



University of Hawai'i at Hilo

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**Minutes
Regular Meeting**

Mauna Kea Management Board
Wednesday, March 9, 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 1st Vice Chair Hannah Kihalani Springer
- BOR:** Barry Mizuno
- Kahu Kū Mauna:** Tom Chun
- OMKM:** Wally Ishibashi, Fritz Klasner, Stephanie Nagata, Dawn Pamarang, Sage Van Kralingen, Amber Stillman, Darcy Yogi and Joy Yoshina
- Others:** Charmaine Bugado, Hank Fergstrom, Cory Harden, Nelson Ho, Springer Kaye, Joe McDonough, Derrick Salmon, Deborah Ward and Dwight Vicente

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 Hannah Springer and seconded by Greg Chun the minutes of the February 4, 2016, meeting of the MKMB were unanimously approved.

III. DIRECTOR'S REPORT

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

On February 22, 2016, the Third Circuit Court remanded the matter of the Board of Land and Natural Resources (BLNR) vacated permit for the Thirty-Meter Telescope (TMT) project back to BLNR with instructions that a contested case hearing be conducted before the BLNR or hearing officer or for other proceedings consistent with the Supreme Court opinion.

B. 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 appealed the Third Circuit Court's decision to dismiss the case against the University of Hawaii (UH), et al. to the Intermediate Court of Appeals. The plaintiffs claimed that the BLNR's lease to UH and UH's subleases were illegal pursuant to the Hawaiian Homelands Act because the subleases were not limited to the beneficiaries cited in the Act. That is, the observatories are not beneficiaries of the Homestead Act. In January the judge dismissed the case because the plaintiffs failed to state a claim for relief to be granted.

C. Decommissioning of the Caltech Submillimeter Observatory and University of Hawaii at Hilo's Hokukea Telescopes

Correspondence has been received from the Department of Land and Natural Resources (DLNR) stating that their review of the notice of intent to decommission the Caltech Submillimeter Observatory (CSO) and Hokukea telescopes appear to be in compliance with the requirements of the Decommissioning Plan. The next steps in the process are to bring the notices of intent to the Environment Committee, Kahu Kū Mauna and the Maunakea Management Board (MKMB) for their review and/or comments, and in the case of the MKMB, its approval.

Deborah Ward was curious to know whether DLNR indicated that they would require a conservation district use permit. Director Nagata replied the decommissioning process involves compliance with the conservation district rules. We cannot speak for DLNR as to what it is they will require, but it will require their review.

D. Prince Kuhio Day Celebration

The Office of Maunakea Management (OMKM) and the Maunakea observatories have been invited by the Panaewa Homestead Community Association to help celebrate Prince Kuhio's birthday on March 26. OMKM, along with some of the observatories, will offer hands-on keiki activities.

E. Board of Regents Related Matters

We received word from the UH System that given the uncertainties of the proposed return of the 10,000 plus acres of the Mauna Kea Science Reserve to DLNR, that it was not the right time to take action to amend the Comprehensive Management Plan (CMP). In August 2015, the MKMB had requested that the Board of Regents amend the CMP to state that the CMP applies only to lands managed by the University.

F. People on the Summit Facilities

Rangers have reported seeing people on the rooftops and dome of some of the summit facilities. For example, last week around 9:00 p.m. someone was observed on the United Kingdom Infrared Telescope (UKIRT) summit facility roof and later on the top of the dome. UKIRT operators, who operate the facility remotely, stopped moving the dome for fear of injuring the person. Rangers were called, but by the time they arrived the people were off the rooftop. Similarly, since 2011, there have been 41 people reported on the summit lunchroom roof. The largest group was 17 people who were watching someone fly a drone.

IV. KAHU KŪ MAUNA COUNCIL (KKMC)

Tom Chun reported the Council met on March 1st in Waimea. With the guidance of Lukela Ruddle, the Council is starting to do a systematic review of the Comprehensive Management Plan. In doing so, the Council came up with a lot of questions that need to be addressed and looked into.

V. Committee Reports

Environment Committee

Fritz Klasner reported the committee did not meet since the last MKMB meeting.

Invasive Species Plan Update

The Board was informed that grammatical edits were done to Standard Operating Procedure Z - Revising the Invasive Species Management Plan and Standard Operating Procedure C - Maunakea Invertebrate Threats, Identification, Collection, and Processing Guide.

Cats at Halepōhaku

There have been three separate incidents of cats reported at Halepōhaku since December. Two of the three cats were captured. This is closer to a typical year's quantity but within only a few months. This was reported to DLNR, other adjacent land owners and the United States Fish and Wildlife Service (USFWS). No one else is reporting a similar trend. We are concerned, although just a theory, this may be a result of people leaving their cats behind (intentionally or unintentionally). We will continue to monitor and work with DLNR and the USFWS on education efforts.

European Honey Bees at Halepōhaku

There have been reports of honey bees swarming at Halepōhaku. This could presumably be related to the seasons and a drying trend at mid-high elevations. The bees are seeking water sources (faucets, etc.). The assumption is they are probably wild hives. We are working with Maunakea Observatories Support Services (MKSS) and the Visitor Information Station (VIS) staff to reduce swarms and putting out swarm traps to draw new colonies away from the facilities.

Invasive Species Monitoring

OMKM staff, Darcy Yogi, found a snail at Halepōhaku which was sent to UH Manoa for analysis. It is thought to be a native *Elasmus spp.*

Volunteer Events

Volunteer events have been held on February 13 and March 5 with UH Hilo and Hawaii Community College students. The later part of this month will be with a service group from Oahu (Americorps Volunteers in Service to America Program at Hawaiian Community Assets). In May there will be an event with the Pahoia Rotary Club.

VI. NEW BUSINESS

A. Canada-France-Hawaii Telescope - Gemini Fiber Optic Conduit

Canada-France-Hawaii Telescope (CFHT) is seeking permanent approval for the existing fiber optic conduit between the CFHT and Gemini observatories, originally approved by DLNR under proof-of-concept testing. Neither CFHT or Gemini foresees any further conduit installation activities in the foreseeable future.

Over the past several years, CFHT and Gemini have collaborated on a highly successful partnership called GRACES (Gemini Remote Access to CFHT ESPaDOnS Spectrograph), using a fiber optic link originally approved by DLNR in 2005. GRACES' success has been demonstrated since 2015, wherein star light collected by Gemini is passed to the CFHT spectrometer. This spectrometer is available to the Gemini science community when not in use by CFHT. The project is an example of inter-observatory collaboration that minimizes summit development while continuing science initiatives. DLNR provided site plan approvals to CFHT to install the fiber optic cables, housed in an above-ground conduit, in letters dated December 5, 2005 and June 8, 2006. DLNR renewed these permits for an additional 3 years via a letter dated July 13, 2011.

Various mitigation measures have been taken including the minimization of ground disturbance by placing the conduit above-ground, painting the conduit a color similar to the surrounding cinder, regular inspection (at least twice-annually), and periodic maintenance of the conduit.

Kahu Kū Mauna Council

On January 20, 2016, Kahu Kū Mauna Council reviewed the proposal as part of CFHT's 5-year plan and determined that no in-depth consultation beyond the 5-year plan consultation already conducted was necessary.

DLNR Rules

DLNR will be consulted regarding a permit or site plan approval for this project. 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 was reviewed for compliance with the Comprehensive Management Plan.

Recommendation

OMKM recommends this project be classified as Minimal Impact based on the following:

1. The proposed request does not increase the size of the facility and is solely a request for updated permitting of existing infrastructure.
2. There are no archaeological sites in the immediate area.
3. The project maximizes infrastructure use with negligible impact to the immediate surroundings and summit region.

If this project is classified Minimal Impact, OMKM recommends CFHT be allowed to proceed with permanent permitting.

Conditions

OMKM recommends the following conditions:

1. Notify OMKM in writing at least five days prior to beginning any on-site work.
2. All project participants must attend a Maunakea orientation prior to participating in field work.
3. Employ invasive species prevention best practices, including inspections of materials by a DLNR-approved biologist as appropriate prior to entering UH managed lands.
4. Allow OMKM rangers to continue to visit and monitor activities.
5. Comply with all actions and measures described in the proposal, including (community) benefits, CMP compliance list and mitigation measures.
6. Ensure that loose tools or equipment are not left unattended and are properly stored at the end of each day.

7. In preparation for high wind conditions, protocols must include measures to ensure debris and equipment are not blown from the job site.
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 of.
9. 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.
10. Unless otherwise stated in the proposal, upon project completion, all data will be shared with OMKM for future, unrestricted use by OMKM or its designee. All geospatial data, metadata or applications must be in format compatible with OMKM GIS software or other industry standard identified in advance.
11. No use of mechanized equipment is allowed unless authorized by this permit.

Discussion

Greg Chun asked if this was for a special use permit for the conservation district. Director Nagata replied it is for a site plan approval. He inquired how do these permits work? Chair Mooers explained that site plan approvals are issued by DLNR Office of Conservation and Coastal Lands (OCCL). No Land Board action is required. Mr. Klasner added that OCCL previously issued a site plan approval for this project. This would be a continuation of it.

Chair Mooers inquired if there were any problems with vandalism being that the conduit is above the ground. Doug Simons stated they have had problems with people standing on it, but not vandalizing it. They have recently repainted it to have it look like the surrounding terrain. They are also going to put "No Step" signs around it.

Chair Mooers inquired if they have access panels to the inside or if this is a completely sealed conduit. Dr. Simons replied the conduit is completely sealed and can only be accessed from either ends.

Actions

It was moved by Hannah Springer and seconded by Greg Chun to classify this project as Minimal Impact. The motion was carried unanimously. Doug Simons recused himself and did not vote on this matter.

It was moved by Hannah Springer and seconded by Herring Kalua to approve the project with the conditions as stated and to allow CFHT to proceed. The motion was carried unanimously. Doug Simons recused himself and did not vote on this matter.

B. Canada-France-Hawaii Telescope Soils Study for a Maunakea Spectroscopic Explorer Telescope Upgrade

CFHT is requesting approval to sample soils via bores in two locations within the CFHT sublease footprint to determine the soil's load-bearing capacity. This understanding is necessary in order to develop design recommendations for CFHT's needed renovations. This upgrade is being designed around the premise of replacing the mirror and dome while retaining the rest of the existing structure and foundation.

Drilling at each of the two bore sites will occur in two locations as close as possible to the CFHT facility, using a gasoline-powered, mobile drilling rig. The cinder has previously been disturbed in these locations and is currently used as parking for observatory vehicles. The borings will extend 30 feet below the surface into previously undisturbed cinder. CFHT does not anticipate a need for any boring fluid other than potable water, if needed, to cool the drill bit. Soil firmness will be determined *in situ* and samples will be taken for additional laboratory testing. Each bore will take approximately one day to complete and will be backfilled with initial auger cuttings and, if needed, surrounding cinder.

CFHT is contracting a geotechnical engineering firm, ideally one familiar with Maunakea soils and conditions. The project will include the rental and delivery of the drilling rig and operating crew. The following personnel will be onsite during mobilization, drilling and demobilization activities on its sublease: CFHT's safety officer (or trained delegate), one archaeologist, one supervising engineer or geologist, and persons from the drilling firm.

Mitigation measures:

- Most of the current CFHT site will be re-used. The only permanent, external change entailed with the upgrade is a potential change in the dome from present.
- Understanding the allowable bearing capacity of the underlying soils will limit the telescope and enclosure designs and weights and preclude the need for foundation modifications.
- Archaeologist will be onsite throughout project activity.
- Protocols for Spill Response and Safety will be adhered to by all workers involved in this project, and will have been shared with OMKM prior to the project starting.

Pending a decision on the appropriate and necessary approvals, permits and weather the sample boring will take an estimated four (4) days in spring-summer 2016.

Kahu Kū Mauna

Kahu Kū Mauna reviewed the proposal on March 1, 2016. The Council expressed their appreciation for the opportunity to review the proposal. No direct impacts to cultural practices or resources were identified in this consultation. They expressed their understanding that the need for the bore holes is part of CFHT's due diligence process. They expressed their concern about what CFHT would do if it is determined that the soil cannot support the weight of the new mirror.

DLNR Rules

DLNR will be consulted regarding a permit or site plan approval for this project. 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 was reviewed for compliance with the Comprehensive Management Plan.

Recommendation

OMKM recommends this project be classified as Minimal Impact based on the following:

1. The proposed request does not alter the facility footprint.
2. There are no archaeological sites in the immediate area.
3. The impact to the immediate surroundings and summit region is negligible.

If this project is classified Minimal Impact, OMKM recommends CFHT be allowed to proceed pending DLNR approval and compliance with any requirements.

Conditions:

1. Notify OMKM in writing at least five days prior to beginning any on-site work.
2. All project participants must attend a Maunakea orientation prior to participating in field work.
3. Employ invasive species prevention best practices, including inspections of materials by a DLNR-approved biologist as appropriate prior to entering UH managed lands.
4. Allow OMKM rangers to visit and monitor activities.
5. Comply with all actions and measures described in the proposal, including (community) benefits, CMP compliance list and mitigation measures.
6. Ensure that loose tools or equipment are not left unattended and are properly stored at the end of each day.
7. In preparation for high wind conditions, protocols must include measures to ensure debris and equipment are not blown from the job site.
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 of.
9. 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 $\frac{3}{4}$ full prior to transport to the summit (unless used as the fuel source for transport to the summit).
10. 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.
11. Unless otherwise stated in the proposal, upon project completion, all data will be shared with OMKM for future, unrestricted use by OMKM or its designee. All geospatial data, metadata or applications must be in format compatible with OMKM GIS software or other industry standard identified in advance.
12. No use of mechanized equipment is allowed unless authorized by this permit.
13. The project must be completed within 24 months of the date approved by the Maunakea Management Board. Projects not completed within this timeframe are not allowed to continue (or commence) without explicit, prior, written approval from OMKM.
14. Notify OMKM in writing when field activity associated with the project is completed.

Discussion

Hannah Springer asked what the answer was to the Council's question regarding if it was determined that the soil cannot support the weight of the new mirror. Dr. Simons replied that is something they are not sure of at this time. They have another 2-3 years of an engineering study and this basically guides the level of certainty they have in terms of the load bearing capacity. They have a 35-40 year old analysis back when the telescope was first built and they would like to update that number just to get more engineering confidence.

Chair Mooers noted one of the conditions proposed states the data be in a format that allows the information to be shared. Dr. Simons responded that would not be a problem.

Dwight Vicente asked if CFHT would require a mining permit. Chair Mooers did not think it would be a mining permit.

Chair Mooers noted that in the proposal CFHT has proposed to have all the drill rigs and equipment power cleaned before taken to the mountain. He would like to see that included as one of the conditions of approval. He did not see it in there.

Someone from the audience asked if there will be protection on the ground for oil leaks from any of the equipment that is brought up to the mountain. Chair Mooers responded yes, that is stated in Condition 9. She also asked if CFHT had a decommissioning plan and what the timeline was for having the new mirror in operation before decommissioning?

Dr. Simons replied their sub lease extends to 2033. This is an engineering and science study to evaluate whether or not, on the assumption there is an extension to the master lease, you can use the existing building structure. There is no need to expand the footprint of the structure at all.

Chair Mooers reiterated that this proposal does not deal with replacing the dome or the telescope. It addresses the issue of a soil study and only that.

Cory Harden asked if this goes forward will it eventually require an environmental impact statement (EIS)? She asks because you cannot do segmentation where you do one little thing and later on it leads to a huge project so it could cause problems down the road. Dr. Simons replied yes, they intend to go forward with an EIS to cover all the bases, but they are waiting for the master lease process to go forward.

Actions

It was moved by Greg Chun and seconded by Herring Kalua to classify this project as Minimal Impact. The motion was carried unanimously. Doug Simons recused himself and did not vote on this matter.

It was moved by Hannah Springer and seconded by Herring Kalua to approve the project and amend the conditions as noted to include CFHT's proposal to power wash the drill rigs before going up to the mountain and to allow CFHT to proceed. The motion was carried unanimously. Doug Simons recused himself and did not vote on this matter.

C. Maunakea Observatories Support Services Summit Lunchroom Roof Barrier - Information Only

The Office of Maunakea Management (OMKM) and Maunakea Observatory Support Services (MKSS) are requesting approval to install a 6-foot high cyclone (chain link) fence or a ~3-foot high chain to prevent access to the roof of the summit lunchroom. Due to the topography of the area, the north and about half of the east and west sides of the summit lunchroom roof are close to ground level while other areas of the roof are approximately 10-feet off the ground. This allows visitors to walk onto the roof on one side while placing them in danger of falling off the other side. Visitors routinely ignore an existing warning sign attached to the edge of the roof stating "Stay Off Roof Top."

Mounting a barrier directly to the lunchroom roof was also considered. However, the roof is too thin and the roofing cement too brittle for the direct barrier option to be practical.

Under either alternative, post-holes will be dugged in previously disturbed ground. Pending a decision on the appropriate alternatives and necessary approvals, permits, and weather, the installation will take an estimated 10 days in spring-summer 2016. MKSS will comply with all applicable CMP actions and all work will be conducted by MKSS employees.

Kahu Kū Mauna Council

Kahu Kū Mauna reviewed the proposal on March 2, 2016. The Council expressed their appreciation for the opportunity to review the proposal, recognize the safety concern that needs to be addressed, and urged OMKM to contact UH legal counsel regarding liability under the two options proposed. Other Council discussion focused on views and visibility. Is there any impact on view planes if the people had to stand away from the rooftop? They also expressed concern about the visibility of the two options - the fence being more visible than the posts and chains.

OMKM will seek legal opinion from UH legal counsel before coming back to the Council and this Board for final review and/or action.

Comments

Ms. Springer stated it looks like the fence shown is painted green and suggested to paint the fence in a way that would allow it to blend in.

Ms. Springer added when doing the legal review check and see what the difference is between a post and chain as compared to a chain link fence. If the issue is to create a visual barrier with warning about proceeding it seems like the post and chain might have the same effect as a chain link fence. Do we have to physically constrain people or is it sufficient to have a visual barrier with signage to prove they have been warned?

D. Comprehensive Management Plan Management Actions - Information Only

EO-21 & P-4 Maunakea Visitor & User Orientation Plan - Draft

This plan applies to both users (any permitted entities, observatories, commercial operators, vendors) and the general visiting public. This plan states in writing what is required for both. Users would go through this orientation every three years, more frequently if there is a major update. There would be both an online on demand video version as well as in person. For the general visitor the actual draft Orientation right now is the Kama'aina Observatory Experience orientation. This plan is still in draft form so any comments/suggestions are welcomed.

Dr. Chun stated he understands the plans target different groups. It is important that the information is consistent between each orientation group even though they might target different users. We want to make sure everyone is getting the same information.

Dr. Chun asked what type of orientation, if any, do we require of the permitted commercial tour vendors to do with their groups before going up to the mountain? Mr. Klasner replied that may be more of a condition of their permit. Director Nagata stated their passengers would go through the public orientation when that is completed.

Mr. Vicente asked when the term "general public" is used, does this also refer to Native Hawaiians or are they a separate class? They are actually separate under the Hawaiian Homes Commission Act so they should not be included when referring to the general public. It should be defined as non-native. Mr. Klasner stated the way this plan is written the orientations are open to anyone.

Ms. Harden asked if commercial tours undergo an orientation. Director Nagata replied currently all commercial tour operators give their version of an introduction to the mountain. Tour operators attend the OMKM user orientation, but the version they share with passengers is not ours.

OI-2 Employee & Volunteer Training Plan - Draft

This training plan basically says there will be some core training that everyone would receive in compliance with the 2009 Comprehensive Management Plan. It is also still in draft form and comments are appreciated.

VII. ANNOUNCEMENTS

Hank Fergstrom stated he has not received any acknowledgement to his notice he sent to the Office via certified mail. He has been trying to reach out to us for a long time and we keep pretending like he is not here. He is very much here, and that is very much his turf because he is from the old religion that has a very heavy religious significance, even more so than the new ahus.

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 11:10 a.m.

Respectfully submitted:

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

May 11, 2016
Date