

Alaska Marine Ecosystem Forum

MEETING SUMMARY

August 7, 2008, 1-5 pm
3rd floor conference room, National Park Service, Anchorage, AK

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

North Pacific Fishery Management Council (NPFMC)

Eric Olson, Chair
Diana Evans, Fishery Analyst
Bill Wilson, Protected Resources Specialist

National Marine Fisheries Service (NOAA Fisheries)

Jon Kurland, Acting Deputy Regional Administrator
John Olson, Fishery Biologist, Habitat Division

National Park Service (NPS)

Jeff Mow, Park Superintendent, Kenai Fjords National Park
Vic Knox, Regional Director

US Forest Service (USFS)

Don Martin, Region 10 Fish Program Manager

Bureau of Land Management (BLM)

James Moore, NEPA Coordinator, Anchorage Field Office

Minerals Management Service (MMS)

Cathy Coon, Marine Biologist, Environmental Studies Program

Other participants:

North Slope Science Initiative

US Geological Survey

University of Alaska, Fairbanks
Oceana

John Payne, Director,
Denny Lassuy, Deputy Director
Joy Geiselman, Deputy Chief, Biology/Geography Office
A.C. Brown
Keith Criddle
Quinn Smith

17th Coast Guard District (CG)

LCDR Shane Montoya, District Representative, Anchorage

Alaskan Command (ALCOM)

Dr. Jerome Montague, Tribal Affairs / Natural Resources Advisor

U.S. Army Corps of Engineers (COE)

Carl Borash, Chief, Project Formulation Section

Department of Environmental Conservation (DEC)

Larry Hartig, Commissioner
Gary Folley, Environmental Program Manager, Prevention and Emergency Response Program

Department of Fish and Game (DFG)

Stefanie Moreland, Extended Jurisdiction Program Manager

Introductions

Jon Kurland, as Chair of the AMEF, opened the meeting and attendees introduced themselves. Mr Kurland reminded the meeting that the AMEF is primarily a forum for communication, especially for agencies that may not interact frequently. The Forum provides opportunities for better understanding each others activities within our common Alaska marine environment, and consequently for identifying opportunities for collaboration.

Agency briefings

Each agency present at the meeting gave a brief update on activities of interest with respect to the Aleutian Islands or other Alaska marine ecosystems. Some agencies provided handouts, which are attached to this summary.

Jeff Mow, National Park Service

The National Park Service leadership council has been working on their Pacific Ocean Parks Stewardship Plan. The Plan will provide a unified message on ocean stewardship needs, which can be used to communicate with the public, and also within the agency, to seek funding and opportunities for collaboration on ongoing initiatives. Mr Mow also noted that as the NPS has a 'bully pulpit' role, it presented an opportunity to echo and emphasize issues that are important for other agencies also, as appropriate. Mr Hartig asked about NPS' plans for how to acknowledge the anniversary of the Exxon Valdez Oil Spill (EVOS) next spring; Mr Mow noted that they are beginning to talk about ideas. Mr Hartig suggested that it would be good for the agencies to coordinate.

Eric Olson, North Pacific Fishery Management Council (handout attached)

The Council is still working on developing an Arctic Fishery Management Plan, and staff member Bill Wilson has been spearheading an extensive outreach effort to give an overview of the Council's efforts, and incorporate community and stakeholder input into the plan. There are four alternatives, but the intent is to close the Arctic management area to commercial fishing. Mr Olson clarified that the plan would not affect local subsistence activity in the Arctic. Final action is scheduled for December. Also with respect to the Arctic, Senate Joint Resolution 17 was signed into law in June, which calls for the US to enter into international discussions and come to agreements on fishing the stocks of the Arctic. The Council has also been assisting NOAA in their role of contributing to the Arctic Marine Shipping Assessment, which is to examine current and future Arctic shipping, under a variety of scenarios.

Other Council activities include implementation of habitat conservation measures in the Bering Sea, which includes the designation of a Northern Bering Sea Research Area. A research plan will be developed this year, after which experimental fishing in accordance with the plan may begin. In 2009, the Council will undertake a Habitat Areas of Particular Concern proposal cycle, which may look at the Bering Sea canyons (the North Pacific Research Board has identified this as a research priority). Salmon bycatch continues to be a high priority issue with the Council. They are working on an environmental impact statement that evaluates establishing additional caps on salmon bycatch in the pollock fishery, and adjusting bycatch closure areas. The Council is also planning on outreach program for this issue, and intends to send staff and Council members out to affected areas. Council discussions of the Steller sea lion protection measures have been put on hold, as NMFS has recently published a revised Steller sea lion recovery plan, and a Biological Opinion is not expected until late 2009.

LCDR Montoya asked whether there was any indication that other nations, for example Russia and Canada, were interested in starting fisheries in the Arctic. Ms Moreland noted that the issue was going to be discussed at upcoming international meetings with those countries. Following on from the Senate

resolution, the US would be trying to set in place agreements to hold off on establishing fisheries or other types of resource extraction in international waters until more scientific information is available. Additionally, Ms Moreland noted that the US and Russia are going to begin talking about Steller sea lion monitoring, especially of Russian stocks. Mr Kurland noted that similar discussions had also taken place at the bilateral US/Canada discussions earlier in the summer.

Dr Jerome Montague – Alaskan Command

Dr Montague noted that there were changes in leadership at the Alaskan Command in May. Relative to the Arctic and the military, the big strategic question is that there is not a single Arctic combatant command with authority in the area. The world is organized spatially into combatant commands, but at the Arctic pole those areas all come together, and so the Arctic is at the northern portion of Atlantic and Pacific combatant commands. There continues to be lots of discussion at headquarters about how to deal with this issue. With respect to other issues, the community of Newtok is being looked at for a training program, where the military would send personnel and conduct training exercises.

James Moore, BLM

The Ring of Fire management plan has been signed, and the lands will now be open for mineral exploration. The management plan for the Alaska Peninsula is out for review, which will open lands around Lake Iliamna, Lake Clark, and also around Goodnews Bay. The old Goodnews platinum mine (located in Goodnews Bay, and shut down since 1970s, although it was in production before that since the 1930s) has gone back into operation. It is currently processing tailings, and modernizing the operation, but full-scale mining is expected later. At full operation, the mine will affect the environmental refuge in that area, and BLM will discuss with USFWS how to address those impacts when the mine is brought back into operation. There is also a fish processing plant in the bay, which may be affected. But the mine will operate entirely on land, there will be no dredging, and no chemicals involved. The Goodnews platinum site is one of only five or six deposits on the globe, so it is inevitable that it will be developed.

Mr Montaya asked how the material would be transported out, whether it would result in increased shipping. Mr Moore noted that they could ship it, or fly it out, because the platinum is a low bulk – high value commodity. He noted that the biggest concern is for the mining concern to explore how to get at the 125 ft of ore that is currently inaccessible, given that they will not be permitted to dig a pit or use chemicals.

Cathy Coon, MMS (handout attached)

Ms Coon provided a broad overview of MMS lease sales under the 2007-2012 development plan. In February 2008, there was a record-breaking lease sale in Chukchi Sea, which yielded 2 billion dollars to MMS, which also translates into a large research budget. The Chukchi leases are for 30 years. There are proposed lease sales in the Beaufort Sea in 2009 and 2011, and in the Chukchi in 2010 and 2012. Scoping meetings for the lease sale in the North Aleutian Basin could occur as early as 2011. There is also a possibility for two sales in Cook Inlet in 2009 and 2011. There has not been much interest in Cook Inlet so far, but MMS will put out a notice of intent to gauge interest.

Ms Coon also reported on the MMS environmental studies program, and provided a handout of current research projects. The budget for this year is \$12 million, which is divided approximately equally between long-term continuing studies and new projects. In the Arctic, a whale study is underway (a collaboration with NOAA), and a study looking at chemical and benthic information in the Chukchi, updating baseline studies from the early 1990s. The focus on the Chukchi will increase as the lease sales approach. The MMS proposal cycle occurs in September, and the agency is looking for nominations for

different collaborative research proposals. The information gathered through these studies encompasses general biology and oceanography, as well as the specific knowledge required for oil impact assessment, and provides many opportunities for broadening ecosystem knowledge for other agencies as well as MMS.

Ms Coon also spoke about the availability Coastal Impact Assistance Program (CIAP) money. Historically, the proportion of this national fund that is given to Alaska is small, but because of the recent lease sale, Alaska will get a larger pool. The CIAP funds are largely passed through the State of Alaska and the Coastal Management Program. Proposals get submitted and reviewed through DEC, and collaboration with the State is required for funding. Mr Hartig added that the State of Alaska's Oceans Subcabinet looks at proposals for the CIAP funding. There was a three year plan as to how to spend the funds (2007-2010), but with additional funds incoming, they plan will be reevaluated. The subcabinet is meeting towards the end of the month to talk about how to spend the additional funding.

Mr Mow noted that, for people in the lower 48, leases for alternative energy projects is a huge new dimension for MMS. He asked whether Ms Coon was seeing anything similar in Alaska. Ms Coon responded that Cook Inlet was evaluated for alternative energy projects a while ago. MMS has changed its name to reflect that broadening from oil and gas to offshore energy, not just oil and gas. The technology is not yet developed yet to utilize some of these forms, for example tidal energy. Projects are being developed on the east coast with wind, but not yet in Alaska.

Jon Kurland, NMFS (handout attached)

Mr Kurland also spoke of NMFS' recent implementation of the Bering Sea Habitat Conservation measures. Regulations that close areas of the Bering Sea to bottom trawling take effect August 25. The measures are part of the Council's overall effort to protect undisturbed habitats. Protection measures were adopted in the Aleutian Islands and the Gulf of Alaska in 2006, and are now in place in the Bering Sea. The Alaska region and the Alaska Fisheries Science Center are providing a lot of assistance to the Council in developing the Arctic FMP. With regard to ESA-related issues, the status of Cook Inlet beluga whales is being reviewed, and a decision on whether to list them under the ESA is expected in October (to factor in the 2008 abundance estimate). Regarding the petition to list the Lynn Canal population of Pacific herring, NMFS determined that it is not a distinct population segment, so the petition is not warranted, but NMFS will conduct a status review of the Pacific herring population in southeast Alaska. With regard to ice seals, there are four species in the Arctic, and petitions have now been received to list all four species. The status review for ribbon seals is underway, and a decision is planned by end of year. A decision for the other three species will be made by March 2009.

In the research arena, NMFS, MMS, the University of Washington, and the University of Alaska are conducting a marine fish survey in the Beaufort Sea. There is currently very little fisheries data available up there. Originally, the intent was to do baseline survey for fish and zooplankton in both the Chukchi and the Beaufort, but they could not get ship time. Hopefully the survey should result in a snapshot of fish for Beaufort. Finally, NOAA has established an Alaska Regional Collaboration Team (ARCTic) which is trying to integrate NOAA services provided by the many divisions, such as Fisheries, Weather, and Satellite divisions. There has been much outreach associated with the establishment of the team, and efforts to pull together an Integrated Services Plan, to call attention to NOAA's capabilities and better integrate them within themselves and with other agencies. Laura Furgione (former head of the National Weather Service for the Alaska Region) has been chair of team, but as she has moved to Washington D.C., Doug DeMaster will be the new chair.

Larry Hartig, DEC (handout attached)

DEC has initiated a risk assessment for oil and gas, which covers the infrastructure on the Trans Alaska Pipeline all the way to the Valdez terminal. The assessment was precipitated by corrosion incidents and the shut down of the pipeline. The agency hopes it will be extended to encompass the Cook Inlet land-based facilities, pending funds. It won't cover offshore oil and gas, which was dealt with in a separate assessment a couple of years ago, and there is a separate plan to do a risk assessment on Cook Inlet water facilities. The North Slope Borough has asked DEC to extend the assessment to look at the outer continental shelf, but there is not time and budget to expand it. The handout explains the status. DEC has engaged a team of contractors to conduct at risk assessment. In the first phase, they will define the scope of project, which is a big task, as the system is huge and integrated system. It is not possible to look at every valve, the assessment will have to highgrade priority areas. The goal is to end with a product that identifies where DEC should target its resources with respect to environmental concerns. Phase one, the scoping process, is scheduled for a year, and will be very open, with a series of public meetings, and outreach to all federal and state agencies to help identify the issues. After that year, the National Academy of Sciences will do a peer review of the scope. The next phase will be to implement the risk assessment, and hopefully that will be on a schedule so that if DEC wants to implement changes, they can still be done under the Palin administration. This is driving the timeline. Dr Montague asked whether climate change would be considered as part of the assessment. Mr Hartig responded that it will be included, but DEC does not want to prejudge, at this stage, whether climate is a major or minor issue.

Following up on an issue from last meeting, Mr Hartig noted that there is no integrated approach in Alaska to contaminants, or mercury levels in fish stocks. He emphasized the need for a more integrated approach among agencies. The long term needs are an ability to do predictive modeling of contaminant levels in fish. He suggested using the February 2009 Alaska Forum on the Environment to invite agencies and indigenous parties together to talk about setting up conference for 2010. The conference purpose would be to talk about what everyone is doing with regard to contaminants, and developing models. At the Forum would be an opportunity to talk about what information subsistence users are interested in getting from the Federal and State governments in terms of contaminant levels. Mr Hartig has the impression that Alaska is behind other Arctic nations in addressing this issue. He asked for AMEF feedback on this idea and approach. Mr Kurland noted that NOAA personnel at the Ted Stevens Marine Research Institute in Juneau would be interested in participating in such discussions. Ms Coon asked whether DEC does research on fish tissue sampling. Mr Hartig responded that the agency does work with ADFG and others who collect fish tissues, which are analyzed during the winter, but that a problem is that the sampling is opportunistic, and there is no overarching plan as where or what type (age, etc.) of fish to collect.

Mr Hartig also noted that the EVOS Trustee Council is still going forward with evaluating the impacts on the Pacific herring populations in Valdez and Cordova, and what to do to restore the herring population. There has been a huge impact on the herring fishery due to EVOS. The Council is investigating the possibility of whether anything can be done economically or biologically to restore population.

Joy Geiselman, USGS

The USGS is involved in lots of research projects in the Arctic. There are studies on polar bears and walrus, and changes in their sea ice environment. Polar bears have already been listed under ESA; in February there was a petition to list walrus, and USGS is helping USFWS to evaluate walrus environment. There was a tagging study this summer, looking at movement and foraging habitats. A new fact sheet is out on walrus and walrus studies, which is available on the USGS website (<http://pubs.usgs.gov/fs/2008/3041/>). On the north coast of Alaska, studies on Arctic cisco are looking at

otoliths and genetics to identify where stocks originate. USGS is continuing to study waterfowl, along the Arctic coastal plain, and looking at how habitat changes affect their distribution.

USGS does not only have biologists on staff, but also geographers and water resources specialists. They are mapping lake ice and sea ice melt in the Arctic, using radar to help quantify ice. Models are also being developed to look at coastal shoreline and changes. This summer established two new stream gauges, thanks to North Slope Science Initiative funding. There is also a study looking at two species of conservation interest, telemetry studies to evaluate where the species migrate to, which has found that species that are north of Brooks Range migrate to Asia, while others migrate south to the lower 48. Tracking Asian birds is particularly important because of bird flu issues.

Mr Brown also added that geographers are looking at lake drying, north on the slope, for waterfowl habitat. They have also done a lot of work with the black and white imagery from the 1950s, and high altitude pictures from the 1970s, and satellite photography from now. A big concern up there is coastal erosion, identifying old well sites that were there, and encroachment on burial sites.

Don Martin, USFS

The USFS doesn't as much interaction with the marine environment. They are funding stream restoration projects in the Chugach and the Tongass. These projects have developed over last 4 to 5 years, using people with good expertise.

Carl Borash, COE

COE sponsored a conference in February to look at future navigation improvements, and the need for ports of refuge in the Arctic as vessel traffic (cruise ship or other vessels) increases. A report has been published, and a long-term study will result from the report that will be evaluating the Arctic as climate conditions change in the next 5-10 years. Most of current projects are concerned with erosion control in western Alaska and the Arctic, and small boat harbors. Money has been allocated for revetments in Unalakleet and Shishmaref, among other communities. Hopefully, the projects will be awarded by end of September, and the projects will occur over the next couple of years.

Hindcast studies are evaluating 20 years of old NOAA charts on pressure gradients to establish what wind and wave conditions would be in Bering and Chukchi, and hopefully will provide better information on expected wave conditions. There isn't a lot of buoy data in those areas which would otherwise provide predictions. In the marine environment, COE is also doing some follow-on studies. In Sand Point, there are small boat harbor studies on mussels and sediments, and contamination studies, which have taken place this year and will next year. There are also similar studies planned for Akutan and False Pass harbors, when the harbors are finished. Also a study on how fast do the rocks recolonize after you put them there. The COE does environmental impact statements for all their studies, so this is a source of information on the areas in which they do projects.

Mr Lassay wondered whether the COE was considering recolonization studies for places like Unalakleet, for the revetment work. Mr Borash responded that the work at Unalakleet is mostly on rocks that are out of the water, unlike the harbors where 20 feet of rock is under the water. Mr Kurland offered that NOAA divers may be able to help on the Sand Point and other projects. Ms Moreland asked about the availability of the data on the predictive wind and wave work, and Mr Borasch noted that the data would be housed in the central COE database in Vicksburg Mississippi, when finished, and would be available on the web.

Shane Montaya

LCDR Montaya noted that the Arctic is big news in the Coast Guard. There was a Russian ship stuck up there just recently. The biggest issue is looking at increased use of the area, and how that impacts the infrastructure, and the need for Coast Guard responses. The Coast Guard is evaluating what will be their responsibilities in 20 years, and looking at partnerships. Another big issue for the Coast Guard is marine fisheries enforcement, but there have been no big issues on the border recently. Also, LCDR Montaya is the co-chair on the Arctic session at the Alaska Forum on the Environment, in February 2009, and is looking for presenters for this forum.

The Coast Guard has also temporarily put a number of small boats up in Barrow, as well as stationed a helicopter up there for 2-3 weeks, to get an idea for how, logistically, they could operate up there. It is a test run in that people are temporarily up there, but as soon as there is a Coast Guard presence, they are operating with their full duties, and have already helped out people in need. One of initial problems has been that the vessels are small (25 ft), so more difficult to run in waters up there, than the clear waters down here. Also, there are issues when the weather changes quickly, and vessels can't get back into Barrow, so have to divert, for example, to Deadhorse. The pilot program is trying to gather all that kind of logistical information. Mr Olson asked whether the Coast Guard is contemplating increasing its assets along the Bering Strait, Nome area, or whether vessels would be stopping in that area for refueling. LCDR Montoya responded that that was being considered for commercial vessels as part of the Arctic Marine Shipping Assessment. But the Coast Guard is not looking at fuel stops for its own vessels, as they will either be there part time, or for their aircraft, or large cutters, will have the ability to go elsewhere to refuel.

Stefanie Moreland, ADFG

Ms Moreland introduced herself, and noted that she has just recently assumed her current position, so was at the meeting to assess how ADFG can contribute to the AMEF.

Update on Aleutian Islands Research Plan (Keith Criddle)

As Brian Allee has now retired, Dr Keith Criddle updated the AMEF on progress with the research project. As the research plan is designed to solicit bottom up input, SeaGrant sent out a survey to all available sources (mailing lists, web, advertisement, etc) that might have ocean interests in the Aleutians, between January and April 2008. Surveys were submitted by 124 individuals and organizations, and 1007 research and information needs were identified. Because of bottom-up process, the research needs are widely divergent in terms of scale – some are very local issues (e.g., sockeye salmon in a particular bay in Unalaska), some are very broad-based (e.g., need better information on stock structure in the Aleutians). At the current time, Dr Criddle and his associates have examined the responses, distributed them according to appropriate themes, consolidated them to avoid redundancies, and set aside responses outside of the scope (mainly those that were recommending management action versus recommending a research or information need). They ended up with 308 unique research and information needs across 6 themes and 27 objectives. He then convened a panel of stakeholder expertise (agency and individual) to use the Analytic Hierarchy Process to sort through the research needs and come up with a research plan. At the two-day meeting, the group did not get through all of the themes and unique research needs, but did get through some. The others will be addressed through email and follow up teleconferences.

Ms Moreland commented on the approach taken to prioritizing the research issues, and noted that it involved a very diverse set of stakeholders. Dr Criddle confirmed that it is a very different approach than is often taken for research plans, and noted that he intends to do sensitivity analyses at the end of the process, to see whether different issues are critical among individuals with different affiliations. The

sensitivity analysis will help to indicate whether the process delivers a good product. Ms Moreland also asked how the composition of the panel to prioritize the research needs was arrived at. Dr Criddle said that they wanted to include agencies that they thought would have a key role in research or management of living marine resources in the AI; they also wanted representatives from communities and local government in the AI, and also representatives from commercial fishing and environmental organizations. Given that as desirable mix, they then approached these organizations to identify someone from to come and participate.

Dr Criddle also noted that the University of Alaska has just received support from the National Science Foundation to start graduate training program in Marine Ecosystem Sustainability, beginning in fall 2009. This would be an interdisciplinary graduate program. Each year for the starting class, the faculty would identify one marine related theme (e.g. operations of living marine resources in Glacier Bay). Then the biological, ecological, management, social science perspectives would all be introduced with respect to that theme. The goal will then be for students to do an interdisciplinary dissertation, with an applied dimension. Dr Criddle is looking for suggestions for these important theme areas.

Update on the Aleutian Islands Risk Assessment (Gary Folley) (handout)

Mr Hartig began the discussion by noting that it is interesting to hear the important theme in all these Arctic discussions about increased vessel traffic, but in fact the first evidence of increased vessel traffic in Alaska is in the Aleutian Islands. He noted that the AI risk assessment should also provide more information on what will be needed as we go north.

Mr Folley explained that the assessment came about due to the settlement for the Selendang Ayu, which included \$3 million to be used for an AI risk assessment. The State also had modest funding, and thought better to commission the National Academy of Science for a methodology for the risk assessment, to come up with a framework, before jumping right in. The report from the National Academy is now available. It involves five steps: hazard identification, risk analysis, risk control options, cost-benefits analysis, recommendations for decision-making. The scope of the assessment focuses on spills from vessels in the AI region. The recommendations are that it should be conducted in two phases: a) generalized, b) focused. The report also says that it should include quantitative fate and effect risk analysis, which will be difficult. Under Phase A, an initial traffic study has already occurred (and is on the DEC website). This phase will also require a qualitative assessment. Under Phase B, an in depth evaluation of risk reduction methods, and comprehensive cost benefit analysis will occur.

Some report contains recommendations for management, advisory, and peer review teams. Some immediate action recommendations in the report include: expand the automatic identification system (AIS) tracking network (responsibility of the USCG); have a rescue tug out in Dutch Harbor (DEC starting to look into that now); look at a possible structure and costs of a Vessel Traffic Information Structure; and look at establishing traffic lanes throughout the area. The key principles for success are to keep the assessment focused, involve stakeholders, and apply a phased approach.

LCDR Montaya and Mr Folley clarified that the timeline is to plan the two phase approach, and for DEC and USCG, and funders, to put together the teams, and start drafting the Request for Proposal for the Phase A risk analysis. The National Academy of Sciences put together a 24 month schedule; Mr Folley thinks this schedule is too aggressive, and is unlikely to be met. Mr Hartig added that there are many issues even with implementing the immediate recommendations. A rescue tug costs \$3 million a year, and there are issues with where you keep it (the AI is a large area). Can one tug accommodate some of the really large container ships? Re the other recommendations, how can the State go about getting transponders on all ships, when they may not stop at US ports. So the State may need to go through international insurance organizations in order to get that to happen. State has no 'hook' into these vessel

owners. Also, vessel owners do not always call when they first have a problem (e.g., as occurred with the Selendang Ayu). There are lots of logistical issues to resolve. LCDR Montoya added that the \$3 million funding may help with planning the risk assessment, but the cost of implementing many of those recommendations may be much higher.

Alaska Climate Change Strategy (Larry Hartig)

The Governor issued an Administrative Order (AO) on Climate Change, dealing with mitigation needs (how to reduce or capture carbon), adaptation needs (how to better prepare for warming environment). Mr Hartig is the chair of the Governor's climate group, to address the AO. The scope of this action is that 180 people engaged in these workgroups, and processes. People are really looking at Alaska as the leader in this area, and Mr Hartig is getting lots of calls from other states as to how to tackle these issues. The State is getting great partnership from the Federal agencies.

The AO also says to give priority to the most at-risk communities. In response, an immediate action workgroup was formed to deal with priority issues (chaired by Trish Opheen, COE, and Mike Black, Deputy Commissioner of DCCED). The workgroup has made recommendations for six communities (the report is on the DEC website), such as emergency preparedness, for example, against a storm surge, revetments, and specific recommendations for Newtok (which has to be moved). The State funded all the projects/ recommendations for these six communities. \$40 million of Federal funds came to Alaska to add to State funding, and that should take care of Shishmarek, Kivalina, and Unalakleet. For Newtok, State is doing emergency planning, to determine what can be done until the community can be moved. A new site has been identified, and the community now has title to the new site. An ad hoc working group is working with the community, but there is no specific funding for the move. What is currently being suggested is to get the Navy to put a road between the barge site and the new community, and build a structure on the new community site which could serve in an emergency, and eventually be turned into a community building. The workgroup is still meeting to figure out how to continue work on the six communities at risk. In the meantime, GAO did a 2003-4 report on villages most at-risk from climate change and flooding, and they are returning to Alaska to update their report, and will suggest criteria for prioritization among these communities. DEC is considering convening a roundtable, perhaps with the Denali Commission, to bring in other State and Federal agencies, e.g. Post Office, to figure out a plan when these agencies should be brought into the process.

Another path under the AO is an overall strategy for mitigation of the effects of climate change. The group is seeking public input through facilitated workgroups, to come up with recommendations for the two advisory groups (for mitigation and adaption), which will then be forwarded to the Oceans subgroup for Governor's action. These recommendations should be ready within a year. All recommendations are also feeding into other groups.

North Slope Science Initiative (John Payne) (handout)

The North Slope Science Initiative is a consortium, generally of management agencies, although some are also regulatory agencies. It is organized by an oversight committee. There is a very small staff which is responsible to them. BLM is the administrative agency for the NSSI, but Mr Payne works for the oversight group/consortium. BLM and USGS formed the idea originally, because much of the data and information on the North Slope was scattered. They were originally interested mainly for oil and petroleum reserve data and impacts. No one had a comprehensive idea of what projects were going on (there are 541 projects going on there right now). There is lots of money being spent on research or studies. So the duty of NSSI is to try to come up with a comprehensive 'handle' on what is going on on the slope, and what are the information needs. Some clear needs are: a 'one-stop shop' for information; a map that isn't agency specific; and north slope hydrology information. One of the biggest challenges for

the NSSI is that each agency has specific mandates, and it is difficult to get past the narrow focus and see the broader perspective. The NSSI was formalized in the Energy Policy Act of 2005; it is good to be formalized, but they have to struggle to maintain a broader focus that just energy. The formalization came with limited funding, and Mr Payne now has a deputy (Denny), and a junior position.

The Mission and Vision for the NSSI is defined in the Business Plan. The Mission includes a context of development activities and climate change. NSSI does go offshore (terrestrial, aquatic, and marine ecosystems). There are eight broad objectives, which include data sharing, inventory of research activities, identify information needs, coordination among agencies. The oversight group is made up of senior employees of member agencies; there is a staff committee (worker bees from member agencies), and a science technology and advisory panel. Some projects the NSSI is working on include hydrologic gauging stations. Such stations are really expensive: there should be 60 on the north slope, and there are currently eight operational (NSSI just put two others in ANWR recently). The NSSI could spend all their budget on gauges, however they are also working on other accomplishments, such as trying to bring closer ties between managers and research. With divergent mandates, this can be a big issue. NSSI conducted an exercise, to figure out information needs, asking for responses in general categories, and identifying specific issues, and data needs, and the timeframe required for information. The process was to approach senior staff for the management questions, then get input from science panel, and then pass on recommendations to the oversight committee. The handout identifies many of the management questions.

As a plan for moving forward, it has been suggested that in order to be effective, NSSI needs a budget on the order of NPRB. But Mr Payne believes that NSSI can still be effective as an organizer of collaborative efforts, and they are still working through ways to make that happen. Particularly, they are still working on ways to use traditional ecological knowledge in those efforts. The website for further information is www.northslope.org.

Election of Officers and Next meeting

The Memorandum of Understanding is structured so that the current Vice-Chair, Larry Hartig, will be the next Chair of the AMEF, and he will be chair for the upcoming year. Jon Kurland suggested Marcia Combes, of EPA, for the next Vice-Chair, and the group concurred. She was unable to attend this meeting, so Mr Kurland and Mr Hartig will be in touch with her to see whether she will accept the position .

The group agreed that we should aim to hold AMEF meetings every six months. January-February 2009 was identified as the timeframe for the next meeting.