

**MINUTES FOR THE  
MEETING OF THE  
BOARD OF LAND AND NATURAL RESOURCES**

DATE: MONDAY, APRIL 19, 2010  
TIME: 9:00 A.M.  
PLACE: KALANIMOKU BUILDING  
LAND BOARD CONFERENCE ROOM 132  
1151 PUNCHBOWL STREET  
HONOLULU, HI 96813

Chairperson Laura Thielen called the meeting of the Board of Land and Natural Resources to order at 9:00 a.m. The following were in attendance:

MEMBERS

Laura Thielen  
David Goode  
Jerry Edlao  
John Morgan

Ron Agor  
Rob Pacheco  
Dr. Sam Gon

STAFF

Danny Carter/DAR

Cory Payne/DAR

OTHERS

Colin Lau, Deputy AG  
Randy Kosaki  
Doug Codega

Robert Toonen  
Marti Townsend

{Note: language for deletion is [bracketed], new/added is underlined}

**Item A-1 Amended March 11, 2010 Minutes**

**Approved as submitted (Pacheco, Gon)**

**Item A-2 March 25, 2010 Minutes (TO BE DISTRIBUTED.)**

Deferred. Not ready.

- Item F-1**      **Resubmittal of Request for Authorization and Approval to Issue a Papahānaumokuākea Marine National Monument Research Permit to Dr. Robert Toonen, University of Hawaii, Hawaii Institute of Marine Biology, for Access to State Waters to Conduct Reef Invertebrates Genetic Survey Activities.**
- Item F-2**      **Resubmittal of Request for Authorization and Approval to Issue a Papahānaumokuākea Marine National Monument Research Permit to Dr. Brian Bowen, University of Hawaii, Hawaii Institute of Marine Biology, for Access to State Waters to Conduct Reef Fish Genetic Survey Activities.**
- Item F-3**      **Resubmittal of Request for Authorization and Approval to Issue a Papahānaumokuākea Marine National Monument Research Permit to Whitlow Au, University of Hawaii, Hawaii Institute of Marine Biology, for Access to State Waters to Deploy and Service Ecological Acoustic Recorders (EARs).**
- Item F-4**      **Resubmittal of Request for Authorization and Approval to Issue a Papahānaumokuākea Marine National Monument Research Permit to Carl Meyer, University of Hawaii, Hawaii Institute of Marine Biology, for Access to State Waters to Conduct Top Predator Movement Research Activities.**
- Item F-5**      **Resubmittal of Request for Authorization and Approval to Issue a Papahānaumokuākea Marine National Monument Research Permit to Ryan Nichols, NOAA Fisheries, Pacific Islands Fisheries Science Center, for Access to State Waters to Conduct Fish Growth Study Research Activities.**
- Item F-6**      **Resubmittal of Request for Authorization and Approval to Issue a Papahānaumokuākea Marine National Monument Research Permit to Derek Smith, University of Hawaii, Hawaii Institute of Marine Biology, for Access to State Waters to Conduct Biological Studies on Maritime Heritage Sites.**
- Item F-7**      **Resubmittal of Request for Authorization and Approval to Issue a Papahānaumokuākea Marine National Monument Research Permit to Loren Scott Godwin, National Oceanic and Atmospheric Administration, Papahānaumokuākea Marine National Monument, for Access to State Waters to Conduct Invasive Species Survey Activities.**
- Item F-8**      **Resubmittal of Request for Authorization and Approval to Issue a Papahānaumokuākea Marine National Monument Education Permit to Daniel Dennison, National Oceanic and Atmospheric**

**Administration, Papahānaumokuākea Marine National Monument,  
for Access to State Waters to Conduct Filming Activities.**

- Item F-9      Resubmittal of Request for Authorization and Approval to Issue a  
Papahānaumokuākea Marine National Monument Research Permit  
to Dr. Greta Aeby, University of Hawaii, Hawaii Institute of Marine  
Biology, for Access to State Waters to Conduct Coral and Fish Disease  
Research Activities. (Submittal was deferred at the 4/8/2010 BLNR  
meeting, but has been withdrawn at the request of the Applicant.)**

*The Board may go into Executive Session pursuant to Sections 92-4 and 92-5(a)(4), Hawaii Revised Statutes (HRS), in order to consult with its attorney on questions and issues relating to departmental permits, Chapter 343, HRS, and personnel matters, as pertaining to the Board's powers, duties, privileges, immunities and liabilities.*

Folders with handouts were distributed to the Board.

Danny Carter, Permit Coordinator for Northwest Hawaiian Islands under Division of Aquatic Resources (DAR) introduced Cory Payne who is the Research Coordinator for the Northwest Hawaiian Islands. Ms. Carter conveyed the issue of environmental reviews and cumulative impacts for permanent activities in the Monument. They will go over first how cumulative impacts are considered and addressed. Ms. Carter will go over those things that happen during the permitting process and Ms. Payne will go over the tracking, analyzing and how that data is looked at for cumulative impacts.

Ms. Carter conveyed that the Declaration of Exemption memos are enclosed since they have never been in the submittal packets before, but these are attached with the permits for signing since June 2009 which are DAR's documentation explaining why the proposed activities are exempt from preparation of an environmental assessment (EA) under Chapter 343. Ms. Carter referenced Item F-4 as an example on page 2, section 2 which explains which exemption class the activity falls within and she read it. She went on to page 3, section 3, second paragraph that addresses the cumulative impacts which she read about the 'catch and release' procedures. The proposed activity is in direct support of the Monument Management Plan and also covered by the Management Plan's EA which is under the last paragraph of the project description at the top of the second page. She just explained that these activities don't need to be covered by an EA, why they are exempt that these activities are part of the Monument Management Plan EA. But, in that section for the Meyer memo the proposed activities support a couple action plans of the Management Plan and those activities support those action plans are addressed by the EA and in this case the EA summarizes the monitoring predation of sharks on monk seals could have a beneficial affect on the wildlife population. And, this is an example of what kinds of information and explanations in these memos that the Board will get with every submittal packet.

Ms. Carter said that the EA is a joint Federal/State EA which was a result of a FONSI and includes a cumulative effects analysis where Ms. Carter referred to a handout in the folder – 4.2.3 Cumulative Effects and read and second sentence. In addition to the Management Plan EA there have been other external settings that look at other human impacts in the Monument including cumulative impacts. In one of those published papers by Kim Selkoe with the National Center of Ecological Analysis and Synthesis, came to the conclusion that many of the biggest threats to the Monument lies outside the boundaries such as climate change and marine debris and that indicate additional work is needed in the Monument to help protect it despite its highly protected status already. She points out that many of the risks inherent associated with vessel traffic like alien species introduction are being addressed and mitigated by Monument regulations and policies through the permitting process. And, research threats that she considers to be presence of divers, sacrifice by collection and equipment installation affect less than 15 square kilometers total or .001 percent of the atolls and banks in the Northwestern Hawaiian Islands and would be considered negligible. Even though these other studies and EA are finding that activities within the Monument are negligible or have no significant impact there are steps taken throughout the permitting process that those impacts are minimized as much as possible. It all starts with the applicant themselves. The HIMB researchers are good about collaborating on their collections list and sharing samples to make maximum use of any samples that they do take. Once the applications are received the permit coordinators from the each of the co-trustee agencies work closely together to look for any duplicity, they let other applicants know if other people are proposing similar actions and they remove any redundancy from the permit. Once the permit is approved there is a number of best management practices incorporated into the permit when it's issued and each one of those reduces a threat or impact and there is a list of Best Management Practices in the folder.

Also, Ms. Carter noted that the Monument is remote, hard to get there and once you are there you don't have a lot of time at one site and that is why they have a lot of renewal and repeat applicants. Its not that people come back year after year wanting more, but they need the multiple trips to get the time to carry out the projects they were originally permitted to do. That is the difference to what was proposed in the original application, what gets permitted and what actually happens in the field which has been the source of misunderstanding or misinterpretation of the data that goes on yearly which is why it is important to follow with an after-the-fact and do a tracking analysis on what is happening in the field which they do through the required permit reports.

Ms. Payne referred to the handouts on the left side of the folder with examples of post-people in the field and how they keep track of the impacts, what's happening, what has been permitted, etc. She'll focus on diving or human presence and impacts of research collections in the Monument. As Danny talked about the permitting process of minimizing impacts on the front end part, the Board probably doesn't see the back end after everyone goes to the field that the set of packets and tables is the process they go through with collecting data from the trip reports, the summaries, cruise reports and how they interpret the data. Tables 1, 2 and 3 are all diving impacts. Table 1 is broken up by number of dives per year at each of the islands and the dives are any unique entry into the

water whether it's diving, snorkeling or anybody jumping overboard to cool off its interpreted as a dive. They break this up by sites as 100 meter by 100 meter square which is about the maximum that a researcher will cover on any given research activity.

Ms. Payne reported that French Frigate Shoals (FFS) was the most visited where there were 105 sites visited in 2008. She noted that they are showing mostly 2008 data because they are on the tail end of 2009 and didn't want to leave any activities out and they only started doing the data in 2007. Staff compared 2007 and 2008 data and found that within a year's impact is greater than between years. People are not going back to the same sites every year that less than 10% of the sites were visited in 2007 and 2008 in FFS. The right hand column of Table 1 is the total number of sites visited by island. The maximum number per site is the number of people visiting where she gave the example of FFS where half of the 68 was from an education cruise – teacher at sea program and cultural studies.

Ms. Payne referred to Table 2 and 3 as to how staff interprets the data. Table 2 shows how many sites are impacted and across the whole – the Area Visited in the first column is the summation of the 100 meter by 100 meter sites to get a total area visited by divers. The Total Area column is the complete area of coral reef habitat at each island or atoll and they compare those two to get a percent visitation rate. For FFS, which was the most visited, had a 1/1,000th of a percent of visitation compared to the entire coral reef habitat at that location. That gives staff an idea of how much area they are sampling and the impact over a scale of an atoll.

Ms. Payne said that Table 3 is the comparison of dives on reefs noting that these are by recreational divers. A trend in recent years in the marine park and marine protected areas management is to come up with a carrying capacity for divers for any given site. Usually, in the marine protected areas there are a set number of sites that are visited and through the literature search staff found that the general range managers have set as thresholds to keep their reefs at the same levels to have no discernable impact is a visitation rate of 4,000 to 6,000 divers per site per year. When compared to the maximum number of dives at 68 at any given year they are well below that bar. Staff will keep tracking this. In order to reach the minimum threshold of 4,000 per year, it would take about 700 cruises in a year and there is no way that staff would allow that to happen.

Member Gon asked whether the 931 km Total Area of FFS included State waters where Ms. Payne answered in the negative saying that is the area of the coral reef habitat which is less than a 100 feet and referred to the photo at the bottom right.

Ms. Payne related that Table 4 through 6 is the same process staff uses for research collection. For figure 1 and Table 4 staff tracked the number of different species collected and the total number of samples collected. Staff does have data on each individual species, but to help the Board staff lumped these species into six categories. All collections are collected non-lethally except for fish. In the case of marine algae, coral and invertebrates one centimeter samples are taken from each individual organism.

Table 5 contains the most collected fish, coral and invertebrate species. Fish are captured by spear fishing where she described that 20 *Priacanthus meeki* (aweowaeo) were taken and the percent of population was 4/10,000ths of a percentage of the population. The amount of impact by sampling is relatively low. Staff also keeps track of the resilience of the population, how long it takes to reproduce and replenish the entire population which is Table 6. *Priacanthus meeki* has a high resilience which is not susceptible to impacts based off of a global website that gives descriptions and analysis of resilience of population on a global scale. These fish have a population doubling time of less than 15 months where Ms. Payne described and confirmed that when these cruises go back in a year for samples these aweowaeo have double their population. Also, staff track threshold rates but it's harder to find for abundance or collections because most people don't do that. The closest they have is fishing pressure – estimated sustainable harvest rates and knowing that is sometimes on the high end. The conservative sustainable rates are about 25 – 35% of the population given that it is tainted by fishing. Even at a rate of 12% assuming this population doesn't increase it would take 260 years of collections at the current rate to collect enough to make an impact on the population. Because of the size of the atolls and islands with a lot of habitat while collections seem like a lot there is hardly any impact that staff can find. Ms. Payne reiterated what Ms. Carter said that these are the things staff has been collecting, tracking and recording because it seems like its low they don't want to get to a point when things start increasing and staff isn't aware of it. If the Board has any questions staff is happy to provide it. Most of these activities are management driven the benefits of getting information out of research activities far outweigh the collection and impact of divers that they see on the atoll.

Member Gon asked how often are the population estimates for more common species and Ms. Payne said they do monitoring assessments on an annual basis and those are factored in every year with the population estimates. For the tables they accumulated the 2007 and 2008 data. Member Gon asked whether there is enough recorded estimates to get a feel for the year by year variations on some of these populations. Ms. Payne said they are only working with two years of data and they have a 10% variance that they are trying to improve their sampling estimates to go with a more random stratified design to get a better overall view. Member Gon asked whether the variance was much up as down or if there were any trends. Ms. Payne said it varies by species that there wasn't a general trend of fish all varying on the high end or corals on the low where Member Gon asked whether she had those variances for *Priacanthus meeki* which she didn't, but she could find it for him.

Chair Thielen noted because of the questions staff wanted you to have the back up information. She noticed on the memos that came up that she hadn't signed them and what happened at the time was she was waiting to hear from the Attorney General's Office before signing them then during discussion they decided to include these memos in the Board submittal as part of the submittal rather than a separate memo for future. The Chair asked whether to sign the current submittals now or when the Board takes action and incorporating it as part of the submittal where Deputy Attorney General Colin Lau said to do it after action. Member Gon asked whether the Board should include that

as one of the conditions of the recommendation to acknowledge the exemptions are authorized. Mr. Lau said it wouldn't hurt. This is more for compliance.

The Chair said the overview is general and not specific to any of the individual submittals if the Board had any questions on the individual applications. Member Pacheco asked whether there were any exemptions for DAR since in the 1970s there were Fish and Game exemptions where Chair Thielen explained DAR spun out of Fish and Game and the exemptions are still applicable. Ms. Carter noted that they have a draft list that needs to be approved that includes some of the more specific things that are relevant.

Robert Toonen representing Hawaii Institute of Marine Biology (HIMB) distributed handouts on cumulative impact assessments that they did independently and he testified that these are three published studies. The first is the method that when assessing cumulative impact it is difficult to assess diving, global climate change, ocean acidification, etc. and there was no scientific technique by which it was possible to put all of those things together in a single analysis to evaluate what the impacts of all human activities are on an environment. The first paper in the handout is the technique. The second paper is a map of all human impacts on the world's oceans. He compared impacts in the Mediterranean and Japan with the Hawaiian archipelago noting that this paper was published in the Journal of Science, the most prestigious journal in their field, which is subject to the highest scrutiny. This paper shows the technique that they are applying is by the highest scientific standards that they have today. The last paper is a map of all human impacts to Papahānaumokuākea that is occurring because many threats to coral reefs have to do with coastal development. Also they looked at activities that were happening in the Monument. He referred to a map of the sum of cumulative impacts to date island by island and graphs of the relative cumulative impact of human threats to the Monument. Mr. Toonen explained the vulnerability and impacts from the graphs. He noted he is a co-author of this work coming out of the National Center of Ecological Analysis and Synthesis which is a trust put together by the National Science Foundation out of University of California at Santa Barbara that brings together the top research scientists of the world to answer questions.

Randy Kosaki, NOAA Deputy Superintendent for Papahānaumokuākea testified that all the research proposals before the Board today was developed closely between the Monument and HIMB to ensure these research projects fill information gaps that are perceived to be important by the Monument Managers. Each research project can be tracked back to a specific strategy or activity in the Monument Management Plan and are not random esoteric research, but are driven by the Monument needs by the Monument Managers. These projects will inform and improve the management of the Monument and the biggest impact will be to the Main Hawaiian Islands. He related the restoration and management of the coral reef ecosystem as an example noting that this is in support of the Monument management.

Chair Thielen announced that they were given information that Item F-9 was withdrawn and Mr. Toonen confirmed that the state application was denied and the recommendation was to withdraw.

Marti Townsend representing KAHEA distributed her written testimony testified that she appreciated the cumulative impact analysis from Mr. Toonen and asked what it would take to get all that information to EOQC (Environmental Office of Quality Control) for analysis and public comment within 30 days because that way they would have a cumulative impact analysis that complies in process and procedure with what is required in EAs. It's difficult for her to give some credible testimony on this material now without first going out for public review in the future. She recommended deferring.

Chair Thielen asked that she wasn't clear about submitting this information to EOQC. Ms. Townsend explained when you have an EA the procedure is to give all this information to EOQC who publishes it in the environmental notice and the public has 30 days to comment. EOQC collects the testimony and DAR would pass recommendation on the cumulative impact analysis and then bring forth staff's recommendation. The Chair said this information today isn't for an EA this back-up information is given to the Board. The EA for the Management Plan was done and there is reference here that some cumulative impact analysis was done as part of that EA and there is on-going information and analysis done as a management practice. Ms. Townsend said she understands that this submittal is not being introduced as an EA, but her suggestion is to do that. She referred to the opening page of the EA for the Monument Management Plan under "note to readers" which talks about everything that was included in the environmental review that was done. One of the main things is ship operations and cumulative impact research. It looks like the research impacts are assessed and they could add in what NOAA knows about the ship operations for the Hi'ialakai and Oscar Elton Sette. The Chair summarized that Ms. Townsend's recommendation is to do an EA.

Ms. Townsend testified from her written testimony on improper segmentation of projects describing an attachment with a big oval with the Hi'ialakai at the top that these projects should be considered together and not individually because all of these projects are on one ship and should be considered as one connected action. In the exemption declaration it says there is no perceivable impact by this one coral collection or this one fish research expedition, but that is misleading and you should assess whether it's wise to exempt the entire research expedition.

Member Morgan asked whether Ms. Townsend wanted to see this happen before every single cruise. Ms. Townsend said she is using that for today's purposes and said what is ideal is the Science Plan submitted for public comment where she explained when the Monument Management Plan was completed there staff did step down plans. The Science Plan draft was released which received some criticism and hasn't come back with a new draft or final where she is looking for a cumulative impact assessment of this nature which would cover the foreseeable referring to Dr. Toonen's research. Ms. Townsend thinks it's illegal to approve these permits without that. The cumulative impact analysis hasn't been done and she referred to her NOAA Ship Tracker handout. The information presented today was helpful it doesn't get to the impacts that they are concerned about from previous testimony. They are looking for a cumulative impact analysis that looks at human activity over time. There are connected activities approved

by the DLNR and the cumulative impacts are placed over time – World War II contamination, overfishing by commercial fishing there, all the research which is all the impacts by human activity in this environment. This is a sensitive environment. Part of the problem is because of the exemption declaration given to the Board today to consider things first in isolation - segmented projects. Consider cumulative impacts over time, they can't say whether there is impact on a particular sensitive environment. She questioned if these sensitive places don't require an EIS or EA then what does. We don't want the activities we're doing to cause long term impacts. If we aren't going to make the effort to protect this place from human activities than why bother to do anything? It was said this research was conducted on behalf of NOAA, a management directed research, so it could be NOAA that conducts the environmental assessment referring to the shark culling permit where NOAA did an EA where Ms. Townsend suggested the State could piggy back on such an EA and, strongly asked for a deferral.

Doug Codega, an attorney with the Schlacky Law Firm and an outside counsel to University of Hawaii testified that he was retained by UH to understand some of the Chapter 343 issues. He emphasized that what the Board is doing here totally satisfies the requirements of Chapter 343 because they are in a context of an exemption. This is an exemption determination. A full cumulative impact analysis is not required here as you would a full EA. Exemption determinations are generally straight forward, but the Hawaii Supreme Court and the Sierra Club DOT decision in 2007 that when you do make a determination you do look at cumulative impacts to make sure it's consistent with the basic approach of an exemption. There before you its clear, there is an abundance of information demonstrating a very careful analysis of cumulative impacts has been undertaken despite the fact it's not necessarily required. The agency has taken a hard look at the cumulative impacts and in addition the agency here has determined that there is evidence in the record to support that determination and that is the other basic requirement by that Hawaii Supreme Court decision is that you look at the cumulative impacts and you make the determination its not the kind of activity that will lead to major significant affects on the environment. These are clearly research activities and there is a research exemption. Then ask do any of the exceptions to the exemption apply and that would be made possibly based on human impacts or possibly based on the determination that somehow this kind of activity could harm the environment. There view is there is no basis for applying those exceptions. The basic idea that this is research activity that is exempt is legitimate and not illegal as was suggested.

Member Pacheco asked his response to the segmentation argument. Mr. Codega said segmentation is considered during secondary impacts and this is not a secondary impacts situation. This is cumulative impacts. He related the Superferry situation improvements to the harbor without considering the operation of the Superferry in addition. Here we have discrete research projects doing the research and that has been addressed under the Sierra Club DOT decision because there is an analysis. If you look under the CDU determination there is a paragraph 1100-2-7 that says all these activities are being analyzed as a group which is on page 2 of most of the CDU determinations and that administrative rule is intended to cover that segmentation. The permit for the ship has been granted.

Mr. Toonen clarified that the cumulative impact assessment he presented the research includes all activities to date and for the foreseeable future in the Science Plan. It is not segmented.

Member Pacheco moved to go into Executive Session in order to consult with their attorney on questions and issues relating to departmental permits, and questions and issues pertaining to the board's powers, duties, privileges, immunities and liabilities. Member Edlao seconded that.

9:57 AM EXECUTIVE SESSION

10:13 AM RECONVENED

Member Morgan made a motion to accept staff's submittals Items F-1 to F-8. Member Agor seconded that.

Member Goode asked about Item F-3 whether all safeguards will be in place where Mr. Codega confirmed that every safeguard will be made.

The vote was taken all Board members were in favor.

**Items F-1 to F-8**

**Unanimously approved as submitted (Morgan, Agor)**

Chair Thielen asked whether to make a motion for Item F-9 and Mr. Lau confirmed they may.

Member Gon moved to withdraw Item F-9 and Member Pacheco seconded it.

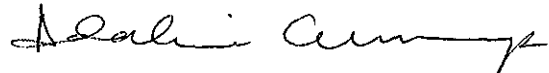
**Item F-9**

**Withdrawn (Gon, Pacheco)**

**Adjourned (Pacheco, Gon)**

There being no further business, Chairperson Thielen adjourned the meeting at 10:18 a.m. Recordings of the meeting and all written testimony submitted at the meeting are filed in the Chairperson's Office and are available for review. Certain items on the agenda were taken out of sequence to accommodate applicants or interested parties present.

Respectfully submitted,



Adaline Cummings  
Land Board Secretary

Approved for submittal:



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Laura Thielen  
Chairperson  
Department of Land and Natural Resources