results from the Prince William Sound Regional Citizens' Advisory Committee's Long Term Environmental Monitoring Program, and will explicitly recommend how the results from this program may be efficiently augmented.

***STAC Recommendation***

This project will evaluate alternative sampling designs and strategies for monitoring oil from the T/V Exxon Valdez remaining on beaches in Prince William Sound, along with other hydrocarbon contaminants from anthropogenic and natural sources, and will make recommendations regarding overall sampling design, duration and frequency. The recommended strategy will be optimized for statistical power based on existing knowledge of the distributions of hydrocarbons from known sources, and will include a means of increasing power as more knowledge is gained through sampling as monitoring proceeds. A distinct advantage of this project is that two top scientists, Roger Green and Jeff Short, will provide a very solid basis for future monitoring for hydrocarbons of all sources. Optimizing sampling for maximum power to detect change is particularly beneficial for programs that the TC has chosen to support, e.g., the Regional Citizen's Advisory Committee mussel watch type program in PWS. The technical merits are good. The proposal is responsive to the invitation with relevance to management and community involvement. The qualifications of the PIs are outstanding. Fund contingent upon receipt of outstanding reports 00195, 01195, 02195, 00290, 01290, 00598, 01599, and 02543.

***Executive Director's Recommendation***

Proposal would provide very useful information on how to incorporate the study of lingering oil effects into the GEM monitoring program, however the PI has eight overdue reports. Funding is contingent on receipt of acceptable drafts of overdue reports. Fund contingent.

**Project**      ***Spies-FY04-EVOS Damage Assessment & Restoration***

**Project Title**    A synthesis of the ecological findings from the EVOS Damage Assessment and Restoration Programs, 1989-2001

**Location**        No field work

**Proposer**        Robert Spies

**Proposer Affiliation**    NOAA

**Lead Agency**    NOAA

***Funding Recommendations***

**FY04** \$201,700 00

**FY05** \$0 00

**FY06** \$0 00

***Abstract***

This project is synthesizing the results from 12 years of post-spill study in the EVOS damage assessment and restoration programs in the context of anthropogenic and natural factors causing change in the northern Gulf of Alaska ecosystem. The results of the work will be an integrated synthesis book. The book will consist of three major sections: 1. The basic structure and function of the ecosystem, 2. How does it change over time and in response to disturbances? and, 3. The effect of the spill, a summary of the spill effects and recovery as well as how our understanding of the ecosystem has matured and what future path will help us better understand this valuable marine ecosystem? The book will be a major product of the EVOS restoration program and help set the foundation for the Gulf Ecosystem Monitoring Program.

***STAC Recommendation***

This proposal is to continue funding to write a book of "Synthesis of the ecological findings from EVOS". This project proposes to do more than just summarize work that has been done. It actually proposes to produce synthetic results from EVOS-funded and other relevant research. Specifically they propose to have four sections in the book: (1) Structure and function of the ecosystem, (2) Ecosystem changes, (3) Effect of the spill, and (4) Implications. This synthesis directly answers the invitation Part A: Synthesis. As structured, the invitation asks for individual syntheses for each of the habitats; however, this overall ecosystem synthesis is definitely needed. The writing has been divided among a core writing team, members of which have been contracted to write and oversee specific components of the book. All of the members of the team are well-respected scientists. In addition to Bob Spies, the rest of the team consists of Gordon Kruse, Ted Cooney, Tom Weingartner, Alan Springer, Jeep Rice, and Jennifer Allen. Unfortunately, this proposal seems to have fallen under the list of proposals submitted last year for multiple years, but that still need to submit a proposal this year. As such, the proposal as submitted is basically the same one from last year. It does not represent the progress that has been accomplished. The proposal does not even include a current version of the book outline with assignments among team members. There is no budget, just one large number. Fund contingent upon receipt and approval of a detailed proposal including milestones, time line and budget.

***Executive Director's Recommendation***

The project is to complete an ongoing synthesis of past work from the Restoration program which is expected to be an important tool for GEM program planning. The proposal has been revised to incorporate milestones, timeline and detailed budgets, and a current outline of the manuscript. Fund contingent on receipt of the most recent draft of the manuscript.

**Project      Stabeno-FY04-Bottom Up Control**

**Project Title**    Surface Nutrients over the Shelf and Basin in Summer - Bottom up Control of Ecosystem Diversity

**Location**        Yakutat to Kodiak Island/Shelikof of Strait

**Proposer**        Phyllis Stabeno

**Proposer Affiliation**    NOAA

**Lead Agency**    NOAA

**Funding Recommendations**

**FY04** \$49,500 00

**FY05** \$0 00

**FY06** \$0 00

**Abstract**

This proposal is for continuation of Project 030654 funded in FY03. Our goal is to better understand the extraordinary variability of nutrients (spatial, interannual and decadal), and factors controlling nearshore communities and zooplankton and juvenile salmon distributions in the northern GOA. We propose monitoring nitrate over the shelf and basin. Underway samples will be collected as part of the NMFS-OCC/GLOBEC salmon survey in July/August of 2004. This survey includes a transit across the central GOA and 10 cross-shelf oceanographic and juvenile salmon transects from Yakutat to Kodiak Island. This will be the broadest nutrient survey of the northern GOA. Nutrient maps will be used to support NPZ models and satellite-derived models of nitrate and new production, to examine mechanisms of nutrient supply such as mixing over banks and transport up submarine canyons, and to assist resource management of salmon and other commercially important species.

**STAC Recommendation**

Stabeno and Mordy propose to carry out another surface mapping of nutrients in the Gulf of Alaska in July/August 2004. This will add another seasonal snapshot of nitrate over the central Gulf of Alaska and shelf that will be combined with other fisheries and plankton sampling that we be gathered underway during the annual NMFS/OCC/GLOBEC cruise. This will be the second year of these cruises. It is a relatively inexpensive add-on. I am not as optimistic as the proposers as to the usefulness of these data on determining decadal and interannual nutrient variability. These annual snapshots are aliased and could easily lead to erroneous results and conclusions. Their proposed work to determine seasonal and interannual variability of nutrients here needs to have a finer temporal resolution. This is a highly leveraged program and the investigators are very productive. Fund.

**Executive Director's Recommendation**

The proposal offers to continue a highly cost effective partnership with GLOBEC to investigate the transfer of fertilizer (nitrate) from deep ocean areas to nearshore areas where it can drive production of birds, fish and mammals. Fund.

**Project**      **Thorne-FY04-Seafood Waste Discharge**

**Project Title**    Impacts of Seafood Waste Discharge in Orca Inlet, Prince William Sound

**Location**        Orca Inlet, Prince William Sound

**Proposer**        Richard Thorne

**Proposer Affiliation**    NGO

**Lead Agency**    NOAA

**Funding Recommendations**

**FY04** \$72,680 00

**FY05** \$111,692 00

**FY06** \$108,943 00

**Abstract**

This proposal brings together several entities with concerns over the impacts of seafood waste discharge into Cordova Harbor (Orca Inlet). The Prince William Sound Science Center (PWSSC) is acting as the facilitator of this effort because of its strategic location and long-term interest in the problem. Primary collaborators are DEC, ADF&G and Cordova seafood processors. Anticipated collaborators include the Native Village of EYAK and the City of Cordova. The proposed research will investigate possible impacts of seafood waste discharge through a series of experiments that will evaluate the nearshore community response to alternate techniques of seafood waste discharge, including different grind sizes and whole carcasses, as well as a pile remediation study. These experiments will not only aid our understanding of the historic impacts, but will form the basis for a more healthy and productive approach to seafood waste recycling. A three-year project is proposed, with the first year devoted to baseline observations and experimental design.

**STAC Recommendation**

This proposal brings together several entities such as the Alaska Department of Environmental Conservation (ADEC), the Alaska Department of Fish and Game (ADFG), Cordova seafood processors, the Native Village of EYAK, and the City of Cordova with concerns over the impacts of seafood waste discharge into Cordova Harbor (Orca Inlet). The research would investigate possible impacts of seafood waste discharge through a series of experiments by evaluating the nearshore community response to alternate techniques of seafood waste discharge. The results of the research would aid the understanding of historic impacts and form the basis for a more healthy and productive approach to seafood waste recycling. The first year of the proposed 3-year project will be devoted to baseline observations and experimental design. This collaborative project addresses two invitation categories: Community involvement and nearshore. The study would also provide information for similar concerns in southeastern Alaska and complement ongoing ADEC studies in Ketchikan. The PI should consider application of these findings to the wider GEM area. Fund.

**Executive Director's Recommendation**

The proposal would add the dimension of human effects to the development of the nearshore monitoring program, and it is a good match of GEM objectives to the management of an important pollution concern for coastal communities throughout the oil spill affected area. Fund.

**Project**      ***Vaughan-FY04-Hinchinbrook Entrance***

**Project Title**    Monitoring the Exchange between Prince William Sound and the northern Gulf of Alaska at Hinchinbrook Entrance, submitted under the BAA

**Location**        Prince William Sound, AK

**Proposer**        Shari Vaughan

**Proposer Affiliation**    NGO

**Lead Agency**    NOAA

***Funding Recommendations***

**FY04** \$81,799 00

**FY05** \$0 00

**FY06** \$0 00

***Abstract***

One of the least understood physical processes that influences the biological components of Prince William Sound (PWS) is the exchange between PWS and the northern Gulf of Alaska (NGOA). The main objective of this proposal is to document seasonal and interannual changes in the flow patterns at Hinchinbrook Entrance, and to identify and understand the processes responsible for these changes. Support is requested for continued deployment of an upward-looking ADCP mooring in Hinchinbrook Entrance to create a time series of currents from October 2003 to July 2004. The mooring will be equipped with a CTD to create a time series of deep temperature (T) and salinity (S). To identify the dominant factors that govern the PWS/NGOA exchange, the mooring velocity and deep T/S time series will be combined with meteorological time series, numerical circulation model simulations, and physical data collected under previous and existing research programs in PWS and the NGOA.

***STAC Recommendation***

Vaughan proposes to continue the installation of an upward looking Acoustic Doppler Current Profiler in Hinchinbrook Entrance to measure the exchange of water between the Gulf of Alaska and Prince William Sound. Since Prince William Sound might be an important nursery for much of the Northeast Pacific, this is an important problem in addition to being vital for understanding PWS and the impact of EVOS. This plan is seriously flawed. There is no explanation as to why she continues to not sample from July to October other than she needs to turn the instrument around. This could be done in a couple of days and since she is using a short term charter vessel, the ship time should not be a problem. Increasing the sampling interval to 3 hours from 2 should provide enough reserve power to last for the year. Why is there no plan to continue the observations beyond one year? No prior data were presented but only mentioned in passing. Are they doing repeated ADCP transects across the entrance over the tide cycles rather than just at two stages of the tide? How did they measure the Ekman transports? She really needs an ADCP in the upper layers to get both the baroclinic and Ekman transports. The PI acknowledged the previous critiques of the EVOS/STAC but discounted them and did not include them in this proposal. On the plus side, it is relatively cheap and well leveraged. There is not a great deal of published work coming out of this group and they have not had a very good record of cooperating with other regional researchers. Do not fund.

***Executive Director's Recommendation***

The project addresses the important objective of measuring how much water is exchanged between Prince William Sound and the Gulf of Alaska, however the methods do not offer the best

available solution to the problem. The project is needed but it can only move forward in the context of partnership with other parties, including UAF, PWSRCAC and OSRI/PWSSC, who can help resolve the technical problems identified. *Defer*

**Project Walker-FY04-Marine Derived Nutrients**

**Project Title** Presence and Effects of Marine Derived Nutrients (MDN) in Stream, Riparian and Nearshore Ecosystems on Southern Kenai Peninsula, Alaska

**Location**

**Proposer** Coowe Walker

**Proposer Affiliation** ADFG

**Lead Agency** ADFG

**Funding Recommendations**

**FY04** \$150,200 00

**FY05** \$153,400 00

**FY06** \$149,700 00

**Abstract**

Marine derived nutrients and carbon (MDN) delivered by salmon and other anadromous fishes are considered important drivers in riverine ecosystems, providing nutrients and food to these land-based food webs. However, we know little about the relative value of MDN compared to other nutrient and carbon sources (e.g., watershed-derived) in the Gulf of Alaska region. The objectives of this study are to develop a water chemistry proxy for monitoring salmon returns, and to track and measure MDN effects in stream, riparian and nearshore environments, on the southern Kenai Peninsula. We will accomplish this by linking stream chemistry, marine isotope signatures, marine terrestrial fatty acid ratios, and key animal and plant community density, growth, and lipid measures along a gradient from river mouth to headwaters in key watersheds. This study will be integrated with related studies proposed in other areas of southcentral Alaska to develop a broader regional understanding and widely-applicable long-term monitoring program for the GEM region.

**STAC Recommendation**

The proposal provides clear and workable approaches to collecting the data necessary to meet the needs identified for watersheds in the Invitation. It would provide geographic and physical contrasts between two (anadromous and non-anadromous) peat wetlands watersheds on the southern Kenai Peninsula, and it would establish a partnership with a resource management agency (ADFG) for operation of a salmon counting weir. Measures C, N, and S stable isotopes, and evaluates full suite of water quality measures containing N, P, C in resident fish, invertebrates and plants. Incorporates direct and re-mineralization routes of C and N through food webs. The proposal would have the ability to compare streams with and without salmon, and to look at production of salmon in a system where escapements are counted (Anchor River tributary). Measures of longitudinal distributions of MDN from headwaters to mouth would provide an important contrast. Measures of proxies cover water chemistry parameters and fatty acid levels and ratio of omega-3 fatty acids to total fatty acids in animals. Excellent ties to local community through Citizens Environmental Monitoring Program, (CEMP is EPA/ADEC funded). Prospects are good for learning how to measure and interpret linkages of coastal peat wetland stream systems to the marine environment in the Gulf of Alaska in ways that will have practical applications of very large potential significance. Fund contingent on a letter from the Principal Investigators agreeing to participate in a watershed workshop will be held at the January 2005 GEM meeting, and to present an up-to-date report on progress and participate in comparison and evaluation of methods.

***Executive Director's Recommendations***

Proposal provides a resident stream fish dimension to the watershed habitat type PI has agreed to participate in a watershed workshop which will be held at the January 2005 GEM meeting, and to present an up-to-date report on progress and participate in comparison and evaluation of methods Fund



**Project**      **Wang-FY04-Building the GEM Infrastructure - Jia Wang**

**Project Title**    Building the Infrastructure Necessary to Create, Develop and Maintain the GEM Model

**Location**        GOA including PWS and Cook Inlet

**Proposer**        Jia Wang

**Proposer Affiliation**    Alaskan University

**Lead Agency**    ADFG

**Funding Recommendations**

**FY04** \$0 00

**FY05** \$0 00

**FY06** \$0 00

**Abstract**

We propose to build the modeling infrastructure of GEM by developing high resolution circulation and lower trophic level ecosystem models for the northern Gulf of Alaska (Kayak Island to Shumagin Islands) with boundary conditions provided by an existing set of spatially nested models which span the entire North Pacific (grid resolutions range from 3 – 40 km). We propose to use the extant ROMS (s-coordinate) and MITgcm (MOM3-based, z-coordinate) with a resolution of 1 km, which resolves the eddy field (radius of deformation = 8-10 km) and small-scale embayment and topographic features. Both models will accommodate tidal and subtidal dynamics (and their interactions). Hindcasts of circulation, temperature, salinity, velocity, vertical diffusivity and particle tracks from these models will be made available through the web. Furthermore, hindcast fields can drive passive float tracking models, contaminant models, ecosystem models, and individual-based models of threatened species to aid focused studies by EVOS/GEM researchers. Such model results can serve to diagnose observations from moorings, CTD surveys, and drogued drifters, and those data serve to calibrate/verify the models themselves. A large body of data, gathered by colleagues under support from related programs (e.g. GLOBEC, SSLI, SEBSCC) presently exists for the Gulf of Alaska. We will extend our ability of the modeling effort to bring together data from ongoing programs observational programs. Following the development of the circulation models and model-data validation, model intercomparison and sensitivity studies will be conducted.

**STAC Recommendation**

The state-of-the-art modeling effort described in the proposal is eventually certain to be useful to GEM, however the proposal is not responsive to the invitation call for developing an infrastructure supportive of developing the GEM model. There is little in this proposal that addresses infrastructure. Rather this is a proposal for basic science to nest a high-spatial resolution model inside existing circulation models for the North Pacific, which is well ahead of the current GEM needs. What exactly is to be learned from the progression of nested physical models in an ecosystem context is not well specified. Further the proposal does not address the need for “interdisciplinary cooperation and partnerships etc.” as the proposed team is not well balanced from an interdisciplinary stand point, as it is heavily physical and only lightly biological. Do not fund.

**Executive Director's Recommendation**

The proposal did not provide a compelling response to the need to establish a process for building the GEM Model as identified in the Invitation for Proposals. Do not fund.

**Project**      **Weingartner-FY04-Alaska Coastal Current**

**Project Title**   Long-Term Monitoring of the Alaska Coastal Current

**Location**        Gulf of Alaska Shelf offshore of Resurrection Bay

**Proposer**        Thomas Weingartner                      **Proposer Affiliation**      Alaskan University

**Lead Agency**    ADFG

**Funding Recommendations**

**FY04** \$75,482 00                      **FY05** \$75,482 00                      **FY06** \$75,482 00

**Abstract**

This proposal is for monitoring temperatures, salinities, and spring bloom characteristics of the Alaska Coastal Current (ACC) from a mooring and monthly sampling at station GAK 1 near Seward. The project builds upon the 33-year record at this station. These data can predict ACC (baroclinic) transport anomalies so this variable is obtained indirectly. The results will be examined with respect to variations in terrestrial runoff and atmospheric heat fluxes. We will provide daily maps of satellite scatterometer-derived winds, make these available to the public via a website, and archive them for future analyses. All variables affect biological production at higher trophic levels. The results have value for interpreting continuous plankton recorder data to be obtained from ferries under GEM sponsorship, evaluating performance of numerical ocean circulation models, and conducting retrospective analyses of biological productivity. Logistics costs are shared with the NSF-NOAA funded GLOBEC program.

**STAC Recommendation**

Weingartner proposes to continue the 33 year hydrographic time series, maintain a mooring and provide daily wind estimates for the northern Gulf of Alaska. He will also measure fluorescence and light transmission to estimate the primary production. He suggests that it will only be the spring bloom estimates rather than the entire year due to potential biological fouling of the instruments. The GAK1 measurements are vital for the determination of ocean climate conditions. The proposal is well written and Weingartner is productive. The basic work should be funded. The inclusion of the daily wind field processing is questionable. Why would mariners be interested in today's (prior) winds rather than the predictions that are provided by the NWS? Providing real time winds is not a primary function of this program or an academic institution. Also, why are nitrate sensors not included in the mooring? These should prove to be more valuable than quasi-real-time winds. The leverage provided for this project is excellent and the requested costs are modest. Why isn't the request for multiple years rather than just one year? Recommend continued funding this project. This project has repeatedly proved its value to the scientific community in the Northern Gulf of Alaska. Recommend funding at this level for FY04, FY05 and FY06.

**Executive Director's Recommendation**

The project has proven to be a cost effective partnership to enhance the value of one of the oldest time series of marine environmental data in the North Pacific. Proposal is to be funded at this level with these objectives for three years, FY 2004 - 2006. Fund.

**Project**      **Willette-FY04-Monitoring ACC Dynamics**

**Project Title**   Monitoring Dynamics of the Alaska Coastal Current and Development of Applications for Management of Cook Inlet Salmon

**Location**        Cook Inlet

**Proposer**        Mark Willette

**Proposer Affiliation**    ADFG

**Lead Agency**    ADFG

**Funding Recommendations**

**FY04** \$89,800 00

**FY05** \$68,000 00

**FY06** \$27,900 00

**Abstract**

This project will use a vessel of opportunity to collect physical oceanographic and fisheries data along a transect, across lower Cook Inlet from Anchor Point to the Red River delta. Logistical support for the field sampling will be provided in part by the Alaska Department of Fish and Game which has chartered a vessel annually to fish along this transect each day during July providing in season projections of the size of salmon runs returning to the inlet. The work proposed here is for long-term monitoring of oceanographic conditions in Cook Inlet as part of these ongoing fisheries surveys. Investigators will also use physical oceanographic data collected by the project to improve management of Cook Inlet salmon through improved in season salmon run projections. Several hypotheses regarding effects of changing oceanographic conditions on salmon migratory behavior will be tested. The oceanographic data collected by the project will also provide for valuable validation of remote sensing products, improved understanding of ocean dynamics in lower Cook Inlet, and a highly powerful statistical evaluation of the oil spill risk analysis models.

**STAC Recommendation**

Contributions to the central GEM goal, recurring ecosystem status evaluations, will be continuation of the salmon stock data series for Cook Inlet. ADCP results will be collected on a schedule that is not necessarily coordinated with the tidal periodicities of flow in the Inlet. No scheme for “de-tiding” the data is proposed, but even if one is found, the weak, low-frequency signals of ACC flow may be difficult to extract from the transect series. CTD data may help to define water sources, however an explicit scheme for doing that needs to be laid out. Coordination with inlet CODAR (shore-based radars measuring nearsurface currents) programs is proposed, but availability of CODAR systems in '04-'06 is stated to be quite uncertain. Willette, a fisheries biologist for ADFG, and Pegau, a physical oceanographer at Kachemak Reserve, are competent and will get what can be gotten from the data. A proposal to run more transects for just physical data in some other months (October, January, April?) would give the data set some comparisons, a basis for writing up the results.

The important component of this proposal is testing hypotheses of the effect of the physical oceanography on the salmon fisheries of Cook Inlet. It remains to be established if the Anchor Point July transect is where long-term monitoring for GEM is desired. However, while this evaluation is occurring, the project should provide some short-term payoff by directly relating real-time physical oceanographic conditions and movement of fish for management purposes. Continuous fixed-point measurements of physical data are needed to go with the observations proposed to be collected in this proposal. These continuous physical data should assist with de-tiding data. Funding half of the vessel charter is a significant funding policy question. Is this a normal agency expense that should be paid for as part of this project? Fund contingent on addressing STAC technical concerns and resolution of policy issue on funding transect.

***Executive Director's Recommendation***

The proposal builds physical data collection into a long established (1979) fishing transect at Anchor Point in Cook Inlet. Anchor Point is at the biologically critical juncture of Gulf marine waters and glacially silted freshwater runoff. Proposal also provides an important link between salmon fishery management and physical oceanography that is expected to provide substantial benefits to economic development and enhanced recreational fishing opportunities in the oil spill affected areas of Cook Inlet. Funding a portion of the transect expenses is a fair distribution of responsibilities in our partnership with ADF&G which changes the uses and configuration of the vessel from a fishing charter to a joint fishing and oceanography charter. A revised proposal addressing STAC technical concerns was received. Fund

Motion to authorize the Executive Director to negotiate and enter into a Memorandum of Agreement between the Alaska Marine Highway System, Alaska Department of Transportation and the *Exxon Valdez* Oil Spill Trustee Council for installing oceanographic instruments on the vessel, *Tustamena* that is substantially the same as the attached draft MOA. The Council authorizes the Executive Director to negotiate and sign the agreement that contains the provisions of the draft reviewed at this October 3 Trustee Council meeting. If substantial changes are needed, the Executive Director will bring it back to the Council for action.

## Memorandum of Agreement

between the  
Alaska Marine Highway System, Department of Transportation  
and the  
Exxon Valdez Oil Spill Trustee Council  
for installing  
Oceanographic Instruments on the vessel, *Tustamena*

**Background** Monitoring and research of the oceanographic environment along the coasts of Alaska is important to the mission of the Gulf of Alaska Ecosystem Monitoring (GEM) and Research Program, Exxon Valdez Oil Spill Trustee Council. GEM serves state and national interests by providing long-term environmental baseline data for natural resource management and other governmental environmental regulatory purposes through research and monitoring. Cost effective approaches to marine monitoring and research include placing oceanographic instruments on board vessels of opportunity, including those of the Alaska Marine Highway System.

**Purpose** To establish terms governing the relationship between AMHS and EVOSTC during design, installation and removal of oceanographic instruments on the vessel *Tustamena*.

**Duration** November 1, 2003 to September 30, 2005, renewable by AMHS for an additional year, October 1, 2005 – September 30, 2006.

**Termination** Either party may terminate the agreement under the following terms. EVOSTC may terminate the agreement after September 2004 by notifying AMHS sixty days prior to the date of dry docking of its intention to remove the oceanographic instruments and supporting structures to the satisfaction of AMHS. AMHS may terminate the agreement at any time for cause of risk to public safety, ABS classification, or other serious cause by so stating in writing to the Executive Director, EVOSTC. AMHS may terminate the agreement by giving notice prior to February 15, 2005, of its intention to terminate as of September 30, 2005. In any event, AMHS shall notify EVOSTC prior to February 15, 2005, of its intention with respect to sustaining the agreement for the third year of operation (October 1, 2005 – September 30, 2006).

**Agreements** (1) GEM assumes all financial obligations for installing, operating and removing the oceanographic instruments. Any oceanographic instruments placed on board the *Tustamena* would need to be completely financially self-sustaining from the design phase to de-commissioning. (2) AMHS will provide space and electrical power for the instruments. (3) Design of plans for installation of instruments must be done under the independent review of a qualified naval architect or marine engineer (PE) to standards of the American Bureau of Shipping (ABS) applicable to the *Tustamena*. (4) All oceanographic instruments will be designed to "maintain class" of the vessel with ABS.

(5) Applicable hazardous waste handling and disposal requirements will be observed (6) Design work and approval from AMHS is to be completed before installation during dry dock (7) George Poor is the technical representative for AMHS (8) \_\_\_\_\_ is the designated technical representative for EVOSTC, however Phil Mundy or his designated representative will be party to all correspondence between AMHS and EVOSTC technical representatives (9) George Poor will be in charge of all work and funds associated with the installation of instruments during dry dock (10) Funds will be made available for this purpose from GEM via a reciprocal service agreement between state agencies (ADOT and ADF&G)

Agreed this \_\_\_\_\_ of \_\_\_\_\_, 2003 by

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George A Capacci  
General Manager  
Alaska Marine Highway System  
Alaska Department of Transportation and Public Facilities  
3231 Channel Drive, Juneau 99801-7978

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Gail Phillips  
Executive Director  
*Exxon Valdez* Oil Spill Trustee Council  
441 West 11<sup>th</sup> Avenue Suite 500  
Anchorage, AK 99501

SB	Lisbon Portugal 38°50 N 9°53 W	Leixoes Portugal 41°15 N 8°58 W and Biscay 46°00 N 8°30 W	460	Commenced May 1997 to February 2000 Resumed January 2002 All months in 2003	Continued
SM	Ar Men Lt Ho Brittany 48°00 N 5°08 W	Montoir (Loire approaches) 47°08 N 2°48 W and Bilbao 43°28 N 3°05 W	335	Pilot tows in June and August 2003	Occasional
V	Sule Skerry Scotland 59 10 N 04 20 W	South East Iceland 62° 30 N 18 00 W en route to Reykjavik	460	Apr 39 All months in 2003	Continued
VJ	Vancouver Canada 49 05 N 126 38 W via the Unimak Passage through the Aleutian Islands and the Bering Sea to	Japan 47 45 N 155 38 E  Hokkaido Island	3500	First towed during June and July 2000 Vancouver to Hokkaido Island Japan 7 x 500n miles tows in April June September and October 2003	Occasional
W WD	NE Atlantic 52°30 N 20 W En route from Montreal to Liverpool	Inishtrahull Is Lt Ho N Ireland 55°30 N 07°00 W	450	Resumed July 94 August to December 2003	Occasional
Z	Cape Race Newfoundland 46 35 N 53 00 W	Reykjavik Iceland 63 N 25 W Occasionally via Narsaq Greenland 59°50 N 46°32 W	1350	Feb 57 Oct 86 Resumed Mar 91 All months in 2003	Continued

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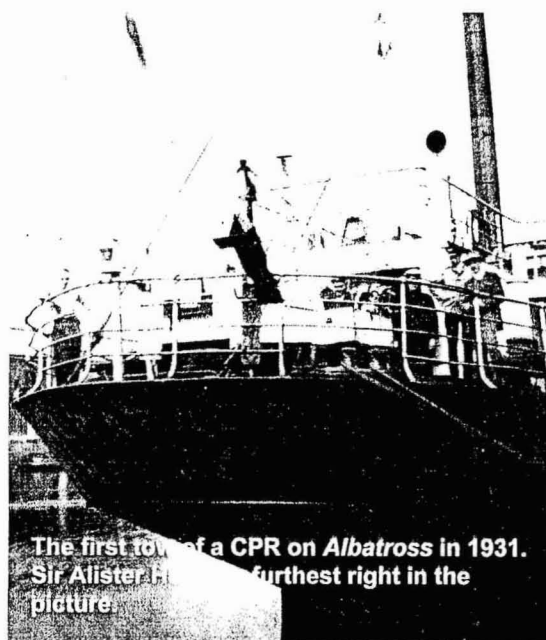
### Appendix C: Mileage, samples obtained and overall success rate of CPR routes in 2002

Route	Route length (miles)	Optimum tow mileage	Total miles logged	Total mileage sampled	10 mile units	Months sampled	Tows	Overall success %
A	177	2124	2133	2018	103	1-12	12	95.01
AC	Various	9741	9741	9483	243	1, 3, 5, 6 - 9	23	97.35
BA	445	5340	5340	5252	276	1-12	12	98.35
BB	463	5558	5558	5495	276	1-12	12	98.87
BC	471	5652	5652	5170	258	1-12	12	91.47
BD	440	5280	5280	5222	261	1-12	12	98.90
C	336	3699	3699	2458	123	1-10, 12	11	66.45
D	442	3097	3097	2147	107	1-7	7	69.33
DA	444	5332	5332	4925	247	1-12	12	92.37
EA	445	5783	5783	5755	286	1-8(2) - 12	13	99.52
EB	421	5478	5478	5345	271	1-8(2)- 12	13	97.57
HE	277	3604	3604	2700	137	1-2(2) - 12	13	74.92
IB	437	4806	4806	4216	214	2-7, 9-12	10	87.72
IN	82	1148	1141	747	70	1-7(2) - 10(2)- 12	14	65.07
LG	460	5520	5460	5275	260	1-12	12	95.56
LR	372	4464	4454	2566	127	1-12	12	57.48
M	260	3120	3122	3062	156	1-12	12	98.14
PR	87	174	174	164	10	11-12	2	94.25
R	90	1080	1085	1033	97	1-12	12	95.65
SA	412	3296	3296	3219	161	1-4, 6(2), 7, 9	8	97.66
SB	various	5233	5233	4692	230	1(2), 2-9, 10 - 12	12	89.66
SM	various	531	531	514	25	6, 8	2	96.80
V	463	5556	5556	4125	209	1-12	12	74.24
VJ	500	10000	9999	8387	202	4(7), 6(7), 8(2), 9(4)	20	83.87
W	426	2128	2128	1686	84	8-12	5	79.23
ZA	460	5520	5512	4988	251	1-2, 5-10, 11(2),12	12	90.36
ZB	422	5486	5482	4971	248	1-10, 11(2), 12	13	90.61
ZC	455	5915	5904	5552	277	1-10, 11(2), 12	13	93.86
<b>Total</b>	<b>9287</b>	<b>124665</b>	<b>124580</b>	<b>111167</b>	<b>5209</b>	<b>Overall</b>	<b>323</b>	<b>89.17</b>
						<b>success rate</b>		

Notes: The optimum mileage is based on route length multiplied by the number of tows made. The % success is calculated by dividing the sampled mileage by the optimum mileage. The overall % success is calculated by dividing the total sampled mileage by the total optimum mileage.

## Appendix D. Shipping companies assisting the CPR survey in 2003

Routes	Towing vessels	Shipping Company
A	<i>Hascosay</i>	NorthLink Orkney & Shetland Ferries Ltd, Stromness, Orkney, Scotland
AC	<i>Polar Alaska</i>	Polar Tankers Inc., (Conoco Phillips Marine Inc.), Long Beach, California, U.S.A.
BA, BB, BC, BD	<i>Santa Maria</i>	Seatrade, Groningen, Netherlands; Charterers, Geest Bananas Ltd, Fareham, England
C	<i>Tor Selandia</i>	DFDS -Tor Line AB, Gothenburg, Sweden
D, DA	<i>CAST Performance</i>	CAST Europe BV, Zeebrugge, Belgium.
D, DA	<i>CAST Prospect</i>	Ships owned by CP Ships, Gatwick, England
EB, EA	<i>Skogafoss</i>	Eimskipafelag, Reykjavik, Iceland
HE	<i>Tor Cimbria</i>	Chartered by DFDS-Tor Line, Copenhagen, Denmark. Managed by Norbulk Shipping UK Ltd, Glasgow for Norwegian, Tor Cimbria A/S
IB and SB	<i>City of Oporto</i>	Owners: Kapitan Manfred Draxl Schiffarts GmbH, Haren-Ems Germany. Charterers: MacAndrews & Co.Ltd, (CMA-CGM Marseille)
IN	<i>European Ambassador</i>	P&O European Ferries (Irish Sea) Ltd, Fleetwood, Lancashire
LG	<i>Tor Flandria</i>	DFDS-Tor Line AB, Gothenburg, Sweden
LR	<i>Selfoss</i>	Eimskipafelag, Reykjavik, Iceland
M	<i>SC Aberdeen</i>	Sea Cargo A/S, Bergen, Norway
PR	<i>Duc de Normandie</i>	Brittany Ferries, Roscoff, France
R	<i>Maersk Flanders</i>	Norfolk Line Ltd, Felixstowe, Norfolk Line BV, Scheveningen, Netherlands, part of the Maersk Group, Copenhagen, Denmark
SA and SM	<i>Pacheco</i>	Andrew Weir Shipping Ltd, London
V	<i>Selfoss</i>	Eimskipafelag, Icelandic Steam Shipping Company, Reykjavik.
VJ	<i>Skaubryn</i>	Seaboard International Shipping Company, North Vancouver, British Columbia, Canada
W	<i>CAST Performance</i>	CAST Europe BV, Zeebrugge, Belgium; ship owned by Canada Maritime, (CP Ships)
Z, ZC, ZC	<i>Skogafoss</i>	Eimskipafelag, Reykjavik, Iceland



The first tow of a CPR on Albatross in 1931.  
Sir Alister Hardy is furthest right in the picture.

## **Project Management**

Project Number	040250
Restoration Category	Research, Monitoring and General Restoration
Proposer	All
Cost FY 04	\$144 8

## **ABSTRACT**

Project management supports those Trustee agencies that administer and/or implement EVOS projects on behalf of the Trustee Council. Tasks performed by project managers include coordinating activities between principal investigators and the Trustee Council Office, reviewing project expenditure activity, assisting in the development of project proposals, and tracking project reports.

## INTRODUCTION

Prior to the first implementation of the GEM program in FY 2003 the annual number of projects was as much as double that anticipated in FY 2004 and funding levels were four to five times as high (see table below). Both the number of projects and the average cost of a project have been declining since 1999, the last year of the SEA program. To help deal with the volume of projects and funding levels prior to GEM, each Trustee agency received EVOS funds to pay "project manager(s)" in their agency. The Project Managers were typically scientists who helped bring a high degree of oversight and accountability to EVOS projects at a time when the EVOS staff relied heavily on outside contractors and agency scientists for most scientific expertise. Under the GEM program, responsibilities for scientific oversight and accountability for meeting project objectives have been vested in the EVOS staff (Executive Director, Science Director, Science Coordinator, and Data Systems Manager). As a consequence of falling budgets and changing responsibilities the project management activities EVOSTC requires of each agency have fallen well below one full time equivalent (FTE) per agency, to about 0.25 FTE per agency. The lack of justification for a full time position may make the identifying a person at each agency impractical, depending on staffing loads and budgets.

Note that the two agencies that are managing the most projects in FY 04, ADF&G and NOAA, have received the largest amount of project management funds. It is imperative that agencies and individuals plan for the elimination of funding for project management (Project /250) in FY 05. The Science Coordinator will be learning the job of Project Management with help from the agency Project Manager in FY 04. Any program management functions that can not be done by the Science Coordinator in FY 05 will be funded from other sources.

F Y	1995*	1996*	1997*	1998*	1999*	2000	2001	2002	2003@	2004#
No	86	74	77	79	93	75	56	54	37	33
Total (M)	\$17.0	\$18.2	\$16.0	\$14.0	\$11.6	\$8.4	\$6.0	\$4.5	\$3.3	\$3.1

\*1995 – 1999 Number adds 13 to Work Plan figure for SEA Project 320 which had 14 contracts

@ GEM starts in second half of fiscal year

# Projected 9/2003

## NEED FOR THE PROJECT

Project management is necessary to provide administrative support for projects at the level of the funding agency beyond that which is provided by the GA fees. Examples of administrative support functions not routinely covered by GA include serving as the point of first contact for Principal Investigators with fiscal questions such as moving funds among budget categories, and questions regarding the process of obtaining no-cost extensions on contracts. Project management receives invoices and compares them to budget categories, and refers discrepancies to the attention of EVOS staff. Project management receives and tracks inventories of project equipment.

## COMMUNITY INVOLVEMENT

None

## **PROJECT DESIGN**

### **A Objectives**

- 1 Administer contracts that implement approved projects, including reviewing and approving invoices,
- 2 Address issues regarding NEPA compliance,
- 3 Submit quarterly reports from each project to the Trustee Council staff with Program Manager's comments that highlight for Trustee Council staff
  - a circumstances where contract deliverables are not being produced, or are behind schedule,
  - b deviations from the Trustee Council's policies and procedures and/or state and federal procedures,
  - c deviations from authorized budget allocations
- 4 Facilitate the printing/distribution of project reports to ARLIS, and
- 5 Report to the Trustee Council staff the inventory of equipment (with an original per unit cost of at least \$5,000) purchased with Joint Trust Funds,

### **B Methods**

Note EVOSTC Staff for the purposes of this contract consists of Paula Banks, Administrative Assistant with copies to Executive Director (Gail Phillips), Science Director (Phil Mundy), Data Systems Manager (Rob Bochenek), and Science Coordinator (Vacant)

- 1 Contract administration Receive invoices, compare invoices to budget categories, notify Principal Investigator and EVOSTC staff of discrepancies Administer contracts that implement approved projects, including reviewing and approving invoices,
- 2 NEPA Compliance Address issues regarding NEPA compliance by working with the lead federal NEPA personnel, and advise EVOSTC staff,
- 3 Quarterly Reporting Receive quarterly reports from each project, compare quarterly reports with contract objectives and budgets and note discrepancies Forward the quarterly report to the Trustee Council staff with comments that highlight for Trustee Council staff
  - a circumstances where contract deliverables are not being produced, or are behind schedule,
  - b deviations from the Trustee Council's policies and procedures and/or state and federal procedures,
  - c deviations from authorized budget allocations
- 4 Transmit correctly formatted reports to ARLIS Facilitate the printing/distribution of project reports to ARLIS, and
- 5 Receive from Principal Investigator the inventory of equipment (with an original per unit cost of at least \$5,000) purchased with Joint Trust Funds, compare to the budget, note any discrepancies and transmit inventory report and list of discrepancies to the EVOSTC staff

### **C Cooperating Agencies, Contracts and other Agency Assistance**

Organizational and administrative structures vary by agency. Certain projects have multiple agencies involved, others do not. Some projects involve contracts, others do not.

## **SCHEDULE**

### **A Measurable Project Tasks for FY 03 (October 1, 2003 - September 30, 2004)**

- |               |  |
|---------------|--|
| October 15-31 | Meet with auditors regarding final prior year end close out  |
| October 31    | Submit prior year fourth quarter expenditure and project status information to Paula Banks, Administrative Assistant with copies to Executive Director (Gail Phillips), Science Director (Phil Mundy), Data Systems Manager (Rob Bochenek), and Science Coordinator (Vacant) |
| December 31   | Submit updated inventory of equipment purchased with Joint Trust Funds to Paula Banks, Administrative Assistant at the Trustee Council Office  |
| January 31    | Submit first quarter expenditure and project status information to Paula Banks, Administrative Assistant with copies to Executive Director (Gail Phillips), Science Director (Phil Mundy), Data Systems Manager (Rob Bochenek), and Science Coordinator (Vacant)             |
| April 30      | Submit second quarter expenditure and project status information to Paula Banks, Administrative Assistant with copies to Executive Director (Gail Phillips), Science Director (Phil Mundy), Data Systems Manager (Rob Bochenek), and Science Coordinator (Vacant)            |
| July 31       | Submit third quarter expenditure and project status information to Paula Banks, Administrative Assistant with copies to Executive Director (Gail Phillips), Science Director (Phil Mundy), Data Systems Manager (Rob Bochenek), and Science Coordinator (Vacant)             |

### **B Project Milestones and Endpoints**

Not applicable to this project

### **C Completion Date**

## **PUBLICATIONS AND REPORTS**

The project manager is responsible to see that project documents and other deliverables are delivered to the EVOS TC staff in a timely manner.

## **PROFESSIONAL CONFERENCES**

None

### **NORMAL AGENCY MANAGEMENT**

The project managers perform tasks specific to the *Exxon Valdez* oil spill program that are not part of normal agency management

### **COORDINATION AND INTEGRATION OF RESTORATION EFFORT**

Project managers assist the Science Coordinator, Science Director and Executive Director to facilitate communication among projects as well as between investigators and the Trustee Council staff

### **EXPLANATION OF CHANGES IN CONTINUING PROJECTS**

Not applicable to this project

### **PROPOSED PRINCIPAL INVESTIGATOR, IF KNOWN**

Not applicable to this project

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DRUE PEARCE  
Senior Advisor to the  
Secretary for Alaskan Affairs  
U S Department of the Interior

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Dede Bohn  
Project Coordinator  
USGS

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KEVIN DUFFY  
Commissioner  
Alaska Department of Fish and Game

Vacant  
Project Coordinator  
ADF&G

---

JAMES W BALSIGER  
Administrator, Alaska Region  
National Marine Fisheries Service  
U S Department of Commerce

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Peter Hagen  
Project Coordinator  
NOAA

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Carol Fries  
Project Coordinator  
DNR



**FY 03 EXXON VALDEZ TRUSTEE COUNCIL PROJECT BUDGET**

October 1, 2002 - September 30, 2003

<b>Budget Category:</b>	ED Rec						<b>ED REC FY 03 AGENCY TOTALS</b>				
	FY 2004						ADF&G	ADNR	ADEC&USFS	DOI	NOAA
							\$57.2	\$9.9	0.0	\$27.9	\$49.7
Personnel	\$132.8										
Travel	\$0.0										
Contractual	\$0.0										
Commodities	\$0.0										
Equipment	\$0.0										
Subtotal	\$132.8										
General Administration	\$12.0										
Project Total	\$144.8										
Comments:											

**2004**

Prepared: 7/18/03

Project Number: 040250  
 Project Title: Project Management  
 Lead Agency: All

FORM 2A  
 MULTI-TRUSTEE  
 AGENCY  
 SUMMARY

**FY 03 EXXON VALDEZ TRUSTEE COUNCIL PROJECT BUDGET**

October 1, 2002 - September 30, 2003

	ED Rec						
Budget Category:	FY 2003						
Personnel	\$52.5						
Travel							
Contractual							
Commodities							
Equipment							
Subtotal	\$52.5						
General Administration	\$4.7						
Project Total	\$57.2						
			ED Rec FY 2004				
Personnel Costs:			GS/Range/ Step	Months Budgeted	Monthly Costs	Overtime	Proposed FY 2003
Name	Position Description						
	Project Manager			7.0	7.5		52.5
							0.0
							0.0
							0.0
							0.0
							0.0
							0.0
							0.0
							0.0
							0.0
				7.0	7.5	0.0	\$52.5

# 2004

Project Number: 03250  
Project Title: Project Management  
Agency: Alaska Department of Fish and Game

FORM 3A  
PROJECT  
MANAGEMENT

**FY 03 EXXON VALDEZ TRUSTEE COUNCIL PROJECT BUDGET**

October 1, 2002 - September 30, 2003

	ED Rec						
Budget Category:	FY 2004						
Personnel	\$9.1						
Travel							
Contractual							
Commodities							
Equipment							
Subtotal	\$9.1						
General Administration	\$0.8						
Project Total	\$9.9						
			ED Rec FY 2004				
Personnel Costs:			GS/Range/	Months	Monthly		Proposed
Name	Position Description		Step	Budgeted	Costs	Overtime	FY 2004
Carol Fries	Natural Res. Manager II		20	1.2	7.6		0.0
							9.1
							0.0
							0.0
							0.0
							0.0
							0.0
							0.0
							0.0
							0.0
			1.2	7.6	0.0	\$9.1	

## 2004

Project Number: 040250  
Project Title: Project Management  
Agency: Alaska Department of Natural Resources

FORM 3A  
PROJECT  
MANAGEMENT

October 1, 2002 - September 30, 2003

# 2004

Project Number: 040250  
Project Title: Project Management  
Agency: United States Department of the Interior (USGS)

FORM 3A  
PROJECT  
MANAGEMENT

October 1, 2002 - September 30, 2003

## 2004

FORM 3A  
PROJECT  
MANAGEMENT

## Project 040250 – BUDGET JUSTIFICATION

### ADF&G/Trustee Council Office Component (amounts in thousand dollars)

	Number of projects	Total fund + fund contingent		
FY 2004				
Agency		Proportion	Amt disbursed	GA @ 9%
ADFG	14	0 43	\$1,312,237	\$118,101
NOAA	15	0 38	\$1,159,651	\$104 369
DOI	3	0 12	\$366,206	\$32,959
DNR	1	0 07	\$213,620	\$19,226
Totals	33		\$3,051,714	\$274 654

### Personnel (\$144 8)

The Project Management budget includes funding for agencies to provide the personnel to manage projects recommended for funding through EVOS. It is imperative that agencies and individuals plan for the elimination of funding for project management (Project /250) in FY 05. The Science Coordinator will be learning the job of Project Management with help from the agency Project Manager in FY 04. Any program management functions that can not be done by the Science Coordinator in FY 05 will be funded from other sources.

### NOAA (\$49 7)

NOAA has 6 projects that are recommended for funding that will generate \$39 4 in GA. In addition, NOAA administers the Trustee Council's BAA process, through which 9 projects are recommended for funding and will generate \$64 1 in GA, for a total GA of \$104 for NOAA. Funding project management will cover 6 0 months personnel cost at the rate of \$7 6 per month for a total of \$49 7.

### DOI (\$27 9)

DOI has 3 projects that are recommended for funding that will generate \$34 in GA. Funding project management will cover 4 0 months personnel cost at the rate of 6 4 per month for a total of \$27 9.

### ADFG (\$57 2)

ADFG has 14 projects that are recommended for funding that will generate \$118 in GA. Funding project management will cover 7 0 months personnel cost at the rate of \$7 5 per month for a total of \$57 2.

### DNR (\$9 9)

DNR has 1 project that is recommended for funding that will generate \$19 in GA  
Funding project management will cover 12 months personnel cost at the rate of \$7.6 per  
month for a total of \$91.2

Project Management Distribution									
	FY 97		FY 98		FY 99		FY 00		FY 01
ADEC	0 0	0 00%	0 0	0 00%	12 7	2 72%	27 9	6 94%	
ADF&G	304 9	47 52%	282 7	50 47%	239 0	51 19%	154 9	38 54%	
ADNR	41 9	6 53%	24 8	4 43%	25 5	5 46%	25 5	6 34%	
USFS	51 5	8 03%	33 4	5 96%	22 4	4 80%	21 4	5 32%	
DOI	89 9	14 01%	76 1	13 59%	72 5	15 53%	70 2	17 47%	
NOAA	153 4	23 91%	143 1	25 55%	94 8	20 30%	102 0	25 38%	
Total	641 6		560 1		466 9		401 9		0 0
Adjusted Work Plan Distribution									
	FY 97		FY 98		FY 99		FY 00		FY 01
ADEC	282 6	1 92%	0 0	0 00%	143 2	1 38%	173 3	2 28%	
ADF&G	7,492 6	50 84%	6,266 8	48 27%	4,911 6	47 21%	2,802 9	36 94%	
ADNR	202 4	1 37%	150 1	1 16%	453 4	4 36%	264 3	3 48%	
USFS	590 0	4 00%	427 7	3 29%	212 8	2 05%	151 4	2 00%	
DOI	2,401 9	16 30%	2,818 4	21 71%	2,397 5	23 05%	1,848 2	24 36%	
NOAA	3,766 7	25 56%	3,320 8	25 58%	2,284 3	21 96%	2,346 7	30 93%	
Total	14,736 2		12,983 8		10,402 8		7,586 8		0 0
Comments									
The adjusted Work Plan excludes the following									
1 Annual funding for the 100, 126 and 250 budgets									
2 Capital funding for the Kenai River Enhancements, Fish Pass, Port Graham Hatchery, Chenega Oiling, SWAMP and KWAMP									
3 Special Projects implemented through the Restoration Office for Synthesis, Information Transfer Status Updates, GEM, the NRC Review and the 10 year event									



# 1999 EXXON VALDEZ TRUSTEE COUNCIL PROJECT BUDGET

October 1, 1998 - September 30, 1999

Budget Category:	Authorized FY 1999	Agency Proposed	Proposed FY 2000	PROPOSED FY 2000 TRUSTEE AGENCIES TOTALS					
				ADEC	ADF&G	ADNR	USFS	DOI	NOAA
				\$27.9	\$154.9	\$25.5	21.4	\$70.2	\$102.0
Personnel	\$405.9	\$424.0	\$349.5						
Travel	\$0.0	\$0.0	\$0.0						
Contractual	\$0.0	\$0.0	\$0.0						
Commodities	\$0.0	\$0.0	\$0.0						
Equipment	\$0.0	\$0.0	\$0.0	LONG RANGE FUNDING REQUIREMENTS					
Subtotal	\$405.9	\$424.0	\$349.5		Estimated FY 2001	Estimated FY 2002			
General Administration	\$61.0	\$63.6	\$52.4						
Project Total	\$466.9	\$487.6	\$401.9		\$320.0	\$280.0			
Full-time Equivalents (FTE)	5.5	5.4	4.5						
Comments:									

**2000**

Prepared: 7/27/99

Project Number: 00250  
Project Title: Project Management  
Lead Agency:

FORM 2A  
MULTI-TRUSTEE  
AGENCY  
SUMMARY

Budget Category: 1 of 7	Authorized FY 1999	Agency Proposed	Proposed FY 2000						

11/7/2003

October 1, 1998 - September 30, 1999

2000

FORM 3A  
PROJECT  
MANAGEMENT

11/7/2003

Budget Category:	Authorized FY 1999	Agency Proposed	Proposed FY 2000
Personnel			
Travel	\$207.8	\$159.3	\$134.7
Contractual			

## October 1, 1998 - September 30, 1999

FORM 3A  
PROJECT  
MANAGEMENT

Prepared: 7/27/99

Budget Category:		Authorized FY 1999	Agency Proposed	Proposed FY 2000					
Personnel		\$22.2	\$22.2	\$22.2					
Travel									
Contractual									
Commodities									
Equipment	3 of 7				LONG RANGE FUNDING REQUIREMENTS 11/7/2003				
Subtotal		\$22.2	\$22.2	\$22.2		Estimated	Estimated		

## October 1, 1998 - September 30, 1999

FORM 3A  
PROJECT  
MANAGEMENT

Prepared: 7/27/99

Budget Category:	Authorized FY 1999	Agency Proposed	Proposed FY 2000						
Personnel	\$19.5	\$37.2	\$18.6						
Travel									
Contractual									
Commodities									
Equipment				LONG RANGE FUNDING REQUIREMENTS					
Subtotal	\$19.5	\$37.2	\$18.6		Estimated FY 2001	Estimated FY 2002			
General Administration	\$2.9	\$5.6	\$2.8						
Project Total    4 of 7	\$22.4	\$42.8	\$21.4		TBD	TBD			11/7/2003



October 1, 1998 - September 30, 1999

2000

FORM 3A  
PROJECT  
MANAGEMENT

Prepared: 7/27/99

[illegible]

October 1, 1998 - September 30, 1999

# 2000

FORM 3A  
PROJECT  
MANAGEMENT

Budget Category:	Authorized FY 1999	Agency Proposed	Proposed FY 2000						
Personnel	\$82.4	\$101.4	\$88.7						
Travel									
Contractual									
Commodities									
Equipment									
Subtotal	\$82.4	\$101.4	\$88.7	LONG RANGE FUNDING REQUIREMENTS					
General Administration	\$12.4	\$15.2	\$13.3		Estimated FY 2001	Estimated FY 2002			
Project Total	\$94.8	\$116.6	\$102.0		TBD	TBD			
Full-time Equivalents (FTE)	1.2	1.3	1.1						
6 of 7									
			FY 1999	FY 2000	Proposed FY 2000				
11/7/2003									

**1999 EXXON VALDEZ TRUSTEE COUNCIL PROJECT BUDGET**

October 1, 1998 - September 30, 1999

Personnel Costs		Months	Agency	GS/Range/	Months	Monthly		Proposed
Name	Position Description	Budgeted	Request	Step	Budgeted	Costs	Overtime	FY 2000
B Wright	Project Manager	6 0	9 0	GS-13	8 0	8 4		0 0
								0 0
								67 2
								0 0
								0 0
								0 0
TBD	Fisheries Biologist	8 0	6 0	GS- 9	5 0	4 3		21 5
								0 0
								0 0
								0 0
Subtotal		14 0	15 0		13 0	12 7	0 0	\$88 7

**2000**

Prepared 7/27/99

Project Number 00250  
 Project Title Project Management  
 Agency National Oceanic and Atmospheric Administration

FORM 3A  
 PROJECT  
 MANAGEMENT

# 1999 EXXON VALDEZ TRUSTEE COUNCIL PROJECT BUDGET

October 1, 1998 - September 30, 1999

Personnel Costs		Months	Agency	GS/Range/	Months	Monthly		Proposed
Name	Position Description	Budgeted	Request	Step	Budgeted	Costs	Overtime	FY 2000
B Wright	Project Manager	6 0	9 0	GS-13	8 0	8 4		0 0
								0 0
								67 2
								0 0
								0 0
TBD	Fisheries Biologist	8 0	6 0	GS- 9	5 0	4 3		0 0
								21 5
								0 0
								0 0
								0 0
Subtotal		14 0	15 0		13 0	12 7	0 0	\$88 7

**2000**

Prepared 7/27/99

Project Number 00250  
 Project Title Project Management  
 Agency National Oceanic and Atmospheric Administration

FORM 3A  
 PROJECT  
 MANAGEMENT





# NATIONAL WILDLIFE FEDERATION®

*People and Nature Our Future Is in the Balance™*

Alaska Office

July 2003

I am pleased to provide you with a copy of the enclosed "State of the Sound" report recently released by the National Wildlife Federation. The report discusses the major human uses and activities in the Sound, and uses 16 environmental indicators to assess the overall health and integrity of the ecosystem. The report gives mixed grades to these key indicators and identifies a number of increasing threats to this magnificent region. It also recommends a number of actions to improve upon existing environmental conditions in the Sound.

Toxic contamination, endangered species, burgeoning recreational use, water and noise pollution - these are not images that jump to mind when envisioning seemingly wild and remote areas such as Prince William Sound. Yet, although the Sound is exceptionally beautiful, it is already experiencing all of these problems. We hope this report can shed light on these subjects and others, and inspire managers and policymakers at local, state and federal levels to take decisive action to protect this national treasure for future generations.

I hope you find the report useful and informative. If you have questions or comments, please contact me at (907) 339-3909 or [lavin@nwf.org](mailto:lavin@nwf.org).

Sincerely,

Patrick Lavin  
Prince William Sound Project Manager



NATIONAL  
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*July 2003*

## **STATE *of the* SOUND**

*Prince William Sound, Alaska*



# STATE *of the* SOUND

*Prince William Sound, Alaska*

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PRINCE WILLIAM SOUND PROJECT  
MANAGER/EDITOR

**Author Marybeth Holleman** has spent time in and written about Prince William Sound since moving to Alaska 18 years ago to sell tickets on the train to Whittier. Author of *The Heart of the Sound: A Geography of Self and Place* (University of Utah Press, Spring 2004) and *Alaska's Prince William Sound* (Alaska Northwest Books, 2000), she has also published articles, essays and poems in venues including *Orion*, *The North American Review*, *Sierra*, *The Christian Science Monitor*, *National Wildlife*, *Ice-Floe: International Poetry of the Far North*, *American Nature Writing 2000* (OSU Press), *Under Northern Lights* (University of Washington Press), *Solo* (Seal Press), *The Seacoast Reader* (Lyons Books), and *American Nature Writing 1996* (Sierra). She teaches creative writing and women's studies at the University of Alaska in Anchorage, where she lives with her husband and son.

#### NATIONAL WILDLIFE FEDERATION

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750 W. 2nd Ave. #200  
Anchorage, AK 99501  
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#### CONTACTS:

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## **FY 04 Work Plan comments**

Dede Bohn, USGS

Amalie Couvillion, The Nature Conservancy

Glenn Seaman, Kachemak Bay Research Reserve

David Roseneau, Alaska Maritime National Wildlife Refuge (1 to Port Graham, 1 to Nanwalek)

Craig Matkin, North Gulf Oceanic Society

Richard DeLorenza, Chugach School District

Kate Wynn, Sea Grant Advisory Program

Kate McLaughlin, Chenega IRA Council

Richard Jacoby, Kenai Fjords Tours

Craig Matkin, North Gulf Oceanic Society

Jia Wang, International Arctic Research Center

Michael Munger, RCAC

Gerry Sanger, Sound Eco Adventures, PAC member, USFWS Research Biologist (Ret )

Leslie Hines, Kenai Fjords Tours

Nancy Bird, PWSSC/OSRI

Brett Huber, PAC Chairman

ADN, Sept 21, 2003 Taking a tally scientists begin 10-year study of the seas, hoping the census yields rewards

## **Habitat comments**

Washington Post, Oct 2003 Wildlife haven pits Alaska's governor against many of his state

Jesse Ausubel, Alfred P Sloan Foundation

The Ecologist, October 2003 A well designed disaster the untold story of the *Exxon Valdez*

ADN, Oct 20, 2003 Matter of principle stalls popular preservation plan

This is comments on the FY 2004 draft work plan

Phil Mundy  
907-278-8012

-----Original Message-----

From Dede Bohn [mailto:dbohn@usgs.gov]  
Sent Wednesday, October 01, 2003 2 00 PM  
To Phil Mundy, Brenda L Norcross  
Cc Brett Huber  
Subject Couvillion project

Phil,

We'd like to support funding the Couvillion Shoreline Coordinator project in FY04. For one thing, we've finally gotten the cracked open the door a little bit with Alyeska, and it'd be good to keep the momentum going with the 2 individuals there who are willing to work with us, and who participated with great enthusiasm in the March Shoreline Mapping workshop where we formulated the idea of a Shoreline Coordinator.

I'm not sure I understand the recommendation that says this project failed to bring leveraged funds to the table. The proposal indicates TNC has secured \$60K of matching funds, and I've contacted the PI to confirm, which she does, in her e-mail below. The deal is, TNC can get the \$60K THIS YEAR only. If you'd prefer they allocate it differently than they've planned (1/3 for each of the next 3 years), perhaps that can be negotiated.

I know other groups were counting on having this proposal funded for FY04, and perhaps they'll come forth to testify. I have found that most people were unaware that the recommendation issued in the FY04 August 24th Workplan had been changed from 'fund' to 'defer' in the workplan released Sept 25th. Perhaps with the now-delayed TC meeting, we'll have a chance to continue this discussion and see if compromises can be worked out.

Please let me know if I can help in anyway.  
Thanks,  
Dede

----- Forwarded by Dede Bohn/BRD/USGS/DOI on 10/01/03 01 51 PM -----  
From "Amalie Couvillion" <acouvillion@tnc.org>  
To "Dede Bohn" <dbohn@usgs.gov>  
cc "Robert G \Rob\ Bosworth" <rbosworth@tnc.org>,  
"Randy Hagenstein" <rhagenstein@TNC.ORG>  
Subject EVOS match 09/30/03 01 17 PM Please respond to acouvillion

Hi Dede,

In the proposal TNC pledged to contribute \$60,000 of private funds to the project over three years, effectively reducing the cost of the proposal by over 20% we contribute \$60,000, EVOS contributes \$213,200 for a total of \$273,200.

We have this match in hand. It was made by an anonymous individual donor to the Northwest Division of TNC. It's sitting in Seattle right now. But the Division is constrained in distributing this money unless it can be leveraged. If the EVOS proposal is not funded, the \$60,000 won't come to Alaska.

Dede, I'll send you a copy of the proposal in a bit. If you need any other information, please let me know.

~~~~~  
Amalie Couvillion acouvillion@tnc.org  
The Nature Conservancy 907) 276-3133 x103  
421 West First Avenue, Suite 200  
Anchorage, Alaska 99501



**KACHEMAK BAY  
RESEARCH RESERVE**  
ALASKA DEPARTMENT OF FISH AND GAME  
2181 KACHEMAK DRIVE  
HOMER ALASKA 99603

*A Unit of the National Estuarine Research Reserve System*

October 3, 2003

Pat Norman  
Chief  
Port Graham Village Council  
P O Box 5510  
Port Graham, Alaska 99603

Dear Mr Norman

On behalf of Kachemak Bay Research Reserve (KBRR) staff, I would like to thank the Port Graham Village Council and community of Port Graham for hosting the September 24 to 26 Port Graham-Nanwalek WisdomKeeper workshop. We were fortunate to have four KBRR staff – including two research staff, one educator, and myself – participate in the workshop. The workshop was excellent! Several highlights of the workshop include

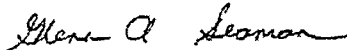
- Holding the workshop in Port Graham – Meeting in the village not only provided scientists and others with a better understanding and appreciation for village life, but also provided a very relaxed atmosphere to promote active and candid discussions. Moreover, it greatly enhanced the participation of many village Elders, youth, and other community members that simply could not have been achieved in a meeting in Anchorage or other distant venues.
- Community hospitality – The community went out of their way to make participants feel welcome and relaxed in the workshop.
- Understanding communities – It provided an effective, non-threatening opportunity for village elders and other residents to openly share their traditional ecological knowledge about the region and changes that have occurred over time. This resulted in a greater understanding and respect for the Native perspective and culture.
- Understanding Science – Similarly, scientists, educators, and managers were able to openly share their knowledge and understanding of the region and its resources. Community members seemed to welcome the information exchange, and the opportunity to learn from scientists.
- Understanding community involvement – We were able to understand and learn from examples of successful community involvement in research and monitoring. From the scientist's standpoint, it helped dispel some of the mystery, by demonstrating how community involvement can effectively contribute to research and monitoring, and enhance community understanding and support.
- Improved Collaboration – The workshop made great strides in bridging the gap between western science and traditional ecological knowledge. It was very enlightening to see scientists and communities working so well together, and building a sense of optimism for the future.

- Defining Needs – The workshop also identified research needs related to habitat mapping, ocean circulation studies, monitoring, and other marine science and education projects

In summary, the WisdomKeeper gathering was a huge success. We thank the Port Graham Village Council and Chugachmuit Regional Resources Commission for making this happen, and for providing us the opportunity to participate. The overall success of this effort, however, is contingent upon the ability to foster the connections that began to form during the meeting. It is through the development of these connections and follow-through on key recommendations that community concerns will be addressed. The Reserve looks forward to working with the villages of Port Graham and Nanwalek and Chugach Regional Resources Commission to further these connections and help bring the recommendations to reality. Lastly, we encourage you to pursue funding to support continuation of the WisdomKeeper process. This process has proven to be a very effective means to further research and monitoring, community education, and cooperation between western science and Native communities.

Thank you!

Sincerely,



Glenn A. Seaman  
Reserve Manager

Gail Phillips, EVOS Trustee Council  
Patty Brown-Scwhalenberg, CRRC



30 September 2003

Memorandum

To The Port Graham Village Council

From David G. Roseneau, Wildlife Biologist, Alaska Maritime National Wildlife Refuge,  
Homer, Alaska 99603-8021 (Ph 907/235-6546)

Subject The Port Graham - Nanwalek Wisdom Keeper Meeting in Port Graham on 24-26  
September 2003

Dear Port Graham Village Council Members

I would like to thank you for inviting me to the Port Graham - Nanwalek Wisdom Keeper Meeting in Port Graham last week. I thoroughly enjoyed it. It was without doubt the best meeting about involving communities directly in the EVOS Trustee Council GEM program that I have ever attended. It brought many good people together with good ideas in a relaxed setting that allowed everyone to participate in planning how to incorporate local interests and concerns in future GEM projects. I was impressed with the level of interest shown by both the communities and the individuals attending the meeting. I believe considerable progress was made toward developing a list of potential projects that could easily fit under the community involvement aspect of the GEM Program. Based on the meeting in Port Graham, I certainly hope that the EVOS Trustee Council will seriously consider sponsoring similar meetings throughout the spill area several times during the next few years, including additional meetings in the communities of Kachemak Bay.

Also, based on what I learned about the success of the Prince William Sound - Cook Inlet Youth Area Watch Program (e.g., two students successfully completing or about to complete college programs in resource management), I hope that the EVOS Trustee Council will seriously reconsider funding this effort in the PWS-CI region (it is my understanding it was funded in Kodiak but not in the PWS-CI region where the program is just starting to show encouraging results).

Sincerely,

David G. Roseneau, Wildlife Biologist  
U.S. Fish and Wildlife Service  
Alaska Maritime National Wildlife Refuge  
2355 Kachemak Bay Dr., Suite 101  
Homer, Alaska 99603-8021  
Phone (907) 235-6546  
Fax (907) 235-7783  
E-mail [dave\\_roseneau@fws.gov](mailto:dave_roseneau@fws.gov)

Cc Exxon Valdez Oil Spill Trustee Council



# Chugach Regional Resources Commission

## FACSMILE COVER SHEET

Chenega Bay

Eyak

Nanwalek

Port Graham

Qutekcak  
Native Tribe

Tatitlek

Valdez Native  
Tribe

DATE: Sept. 30, 2003 TIME: \_\_\_\_\_  
 To: Gail Phillips & Phil Mundy  
 TO: Tribal Council Presidents/Chiefs Fax / Phone number

|                                       |                             |
|---------------------------------------|-----------------------------|
| Arnie Hatch, Qutekcak Tribal Council  | 907-224-5874 / 907-224-3118 |
| Larry Evanoff, Chenega IRA Council    | 907-573-5120 / 907-573-5123 |
| Robert Henrichs, Eyak Tribal Council  | 907-424-7739 / 907-424-7738 |
| Benna Mae Hughey, Valdez Native Tribe | 907-835-5589 / 907-835-4951 |
| Gary Kompkoff, Tatitlek IRA Council   | 907-325-2298 / 907-325-2311 |
| Elenore McMullen, Port Graham Council | 907-284-2222 / 907-284-2227 |
| Emily Swenning, Nanwalek IRA Council  | 907-281-2252 / 907-281-2222 |

FROM: Mimi  
 Chugach Regional Resources Commission  
 4201 Tudor Centre Drive, Suite 300; Anchorage, AK 99508  
 Office: 907-562-6647, Fax: 907-562-4939

NOTES: Another letter for your files  
I'm sorry you were not in Port Graham

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\_\_\_\_\_ pages including cover sheet. If there are any problems with this transmission, please contact the CRRC office. Thank you.

30 September 2003

Memorandum

To The Nanwalek IRA Council

From David G. Roseneau, Wildlife Biologist, Alaska Maritime National Wildlife Refuge,  
Homer, Alaska 99603-8021 (Ph 907/235-6546)

Subject The Port Graham & Nanwalek Wisdom Keeper Meeting in Port Graham on 24-26  
September 2003

Dear Nanwalek IRA Council Members

I would like to thank you for inviting me to the Port Graham - Nanwalek Wisdom Keeper Meeting in Port Graham last week. I thoroughly enjoyed it. It was without doubt the best meeting about involving communities directly in the EVOS Trustee Council GEM program that I have ever attended. It brought many good people together with good ideas in a relaxed setting that allowed everyone to participate in planning how to incorporate local interests and concerns in future GEM projects. I was impressed with the level of interest shown by both the communities and the individuals attending the meeting. I believe considerable progress was made toward developing a list of potential projects that could easily fit under the community involvement aspect of the GEM Program. Based on the meeting in Port Graham, I certainly hope that the EVOS Trustee Council will seriously consider sponsoring similar meetings throughout the spill area several times during the next few years, including additional meetings in the communities of Kachemak Bay.

Also, based on what I learned about the success of the Prince William Sound - Cook Inlet Youth Area Watch Program (e.g., two students successfully completing or about to complete college programs in resource management), I hope that the EVOS Trustee Council will seriously reconsider funding this effort in the PWS-CI region (it is my understanding it was funded in Kodiak but not in the PWS-CI region where the program is just starting to show encouraging results).

Sincerely,

David G. Roseneau, Wildlife Biologist  
U.S. Fish and Wildlife Service  
Alaska Maritime National Wildlife Refuge  
2355 Kachemak Bay Dr., Suite 101  
Homer, Alaska 99603-8021  
Phone (907) 235-6546  
Fax (907) 235-7783  
E-mail [dave\\_roseneau@fws.gov](mailto:dave_roseneau@fws.gov)

Cc Exxon Valdez Oil Spill Trustee Council

Exxon Valdez Oil Spill Trustee Council  
441 West 5th Ave Suite 500  
Anchorage, Alaska 99501

5 November 2003

Dear Trustees

I would like to voice my strong support for the lower Cook Inlet programs that are now suggested for funding under the GEM program. As a thirty year resident of the area and an active scientist who has participated in the damage assessment and restoration programs under EVOS, I strongly support the lower Cook Inlet segment of the current GEM plan. (Note although I have some involvement in work proposed for other regions, I am not involved in any of the lower Cook Inlet region proposals)

Thanks for your attention

Craig O. Matkin  
North Gulf Oceanic Society  
60920 Mary Allen Ave  
Homer, Alaska 99603  
Phone/Fax 907 235-6590



## NORTH GULF OCEANIC SOCIETY

60920 Mary Allen Avenue  
Homer, Alaska 99603  
(907) 235-6590

FY 04 Work Plan  
Public Comment

Gail Phillips, Executive Director  
Exxon Valdez Oil Spill Trustee Council  
441 W 5<sup>th</sup> Ave Suite 500  
Anchorage, Alaska 99501

September 10, 2003

Dear Gail,

I am writing to ask you to change your funding recommendation for my project Monitoring of Killer Whales in Prince William Sound/ Kenai Fjords in 2004. This project should be funded not only because of damages to killer whale pods and populations following the spill, but because it continues a long time series of observations of importance to GEM, and because EVOS Trustee Council peer reviewer may have misunderstood some important aspects of my work.

The recommendation not to fund was surprising because this project was identified as a continuing project under the FFY 04 invitation. Under the GEM program, maintaining ecological time series through partnership monitoring is considered a valuable tool - (GEM document 3 2 4). The work produced by these studies have appeared in peer-review literature and our EVOS reports received favorable reviews by marine mammal scientists.

I also must take issue with some of the review comments as I do not feel they adequately represent the status of the affected populations. AB pod, the most frequently sighted resident pod, is far from numerically recovered from the effects of oil spill; in fact, our observations from this year indicate that the pod is still well below its original number of 35. The social structure, ruptured by the spill, also has not stabilized. The AB25 subgroup of the pod, which broke from the pod at the time of the spill, still does not travel with the rest of the pod and their status is uncertain. Although the southern Alaska resident killer whale population may be increasing overall, this very important and often viewed segment of the population has not recovered and our study provides a fascinating and unique account of the reaction of a killer pod to a major perturbation.

The AT1 population of transients has been petitioned for listing as depleted under the Marine Mammal Protection Act. The decline of this group was severely exacerbated by the oil spill. The deaths following the oil spill are a strong factor in promoting this listing. The Council should have some responsibility in monitoring the situation with this group.

The linkage between these killer whale declines and the oil spill has been questioned by particular reviewers (non marine mammalogists) since the beginning of the EVOS supported studies. With each passing year the chance that these mortalities were "coincidence" declines. There have been no similar mass mortalities in southern Alaska, nor in any other long term killer whale studies conducted over the past three decades from Puget Sound to Southeast Alaska. However whether or not these declines can be attributed primarily to the spill - (which I think they can), by maintaining this time series and continuing to increase our understanding of killer whale population structure we will be in a better position to gauge the effects of future spills as well as the effects of other man made and natural changes in the marine environment.

Perhaps the problem here is that responsibility for reviewing this project has been placed under the Lingering Oil subcommittee - which by necessity has a narrow focus. A broader perspective which considers killer whales as a highly visible and important component of the marine ecosystem should be considered.

I also remind you that the Trustee Council is shouldering only a small portion of the total cost of this high profile project, yet will be fully credited for support. The public, tourboat operators, and other marine mammal scientists have shown great support for the continuation of this project and I believe will be surprised at its deletion from your agenda. With due respect, I ask that you reconsider your decision not to fund the killer whale monitoring project.

If you have additional questions, please query me or one of the marine mammal scientists who have reviewed my reports.

A handwritten signature in black ink, appearing to read "Craig O. Matkin", with a stylized flourish at the end.

Craig O. Matkin  
Director

Cc Phil Mundy, Peter Hagen

**Brenda Hall**

---

**From** Richard DeLorenzo [rdelorenzo@chugachschoools.com]  
**Sent** Saturday September 06, 2003 7:35 AM  
**To** Brenda Hall  
**Subject** FW: Public Comment Invited - FY 2004 Draft Work Plan

----- Forwarded Message

**From:** salasky <salasky@alaska.net>  
**Date:** Fri, 02 Jan 1970 00:07:24 -1000  
**To:** Richard DeLorenzo <rdelorenzo@chugachschoools.com>  
**Subject:** Re: Public Comment Invited - FY 2004 Draft Work Plan

Hi Rich  
 For unknown reasons I'm unable to send this to Brenda Hall at <brenda\_hall@oilspill.state.ak.us>. Can you give it a try? I leave for Yukon in a few hours and won't know when I'll have email access next. She needs this before Sept 15.  
 Thanks, Shoo

Dear Interested Party

We are reminding you of the opportunity to submit comments on the FY 2004 Draft Work Plan, which is available on our website at [www.oilspill.state.ak.us](http://www.oilspill.state.ak.us) <<http://www.oilspill.state.ak.us>>. Please submit all written comments on or before September 15, 2003. Oral comments may be made at the Trustee Council meeting on October 3, 2003. Instructions on providing comments are available on our website at [http://www.oilspill.state.ak.us/admin/public\\_comment\\_fy04.html](http://www.oilspill.state.ak.us/admin/public_comment_fy04.html).

Hello Brenda,

Following is a message I sent to Gail Phillips and Phil Mundy last week. I am forwarding it to you, with some minor additions, to include as comments to be considered at the October Council meeting. Thank you.

While we were greatly disappointed to have our YAW 040210 proposal denied for 2004, we took the reviewers' comments to heart and did some background research and revising of our plan. It is with great hope that we ask the Trustee Council to reconsider the "do not fund" classification, and rather, "defer" this decision for a mid-year review. At that time, we could rework our proposal to align more completely with the GEM objectives.

Some ideas include

- focus more directly on our four school sites (Whittier, Tatitlek, Chenega Bay, and our Extension School in Valdez), thus reducing travel costs greatly
- set up long term monitoring projects chosen by students and community members, thus insuring vested interest and more personal levels of

9/8/2003

commitment

- identify local experts within our villages thus increasing our cadre of volunteers
- involve more of those local resources, thus enhancing community involvement, while decreasing dependence on outside PI's

We continue to seek collaborative educational experiences with scientists, fishermen, spill responders, and natural history tour agencies, in hopes of offering more possibilities for continuing real-life science investigations for communities throughout Prince William Sound. The past 8 years of YAW studies and local restoration projects has benefited over 200 students in 9 communities. It is hoped that we can continue along, and improve upon, those lines.

Thank you for your consideration,

Sheryl Salasky (Shoo)  
Science Coordinator  
Chugach School District  
9312 Vanguard Dr Suite 100  
Anchorage, AK 99507  
522-7400 - office  
522-3399 - fax

[salasky@alaska.net](mailto:salasky@alaska.net)

----- End of Forwarded Message

9/8/2003





## Sea Grant Marine Advisory Program

University of Alaska  
Fairbanks

School of Fisheries and  
Ocean Sciences

### Anchorage

Marine Advisory Program  
Carlson Trust Building #110  
2221 E Northern Lights Blvd  
Anchorage, Alaska 99508-4140  
907 274-9691  
Fax 907 277 8242  
<http://www.sfas.uaf.edu.8000/MAP>

### Bethel

UAF Kuskokwim Campus  
P O Box 388  
Bethel, Alaska 99559  
907-543-4515  
Fax 907 543-4627

### Cordova

P O Box 890  
Cordova, Alaska 99574  
907-424-3448  
Fax 907-424-5248

### Dillingham

P O Box 1548  
Dillingham, Alaska 99578  
907-842-1285  
Fax 907-842 3202

### Homer

4014 Lake Street, Suite 201B  
Homer, Alaska 99603  
907 226-5643  
Fax 907-235-6048

### Kodiak

900 Trident Way  
Kodiak, Alaska 99615  
907-488 1500  
Fax 907-488-1540

### Petersburg

P O Box 1329  
Petersburg, Alaska 99833  
907-772-3381  
Fax 907-772-4431

### Seward

Seward Marine Center  
P O Box 790  
Seward, Alaska 99684  
907-224-5281  
Fax 907 224-3892

### Sitka

700 Kadlian St. #D  
Sitka, Alaska 99835-7314  
907-747-3588  
Fax 907-747 1443

CC TO  
GAIL PHILLIPS  
Exec Dir, EVOS TC.

Pat Norman, Tribal Chief  
Port Graham Village Council  
P O Box 5510  
Port Graham AK 99603

30 September 2003

Dear Pat

I just want to thank you again for hosting the recent Wisdomkeeper Workshop in Port Graham last week

Although I have been involved in a variety of meetings designed to bridge the gaps between Western and Traditional ways of thinking this is the first one where I felt we actually made headway! The warm and almost festive welcome we received from the community set the stage for our open discussions and relaxed sharing of ideas and information

I was delighted and impressed to hear directly from many elders— how they have used resources how those have changed over time, and what issues concern them now I am particularly thankful that Peter, Feona, Eleanore John Nicka and all the others who rarely attend meetings outside the village were willing to share ideas and stories with us

Somehow, it seems we all *connected* at this meeting in a way I have never felt before That sense of bonding with common questions and mutual goals just doesn't happen in brief and formal meetings in Anchorage Those of us researchers who want to help find answers to your questions could never gain the insights understand the situation, or comprehend the wealth of resources available without being in Port Graham and listening directly to the people The beauty of these Wisdomkeeper workshops is that I feel we finally *heard* each other

For a long time it seemed impossible to develop studies that incorporate Western and Traditional ecological knowledge — that it was just talk and something I might never see in my lifetime But now, after participating in the Port Graham Wisdomkeeper Workshop, I know IT CAN HAPPEN but only in a village setting with people that WANT it to work. I thank you and the village of Port Graham for providing that setting

And, as we discussed at the meeting, the greatest resource we can share in this effort is the *village youth*. Unlike us older folks, *they* can be raised with one foot in each world, seeing the strengths of each way of thinking, and communicating in many languages. They are our future resource stewards, managers and scientists. They are our greatest hope for truly integrating Western and Traditional knowledge to study and sustain our natural resources. And I was delighted to see them participating in the Wisdomkeeper Workshop and working with Ann on the bidarkı study.

So please share my thanks with all the folks that made us so comfortable (and fed us so well) during our stay last week. I look forward to the chance of working with you on some of the exciting studies and programs I see in your future. Just give me a call anytime.

Best wishes,



Kate Wynne  
Associate Professor  
University of Alaska Marine Advisory Program  
Kodiak, AK 99615  
(907) 486-1517

cc Gail Phillips EVOS Trustee Council

Note: I am sending a copy of this letter to the EVOS Trustee Council because I honestly believe programs like the Youth Area Watch and Wisdomkeeper Workshops are the only programs that actually bring us together on common ground. It would truly be a shame to lose the momentum we've gained slowly-but-steadily over the past 13 years. The Trustee Council may spend thousands of dollars hosting a meeting like last year's "Science for Resource-dependent communities" but it is gatherings like the Wisdomkeeper Workshops that actually *reach* the communities and lay the groundwork for integrated, community-based science.

and  
Youth Area Watch?

## Brenda Hall

---

**From** Chenegaepa@aol.com  
**Sent** Tuesday, November 04 2003 2:20 PM  
**To** brenda\_hall@oilspill.state.ak.us  
**Cc** comatkin@xyz.net  
**Subject** EVOS 03 unobligated funds

Dear Ms. Hall,

I am writing to request that the unobligated EVOS project funds for '03 be used for Craig Maitkin's killer whale research in PWS/KF. Through long-term projects such as this, invaluable data is gathered that shows trends over time. Such baseline data has been extremely important in gaining understanding and monitoring impacts over time upon the Sound as a whole as well as within the individual population groups of killer whales.

Thank you for your consideration.

Kate McLaughlin, Environmental Program Technician  
Chenega IRA Council

11/5/2003

## Brenda Hall

---

**From** Rich Jacoby [RJacoby@ciri.com]  
**Sent** Tuesday, November 04, 2003 5:00 PM  
**To** 'Brenda\_Hall@oilspill.state.ak.us'

Dear Ms. Hall,

I understand that EVOS trustee council will be meeting on November 10<sup>th</sup> to approve project funding for 2004.

I am writing to encourage the use of surplus EVOS project funds from '03 to support the North Gulf Oceanic Society. The long term work that they have undertaken with Killer Whale populations in Prince William Sound and the Kenai coast provides invaluable data. Monitoring and research of these whale populations is critical to understanding the overall health of the Prince William Sound and Gulf Coast ecosystems.

Thank you for your consideration.

Richard Jacoby  
Operations Manager  
Kenai Fjords Tours  
Seward, Alaska  
907-224-4543

11/5/2003

-----Original Message-----

From Jia Wang [mailto:jwang@siberian.frontier.iarc.uaf.edu]

Sent Sunday, September 14, 2003 6:59 PM

To: brenda\_hall@oilspill.state.ak.us, phil\_mundy@oilspill.state.ak.us

Cc: jwang@iarc.uaf.edu

Subject: Re: Fwd: Public Comment Invited - FY 2004 Draft Work Plan

Dear Phil, Brenda, and please pass this message to the new executive director

I looked at the FY04 Plan of the GEM, it seems to me that the recommended funding in modeling infrastructure does not really contain any modeling studies. What Musgrave and I proposed was to build a real modeling infrastructure meeting the three criteria mentioned in the Invitation: we create and build coupled physical-ecosystem models in the GoA, 2) build a database collecting all available data, together with the modeling effort, and 3) implement the GEM infrastructure, including

The recommendation said that this is well ahead of the current GEM's needs. We would like to argue that the present approach has been applied to the Gulf of Maine (GOMOSE), which is a successful example. We wonder why we go so slowly to build the infrastructure less related to the real modeling work? This will set back our modeling effort that the EVOS has invested since 1995.

We have been very productive (see the publication record attached) and have very nice publication records in the SEA project and the post-SEA. We have built two GEM-like ocean models: MIT-gcm and ROMS; we also built a 9-compartment, 3-D ecosystem model in the PWS, GoA, and the Bering Sea. All of our existing models are the basis for the GEM modeling infrastructure in the cost-effective manner with IMS and IARC modeling teams' involvement.

Based on our argument, we would like to suggest the STAC and the directors to reconsider your decision.

Look forward to hearing from you.

Our publication records related to the GEM

#### Journal Papers

1. Mooers, C. N. K. and J. Wang, 1998. On the implementation of a 3-D circulation model for Prince William Sound, Alaska. Cont. Shelf Res., 18: 253-277.

2. Deleersnijder, E., J. Wang, and C. N. K. Mooers, 1998. A two-compartment model for understanding the simulated 3-D circulation in Prince William Sound, Alaska. Cont. Shelf Res., 18: 279-287.

3. Wang, J., 1998. A two-channel laterally averaged estuarine circulation model (LAECIM), J. Geophys. Res., 103: 18,381-18,391.

4. Wang, J., 2001. A nowcast/forecast system for coastal ocean circulation (NFSCOC) with a simple nudging data assimilation. J. Atmos. Oceanic Tech., 18(6): 1037-1047.

5 Eslinger, D L , R T Cooney, C P McRoy, A Ward, T Kline, E P Simpson, J Wang and J R Allen, 2001 Plankton dynamics Observed and modeled response to physical forcing in Prince William Sound, Alaska Fisheries Oceanogr , 10 (Suppl 1), 81-96

6 Jin, M and J Wang, 2003 Interannual variability and sensitivity study of the ocean circulation and thermohaline structures in Prince William Sound, Alaska, Continental Shelf Res (accepted)

7 Wang, J , M Jin, D Musgrave and M Ikeda, 2003 A numerical hydrological digital elevation model for freshwater discharge into the Gulf of Alaska (J Geophys Res , conditionally accepted)

8 Jin, M , J Wang, and P McRoy, 2003 A 3-D coupled biological-physical model and its application to the 1996 spring plankton bloom in Prince William Sound, Alaska Ecosystem and Sustainable Development III, eds E Tiezzi, C A Brebbia, and J L Uso, WIP Press, 10pp

#### Internal Report

1 Wang, J , 1999 A nowcast/forecast system for coastal ocean circulation (NFSCOC) Internatioanl Arctic Research Center-Frontier Research System for Global Change IARC/Frontier Tech Rep No 99-1 University of Alaska Fairbanks, 97pp

2 Wang, J and M Jin, 2002 A 3-D coupled biological-physical model of the ecosystem in Prince William Sound, Alaska , Oil Spill Recovery Institute , OSRI Final Report, March 2002, Cordova, Alaska, 38pp

3 Wang, J , Q Liu and M Jin, 2002 A User's Guide for a Coupled Ice-Ocean Model (CIOM) in the Pan-Arctic and North Atlantic Oceans International Arctic Research Center-Frontier Research System for Global Change, Tech Rep 02-01, 65 pp

4 Wang, J , C Deal, Z Wan, M Jin, N Tanaka and M Ikeda, 2003 User's Guide for a Physical-Ecosystem Model (PhEcoM) in the Subpolar and Polar Oceans International Arctic Research Center-Frontier Research System for Global Change, Tech Rep 02-02, 69 pp

5 Jin, M and J Wang, 2003 Implementation of an Ocean Circulation Model in GOA A transition from SEA to GEM, Exxon Valdez Oil Spill Restoration Project Final Report (Restoration Project 02603), Chugach Development Corporation, Anchorage, Alaska

--

Jia Wang

International Arctic Research Center (IARC)-

Frontier Research System for Global Change (FRPGC) University of Alaska Fairbanks 930 Koyukuk Dr, IARC Bld , RM 408F Fairbanks, AK 99775-7335

Tel 907-474-2685 (office)

Fax 907-474-2643 (Office)

Email [jwang@iarc.uaf.edu](mailto:jwang@iarc.uaf.edu) [http //www frontier iarc uaf edu](http://www.frontier.iarc.uaf.edu) 8080/~jwang



*"The mission of the Council is to represent the citizens of Cook Inlet in promoting environmentally safe marine transportation and oil facility operations in Cook Inlet "*

**Members**

October 31, 2003

*Alaska State  
Chamber of  
Commerce*

Gail Phillips, Executive Director  
Exxon Valdez Oil Spill Trustee Council  
441 West Fifth Avenue, Suite 500  
Anchorage, AK 99501

*Alaska Native  
Groups*

Dear Ms Phillips,

*Environmental  
Groups*

The Cook Inlet Regional Citizens Advisory Council (RCAC) recommends that the EVOS Trustee Council support the Gulf Ecosystem Monitoring (GEM) program and work towards finalizing approvals for the 2004 GEM Workplan. The GEM program has gone through extensive review by almost all local, state, and federal agencies with interests in EVOS programs as well as by objective technical experts. Over the years, this program has developed into a plan that we hope will provide long-term data that can help us all better understand variability in the Gulf of Alaska's physical, chemical, and biological systems, which will improve our ability to distinguish between natural variability and human-induced impacts.

*Recreational  
Groups*

*Aquaculture  
Associations*

Cook Inlet RCAC also recommends that you fund the proposal "Coordinated Coastal Mapping" as part of the 2004 GEM Workplan. This proposal was submitted by Ms Amy Couvillon of The Nature Conservancy (TNC) to help fund a coastal mapping coordinator position for advancing ShoreZone mapping protocols for the GEM area and, ultimately, Alaska's entire coast. This proposal builds on significant work conducted to date by numerous organizations and agencies and was a recommendation out of an EVOS-sponsored workshop in the spring 2003.

*Fishing  
Organizations*

*City of Kodiak*

*City of Kenai*

*City of Seldovia*

*City of Homer*

*Kodiak Island  
Borough*

*Kenai Peninsula  
Borough*

*Municipality of  
Anchorage*

The Cook Inlet RCAC was formed through language introduced into the Oil Pollution Act of 1990 by then Senator Frank Murkowski. To help fulfill the mandates outlined in that legislation, we conduct an environmental monitoring program in Cook Inlet. As part of that program, Cook Inlet RCAC initiated ShoreZone mapping in Alaska in 2001 by conducting a pilot project to map coastal habitats in the central Inlet. The ShoreZone technique was selected based mainly on its success in British Columbia and Washington State where it has proven its use for oil spill planning and response, for coastal planners, for research, and for general public education. Additional funds from the Kenai Peninsula Borough allowed us to expand the project to other areas of Cook Inlet and a portion of the outer Kenai Peninsula.

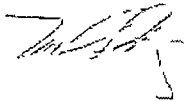
In 2002, the EVOS Trustee Council funded the eastward expansion of Kenai Peninsula ShoreZone mapping and funded the initial phase of mapping for the northern Kodiak Island archipelago (aerial surveys). Through funding received from Alaska's Coastal Impact Assistance Program (CIAP), Cook Inlet RCAC is working towards the completion of the Kodiak data (mapping and database). In 2002, we partnered with the National Park Service to conduct ShoreZone mapping in their Katmai and Aniakchak

parks and the USF&WS provided funds to complete upper Cook Inlet ShoreZone mapping. We also have several related projects that include on-the-ground surveys and the development of ShoreZone public outreach tools. It quickly became apparent that ShoreZone was a tool that could provide data sought by numerous local, state, and federal agencies, as well as other organizations and with the numerous individual projects being conducted, it is crucial that there be strong coordination to ensure a contiguous, cohesive, and comprehensive dataset.

The proposal by TNC focuses on the need for coordination, not on the collection and ground-truthing of new information. Since there is definite interest in collecting information by other groups and agencies at this time, the *key* missing component is the coordination that can ensure unified, seamless coastal habitat data that can be made available through one ultimate source. TNC is a natural choice for this coordination to take place for several reasons. They were recommended as a potential coordinating organization by the participants at the EVOS Trustee Council's Coastal Mapping Workshop in March 2003. They have the infra-structure, knowledge, and experience in place to successfully integrate all of the various data sources. They have proven their interest and commitment towards integrated regional mapping by raising half of the required funds for the proposed coordinator position. Finally, TNC has a track-record of successfully collaborating with numerous organizations ranging from oil industry to state and federal agencies to other non-profit organizations and, perhaps most importantly, to the general public.

The EVOS Trustee Council is in a position to ensure that the value of its past investments towards developing Alaskan ShoreZone Mapping Protocols and collecting actual coastal mapping data is maximized by funding the "Coordinated Coastal Mapping" proposal. As well, we hope that you also approve funding for Cook Inlet RCAC's proposed "Alaska Coastal Habitat Web Site" project which will initiate the development of a public outreach tool on ShoreZone mapping data for coastlines within the GEM area. This could be an ideal project for initiating communication between existing ShoreZone projects and a coastal mapping coordinator at the TNC, since it is a relatively simple project focused on making ShoreZone data accessible for users. If you have any questions regarding these recommendations, please contact me or our Director of Science and Research, Susan Saupe, at (907) 283-7222 or [circac@circac.org](mailto:circac@circac.org).

Sincerely,



Mr Michael L. Munger  
Executive Director



**Brenda Hall**

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**From** Sound Eco Adventures [sea@alaska.net]  
**Sent** Wednesday, November 05 2003 11:08 AM  
**To** Brenda Hall  
**Cc** comatkin@xyz.net, Torie Baker, Brenda Norcross, Brett Huber, Charlie Hughey, Chuck Meacham, Douglas L. Mutter, Ed Page, Ed Zeine, Gary Fandrei, Gerald Sanger, Kate Williams, Martin Robards, Michael Vigil, Pat Norman, Patrick Lavin, Scott Smiley, Stacy Studebaker, Stan Senner, 'RJ Kopchak', 'John Devens', 'John Gerster', Dr. Robert Spies, Phil Mundy, Molly McCammon, Michael Baffrey, Jeep Rice, Hal Batchelder, Dr. Richard Marasco, Carol Fries, Bill Hines, Bill Hauser  
**Subject** Please Support PWS ORCA Research

Hello Brenda,

I'll likely be unable to attend the November 10 Trustee Council meeting, so I'd like to weigh in on the allocation of 2004 funds with this email. I offer these comments as a PAC member, a retired marine biologist with a 30-plus-year career, and as a 14-year eco-tour operator in Prince William Sound.

I understand that the Trustee Council wants to defer supporting the North Gulf Oceanic Society's (NGOS, Craig Matkin *et al*) request for \$18,000 for 2004, yet there remains unobligated funds from 2003. I ask the rest of the Public Advisory Committee to join me in urging the Trustee Council to continue supporting the NGOs's Orca work in PWS and Kenai Fjords with this very modest request.

A lack of long-term information on marine resources continues to limit a basic understanding of their life histories, let alone allow intelligent management recommendations. NGOA's systematic, 20-plus year study of Orcas stands as a rare example of long-term information on a resource that preceded the EVOS by many years. By continuing to support NGOA's Orca work, the Trustee Council thus has an opportunity to enhance one of the longest studies on a living resource in the EVOS zone.

Also, I'd like to point out that whale-watching is a multi-million dollar industry worldwide, and of growing importance in my own business and throughout PWS and Kenai Fjords (see [http://www.oilspill.state.ak.us/facts/status\\_human\\_recreation.html](http://www.oilspill.state.ak.us/facts/status_human_recreation.html)). By continuing to support Orca work, the Trustee Council will indirectly aid small tourism businesses for whom timely information on Orcas and other whales is important. Time and again over the past several years whale researchers in the field have alerted me to the locations of whales, thus directly aiding my business. At the same time, spill-zone tourism business like mine have enhanced EVOS whale studies with our whale sightings and photo ID photographs. By continuing to support whale work, the Trustee Council will be leveraging very modest funding and continue to benefit from the cooperation of tourism businesses like mine.

I appreciate your attention to these comments.

Sincerely,

Gerald A. Sanger  
Research Wildlife Biologist (Ret.)  
U.S. Fish & Wildlife Service

and

11/5/2003

•  
--

Sound Eco Adventures  
PO Box 707  
Whittier, Alaska 99693 USA  
Phone/Fax (907) 472-2312  
Toll-free Phone (888) 471-2312  
[http //www SoundEcoAdventure com](http://www.SoundEcoAdventure.com)

\*\*\*\*\* "Come Explore Prince William Sound" \*\*\*\*\*

-----Original Message-----

**From** Leslie Hines [mailto:lhines@ciri.com]  
**Sent** Thursday, November 06, 2003 11:14 AM  
**To** 'Brenda\_Hall@oilspill.state.ak.us'  
**Subject** North Gulf Oceanic Society

Dear Ms. Hall,

I understand that EVOS trustee council will be meeting on November 10<sup>th</sup> to approve project funding for 2004.

I would like to request that the unobligated EVOS project funds from '03 be used to support the North Gulf Oceanic Society. The long term work that they have undertaken with Killer Whale populations in Prince William Sound and the Kenai coast provides invaluable data. Monitoring and research of these whale populations is critical to understanding the overall health of the Prince William Sound and Gulf Coast ecosystems.

Thank you for your consideration  
Leslie Hines

Leslie Hines  
Captain/ Education Coordinator  
Marine Science Explorer Program  
Kenai Fjords Tours  
PO Box 1889  
Seward, AK 99664  
907-224-4554 phone  
800-270-1238 toll free  
907-224-4588 fax  
kftscience@ciri.com

## Cherri Womac

---

**From** Nancy Bird [nbird5800@earthlink.net]  
**Sent** Thursday, October 30, 2003 1:47 PM  
**To** restoration@oilspill.state.ak.us  
**Subject** Comments on FY04 Work Plan for GEM

Please forward this letter to each of the six Trustee Council members and please copy this also to Executive Director Gail Phillips and Science Director Phil Mundy. I'm traveling and don't have easy access to individual e-mail addresses. Thank you!

P O Box 705  
Cordova, AK 99574  
www.pws-osri.org and www.pwssc.gen.ak.us

October 30, 2003

Dear Trustee Council member,

I am writing to encourage your support for the Gulf Ecosystem Monitoring (GEM) program, initiated more than three years ago by the Trustee Council. Planning for this program focused on the oil spill region has gone through extensive review by both technical experts and the public. The revised GEM program is designed to collect long-term data that will assist communities, resource managers and researchers. It effectively responds to the on-going needs of oil-spill impacted communities like Cordova. Its emphasis on long-term support is critical to gaining an understanding of the variables that will allow us to distinguish between human and natural-caused impacts. Its vision is similar to the one we've been building in Prince William Sound but covers a much broader region and helps make possible more collaborations, partnerships and fund leveraging among state, federal and private entities.

For example, the Prince William Sound Science Center has several projects pending in the FY04 GEM workplan. "Impacts of Seafood Waste Discharge in Orca Inlet, Prince William Sound" (Thorne) is a collaboration with the Alaska Department of Environmental Conservation, Alaska Department of Fish & Game, Cordova seafood processors and the Native Village of Eyak. The proposed research will investigate possible impacts of seafood waste discharge through a series of experiments that will evaluate the nearshore community response to alternate techniques of seafood waste discharge, including different grind sizes and whole carcasses, as well as a pile remediation study. These experiments will not only aid our understanding of the historic impacts, but will form the basis for a more healthy and productive approach to seafood waste recycling.

A second project briefly titled "Top-down and bottom-up processes" (Bishop) is an excellent example of a project supported by multiple agencies including the PWS Oil Spill Recovery Institute, North Pacific Research Board, and EVOS Trustee Council. Focused on the complex and productive mudflat ecosystem of the Copper River Delta, this large-scale field study is examining the physical/chemical and biological factors that limit and/or regulate invertebrate community dynamics. The largely "bottom-up" approach used is the portion of the project proposed for support by the EVOS Trustee Council and is balanced by the largely "bottom-down" focus of a companion project funded by the OSRI. These mudflats generally have high densities of invertebrates which, in turn, provide a critical prey resource for fish, crabs and migratory birds. They are very important for the commercial salmon industry and for the economy of Cordova. By leveraging support funds from both OSRI and the EVOS Trustee Council, the study will be more comprehensive and improve our understanding of the intertidal coastal ecosystem critical to the Cordova and Prince William Sound community economies.

A third collaborative project pending in the EVOS FY04 work plan is titled "Nutrient-based resource management" (Knudsen - USFWS). Thomas Kline, of our staff, is a collaborator in this project which will further our understanding of water quality and biological production in relation to natural perturbations and human impacts. This project effectively leverages existing funding from the Oil Spill Recovery Institute.

and the North Pacific Research Board

Additionally, we have three projects recommended by EVOS staff for deferred funding. The first of these is an oceanographic study of the current structure in Hinchinbrook Entrance (Vaughan - Hinchinbrook Entrance). Since this proposal was originally submitted, Steve Okkonen has replaced Vaughan as the Principal Investigator for oceanography research and we have revised the proposal to collaborate with the University of Alaska Fairbanks. The revised proposed project expands the number of acoustic Doppler current profilers (ADCPs) deployed across Hinchinbrook Entrance resulting in a dramatic increase in knowledge about the current structure through this critical shipping zone. Tom Royer, formerly at the University of Alaska Fairbanks, is a member of the OSRI Scientific and Technical Committee and is a key advisor to this project. EVOS Trustee Council support for the deferred funding of this project will allow us to work with Gail Phillips to reach agreement on a result-oriented project. Better data on the ocean currents at Hinchinbrook is important for the shipping traffic, the potential use of dispersants and will also contribute more knowledge as to how nutrients and other marine species move into and out of this entrance. The Gulf of Alaska's exchange into Prince William Sound primarily flows through Hinchinbrook Entrance.

The second "deferred funding" project also focuses on the exchange between Gulf of Alaska waters and Prince William Sound (Kline - Exchange between GOA and PWS). It proposes to monitor a small copepod species, *Neocalanus*, which is the principal component of the zooplankton community in the northern Gulf of Alaska and Prince William Sound, and is also the principal food of emerging salmon fry. Thomas Kline proposes to sample *Neocalanus* from the deepest part of Prince William Sound, a region known as the Black Hole. Using stable isotope analysis of these samples, Kline will determine Nitrogen/Carbon ratios and from that information, he will be able to determine whether these copepods originated in Gulf of Alaska waters or whether their production primarily originates in Prince William Sound. This project will be matched by significant private foundation funding.

The third project recommended for deferred funding is to integrate weather and oceanographic data-collection systems on three types of vessels working in Prince William Sound (Bird - Mobile data network-Vessels). Marine weather and sea conditions are important elements for GEM, marine-traveler safety, resource agencies, marine-resource industries and emergency spill-response activities. Telemetry methods - building on a system already in place and providing meteorological data from eight stations through PWS - will be employed to provide real-time weather and sea-conditions data reporting from vessels operating on a regular basis in PWS. Our primary partner in this effort is GW Scientific, an Alaska-based company that has worked throughout the state with private corporations and federal and state agencies.

Due to previous family engagements, I'll be unable to attend the Nov 10th meeting. Please call or e-mail me if you have any questions about PWSSC proposals or our programs. I look forward to meeting you at a later date. I'd also like to extend an invitation for you to visit the Science Center at your convenience.

Sincerely,

Nancy Bird <bird@pwssc.gen.ak.us>  
President, Prince William Sound Science Center  
Director, Oil Spill Recovery Institute

ALFRED P SLOAN FOUNDATION  
SUITE 2550  
630 FIFTH AVENUE  
NEW YORK N Y 10111-0242

JESSE H AUSUBEL  
PROGRAM DIRECTOR

(212) 649-1649  
FAX (212) 757-5117  
AUSUBEL@ROCKVAX.ROCKEFELLER.EDU

3 November 2003

The Honorable Frank Murkowski  
Juneau, Alaska

Dear Governor Murkowski,

The Alfred P Sloan Foundation is pleased to have become a partner with the Exxon Oil Spill Trustee Council through its Gulf of Alaska Ecosystem Monitoring and Research (GEM) program implemented by the U of Alaska and other organizations. Before making the decision to contribute \$300,000 toward the monitoring of the near shore environment of Alaska, the Foundation undertook careful review of the goals, plans, and operations of GEM. We are most impressed with the early development of GEM. We look forward to Alaska's full implementation during 2004-2007 of what could become the world's most advanced ecological monitoring system for this uniquely productive and valuable marine region.

The Council's ability to attract partners will depend in large part on your State's own commitment to GEM. For organizations outside Alaska, the main attractions must be the quantity and quality of Alaska's *long-term* commitment to GEM. When we review whether to renew Sloan's partnership next year, any lessening of Alaska's commitment will be an amber light. Red normally follows amber. GEM offers Alaska the chance to set a model for the world in wise, steady monitoring and timely provision of information for marine resource managers, public and private. We urge you to continue Alaska's leadership.

Yours truly,



# FAX TRANSMISSION

Alfred P. Sloan Foundation

630 Fifth Avenue, Suite 2550

New York, New York, 10111

(212) 649 - 1649

Fax (212) 757 - 5117

To *Phil Mundy* Date *3 NOV*  
Fax Number *907 278 8072* Pages: *2*, Including this page  
*6 7178*  
From *Jesse*  
Subject: *GGM*

Comments *Phil,*  
*Please distribute this where*  
*it needs to go. We can FedEx*  
*you the original, if helpful.*

*Jesse*

## Gail Phillips

---

From Huberbwh@aol.com  
Sent Monday, November 10, 2003 8:04 AM  
To gail\_phillips@oilspill.state.ak.us  
Subject PAC comment for TC meeting

Dear Gail

Sorry that I am unable to attend the Trustee Council meeting today, but change in travel will not have me back in Anchorage until tomorrow morning. I hope that the meeting goes well. I wanted to send this message as a follow-up to the PAC report that was provided to the Trustees at their last meeting. Please pass it along to the Trustees for me.

I think it is important to reiterate the Public Advisory Committee's unanimous and strong support for the proposed draft work plan before you for adoption today. It is our feeling that the slate of projects represented in the work plan are both responsive to the invitation for proposals the Council approved last April and well in line with the overall GEM Science Plan. I was involved in both the STAC and PAC review, and found that both groups had very similar vision, priorities and comments on the package of projects. I think this can probably be credited to a great extent to the exhaustive preparatory work on the GEM program that has advanced us to this point, the clearly enunciated direction of the GEM science plan and the well articulated roles and missions of the two groups.

The former PAG and now the PAC has participated in this GEM process from the beginning -- through numerous workshops with broad involvement of the scientific, academic and management communities, many drafts and revisions to the document, and full review by the NRC -- and while we understand that it is not possible for the EVOS GEM program to be all things to all interests, we believe that we are well on our way to launching a cutting edge research and monitoring program that will provide a great deal of benefit. This benefit will be in the form of information that will be enjoyed both in the short and long term and be important to policy makers, managers, users and the resource itself.

As I have testified to the Council in the past, I think it important to balance the long term monitoring program with the information and management needs of today. The PAC shares that perspective, and we believe that the draft work plan represents just such a mix of projects as proposed. Adopting the work plan is the next necessary step in advancing the GEM program, and the PAC urges the Council to do so today.

The PAC continues to appreciate our role in this process and values our opportunity for input to the Council. We look forward to our continued mutual effort on behalf of the resources and communities of Prince William Sound and the Gulf of Alaska and we wish the Trustees the best in their deliberations today.

Thanks for passing along this message to the Council Gail. I'm sorry I am not able to attend the meeting.

Sincerely,

Brett W. Huber Sr.  
Chairman  
EVOS GEM Public Advisory Committee



# Wildlife haven pits Alaska's governor against many in his state

He's against spending Exxon oil-spill money to buy natives' land as a matter of principle

BY BLAINE HARDEN

THE WASHINGTON POST

**PERENOSA BAY, Alaska**—If sea mammals, birds of prey and giant bears went to a shared heaven, it might look like Perenosa Bay.

This place, a storm-sheltered, plankton-rich, fish-packed playpen for whales, harbor seals, sea lions and sea otters. On shore, scores of bald eagles perch like Christmas ornaments in forests of 400-year-old Sitka spruce. Eagles are fat this time of year. After a long season of gorging on spawning salmon. So are the Kodiak bears that have left thousands of calling cards on riverbanks: gnawed salmon, the bears being too full to eat all they can easily catch.

There is a fully funded plan—hugely popular here—to protect this bay, which is located on the north shore of Afognak Island in the Gulf of Alaska. It would buy 18,000 coastal acres and timber rights to an additional 2,000 acres for the state—with \$10.4 million of the \$1 billion that Exxon Corp. paid as reparations for the oil spill that occurred 14 years ago in nearby Prince William Sound. The Exxon money would be matched by donations from hunting and land conservation groups in the Lower 48, a federal grant and a gift from Paul G.

**Perenosa Bay**

is a fish-packed playpen for whales, harbor seals, sea lions and sea otters.

Allen, a high-tech billionaire in Seattle. The plan has almost universal local support, including native groups that own the land and would retain access for subsistence hunting and fishing. Business leaders who want to expand high-end tourism here support it, as do politicians who want to be re-elected. Also on board is a sprawling bipartisan cast of current and former state and federal leaders, plus the dominant newspaper in Alaska and conservation groups in the Lower 48. The Republican-controlled Alaskan legislature and a state-federal council that controls the Exxon money have approved the plan.

One well-placed Alaskan, however, seems to have killed it, at least for the time being.

Gov. Frank H. Murkowski vetoed the deal this summer. None of the money for it would have come out of the state budget, but Murkowski did it as a matter of principle, he said in a phone interview.

A Republican and a former U.S. senator, Murkowski said it is inappropriate for oil-spill money to be used to buy land from natives, even if they want to sell. The governor would pre-

Allen, a high-tech billionaire in Seattle.

The plan has almost universal local support, including native groups that own the land and would retain access for subsistence hunting and fishing. Business

leader that the money be spent on scientific research into the long-term effects of the oil spill.

"People are obviously willing to sell," he said. "But these funds are for a different purpose, and I am the only governor who has stood up and said so."

"I am indignant that so much of this money has been spent with so little to show for it, other than a transfer of private land to government agencies," Murkowski said.

The governor said that those agencies, especially the Interior Department under President Clinton, neglected their responsibilities to protect the heritage of Alaska's natives. He said their agendas were—and are—driven by a desire to enlarge and enhance an empire of public land.

"The federal government owns this state for all practical purposes," Murkowski said. A longtime opponent of public ownership of Alaska's land, he believes land kept in private hands would create more jobs and higher tax revenues.

Most of the \$1 billion from Exxon has been used to buy large parcels of native-owned land for habitat preservation. In most cases, the purchases have locked up land where wildlife habitat was harmed by the oil spill, preventing timber logging or other development.

Most of the deals, however, have guaranteed natives permanent access for subsistence hunting and fishing. They have also put more than \$300 million into the coffers of native corporations. Nearly all the money, with one notable exception in the past year, has been saved in trusts or invested in native-owned businesses.

As for economic growth, there appears to be a bipartisan

local consensus that the best way to make money off land around Perenosa Bay is for the state to buy it and it be opened up for high-priced tourism.

"I don't want to get into fight with the governor because all of us lose when that happens," said state Sen. Gary Stevens, a Republican who represents the area. "But this deal is a no-brainer."

In the Lower 48, backers of the land deal are not the environmental organizations, such as the Sierra Club, that often clash with Republican leader in Washington or Anchorage.

Local supporters of the deal intentionally sought money from organizations, such as the Rocky Mountain Elk Foundation and the American Land Conservancy, that would be less of a red flag to conservative Republicans in Alaska.



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Anchorage Daily News

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## Taking a tally

**Scientists begin 10-year study of the seas, hoping the census yields rewards**

By JOSEPH B. VERRENGIA

The Associated Press

*(Published: September 21, 2003)*

KACHEMAK BAY -- Brenda Konar shoots an anxious glance over her shoulder but keeps chiseling. The Pacific Ocean hasn't gone away. In fact, it's gaining on her.

Wedged between slimy boulders, the marine biologist hacks at the crusty stuff clinging to the ragged shoreline of the Kenai Peninsula. Frigid seawater seeps through the duct tape patch on her rubber waders. Her knuckles bleed.

Soon, huge tides will submerge this speck called Cohen's Island, located 250 miles southwest of Anchorage.

"We're in so much trouble," Konar mutters into the wind and rain.

Halfway around the world, Mike Vecchione shudders as Russian deckhands slap the metal hull of his tiny submarine. In any language, that echo means "Good to go!"

To where? Two slow, dark miles to the bottom of the North Atlantic, to a spot disconcertingly named the "Charley Gibbs Fracture Zone." The pressure down there would crumple a truck.

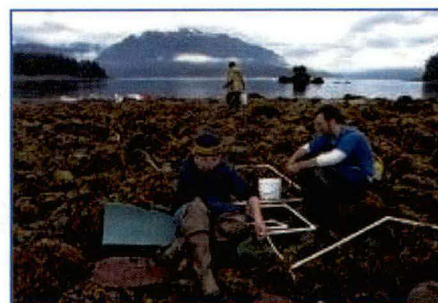
The Smithsonian biologist curls on a cushion as a crane dangles his vessel over the ocean like a drip from a faucet.

"I can't believe I'm doing this," he whispers.

From pole to pole, in virtually every ocean, scientists from two dozen nations are wrapping up preliminary field studies.

Together the studies will serve as the foundation for the most extensive project of its kind -- the Census of Marine Life.

The census seeks a fundamental understanding of all life that relies on the largely unexplored seas covering most of Earth,



Dawson Kroll, left, and Matt Gray work in the tidal zone on Elephant Island in Kachemak Bay on July 1. The two students were testing field sampling methods for a global marine census that will quantify marine life around the world. The 10-year census is estimated to cost as much as \$1 billion, with most of that funded by the Alfred P. Sloan Foundation and governments. *(Photo by LAURA RAUCH / The Associated Press)*



A sea otter floats in Kachemak Bay as researchers nearby tested field sampling methods for a global marine census. *(Photo by LAURA RAUCH / The Associated Press)*



increasingly beleaguered by pollution, overfishing and climate change.

This unprecedented field guide to millions of species is supposed to be completed in 10 years. It could cost as much as \$1 billion, much of it funded by the Alfred P. Sloan Foundation and governments.

It's a staggering budget. But it's a fraction of the \$55 billion seafood trade or what it costs to clean up a major oil spill.

The census is divided into seven topics. Besides Pacific shorelines and the North Atlantic sea floor, scientists are examining the Gulf of Maine, hydrothermal vents, coastal salmon runs, the worldwide habits of large fish and mammals, and animals of the abyss.

"We're asking scientists to think beyond their own quarter-mile of beach," said Ronald O'Dor, a Nova Scotia squid expert who has moved to Washington to coordinate the census. "We don't know what we'll find. We don't even know what we are looking for."

Scientists expect the census will shed new light on Earth's fundamental processes, like evolution and climate. But others expect it will serve more practical purposes.

Environmentalists will use it to identify threatened species and locations for marine parks.

Fishing and shipping interests believe the observations will make them more efficient -- and profitable. And bio-prospectors hope the census will yield a bounty of new materials and compounds, ranging from medicines to industrial adhesives.

#### OCEANS' BOUNTY DECLINING

The census begins in earnest at a time when the ocean's bounty suddenly appears alarmingly skimpy. Large fish have been depleted by 90 percent since World War II.

"People think of space being the final frontier, but most of our planet is very poorly known," Vecchione said. "You can't protect something that you don't understand, and you can't use something that you haven't inventoried."

So far, the most startling results have come from the fish-taggers.

Biologists attach digital instruments to the backs of the oceans' most athletic swimmers and fearsome hunters.

Known collectively as pelagics, these sharks, tuna, humpback whales, elephant seals, Humboldt squid, even sea turtles are tracked by satellite on their mysterious journeys.



Brenda Konar, a marine biologist at the University of Alaska Fairbanks, holds a sea roach while testing field sampling methods in Kachemak Bay in July. (Photo by LAURA RAUCH / The Associated Press)



Brenda Konar, a marine biologist at the University of Alaska Fairbanks, marks an area in the tidal zone on Elephant Island in Kachemak Bay during a survey in July. Konar was testing field sampling methods for a global marine census that will quantify marine life around the world. (Photo by LAURA RAUCH / The Associated Press)

[Click on photo to enlarge](#)

Early data from 700 Atlantic bluefin tuna demonstrate that fish from different regions commingle freely during migrations ranging from the Texas coast to the Mediterranean

The results smash assumptions that bluefin populations never mix and that fleets can intensively harvest particular regions, such as the Flemish Cap off Canada, without harming stocks throughout the hemisphere

The stakes are huge Globally, 3 million tons of tuna are processed annually A single bluefin weighs more than an NFL lineman and fetches \$175,000 at Tokyo's seafood market

But the bluefin population has been plummeting since the 1980s International commissions already are using tagging data to establish more restrictive quotas globally

Beginning this fall, scientists will begin tracking thousands of additional pelagics to address broader scientific questions

Among them In the vastness of the oceans, does marine life scatter or does it behave similarly to terrestrial life and congregate?

Early tagging data suggests some surprising similarities

"There are hints of shared corridors that different animals are using and places they will loiter, like watering holes," said biologist Randy Kochevar of the Monterey Bay Aquarium in California

#### DIVING DEEP FOR ANSWERS

But none would follow Vecchione nearly 10,000 feet down to the Charley Gibbs Fracture Zone

He scrunches against a tiny porthole to watch bizarre, gelatinous creatures of the Very Deep drift by

It is Vecchione's ninth dive but his first to this extreme depth -- and the first by anyone to the Charley Gibbs It's a spur of the Mid-Atlantic Ridge, the mountainous undersea spine where continental plates bump and grind, forming new crust

A dive lasts more than 12 hours, including long stretches in utter darkness to conserve battery power Occasionally, the path is weirdly marked by the pink and blue fireworks of bioluminescent phytoplankton

Vecchione's sub drifts down sheer cliff faces and crests lava hills It's a Precambrian aquarium teeming with life forms that emerged 600 million years ago

Sampling it is dicey because the creatures' fluid-filled body sacs often explode So Vecchione relies on video

He spots a primitive octopus drifting like a rubbery hand puppet, an orange frogfish lurching on primordial fin-legs, a U-shaped worm wriggling in the muck and sporting a purple growth like a boutonniere

Vecchione's reconnaissance will keep him busy all winter identifying "mystery animals " But it's bad news for fishing boats that must venture ever further

"The bottom is even rougher than expected," he reports "It is not at all trawlable "

## TOO MANY SAMPLES IN ALASKA

In Alaska, shoreline studies by Konar and her research partner, Katrin Iken, wrestle with the opposite problem too many samples

The University of Alaska biologists laboriously sample Cohen's and Elephant islands in the bay with the help of a dozen students

Others will use similar methods to examine shorelines in Russia, Japan, Thailand, Chile and Antarctica

Most of the world's population and industry are crowded along coastlines, so when catastrophe strikes, those regions suffer the most

Again, high stakes Exxon spent billions trying to clean 1,500 miles of coastline after the Exxon Valdez spilled 11 million gallons of crude oil in Prince William Sound

During high tide at Kachemak Bay, Konar and Iken scuba-dive about 30 feet down to where life always is submerged "We pull up laundry bags full of kelp," Konar says

At low tide, the steep slopes of little islands are exposed throughout the bay They reveal distinct layers -- barnacles and mussels up high, followed by red algae, brown algae and the crown of the kelp

At each layer, the biologists isolate sections of exposed rocks with a square-meter frame of white plastic pipe Iken photographs each square

They kneel and count every living thing inside the frame The women scrape all of it into a pail, then repeat the process dozens of times

Within minutes, the tide and the storm swallow their sites After a punishing boat ride back to the mainland, the real census work begins

Late into the chilly night, Konar and Iken record their catch under the glaring lights of a laboratory shed Much of it resembles what's rotting at the bottom of your refrigerator The women keep the door and windows open, and their coats zipped

"I'm not separating the little soranthera from the odonthalia," Konar scowls, flicking at a stubborn seaweed shred on her sleeve

Iken dumps another pail of Kachemak salad on the table, giggling

Hours drag A scratchy clock radio plays oldies

"I like the big picture," Iken says, waving tweezers and spinning her census dream "I want to compare this with a site in California And Chile

"And did you know that nobody is working on gelatinous bioplankton?"

Konar nods At her elbow rest 20 more buckets

Through the open door, they can hear the tide racing out again

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FOR MORE about the global marine census, go to

[www.coml.org/coml.htm](http://www.coml.org/coml.htm)

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# THE Ecologist

"I can't believe what I'm reading - every page grabs my attention. Every article is relevant. You've done a tremendous job in making accessible some of the most censored stories in the British media. I want to congratulate you from the bottom of my heart on the content, style, design and relevancy." Anita Roddick

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## A well-designed disaster: the untold story of the Exxon Valdez

Fifteen years after the world's most notorious oil spill, ExxonMobil has still not paid for the damage it caused and the story of what really happened has not yet been told. Award-winning investigative journalist Greg Palast exposes the cover-up.



On March 24, 1989, the Exxon Valdez broke open and covered twelve hundred miles of Alaska's shoreline with oily sludge.

The official story remains "Drunken Skipper Hits Reef." Don't believe it. In fact, when the ship hit, Captain Joe Hazelwood nowhere near the wheel, but belowdecks, sleeping off his bender. The man left at the helm, the third mate, would never have Bligh Reef had he simply looked at his Raycas radar. But he could not, because the radar was not turned on. The complex Radar system costs a lot to operate, so frugal Exxon management left it broken and useless for the entire year before the grounding.

The land Exxon smeared and destroyed belongs to the Chugach natives of the Prince William Sound. Within days of the spill Chugach tribal corporation asked me and my partner Lenora Stewart to investigate allegations of fraud by Exxon and the known "Alyeska" consortium. In three years' digging, we followed a twenty-year train of doctored safety records, illicit deals between oil company chiefs, and programmatic harassment of witnesses. And we documented the oil majors' brilliant success that old American sport, cheating the natives. Our summary of evidence ran to four volumes. Virtually none of it was reported media had turned off its radar. Here's a bit of the story you've never been told:

We discovered an internal memo describing a closed, top-level meeting of oil company executives in Arizona held just ten months before the spill. It was a meeting of the "Alyeska Owners Committee," the six-company combine that owns the Alaska pipeline most of the state's oil. In that meeting, say the notes, the chief of their Valdez operations, Theo Polasek, warned executives containing an oil spill "at the mid-point of Prince William Sound not possible with present equipment" - exactly where the Exxon Valdez grounded. Polasek needed millions of dollars for spill-containment equipment. The law required it, the companies prior to regulators, then at the meeting, the proposed spending was voted down. The oil company combine had a cheaper plan to contain any spill - don't bother. According to an internal memorandum, they'd just drop some dispersants and walk away. That's exactly what happened. "At the owners committee meeting in Phoenix, it was decided that Alyeska would provide immediate response to oil spills in Valdez Arm and Valdez Narrows only" - not the Prince William Sound.

Smaller spills before the Exxon disaster would have alerted government watchdogs that the port's oil-spill-containment system was not up to scratch. But the oil group's lab technician, Erlene Blake, told us that management routinely ordered her to cheat test results to eliminate "oil-in-water" readings. The procedure was simple, says Blake. She was told to dump out oily water refill test tubes from a bucket of cleansed sea water, which they called "the Miracle Barrel."

A confidential letter dated April 1984, fully four years before the big spill, written by Captain James Woodlee, then the oil group's Valdez Port commander, warns management that "Due to a reduction in manning, age of equipment, limited training and lack of personnel, serious doubt exists that [we] would be able to contain and clean up effectively a medium or large size oil spill." We told us there was a spill at Valdez before the Exxon Valdez collision, though not nearly as large. When he prepared to report the government, his supervisor forced him to take back the notice, with the Orwellian command, "You made a mistake. This is not an oil spill."

### Slimey Limeys

The canard of the alcoholic captain has provided effective camouflage for a party with arguably more culpability than E. British Petroleum, the company that in 2001 painted itself green (literally: all its gas stations and propaganda pamphlets now a seasick green hue). Alaska's oil is BP oil. The company owns and controls a near majority (46 percent) of the Alaska pipeline system. Exxon (now ExxonMobil) is a junior partner, and four other oil companies are just along for the ride. Captain Woodlee's Technician Blake, Vice President Polasek, all worked for BP's Alyeska.

Quite naturally, British Petroleum has never rushed to have its name associated with Alyeska's recklessness. But BP's London headquarters, I discovered, knew of the alleged falsification of reports to the U.S. government nine years before the spill. In September 1984, independent oil shipper Charles Hamel of Washington, DC, shaken by evidence he received from Alyeska employees, told me he took the first available Concorde, at his own expense, to warn BP executives in London about scandalous goings-on in Valdez. Furthermore, Captain Woodlee swears he personally delivered his list of missing equipment and "pharmaceutical" personnel directly into the hands of BP's Alaska chief, George Nelson.

BP has never been eager for Woodlee's letter, Hamel's London trip and many other warnings of the deteriorating containment system to see the light of day. When Alyeska got wind of Woodlee's complaints, they responded by showing Woodlee a file of marital infidelities (all bogus), then offered him payouts on condition that he leave the state within days, promising never to return. As to Hamel, the oil shipping broker, BP in London thanked him. Then a secret campaign was launched to hound him out of the industry. A CIA expert was hired who wiretapped Hamel's phone lines. They smuggled microphones into his home, intercepted mail and tried to entrap him with young women. The industrial espionage assault was personally ordered and controlled by executive James Hermiller, president of Alyeska. On this caper, they were caught. A U.S. federal judge told Alyeska this conduct was "reminiscent of Nazi Germany."

### Cheaper Than Manhattan

BP's inglorious role in the Alaskan oil game began in 1969 when the oil group bought the most valuable real estate in all Alaska: the Valdez oil terminal land, from the Chugach natives. BP and the Alyeska group paid the natives one dollar. Arthur Goldberg, once a U.S. Supreme Court justice, tried to help the natives on their land claim. But the natives' own lawyer, state's most powerful legislator, advised them against pressing for payment. Later, that lawyer became Alyeska's lawyer.

The Alaskan natives, the last Americans who lived off what they hunted and caught, did extract written promises from the

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consortium to keep the Prince William Sound safe from oil spills. These wilderness seal hunters and fishermen knew the sea. Eyak Chief for Life Agnes Nichols, Tatitlek native leader George Gordaoff and Chenega fisherman Paul Kompkoff demanded that tankers carry state-of-the-art radar and that emergency vessels escort the tankers. The oil companies reluctantly agreed to put all this in their government-approved 1973 Oil Spill Response Plan.

When it comes to oil spills, the name of the game is containment, because radar or not, some tanker somewhere is going to hit the rocks. Stopping an oil spill catastrophe is a no-brainer. Tanker radar aside, if a ship does smack a reef, all that's needed is to surround the ship with a big rubber curtain (boom) and suck up the corralled oil. In signed letters to the state government, Coast Guard, BP, ExxonMobil and partners promised that no oil would move unless the equipment was set on the tanker and the oil sucker ship (containment barge) was close by, in the water and ready to go.

The oil majors fulfilled their promise the cheapest way. They lied. When the Exxon Valdez struck Bligh Reef, the spill equipment which could have prevented the catastrophe wasn't there – see the Arizona meeting notes above. The promised escort vessels were not assigned to ride with the tankers until after the spill. And the night the Exxon Valdez grounded, the emergency response barge was sitting in a dry dock in Valdez, locked in ice.

When the pipeline opened in 1974, the law required Alyeska to maintain round-the-clock oil spill response teams. As part of the cleanup, they came on to get hold of the Chugach's Valdez property. Alyeska hired the natives for this emergency work. The natives practiced leaping out of helicopters into icy water, learning to surround leaking boats with rubber barriers. But the natives soon found they were assigned to cover up spills, not clean them up. Their foreman, David Decker, told me he was expected to report one oil spill as two gallons when two thousand gallons had spilled.

Alyeska kept the natives at the terminal for two years – long enough to help Alyeska break the strike of the dock workers, and then quietly sacked the entire team. To deflect inquisitive inspectors looking for the spill response workers, Alyeska created emergency teams, listing names of oil terminal employees who had not the foggiest idea how to use spill equipment, which, in the event, was missing, broken or existed only on paper. When the Exxon Valdez grounded, there was no native spill crew, chaos.

The Fable of the Drunken Skipper has served the oil industry well. It transforms the most destructive oil spill in history into a tale of human frailty, a terrible but one-time accident. But broken radar, missing equipment, phantom spill personnel, faked tests – all to cut costs and lift bottom lines – made the spill disaster not an accident but an inevitability.

I went back to the Sound just before the tenth anniversary of the spill. On Chenega, they were preparing to spend another summer scrubbing rocks. A decade after the spill, in one season, they pulled twenty tons of sludge off their beaches. At Nanwalek, ten years on, the state again declared the clams inedible, poisoned by persistent hydrocarbons. Salmon still carry abscesses, tumors; the herring never returned and the sea lion rookery at Montague Island remains silent and empty.

But despite what my eyes see, I must have it wrong, because right here in an Exxon brochure it says: The water is clear, plant, animal and sea life are healthy and abundant.

Go to the Sound today, on Chugach land, kick over a rock and you'll get a whiff of an Exxon gas station.

The final injustice

Everyone's heard of the big jury verdict against Exxon, a \$5 billion award. What you haven't heard is that ExxonMobil hasn't paid a dime of it. It's been a decade since the trial. BP painted itself green and ExxonMobil decided to paint the White House with it. It's the number two lifetime donor to George W. Bush's career (after Enron), with a little splashed the Democrats' way. The industry's legal stalls, the tort reform campaigns and the generous investment in our democratic process has produced Supreme Court and appeals panels that look more like luncheon clubs of corporate consiglieri than panels of defenders of justice. In November 2001, following directives of the Supremes, the Ninth Circuit Court of Appeals overturned the jury verdict on grounds that the punishment was too dear and severe for poor little ExxonMobil.

The BP-led Alyeska consortium was able to settle all claims for 2 percent of the acknowledged damage, roughly a \$50 million payout, fully covered by an insurance fund.

And the natives? While waiting for Exxon to make good on promises of compensation, Chief Agnes and Paul Kompkoff passed away. As to my four-volume summary of evidence of frauds committed against the natives, in 1991, when herring failed to appear and fishing in the Sound collapsed, the tribal corporation went bankrupt and my files became effectively useless.

Greg Palast is the author of *The Best Democracy Money Can Buy* (Constable and Robinson), from where this article is taken.

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BLAINE HARDEN / The Washington Post

Moss hangs from a 400-year-old Sitka spruce in an area of Afognak Island targeted for purchase. The plan to preserve Perenosa Bay has wide support from varied interests in the region.

## Matter of principle stalls popular preservation plan

**LAND PURCHASE:** Murkowski has vetoed deal for Afognak Island bay.

By **BLAINE HARDEN**  
The Washington Post

**PERENOSA BAY** — If sea mammals, birds of prey and giant bears went to a shared heaven, it might look like Perenosa Bay.

This place is a storm-sheltered, plankton-rich, fish-packed playpen for whales, harbor seals, sea lions and sea otters. On shore, scores of bald eagles perch like Christmas ornaments in forests of 400-year-old Sitka spruce trees. Eagles are fat this time of year, after a long season of gorging on spawning salmon. So are the Kodiak bears that have left thousands of calling cards on riverbanks: gnawed salmon.

There is a fully funded plan, hugely popular here, to protect this bay on the north shore of Afognak Island in the Gulf of Alaska. It would buy 18,000 coastal acres and timber rights to an additional 2,000 acres for the state, with \$10.4 million of the \$1 billion that Exxon Corp. paid as reparations for the oil spill that occurred 14 years ago in nearby Prince William Sound. The Exxon money would be matched by donations from hunting and land conservation groups in the Lower 48, a fed-

eral grant and a gift from Paul Allen, a high-tech billionaire in Seattle.

The plan has almost universal local support, including that of Native groups that own the land and would retain access for subsistence hunting and fishing. Business leaders who want to expand high-end tourism here support it, as do politicians who want to be re-elected. Also onboard is a sprawling bipartisan cast of current and former state and federal leaders, plus the dominant newspaper in Alaska and conservation groups in the Lower 48. The Republican-controlled Alaska Legislature and a state-federal council that controls the Exxon money have approved the plan.

One well-placed Alaskan, however, seems to have killed it, at least for the time being.

Gov. Frank Murkowski vetoed the deal this summer. None of the money for it would have come out of the state budget, but Murkowski did

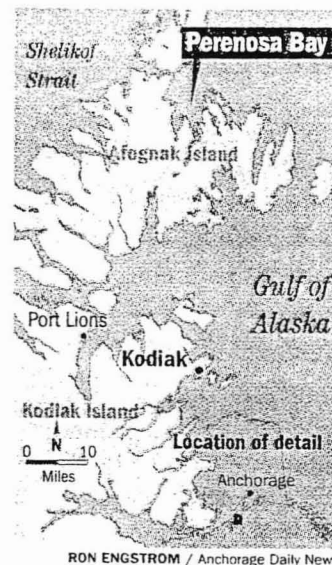
it as a matter of principle, he said in a phone interview.

A Republican and a former U.S. senator, Murkowski said it is inappropriate for oil-spill money to be used to buy land from Natives, even if they want to sell. The governor would prefer that the money be spent on scientific research into the long-term effects of the oil spill.

"People are obviously willing to sell," he said. "But these funds are for a different purpose, and I am the only governor who has stood up and said so."

"I am indignant that so much of this money has been spent with so little to show for it, other than a transfer of private land to government agencies."

The governor said that those agencies, especially the Interior Department under President Clinton, neglected their responsi-



RON ENGSTROM / Anchorage Daily News

See Page B-7, BAY

# BAY: Murkowski opposes purchase

*Continued from B-1*

bilities to protect the heritage of Alaska's Natives. He said their agendas were — and are — driven by a desire to enlarge and enhance an empire of public land.

"The federal government owns this state for all practical purposes," Murkowski said. A longtime opponent of public ownership of Alaska's land, he believes land kept in private hands would create more jobs and higher tax revenues for the state.

Most of the \$1 billion from Exxon has been used to buy large parcels of Native-owned land for habitat preservation. In most cases, the purchases have locked up land where wildlife habitat was harmed by the oil spill, preventing timber logging or other development.

Most of the deals, however, have guaranteed Natives permanent access for subsistence hunting and fishing. They have also put more than \$300 million into the coffers of Native corporations. Nearly all the money, with one notable exception in the past year, has been saved in trusts or invested in Native-owned businesses.

As for economic growth, there appears to be a bipartisan local consensus that the best way to make money off land around Perenosa Bay is for the state to buy it and it be opened up for high-priced tourism.



BLAINE HARDEN / The Washington Post

Huge numbers of salmon spawn in the Little Water Falls River, which empties into Perenosa Bay. The area was to have been protected from development, but Gov. Frank Murkowski vetoed the deal this summer.

"I don't want to get into a fight with the governor, because all of us lose when that happens," said state Sen. Gary Stevens, a Republican who represents the area. "But this deal is a no-brainer."

In the Lower 48, backers of the land deal are not the environmental organizations, such as the Sierra Club, that often clash with Republican leaders in Washington or Anchorage.

Local supporters of the deal intentionally sought money from organizations, such as the Rocky Mountain Elk Foundation and the American Land

Conservancy, that would be less of a red flag to conservative Republicans in Alaska.

The Montana-based Elk Foundation is committed to land conservation, in part so that the elk on it can be hunted. The group does not oppose logging or mining as a matter of policy.

"There are places to log and places not to log," said Grant Parker, senior vice president and general counsel of the Elk Foundation. "Afognak is a perfect example of a place not to log."

**October 11, 2003 - Anchorage Daily News, Letters to the Editor**

**Studying marine life provides baseline data useful in future**

I very much appreciated seeing the story "Taking a tally" (Sept. 21) from the Associated Press on the studies of marine life in Kachemak Bay being conducted by University of Alaska researchers Konar and Iken. This important study compiles baseline data on shoreline plants and animals that are sorely needed in planning and implementing responses to oil spills, and site selection and management of sewage outfalls, among other important uses. The Alaska data are also useful in the study of the effects of global climate change thanks to standard methods set up among researchers all over the Pacific with help from the Sloan Foundation's Census of Marine Life (COML).

As was not mentioned in the article, the Kachemak Bay study is currently fully funded by the Exxon Valdez Oil Spill Trustee Council through its Gulf of Alaska Ecosystem Monitoring and Research Program (GEM). GEM adopted the shoreline sampling protocol developed by COML for comparing shoreline studies throughout the Pacific Rim because we saw an opportunity to build our baseline data in a way that would make it useful far beyond Alaska at no extra costs. Eventually we hope to reduce our costs through support from the Sloan Foundation in supplying experts who can help identify the hundreds of small species that are usually ignored due to lack of expertise.

- Phillip Mundy, Ph.D.

*Science director, Gulf of Alaska Ecosystem Monitoring and Research Program, Exxon*

*Valdez Oil Spill Trustee Council*

*Anchorage*

*Updated October 1, 2003*

## **Exxon May Face More Payments From Alaska Spill**

By JIM CARLTON  
Staff Reporter of THE WALL STREET JOURNAL

The Exxon Valdez oil spill in 1989 continues to inflict damage to the ecology of Alaska's Prince William Sound, according to newly released government documents. The findings could be used by state and federal officials to seek additional payments from Exxon Mobil Corp. of as much as \$100 million.

Under the oil company's 1991 settlement with the U.S. and state of Alaska over the spill, the governments were allowed to seek the additional funds from Exxon for damages that weren't predicted at the time. The company has already agreed to pay \$1 billion to help restore pristine beaches and waterways affected by the spill of 11 million gallons of oil in Prince William Sound.

The government documents outlining the area's persistent ecological damage represent summaries of various government scientific surveys in recent years. The documents were obtained as part of a freedom-of-information request by Richard Steiner, a marine biologist at the University of Alaska-Anchorage and a frequent critic of the state's oil industry. The documents were reviewed by The Wall Street Journal.

Officials of Exxon Mobil, Irving, Texas, disputed the documents' assertions, saying numerous studies have found the Prince William Sound ecosystem to be fully recovered from the spill. Remaining pockets of oil are likely to remain in the sound for years to come, company officials say, but that isn't surprising and is in line with oil spills world-wide.

Officials of the U.S. Justice Department and the Alaska attorney general's office declined to comment, saying they are still reviewing whether to seek more money from Exxon Mobil. Beginning in 2002, the governments have a four-year period in which they can seek the new relief.

The unforeseen damages have included a rise in egg mortalities of pink salmon, a decline in survival of female harlequin ducks exposed to parts of the sound that remain polluted with oil, and continuing accumulation of oil in mussels and other invertebrate species years after the spill, according to a June 12 memo to her colleagues by Molly McCammon, then executive director of the Exxon Valdez Oil Spill Trustee Council. Ms. McCammon has since resigned from the council, a nonpartisan state-federal entity that has overseen spending the Exxon Mobil settlement monies. Ms. McCammon, a Democratic appointee, was succeeded this summer by an appointee of the state's current Republican administration.

Although Ms McCammon said in the memo that pink salmon have since recovered, she added that unexpectedly high levels of spilled oil remain in Prince William Sound -- posing a hazard to ducks and mussels, as well as sea otters. Indeed, the 2002 population of sea otters on the northern side of Knight Island, which was in the path of spilled oil, remained at only about half its long-term average of nearly 100 animals, U S Geological Survey scientist James Bodkin told colleagues in a July 28, 2003, e-mail, which was also included in the released government documents.

Meanwhile, so much oil remains in the vicinity that Mr Bodkin reported in his e-mail creating a mile-square oil slick when he and a co-worker stirred up some sediment beneath the water.

With so much evidence of the 1989 spill's lingering impacts on the environment, "there is absolutely no doubt in my mind that PWS [Prince William Sound] can meet the criteria for an impaired water body under the Clean Water Act," Phil Mundy, science director of the trustee council, wrote in a May 29 e-mail to his colleagues. "Have Mobil Exxon [sic] pay for the costs of monitoring and managing the [water pollutants] up to the \$100 million cap on unforeseen consequences," he recommended in the e-mail.

**Write to** Jim Carlton at [jim.carlton@wsj.com](mailto:jim.carlton@wsj.com)

## THE CONSERVATION FUND



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September 29, 2003

Exxon Valdez Oil Spill Trustee Council  
441 West 5<sup>th</sup> Avenue, Suite 500  
Anchorage, AK 99501

Re Extension of Grant Agreement

Dear Trustees

The Conservation Fund and The Nature Conservancy request an extension of the grant agreement titled "*Exxon Valdez Oil Spill Trustee Council Funding Source for Habitat Protection*" The purpose of the grant is to provide up to \$1 million for the acquisition of lands or interests in lands important to the conservation and protection of resources injured by the *Exxon Valdez* oil spill

Under the grant, The Conservation Fund and The Nature Conservancy have

- Acquired three properties (Chokwak, Thorn/Crowther, and Swartz) for the State of Alaska
- Purchased three properties (Nakada, Cusack and Goerig) with matching funds for donation to the State of Alaska
- Purchased three properties (Knol, Thompson, and McGee) awaiting funding by the EVOS Trustee Council
- Reached agreement with several landowners (Mental Health Trust and Best) wishing to sell their properties
- Secured \$3 6 million in matching funds from a variety of sources

The recent transitions at the *Exxon Valdez Oil Spill Trustee Council* have created some uncertainty surrounding our grant agreement At the April 2003 meeting in Juneau, the Trustee Council deferred action on our agenda items until the appointment of a new executive director

Because of this delay we respectfully request a one-year extension of the grant agreement between The Conservation Fund The Nature Conservancy, and the *Exxon Valdez Oil Spill Trustee Council* We look forward to a continued partnership in restoration with the Trustee Council

Sincerely

Brad Merklejohn  
Alaska Representative

Randy Hagenstein  
Conservation Director