AGENDA D-5
OCTOBER 2006

MEMORANDUM

TO: Council, SSC and AP Members

FROM: Chris Oliver
Executive Director

ESTIMATED TIME:
1 HOUR

DATE: September 25, 2006

SUBJECT: Ecosystem Approaches

ACTION REQUIRED

(a) Update on the Aleutian Islands FEP and take action as necessary.
(b) Update on the Alaska Marine Ecosystem Forum.

BACKGROUND

(a) Update on the Aleutian Islands FEP.

In June, the Council initiated development of a Fishery Ecosystem Plan (FEP) for the Aleutian Islands ecosystem area. The Council also created a technical AI Ecosystem Team to assist Council staff in developing the FEP. The Team was appointed over the summer, based on recommendations made by the SSC. Team members with their associated area of expertise are listed below.

NPFMC:	Diana Evans (management)
AFSC:	Sandra Lowe (Atka mackerel)
	Steve Barbeaux (pollock)
	Paul Spencer (rockfish)
	Sue Moore (marine mammals)
	Kerim Aydin (modeling)
	Jennifer Sepez (socioeconomics)
PMEL:	Carol Ladd (oceanography)
ADFG:	Forrest Bowers (state fisheries)
USFWS:	Vernon Byrd (seabirds)
NPRB:	Francis Wiese (research)
UCSC:	Jim Estes (habitat – tentative)
NMFS:	John Olson (benthic habitat, GIS)

The Team meets for the first time on September 26-27, 2006, at which time they intend to develop a timeline to complete the document by June, 2007. The Ecosystem Committee will meet by teleconference on October 3, to provide feedback on the Team's approach. Further information, including the Committee's minutes, will be distributed at the Council meeting.

(b) Update on the Alaska Marine Ecosystem Forum.

The Council has signed a Memorandum of Understanding (MOU) with 10 Federal agencies and 4 State agencies to create the Alaska Marine Ecosystem Forum (AMEF). The AMEF seeks to improve coordination and cooperative understanding between the agencies on issues of shared responsibilities related to the marine ecosystems off Alaska's coast. The initial focus of the AMEF will be on the Aleutian Islands marine ecosystem. A copy of the MOU will be available on the Council's website in the coming weeks.

The AMEF had its inaugural meeting in mid-September. A draft of the meeting summary will be distributed at the meeting. The member agencies of the AMEF are listed below.

Alaska Marine Ecosystem Forum Members (Alaska agency heads, or their representatives)

North Pacific Fishery Management Council

Federal: National Marine Fisheries Service
Fish and Wildlife Service
Minerals Management Service
National Park Service
Bureau of Land Management
Environmental Protection Agency
United States Forest Service
United States Coast Guard
Alaskan Command
United States Army Corps of Engineers

State: Department of Environmental Conservation
Department of Fish and Game
Department of Natural Resources
Department of Commerce, Community, and Economic Development

Ecosystem Committee Minutes

Tuesday, October 3, 2006 2pm-3:15pm
TELECONFERENCE – (907) 586-7060

Committee: Stephanie Madsen (chair), Doug DeMaster, David Benton, Jon Kurland, Diana Evans (staff)

Others participating included: Chris Oliver, David Witherell, Bill Wilson, Sue Salveson, Joe McCabe, Melanie Brown, Kristin Mabry, Lenny Corin, Dave Fraser, Kristy Despars, Janis Searles, Jon Warrenchuk, Kate Wynne, Clem Tillion, Peggy Murphy

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The Committee worked through their agenda, and also discussed some informational items at the end of the meeting. At this time, the Committee does not plan to have a meeting in December, and anticipates its next meeting will be just before the February, 2007, Council meeting.

Alaska Marine Ecosystem Forum

The Committee received the draft meeting summary from the first Alaska Marine Ecosystem Forum meeting, which took place in September. The Council has signed a Memorandum of Understanding with ten Federal and four State agencies, creating the Alaska Marine Ecosystem Forum. This is the culmination of the Committee's initiative begun in early 2005, to examine the practicability of ocean councils and alternative ways to achieve interagency collaborations on ocean issues.

National Ocean Research Priorities Report

Ms Evans provided an overview of the recently issued Joint Subcommittee on Ocean Science and Technology report, *Charting the Course for Ocean Science in the United States: Research Priorities for the Next Decade*. The comment deadline is October 20, and the Committee discussed whether it would be advisable for the Council to provide comments. **The Committee recommends the Council write a comment letter to support NOAA funding for research days at sea**, which is critical to understanding the impacts of changes in the North Pacific, such as loss of sea ice and climate change.

Aleutian Islands Fishery Ecosystem Plan

The Committee received the September meeting report from the Aleutian Islands Ecosystem Team, describing their planned approach for developing the Fishery Ecosystem Plan. The Committee concurs generally with the Team's approach and proposed schedule, although noting that the schedule is ambitious. Consequently, **the Committee recommends that the Council approve the Team's suggestion of a two-phase approach to developing the FEP**. The Team will provide a first version of the FEP by June 2007, and will provide recommendations about what analyses should be initiated for the second phase (to be completed on a longer time frame).

The Team proposes to seek input and consultation from the communities that fall within the boundary of the AI ecosystem, as identified in the FEP: Adak and Atka. **The Committee recommends that the Council concur with this proposal, and expand the list of communities for outreach more broadly to those in the Aleutian Islands, specifically adding Nikolski and Unalaska.**

Finally, the Committee acknowledges the Team's efforts to keep the FEP concise and non-duplicative, and encourages the Team to persist with this principle as they proceed to the writing of the document.

Other items

Dr Fluharty appointed Chair of NOAA Science Advisory Board: The Committee congratulated Dr Fluharty on his appointment as Chair of the NOAA Science Advisory Board.

NOAA's External Ecosystem Task Team (EETT) report approved: Dr Fluharty provided a written update to note that the EETT report was approved by the NOAA Science Advisory Board in July, and will be sent to VADM Lautenbacher this week. The EETT, whose membership included David Fluharty, Stephanie Madsen, and Terry Quinn, was tasked to provide advice to NOAA on its science and research programs relating to NOAA's ecosystem goal. Dr Fluharty noted that the Ecosystem Committee's feedback to the EETT at previous meetings was helpful, and consequently the EETT report recommendations reflect opportunities for indigenous regional approaches and encourage regionally-distinct approaches toward implementing Integrated Ecosystem Assessments.

NPRB Bering Sea Integrated Ecosystem Research Program: Mr Benton reported that the North Pacific Research Board recently allocated $14 million for a six-year, vertically-integrated ecosystem research plan for the Bering Sea, which would study physical oceanography, levels of the food web, higher trophic levels, and human beings as part of the ecosystem. The Board also authorized the NPRB's Executive Director to work with the National Science Foundation to partner in this initiative. NSF would bring about $21 million to the program, which makes this an exciting opportunity to create a legacy study for the Bering Sea. A request for proposals for this program has been issued.

NOAA's initiative to define Alaska as a single Large Marine Ecosystem (LME): Mr Benton and Dr Demaster described NOAA's initiative to define programs around LMEs, and that Alaska has been defined as one LME complex by NOAA. According to the scientific literature on LMEs, there are four in Alaska: the Bering Sea/Aleutian Islands, the Gulf of Alaska, the Beaufort Sea, and the Chukchi Sea. For logistical reasons, and due to similarities between the regions and their management, the Beaufort and the Chukchi Seas have for some time been combined as a single Arctic LME. However, NOAA has recently decided to further combine the LMEs in Alaska into one LME complex, despite the fact that the remaining ecosystems are significantly different. The first adverse implication has recently emerged, a decision to divide national ocean observing system funding equally among LMEs. If funding continues to be distributed on this basis, Alaska will continually be disadvantaged under the single LME complex identification. **The Committee recommends that the Council write to NOAA, objecting to the Alaska LME classification, and requesting that it be reversed.**

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Oct. 2006

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Alaska Marine Ecosystem Forum

MEETING SUMMARY

September 18, 2006, 10-4 pm
Department of Environmental Conservation Conference Room, Anchorage, AK

The following member agencies attended the meeting. Underlined participants represented their agency.

North Pacific Fishery Management Council (NPFMC)

Stephanie Madsen, Chair
Chris Oliver, Executive Director
David Witherell, Deputy Director
Diana Evans, NEPA Specialist

National Marine Fisheries Service (NOAA Fisheries)

Jon Kurland, Assistant Regional Administrator for Habitat Conservation
Lisa Lindeman, Regional Counsel, NOAA General Counsel
Joe McCabe, Paralegal, NOAA General Counsel

Fish and Wildlife Service (FWS)

Leonard Corin, Fisheries and Ecological Services Supervisor
Greg Siekaniec, Refuge Manager, Alaska Maritime National Wildlife Refuge

Minerals Management Service (MMS)

Kate Wedemeyer, Fisheries Oceanographer, Environmental Studies Section
Paul Stang, Alaska Regional Supervisor for Leasing and Environment

National Park Service (NPS)

Judy Gottlieb, Associate Regional Director for Subsistence and Partnerships

Bureau of Land Management (BLM)

Gary Reimer, Field Manager, Anchorage Field Office

Environmental Protection Agency (EPA)

Ron Kreizenbeck, Acting Regional Administrator
Marcia Combes, Director, Alaska Operations Office

17th Coast Guard District (CG)

Captain Mark DeVries, Sector Commander
Commander Robert Forgit, Commander

Alaskan Command (ALCOM)

Colonel Mark Lowe, Chief of Staff
Jerome Montague, Tribal Affairs / Natural Resources Advisor

U.S. Army Corps of Engineers (COE)

Patricia Opheen, Chief, Engineering Division
Kevin Morgan, Deputy Chief, Regulatory Branch

Department of Environmental Conservation (DEC)

Kurt Fredriksson, Commissioner

Department of Natural Resources (DNR)

Ed Fogels, Deputy Commissioner

Department of Fish and Game (DFG)

Heather Brandon, Ocean Policy Coordinator

Also present at the meeting:

Clarence Pautzke, Executive Director, North Pacific Research Board
Joy Geiselman, Deputy Chief, Biology/ Geography Office, Alaska Science Center, US Geological Survey
Brian Allee, Executive Director, Alaska Sea Grant

Signing of the Memorandum of Understanding

Stephanie Madsen (NPFMC), Jon Kurland (NOAA Fisheries), Judy Gottlieb (NPS), Ron Kreizenbeck (EPA), and Kurt Fredriksson (DEC) all signed the Memorandum of Understanding (MOU) creating the Alaska Marine Ecosystem Forum (AMEF) at the meeting. Other agencies sent their MOU signature pages in advance, and the Coast Guard and the Minerals Management Service will sign the document during the week following the meeting.

Election of Officers

The AMEF elected Ms Madsen (NPFMC) as chair, and Mr Fredriksson (DEC) as Vice-Chair. Ms Madsen explained that her position as Chair of the NPFMC, and consequently representative to the AMEF, would continue at least until August 10, 2007, so she would be able to serve as AMEF Chair during that time. Mr Fredriksson cautioned that with the upcoming change in Alaska governor, his position as DEC Commissioner was uncertain, and the Forum members acknowledged they might have to re-fill the office of Vice-Chair at a future meeting.

Agency Briefings

Each agency present at the meeting gave a brief report on their objectives, activities, or interests in the Aleutian Islands. Some agencies provided handouts, which are attached to this summary.

Marcia Combes and Ron Kreizenbeck – Environmental Protection Agency
EPA is working with climatologists and discussions on how EPA will be involved in climate change. EPA is working with all agencies to get the most current information focused on adaptation versus mitigation. Jackie Poston in her office is the point of contact. There is also a climate team in Region 10. In hazardous material spills, EPA is working with abandoned Department of Defense facilities for cleanup, especially formerly used defense sites (FUDS). EPA has been working with waste water permits and user conflicts between seafood processors and local populations. Great Circle routes are being looked at with the CG through the Alaska Regional Response Team for oil spill response. Lately, the use of dispersants has been under review. As far as marine mammals, the agency involvement is through its role as a NEPA reviewer of environmental impact statements. EPA is working with the Navy to remove polychlorinated biphenals (PCBs) in harbors, and ammunition and unexploded ordinance on the land. EPA has had a referral on a processor in the Aleutians in violation of air quality. The referral came from DEC.

Patricia Opheen – US Army Corp of Engineers
Research is in the Tribal Partnership Program (TPP) and Individual Harbor Projects providing data collection for harbor and erosion control design and construction. The efforts for the TPP will primarily be in placing wave buoys in Bering Sea to collect wave heights and frequencies. Several civil works programs are underway in the state in the harbors of Port Lions, False Pass, Sand Point, Saint Paul, Chignik and Unalaska. The FUDS program is being coordinated with other agencies for cleanup.

Lenny Corin - US Fish and Wildlife Service
The objective of the Aleutian Islands unit of the Alaska Marine National Wildlife Reserve is to protect the ecosystems of the marine environment. Fox removal has been a robust program, and foxes have been removed from over 40 islands. As far as the removal of rats, 2500 acres have been culled of rats introduced by shipping. This restores the bird populations.

FWS works closely with the Coast Guard to ensure rats are not re-introduced to Alaska ecosystems. They use a 120 foot research vessel to do marine monitoring of seabirds. Fisheries management continues in

some lakes in Unalaska. The marine mammal decline of northern sea otters has been significant from Cook Inlet westward. The sea otter is listed under the Endangered Species Act. FWS uses the Sea Life Center in Seward for the study of sea otters. FWS is back to tracking seabirds, after a lull in the 1980s.

The Selendang Ayu response involved over 150 FWS personnel, and their research vessel was used as a platform. Currently, they are requesting proposals for restoration and mitigation in that area. The eradication of foxes on Sanak Island was closely coordinated with tribal leaders. Also, 52 satellite tags were placed on all species of albatross and they are being monitored. Studying of low level contaminants out in Dutch Harbor from oil spill is ongoing using eiders. The recent die-off of shearwaters in Dutch Harbor has preliminarily been attributed to natural starvation and ship collision. Kudos were given to the Coast Guard for their logistics support in the walrus survey.

Jon Kurland – National Marine Fisheries Service
NOAA Fisheries has three major programs: Sustainable Fisheries (groundfish, crabs, scallops, halibut), Protected Resources (marine mammals and endangered species), and Habitat Conservation (protection and restoration). NOAA Fisheries just implemented habitat conservation measures with the Aleutian Inlands Habitat Conservation Area. It is one the largest such areas in the world. Coral Habitat Protection areas include about 6 areas of special coral, and protection areas on Bowers Ridge and the Gulf of Alaska Slope have also been implemented.

NOAA is considering adjustments to open and closed fishing areas within the Aleutians Island Habitat Conservation Area, and revisions to the Steller sea lion protection measures to allow affected fisheries more flexibility without increasing interactions. They are assisting the NPFMC with the development of a Fishery Ecosystem Plan for the Aleutian Islands.

Captain Mark Devries – US Coast Guard
The Coast Guard has been involved recently in three programs with Russia: Fisheries – Capt Cerne; Law Enforcement – RADM Brooks; and Environmental Response- Capt Devries. These bi-lateral opportunities with the Russians provide joint partnerships and better cooperation with fisheries and law enforcement.

The Coast Guard is looking at the Aleutians, Cook Inlet and Prince William Sound, for risk assessments. Another project, partnering with DEC, is geographic response strategies, and the Aleutians are a current focus. Places of Refuge have also been a discussion item. The Coast Guard continues to work under OPA 90 with the Regional Citizens Advisory Councils of Cook Inlet and Prince William Sound, as well on being able to provide primary mission requirements.

CDR Forgit gave a Pandemic Influenza Update and point out that the primary focus has been on influenza transmission through the medium of air transport, rather than maritime transport, as journey times are so much shorter. It has been concluded that the biggest threat will be by air rather than sea. Infected crewmembers will probably show symptoms due to the transit time versus an airline passenger that can be caring the virus and be in the public prior to symptoms.

Diana Evans – North Pacific Fisheries Management Council
The NPFMC completed a comprehensive programmatic review of its groundfish fisheries in 2004, which resulted in the following management objectives: protection of habitat, reduction of fishery by-catch, Stellar sea lion protection, over-fishing protection, ecosystem management, and improving data quality and management.

The NPFMC is currently developing a Fishery Ecosystem Plan (FEP) for the western Aleutian Islands ecosystem area. This is to be able to identify informative ecological indicators for the Aleutians, and to develop tools such as ecosystem models to evaluate the indicators and identify sources of uncertainty.

The NPFMC is also currently re-evaluating the mitigation measures in place in the Pollock, Pacific cod and Atka mackerel fisheries, which protect Steller sea lions critical habitat and limit fishery interactions with Stellar sea lions. The NPFMC is establishing cooperatives for the multi-species trawl flatfish fisheries in the Bering Sea and AI. This action will reduce discards on those fisheries by providing additional opportunities for vessels to meet minimum retention for groundfish,

Colonel Mark Lowe – Alaskan Command
Col. Lowe gave a quick update of the number of personnel and the locations of bases in Alaska: 26,500 personnel and 24,000 dependents are at the Alaska Command. There are currently 18 early warning sites. The SBX system will be located in the Aleutians, which costs 750 million dollars. ALCOM is primarily focused on GWOT. They work closely with local agencies. ALCOM is divided between two Combatant Commanders – PACOM and NORTHCOM. The Department of Defense owns 1.8 million acres of Alaska land. FUDS are of concern to ALCOM and COL Lowe ensured the AMEF that any future disestablishment of bases will not be left like the FUDS.

Commissioner Kurt Fredriksson – Alaska Department of Environmental Conservation
The Commissioner first addressed inter-agency coordination, and how to make progress. DEC is working very closely with the Coast Guard on the Great Circle Route Risk Assessment, looking at spill response, air pollution, and rat populations. He is concerned that no real studies have been conducted on the net environmental impact of clean up mechanisms, such as impacts to the water column versus beaches, since Exxon Valdez. DEC is working with other agencies in their fish monitoring program to sample fish pollutant content in a number of species for consumer information. The environmental test lab opened up last year and recently was certified to test for Avian Influenza.

Ed Fogel – DNR
Mr Fogel described the DNR structure. Chiratof Island has 800 cows that the administration wants to save. DNR/DMVA/University of Alaska, Anchorage (UAA) have signed an initiative to create a high resolution digital map of Alaska. They have acquired a few million dollars, but the estimated cost is $30 million. There is also an initiative to consolidate all the State research priorities to be more cost effective. Heather Brandon, Ocean Policy Coordinator, stated that there are 35 State research priorities that are shared with UAA. This is the first attempt to combine resources and management priorities.

Judy Gottlieb – NPS
They have an air quality monitoring program through all their parks. On an international level, NPS is very active in the Arctic Council.

Gary Reimer - BLM
BLM has completed the first land use plan in the Aleutians, but they are a minority land use owner. BLM aims to work in partnership with other agencies. The first land use plan regards the Ring of Fire.

Kate Wedemeyer–MMS
Despite 50 years of leasing, there is only one marine oil/gas development project in Alaska, the North Star project (which is actually drilled from an island in state waters). There is also a development in Cook Inlet. Offshore oil and gas has become of more interest recently, also mineral and wind energy development. The 2007-2012 oil/gas leasing program is under review and includes leasing sites in the North Aleutian Basin (Bering Sea). Ms Wedemeyer also commented it would be helpful if all agencies would use the same indicators when examining ecosystem effects.

MMS also does biological research with FWS, including studies of marine mammal decline and increase. They are studying sea otters and polar bear ecosystems, migratory bird research, Aleutian and Pribilof Islands studies. They also monitor the Aleutians for seismic activity and volcanic monitoring.

State of Alaska / Sea Grant grant money

The State of Alaska and Sea Grant, in partnership, have recently received a grant for an Alaska marine research plan. Brian Allee (Sea Grant) briefed the AMEF on the grant proposal. The grant totals $400,000, over 5 years. The proposal is to inventory research objectives and plans for each agency conducting research in Alaska, and in addition, specifically in the Aleutians, to inventory all ongoing research projects and identify research and data gaps. The draft research plan for the Aleutian Islands should be ready within two years. The proposers intend to conduct stakeholder workshops and interface with the AMEF for input on the plan, and a steering committee for the project includes the AMEF's Chair and Vice-Chair. Mr Allee's powerpoint presentation is attached.

The AMEF discussed the proposal, the schedule, and the role of the AMEF in the project. Mr Allee intends to contact each agency individually to request information on existing research plans, and needs statements. The steering committee will hold its first meeting as soon as possible, with a view to initiating the stakeholder workshops to develop the research plan. Mr Allee hopes to report progress on the project at the next AMEF meeting.

Aleutian Islands Risk Assessment

Mr Fredriksson provided a brief overview of the proposal to conduct a risk assessment of transportation through the Aleutian Islands. The DEC expert on this issue was not able to attend the meeting. The assessment is intended to quantify the risk of shipping accidents or groundings to the point that reasonable mitigation measures would be identified. A similar study was conducted in Prince William Sound in 1995, which led to tug escorts in the Sound. Commander Robert Forgit (CG) clarified that the purpose of the risk assessment is not response planning, but that risk information will be used to revisit response plans.

DEC and the Coast Guard are both involved in planning the risk assessment, and DEC has received $250,000 for implementation, but the Coast Guard is still waiting funding to be allocated at the Federal level. The risks of transportation through the Aleutian Islands affect many agencies' responsibilities, and the AMEF members agreed to revisit this issue at their next meeting.

Potential oil and gas lease in the North Aleutian Basin

Paul Stang (MMS) presented an update on the agency's plans to include leasing sites in the North Aleutian Basin in their oil and gas program for 2007-2012. Although the program will not be finalized until summer of 2007, the agency hopes to get a head start on deciding what research would be required to understand the impacts of oil and gas development, should the North Aleutian Basin lease sites remain in the program. The MMS has not conducted research in the area for 20 years, and so is considering three questions: 1) what existing data (from other agencies) should be processed; 2) what research should be done; and 3) what should be monitored. MMS would like to be able to take advantage of the 2007 fieldwork season immediately, if the program goes ahead next summer. The amount of funding available for North Aleutian Basin research is unclear, but the agency has about $5 million for its studies throughout Alaska.

The AMEF members discussed the presentation. Ms Madsen noted that Shell had made a presentation on this issue at an evening session of a Council meeting earlier in the year, and Mr Stang agreed that Shell has been very interested in the program. Mr Fredriksson suggested that MMS revisit the State's comments opposing leasing in the area 20 years ago, identifying data gaps (which may since have been addressed).

National Ocean Research Priorities document

Heather Brandon (DFG) summarized the recently issued Joint Subcommittee on Ocean Science and Technology report, *Charting the Course for Ocean Science in the United States: Research Priorities for the Next Decade*. Federal agencies are represented on the Joint Subcommittee, but Mr Fredriksson indicated that the State of Alaska would provide comments on the report. He also highlighted the last page of the report, which talks about the implementation strategy for the report (which has not yet been developed). The strategy will describe roles for each agency and sector (Federal, State, private) in planning, programming, budgeting, and executing these priorities, and will allocate research funding annually in accordance with the national strategy. Ms Madsen suggested that the AMEF continue to track this process.

Discussion of AMEF future direction, next meeting

The AMEF members decided to target their next meeting for March, 2007. The Chair and Vice-Chair will be responsible for drafting and circulating an initial agenda. Items will include updates on the issues discussed at this meeting, as well as a possible presentation from Molly McCammon on the Alaska Ocean Observing System. The group may wish to consider structuring the agenda with worksessions to allow the agencies' technical leads to participate on specific issues. Members also discussed the possibility of scheduling the meeting adjacent in time to a stakeholder workshop hosted by Sea Grant on the Alaska Marine Research Plan.

Now that the AMEF is in existence, the group discussed what the AMEF's public presence should be. The MOU describes the AMEF, and its purpose; it also clarifies what not to expect from the AMEF (i.e., the AMEF has no jurisdiction of its own). The members agreed that at least initially, each agency should communicate to its own stakeholders about the creation of the AMEF and its activities, and discuss any feedback at the next meeting.

To facilitate this communication, the group also discussed using a website. Although language about creating an AMEF website was removed from the MOU due to legal restrictions on interagency funding, Joe McCabe (NOAA General Counsel) clarified that there was no difficulty about each individual agency hosting or linking to a website describing its own participation in the AMEF. The NPFMC volunteered to post the MOU and the first meeting summary on the NPFMC website, and provide the link to the other member agencies.

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ART. III

Alaska Marine Ecosystem Forum

MEMORANDUM OF UNDERSTANDING

Article I. Background

The marine ecosystems off Alaska's coast support a diverse natural environment and a multiplicity of human activities. With national initiatives calling for more systematic collaboration on ocean-related matters, the establishment of the Alaska Marine Ecosystem Forum (AMEF) brings together Alaska's Federal and State agencies as well as the North Pacific Fishery Management Council to address issues of shared responsibilities related to the marine ecosystems off Alaska's coast. The AMEF promotes the collective aim of Federal and State agencies and the North Pacific Fishery Management Council to achieve sustainable management and use of Alaska's marine ecosystems in the most effective and efficient manner, consistent with the missions of those agencies. Through coordinated and cooperative understanding, the AMEF seeks to ensure that the interests of the people, biota, and physical environment of Alaska's marine waters are well served.

Alaska's state and federal waters form part of several large marine ecosystems, each with distinct natural processes and human activities. In order to allow the AMEF to fully engage with the issues of an area, and effectively target opportunities for coordination and collaboration, the AMEF will focus on a designated marine ecosystem area. Each area will be identified through mutual agreement of the signatories, and will be described in addendums to this document.

The AMEF does not create enforceable legal obligations, but rather is intended to facilitate member agencies sharing information to promote awareness and mutual goals, address issues of shared governmental responsibilities and to further intergovernmental communications regarding programs and activities that are the primary responsibility of individual agencies. The activities of the AMEF shall be consistent with applicable Federal and State laws and regulations and are subject to the availability of duly appropriated funds. Nothing in this agreement is intended, nor shall it act, in any way to alter, impede, or interfere with the authorities and procedures of the agencies involved in carrying out their regulatory and law enforcement responsibilities, authorities, or missions.

Article II. Role of the AMEF

The primary role of the AMEF is to enhance coordination in support of the sustainable management of Alaska's marine ecosystems. The AMEF will provide a venue where participants may share information. It is not to be or become a group that provides consensus advice and/or recommends actions. Through the AMEF, the member agencies will keep abreast of existing and emerging issues relating to human activities and natural processes affecting Alaska's ecosystem areas.

The AMEF is being established so that:

- Member agencies are aware of salient regional issues, existing or potential user conflicts, and relevant ecosystem developments;
- Member agencies may achieve efficiencies by sharing unclassified information regarding ecosystem efforts and goals, and by reducing or removing duplicative ecosystem efforts
- Activities undertaken or contemplated by member agencies are complementary where possible and achieve effective results for ecosystem sustainability and utilization.

Article V. Authorities

National Marine Fisheries Service authorities include but are not limited to:

Magnuson Stevens Fishery Conservation and Management Act (16 U.S.C 1801, *et seq.*)
Endangered Species Act (16 U.S.C. 1531, *et seq.*; Public Law 93-522, as amended)
Marine Mammal Protection Act (16 U.S.C. 1361, *et seq,*; Public Law 92-522)
Lacey Act (16 U.S.C. 3371-3378; Public Law 97-79, as amended)

North Pacific Fishery Management Council:

Magnuson Stevens Fishery Conservation and Management Act (16 U.S.C. 1801, *et seq.*)

United States Fish and Wildlife Service authorities include but are not limited to:

Fish and Wildlife Coordination Act (16 U.S.C. 661-667e)
National Wildlife Refuge System Administration Act (16 U.S.C. 668dd-668ee)
Migratory Bird Treaty Act (16 U.S.C. 703-712)
Marine Mammal Protection Act (16 U.S.C. 1361, *et seq,*; Public Law 92-522)
Endangered Species Act (16 U.S.C. 1531, *et seq.*; Public Law 93-522, as amended)
Lacey Act (16 U.S.C. 3371-3378; Public Law 97-79, as amended)

Minerals Management Service authorities include but are not limited to:

Outer Continental Shelf Lands Act (43 U.S.C. 1331, *et seq.*; Public Law 95-372)

National Park Service authorities include but are not limited to:

National Park Service Organic Act of 1916 (16 U.S.C 1-4)

Bureau of Land Management authorities include but are not limited to:

Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701-1782)

Environmental Protection Agency authorities include but are not limited to:

National Environmental Policy Act (42 U.S.C. 4321-4347)
Clean Air Act (42 U.S.C. s/s 7401 *et seq.*)
Clean Water Act (33 U.S.C. ss/1251 *et seq.*)
Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. s/s 9601 *et seq.*)
Emergency Planning & Community Right-To-Know Act (42 U.S.C. 11011 *et seq.*)
Endangered Species Act (7 U.S.C. 136; 16 U.S.C. 460 *et seq.*)
Federal Insecticide, Fungicide and Rodenticide Act (7 U.S.C. s/s 135 *et seq.*)
Federal Food, Drug, and Cosmetic Act (21 U.S.C. 301 *et seq.*)
Food Quality Protection Act (Public Law 104-170)
Oil Pollution Act (33 U.S.C. 2702 to 2761)
Pollution Prevention Act (42 U.S.C. 13101 and 13102, s/s *et seq.*)
Resource Conservation and Recovery Act (42 U.S.C. s/s 321 *et seq.*)
Safe Drinking Water Act (42 U.S.C. s/s 300f *et seq.*)
Superfund Amendments and Reauthorization Act (42 U.S.C.9601 *et seq.*)
Toxic Substances Control Act (15 U.S.C. s/s 2601 *et seq.*)

United States Forest Service authorities include but are not limited to:

Article VII. Meetings and procedures

Meetings of the Alaska Marine Ecosystem Forum should minimally take place once a year, and may be held more frequently at the discretion of the officers. The meetings will follow a pre-determined agenda, agreed upon in advance by the participants and will be led by the Chair. Robert's Rules of Order will not be enforced.

Meeting topics may include both agency reports and focused issues. Staff members of AMEF agencies and representatives of non-member entities may be invited to present to the AMEF. Public comment will not be accepted at the meetings, except by invitation, or at the discretion of the participants. From time to time, the AMEF may choose to hold public workshops to solicit comment on specific topics of interest to the AMEF.

Article VIII. Expenditures

Federal agency participation in the AMEF shall not involve interagency funding. Each member agency will bear its own expenses associated with membership in the AMEF and should view said expenses as promoting the groups' organizational interests. Nothing in this Memorandum of Understanding will be construed as obligating any of the members to expend in any fiscal year any sum in excess of the monies appropriated by Congress, or the State of Alaska as the case may be, to the member's participation in the AMEF.

Article IX. Terms of Understanding

Effective date: This MOU shall come into effect for each agency upon the signature of its representative.

Termination date: This MOU shall remain in effect until September 18, 2011 unless renewed or terminated prior to that date by mutual agreement of the parties.

Review: This MOU shall be reviewed by the Parties on an annual basis to assess continuing need and whether the MOU should be amended, revised or canceled.

Modification: This MOU may be amended or modified at any time by mutual agreement of the Parties.

Participation: Participation by any signatory agency may be terminated upon 30 days notice to the Chair.

Alaska Marine Ecosystem Forum Proposed Signatories

North Pacific Fishery Management Council

Stephanie Madsen 9-18-06
Signature Date
Chair
North Pacific Fishery Management Council

Federal

9/15/06
Signature Date
Regional Administrator,
National Marine Fisheries Service, Alaska Region

9/18/06
Signature Date
Regional Administrator,
Environmental Protection Agency, Region 10

Signature Date
Regional Director,
U.S. Fish and Wildlife Service, Region 7

Signature Date
Regional Forester,
U.S. Forest Service

Signature Date
Regional Director,
Minerals Management Service

Signature Date
District Commander,
17th Coast Guard District

Judith Gottlieb for 9/18/06
Signature Date
Regional Director,
National Park Service

Douglas M. Fraser SEP 11 2006
Signature Date
Commander,
Alaskan Command

Signature Date
State Director,
Bureau of Land Management

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Signature Date
District Commander
U.S. Army Corps of Engineers, Alaska District

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North Pacific Fishery Management Council

Signature Date
Chair
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Federal

Signature Date
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Thomas O. Melius 9/11/06
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A. Brooks 9/20/06
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Dennis E Bschor 9/7/2006
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Signature Date
State Director,
Bureau of Land Management

State

Signature Date
Commissioner,
Department of Fish & Game

Signature 9-18-06 Date
Commissioner
Department of Environmental Conservation

Signature 9/18/06 Date
Commissioner,
Department of Natural Resources

Signature 9/15/2006 Date
Commissioner,
Department of Commerce, Community and Economic Development

Alaska Marine Ecosystem Forum
Memorandum of Understanding

State

9/18/06

Signature Date
Commissioner,
Department of Fish & Game

Signature Date
Commissioner
Department of Environmental Conservation

Signature Date
Commissioner,
Department of Natural Resources

Signature Date
Commissioner,
Department of Commerce, Community and Economic Development

Addendum 1

Focus: Aleutian Islands Marine Ecosystem Area

The initial focus of the Alaska Marine Ecosystem Forum (AMEF) will be on the Aleutian Islands marine ecosystem. If it proves successful, the AMEF may, in a subsequent addendum, extend or transfer its focus to other Alaska marine ecosystem areas. In this way, the Aleutian Islands ecosystem area will serve as a pilot case for this AMEF.

The Aleutian Islands marine ecosystem area encompasses the Alaskan waters surrounding the Aleutian archipelago from Unimak Island to Attu. The Aleutian Islands provide a unique permanent and migratory habitat for many species of seabirds, marine mammals, pelagic and demersal fish species, and are thought to harbor the highest abundance and diversity of cold water corals in the world; the Aleutian Islands also have a rich cultural heritage. The region is poised to change as military, shipping, fishery, and community development activities proceed in the coming decade. The unique features of the Aleutian Islands marine ecosystem make it an appropriate candidate for further coordination among the Federal and State agencies that manage and regulate the activities that take place there. The AMEF will support Federal and State collaboration in the Aleutian Islands marine ecosystem.

The statements of purpose set out in the Memorandum of Understanding will guide the activities of the AMEF with respect to its Aleutian Islands marine ecosystem area focus. In addition, the AMEF has identified the following issues that may be topics of importance for the AMEF. Although the following list provides an overview of topics that may be addressed by the AMEF, it is not intended to preclude any member from introducing new topics to the AMEF's agenda.

Improved Understanding of Each Entity's Responsibilities

Each participating agency should provide a brief presentation to the AMEF to highlight its primary responsibilities and objectives, its activities affecting the Aleutian Islands, and any major issues in which it is currently involved that may influence the Aleutian Islands marine ecosystem. The presentations would increase awareness of common interests or conflicting goals and may highlight topics that warrant enhanced collaboration, under separate agreements, among the participating agencies.

Engage in Studies and/or Research Concerning Areas of Common Concern

The establishment of the AMEF brings together Alaska's Federal and State agencies as well as the North Pacific Fishery Management Council to address issues of shared responsibilities related to the marine ecosystems off Alaska's coast. The AMEF may therefore promote the members' engaging in collaborative studies and/or research concerning areas of common concern under separate agreements.

Hazardous Material Spills

Several agencies have been involved in the response to the *Selendang Ayu* spill, and a number of agencies and interest groups have discussed options for reducing the risk of future spills of hazardous materials in the Aleutian Islands. The AMEF may be a very useful forum for sharing information relating to actions taken under the individual jurisdictions of the participating agencies. The AMEF may share information relating to measures that are in place to minimize such risks, current initiatives by the participating agencies (or other groups) to develop additional measures, and any actions that might be taken individually by the participating agencies to promote the implementation of effective preventive measures.

Regional Haze Plan

Regional haze refers to haze that impairs visibility in all directions over a large area. The distance that one can see is limited because of tiny particles in the air absorbing and scattering sunlight, which in turn degrades color, contrast, and clarity of the view. On July 1, 1999 the Environmental Protection Agency announced a rule designed to protect and improve visibility in 156 national parks and wilderness areas throughout the country. The Regional Haze Rule only affects Class I national parks and wilderness areas. Alaska has only four Class I areas subject to the rule, they are:

- Denali National Park and Preserve
- Tuxedni Wilderness Area
- Simeonof Wilderness Area
- Bering Sea Wilderness Area

Simeonof Wilderness Area in the Aleutian Islands ecosystem. States must develop long-term plans for reducing pollutant emissions that contribute to visibility degradation and within the plans establish goals aimed at improving visibility in Class I areas. Haze caused by all sources of pollutants that impair visibility including haze caused from smoke, vehicles, electric utility and industrial fuel burning, and other activities that generate pollution must be addressed. The Alaska Department of Environmental Conservation is developing a State Implementation Plan (SIP) to deal with the haze in Class 1 areas. See: http://www.dec.state.ak.us/air/anpms/as/rh/rhhome.htm

Avian Flu and Influenza Pandemics

Influenza pandemics occur when there is a major change in the structure of a strain of influenza virus such that most (or all) of the world's population is susceptible to infection. Of the three influenza pandemics in the 20th century, two (1957 and 1968) occurred as a result of major changes in the genetic composition of the virus through the recombination of genetic elements from avian and human influenza strains, and one (1918) occurred as a result of adaptive mutations that allowed the virus to be efficiently transmitted first from birds to humans and then from person-to-person. At some point in the future, the world will be faced with another pandemic caused by a strain of influenza virus that spreads rapidly and causes extraordinarily high rates of illness and death—higher, in fact, than virtually any other natural health threat.

Bird migration is one of the possible routes of introduction of avian flu into North America, and an estimated six million birds representing 42 species arrive in Alaska annually. The State of Alaska has prepared a strategy to prepare for and respond to an influenza pandemic, which addresses five key pandemic preparedness and response elements. Forum participants may share information relating to these issues.

Special Status for the Aleutian Islands Ecosystem

The North Pacific Fishery Management Council is currently moving forward with an initiative to establish special status for the Aleutian Islands ecosystem relative to its fishery management jurisdiction. AMEF participants may share information relating to this issue.

D-5 suppl (1)
Oct. 2006

Aleutian Islands Ecosystem Team

Meeting Report

September 26-27, 2006
Room 2039, Building 4, Alaska Fisheries Science Center, Seattle, WA

Team

Steve Barbeaux	Carol Ladd	Jennifer Sepez
Diana Evans	Sandra Lowe	Paul Spencer
Sarah Gaichas (for Kerim Aydin)	John Olson	Francis Wiese

Others present included: Joe McCabe, Ken Stump, Dave Fraser

Guided by the Council's and the Ecosystem Committee's recommendations, the Team developed an approach for developing the FEP.

Audience for the FEP

The Team first discussed who the audience is for whom the FEP is being written. The following is the Team's conclusion:

Primary: the Council
Secondary: SSC, broader public, AI researchers, other agencies with AI interests (Alaska Marine Ecosystem Forum members, Bering Sea Interagency Working Group members)

FEP Process

In order to determine how to structure the FEP, the Team discussed at some length how the FEP will fit into Council process. Although the FEP document's primary audience is the Council, the Team felt that the document would most appropriately intersect with the Council process at the SSC level. The SSC hears each of the Plan Teams' reports, and makes recommendations to the Council on the basis of those reports. The FEP will hopefully provide a new perspective on the individual Plan Team recommendations, by approaching fisheries from a geographic and ecosystem-based perspective, rather than a fishery-based perspective. The SSC can then evaluate Plan Team reports and presentations on other Council issues, on the basis of the FEP's input, and tailor its recommendations accordingly.

The Team also discussed how to make the FEP a 'living' process, rather than a document that once written, provides no further benefit to the Council. The Team followed up on the suggestion in the staff discussion paper, that the Council appoint a FEP advisory team. This advisory team would update research priorities and indicator trends in the FEP, and could provide a nexus for initiating AI research and evaluation needed by other Council analyses. The Team also felt it important that the FEP intersect with the Plan Teams and stock assessment authors. Once the document is written, a workshop might be conducted for stock assessment authors on the findings of the FEP. Also, Plan Team representatives on the current AI Ecosystem Team will be able to feed back into the Plan Team process, and should Plan Team representatives be included on a future advisory team, they could continue to fulfill this function. The Team also suggested that supplements to the FEP might be issued, particularly as research techniques change or more information becomes available. Additionally, the Team strongly recommends coordinating with the annual ecosystem considerations chapter, to track information on indicators and objectives identified in the FEP.

Schedule

The proposed schedule for the FEP is as follows:

September 26-27	initial Ecosystem Team meeting
early October	feedback on Team's approach from Ecosystem Committee, SSC, AP, Council
October-December	Team to draft chapters 1 and 2 of FEP
January 10-12 (T)	Team workshop to draft remaining chapters of FEP
early February	feedback from Ecosystem Committee, SSC, AP, Council
February-March	possible Team meeting; Team makes revisions to FEP and begins preparation of 'glossy' synthesis document
early April	Council initial review
April-May	Team makes revisions to FEP and 'glossy' synthesis
early June	Council approves FEP

The Team notes that the schedule for preparing the FEP is very ambitious. The Team can develop a plan based on currently available information by June, 2007, but will not be able to conduct original studies or analyses under that timeline. The Council may wish to consider having the development of the FEP be a two-stage process, with the first stage being the document to be prepared by June, 2007, and the second stage involving more in-depth studies and analyses, that would be conducted on a longer timeframe. The Team should be able to provide more guidance later in the process as to what this might entail.

Stakeholder Participation

The Team acknowledges the Ecosystem Committee's guidance, in their minutes of May 2006, that public comment on the FEP will solicited as the document gets vetted through the Council process (i.e., hearings at the SSC, AP, and Council). Following the Team's January workshop, however, the Team would like to make an extra effort to ensure stakeholders are apprised of the work on the FEP, and have the opportunity to interact with the Team as to their comments on the FEP's content. The Team also discussed presenting a poster and possibly a short workshop at the Alaska Marine Science Symposium in Anchorage, in January.

Additionally, the Team recommends that consultation and input be sought from communities in the ecosystem. There are 2 communities within the ecosystem identified for this FEP, Adak and Atka. Team member Steve Barbeaux will be in Adak in late February for other research, and has volunteered to conduct a community meeting during that time to discuss the FEP. The Team recommends that the Council send a Team representative to Atka also, to solicit participation from that community.

January Workshop

Preparing for workshop: section drafts by lead authors (identified on TOC) are due by Dec 1. Team review of sections will then by conducted through website exchange. Revised drafts are due by Jan 2. Diana Evans and Sandra Lowe (and others, as available) will integrate sections, and edit as much as possible before the January workshop. The aim is to bring together sections with one voice, and also to select case study examples that can illustrate the interconnected perspective (e.g., sea otters).

Agenda for workshop: a) continue work on chapter 2 – integrate sections, identify cumulative elements, pull out unifying stories/examples; b) review Council's management objectives, integrate and make specific for the Aleutian Islands; c) develop indicators, implications for management, priorities, and Council recommendations.

Writing Guidelines

The Team decided that the FEP should be no more than 100 pages, and should probably be fewer. The Team assigned page limit guides by chapter on the Table of Contents (below). The Team intends that the document should be written in an accessible, non-scientific style. To that end, the Team discourages the use of acronyms. Sections should identify sources of available data, but references should initially be cited in MS Word as footnotes, or endnotes, for ease of compilation.

Francis Wiese will set up a website that can be used for document exchange. We will post or link to a number of reference documents, including the FMPs and the Council's management objectives. The Team will use this website to transfer versions of the document among Team members.

AI FEP Table of Contents

1 **Introduction – *10 pages***

ORIENTATION – ***Jennifer Sepez/Steve Barbeaux***

- map of AI (show where AI is on globe, focus on AI islands)
- Aleut creation myth

1.1 What is the FEP - ***Diana Evans/Francis Wiese***

- graphic of old concept/new concept: circles around FMPs, FEP looks at context of many things that we are already doing; where does FEP info affect process/ compared to plan teams
- who is affected by the FEP
- also long-term vision of dynamic FEP in future process (influencing mgmt actions); also that this is part of a process that started with ecosystem considerations chapter – this is one of steps in long process

1.2 FEP Process – ***Diana Evans/Francis Wiese***

- Plans for updating document
- living process – feedback loops to revise ecosystem goals, indicators based on new information, research priorities/data gaps
- advisory team provides guidance to SSC, Council, Plan Teams (through PT reps on team); updates FEP with supplements as necessary (new research techniques, new indicator trends, data gaps)

1.3 Purpose and Need – ***Diana Evans/Francis Wiese***

- Council's purpose statement

2 **Understanding the Aleutian Islands ecosystem – *30-40 pages*** – what do we know about oceanographic and climate features of the AI ecosystem area, about species present in the ecosystem and their interactions, and about human interactions with the ecosystem. This section should integrate existing models, and be a summary or inventory of other sources, rather than an encyclopedic listing. Focus on interactions between species, rather than status of individual modules.

2.1 AI ecosystem processes and interactions

- narrative; include discussion of how we know information (monitoring, etc.), references to further sources of information, gaps in knowledge (briefly)
- bring in historical context as appropriate

2.1.1 Biological relationships – ***8 pages - Sarah Gaichas/Kerim Aydin***

2.1.2 Oceanography, climate, bathymetry, habitat relationships – ***8 pages - Carol Ladd/John Olson***

2.1.3 Socioeconomic relationships (fisheries, other human activities) – ***8 pages - Jennifer Sepez***

2.2 Describing the AI boundary – *5 pages*

2.2.1 Regulatory boundaries (including discussion of how fisheries/other species are managed e.g. BSAI groundfish) ***- Diana Evans***

- include table of who is responsible for what in AI (with contact info?) (species, areas, etc.)

2.2.2 Oceanographic and biological boundaries – scales (single species, ecosystem/energy level, migratory species etc.) – ***Sarah Gaichas/Kerim Aydin***

- stock structures, 'leaky' boundaries

2.3 Cumulative interactions - focus on the interactions that are: - *10 pages*

- treated separately under current management programs, but are actually connected (e.g., seabirds and juvenile pollock);
- or managed under same agencies, but connections not always made (e.g. marine mammals and fishery plans, economics with social);
- or things that are not currently being managed but are important to the system (e.g. myctophids);
- or things that are treated on a bigger scale than the AI but are critical to AI ecosystem

3 Management objectives – *5 pages* – based on our understanding of the ecosystem area, how can we integrate existing management goals for the various fisheries, etc., and make specific for Aleutians

- define objectives in context of uncertainty
- take existing goals/objectives, make specific to the story of the Aleutians, and perhaps focus in on the ones that are achievable

4 Ecosystem assessment – *10 pages* – using the integrated management objectives, how can we define appropriate ecological indicators to assess the state of the ecosystem by integrating models and indicators.

4.1 Identify critical parameters to track – risk assessment – important to talk about <u>why</u> this parameter is important to the Council, what it can indicate, and what the probability is of likely outcomes

4.2 Where possible, identify critical thresholds for parameters

5 Implications for human use of ecosystem – *20 pages* – identify areas of uncertainty, identify areas where management strategy evaluations to assess management measures calculated over a realistic range of uncertainty would be helpful

- this chapter builds on chapter 2, where we stand and what led up to it, and looks at where we stand and what does it mean for moving forward
- implications to humans, implications to fishery management, implications to other managers

5.1 Consider tradeoffs and reconcile conflicting goals

- specific tradeoffs between things that we're doing separately, but when you put them together, you can't do both (use cogent examples)

5.2 Assess areas of uncertainty

- this section will identify on-the-shelf stuff for right now, and point to future work that could be done

5.3 What is the "value added" of this FEP process?

- what are we learning from the FEP view that we couldn't get from previous ecosystem analyses (e.g., consideration of risk assessment/uncertainty; tie it back to sustainability and alerting Council to changes); what have we been missing with the single species focus

6 **Priorities – *10 pages*** – based on the above, what are priorities for future management analysis (MSEs), research; FMP-specific or more general

6.1 within the next year

- e.g., what might we add to the FEP if we had another year to work on it

6.2 longer-term (e.g., 2, 5, 20, 50 years – whatever appropriate scales are)

7 **Recommendations for Council – *1-2 pages***

- table summarizing conclusions/recommendations from chapters 5 and 6