



University of Hawai'i at Hilo

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**Minutes  
Regular Meeting**

Mauna Kea Management Board  
Tuesday, February 14, 2017

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

**Attending**

- MKMB:** Chair Gregory Mooers, 2nd Vice Chair/Secretary Gregory Chun, Herring Kalua, Douglas Simons and Lehua Veincent
- Kahu Kū Mauna:** Shane Palacat-Nelsen (by phone)
- OMKM:** Fritz Klasner, Stephanie Nagata, Dawn Pamarang, Lukela Ruddle, Sage Van Kralingen, and Darcy Yogi
- Others:** Cory Harden, Stewart Hunter, Jessica Kirkpatrick and Janno Scheer

**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 Douglas Simons and seconded by Lehua Veincent the minutes of the October 4, 2016, meeting of the MKMB were unanimously approved with one correction to the minutes. On page 11 Mr. Lanny Sinkin's first name was misspelled and will be corrected.

**III. DIRECTOR'S REPORT**

**A. Thirty-Meter Telescope (TMT) Contested Case**

The evidentiary portion of the contested case began on October 20 and today marks the 35<sup>th</sup> day of the hearings. Hearings are scheduled to the end of February. It is uncertain whether all of the remaining witnesses will be cross-examined. It is possible the hearings may continue into March.

**B. Flores vs. Board of Land and Natural Resources (BLNR)**

The Flores vs. Board of Land and Natural Resources is an appeal to the Third Circuit Court regarding the Board of Land and Natural Resources' (BLNR) decision not to grant a contested case for the TMT sublease. Judge Nakamura ruled on January 6, 2017, and remanded the case back to the Land Board citing the Appellant was entitled to a contested case. The state has filed an appeal to the Intermediate Court of Appeals.

**C. Outreach**

The third annual Kealakehe Elementary School Science Fair will be held on February 23, 2017. The Office of Maunakea Management (OMKM) is again partnering with 'Imiloa, Maunakea Astronomy Outreach Committee, UH Hilo's Jesse Eiben, Pat Hart, Ryan Perroy, and Kahu Kū Mauna's Tom Chun, in bringing an afternoon of fun science to the students and community. There will be bugs, a flight simulator, pin-hole cameras, coloring activities, science experiments, native bird vocalizations, solar telescopes, portable planetarium and more.

#### **D. Road Improvement**

Maunakea Observatories Support Services (MKSS) is coordinating with the Department of Transportation (DOT) on the repavement of the road fronting the Visitor Information Station sometime this spring. In conjunction with this road improvement activity, MKSS is installing guardrails on the west side of the road in an effort to minimize potential accidents by preventing cars from parking, especially partway into the road, and help reduce erosion.

#### **E. Five-Year Observatory Project Plans**

Kahu Kū Mauna completed their review of the observatory's five-year project plans. As they did last year, projects that did not require additional review by the Council and those that required in-depth review were identified. The final versions of the plans will be sent out to all the observatories.

#### **F. Administrative Rules**

Upon recommendation by the MKMB at the October 2016 meeting, a request was forwarded to the University of Hawaii Board of Regents to submit the draft administrative rules to the governor and request authorization to take the rules out for public hearings. In November 2016, the governor requested that the University not submit the draft rules to him. He is developing a new multi-stakeholder framework and would like to work together on draft rules that will support the new framework, which will include the return of some 10,000 acres to the Department of Land and Natural Resources' (DLNR) jurisdiction and the establishment of a new council advising the state.

#### **G. Maunakea Speaker Series**

OMKM is happy to announce the launching of a Maunakea speaker series. This is a collaborative effort between OMKM, 'Imiloa and UH Hilo's Physics and Astronomy Department. Fritz Klasner came up with this idea to have scholars, many of whom are UH faculty or students who have ties to Maunakea, to share their work and research findings with the community. The first presentation was made on February 9, 2017, by Dr. Rob Fleischer from the Smithsonian Conservation Biology Institute of the National Zoological Park. His presentation was on Hawai'i's native birds and how DNA was used to study the evolutionary relationships, population genetics, diets, and the impacts and mitigation of introduced disease.

#### Discussion

Chair Mooers informed the Board that he was contacted by Jan Sullivan, Board of Regents (BOR) chair, to meet to discuss the relationship between this Board and the BOR. At this meeting, Chair Mooers expressed his frustration and the fact that this Board had submitted a letter about a year ago asking for clarification on some of the items on the governor's 10-point action list. After their meeting, he submitted the request again for consideration as the previous chair did not share the request with the full board. Chair Sullivan was not aware that the confirmation of members on our Board is part of their process.

#### **IV. KAHU KŪ MAUNA COUNCIL (KKMC)**

Shane Palacat-Nelsen reported the Council last met last night, February 13. They have been reviewing the observatories' 5-year project plans to help streamline the process. They are also working on setting up consultation with the public. Starting in December advertisements were placed in the local newspapers seeking individuals to "talk story". The Council will then be able to help provide some input through the public consultation process to the MKMB. The Council is also seeking new members.

#### **V. Committee Reports**

##### **Environment Committee**

Fritz Klasner reported the Environment Committee last met on February 10, 2017. The focus of the meeting was a presentation by Dr. Jesse Eiben and Jessica Kirkpatrick on their wēkiu bug habitat restoration work. They submitted a proposal to our Office. There is an overall habitat restoration plan put together with the assistance of the wēkiu bug working group. Dr. Ryan Perroy and Nathan Stephenson's erosion work and Nathan's Master's thesis addressed the bulk of the initial habitat mapping portion. This current proposal from Dr. Eiben and Jessica Kirkpatrick addresses biology and habitat use of the wēkiu bug. Upon completion of the work proposed by Dr. Eiben, the next major step would be to integrate habitat mapping and biology information to design a small-scale test and implement habitat restoration based on the preceding project findings.

##### Invasive Species

A *Scolopendra* centipede was captured at an observatory a few months ago. Observatories have been asked to report any future observations. There was also a single Carpenter ant (*Camponotus variegatus*) caught at the Visitor Information Station (VIS). The rapid response delineation survey was initiated with no further detections. A final report is pending review. There have been both a dog and cats in the Forest Reserve and Science Reserve. We are working with the Humane Society and DLNR to monitor and trap.

### Field Work

The wēkiu bug monitoring continues. The LiDAR erosion study field work will repeat again in late March. This will compare use of repeating LiDAR versus repeating unmanned aircraft system (UAS) (drone) photogrammetry flights to validate UAS use as an alternative (and thus some patches of snow will not be an issue). Quarterly invasive species traps are out now and will be picked up next week. Dr. Hart's bird and bat survey work is ready to go and actual field work will probably commence this summer/fall.

### Outreach

A volunteer weed pull event was held this past Saturday, February 11, with University of Hawaii at Hilo and Hawaii Community College students.

### Publications

Nathan Stephenson and Heather Stever have both completed their Master's thesis. Mr. Stephenson's paper on bug habitat mapping has been accepted in the "Journal of Insect Conservation." Ms. Stever's paper was on arthropod biodiversity at Halepōhaku. Both will be posted on our website. Norbert Schorghofer's papers on hydrology in the cinder cones on the summit and on permafrost results have also been accepted for publication. All three of these individuals will hopefully be in the Maunakea Speaker Series soon.

## **VI. NEW BUSINESS**

### **A. Maunakea Sign Plan**

Fritz Klasner explained the purpose of this sign plan is to guide and improve signage throughout the UH management areas. It is also in fulfillment of management action EO-4 of the 2009 Maunakea Comprehensive Management Plan (CMP).

The plan provides guidance for the placing and maintenance of permanent and temporary signs on UH-managed lands including the Maunakea Science Reserve, the Maunakea Summit Access Road and the 400-yard corridor on either side of the road (excluding the Maunakea Ice Age Natural Area Reserve), the Mid-Level facilities at Halepōhaku, and all improvements, including, but not limited to, all observatories, facilities within the Halepōhaku area, and roadside structures, such as guardrails and uprights. This plan does not apply to signs inside buildings or other structures.

The policies identified in the plan are intended to keep signage to the minimal level necessary and to comply with the Office of Maunakea Management policies, the Department of Land and Natural Resources (DLNR) Conservation District rules, and other applicable laws and policies on signage. This plan follows many of the norms and standards identified in the 2013 "Sign and Poster Guidelines for the Forest Service." The plan recommends that the identified policies, practices, and recommendations be phased-in as existing signs require replacement or maintenance. DLNR permitting requirements also apply.

### Kahu Kū Mauna Council

Kahu Kū Mauna Council (KKMC) was consulted on January 18, 2017 and again on February 13. Several recommendations were made and incorporated. Examples of their recommendations include identifying that any signs that identify a 'prohibition' be based on a valid law, statute, or rule; and that a flow chart of the approval process for signs be included.

The Council's comments from last night's meeting are in regard to page 5 relating to the CMP. Some of the statements in the CMP are internally conflicting. The Council recommended removing some of that. The last sentence in the first paragraph under CMP would be rephrased to something of the effect of Hawaiian and English languages may be used for signs and the subsequent paragraph would be deleted entirely.

The follow up to that is on page 7, the first bullet be rephrased to "Comply with legal policy requirements and administrative rules as adopted." This would tie back in with the comments on page 5.

The last change is on page 16, Approval Process. The language in the last sentence is a little confusing. The intent is any signs that are put up after this plan is approved that are not consistent with the plan, but were previously reviewed and approved, are fine. We can approve deviations. The plan narrative will be revised to clarify this intent.

### Discussions

The next step would be to re-do the sign inventory as the version in this plan is from 2012.

Chair Mooers asked if the county sign ordinance would affect this plan in any way. Mr. Klasner was not familiar

with the county's sign ordinance. Chair Mooers asked that this be looked into and, if applicable, be reflected in the plan.

Doug Simons asked how many signs are up there now that would have to be grandfathered in this plan. Mr. Klasner did not know the number but stated it would be a lot. What was surveyed in 2012 were the road signs and free standing signs, not the safety signs or signs attached to buildings. In discussions with DLNR, we need to include everything. We have a student intern who will start the inventory this Friday.

Lehua Veincent asked if there were any ongoing violations that cause the need for more signs to be put up. Director Nagata stated parking is one. Mr. Klasner added the rangers submit a daily report of issues. This report does not analyze issues specific to where we need signs. Sometimes people park on the shoulder of the road that does not seem safe. To put up a no parking sign means we would have to add it to the county ordinance, which as he understands is not an unreasonable task; it just takes a little time. Mr. Veincent stated signs are put up to deter inappropriate behavior, but are we keeping count of inappropriate behavior? Director Nagata stated when the rangers see something they make note of it.

#### Actions

It was moved by Doug Simons and seconded by Lehua Veincent to approve the Maunakea Sign Plan. The motion was carried unanimously.

### **B. Maunakea Operations, Monitoring and Maintenance Plan**

Fritz Klasner explained this was brought before the Board almost a year ago, but at that time we were not seeking the Board's approval. The Operations, Monitoring, and Maintenance Plan (OMMP, Comprehensive Management Plan IM-1) identifies maintenance needs, strategies, and protocols that minimize impacts to the resources, and ensure that permittees comply with their (CDUP), subleases, and State of Hawaii regulations including Conservation District Rules. An OMMP also serves as a reporting mechanism documenting CMP implemented management actions.

In keeping with the University's management mandate and the CMP, activities are evaluated and categorized as original or minimal / minor / major projects, pursuant to Hawaii Administrative Rules for the Conservation District (13-5). Minimal impact project use the process outlined at the website <http://www.malamamaunakea.org/science/science-projects> for review. Minor and major projects follow the process outlined in the CMP. This OMMP does not alter the requirements outlined in the CMP.

#### Purpose and Benefits

The plan ensures regular monitoring through annual updates to observatory 5-year project plan outlooks, OMKM oversight, and OMKM, Maunakea Management Board, and State approvals as appropriate. As identified in the 2009 Comprehensive Management Plan, the OMMP is a document that coordinates maintenance plans, activities, and schedules. It identifies personnel necessary to conduct tasks, monitoring requirements to ensure compliance, and reporting procedures to document the actions that were implemented.

Each observatory and Maunakea Support Services annually submits a 5-year outlook of projects. These 5-year outlooks include all activities that alter or modify the exterior of a facility, interior projects with exterior impacts, the outdoor storage of materials for a prolonged period (more than 30 days), or use of heavy equipment. OMKM reviews each 5-year outlook for clarity and completeness. Kahu Kū Mauna Council reviews each outlook and assigns a designation of "Minimal Impact or Routine" or "In-Depth Consultation Required". When an observatory submits a detailed proposal for a project(s) listed in the 5-year outlook, those classified as "In-Depth Consultation Required" are first taken to KKMC for consultation before submitting to MKMB for approval.

Monitoring is accomplished through OMKMs project approval and tracking, daily Ranger activity reporting, State permitting, and comparison of detailed project proposals with existing 5-year outlooks. Mitigation considerations are identified in Maunakea Management Board approvals, State permits, and project-specific documentation.

#### Kahu Kū Mauna Council

Kahu Kū Mauna Council (KKMC) was consulted on February 13, 2017. This was a follow-up consultation from the January 2016 meeting which also included review of 5-year outlooks, along with January 18, 2017 which included the second iteration of reviews. Several recommendations were made regarding content, including developing more frequent reporting tools on project status to the Council and ensuring professional submissions by Observatories prior to Council consultation.

### Board Action Requested

The Board is being requested to approve or disapprove the OMMP.

### Discussions

Dr. Simons commented we have been through a full cycle of this and it has been very smooth. The observatories are generally very supportive of it.

### Actions

It was moved by Lehua Veincent and seconded by Herring Kalua to approve the Maunakea Operations, Monitoring and Maintenance Plan. The motion was carried unanimously.

## **C. Maunakea Observatories Support Services - Halepōhaku Construction Staging Area Gates and Vehicle Stops**

Director Nagata reported the Maunakea Observatories Support Services (MKSS) requests to install two pipe gates at the entrances/exits of the Halepōhaku staging area and to delineate the staging area with large rocks.

### Purpose and Benefits

The gravel area below and west of four existing construction cabins located at Halepōhaku is for temporary off-summit storage of vehicles, equipment, supplies and materials for project-based maintenance, decommissioning, or facility construction and renovation. It is sometimes used as a staging area for emergency vehicles or landing site for helicopters. In recent years the area is also used by visitors and tour companies as overflow parking when other areas are full (typically for evening stargazing during periods of high visitation). There is evidence (tire tracks) of vehicles leaving the designated parking area and driving on undisturbed areas which has the potential to unintentionally expand the impacted area. The project purposes are to:

1. To prevent damage to the resources by preventing vehicles from driving “cross-country” onto undisturbed areas.
2. To help ensure public safety by sectioning off heavy equipment, and construction and maintenance activities and preventing the public from wondering, driving or parking when the area is used for activities related to construction and maintenance.
3. To protect equipment/material in the storage area.
4. To provide storage area for construction materials reducing the amount needed to be stored on the summit.

The proposed activity will only occur within a 1/2-acre (not 1/4-acre as noted in the memo to the Board) of an existing gravel/cinder lot that is designated for equipment/materials storage and occasionally used for overflow visitor parking to the Visitor Information Station. Pending necessary approvals, the project is expected to be completed in less than three months.

### Kahu Kū Mauna Council

Kahu Kū Mauna Council (KKMC) reviewed this at their meeting last night. There were questions about the proposal that needed clarification. Other than that, the Council had no objections to this proposal.

### DLNR Rules

DLNR will be contacted and applicable site plan or permits obtained pursuant to administrative rules in the Conservation District. The project will not proceed until appropriate DLNR approval has been obtained and any conditions incorporated into the project.

### Comprehensive Management Plan Compliance

The project addresses public and worker safety as well as lease compliance to avoid unintended impacts (expansion of parking area through increasing use).

### Recommendation

OMKM recommends the MKMB classify this proposal a minimal impact project based on the following:

1. The proposed request does not increase the size of the facility and addresses public safety and resource protection.
2. There are no archaeological sites in the immediate area.
3. The project maximizes infrastructure use with negligible impact to the immediate surroundings.

If this project is classified minimal impact, OMKM recommends MKSS be allowed to proceed with the permit application.

### Conditions

OMKM recommends the following conditions:

1. Notify OMKM in writing at least 5 days prior to beginning field work on UH managed lands (Halepōhaku, Road Corridor, Maunakea Science Reserve, or Astronomy Precinct).
2. All project participants must attend a Maunakea orientation prior to participating in field work.
3. Allow OMKM Rangers to visit and monitor activities.
4. Comply with all actions and measures described in the proposal, including (community) benefits, CMP compliance list, and mitigation measures.
5. Ensure that loose tools or equipment are not left unattended and are properly stored at the end of each day.
6. In preparation for high wind conditions (including verification that temporary and permanent infrastructure can sustain 120mph winds), protocols must include measures to ensure debris and equipment are not blown from the job site.
7. All improvements shall be designed and installed to withstand the severe weather conditions on the mountain.
8. Remove and properly dispose of all waste material. All perishable items including food, food wrappers and containers, etc. shall be removed from the site at the end of each day and properly disposed.
9. Employ invasive species prevention best practices, including inspections of materials by a DLNR-approved biologist as appropriate prior to entering UH-managed lands.
10. Motorized equipment, when stationary, must have a drain-pan in place suitable for catching fuel or fluid leaks. To allow for expansion with reduced atmospheric pressure, fuel tanks should not be more than 3/4 full prior to transport to the summit (unless used as the fuel source for transport to the summit).
11. Large, heavy, or oversized loads must submit notification to the Maunakea Road Conditions listserve at least one-day prior to delivery. Loads requiring an escort on public roadways must have this escort accompany them to the final destination. Projects failing to do so must obtain approval from the Maunakea Rangers before arriving at Halepōhaku or may be denied entry to Halepōhaku or above.
12. Nēnē (*Branta sandvicensis*) may be present. If a nēnē appears within 100 feet (30.5) meters of ongoing work, all activity should be temporarily suspended until the animal leaves the area of its own accord. Feeding of nēnē is prohibited.
13. The approval may not be transferred or assigned. All persons associated with this project must carry a copy of the permit while they are working on University-managed lands.
14. No use of mechanized equipment is allowed unless authorized by this permit.
15. Identify and comply with other permit requirements, such as County of Hawaii building permits or Department of Land & Natural Resources (see both any applicable DLNR permit and HAR §13-5-42 Standard conditions).
16. Placement of permanent: markers, monuments, mag nails, survey pins, etc. is not allowed without explicit prior approval from OMKM (and the State if required) for this purpose. ALL surveyors work must be shared with OMKM in digital format (i.e. CAD file as well as PDF) with coordinate info stored in and using a common, transferrable coordinate reference system such as “State Plane Coordinates (NAD83), Hawaii Zone 1”.
17. Notify OMKM in writing when field activity associated with the project is completed.
18. The project must be completed within the time frame specified in the proposal and (when applicable) DLNR approval. Projects not completed within this timeframe are not allowed to continue (or commence) without explicit, prior, written approval from OMKM.

### Discussions

Dr. Simons commented that hunters tend to use this area for big 4x4 trucks with ATV trailers, which are large. If you are trying to avoid encroachment of parking beyond this area, he is not quite sure where they will go. He is concerned that they will be left with no area to park these big, long vehicles.

Stewart Hunter stated they are aware and whether they will be able to park on the side of R-1 is not anticipated to be a problem. What he is doing is to make sure we do not go out of our area. He has located the survey pins and before they place anything they will mark the area.

Chair Mooers stated the report indicated that the area is sometimes used for overflow parking. By gating this, will it constrain the public to park somewhere else? Mr. Hunter replied areas not used will be used as overflow. They currently have enough traffic up there that sometimes all areas are full. That is always an ongoing problem and we are working on other areas to address that.

Chair Mooers asked about the perimeter parking in red around most of the sites and is assuming the grade change by the road does not require boulders in that area. He asked where the boulders would be coming from. Mr. Hunter replied there are rocks and boulders stored alongside the road on the lower part of the access road.

Action

It was moved by Doug Simons and seconded by Gregory Chun to classify this as Minimal Impact and recommend MKSS be allowed to proceed with the permit application. The motion was carried unanimously.

**D. Executive Session (Closed to the Public) 10:45 a.m.**

To consult with the Board's attorney on questions and issues pertaining to the Board's powers, duties, privileges, immunities, and liabilities pursuant to HRS §92-5(a)(4)

The Board reconvened in public session at 11:20 a.m.

**E. Election of Officers**

Chair Mooers opened the floor for nominations of Board officers - Chair, 1st Vice Chair, and 2nd Vice Chair/Secretary. Positions would become effective July 1, 2017.

Mr. Kalua nominated Gregory Chun as chair and Mr. Veincent seconded the motion. Hearing no further nominations Chair Mooers closed the nominations. The motion was carried unanimously for Gregory Chun for chairman.

Mr. Veincent nominated Hannah Springer as 1st vice chair and Mr. Kalua seconded the motion. Hearing no further nominations Chair Mooers closed the nominations. The motion was carried unanimously for Hannah Springer for 1st vice chair.

Dr. Simons nominated Lehua Veincent as 2nd vice chair/secretary and Mr. Kalua seconded the motion. Hearing no further nominations Chair Mooers closed the nominations. The motion was carried unanimously for Lehua Veincent for 2nd vice chair/secretary.

**VII. ANNOUNCEMENTS**

There were no announcements.

**VIII. NEXT MEETING**

Board members will be polled for the next meeting date.

**IX. ADJOURNMENT**

There being no further business Chair Mooers adjourned the meeting at 11:25 a.m.

Respectfully submitted:

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

5/10/17  
Date