



University of Hawai'i at Hilo

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**Minutes
Regular Meeting**

Mauna Kea Management Board
Thursday, February 4, 2016

Kukahau'ula, Room 131
640 N. A'ohoku Place
Hilo, Hawaii 96720

Attending

MKMB: Chair Gregory Mooers, Herring Kalua, 2nd Vice Chair/Secretary Gregory Chun, Douglas Simons and Lehua Veincent

BOR: Barry Mizuno

Kahu Kū Mauna: Tom Chun

OMKM: Wally Ishibashi, Fritz Klasner, Stephanie Nagata, Dawn Pamarang, Lukela Ruddle, Sage Van Kralingen, Darcy Yogi and Joy Yoshina

Others: Jesse Eiben, Nelson Ho, Stewart Hunter, John Kanui, Jessica Kirkpatrick, Leilani Lindsey-Kaapuni, David Lonborg, Joe McDonough, Simon Radford, Fred Stone, Dwight Vicente and Deborah Ward

I. CALL TO ORDER

Chair Mooers called the meeting of the Mauna Kea Management Board (MKMB) to order at 10:00 a.m.

II. APPROVAL OF MINUTES

Upon motion by Doug Simons and seconded by Herring Kalua the minutes of the September 22, 2015, meeting of the MKMB were unanimously approved.

III. DIRECTOR'S REPORT

A. Capital Improvements Program (CIP) Ingress/Egress Parking Project

A pre-bid meeting was held on January 25, 2016, for prospective bidders on the ingress/egress parking project at the Visitor Information Station. This project is an implementation of the Comprehensive Management Plan (CMP) IM-9 (Infrastructure and Maintenance) which, for safety reasons, calls for parking to be on the same side of the road as the existing Halepōhaku facilities.

B. Hawaii Supreme Court Ruling on the Thirty-Meter Telescope Conservation District Use Permit

In early December 2015, the Hawaii Supreme Court ruled that the plaintiffs who appealed the decision by the Board of Land and Natural Resources (BLNR) to grant a Conservation District Use Permit (CDUP) to the university for the Thirty-Meter Telescope (TMT) were denied procedural due process. Voting by members of the BLNR prior to the contested case appeared to give the appearance of pre-judgment. The Supreme Court vacated the permit and remanded the case so that a contested case could be conducted before the BLNR or a hearing officer or some other proceeding consistent with the opinion.

C. Dutchie Kapu Saffrey and Yellen vs. University of Hawaii, Department of Land and Natural Resources, Board of Regents, Office of Maunakea Management, et al.

The plaintiffs in this case claimed the lease and subleases were illegal pursuant to the Hawaiian Homelands Act because the leases and subleases were not limited to the beneficiaries cited in the Act. That is, the observatories are not beneficiaries of the Hawaiian Homestead Act. In January 2016, the state judge dismissed the case because the plaintiffs failed to state a claim for relief to be granted.

D. Amsterdam vs. State of Hawaii, et al.

Plaintiff Amsterdam filed suit in federal court claiming: 1) DLNR's emergency rules violated his constitutional rights as a Native Hawaiian; 2) the lease was unlawful; 3) the university failed to adopt rules to manage Maunakea; and 4) ceded lands are not owned by the state and therefore the state does not have the authority to issue leases and subleases. The judge dismissed the case saying the issue in the case was a political question and that the court did not have jurisdiction over such matters.

E. Fiber Optic Cable Damage

It was reported at the last meeting that there was damage to the fiber optic cable leading up to the summit. The damage appeared to be deliberate and the police were notified. To deter future damage, Maunakea Observatories Support Services (MKSS) secured 97 hand hole covers with metal or fiberglass bands.

F. Board of Regents Related Matters

At the request of the Maunakea Management Board (MKMB) a letter was sent to the Board of Regents (BOR) requesting they seek clarification from the governor about his ten steps towards better stewardship. In particular the withdrawal of 10,000+ acres from the Mauna Kea Science Reserve back to the Forest Reserve. Also as a follow-up to an MKMB approved action, a draft of an action memo was submitted in October 2015 to the University of Hawaii (UH) system for submittal to the BOR requesting an amendment to the CMP that the CMP apply only to lands managed by the university as defined in its leases and easements with DLNR. To date we have not received acknowledgment or response to either correspondence.

G. Annual and Five-Year Update of the Comprehensive Management Plan

We are currently working on the annual report to the BLNR detailing the progress made in implementing the CMP. We are also working on the five-year outcome report which will contain a description of the status of the resources, various management programs, progress towards meeting the goals of the CMP and other relevant information. The five-year outcome report will be useful in updating the CMP.

H. Aloha Art Festival

The Aloha Art Festival was held on Sunday, August 2, 2015 at the 'Imiloa Astronomy Center. The purpose of the festival was to give the community a voice about what was happening on Maunakea. Artistic themes of nature, culture, and science/technology reflected the inter-connectedness of these themes.

Over 200 art pieces were submitted and remain on display at the 'Imiloa Astronomy Center in Hilo. Judges from the community selected a top entrant from three categories. The winning entries are on display at the Visitor Information Station.

Keiki/Youth (Under 18)	Judges Choice: Mali'u Canerali, Hawaii
Adult Resident	Judges Choice: Lauren Kaponu, Hawaii
Adult Non-Resident	Judges Choice: Franco Troncoso, Poland

This successful event was conceived and organized by Christian Kaponu, who worked with the Office as an intern with the Pacific Internship Programs for Exploring Science program at UH Hilo last summer.

I. Kama'aina Observatory Experience

In January 2016, the Maunakea observatories and 'Imiloa launched their Kama'aina Observatory Experience (KOE) tour. The KOE is a monthly community event that welcomes Hawaii residents to see world-class telescopes and learn about the cultural and environmental importance of the mountain. Tours are free for residents of Hawaii. Contact 'Imiloa Astronomy Center for more information.

J. Volunteer Program

Our volunteer program statistics were down slightly for 2015 compared to 2014 as a result of the cancellation of two events due to protests on the mountain. Even though there were 55 fewer volunteers, we filled 50 more bags compared to 2014. Our first volunteer event for 2016 was held on January 23rd. Our volunteer events are very popular with the community as we are always getting requests from community groups to participate.

K. Cultural Resources Program Manager

Ms. Lukela Ruddle has been hired as the Cultural Resources Program Manager. Ms. Ruddle has 14 years of experience with the Office of Hawaiian Affairs (OHA), first as an aide to Hannah Springer when she was a Trustee, and more recently as the East Hawaii Community Resource Coordinator. Among her many responsibilities was to engage in active community outreach, implement OHA's community programs, and assist the community with resolving their immediate concerns.

IV. KAHU KŪ MAUNA COUNCIL (KKMC)

Tom Chun reported the Council welcomes Lukela Ruddle and looks forward to working with her as she will provide a constancy in terms of addressing things that come up to the Council.

The Council met with three OHA staff members regarding activities on the mountain. Through this meeting they will continue to have a closer relationship with OHA in determining policies. The Council welcomes this collaboration and looks forward to working things out in the future.

At the request of OMKM all the observatories prepared and submitted 5-year project plans. These plans were reviewed by the Council in coordination with OMKM. All the projects were classified into two categories. One category would require further investigation and/or follow up. Those that are reasonable and ordinary, such as an addition of a camera, would not require further review by the Council. These 5-year plans benefit both the observatories and the Council because less time is taken up on small, minimal impact or routine maintenance type projects.

The Council is being asked to consider actions that are happening on the mountain. Policies that are being set now are almost unenforceable except by DLNR. While developing these policies there needs to be a greater focus on how it is going to be carried out.

Herring Kalua asked if Council members were going out for consultation into the different communities. Mr. Chun replied no. That is why they are glad to have Ms. Ruddle on board. While Council members represent different segments of the community it is difficult to find the time to actively go out into the community. Mr. Kalua stated communication is the greatest failure and thanked Ms. Ruddle for taking on the responsibility. Mr. Kalua asked Ms. Ruddle if she will be doing outreach programs in the communities to which Ms. Ruddle replied, yes.

Lehua Veincent asked for clarification regarding OHA's concerns. Mr. Chun replied OHA has concerns with certain cultural practices. The latest was regarding the removal of an ahu. What we have stated in policy is if you are going to create an ahu, which is not disallowed, they should register it. Let someone know where it will be located. There are a few guidelines on where it should be placed. Mr. Kalua thought that should be a high priority for the community.

V. Committee Reports

Environment Committee

Fritz Klasner reported that at the committee's October 14, 2015, and January 26, 2016 meetings, there were discussions regarding control of *Cardiocondyla kagutsuchi* at Halepōhaku. According to the Hawaii Ant Lab, *C. kagutsuchi* is not particularly a big environmental concern. Their recommendation was to continue monitoring. If pesticide treatments at Halepōhaku continue to prove unsuccessful for this species, it was recommended to discontinue treatment, but only stop treating to attempt to remove this species and only in existing established areas.

Julien Petillon, a professor from France on sabbatical, is helping with spider identification in exchange for use of microscope and lab resources.

A draft debris monitoring and removal plan is being worked on. It was recommended to keep data recording and reporting processes as simple as possible to encourage reports and documentation.

Wēkiu Bug Workgroup

The Wēkiu bug workgroup met in December 2015. This workgroup still meets periodically even though the bug itself is no longer a candidate for Federal protection under the Endangered Species Act. Tropical Conservation Biology and Environmental Science (TCBES) Master of Science student Nathan Stephenson presented his research on classifying cinder in wēkiu bug habitat with his focus on cinder mineralogy. His project is a subset of Dr. Ryan Perroy's erosion baseline previously presented to the Board.

The workgroup recommended removing horn and stable flies as priority threats on the arthropod list, but still looking for new specimens in that taxa (they are commonly collected; it does not make sense to include common species as a priority

threat if there are no known control options.) The logic to this is that the horn and stable files are very common and are seen almost every time traps are put out.

The recommendation for frequency of wēkiu bug monitoring was changed from twice to once per year to reduce impacts from the process of monitoring, but when updating monitoring methods incorporate a schedule that will address intra-annual variation.

It was also recommended to establish an Office of Maunakea Management (OMKM) digital repository within the UH system library for all of the environmental work done. Establishing this under UH Hilo will be pursued. Limitation is the inability to cross-reference collections at UH Mānoa, which requires duplicate entry or set up of a separate system to consolidate. This would be a public website so it would be accessible to anyone.

Natural Resources Program

Anecdotally, a "wet" 2015 led to an increase in fireweed seedlings in the Mauna Kea Science Reserve (MKSR), i.e. above ~12,000 feet elevation. This winter's return to drier conditions is leading to a decline in seedlings. "New" species also removed from Halepōhaku: *Malva parviflora* (cheeseweed) and *Trifolium repens* (white clover).

Tapinoma melanocephalum and *Ochetellus glaber* ants within the Halepōhaku lower parking lot were reported at a previous meeting. There are no more sightings of these two species, even with additional survey effort.

An Advo-CATS micro-chipped cat was caught at Halepōhaku. Advo-CATS, a group out of Kona, was contacted and DLNR was informed.

One swarm of honeybees was removed in November.

The October 2015 weed pull volunteer event with the UH Hilo Biology Club was canceled due to a road closure. In October and December 2015 there were two events with the Hawaii National Guard Youth Challenge Academy. A public event was also held in December 2015. In January 2016 there were three events - Waiakea and Christian Liberty schools and the public.

Jessica Kirkpatrick and Heather Stever (Dr. Jesse Eiben's lab) visited schools to encourage participation in the Hawaii Nei Art Festival held in October 2015.

Chair Mooers asked Mr. Klasner to briefly explain the number of members on the Committee and how they are selected and their expertise. Mr. Klasner stated members are mostly university, DLNR and other agency participants. This includes the Hawaii Ant Lab, Big Island Invasive Species Committee, Natural Area Reserves and Forest Reserve, Forest Service, individuals such as Dr. Jesse Eiben and Dr. Ryan Perroy, other university faculty that do environmental research, as well as individuals that have expressed interest such as Debbie Ward and Nelson Ho. Attendance varies.

Someone from the audience asked about spraying for ants on the Access Road and treating the parking lot. What type of chemicals are being used and is there any mitigation to keep that from leaching into the ground and getting into the water table? Mr. Klasner replied Talstar Professional is used and it is done in keeping with the label. It is a fine mist that just coats the surface which evaporates within 5-10 minutes. What is sprayed is mostly the cracks in the pavement. We are only spraying at Halepōhaku in previously disturbed areas. The label recommendations are followed and a log is kept. We are not spraying along the road, which is state-owned and county managed. We do not have the authority to spray there.

Mr. Kalua asked if spraying is done at the top where the observatories are. Mr. Klasner replied spraying is not done on the top. We do not have the authority to spray there without going through an environment assessment or environmental impact statement.

Nelson Ho, with the Sierra Club, commented one of the things proposed in the past for mitigation for future development was the restoration of wēkiu habitat or the creation of new wēkiu habitat to replace the habitat that is impacted. Has that moved forward? Is there any effort to look at that issue and study it realistically on the ground? Or is it still just on paper? Mr. Klasner replied that was discussed at the wēkiu bug meeting. One of the conditions of TMT's permit was to fund a wēkiu bug habitat restoration study. Dr. Eiben and Dr. Perroy put together a proposal which was not submitted to TMT for funding now that their permit has been canceled. Jessica Kirkpatrick, working under Dr. Eiben, will be working on this as her thesis project.

VI. OLD BUSINESS

A. Presentation - Arthropod Biodiversity and Wēkiu Bug Updates by Dr. Jesse Eiben

Dr. Jesse Eiben gave a PowerPoint presentation on his arthropod biodiversity and wēkiu bug projects. The fieldwork assessment for Maunakea is mostly over and time is now spent on cataloging and identifying arthropods.

There are currently 18 threatened and endangered arthropods in the state, none of which occur above the Halepōhaku region. There are 263 "species of concern" which is the list of arthropods that management authorities are supposed to look for to see if they are in their lands just in case there is a trend in population decreases. There are six "species of concern" above the 2800 meters elevation.

There are some *Hylaeus* bees that are endangered species, but we do not have any of those endangered species on Maunakea.

A woman from the audience stated there was a list that came out with more plants, animals and insects being added to the endangered species list. She asked if any of these that we are looking at now were on that list. Dr. Eiben replied no. None of these are on that list. The woman asked Dr. Eiben to give some background on the bees on the mountain. Dr. Eiben replied the species found on Maunakea are *Hylaeus volcanicus*, *Hylaeus difficilis*, *Hylaeus flavipes* and *Hylaeus coniceps*. The person responded *facilis* is on the list and asked where on the mauna it is located. Dr. Eiben replied *Hylaeus facilis* has never been found on the mountain. There are 60 species of *Hylaeus* bees and none of the endangered species have ever been recorded for Maunakea.

Mr. Kalua thanked Dr. Eiben for participating and doing all of this. It would be great to go to 'Imiloa and do education for the lower school levels and tours to different schools.

B. Maunakea Invasive Species Management Plan

The Maunakea Invasive Species Management Plan was originally approved by the Board in February 2015. The following documents were reviewed by the Environment Committee and the revisions made reflect the input from the Committee. These documents were distributed to the Board at their September 2015 meeting, after consultation with Kahu Kū Mauna.

- SOP 01 - Cleaning of Vehicles and Personal Belongings - Revision
- SOP 02 - Inspection of Vehicles, Construction Materials, Scientific Equipment, & Supplies - Revision
- SOP11 - Annual Alien Invertebrate Early Detection & Wēkiu Bug Monitoring - New
- SOP B - Maunakea Vertebrate Threats, Identification, Collection, and Processing Guide - New
- SOP D - Maunakea Plant Threats, Identification, Collection & Processing Guide - New
- SOP Z - Revising the Invasive Species Management Plan - New

Mr. Klasner explained SOP Z states new documents will be reviewed first by Kahu Kū Mauna then MKMB for approval. If it is an update, technical change(s), or communication improvements - no policy change and as long as the technical and subject matter experts are okay with it - it will be approved and the Environment Committee, Kahu Kū Mauna and MKMB would be notified. If it is new or a major policy change then it would be brought to the Board as an action item. Another item that would not come to the Board are results reporting.

Kahu Kū Mauna

Kahu Kū Mauna has been consulted and had no comments, thus there are no changes to these documents.

Action

It was moved by Greg Chun and seconded by Doug Simons to approve the proposed approach as presented by Mr. Klasner. The motion was carried unanimously.

Mr. Klasner added the Plan is intended to be adaptive so anytime there are questions or comments, anybody should feel free to reach out to us.

VII. NEW BUSINESS

A. Operations, Monitoring and Maintenance Plan (OMMP) - Discussion

Purpose

Director Nagata explained the CMP calls for the development of an Operations, Monitoring and Maintenance Plan (OMMP). The purpose of the Plan identifies maintenance needs, strategies and protocols that would minimize impacts on the resources and ensure permittees/sublessees comply with their CDUPs, subleases and state regulations. The Plan calls for observatories and the Maunakea Observatories Support Services (MKSS) to submit

annual 5-year outlook plans containing a list of activities that alter or modify the exterior of a facility, interior projects with exterior impacts, outdoor storage of materials for a prolonged period of time, or use of heavy equipment over the five years.

Process

OMKM reviews each 5-year outlook for clarity and completeness and makes a preliminary assignment of each activity into one of two categories - Minimal Impact or Routine Activities and In-Depth Consultation. KKMC reviews the recommendations made by OMKM and either concurs or makes adjustments to activity category assignments. Observatories submit their final detailed proposals for their respective projects. If the project is Minimal Impact/Routine Activities, OMKM does a final review and submits to MKMB. If a project is classified as In-depth Consultation, it is first taken to KKMC for consultation before submitting it to the MKMB for approval. Regardless of the impact category a project is assigned to, the project is still subject to state review and approval and, if necessary, a permit.

A content guideline for the 5-Year Plan was developed to assist the observatories and to help streamline our review. All of the observatories submitted their 5-year plans in December. In January, KKMC with OMKM reviewed them all. Observatories will be sent the results of their review.

Greg Chun asked if the plans include a timeline for each facility? Mr. Klasner replied that there is an estimated date for each project in the plan. Dr. Chun asked if OMKM reviews to look at the cumulative activity and how these things all fit together. Mr. Klasner stated we looked at this perspective to a certain extent. Not so much coordinating the timing, per se, but there are mitigations suggested in OMKM's review. Part of the CMP requirement for an OMMP is to have a strategy. With the Council's review and the Office's recommendation to the Council, mitigations are identified. For example, several of the plans contained the installation of cameras. Based on the OMMP there is need for further discussion among the observatories to see if they could consolidate their camera requests.

Director Nagata replied Caltech Submillimeter Observatory (CSO) has ceased operations and the UH Hoku Ke'a has been identified as one that will be decommissioned. Both facilities submitted their notice of intent to decommission. Being that this is first time we are going through the decommissioning process we are working with DLNR to make sure the process and procedures are correct. Mr. Klasner added one of the items in the 5-Year Plan was do you anticipate starting the decommissioning process in the next five years. With the exception of CSO and Hoku Ke'a, everyone said no. Ms. Ward commented because there are very few details in the Decommissioning Plan (DP), it is difficult for the observatories to budget because they have no idea what the level of restoration is going to be. There is a lot of consideration needed and it may take five years to consider those. Director Nagata replied the DP states observatories have to budget for full restoration. Whether or not full restoration is done will be determined in the vetting process.

Doug Simons stated that the weather sensors is not only used for astronomy, they are, in fact, used by the National Weather Service and serves as a public resource. He added he fully supports this new approach and he has not heard any negative feedback from the observatory community. It helps with transparency and gives everybody a heads up with what observatories are planning. It will certainly help Kahu Kū Mauna in achieving their mission.

VIII. ANNOUNCEMENTS

Dwight Vicente asked if there were any proposed legislation that supports the TMT project. That is, is UH supporting any legislation that would prevent someone from challenging the construction of the telescope. Director Nagata did not know of any legislation that has been introduced to prevent challenge to the TMT.

IX. NEXT MEETING

Board members will be polled for the next meeting date.

X. ADJOURNMENT

There being no further business Chair Mooers adjourned the meeting at 11:53 a.m.

Respectfully submitted:

Signed by Dr. Gregory Chun
Dr. Gregory Chun, Secretary, MKMB

3/9/16
Date