

***NORTHWESTERN HAWAIIAN ISLANDS
CORAL REEF ECOSYSTEM RESERVE ADVISORY COUNCIL WORKSHOP***

January 20, 2011, 9:00 am- 4pm
Office of National Marine Sanctuaries

Meeting Minutes

ATTENDEES

Advisory Council Members: Tim Johns (State of Hawai'i); Linda Paul (Conservation); Louis "Buzzy" Agard (Native Hawaiian); Rick Gaffney (Recreational Fishing); Gail Grabowsky (Education); Cindy Hunter (Research); Don Schug (Research); Laura Thompson (Conservation); Jessica Wooley (Conservation); Asuka Ishizaki (WESPAC for Kitty Simonds); Malia Chow (Hawaiian Islands Humpback Whale National Marine Sanctuary (HIHWNMS)); 'Aulani Wilhelm (Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve (NWHI CRER)); Lydia Munger-Little (NMFS for Mike Tosatto); Tom Edgerton (US, Fish and Wildlife Service); Bill Gilmartin (Research); Kem Lowry (Citizen-At-Large); Eric Roberts (US Coast Guard); teleconference: Tammy Harp (Native Hawaiian); teleconference: David Laist (Marine Mammal Commission);

Absent: Danielle Carter (State of Hawai'i); Take Tomson (NOAA – OLE); Becky Hommon (U.S. Navy); Carlos Andrade (Native Hawaiian); Bobby Gomes (Commercial Fishing); Kitty Simonds (Western Pacific Fishery Management Council (WPFMC)); Philip Taylor (National Science Foundation); Mike Tosatto (National Marine Fisheries (NMFS)); Matthew Zimmerman (Ocean-Related Tourism)

Alternate Council Member: Brian Bowen

[NWHI CRER Staff]: David Swatland, Andy Collins, Dan Dennison, Wesley Byers

[National Marine Sanctuaries Pacific Region]: Allen Tom, [US, Fish and Wildlife Service]: Dan Polhemus, [US, Fish and Wildlife Service]: Ray Born

[Members of the Public]: Lauren Garske (Public); Ilana Nimz (Public); Barbara Mayer (Public); Karen Breitlow (Public); Judith Tarpley (Public); Rusty Nall (Public)

PURPOSE OF THE MEETING:

- 1) Receive updates on Monument efforts
- 2) Research Updates
- 3) Report on Navigating the Future of Marine World Heritage managers meeting

I. CALL TO ORDER (JOHNS)

Council Chair Tim Johns called the meeting to order

Opening Protocol – [NWHI CRER Staff]: Lasha-Lynn Salbosa

Mr. Johns reviewed the agenda for the meeting.

Swatland: I would like to have Topic J begin at 2pm and Topic H begin at 2:45pm. **Johns:** Okay

Video tribute to Dr. Isabella Abbott. **Tammy Harp, Bill Gilmartin, ‘Aulani Wilhelm, Linda Paul, Dan Polhemus, Brian Bowen** and **Tim Johns** shared reflections. **Harp:** I will send an article to Wes of an interview of Dr. Abbott in Maui News.

II. REVIEW AND APPROVAL OF MINUTES (JOHNS)

MOTION: A motion was made by Tim Johns to approve the minutes from the last meeting. Motion carried unanimously by voice vote.

III. OFFICER NOMINATION FOR COUNCIL SECRETARY

Johns: Kem Lowry has been nominated for Council Secretary. Are there any other nominations from the floor?

MOTION: A motion was made by Tim Johns to close the nominations. Motion carried unanimously by voice vote.

Johns: The nominee for Secretary is Kem Lowry. Kem Lowry elected unanimously by voice vote.

IV. TOPIC A: MONUMENT CO-TRUSTEE/MGT. AGENCY UPDATES (CARTER, EDGERTON, WILHELM, ROBERTS)

Johns: State of Hawai'i representative Danielle Carter will not be here today due to illness. Wes will circulate the PowerPoint presentation. If there are any questions or comments please let us know.

Tom Edgerton, USFWS: I do have a handout, a seven page report and I'll cover items which I think are highlights. I'm new on the job, just over two months and extremely excited and pleased to be here. Please go to page one, fourth paragraph, Monument Management Plan: invasive species removal on Tern Island, major success at Midway, 95% of the invasive Chinese Banyan trees have been removed and we expect to remove the rest in the next couple of months. Since our last report, we have had three emergency medivacs, involving ships or folks from Japan, Vietnam and the Philippines. Thanks to US Coast Guard, Chugach Industries and Medcor in terms of helping us make sure they were safely evacuated and taken care of. We will soon be releasing the draft Engineering Cost Analysis (ECA) for the cleanup of lead-based paint from structures and contaminated soils around those structures on Midway. Six alternatives for removing those contaminants over a period of about six years at an estimated cost between 8-12 million dollars depending on which alternative is chosen. That report is open for public comment for 30 days starting yesterday. Let me know if you have any questions. Visitor Services: at least 75 visitors and staff were briefed on cultural values of the NWHI using the CD that you are all aware of. Visitor season has started last month, a group of 17 people who visited from mid December to the 20th. Operations: Maritime Air - Midway's air contractor for several years, had mechanical issues that lasted for quite some time. FWS has reissued a temporary contract for Phoenix Air that is currently flying. Details on the plane - cutting back on a third of the flight time from Honolulu and Midway, takes around 3hrs compared to 4.5 hrs before, contract is up through the end of February, winner of permanent contract will be announced shortly. Golf Cart:

one of our efforts to help make operations green. FWS made the first solar vehicle on Midway. I have not made it out to Midway yet, but it is one of my priorities. Research and Monitoring: Miller bird translocation continues to move forward. Laysan ducks are doing well. Weekly surveys have found over 400, largest count on Midway 337. Biggest news on the nesting process of the Short Tailed Albatross. We have first successful nesting and first chick of a Short Tailed Albatross born in the Hawaiian Islands in recorded history. Happened last Friday and still working on verifying that. Did have a successful Albatross count, total on Midway ½ million, Laysan Island about 140,000. Staff changes: new Wildlife Refuge Manager position on Midway is still open. Will make an announcement within the week. Working on filling the Visitor Services Manager position at Midway who will be based in Honolulu and will still be spending half their time on Midway. Will fill the position within the next couple months. Made a selection for Seasonal Interpreter at Midway and will make the announcement within the week. Asset Management: At Tern Island significant lightning strikes and damaged equipment. We will put a lightning rod out there. Recent storm on Midway and we believe we lost over 10,000 nests due to flooding. WWII pill box was also damaged. Collaboration: volunteers on Tern Island, Manager Paula Hartzell, initiated partnerships with four different schools to work with students and classes and involve them in some of the research that they are doing. Work has been ongoing for about two weeks now. **Gilmartin**(question): Is there a boat that can go from Midway to Kure? **Edgerton**: I'll defer to Ray Born. **Born**: None of our boats are capable of getting there in severe weather. During a flat calm summer time, a big safe boat can do it, but winter weather we would put our crews at significant risk. **Wooley**(question): Could you explain the local school program? **Edgerton**: There are four different major research programs out there at least two of them deal with the Laysan albatross. One has to do with the flight in winter time, another is related to their nesting success on Midway. **Wooley**: Please explain the logistics behind the program at Tern Island and the schools. **Edgerton**: Paula made contact with the schools and they make internet connection at least once a week or every other week. Biologists are talking to the students about their work during these interchanges. **Wilhelm**(question): Tom could you ask Paula for a summary to circulate to the RAC? **Edgerton**: Yes, I will certainly do that.

'Aulani Wilhelm, NOAA: Agency Coordination: all of our permit coordinators held their first annual retreat to look at how we will keep improving. How do we better inform and do pre-access training? There is now a brochure for people interested in getting permits. I give the permit coordinators lots of kudos for coming together to proactively identify trends and share best practices. Constituency Building and Outreach: we celebrated our 10th Anniversary, more than 400 people gathered (shows 10th Anniversary Video). If you want to share the video with anyone, those vignettes are on our website. 10th Anniversary Outreach and Media: we had a naming contest for a plush toy monk seal. We had an event at Bishop Museum in partnership with Hawai'i Undersea Research Lab (HURL), our very first research partner. Other Media and Photography: We had an exhibit with Wayne Levin, talking about the power of photography and honor the various photographers over the past ten years. Education: PAA participant, Marion Ano, held a photo exhibit. We hope that participants are inspired to find ways to share their experiences. Side note about the PAA program - we have decided for unsure budget reasons and lots of other reasons to take a year off. We want to make sure we are checking back with participants to make sure they have what they need to have that ripple affect that we intended. Field Operations: continue to innovate our invasive species prevention program to make sure we are getting the cleanest possible hulls up there. Talk to Scott Godwin for more details. Native

Hawaiian Program: hosted 8 students from Hālau Kū Māna charter school. Learned firsthand how traditional Hawaiian knowledge is combined with western science. Native Hawaiian students encouraged to think about double majors in college. Research: 2011 Journal of Marine Biology, 15 of 35 papers currently accepted for the Journal of Marine Biology an open access, peer reviewed journal are written by researchers and scientists who either work for the Monument or have close ties or cooperative research agreements with Papahānaumokuākea.

Bowen: This is huge and it is going to put a spotlight on the Monument in parts of the world that have never heard of it. There's no other marine sanctuary in the world that has this. **Wilhelm:** That really is thanks to our partnership with HIMB. We are doing really important management science partnership research and as a result it's been worthy of this kind of international profile.

Bowen: It is completely open access, tap Journal of Marine Biology, and I encourage you to get the one spearheaded by Rob Toonen, that shows where the ecosystem breaks are in the NW and in the main Hawaiian islands. **Johns**(question): Is this strictly an online journal? **Bowen:** They make hard copies. **Polmehus:** For the non-technical people the article on Marine Resource Management in the Hawaiian Archipelago: The Traditional Hawaiian System in Relation to the Western Approach might be of interest. **Wilhelm**(continues): First Census of Marine Life 2010 has been released. Strategic Initiatives:(shows World Heritage Inscription video). **Paul**

(question): On February 25th, there is a joint NWHI symposium scheduled, could you tell us a little more about that? **Wilhelm:** Every year Pacific Islands Fisheries Science Center, Hawai'i Institute of Marine Biology, Papahānaumokuākea Marine National Monument have put together a symposium. The Symposium will feature two days of contributed papers on a variety of research topics (primarily biological sciences) by HIMB, NMFS, and PMNM scientists/staff. The public is welcome and will be held at East West Center on campus. **Grabowsky:** I think I'm hearing a call for the Education Committee to meet to discuss ways to help people when they return after PAA. **Wilhelm:** That would be great. **Grabowsky**(question): Is the education budget a problem? **Wilhelm:** I don't know if it is problem. I think when you do education it takes time and is resource intensive. I think we should sit down and look at that.

Eric Roberts, US Coast Guard: copy of report is in the folder, not a whole lot going on up there. We continue to fly our monthly flights, 9 ½ times out of 10 we don't see any vessels at all. Every once in while we will see the NOAA research vessel or we will see transiting domestic fishing vessels. We also continue to monitor the entry/exit lists that are provided by Monument staff. A lot of our work has been reduced by the buyout of the bottomfish fishing fleets. With them gone, the long line fleet will occasionally transit through or near the borderlines of the monument. Monument Law Enforcement Working Group did meet last week after about 10 months. We had representatives from NOAA-OLE, NOAA General Counsel, the US Coast Guard, FWS-OLE. We did not have a DOCARE represent there. **Johns**(question): Didn't the DOCARE administrator resign? **Roberts:** Yes, we will try to reach out to the next person. **Roberts:** We will try to meet semi-annually and we plan on inviting monument staff to come to our next meeting. We did go over all of our efforts for 2010 and there were no cases that originated in 2010. There are two or three remaining cases from 2009 that will go to trial soon. We revisited the 3 strategies in the Enforcement Action Plan from the Management Plan. We have made progress in all three areas. There is now a full-time law enforcement officer on Midway, FWS. We are continuing to devote assets up there. We are continuing to offer our resources to NOAA-OLE, DOCARE and FWS to do joint patrolling. In terms of threat based detection and monitoring strategy, we are using the BMS. BMS which only captures a small percentage of vessels that

could be up there, although it may be capturing most of vessels, we just don't know. Multi agency COPPS/interpretive enforcement program we worked with NOAA-OLE and WESPAC to distribute stickers and magnets that distributed to all domestic fishing vessels and masters that provides a number to call if anyone sees illegal activities. Additionally, ONMS has created an enforcement guide for HIHWNMS and just finished a patrol guide for the Monument. This will be a part of the aircrew packets that they will carry with them in the planes.

Gilmartin(question): Are your monthly flights on a regular schedule? **Roberts**: No, they vary. A minimum of 1 flight per month, but often times more.

V. TOPIC B: NAVIGATING THE FUTURE OF MARINE WORLD HERITAGE (WILHELM)

Wilhelm: At the previous meeting we shared that NOAA ONMS was approached to host the first ever gathering of Marine World Heritage Sites. After we were inscribed in July they asked if it could be hosted here. Tim Johns was asked to be the facilitator. Thirty nations attended and it was a really successful meeting. There will be a final report and when we get it we'll circulate it to you. We were represented by Dan Polhemus, Heidi Guth and myself (shows Marine Managers Conference video). **Wilhelm**: Big Ocean is a network of the world's largest scale marine protected areas. The idea is something that I've been developing and thinking about for the past couple of years. More and more it became evident that we have a responsibility to bring people together. The Great Barrier Reef in 2010 celebrated 35 years and was a pioneer of large MPAs. Why Big Ocean? Five of the largest MPAs in the World have been established or announced in the last two years. Large MPAs pose many unique management challenges and opportunities. Big Ocean's initial network focuses on "Large-Scale" and consists of MPAs approaching or exceeding 100,000 mi² (250,000 km²). Inaugural Meeting: December 6, 2010 in Honolulu, PMNM Offices and convened by sister sites PMNM and PIPA. Seven Founding Sites/Members: Papahānaumokuākea Marine National Monument (USA), Phoenix Islands Protected Area (Kiribati), Great Barrier Reef Marine Park Authority (Australia), Mariana Trench Marine National Monument (USA), Coral Sea Conservation Zone (Australia), Motu Motiro Hiva Marine Park (Chile) [Formerly Sala y Gomez], Chagos (UK, British Indian Ocean Territory). Facilitators: John Parks, Sue Taei, Gene Brighthouse and Sponsors: ONMS and Conservation International. Purpose & Objectives: Purpose: To initiate the process for designing a large-scale Marine Protected Area learning network. Objective: To convene site managers for the purpose of designing a learning network that will allow for the sharing of experiences, lessons learned, and resources needed to more efficiently manage the world's largest marine protected areas. Objective: To identify and outline the steps necessary to design and maintain the learning network and to propose specific aims and activities for the group to undertake. Objective: To develop a statement that communicates the rationale for and purposes of this new large-scale MPA learning network and the commitment of its members. Meeting Outcomes: Finalized name Big Ocean: a Network of the World's Large-Scale Marine Managed Areas. International Communiqué: A draft Communiqué was completed. The group agreed to finalize by late January and to post publically in early-February along with a press release. Website: BigOceanManagers.org The draft web site was made live and features basic information about Big Ocean. Expansion of the site will happen over time after further discussion by the group. List-serve & web-based communication technologies: An invitation/referral-only "Big Ocean list-serve" will go live in early February. Following that will be the development of a "google-doc-like" interface to allow managers to share content in a safe, secure environment. Next meeting: International Marine Conservation Congress, Victoria, BC, Canada, May 14 – 18,

2011. **Johns**(question): How will you coordinate with UNESCO? **Wilhelm**: They are on our list serve and they will share our information with other large sites.

VI. PUBLIC COMMENT – No one from the public volunteered to comment.

VII. TOPIC C: REQUEST FOR STATUS REPORT ON THE SCIENCE PLAN (KOSAKI)

Kosaki: Can I present the Science Plan first and then the field research after? **Johns**: That's fine.

Kosaki: The Science Plan is very close to being done. Agency Contributors to the Science Plan Writing, Prioritization, and Review: OHA - Heidi Guth, USFWS / ES - Steve Miller, LeeAnn Woodward, Jeff Newman, Dan Polhemus, USFWS / Refuges – Steve Miller, Susan White DLNR / DAR –Dan Polhemus, Cori Kane, DLNR / DOFAW – Athline Clark, Cori Kane, Cynthia Vanderlip, NOAA / NMFS – Nori Shoji, Margaret Akamine, Lydia Munger-Little, NOAA / NOS/ONMS - Randy Kosaki, Kaylene Keller, Elizabeth Kehn, Heidi Schuttenberg. Priority Management Needs: understanding and interpreting the NWHI, conserving wildlife and habitats, reducing threats to the ecosystem, managing human activities, coordinating conservation and management efforts, achieving effective monument operations. For further explanation of NRSP Prioritized Lists of Research Activities, Prioritization and NRSP prioritization by research theme (see PowerPoint presentation). Next (last) Steps: presented to MMB on Jan. 13, 2011, final comments from MMB by Feb. 28, final draft to MMB by March 11, MMB takes action to adopt final draft at next meeting on April 1. **Johns**(question): When do we get to see it? **Kosaki**: The RAC has submitted comments, but I could email it out. **Gilmartin**: I'd like to see it. **Johns**(question): Could you send it by email? **Kosaki**: Okay. **Chow**(question): Did you make the comparison with using the NWHI as a relatively untouched area to the main Hawaiian islands? **Kosaki**: As appropriate, that thought is in there, but really it is a NWHI plan. **Grabowsky**(question): Is it dynamic where categories could be added or taken away? **Kosaki**: Definitely not a static document there is a lot of flexibility and we plan on revisiting this within the 3-5 year window. **Grabowsky**(question): What is the process for coming up with the categories? **Kosaki**: We held workshops with agency scientists to see what they thought were the important management information needs, captured existing and ongoing research either through permits or interviewees with scientists that are working up there and then went to the Management Plan. We looked for explicitly stated research actions as well as not explicitly stated research actions but more information needs that were apparent in the plan, but not expressed as a research activity. **Johns**(question): Will we get a briefing of it at the next meeting? **Kosaki**: Yes. There is also a notion that we should do that for the state land board, so that they might be able to use it as a permit evaluation tool when permits requests come in to see how well that lines up with research needs.

VIII. TOPIC D: DEFERRED FROM OCT MEETING, FIELD RESEARCH (KOSAKI)

Kosaki: 2010 Research Cruises: May: 25 day Maritime Archaeology Cruise, June: 10 day Holo I Moana Cruise, August: 29 day Mesophotic Cruise characterization (technical diving). Divers using conventional SCUBA have explored depths above 25 meters. Submersibles have mostly explored depths below 200 meters. We may know more about the ocean floor than we know about the deep coral reefs. Photosynthetic corals to at least 165m. Technical diving is the only way we can safely access these depths. We take advantage of high-tech devices including a multibeam sonar. We get 3 dimensional images of the bottom. We are finding old shorelines and sea cliffs that were drowned when the glaciers melted. Now they are great fish habitat. They are

great grounds not just for the fish but black coral are also a big component of these communities. These are Mesophotic Coral Ecosystems: 1-10% of surface light, presence of zooxanthellate corals and 40-150+ m. We had Dr. Jim Maragos, FWS, on board and he is arguably the coral expert in the tropical Pacific. According to Jim, we came back with about 15 new species of coral from the Monument and about 10 from the Mesophotic depths. We found a heavy dominance of Hawaiian endemic fish species. Beyond Hawaiian endemics, we added a lot of new records to the NWHIs. Across the board that averaged out to about 15.5% increase of the known fish diversity from these islands. That is a very significant bump up of the known diversity of these coral reef ecosystems. With the technical diving we are rapidly increasing our understanding of these ecosystems and adding a lot to the known diversity of the NWHIs. On the deep coral reefs, we are looking at 90% of the fish assemblage being composed of endemic species. That really puts us in a league of our own. How do NWHI MCEs rank globally? When you add the NWHIs deep communities, that puts us off the scale by a factor of two, compared to almost anywhere else on earth based on the literature reviews that we have done. For the time being at least, we have the ecosystem that has the highest level of endemism on earth. We had a permit with the Waikiki Aquarium and collected deepwater endemic species for an upcoming NWHI's display that will open later this year. A couple of these deepwater endemic species will go over to Mokupāpapa, our discovery center and aquarium facility in Hilo. We have a grant proposal in to National Geographic using acoustic receivers to start looking at the movement patterns of big apex predators. We want to see whether they are moving back and forth between deep and shallow reefs. **Paul**(question): With regards to Taape fish have the numbers at Midway increased? **Kosaki**: Since we have been doing surveys the last ten years, no. **Paul**(question): When you start publicizing photos on the web of rare corals and fishes will that attract the people up there to poach? **Kosaki**: We believe that it is not economically feasible to poach these fish. **Gilmartin**(question): Along the same lines, in your black coral paper, why would you put commercially valuable in the title in essence because of the location they have no commercial value? **Kosaki**: That's a good question for Dan Wagner, I did pose that to him. His rationale is the NWHI is sort of a refugium and they would not be harvested.

IX. LUNCH: ASSESSING THE ROLE OF SCIENTIFIC INFORMATION IN SANCTUARY MANAGEMENT (GARSKE)

Garske: a Ph.D. candidate in Ecology at the University of California, Davis and a 2009 Dr. Nancy Foster Scholar (NOAA) research on Sanctuary Advisory Councils: Assessing the Role of Scientific Information in Sanctuary Management. What I am doing here? ONMS Collaboration and part of my dissertation research. Science matters to society, but it has to be relevant and it has to be accessible and it is only one facet of consideration. How do scientists share their knowledge? Often disconnected from the management and policy processes. This ecologist delves into social science to answer questions about science. How does scientific information (SI) play a role in management & policy decisions? Initial focus on coastal water quality networks and now extended to ONMS & advisory councils (all 14 sites). Research Goals: Evaluate the flow of SI through advisory councils as well as its valuation and use where recommendations are made to sanctuary managers. Assess how sanctuary managers value and use council recommendations along with their own understanding of the SI. Identify conditions under which SI can facilitate collaboration and improve the effectiveness of sanctuary management. Why does it matter? Locally: Improve the overall understanding & effectiveness of sanctuary management across multiple spatial scales &/or characteristics advisory council-NMS

feedback loops. Potential to highlight advisory councils & ONMS as a model system for incorporating stakeholders and science. Why does it matter? Generally: Inform current lack of academic understanding about the role of SI in resource management decisions. Offer perspective to scientists seeking to improve their communication of relevant findings to appropriate audiences. The Details: Stage 1: Observational Visits, West Coast Region (5 sites). Stage 2: Introductory Visits & Interviews introduce self & research exploratory interviews w/ advisory council members and NMS staff (n ~ 10). Stage 3: Online Survey all council members, relevant NMS staff, and relevant working groups. What ACs & ONMS get out of it? An opportunity to share your individual perspective. Products: preliminary results @ 2011 SAC Summit, official report to ONMS & SACs, publication as a chapter of my dissertation, publication in academic journal(s). How you can help. Stage 2: Interviews (Sept 2010 – Jan 2011) standardized – across all sites selected – by site & perspectives offered – ANY staff or council member who is interested. Stage 3: Online Survey (April 2011) all council members, including alternates key NMS staff (local, regional & national), key working groups. Confidentiality & Time: Interviews & survey responses are considered, saved and reported on anonymously. Questions can always be skipped or discussed off-record by your choice. Interview: 30-60 minutes. Survey: 30 minutes. **Bowen**(question): What’s your opinion on the role of scientists as advocates? **Garske**: My personal choice is not to advocate as a scientist, but to be informed and provide information. **Bowen**: Some scientists do it very well. **Grabowsky**(question): Have you been finding a mixed bag on that? **Garske**: I really think it is a personal choice and if you step too far into advocacy, you might not be readily received. **Bowen**: A few years ago there was an editorial in the Journal, Conservation Biology, in which the author wrote about prairie lands. He wrote we need more research to show how bad grazing is for prairie lands. Are you going to trust his objectivity for that research? That kind of advocacy can really undercut the effectiveness of scientists. **Garske**: I agree. The types of questions I’m trying to ask in these interviews has to do with where people access information and how do you decide when that information is good or not to use. Sources certainly being part of that. **Gaffney**(question): What percentage of scientists do you see supporting the council process? **Garske**: Having done only the interviews at this stage, there is definitely a mixed bag. **Ishizake**(question): Once you make the report then what happens? **Garske**: The data will help guide that decision. I agree that it needs to do something more than beyond paper. **Schug**(question): I look forward to working with you. Do you define science up front? **Garske**: I let you define science for the conversation. **Johns**(question): Why did you choose the topic? Did it come from a place where someone thought there might be ways to improve how science is used or is not used in policy decisions or management decisions? **Garske**: It started from the question, if I’m a scientist working on applied issues and I have relevant information to share, how do I get it to the people who need to use it? It has really grown from that. **Johns**(question): Do you have to analyze decision making, policy making and management decision making in order to decide whether there is some input from science or scientists? **Garske**: Yes, looking at how, when and what kinds of science information is considered useful by the people who make decisions. **Lowry**: This is an important enough topic that some foundations including Pew, now organize workshops for scientist on how to do more effective scientific communication. The idea is to help scientists speak to policy makers and to media in ways that are going to be understood. **Garske**: Within the past year that I’ve been working on this we have been seeing a lot of people who are starting to think about this as well.

X. TOPIC E: MONUMENT ALLIANCE DEVELOPMENT (COLLINS/SWATLAND)

Collins: Main things I'd like to cover: Where we've been, what we have gone through, where we are now and where we need to get too. Review: Activity CBO-3.5: Establish and support a Papahānaumokuākea Marine National Monument Alliance to engage a broad range of constituents, who will provide recommendations and information on specific management issues on a regular basis. Activity CBO-3.6: Continue to support the Native Hawaiian Cultural Working Group through the Office of Hawaiian Affairs. Activity CBO-3.7: Continue working with the Friends of Midway Atoll National Wildlife Refuge through FWS and support the establishment of a Monument-related "friends" group. Activity CBO-3.8: Continue to convene the Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve Advisory Council through NOAA's Office of National Marine Sanctuaries until the Monument Alliance is established.

Reviews Development Rough Process Timeline: March 19, 2009 – RAC meeting, discussed transition to Alliance, formed RAC Alliance WG to develop Alliance recommendations, June 9, 2009 - RAC Alliance Working Group Recommendations, July 1, 2009 - MMB Alliance WG Mini-Retreat, July 15, 2009 MMB meeting – review Alliance WG recommendation, August 10, 2009 – RAC approves and submits (4) recommendations from the Monument Alliance Subcommittee relating to development of a Monument Alliance, September – November, 2009 – MMB Further refinement of Alliance (operational norms and begin development of application process), September 2, 2009 RAC Meeting - established RAC working group for Alliance Charter, October 28, 2009 MMB Meeting (agreement on selection process), October - December, 2009 – Finalize applications, 2010 – Agency internal consultation on advisory bodies, Late 2010 Obtain General Council advice, March 2011 – Solicit applications, 2011 – Seat Individual Advice Alliance members. Covers Recommendations from the Reserve Advisory Council As approved by unanimous vote during the June, 2009 RAC meeting: Recommendation 1: The purpose of the Monument Alliance would be to: Carry out the Vision, Mission, Guiding Principles and Goals for the Monument, Provide effective advice that influences and informs the management of PMNM resources; Provide broad representation of stakeholders and constituent groups; Inform community; Provide a discussion forum; Provide a voice, conscience, and institutional memory for the place; Provide feedback on management actions. Recommendation 2: When defining its responsibilities, Monument Alliance should seek to: Offer opportunities for informed, constructive engagement with managers before formal review processes commence; Act as liaison with user groups and the community; Provide guidance to managers on the Monument Management Plan implementation, review and revisions; Contribute expertise on various aspects of Monument activities and management; Provide recommendations on research and education needs and gaps, and permit use and trends, and any other matter of concern. Recommendation 3: The following parameters are suggested in outlining the membership of the Monument Alliance: Members shall be appointed to three-year terms with a limit of no more than two consecutive terms. Members may re-apply after laying out for one term. Terms shall be staggered to avoid having all of the members turn over at the same time. Members shall be selected through recommendations by an ad hoc membership review committee, which will then provide recommendations to the managers. Each seat shall have a primary representative. Alternates shall represent membership categories rather than individual seats and may vote in the absence of any member in that category. The Alliance shall have 15 voting seats outlined as follows: Three Native Hawaiian representatives, including one kupuna (elder), with experience or knowledge regarding Native Hawaiian subsistence, cultural, and/or religious practices; Three science representatives with expertise related to the NWHI; Three conservation representatives

with demonstrated experience related to the protection of the resources of the NWHI. Two education/public outreach representatives; One representative with demonstrated experience in historic and/or current activities related to Midway Atoll; Three citizen-at-large representatives. The following parameters are suggested in outlining the membership of the Monument Alliance: Members shall be selected via application or nomination demonstrating expertise and experience. Selected members should be diverse in terms of age, gender and geographic location or experience; Non-voting members: the following entities should be issued an open invitation to come to all Alliance meetings. The Office of National Marine Sanctuaries, the Marine Mammal Commission, the U.S. Coast Guard, the NOAA Office of Law Enforcement, the NOAA General Council, the FWS Office of Law Enforcement, the U.S.DOD, PIRO, Pacific Science Center, WESPAC, EPA, DOCARE, OHA, FOMA, DAR, DOFAW, National Wildlife Refuge Complex, Pacific Islands Fish & Wildlife Office, the U.S. Geological Survey, the FAA, the Department of State, the Humpback Whale SAC, and any other appropriate entity. Representatives of these entities may be invited to give specific presentations as needed. There was a discussion about the value of having representatives of certain entities seated at the table. However, there was also discussion about the need to keep the Alliance at a manageable size. Therefore the RAC recommends that no more than 15 non-voting entities be appointed as non-voting members of the Alliance and leaves it up to the discretion of the MMB who the 15 selected to sit at the table as non-voting members of the Alliance shall be. Recommendation 4: The following parameters are suggested in outlining the operations of the Monument Alliance: Decision-making—A quorum is needed before a decision can be made by the Alliance. A quorum shall consist of a majority of the voting members of the Alliance. Alliance participants should strive for consensus, but if consensus cannot be reached, a vote may be taken. A simple majority of the total number of voting members is needed for passage. ‘Majority’ and ‘minority’ opinions may be issued and individual opinions expressed in the meetings shall be noted in the minutes. Council members participating by phone may vote. Leadership— The Alliance should be led by two or three co-chairs. The Alliance shall have the ability to establish sub-units (i.e. working groups and subcommittees). The Alliance should have the ability to use some type of virtual meeting and participants will be allowed to vote. Comparison of RAC and MMB Alliance WG Recommendations: Primary differences were a couple more seats on the Alliance to include youth, no government members because it would be an unwieldy size body, quite a bit of discussion within the MMB about the ability of the Alliance members to prove that there is two way communication going on with their constituent groups. Those are some of the differences in the recommendations that came out of RAC and what was discussed with the MMB.

Johns(question): What about the leadership? **Collins**: The RAC had that the leadership was within the Alliance group the three co-chairs. Our attorneys advised that within a non-FACA based individual advice group that the body needed to be chaired by management members, mainly the members of the MMB, the chair, co-chair and secretary. **Swatland**: That is only for the interim structure of the Alliance. For the final structure, whether it is a FACA exempt or a FACA compliant, all the leadership will be internal to the RAC, there will not be any MMB leadership. **Johns**(questions): Was the timeline only for the interim? **Collins**: Yes. **Paul**: I think the Management Plan specifies that the RAC goes away when the Alliance takes it’s seat. Was that part of the Management Plan assuming that the Alliance would be FACA exempt? **Wilhelm**: It is open to interpretation. If there is an interim Alliance there would be a transition right away. There wouldn’t be a gap, but we do have latitude to figure that out. **Johns**(question): Is the FACA resolution tied to the NMSA reauthorization? **Wilhelm**: It could be or we would just go

through the process to be established under FACA. **Collins**: Covers Matrix Approach to Alliance Composition and Qualifications. Covers completed tasks for development of Monument Alliance: Monument Constituencies Defined, Seat/Position Descriptions and Draft Applications Developed, Application and Selection Process for non-FACA body developed – either MMB Alliance WG, or full MMB will review, OMB Criteria for Position Solicitation (Paperwork Reduction Act) determined – PRA review not needed for resume/statement of intent submission. Covers work that applies to both FACA and individual advice advisory bodies. Remaining Tasks For Development of Individual Advice Monument Alliance: Outline duties of Alliance officers, Refine solicitation and selection process, MMB Alliance WG to discuss RAC member involvement in recruitment. **Johns**(question): Who are the members of the MMB working group? **Swatland**: We are going to propose a new group of people to MMB. We will let the RAC know when the members are determined. **Collins**: Covers Tasks For Development of FACA Compliant Monument Alliance: Draft Charter for FACA based body: RAC leadership has created a sub-committee for providing input on an Alliance charter, the body has not yet met. MMB Alliance WG will also work on charter, OMB will need to approve charter, OMB/PRA Clearance of Application, Solicit Applications, Determine Clearance/Vetting Process, Additional agency consultation on accepting advice from consensus advisory body, Conduct Selection Process. Summarizes and next steps: Convene MMB Alliance WG, define duties of non-consensus Alliance officers, finalize non-consensus application process, make recommendations on selection process, rejuvenate work on FACA Alliance charter. Convene RAC Alliance Charter WG: rejuvenate work on recommendations for FACA Alliance charter. Continue consultations with DOC and DOI FACA attorneys. OMB Paperwork Reduction Act clearance of FACA compliant Alliance application. **Paul**(question): Can the RAC work on the Charter now? **Collins**: Most of these can be run in parallel. Our attorneys don't want a non-consensus body to operate too long. **Paul**(question): In terms of FWS, have they started their discussion internally of how they are going to deal with a FACA body? **Edgerton**: Not since I have been there. **Johns**(question): If the interim Alliance is in place in May, then is there another RAC meeting? **Wilhelm**: I think there should be an overlap or maybe a few meetings co-convened. We want to know what you guys think. We want to figure how we do that transition. **Swatland**: I think that will be one of the agenda items for both the MMB and RAC Working Groups how best to make this transition. The RAC will have input. We hope to schedule an Alliance WG meeting as soon as possible. **Johns**(question): Could the next RAC meeting be co-convened? **Swatland**: That's very optimistic, but it is a possibility. **Johns**: Individual RAC members should think about whether or not they want to apply to the interim Alliance and then ultimately decide if they want to apply to the FACA compliant Alliance. **Swatland**: The FACA compliant application process will involve security clearance.

XI. TOPIC F: NMSA LETTER (PAUL, SWATLAND)

Paul: I emailed the latest draft of the letter we worked on from the last RAC meeting in October. I suggest that we look at the sections that were added from the previous version. **Gaffney**: When I see the word 'system', I'm thinking about the system of MPAs. I'm wondering if we are going to confuse bureaucrats by calling this a system. **Paul**: The word system is coming from ONMS preference for growing the system. **Gaffney**: I can see it creating confusion in some of these agencies, but I don't think there is a better solution. They chose the word. **Paul**: The 2nd half of the paragraph on page two, which starts with 'strongly recommends' the keywords are 'mandatory' and 'should be required'. **Johns**(question): Are we okay with the 2nd paragraph?

Schug: Seems a little redundant. **Johns:** I agree, but it doesn't change the direction that we were going in when we drafted it. **Paul:** The 4th paragraph on page two is almost entirely new. **Johns:** We haven't talked about the issue of citizen advisory councils should have more weight. **Schug:** My concern that by trying to be inclusive to non-Monument issues we are going to dilute Monument centered recommendations. **Paul:** My personal opinion is that we do focus on the Monument, but doesn't mean we shouldn't weigh-in on issues that affect the entire system. **Gaffney:** I think it is important express in this letter all the things that we feel strongly about with regard to this transition. Because fisheries councils have been lobbying for very strong specific language to assure their position, I think that it is important that we do speak to that issue and not leave it unmentioned. **Johns:** Just add that WESPAC was not a voting member on our council. **Lowry**(question): Can we just leave out the extraction part and the appointment part? **Paul:** Please say that again. **Lowry:** The RAC recommends that the Act accord input from System advisory councils significantly greater weight than input from regional fishery management councils or other advisory groups that may be created. **Ishizaki:** Just to clarify that WESPAC has council staff sitting at the table. Please clarify that in your letter. **Paul:** No agency people have votes, maybe that takes care of it. **Lowry:** Or change members to representation. **Harp**(question): Just a question about the use of 'Indian Tribe', can we change that to 'Native American'? **Johns:** We can clarify the part about the use of 'Indian Tribe' and say that is how it was referred to in the Act. **Gaffney:** I'd say excise the mention of aquaculture from this paragraph. **Lowry:** I would change the paragraph in this way: In conjunction with this the RAC recommends that the Act address fishing regulations promulgation procedures including those for commercial aquaculture only generally and with the caveat that they shall not violate the purposes and policies of the relevant components of the System. Fishing regulations promulgation procedures are governed by the Magnus Stevens Act, which is amended from time to time and not in synchrony with the NMSA. **Johns:** Any other comments? **Gilmartin:** Look at the last paragraph and number of usages of 'prohibited'. **Johns:** Okay, the letter should be finished. Please don't make any further changes to it so I can sign it.

XII. TOPIC G: DEFERRED FROM OCT, MARITIME HERITAGE CRUISE (GLEASON)

Gleason: Quick update on the first research cruise of the season last year an interdisciplinary cruise in May 2010 and an 18 person team. Plans to go to six atolls, but bad weather prevented us from going to Nihoa. We had 25 days of time to work up in the NWHI. Maritime Archaeology Team: Kelly, Jason, Alysia. We continued mapping and documentation of known MH sites including FFS whaler. Creation of two site plans. Towboard and diver surveys for new sites. We found one of the largest collections of the tools of whaling that has been found in any kind of archeological context. Lost On A Reef Exhibit opened in February 2010 at Mokupāpapa Discovery Center. Just installed an interactive display. Information that we can update on a regular basis. Lost On A Reef Film Released to over 15 festivals and reached an audience that I hadn't really expected to reach. Biogeographical Assessment of Shipwreck Sites: 35 transects (species richness & abundance, fish, rugosity), 5 days of oceanographic data, 70-75 corals collected, complete picture of 5 MH sites spanning 180 years of MH in the Monument. Remote Sensing Survey of using magnetometer and side scan sonar: surveyed over 300 line miles, discovery of 2 new sites, survey assisted in determining the extent of known sites, side scan sonar photomosaics can be used to refine what is known about benthic habitat. Apex Predator Research: further study to understand the movement of apex predators, tagging of ulua, recover and deploy acoustic receivers. Deployment of Deep Sea EARs: Anne Rosinski from

Whitlow Au's (HIMB) lab, deployment of 4 deep sea EARs to be retrieved in 2011. Resource Protection Team: Scott, Megan, Aulani, Sarah. Assess populations of non-native species; determine what methods can be used to monitor the non-native species. **Dennison**: We have an opportunity on February 11th, which happens to be the 188th anniversary of the grounding of the Nantucket Whaler, the Two Brothers. Two Brothers grounded on a reef in French Frigate Shoals. We will be hosting a major media event on the 11th to announce the discovery of the Two Brothers. We will announce it on Hawaii News Now in the morning on the 11th.

XIII. TOPIC H: INTERNATIONAL MARINE DEBRIS CONF. (MCELWEE/GODWIN)

McElwee: The Marine Debris Action Plan was a long labor of love and many meetings. Cover the history of planning process. Land-based debris prevention + beach cleanup, November 14, 2008 - Research & assessment + in-water cleanup & prevention, HI-MDAP final workshop October 16, 2009, HI-MDAP roll-out meeting January 12, 2010. Focus of the Plan: reduce impacts/goal, reduce ecological, economic, and health and safety impacts of marine debris. Limited resources – need to be strategic, actions and objectives that reduce impacts, not just marine debris. Strategy: outreach campaign, increase recycling and disposal options, legislation. Indirect Threats: lack of awareness, lack of recycling/disposal options. Threat: plastics enter marine system. Target: coastal and marine species. Think globally, act locally: trawl /seine nets from distant Pacific Ocean fisheries, national, international efforts. Goals: 1 – reduce backlog of marine debris, 2 – reduce introduction of solid waste and fishing gear at sea, 3 – reduce the number of abandoned and derelict vessels, 4 – reduce land-based debris in waterways. Hawai'i Marine Debris Action Plan: First in the nation, dynamic, statewide, comprehensive, collaborative, learned as we went, plan is being implemented. **Godwin**: Papahānaumokuākea Marine National Monument: Covers Goal 1 – backlog of marine debris reduced: 3 main strategies: 1.1 develop effective methods to locate marine debris, 1.2 develop effective systems for reporting marine debris accumulation, 1.3 develop capacity and coordination mechanisms for marine debris removal. Continue removal plus pursue “at sea” detection. **McElwee**: For more information visit: <http://marinedebris.noaa.gov/projects/himdap.html> and Kris McElwee, Kris.McElwee@noaa.gov, 5th International Marine Debris Conference, Waves of Change: global lessons to inspire local action, 20-25 March 2011, Honolulu, HI, USA. With a variety of tracks, themes, and session types, this conference will build new partnerships, further raise public awareness and support, and inspire follow-up actions that will take us closer to a world free of the impacts of marine debris. www.5IMDC.org Honolulu Strategy: A global strategy to prevent, reduce, and manage marine debris. Results themes: reduction, prevention and management of at-sea sources, reduction, prevention and management of land-based sources, removal and processing of accumulated marine debris. **Godwin**: Response and Removal: “Managing Debris in Marine Protected Areas”, deep water MPA habitats-California, Indigenous Protected Areas-Australia, Autonomous Regions-Canary Islands & Madeira, Papahānaumokuākea, derelict vessel removal. **Roberts**(question): Do you have Coast Guard representation in the planning of this or any of the working groups? **McElwee**: No, but we love to have Coast Guard participation. Maybe you could connect me with someone? **Roberts**: I will follow-up with you. **Schug**: Some would argue that legislation is the only solution to marine debris. The thing that I didn't see in your Marine Debris Action plan is political lobbying, drafting legislation. **McElwee**: Yes, that would be an action type under a strategy and not a strategy in itself. That is a type of action in the plan and definitely one of the tools that is required. **Grabowsky**(question): Was there a section at the conference on legislation? **McElwee**:

There are definitely a number of sessions that address governance issues? **Gilmartin**(question): Where are the derelict vessels? **McElwee**: We do have a session on abandoned and derelict vessels? **Gaffney**: Has anyone looked into using commercial vessels that have been removed from commercial fisheries as a part of a recovery process? **McElwee**: There have been some partnerships, but in the U.S. we haven't been able to target that very well yet.

XIV. TOPIC I: WORKING GROUPS & SUB-COMMITTEES (BYERS/SWATLAND)

Byers: A motion was carried by Tim Johns to have the RAC approve the NMSA letter, subject to the NMSA letter being circulated amongst all the RAC members, get RAC member's comments back to Linda, she will finalize the letter and circulate final by email, Tim Johns will sign the NMSA letter and send it to 'Aulani. A motion was carried by Jessica Wooley to expedite and support CBO-3.5, 3.8 with a report back. Give a more detailed prioritized enforcement report. Provide a report from the staff on where our committees are. Provide a status report on the Science Plan. Request for a presentation about the marine debris conference, and the evaluation strategy that has been developed with Marine Debris action plan in mind. How the co-trustees think the conference can help pursue the strategies and activities of the marine action plan. Another report on the evaluation strategy. Management Plan Review Subcommittee is established and will work with PMNM staff to work on the Monument Evaluation Strategy. Establish a Working Group on the charter for the Alliance and that the Working Group determines who its non-RAC members will be. Evaluation Working Group: Members: Kem Lowry (Chair), Gail Grabowski, Cindy Hunter, Don Schug, Bill Gilmartin, Linda Paul. Date Last Met: September 2009, Next meeting: TBD, Open Action Items: Work with staff on establishing an Evaluation Strategy. Management Plan Review Subcommittee. Members: Kem Lowry (Chair), Gail Grabowski, Cindy Hunter, Don Schug, Bill Gilmartin, Linda Paul. September 2, 2009 RAC Meeting Minutes. ACTION: Management Plan Review Committee is established and will work with PMNM staff to work on the Monument Evaluation Strategy. **Byers**(question) Is a merger needed with the Evaluation WG? **Lowry**: What's the agenda or is there something to which we can react? **Swatland**: We will look for input from the RAC to guide us as we move into developing the evaluation tools for other activities besides the ones we are already working on now. Which is basically marine debris, alien species and emergency response. **Johns**: Basically it is a subcommittee not a working group. **Swatland**: It is up to the RAC to determine how to proceed. **Lowry**: It is a little difficult until we have a sense of what work is to be done. **Byers**: Alliance Subcommittee: Members: Linda Paul, Kem Lowry, Bill Gilmartin, Rick Gaffney, Don Schug. Date Last Met: Met several times in 08-09. Next meeting: TBD. Open Action Items: Work on Alliance Charter for FACA Compliant body. Temporary non-consensus MA cannot have Charter. Charter for the Alliance Working Group. **Schug**: As I recall for the Charter Working Group it was me, Bill and Rick that volunteered to work on the Charter. That has already been formed. **Paul**: According to the September 2, 2009 RAC Meeting Minutes it hasn't. ACTION: Bill Gilmartin motioned to establish a Working Group on the charter for the Alliance and that the Working Group determines who its non-RAC members will be. Linda seconded the motion. Through discussion, Kem Lowry raised the question about decision making in saying that only those who are on the RAC should be allowed to vote. All approved the motion unanimously. **Gilmartin**: We have met in early 2010 **Schug**: We worked with Andy on that. **Swatland**: Andy will get back and work with you guys on setting up a meeting for the Working Group. **Schug**: There was interest in non RAC members participating. **Johns**(question): Who's the chair? **Gaffney**: I thought Bill was. **Johns**(question): What is the Alliance

Subcommittee working on then? **Swatland**: They would be working on the transition from RAC to nonconsensus to FACA compliant body. **Johns**: The Alliance Subcommittee will continue on then. **Byers**: Education Subcommittee: Members: Gail Grabowski, Cindy Hunter, Laura Thompson. Date Last Met: 2007/8 -- Reviewed the final Management Plan during one of the RAC meetings. We really have had no pressing education issues or concerns since the early days formulating the mission and vision, etc. for the Reserve. Next Meeting: None scheduled, but willing to schedule if the Monument staff would like one for the purposes of soliciting information/ideas/evaluation on some education-related issue. Open Action Items: None **Grabowsky**: We will look at the PAA program and budgeting. Jessica Wooley has agreed to be on the committee as well.

MOTION: A motion was made by Tim Johns to convert the Education Subcommittee into an Education Working Group and dissolve the Education Subcommittee. Motion carried unanimously by voice vote.

Gilmartin: Research Subcommittee, Members: Bill Gilmartin, Don Schug, William Aila, Linda Paul, Cindy Hunter, David Laist, Lloyd Lowry, Date Last Met: June 3, 2009, last committee call: August 5, 2009, next meeting: TBD. **Johns**: When the Science Plan comes out you could take a look at it, but it sounds like we need to clarify the areas of responsibilities. **Swatland**: Do you want us to do that? **Paul**: Bill and I can do that. We will go back to the minutes and also look at what is coming up. **Salbosa**: Native Hawaiian Cultural Working Group - Led by OHA: Members: William Aila, Buzzy Agard, Laura Thompson, Tammy Harp, Carlos Andrade. Date Last Met: January 14, 2011. Topics: Native Hawaiian Cultural Research Plan Development: Summary: Meant to identify and prioritize Hawaiian cultural research needs and set the framework to encourage cultural practices. Next meeting: March 18, 2011. **Wilhelm**: There is not a member of the RAC that is a chair since William Aila has resigned. Pelika Beterlmann is now the Chair. **Swatland**: Background: Development of an Evaluation Strategy identified in the Monument Management Plan (Activity 3.6.4): EV-1.1: Prepare comprehensive evaluation strategy, EV-1.2: Conduct annual program review, EV-1.3: Conduct 5 yr comprehensive evaluation & prepare State of the Monument Report, EV-1.4: Conduct Management Plan Review (MPR). Staffing: PMNM has been working on Eval Strategy development since early 2009. Kaylene Keller departed mid-Oct 2010. Hiring of full time PMNM Evaluation Specialist to be advertised very soon. Testing concepts and approaches with NOAA entities (NMFS, CRED, Marine Debris prgm) on Marine Debris Action Plan and with F&WS on Alien Species Action Plan. The Evaluation Strategy consists of three key components: Tracking plan implementation – tracks the status of implementation of activities in the management plan. The key questions: Are activities in the management plan being implemented? Were activities modified? Are activities are being implemented that are not in the management plan? How have these new activities contributed to Monument goals? Evaluating the effectiveness of management strategies – evaluates how effective the strategies and activities being implemented are in achieving desired outcomes for each action plan. Key questions asked in this component are: Are strategies and activities effective in reducing threats, such a marine debris and alien species, to Monument resources? Adapting management for increased effectiveness – asks how strategies and activities were adapted to improve effectiveness. Key questions: How should management strategies be modified to increase effectiveness? Tracking MMP Implementation: Evaluation Reporting Tool: What is the status of implementation of activities in each action plan

of the MMP? What activities are not being implemented and why? What products have been created? This is a screen shot of the Evaluation Reporting Tool. All the activities in the Management Plan are entered into this database and status recorded. Evaluating the effectiveness of management strategies: marine debris, alien species, permitting, incident prevention and response, other evaluation components (other action plans). Results chains as an evaluation tool: conceptual model, show the situation today, identify strategies to address threats, results chains, shows the desired future condition and links strategies to measurable results. What is a Results Chain Analysis? A diagram of a series of “If...then...” statements (causal). Defines how we think a project strategy or activity is going to contribute to reducing a threat and/or conserving a target. Focuses on the achievement of results – not the execution of activities and is composed of assumptions that can be tested. Results chains were developed for marine debris and alien species to serve as a logic model for evaluation and the adaptive management process. Marine debris and alien species are direct threats to Monument resources and reducing these threats is within the manageable interest of the Monument. Marine debris example – assumptions: marine debris accumulates at a higher rate in the northern end of the Monument due to oceanographic conditions. Marine debris detection methods can be developed to decrease search area and increase efficiency. Without outside actions to reduce sources, marine debris will continue to require removal within the Monument. Removal of marine debris will reduce entanglement of threatened and endangered species. Marine Debris Evaluation: Evaluation Reporting Tool, monitoring indicators, other data (external research, studies to specifically evaluate effectiveness, etc.). Are management strategies effective in reducing threats from marine debris to Monument resources? Is the backlog of marine debris decreasing? Is entanglement of monk seals and sea turtles in marine debris decreasing? The evaluation reporting tool generates status reports and also provides ability to attach studies or datasets and document the evaluation process. Annual reports of marine debris activities that summarize data can be stored in the evaluation reporting tool to support reporting of results. Using information in the evaluation reporting tool, an evaluation summary is prepared and reviewed in the context of the results chain and assumptions to determine recommended actions to improve effectiveness. Permitting Evaluation: permit database, annual permit report, stakeholder surveys, other data (external research, studies to specifically evaluate effectiveness, etc. ex. cumulative impact studies). What are the number and type of permits issued in the Monument? What are the locations of permitted activities? What is the level of compliance with permit conditions? How can the permitting process be improved from application submittal, review, issuance, reporting, and compliance? Is the permitting process effective in managing human use in the Monument? What are potential cumulative impacts? Incident Prevention and Response Evaluation: incident database, incident report, after action review. What are the nature and frequency of incidents occurring in the Monument? What are the locations of these incidents and are their hot spots? How effective are policies and procedures in minimizing the likelihood of these incidences occurring? How effective are policies and procedures in responding to these incidences? Other Evaluation Areas in Progress: education and outreach, maritime heritage and historic resources, native Hawaiian cultural heritage and cultural resources. Adapting Management for Increased Effectiveness: annual review, 5 year comprehensive evaluation & state of the monument report, 5 year management plan review (MPR), potential challenges, co-managers, must include all MP activities, including those of FWS and State of HI. Champion strategy and tools must have buy-in at sr. manager level and dedicated staff to convince staff of value of initial and long term effort to execute strategy. Everyone must use it for anyone to gain value from it. Establish MMB Evaluation

Strategy Working Group to gain buy-in & participation from all seven co-managers. Complete evaluation strategy document for MMB review (target Spring 2011). Re-convene RAC Evaluation Strategy Working Group to provide constituency input on strategy and evaluation tool development. Bring new evaluation specialist up to speed w/contractor efforts to date. Add other evaluation areas to the strategy – integrate all agency activities into strategy. **Lowry**: We should meet with the specialist once that person is hired and it will be useful for us to get the material that you have to get up to speed. **Swatland**: As soon as we get the evaluation strategy finalized we will get it to you. **Lowry**: We should also create a charter so we know exactly what you want from us so we can work off of the same agenda. **Swatland**: Okay. **Paul**(question): When does the 5 year review start? **Wilhelm**: We want to set this up to be proactive and start before the 5 years is up.

XV. PUBLIC COMMENT – No one from the public volunteered to comment.

XVI. TOPIC J: DEFERRED FROM OCT MEETING, FIELD EDUCATION PROGRAM KU'ULA (SALBOSA)

Salbosa: Background, Field-based course entitled “Kū'ula: Integrated Sciences in Hawai'i”, Offered at the University of Hawai'i at Hilo in Spring 2010, Course first offered in 2008, Instructor – Dr. Misaki Takabayashi, Assistant Professor, Marine Science Department. Logistical & financial support provided by the following: NOAA, NSF Center for Research Excellence in Science and Technology, USFWS. Objective: Students to develop research projects that link the ecology of Pihemanu (Midway) Atoll with that of Hawai'i Island, integrating a Native Hawaiian perspective of resource management. Huaka'i to Pihemanu – April 12th-19th, 2010: 10 Students (4 graduate students; 6 undergraduates), 2 Cultural practitioners/UHH researchers; 2 Monument staff; and course instructor. Outcomes: Increased partnership & sharing of cultural knowledge w/staff on island, 4 student research projects, presentations to USFWS staff on Pihemanu, to Hilo community at the Mokuāpapa Discovery Center, and at the Hawai'i Conservation Conference in Honolulu. Brief Overview of Student Research Projects: E waele a e ho'okīpulu (To enrich or fertilize by means of clearing weeds, i.e. mulch). These students were interested in researching whether or not newly introduced resources (or invasive weeds) could be used as kipulu, or fertilizer. Although in the short amount of time that they had, they were not able to definitively determine if verbesina could be used as fertilizer; they did find that verbesina had accumulated large amounts of ammonium in the leaves, whereas naupaka growing in the same location had greater phosphate levels, a common nutrient used in fertilizers. Pua ka wiliwili, nanahu ka manō (The wiliwili tree blooms, the sharks bite): This group researched historical accounts, oral history, and mo'olelo to create a geo database (using a geographic information system) to document the stories and encounters with sharks (mano) tied to places in Hawai'i and Pihemanu. On Pihemanu or Midway, they talked with firemen and staff who readily encounter mano in the area and kumu kalei nuuhiwa who accompanied us on the trip shared with the group important accounts and chants of the mano. Kauhulu ka manini i ke kai ea o Kahalelelepō (The manini schools in the rising sea for persons seeking food at night): These two students were interested in correlating manini activity and celestial activity. They conducted fish surveys, documented age, size, behavior, and abundance based on kaulana mahina (or moon calendar). And as many of the students discovered, this research project was just scratching the surface. And this student Nigel Rozet, also gave an oral presentation and the conference highlighting his work with corals. I am hopeful that programs like these can continue to further the educational

and cultural importance of Papahānaumokuākea. And with that I'd like to thank all of the students and kumu involved. Mahalo! **Wooley**(question): Where is the funding for this coming from? **Salbosa**: Partly from NOAA and the instructor obtained funding from NSF and logistical support from USFWS.

XVII. PUBLIC COMMENT – No one from the public volunteered to comment.

XVIII. FURTHER DISCUSSION AND POTENTIAL RAC ACTIONS RELATED TO THE DAY'S AGENDA

Johns: Any further actions? **Grabowsky**(question): How about scheduling working group and subcommittees? **Swatland**: Wes will contact everybody individually. **Johns**: So the meetings that will be coming up are: Management Plan Review Committee for the Evaluation Strategy, the Alliance Working Group working on the charter and the Alliance Subcommittee, Education, Research will look at the Science Plan. Native Hawaiian Cultural Working Group is still moving forward. All of the groups will need to look at their ongoing charters. **Schug**(question): Do we want to talk about what we want to accomplish as the April 14th meeting? **Johns**: Does staff have any suggestions? **Wilhelm**: Follow-up on the working groups and subcommittees. The Alliance should also be a big chunk of the meeting and a summary of the permit year. Brian, do you want to do a summary on the symposium? **Bowen**: Yes. **Johns**: Also a report on the Marine Debris Conference. **Paul**: The first days could be the Working Groups and Subcommittees meeting. **Johns**: We would need the input from the Working Groups and Subcommittees to determine what would be the use of that time. **Wilhelm**(question): Rick, do you think there will be an update on MPA FAC? **Gaffney**: MPA FAC is planning to meet in Hawai'i in November 14th-17th. **Wilhem**: Not to put Lydia on the spot, but it would be great to have a presentation on the Marianas Trench Marine National Monument and see what is happening in the other three Monuments. **Johns**: Thank you all and we will adjourn.

4:00 Announcements & Adjourn